

## INDEX TO VOLUME III, 1890.

	PAGE.
AMERICAN PRACTICE AND FOREIGN THEORY.—Lieutenant-Colonel E. V. SUMNER.....	141
A NEW LECTURE ON THE HORSE'S FOOT.—Lieutenant H. J. GOLDMAN.....	271
AN UNEXAMPLD RIDE.—A. N. KOVRIGIN.....	276
A RECONNAISSANCE WITH THE FIRST MAINE CAVALRY.—Brevet Major-General C. H. SMITH.....	253
CAVALRY MARCHING.—Captain W. H. BECK.....	21
CROSSING OF THE BYSTRITZA RIVER BY THE FIRST DON COSSACK DIVISION IN CANVAS BOATS.—A. H. KOVRIGIN.....	423
DRILL REGULATIONS FOR CAVALRY, UNITED STATES ARMY.....	57-164-266
DISCUSSION AND CRITICISM.....	111-222-425
GENERAL HARNEY.....	1
HOW A RUSSIAN OFFICER RODE TO THE EXPOSITION.....	40
KILPATRICK'S RAID AROUND ATLANTA.—Lieutenant W. S. SCOTT.....	263
LETTER FROM GENERAL LONG.....	428
LETTERS ON CAVALRY.—Prince KRAFT ZU HOHENLOHE-INGELINGEN. Translated by Colonel R. P. HUGHES.	
FOURTEENTH LETTER.—Squadron Exercise.....	47
FIFTEENTH LETTER.—Field Service.....	158
SIXTEENTH LETTER.—Exercises in Large Combinations.....	371
NARRATIVE OF A DOCTOR'S EXPERIENCE AS A LINE OFFICER AND COMBATANT IN THE FALL OF 1860.—Lieutenant-Colonel J. C. McKEE, Surgeon.....	380
POST INSTRUCTION.—Lieutenant W. H. SMITH.....	25
PROFESSIONAL NOTES.—A Fine Troop.....	210
A New Method of Throwing Horses.....	340
A Note on the Training of Recruits.....	342
A Short Talk on Hoofs and Horse-Shoeing.....	345
Cavalry Equipment.....	447
Comparative Losses in the American War of 1861-1865, and the Franco Prussian War, 1870-1871.....	347
Encouragement of Horse Racing in Foreign Armies.....	102
First Aids to the Wounded.....	220
Georgia Cavalry in Camp.....	349
Grooming Machine.....	434
Lieutenant COLE'S Girth Attachment.....	435
More About the Horse Artillery Gun.....	100
Raid of a Detachment.....	103
Recent Developments as Affecting the Role of Cavalry.....	217
Report of the Chief of Ordnance, 1889.....	101
Rules for Umpires in the German Peace Maneuvers.....	106
Shod and Unshod Horses.....	431
Southern Cavalry.....	99

# INDEX TO VOLUME III.

	PAGE.
PROFESSIONAL NOTES.—The Colonel.....	102
The Journal.....	99
The Lance.....	210
The New Gas Gun.....	348
The River City Dragoons.....	221
The Shoeing or Non-Shoeing of Cavalry Horses.....	343
Wanted.....	350
RECENT DISCUSSIONS UPON HORSE-SHOEING.—Lieutenant G. S. HOYLE.....	204
REFLECTIONS ON THE PRESENT CONDITION OF THE RUSSIAN CAVALRY.—Translated by Lieutenant JOHN P. WISSER.....	34
THE LATEST REGULATIONS FOR THE GOVERNMENT OF THE GERMAN CAVALRY IN SCREENING AND RECONNOITERING DUTIES.—By a German Staff Officer.....	409
THE RIDING SCHOOL AND ITS IMPORTANCE IN THE TRAINING OF CAVALRY.—Lieutenant R. P. PAGE WAINWRIGHT.....	130
THE STORY OF A MARCH.—Captain CHARLES KING.....	122
THE UNITED STATES CAVALRY IN THE MEXICAN WAR.—Brevet Lieutenant-Colonel W. B. LANE.....	388
WITH THE RESERVE BRIGADE.—Captain MOSES HARRIS.....	9-235-363
TROOP AND COMPANY PACK TRAINS.—Lieutenant A. A. CABANISS.....	248

JOURNAL

OF THE

United States Cavalry

ASSOCIATION.

---

VOLUME III.

---

1890.

---

FORT LEAVENWORTH,  
KANSAS.

---

*COPYRIGHT U. S. CAVALRY ASSOCIATION, 1889.*  
ALL RIGHTS RESERVED.

---

PRESS OF KETCHESON & REEVES,  
LEAVENWORTH, KANSAS

---





# JOURNAL

OF THE

## UNITED STATES CAVALRY ASSOCIATION.

VOL. III.

MARCH, 1890.

NO. 8.

### GENERAL HARNEY.

THE career of WILLIAM SELBY HARNEY, as a cavalryman, began in 1836, when General JACKSON appointed him Lieutenant-Colonel of the newly raised Second regiment of Dragoons, which had been called into service for the better protection of our frontier. Previous to that time American Cavalry was without traditions, and although the country had been through two wars, it was almost without a history. Since then its record has been brilliant and instructive; its examples of soldierly spirit and devotion have been offered on many fields: free from the influences of custom and prejudice, it has become a type of our own, and a model to which all future cavalry must conform. Of peculiar interest, then, is the life of one whose years of active service saw the first struggles of this new arm, and who was able in after life to follow its progress up to our own day.

At the time of which we speak HARNEY was thirty-six years of age, with eighteen years of service in the infantry, in which he had gained a wide and varied experience as an Indian fighter and a reputation for all soldierly qualities. He had served on the staff of General JACKSON in Florida; in the Black Hawk war, he had been a trusted lieutenant of General ATKINSON and had largely influenced the decisive result, by personally reconnoitering and locating the Indian position in the campaigns of both years.

He was spare and trim of figure, of uncommon height, alert, active, swift of foot and strong of limb. His renown in feats of strength and exercise reached far and wide. He was red as a fox, about the head and face, with blue eyes and a ringing voice. He was of a kind to inspire the devotion of his soldiers and to fill the eye of the multitude as a popular hero; yet he was not all made up of goodness, being quite human in the warmth of his friendships and a right hard hater always; somewhat ferocious, too, in the award of punishment, as we see when he ordered that thirty deserters captured in the hostile ranks should not be executed until they should see the stars and stripes waving over a Mexican stronghold, or when, with grim confidence, he carried rope along on an Indian scout for the purpose of hanging the offenders.

Little time was given for drill and instruction, and in a few months from the passage of the act of Congress creating the new regiment, its detachments were fighting veteran Seminole warriors in their own homes under their chosen chiefs. In one of these engagements Colonel HARNEY commanded four troops of dragoons in the defense of Fort Mellen, Florida. At General JESSE's battle on the Lochn-Hatchee, HARNEY crossed the river with a few dragoons, and succeeded in attacking the enemy in flank and rear so as to cause their retreat.

One of the most dramatic incidents of the Florida war was the massacre of the trading post on the Caloosahatchie. A stipulation of one of the numerous treaties with the Seminoles was that a trading post should be established at Charlotte Harbor on that stream. HARNEY was charged with the execution of this part of the programme, and posted a guard of a sergeant and twenty-six dragoons. He then went over to the Department Headquarters at Tampa Bay, with the object of getting a larger force as guard, but, being unsuccessful, returned. Meanwhile the Indians were suspicious of treachery, through certain indiscreet actions of our government. Imagining that HARNEY was responsible for the suspected perfidy, they were planning vengeance, while he was unconscious of the whole affair. The scenes that followed are thus described by Colonel REAVIS in his History of St. Louis:

BILLY BOWLEGS came down to the boat and told him that the chiefs wanted to see him. HARNEY replied that he would wait and see them. It was afterward known that this was a ruse to shut off any possible chance of his escaping the massacre they were planning. A sergeant and the traders at the post came on board, and HARNEY conferred with them as to the behavior of the Indians. Their tone of confidence in the good intentions and peaceful disposition of the In-

dians did not please him, and he cautioned them against any relaxation of vigilance. Intending to review the disposition made of the troops, he lay down in his tent to rest, but long exposure in the hot sun had made him unusually tired, and he slept soundly until awakened in the morning by firing and the yelling of Indians. Rushing to the front of his tent, he saw his men being slaughtered and without arms, some of them struggling in the water and being killed with their own guns. His first act was to get on his boots; his next resolve was to die with his men. But there were no men there. Those who were not killed were scattered fugitives, without arms, and the instinct of self-preservation made itself felt, with no duty to come in conflict with it. That the Indians had risen was apparent when he first heard the noise, but he was entirely ignorant of the cause. With the desire to save himself, he yet saw no way, until, as an inspiration, the thought came. Running down to the edge of the bay, distant about two hundred yards, he walked into the water and then walked backward, out again to the shore, thus conveying the impression that two men had walked in. As he disappeared in the underbrush of the shore, he heard the baffled yell of the Indians as they entered his tent. They had stopped to plunder in the quarters of the men and delayed sufficiently for him to get a start. On reaching the point where he entered the water, they concluded that he and a companion had drowned themselves rather than be killed by them. A negro, who was with them and who was friendly, but who was yet more attached to HARNEY than to them, also did what he could to mislead them—and so give him valuable time. With all the Indians' confidence in his power, and respect for his soldierly qualities, there was mingled too, a superstitious fear that made them wary and increased his chances for escape. One of his men, who had noticed his stratagem while hidden in the palmetto thicket on the shore, soon joined him in his painful and perilous march. His objective point was a lumber pile, fifteen miles away from camp, much of the distance over mango roots that made the walk distressing. In the operations of the four preceding days the lumber pile had borne some part. To reach this point (that might already be in the hands of the Indians,) required, on his part, all the address and endurance that were possessed by his savage foe. He had to make experimental trips to the water, to learn his location; and if he met any Indians, his safety depended on seeing them first. On one of these reconnoitering trips, BRITTON, the man who was with him, reported that he had discovered the Indians.

"BRITTON," said his Colonel, "do you feel that you can fight?"

"Yes, sir, I will die with the Colonel," stoutly replied the man whose business it was to fight, though they had both but lately passed through scenes that chill the marrow of brave men. They had seen their comrades killed without any chance to make a defense.

The Colonel then said: "Let us cut some of these pointed limbs to make them cautious in approaching us. They will make good weapons, too, when they come close."

The next step was to cut some of the luxuriant grass and bind it

about their heads as a protection against the blistering sun, and then to reconnoiter the enemy, so as to get the first sight and keep themselves hidden. To raise his head above the bank was the labor of minutes, and the first thing that he saw was his canoe. In the canoe, if not disturbed, he knew there should be a harpoon, which he used in his hunting expeditions, and the present occasion would make it a very effective weapon. On reaching the canoe the harpoon was there, and Colonel HARNEY's gratification expressed itself in a yell that made the sluggish forests of Florida resound for miles. Some afterward said they heard it five miles distant. He was again a Christian warrior with a canoe beneath his foot, and a trusty though somewhat peculiar weapon in his hand, and he could yet exercise the prerogatives of commander—the succor of fugitives, and attention to his dead. Instructing BRITTON in paddling the canoe, the two paddled on until they overtook a boatload of their own men,<sup>3</sup> and then Colonel HARNEY announced his intention of going back to see what had become of his force that very night, even if he had to go alone. The men, though badly demoralized, volunteered to go with him though he would not order them to do so. The night was a bright moonlight one, the worst possible for his purpose. His whole force consisted of seven men with insufficient arms; yet he made the reconnoissance with five men and two guns, and collected and counted the dead for the purpose of gaining tidings of the living. He looked in the faces of the men and found them all but five. Goaded by the ghastly sight around him, and a soldierly desire to avenge his comrades at once, he was anxious to make an attack upon the Indians that night in their camp. Colonel HARNEY relied upon a surprise, and the fact that two barrels of whisky, that they had found in the sutler's stores, had probably placed most of them in a position that would keep them out of a fight. There were but five men in the party, as two of the seven had been left in the rear with the other boat, and these five were too much unnerved to be willing to take the hazard. It is possible that the measure of the courage of these men was in truth the measure of safety. Colonel HARNEY's solicitude for his men who were yet living led him to shout and invite them to him. Two of them, he afterward learned, heard him but were fearful that it was an Indian ruse to draw them from their hiding places. The sad party then left; one party was sent back to Tampa Bay with the painful intelligence, and the Colonel went to Camp Florida, his headquarters.

During the Florida war, HARNEY commanded several expeditions into the Everglades, in one of which he killed, or captured and hung, most of the band that had executed the massacre of the trading post.

He received the brevet of Colonel in 1840, "for gallant and meritorious conduct in several successive engagements with hostile Indians in Florida."

At the beginning of the Mexican war in 1846, HARNEY was promo-

<sup>3</sup> These men had escaped to the boat when the firing began. Two of them were wounded, and there were only two carbines in the party.—Ed.

ted to the colonelcy of the Second Dragoons. His first order from General TAYLOR sent him to the command of the forces protecting the Texas frontier and he was thus kept out of the brilliant engagements which took place during the first year of the war.

With the opening of General Scott's campaign of the following year an opportunity occurred for more attractive service, but between HARNEY and this commander some ancient feud appears to have existed, for the former is ordered to turn over his command to the next senior officer, and to proceed, personally, to TAYLOR's headquarters. As it was not supposed that there would be any more fighting on General TAYLOR's line, HARNEY did not propose to go, or to relinquish his regiment for an imaginary command. WORTH forwards HARNEY's respectful protest with a tribute to the latter's zeal, energy and enthusiasm, his lively anxiety for the success of General Scott's expedition, and his deep solicitude to serve under that officer's orders. WORTH also says, with some constraint, that HARNEY has "availed himself of several occasions to give utterance to honorable impulses and sentiments." Nothing changes SCOTT's determination to have some other chief of cavalry. HARNEY accordingly comes out with a flat-footed refusal to obey, and says: "If General SCOTT does not deem me capable of discharging my appropriate duties, he may arrest, but he shall not unresistingly degrade me." Of course a court martial must follow, but "Fuss and Feathers" must first deliver himself of the following to his subordinate. He says: "Considering your well known and long continued personal hostility to Major General SCOTT, and that it may, however erroneously, be supposed that a reciprocal feeling has been generated on his part; and considering the perfect confidence that all may entertain in the honor and impartiality of our officers generally and almost universally, you may if done promptly, select yourself, from the officers near at hand any seven, nine, eleven, or thirteen, to compose the court for your trial." This magnanimous offer was declined. Some interesting by-play occurred between the court, the accused and the commanding general, which is quite as amusing as this, and which makes us surprised at the large amount of time at the disposal of a General-in-Chief in daily expectation of starting on a great undertaking,—and this, too, in view of the fact that the General was pleased to remit even the sentence of reprimand, imposed by the court, and to give to HARNEY his command after all.

Soon came the affair at Medellin and the capture of Vera Cruz, at which the commander was "happy to name Colonel HARNEY as one to whom particular thanks were due."

Thenceforth in the advance, HARNEY commanded the cavalry brigade. It cannot but strike us that this force was absurdly inadequate. Even the handful of mounted troops was frittered away as escorts, guards for prisoners, escorts for headquarters and all of those numerous detachments to which cavalry commands always fall an easy prey. Many of the horses had been injured and drowned in the sea voyage, so that now the cavalry force was partly dismounted from other causes than those incident to the campaign. The Mexican shows much aptness in guerilla warfare, and in such a field the cavalry found itself, hampered by detachments, weak in numbers and more than half dismounted. In view of the fortunate result of the Mexican war, criticism might now seem unjust, were it not that precedents and military maxims were there laid down for future use. The Mexican war was the school in which the early army commanders of 1861 learned their art, and in the use and employment of the cavalry we are forced to see many coincidences.

As a result we see HARNEY able to collect only a small force of four companies from his three regiments, to charge the Belen Gate, City of Mexico. May we not also conclude, that the chief of cavalry, on account of this wide separation of his troops, found more chance for distinction with an infantry command than with his own? At the battle of Cerro Cordo, at least, he led an infantry brigade in the storming of the heights of El Telegrafo.

For this action he received the brevet of Brigadier General for gallantry, and many admiring notices in the records of that day—one of these is thus quoted in "Everglade to Cañon":

Think of his towering form carrying his brigade to the storming of that terrible height! What a picture for an artist—HARNEY, with arm outstretched and sword drawn, pointing to the height, with his gallant brigade, regardless of all obstacles, rushing into the enemy's breast-works! All accounts represent him as conspicuous, and that the clear, shrill tones of his voice, calm almost to frigidity, could be distinctly heard all the way up the mountain-side.

\* \* \* \* \*

This was truly a gallant deed, worthy the Chevalier BAYARD of our army, as the intrepid HARNEY is well styled. General SCOTT, between whom and Colonel HARNEY there had existed some coolness, rode up to the Colonel after this achievement, and remarked to him: "Colonel HARNEY, I cannot now adequately express my admiration of your achievement, but at the proper time I shall take great pleasure in thanking you in proper terms." HARNEY, with the modesty of true valor, claimed the praise as due to his officers and men.

After the Mexican war the next important service was in 1855, when he was recalled from a leave of absence in Europe, to organize

the Sioux expedition of that year. The Brulé band of Sioux Indians had been giving trouble for years and now, their numerous depredations, together with the recent massacre of Lieutenant JOHN R. GRATTAN and his command near Fort Laramie, determined the government to teach them a lesson. Leaving Fort Leavenworth with six hundred men, HARNEY marched to the North Platte river and struck the Indians on Bluewater Creek. The battle that ensued has since been called Ash Hollow; it resulted in the capture of the Indian camp with many of their women and children, and the killing of seventy-eight warriors. This punishment was sufficient to quiet this particular band of Indians for a long time, although hard service for many months followed, over the broad lands now covered with the farms and villages of Kansas and Nebraska.

In 1858 Colonel HARNEY was made a full Brigadier General and ordered to Oregon, where his fame had already preceded him, among the turbulent Indians of that region. Then followed a serious dispute with the British authorities as to the ownership of the San Juan Island. Out of the history of our northwestern boundary, where our greatest statesman was overmatched in diplomacy, and where our country receded from its brave war-cry of "Fifty-four forty or fight," we may derive some comfort from an act of the military authorities. HARNEY decided to settle the dispute by taking possession of the island with an armed force of one hundred men, under the famous GEORGE PICKETT—then a captain, with orders to maintain possession by force, and they accordingly did "stand off" a British command. The peaceful policy of those days, immediately preceding the civil war, caused this action to be overruled, and a joint occupancy of the island by British and American forces was agreed to. At a later date, the German Emperor, in arbitrating this question, awarded the island to the United States, and thus vindicated the judgment of the military commander.

Such a positive nature must inevitably collide with others, where they meet in such stirring times, and in HARNEY's career the storms were many and frequent. With the merits of one of these, the whole army was at one time excited. On this occasion his rejection of a carefully worded invitation to meet another officer outside the city, and the court martial of that high officer for this breach of discipline, filled the army with the merits of a quarrel that had lasted for years. A part of the correspondence is preserved to this day in our law books, but the passions of the hour have died with the hearts that nourished them. Suffice it for the purposes of this brief notice to

say, that we can find nothing in HARNEY's character to indicate lack of combativeness or unwillingness to meet an enemy.

The great days, immediately preceding the war of the States, were now at hand. Recalled from Oregon, HARNEY was placed in command of the Department of the West with Headquarters at St. Louis. In April, in 1861, while on his way to Washington to report to the President, he was arrested by Confederates at Harper's Ferry, in Virginia, and taken to Richmond. He was treated with consideration and respect, and, resisting all appeals to his Southern birth and sympathies, he was soon released.

At this time he seems not to have realized the gravity of events that were fast progressing. With an earnest desire to avert bloodshed, and with a regard for State government, which events have shown was most unwise, he recognized General STIRLING PRICE as commander of the State militia, and agreed with him to make no move so long as peace should be maintained. This brought upon him the distrust and enmity of the Federal faction; he was relieved from command and in 1863 was retired from active service. In 1865 he was made a Brevet Major General, for long and faithful service, and in 1867-8 he served on the commission to treat with the Sioux Indians.

His later years were passed in Saint Louis and in Mississippi and Florida. He died at Orlando, Florida, in May last, at the age of eighty-nine years.

General HARNEY took a great interest in the Cavalry Association, of which he was an honorary member. He was a typical dragoon of the old school, and whatever may be said of his abilities or of his judgment, he was undoubtedly able to perform many valuable services in a very active field of duty. His name will be a tradition among the Indians of our country for many years. In our service he passes from our midst as a bluff, hard swearing, rough riding trooper, a very picture in form and bearing, who cut the pattern and filled the mould for the cavalryman of his day.

#### WITH THE RESERVE BRIGADE.

ON THE 2d of July, 1864, the cavalry corps of the Army of the Potomac was placed in camp at Lighthouse Point on the south side of the James river, some three or four miles below City Point. The incessant marching and fighting during the months of May and June, under its new commander, General SHERIDAN, notwithstanding the results were in the highest degree brilliant and satisfactory, had told severely on both men and horses, and a short period for rest and recuperation was absolutely essential to its future efficiency.

The Reserve, or "Regular" Brigade, as it was sometimes called, was at this time composed of the First, Second, Fifth and Sixth regiments of regular cavalry, Battery D, Second United States Artillery, the Sixth Pennsylvania Cavalry, and the First New York Dragoons. The brigade was commanded by Brigadier General WESLEY MERRITT and was attached to the First Cavalry Division, commanded by Brigadier General A. T. A. TORBERT. There were two other brigades in the division, the First commanded by Brigadier General CUSTER, and the Second by Colonel DEVIN, Sixth New York Cavalry.

The Reserve Brigade, composed as it was, largely of regular troops, possessed a certain distinction which it had honorably maintained through a long period of brilliant service under able commanders since the first organization of the cavalry corps in the beginning of 1862.

At this time, the regular regiments were much depleted in numbers by the casualties of service and the difficulty experienced by the government in competing successfully with the different States in the matter of recruiting. The volunteer service had for the soldier many advantages over that of the regular army. All of the social forces of the North were organized to watch over, encourage, and support the volunteers who were fighting the nation's battles. Every town and village, every church and Sunday school, had its "Soldier's Relief Society," and through the agency of the sanitary and Christian commissions they distributed to the soldiers at the front delica-

cies for the sick and wounded, articles of personal comfort not provided by the government, and above all, words of encouragement and cheer which served to remind the soldier that he was not forgotten, and that his sacrifices were not unappreciated. In the distribution of these good things the soldier of the regular army received but a scant portion; he belonged to no State or town, and although his claim to a share in the Nation's bounty might have been recognized, there was no one to whom he could properly apply when the occasion occurred in which relief was needed.

The strength of the regular regiments of the brigade did not at this time, average more than 250 men present for duty. There were at all times a large number of men absent, at the dismounted camps awaiting remounts, sick in hospital, or in southern prisons. The number of officers was proportionately small, as in addition to the ordinary casualties of service, many were called away to hold commissions in the volunteer service, others were in demand for staff duty, for which their military education fitted them, and others were necessarily employed in mustering and disbursing duty, or inspecting and purchasing horses.

The tactical unit of organization was that of the squadron, which might contain anywhere from sixty to one hundred men, a sufficient number of companies or troops being used to bring it up to the requisite strength. The scarcity of officers made it frequently necessary to assign one officer to the command of several troops, and as separate accounts and returns were required for each one, when the small opportunity afforded for clerical work is considered, it is not surprising that the official records for this period are somewhat incomplete.

During its period of rest at Lighthouse Point, the cavalry corps received a considerable accession to its strength by the joining of remounted men, and both men and horses were rested and strengthened, so that when on the 26th of July, an order for its movement came, it was in excellent condition for service.

On the morning of the 27th, before daylight, the First and Second Cavalry Divisions, in connection with the Second Corps, crossed to the north side of the James river, at Deep Bottom, for the purpose of making such a demonstration in the direction of Richmond as might cause the withdrawal of a portion of the enemy's forces from his lines in front of Petersburg, preparatory to the springing of the great BURNSIDE mine.

After crossing the river, we moved out on the Newmarket road, where our advance soon encountered the enemy's cavalry skirmishers,

and without difficulty, drove them back upon their infantry supports. The brigade was now dismounted, and after our lines were all established, the enemy advanced with the evident intention of driving us from our position. The brigade was lying down behind the crest of a ridge, and as the enemy appeared, not more than twenty yards in our front, such a destructive fire was poured in from our breech-loading carbines, that his lines broke in confusion; when our men, rushing forward with a cheer, completed the rout, capturing some two hundred and fifty prisoners and two stands of colors. We held this position until the 28th, when we withdrew to the vicinity of the pontoon bridge by which we had crossed the river, and the same evening, the bridge being covered with hay to deaden the sound of our horses' footsteps, we recrossed to the south side. The meaning of this secrecy of movement became apparent the next morning when we were marched back again, dismounted; the intention being to convey to the enemy, from whose signal stations the movement was plainly visible, the impression that a large force of infantry was crossing to the north side of the river. The division returned during the day in parties too small to attract attention at a distance, and on the night of the 29th, marched in the direction of Petersburg to take position on the left of our lines, with a view of operating against the enemy from that flank, in the event of his defeat in the attack which was to follow the firing of the mine.

Memory brings back to us the night march of a tired and sleepy cavalry column, as one recalls the visions and fancies of a fevered and delirious dream. The monotonous movement of the long column, invites the tired faculties to rest and forgetfulness, while the ever present necessity of preserving the seat in the saddle, and controlling, to some extent, the movements of the horse, renders sleep impossible. This results in a state of semi-consciousness in which the tired rider is in some degree both sleeping and waking. He is conscious of the movement of the column, of the presence of his companions, and may even respond with seeming intelligence to the conversation addressed to him; but his brain is at the same time full of dreamy illusions and imaginings. The fences, trees, and other objects by the wayside, assume, perhaps, the semblance of long lines of buildings in the streets of a city, peopled by indistinct and ghostly forms, and he takes his part in the varied scenes and incidents of another and widely different life: until he is brought back to the realities of the present by a sudden halt amidst the pots and kettles of the pack-train which follows the regiment in his front. A few delicious moments of sleep, which is ever present and ready to take full possession, and he is aroused

again to consciousness to follow the indistinct and swiftly disappearing forms in his front. Or, perhaps, being dimly aware of a longer delay than is warranted by an ordinary obstacle, he arouses himself sufficiently to ride forward to investigate, and finds that some sleepy dandy with his pack-mule blocks the way, while the column is out of sight and hearing.

Such was the character of our march on the night of July 29th; until, a few moments before sunrise, the muffled thunder of the explosion of the mine, followed by the roar of artillery, aroused everybody, and gave rise to anxious expectations as to the result. Some two or three hours later, we found ourselves directly in rear of the scene of the explosion, when it was apparent, from the groups of stragglers which dotted the plain, and the cessation of active movements, that some one had again blundered, and that the attack following the explosion of the great mine, from which such grand results had been predicted, was a failure.

On the night of the 30th, we camped at Jones' Hole, on the Weldon railroad. The next morning, the division received orders to march to City Point, and before evening, it had begun its embarkation on the transports which were to carry men, horses, and trains, to the vicinity of Washington, for service against the Confederate forces in the Shenandoah Valley, under General EARLY. Change is always welcome to the soldier, and all looked forward with pleasure to a campaign in the beautiful valley of Virginia, and with confidence to a meeting with any portion of the Confederate armies, to be found in that region.

A portion of the brigade disembarked at Giesboro Point, on the Potomac near Washington, on the 3d of August, and the remainder arrived on the following day. On the evening of the 5th, the whole division having assembled, it marched through Washington *en route* for Harper's Ferry. It was a sultry evening following a hot August day, and as we reached the outskirts of the city the pumps that were here and there located in front of the dwelling houses were freely patronized by stragglers from the column. At one of these, in front of a residence in Georgetown, I recognized General HALLECK, who with goblet and pitcher, was engaged in supplying the wants of the thirsty troopers.

On the 8th, we passed through Harper's Ferry, moved out on the road to Halltown, and went into camp. The cavalry serving in the Middle Military Division, (its General SHERIDAN's new command was designated) was organized into a corps under the command of General TORBERT. It consisted of the First and Third Divisions of the

cavalry of the Army of the Potomac, and AVERELL's—afterward POWELL's—division of West Virginia cavalry. A small brigade of two regiments under the command of Colonel CHARLES R. LOWELL, Second Massachusetts Cavalry, which had been operating in the vicinity of Washington, continued for a time to act independently, but its regiments were soon afterward united to the brigades of the First Division. General MERRITT succeeded to the command of the First Division, and Colonel ALFRED GIBBS, First New York Dragoons, to that of the Reserve Brigade.

On the 9th there was some sharp skirmishing on the advance picket line which presaged a closer acquaintance with the veterans of EARLY's army, and on the 10th a reconnoissance was made in the direction of Winchester, the enemy's cavalry being driven back to the protection of the infantry. On this day by an unfortunate mistake the Second Cavalry unexpectedly ran into the enemy and had two officers, including its commanding officer, seriously wounded, besides losing several men. The brigade was ordered to move out on the Berryville pike, and the Second Cavalry, through some conflict of orders, not being ready to move, was left to follow the brigade. After marching a short distance the column changed direction to the left to strike the Millwood pike, and the Second not being apprised of the change of direction, and supposing it was following the column, continued its march toward Winchester without an advance guard, and encountered the enemy with the unfortunate result above mentioned.

The 11th was a busy day. We first became engaged with the enemy's cavalry, and after driving them several miles toward Newtown, were brought to a standstill by a heavy force of infantry. The entire division was sent in dismounted. The brigade had in its front a wide ploughed field with a thick grove of timber beyond, in which the enemy was strongly posted. We went across with a cheer, in double time, drove the enemy for the moment from the timber, but soon, being exposed to a heavy flank fire from the left, were obliged to return across the ploughed ground, if more silently, at least as expeditiously, as when we advanced. Here we found that inanimate friend of the soldier, a good substantial rail fence, and soon had rail barricades in our front which we held until dark in spite of every effort of the enemy to dislodge us. We had learned from prisoners captured in the timber that we were fighting GORDON's division of infantry, and felt entirely satisfied with our day's work. It was in this affair that it is related of an officer, who being seen in the thickest of the fight behind a tree with both arms extended, when asked



what he was doing, replied, that he was reaching for a leave of absence.

On the 12th, we marched out on the Strasburg pike, as far as Cedar Creek, meeting with but slight opposition. EARLY's army having fallen back up the valley. The next day a reconnoissance was made to near Strasburg, and on the 14th, the portion of the brigade not on picket duty, remained in camp. This rest was welcome, and much needed, for the hard marching of the past ten days, in the hot August weather, had tried severely, both men and horses.

On the 16th, while the Reserve Brigade covered the line of Cedar Creek, General MERRITT, with the brigades of CUSTER and DEVIN, had a severe engagement near Cedarville, with KERSHAW's division, which had just arrived in the valley from LEE's army at Petersburg. This division was routed, and driven across the Shenandoah, with the loss of three hundred prisoners and several stands of colors.

Our cavalry was at this time generally armed with the SHARP's breech-loading carbine. It was used with a paper cartridge and percussion cap, and although incomparably inferior to the arm now in use, was yet so much superior to the muzzle-loading musket as to give us an immense advantage. In these various engagements in the valley, in which the cavalry fought dismounted, it was difficult for the enemy to believe that they were not confronted with the best veteran infantry of our armies.

About this time MOSBY's guerillas became quite annoying in their attentions. They captured and burned, near Berryville, a large number of wagons laden with supplies, among which were the regimental wagons of the Reserve Brigade. These wagons contained the regimental and company records, and the largest portion of the personal outfit of the officers, and were a severe loss. To some officers whose accounts were in a hopelessly muddled condition, it was not without compensating advantages, in that it made it utterly impossible to render the strict accounts ordinarily insisted upon. On the 15th of August, two young cavalry officers, Lieutenants WALKER, of the First, and DWYER, of the Fifth, while en route to Harper's Ferry on duty, were waylaid, the former being killed, and the latter wounded and captured.

The transportation provided the cavalry for field work was reduced to the lowest possible limit. The men were accustomed to rely solely upon their horses to carry all of their belongings, including their rations. When the rations gave out, as they frequently did, they went hungry or lived off the country. The officers were allowed pack-animals at the rate of one to each three officers, to carry their

bedding and mess outfit. These pack-trains were accompanied by a string of black contrabands, mounted on anything which had four legs and could get over the ground. Each one claimed to belong to some particular officer, and in camp, if not very useful in other respects, they afforded much amusement, and were the victims of many practical jokes. They were generally faithful, but were in mortal terror of falling into the hands of the "Rebs," and were careful to keep well to the rear when any fighting was in progress. As they usually carried the mess outfit with them, this practice had sometimes its inconveniences. Often, an unexpected move would separate us from the pack-trains, when they would seek refuge in the rear of the army with the wagons, only making their appearance after several days. At such times we fared as fortune, and the resources of the country, permitted.

Pursuant to the determination of General GRANT that the Shenandoah Valley should no longer be used by the Confederate armies as a granary and supply depot, orders were issued on the 16th of August for the destruction of all wheat and hay, and the seizure of all live stock, accessible in the valley. The First Division was employed in this disagreeable and demoralizing duty until the 20th. On the 21st, EARLY's army having been heavily reinforced, made a general advance, when our troops fell back to a defensible position near Charlestown. The First Division was engaged with the enemy's infantry the whole of the afternoon of this day, and maintained contact with it until the next morning. On the 22d the division marched to Shepardstown and remained there until the 25th, when, along with the Third Division it marched in the direction of Kearneysville. Near this place we unexpectedly encountered a strong force of the enemy's infantry and by a vigorous attack they were thrown into confusion and lost a large number of prisoners. The cavalry, however, soon found that it had taken too big a contract and fell back to Shepardstown.—CUSTER's brigade being obliged to cross the Potomac near that place to avoid being cut off.

On the 28th the division marched toward Leetown, the Reserve Brigade leading, with the First Cavalry in advance. As we approached Leetown a portion of the brigade was sent forward on a reconnoissance and a strong force of the enemy's cavalry was developed beyond Leetown, in the direction of Smithfield. After passing Leetown the head of the column encountered the enemy's skirmishers in considerable force, and all of the regiment in advance, except one squadron, was deployed. Soon, the sharp rattle of carbine fire indicated hot work, and in another moment our skirmishers came

back on the run, while the familiar "rebel yell" told us that the enemy was charging. Without loss of time the commanding officer of the leading regiment ordered his reserve squadron to draw saber and charge down the pike to receive the attack. This charge has been thus described: "As we entered the pike a dense cloud of dust could be seen moving rapidly toward us. Soon as the two charging bodies, moving at full speed, approached each other, the gleaming red cross of their battle flag could be distinguished. But in the same moment they slackened speed and opened fire with the pistol; when almost instantly we struck them with the momentum of our charge undiminished. We went through them with a crash—a fusilade of pistol shots—a few quick saber strokes—men and horses rolling in the dust of the pike—and the whole brave array, with the defiant yell dying on their lips, were in wild confusion and flight." The charge of this advance squadron was followed almost immediately by that of the Second Cavalry, the next regiment in the column, and was supported by the whole brigade. The Confederate troopers were driven pell mell across the Opequan creek under the protection of their infantry, and it was a long time before they again attempted a mounted charge. In this affair we captured some thirty or forty prisoners, many of them with sore heads from the strokes of our dull sabers. The First Cavalry lost a brave officer, the gallant leader of the advance squadron, Lieutenant J. S. Hoyer. He was shot through the body and died within an hour. His social qualities and genial disposition made him a universal favorite, and I doubt if the long "roll of honor" of the Reserve Brigade bears the name of one who was more sincerely regretted by his comrades. The remaining casualties were confined to the leading squadron, and consisted of some ten or twelve wounded men and perhaps as many horses. This charge well illustrates the relative effectiveness of the pistol and saber as charging weapons. Had both parties used the saber, victory must have rested with the force which was best mounted, had the boldest riders, and the most skillful swordsmen. As it was the hesitancy of the Confederate cavalry, in the effort to use the pistol, was fatal to the success of the charge. A peculiar feature in cavalry operations during the war—the charge in column of fours—was exemplified in this affair. The frequency with which this formation was resorted to was due to the fact that the broken character of the country and the number of walls and fences left the roads and pikes almost the only unobstructed ground over which a charge was possible. The limit imposed by the fences on either side of the road, enabled a small, determined force, to act at a great advantage. In

this affair the strength of the force which actually encountered the enemy was insignificant, yet it routed and put to flight a full brigade.

The division went into camp near Smithfield, strongly picketing on the line of Opequan creek. It being evident that the enemy was in strong force on the other side of the stream, the troops were in the saddle at daylight on the 29th. The sun rose clear and bright but all remained as quiet and peaceful as a Sabbath morning. As the day advanced, the bands of the several brigades were assembled on a knoll overlooking the creek and a broad expanse of beautiful country beyond. The general officers with their several staffs were also collected here, and a number of officers from the different regiments which had dismounted in the vicinity had also strolled up to enjoy the music and to gather any bits of news from their better informed friends of the staff. A brigade had been ordered across the creek to develop any force of the enemy which might remain in our front, and its movements, with skirmishers deployed, were being observed through field glasses, when a horseman on a gray charger was seen to emerge from a skit of timber about a mile distant. He quickly disappeared, when Bang! Bang! Crash! came the reports from the guns of a rebel battery, and the almost simultaneous explosion of several shells on and about the little hill where the gay throngs had assembled. The rapidity with which the scene changed was marvelous. All had business which called them elsewhere, and the hill was deserted in a twinkling. In a few moments the gray columns of the enemy's infantry preceded by a cloud of skirmishers could be seen emerging from the timber. Our forces soon became engaged. The brigade which had crossed the creek was driven back. The whole division was dismounted and sent promptly to dispute the crossing of the creek, but its efforts were unavailing; we were steadily driven back by the superior force of the enemy. Our retreat placed the little town of Smithfield in the thickest of the fight. A caisson exploded in the streets of the town, and the terrified inhabitants sought shelter in the cellars of their houses. As a general officer paused a moment in the little village, a frightened woman rushed out imploring with outstretched arms and disheveled hair: "For God's sake, General, can't you move the battle a little further off?" The General assured her he was doing his best to accomplish that object. The cavalry was forced back a mile or so beyond the town where a line of barricades having been established, the advance of the enemy was checked, and a division of the Sixth Corps having been sent to our assistance, he was again driven across the Opequan.

In the first part of September the division made a demonstration in the direction of White Posts. About the 5th of September it took

up a position along the Opequan between the Berryville and Smithfield pikes, which position it retained until the battle of Winchester.

During this time it is not to be presumed that we were idle. Picket duty was severe and onerous and frequent reconnaissances not only afforded us occupation but caused our list of casualties to steadily increase. General SHERIDAN in his report says: "Although the main force remained without change of position from September 3d to 19th, still the cavalry was employed every day in harassing the enemy. Its opponents being principally infantry in these skirmishes, the cavalry was becoming educated to attack infantry lines." I think it was the general impression in the cavalry that its education in this respect had been previously completed. The experience and self-confidence which it had acquired during the expeditions and campaigns of the two previous years, now enabled it to oppose with confidence EARLY's veteran infantry, and by thus placing itself as an impenetrable screen in the front of our army secured to its General-in-Chief that freedom of movement which was a potent factor in the success which followed. Our infantry were also enabled to rest quietly in their camps so that when the hour for action came they were prepared for quick and vigorous movement.

About this time the First New York Dragoons was transferred from the brigade, and its place was filled by the Second Massachusetts Cavalry, Colonel CHARLES R. LOWELL of this regiment succeeding to the command of the brigade. Colonel LOWELL, although a regular officer had not previously served with the brigade and was comparatively unknown to both officers and men; but from the first, by his soldierly qualities, he commanded the confidence of all, and the luster of such glory as had been won for the Reserve Brigade by its former brave commanders, acquired new brightness under his able and fearless leadership.

On the morning of the 19th of September, the Reserve Brigade was in the saddle long before daylight en route for Seever's Ford on the Opequan. As we approached the ford, the enemy's cavalry pickets, after firing a few shots, retired hastily across the creek. As daylight rendered objects visible, a force of the enemy could be seen on the opposite bank, strongly posted in the timber beyond the steep banks of the creek. The brigade having been ordered to carry the ford, advanced and charged across without hesitation, the Second Cavalry in the advance, and in spite of the very heavy and effective fire opened upon it, maintained its position. It was soon dismounted, and a connection having been made with CUSTER's brigade on the left, which had crossed at another ford, by a vigorous attack the enemy was dislodged from the timber, and soon after sunrise, a general advance

having been ordered, fell back in the direction of Winchester. The force in our front was WHARTON's Division of infantry; and it appears from the report of General MERRITT, that in this early part of the day it was his object to keep this division so engaged as to prevent it from marching to join the rest of EARLY's forces near Winchester.

As the forenoon advanced, the long continuous roll of musketry and the steady roar of artillery, made it evident that a general action was in progress, and from the knowledge we had gained as to the character of General SHERIDAN, we felt confident that the cavalry would be permitted to take its share of the work and any distinction or glory incidental thereto. During the forenoon we ran up against the division in our front, strongly posted behind a barricade of rails, and after the First Brigade had unsuccessfully endeavored to dislodge the enemy by a charge, mounted, we settled down to dismounted skirmishing for an hour or two, the division commander evidently satisfied to detain as long as possible this effective force from the battle which was now raging to its right and rear. But it finally becoming apparent that they were slipping away from us, a general advance was ordered. At about three P. M., the division was united on the Winchester and Martinsburg pike, DEVIN's brigade in advance. The enemy's cavalry now making its appearance in an endeavor to cover the left flank of EARLY's army, they were brilliantly charged by DEVIN's brigade, and for the time disposed of. The division was now formed in line, the Reserve Brigade on the left connecting with the infantry line of battle, and in this order advanced to the open fields near Winchester. The enemy's cavalry having again rallied, was charged by the First and Second Brigades and effectually disposed of for the day.

We had now approached within range of the enemy's artillery and the brigade was massed in close column of squadrons and awaited developments. The most trying test of soldierly qualities is the waiting under fire the opportunity for action. In the absence of occupation the full horror of every casualty is impressed upon the mind, until the permission to ride in the headlong charge, "into the jaws of death," comes as a relief.

On this occasion, as our movement was delayed, the rebel gunners increased the accuracy of their fire until it seemed impossible for us to retain our position without getting into disorder. The Second Brigade was given its opportunity first. A movement of the enemy's infantry invited the attack, and the brigade led by the gallant DEVIN, went in with a cheer in magnificent style. They were upon them in a moment—a confused mass of the blue and the gray, with

the gleaming sabers over all, and the gallant brigade emerged with its trophies—a crowd of prisoners and three stands of colors.

And now at last the Reserve Brigade is to move. Draw saber! Trot! Gallop! Charge! were commands in quick succession. The ground before us was open and unobstructed and all that could be desired for a cavalry charge. A battery of two guns in an earthwork on the enemy's left was passed, and the brigade became the target upon which the converging fire of a long line of infantry was directed. But, Forward! Forward! was still the cry. A short distance from the enemy's line the ditch of an old earthwork caused some confusion, but almost instantly the shaken squadrons had reached and crossed the slight entrenchment behind which the hostile lines were posted. They were overwhelmed, thrown into disorder, routed. Saber strokes fell fast and thick, but our work was done. The charge had spent its force, and the solid, unbroken lines of the enemy's reserves compelled a withdrawal of the brigade to reform its shattered ranks. The charge of the Reserve Brigade was followed by that of the First, and a general advance of our lines completed the rout of EARLY's army.

The shades of evening were falling as the cavalry marched through Winchester, and while the satisfaction of a day's work well done pervaded all hearts, the coming night seemed to bring with it something of the gloom which must have filled the breasts of the defeated and their disloyal friends in the old historic town.

The battle of Winchester, although not one of the *great* battles of the war, was in some respects a remarkable one. On the 18th of September, General SHERIDAN received information that EARLY had sent two of his divisions to Martinsburg, and it was this information which determined the movement, the General hoping to be able to defeat the Rebel army in detail. But it turned out that these two detached divisions had rejoined the main force, and early on the morning of the 19th, General SHERIDAN was apprised that he would have to engage the whole of EARLY's army. This necessitated a change of plan at the last moment, and to a general less ready of resource might have proved fatal to success. This victory was in a great measure due to the superiority of our cavalry, and to its proper use on the field of battle in tactical combination with the other two arms of the service. Examples of this character are, unfortunately, rare in the history of the war, and a careful study of this battle by the military student will be found profitable.

MOSES HARRIS,

*Captain, First Cavalry.*

## MARCHING CAVALRY.

UNDER this heading, something will be said on the subject of the conduct of the smaller bodies of mounted troops, in such service as they are now called upon to perform. It is not the intention to discuss the manner of moving large columns of cavalry in a civilized war, or upon occasions of ceremony. It may be remarked, however, from past experience, that in time of war, cavalry battalions, regiments, brigades, corps and divisions are hurled through the country without much exactness as to tactical formations, gaits or camps; and that our tactics are good enough for occasions of ceremony, if properly studied and understood.

The marching of cavalry is so much affected by the immediately surrounding circumstances that no set rules can properly govern the length of marches and the manner of making them.

The conduct of a regiment changing station, with its supplies furnished, either at designated points or by accompanying trains, is so unlike the march of a column scouting after hostile Indians that a rule, correct in one case, would not apply in the other. In the former case, a steady walk, with the usual halts and increased distances, would, perhaps, be the best manner of marching. Such a day's march would be twenty or twenty-five miles, and would be no test of the endurance of men or horses, as both should improve under such conditions.

The proper manner of marching cavalry, while "scouting" or on a trail in pursuit of hostile Indians, is difficult to describe. If a commanding officer marches his column a long distance rapidly, over a mountainous country, a percentage of his horses will undoubtedly become exhausted. If he does *not* march rapidly he cannot expect to overtake an enemy who does not consider the suffering or loss of animals. It is probable too, that when it has become too dark to travel, the point reached is without water or grass, or with but little of either. Hence it appears that no rule will apply to all cases.

It is well, though, to have certain general rules; for instance, in

mountain districts, when it can be judged about what the line of march will be. If the journey is to be long, and speed is necessary, discard all the pack possible, place the man's blanket over the saddle blanket, leave saber, side-lines and nose-bags behind; in summer take no overcoats; take a piece of shelter-tent, a change of clothing, a meat-ration can, canteen and tin cup, lariat and picket-pin, extra horse shoes, front and hind, with sufficient nails to put them on,—all this will make a pack heavy enough in all conscience for a cavalry horse in a mountain district. It must be remembered that the march will probably be made without forage, unless the trail may happen to run near a post or settlements, and this alone is sufficient reason for making the weight to be carried by the horse as light as possible.

If the speed necessary to accomplish the object, requires an increased gait, no specific time for the continuance of such gait can be designated, as the roughness and smoothness of the country must govern.

The long and rapid march should begin at a steady walk, after the first five miles, dismount, look to saddles and straighten out for the day's work. There must be no slouching in the saddle; take advantage of all good ground and increase the gait there, whether it be for a half mile or for six miles; save the horses at all steep ascents and descents. Having reached the top of a particularly steep mountain, it is well, before mounting, to breathe the horses for two or three minutes; but there is generally no necessity for halting, except to remount, as the horses are not apt to become winded if led up the steep hills. Station a non-commissioned officer at the place of mounting after a descent, to make each trooper remount and close up on arriving at that point.

Keep up the march; make lengthy halts only for water and always water as often as possible, keeping in mind that some horses will drink freely every two hours or so, when traveling fast, if they have the opportunity. The idea that no horse should be watered if all cannot, does not work well in practice, as it is better to have some horses rather than none, capable of a great effort and there are some horses too which require more water than others.

To refer again to the increased gait,—in case a saddle should slip, let the trooper fall out with a non-commissioned officer, adjust the saddle and rejoin. After the second cinching but little trouble will occur in this respect, until the horses become thin from travel.

In a march of eighty-five miles, accomplished in twenty-two hours, over the plains of Texas, from a point on the Pecos to Bull Spring,

Guadalupe mountains, in 1881, only one non-commissioned officer and four men out of a troop of about fifty-five men, fell out for a rest. They were temporarily exhausted, but reached the camp about eight hours after the arrival of the troop, and this delay was altogether on account of the men, not of the horses.

On this march, over a level country, a method of marching, different from that employed in mountain districts, was adopted. After the first forty miles were made at an alternate walk and slow trot, (the men being dismounted occasionally and marched afoot rapidly for about five minutes at a time), a halt was made for about ten minutes in each two hours, men slipping bits and looking to saddles at each halt. The march was then resumed at a fast walk and trot, alternating as it was felt the horses required. It is undoubtedly the case that an experienced cavalry officer can feel when it is best to hold up his horse and when he can safely move out at a faster gait. A watchful observance of the column will enable him to judge pretty correctly what his troop horses can do.

It will be noticed that the side-lines are among the articles left behind. It seems to me that they are useless in mountain districts and generally in night herding. The horses and pack-mules should be herded at night if practicable; they should always be placed on grass quickly after camping. Let the first sergeant have his detail for herd-guard made out so as to be able to designate the men for that duty immediately on going into line for camp, before the men are dismounted. Dismount, unsaddle, lead to water, and turn out the herd. After this the commanding officer can look over the ground more carefully, if he does not know it already, and make his dispositions in camp so as to secure it against attack.

It is, perhaps, hard on the enlisted men to herd at night; but the animals must have all the grass they can get if they are to do any hard marching.

The long march, where speed is no object, should be regulated according to the grass and water *en route*. That is, if it is necessary to march a long distance to secure water and grass, it is better to do so and to lie over part of a day or longer, if necessary, than to make a dry camp.

If a march has been accomplished by noon or early in the afternoon and the herd has been grazed until sunset, it is well to place the animals on lariat at night, if good grass can be found in the immediate vicinity of the camp. This grass should not be encroached upon during the day, but held in reserve for use during the night.

In the immediate vicinity of an active enemy, when it is almost

a certainty that he will get a part, if not all of the animals if they are loose at any distance from the camp, the lariat should be used as a means of safety and there are various ways in which to use it.

The following plan secures the horses, but prevents much rest to the men. Four pins are driven in the ground near together, the men to whom the horses belong lying between the ropes, using their saddles, which rest on the picket pins, as pillows.

There was a plan adopted by several officers, in the campaign of 1874, against the Comanches, which prevented any loss of horses by stampeding, but it was not conducive to their good condition. The lariat was carried down from the halter-ring through the near front hobble of the side-line, thence along the ground to the picket-pin; but this treatment of the horse was used only under circumstances of exceptional danger and in an open country. Where it is necessary to "bunch" the horses closely, (say where there is a small plot of grass,) or to shelter them in a nook surrounded by trees, the half lariat will be found necessary. When a larger force than a troop encamps, it is best to have each troop herded separately, with its own guard, so that, in the event of a stampede caused by fright or attack, all will not be affected. It would be very extraordinary if an attacking party, or several parties, could succeed in driving off four or five separate herds at one time, or that herds well separated should be all stampeded at once by fear.

If a dry camp must be made and the animals have already been without water a considerable time, night herding would be useless, (as thirsty animals will not eat) and dangerous, as they would certainly attempt to stray away in search of water, and some usually succeed in escaping in spite of the efforts of the guard; hence they should be lariated. It may occur that during the day, too early to camp, good water and grass are found: in that case a two hours' halt to water and graze, is advantageous.

In fact, good judgment must always be used by the commanding officer of a scouting column in the various situations in which he finds himself, in the rough, wild Indian districts of our frontier.

WILLIAM H. BECK,  
*Captain, Tenth Cavalry.*

## POST INSTRUCTION.

THE inclemency of the weather and the absence of riding halls or gymnasiums at nearly all of our posts, necessitates a cessation of military exercises during a part of the year. At all such posts, and at others where for any reason there is a period of inactivity, the following suggestions in regard to the preliminary training of men and horses are offered.

For at least two months preceding the opening of the drill season, the non-commissioned officers in each troop should be instructed in the subjects of tactics, regulations, reconnoitering and out-post duties, temporary field fortifications, rough field-sketching and the preparation of such reports as non-commissioned officers in charge of reconnoitering patrols would have to make in time of war. In the subjects of tactics and regulations this can be readily accomplished by the usual non-commissioned officers' schools. In the other subjects instruction could be given by lectures, assembling all the non-commissioned officers at a post once or twice a week for the purpose, and taking them into the field in good weather, for practical illustration of the subjects of the previous lectures.

During the period of theoretical instruction of non-commissioned officers, the men could be practiced in the manuals of the saber, pistol and carbine and also put through the "setting up" exercises. These drills could take place either in the barracks, on the porches or in the cavalry stables, if the circumstances prevented their taking place on the ~~parade~~ ground.

These drills need not be of long duration, say twenty minutes "setting-up" exercises in the morning after guard-mount, then after a short intermission, thirty minutes' saber exercise, and in the afternoon one hour devoted to drill with carbine and pistol, at least one-half of the time being devoted to practicing the exercises for "Position and Aiming Drills." Gallery practice could also be carried on during the latter portion of this period, using the time between the morning and afternoon drills.

During this same period twenty minutes at morning and after-

noon stables can also be advantageously employed in putting the horses through the bending and suppling lessons, the time allotted for stables being increased for this purpose. These bending lessons can be given to the horses just as well on the picket-line and in the stable-yards as on the riding track, and it is reasonable to believe that forty minutes per day, for two months preceding the opening of the drill season, properly devoted to these supplings, especially of the head and neck, would eliminate the fighting and struggling between man and horse, so often seen in cavalry troops, at the fast gaits. The practice of these exercises has the effect of not only making the horses light mouthed and easily managed, but it also has the same effect on them as the practice of the setting-up exercises has on the men, giving them a supple and graceful carriage and enabling them to handle themselves well at rapid gaits. The proper placing of the head and neck, brought about by the bending lessons, necessitates the horse bringing his hind legs well under, thereby not only making him collected and handy at all gaits, but relieving the shoulders and forelegs to a large extent of the excessive weight; it increases his durability and prevents his being "stove up" in the fore-quarters.

At the end of these two months' preliminary training, target practice will usually begin. If the position and aiming drill and gallery practice before mentioned have been carried on simultaneously with the other drills, the troops will be in good condition to begin shooting. During the first month of target practice fifteen minutes' drill each day before Retreat, in the manuals of one or the other of our arms, will keep the men up in what they have already learned. The bending lessons for the horses could still be continued at morning and afternoon stables.

If each troop has two targets, one of which is a little to one side and 100 yards in rear of the other, the men can fire at 200 and 300, and at 500 and 600 yards from the same firing point, and each day's practice at known distance can be finished in from two to three hours. This will only necessitate target practice in the forenoon, so that in the afternoon a drill in the school of the soldier mounted, for an hour or an hour and a half may be had.

For this drill the horses should be equipped with the watering bridle, blanket and surcingle, and the men armed with the saber and pistol. The first twenty-five minutes of the drill should be devoted to the bending lessons mounted, turning, circling at the walk and trot, and passaging. Devote the next fifteen minutes to the saber exercise at a trot. Then give fifteen minutes to careful instruction in jumping, at slow gaits and with small jumps at first. Particular

attention should be paid to see that all the horses trot evenly and collectedly; if any horse shows an inclination to break into a gallop, he should be fallen out, and his rider made to trot him apart from the other horses until he will trot quietly, and then only should he be returned to the ranks. The next ten minutes should be devoted to the mounted pistol exercise, at a trot, executing the motions of firing at the head posts, first with the empty chambers, and after about two weeks, occasionally using blank cartridges. It is better in the first use of blank cartridges to bring the horses down to a walk until they become accustomed to the firing.

The remainder of the time allotted to the drill should be devoted to individual riding at the head-posts, using alternately the saber and pistol. During the first month of the drill never allow a faster gait than a trot. In fact no drill should be faster than a trot until all the horses trot evenly and quietly, both individually and in the ranks. If bending lessons have progressed systematically and the trot prescribed at all times, whether "on pass" or on duty, it is believed that in three months' time all the horses will trot quietly and evenly.

In teaching horses to take the trot from the walk, let it be done by a pressure of both knees and if necessary both spurs; to take the gallop, either from the walk or trot, press both knees and one spur, using the spur on the side from which you desire the horse to lead. It may be difficult to teach all horses this, but it can be done by practice.

This first month of drill will prepare both men and horses for the pistol practice, which takes place during the succeeding month.

During the last month of target practice, it may be difficult, owing to the limited number of skirmish targets usually at a post, for the skirmish and volley firing to be so conducted as to allow time, each day, for a mounted drill; but with care sufficient time for drill may ordinarily be had, to keep both men and horses up to what they have already learned, and, in addition, to practice the horses in galloping. At the mounted pistol practices during the month, particular care should be exercised to prevent the horses getting "out of hand" or unmanageable.

After the target practice season is over it is fair to presume that men and horses will be sufficiently instructed and hardened to inaugurate the following series of drills, if the foregoing system has been thoroughly carried out:

## FIRST MONTH AFTER TARGET PRACTICE.

Hours.	Days of Week.	Kind of Drill.	Arms and Equipment.	REMARKS
9:30 A. M. TO 10:15 A. M.	<b>Mondays. Tuesdays. Wednesdays. Thursdays. Fridays.</b>	School of Trooper, Dismounted.	Without Arms.	The troops are divided into squads of from four to twelve men, each commanded by non-commissioned officers. The first fifteen minutes are devoted to the "setting up" exercises, the next fifteen minutes to the facings, steps, etc.; the next five minutes to marching in line, wheeling, dressing, etc.; the last ten minutes to marching in double time.
10:30 A. M. TO 11:15 A. M.	<b>Mondays. Tuesdays. Wednesdays. Thursdays. Fridays.</b>	School of the Troop, Dismounted.	Carbines.	<p>The first five minutes are devoted to manual of carbine; then execute, if possible, all the movements in the School of the Troop, Dismounted, devoting any remaining time to Dismounted Skirmish Drill.</p> <p>Let this drill be varied, once a week, with one or two company skirmish runs, using dummy cartridges, or, if ammunition permits, using ball cartridges.</p>
1:00 P. M. TO 2:30 P. M.	<b>Mondays. Tuesdays. Wednesdays. Thursdays. Fridays.</b>	School of Trooper, Mounted.	Sabers, Pistols, Watery-brillies Blankets and Surcingles.	<p>The drill is on a riding track. The first twenty minutes are devoted to bending lessons, mounted, circling at all gaits and passaging; the next ten minutes to saber exercise at a trot; next five minutes to pistol exercise at a gallop, the men going through the motions of firing at the head-posts in the different directions; next forty minutes to running at head and ring-posts; the last fifteen minutes to jumping hurdles and ditches, which should be near the track.</p> <p>Let this drill be varied during the last two weeks by occasional rides across the country, jumping fences and ditches, the officers leading, the men in single file with their horses well in hand.</p>
3:00 P. M. TO 4:00 P. M.	<b>Mondays. Tuesdays. Wednesdays. Thursdays. Fridays.</b>	School of the Troop, Mounted.	Carbines, Sabers, Pistols, Watery-brillies, and Packed Saddles.	<p>If possible, execute every movement in the School of the Troop, Mounted; the first thirty minutes of the drill at a walk; the last thirty minutes at the trot or gallop; ending with a charge in line.</p> <p>Vary this drill once a week with skirmishing and dismounting to fight on foot.</p>

Before beginning drills it is best to divide each troop permanently into two platoons and thereafter to regulate details, so as to take as nearly as possible the same number of men from each platoon daily. The object in dividing the troop into platoons is to give to each lieutenant something he can feel an individual pride in, and responsibility for, as well as to create a wholesome emulation between the platoons themselves in regard to drill and soldierly bearing. If a lieutenant should be absent, assign the command of the platoon to the senior non-commissioned officer present with it. Each lieutenant under the supervision of the captain should be held responsible for the elementary instruction of his platoon.

Whenever starting a system of drill the instructor should explain each movement twice before requiring the men to execute it, at first using as nearly as possible the words of the drill books, and afterwards giving emphasis to particular points requiring special attention. The men should be required to repeat a movement until it is properly executed. If the same men make mistakes or if they slight portions of the movement after this, they should be punished. In going through the tactics for the first time, in a regular course of instruction, a new movement should never be undertaken until the preceding ones are executed understandingly and correctly. After going through any particular part of the tactics in this way, executing a few new movements each day and reviewing those executed on previous days, giving special explanations to men who were absent when the movements were first executed, it will be found that the men will drill much better than if a hap-hazard method were used. It will also facilitate matters very much if the non-commissioned officers are assembled in the orderly-room in the evening and thoroughly instructed in all the movements of the next day. By this method, the School of the Troop, mounted and dismounted, can be entirely finished in ten days. After this no time should be given to explanations, and if any men make mistakes they should be punished.

In instructing the men in charging it is best to use a skeleton enemy, placing the men at a distance of 1200 to 1500 yards if possible. Half of the distance is traversed at a trot, then gallop to the charging point which is about 100 yards from the enemy. Special care should be exercised, to see that the men keep their horses well in hand and keep closed toward the guide, which should always be center. After crossing the enemy's line, the trot should be taken, the men "break ranks" at command, and ride in all directions to represent the *mêlée*, which takes place when two hostile lines cross each other. In a short time the troop commander should ride out from



the m  le and have his trumpeter sound the "assembly," when the men will be taught to rally rapidly on the troop commander. The rapid rallying on the troop commander cannot be too often practiced and should be done in all directions. To facilitate this the commander should direct the guidon-bearer to keep close to him, and in rallying, the men should fall in with their own platoons, but without regard to numbers or sets of four, on each side of the guidon.

It will be a good plan, if in all movements in line previous to the charge, the troop commander gives "guide center" and placing himself four yards in front of the guidon-bearer directs the latter to take the distance and direction from him. The troop commander can then ride straight on the object to be charged and also regulate the pace.

Above all things disabuse the minds of the men of the idea that a charge means a horse-race.

In deploying mounted skirmishers the pistol should be used, and in deploying dismounted skirmishers, the carbine; in the latter case men should be sent to represent the enemy, and the skirmishers made to estimate the varying distances as they advance or retreat, and adjust their sights accordingly, so that it may become second nature to them.

Riding tracks can usually be easily constructed, in default of riding halls. Head and ring posts with leather or canvas-covered heads can easily be made. A ditch, three feet wide at one end and gradually widened to about ten or twelve feet at the other, revetted on each side with poles or fascines, can be dug in the neighborhood of the track in a few hours. Brush or pole hurdles can also be constructed at the same time.

The first essential to the proper training of either a cavalry soldier or his horse, is constant drill in the school of the soldier mounted.

After the horses are well instructed and in hard condition, and the men capable of keeping them well in hand, an occasional ride across country, the officers leading, will be a good variation of the riding-track drill.

At each military post a track of 1000 yards should be measured and the officers and non-commissioned officers made to practice riding it at the walk, trot and gallop, until the established paces can be habitually taken and maintained. After this, the fluctuations in advancing lines of cavalry will soon disappear.

If the foregoing drills have been pursued for about a month, the following system can be inaugurated and kept up until the troops are ordered to concentrate for fall maneuvers, or until the weather becomes inclement again:

Hours.	Days of Week.	Kind of Drill.	Arms and Equipment.	REMARKS.
9:30 A. M. TO 11:00 A. M.	Mondays and Wednesdays.	School of the Trooper, Mounted.	Saber, Pistol, Watering-bridle, Blanket and Surringle.	Same as before.
9:30 A. M. TO 11:00 A. M.	Tuesdays and Thursdays.	School of the Troop, Mounted.	Carbine, Saber, Pistol, Curb-bridle, and Packed Saddles.	Same as before.
1:00 P. M. TO 3:00 P. M.	Mondays, Tuesdays, Wednesdays and Thursdays.	School of the Battalion, (Squadron) Mounted.	Carbine, Saber, Pistol, Curb-bridles, Saddles, with full packs.	The drills are conducted so that every movement in the School of the Battalion Mounted will be executed at least once a week, particular attention being given to such movements as long advances in line at the trot and gallop, advances in line of platoon columns, and line of double columns, all these advances ending with the charge in line. After the charge, ranks are broken and troops rallied, as recommended in troop drill. Also, after the charge, one or both flank troops may be ordered to charge as foragers, the others following in compact order at a trot.
10:00 A. M. TO 3:00 P. M.	Fridays.	Practical Field Exercises.	Same as Above.	The command is employed as Advance Guards, Rear Guards, Out-Posts, etc., and has practical instruction in scouting and reconnoitering, attacking and defending details, etc.

It would be well if each officer be required to attend one of these drills and if every lieutenant, in addition to drilling his platoon, be required to take command of the troop at least one day in each week at troop and battalion drill; that any officer, habitually making mistakes at drill or showing ignorance of the minor operations of war, be put in arrest and court-martialed or sent before a retiring board.

Whenever saddles are used at drill the regulation pack should be on them. It not only gives the men practice in packing their sad-

dles but it teaches them how to do it properly and securely, as well as expeditiously. If a pack is not properly put on, drill at rapid gaits will soon shake it loose and articles of equipment will fall off. It is better to have this occur on the drill ground where the articles can be found than in active service in the field. The improvement which a few months' daily practice will make in the simple matter of packing saddles is astonishing. In one troop, that we know of, nearly every man lost some article of equipment at its first drills, but a few months afterward it could drill for two hours at rapid gaits and execute several charges in line, without a single article working loose or a saddle getting out of place.

If such a system of instruction as the foregoing were carried out at each cavalry post, officers, men and horses would be in good condition to undertake full maneuvers, and work in grand and minor tactics could be at once commenced without the necessity of first getting the command in shape by troop and battalion drills.

Some will probably contend that such a system of drill cannot be carried out, on account of the necessary fatigue, etc., but as troops are now rarely employed in building new posts, and if post commanders would only regard fatigue work as a necessary evil and not as the end and aim of a soldier's existence, some measures could be adopted which would obviate any interference between such a system of drills and the ordinary work about a garrison. At least it has been done at one post where the writer served. The old guard can get through all the ordinary fatigue work by noon and the men be available for drill in the afternoon. On Saturday mornings all the command, if necessary, can be turned out for general fatigue and general police of the post, and attend to anything left undone by the old guard during the week.

Some may think that so much drill would create great dissatisfaction and apathy among the men and cause desertions, etc. It is also thought by some, that one of the main causes of desertion is that the men have too much unnecessary labor and too little strictly military work, and that when off fatigue they are compelled to loaf around the barracks with nothing to stimulate their mental faculties or exercise their bodies.

Even counting two and one-half hours per day for stables and thirty minutes for parade, there will be no time during the proposed period of instruction when the men will be actively employed over eight hours per day, and as the Government expects and exacts that amount of labor from its other employes, it does not seem unjust to

demand it of soldiers. It is only about two-thirds of the amount of work they would have to do if employed in civil life.

Troop commanders sometimes say: "It is useless for me to work and drill my troop and get most of my men well instructed and then have a few extra and daily duty men spoil the appearance of everything when the Inspector comes around." This is all very true if he drills his troop *entirely* for show and the benefit of the Inspector, but not if he drills it with the idea of making it as efficient as possible, and besides it is certainly better to have some men well instructed than none at all. Troop commanders can generally get their extra and daily duty men at least two days per week, and if they give these men special attention on those days and have them instructed theoretically in barracks by the non-commissioned officers of their squads, these men can be kept fairly efficient, especially if the best instructed and most soldierly men in a troop are detailed for these positions in the first place. Of course troop commanders can be hampered by post commanders and quartermasters until it is almost impossible to do anything with their extra and daily duty men, but this is usually the exception and not the rule, and it certainly is no excuse for neglecting the other men.

To those officers who regard it as a matter of principle to do nothing more than they are made to do, and who regard themselves as under no obligations whatever to do any work for the salary they draw, the foregoing outline of work will appear enormous, unnecessary and prejudicial to good order and military discipline. To the remaining class, and it is believed they constitute the great majority of cavalry officers, who regard themselves as obligated to do everything in their power for the good of the Government they serve, and who are ambitious to make and to keep our cavalry the best in the world, the foregoing will appear as nothing more than should be done, provided it is possible to accomplish it. They may differ as to the details and methods of making our cavalry the best, but none will disagree with the statement that unremitting labor and thought are necessary.

WM. H. SMITH,  
Second Lieutenant, Tenth Cavalry.

## REFLECTIONS ON THE PRESENT CONDITION OF THE RUSSIAN CAVALRY.

THE original of the following paper appeared in the *Voennii Sbornik*, with the signature of General A. ARTSICHEVSKI. The translation is taken from the French version which appeared in the *Bulletin de la Réunion des Officiers*. The writer begins by controverting the radical opinion that cavalry is to disappear from the field of battle in future wars. It must conform to the altered conditions of the art of war, and it must be in the hands of leaders who know their trade. To discuss the former, we consider this subject under three heads: (1) What are the conditions to be fulfilled in order that cavalry may successfully play its part? (2) To what extent does the Russian cavalry fulfil them? (3) What measures are required to make that cavalry equal to its task?

The modern rôle of cavalry is double. It may manifest itself *strategically* under the form of independent actions, partisan warfare, etc., or, *tactically*, it may include all the moves which take place in the actual combat. This double mission will have a beneficial outcome: (1) If by a perfect organization it can act, not only in coöperation with the other arms upon the field of battle, but also independently; (2) If it can execute rapid and prolonged marches, without losing the ability to push an impetuous charge.

These desiderata are fulfilled, so far as armament goes, by the recent transformation of hussars and lancers into dragoons, whereby cavalry becomes independent. In other ways they are not fulfilled, and the writer examines the subjects of train and artillery in a manner that is interesting. He says:

"The experience of the Turco-Russian war, like that of preceding wars, demonstrates, with sufficient clearness, that the rolling material of cavalry must be abandoned in rapid marches across country. Such inconvenience was experienced by our cavalry in the late war; when it happened to go some 100 or 200 miles away from the army; but it would have shown itself in a still more evident way if the cavalry had to make raids to a great distance, for, the organization of

the train no longer corresponding to the necessities of the moment, it would have been compelled to do without its baggage, caissons, ammunition, ambulance material, in a word without all that is indispensable to the life and mobility of any body of troops whatever. In order to avoid these inconveniences, we can and should transform the cavalry wagon transportation into transportation by pack-animals, a matter which in our day cannot offer any difficulty, on account of the perfection of the pack-saddle.

"The second weak point of our cavalry consists in the absence of mountain material in the composition of the horse-batteries attached to the cavalry divisions. The exigencies of modern war demand almost imperatively, the addition of mountain guns to the cavalry, for the reason that the true rôle of cavalry, besides out-post duty and reconnaissance, consists more especially in partisan operations, that is to say, in raids against the adversary's rear, or against his lines of communications; it acts principally in those movements, which, by their suddenness, their rapidity and their daring, disconcert the enemy, leave him no rest day or night and upset his strategical combinations. This end can be attained by the cavalry only under the following circumstances: (1) When it can make a serious attack, not only against cavalry, but also against infantry covered by obstacles, which is almost impossible without artillery; (2) When, having secured its object at one point, it can immediately move upon and attack another without worrying about the state of the roads,—a maneuver which is possible only with mountain artillery served by mounted cannoneers.

"In order the better to illustrate the importance and necessity of this kind of artillery in battle, I will cite the following:

"On the night of the 22d or 23d of December, 1880, Adjutant-General SKOBELEFF, desiring to push his approaches from the first parallel towards the south side of Geok-Tepe, ordered a detachment, consisting of two squadrons with three sotnias of Cossacks and two mountain guns, to attack the north side of the Aoul, in order by that feint to divert the attention of the Tekés. This detachment was put in march on a dark winter night, without roads, and had to cross several canals and ravines with steep banks, absolutely impracticable for field artillery. At break of day the detachment reached several entrenched *kals* (pise towers) and gardens enclosed by clay walls, behind which 2000 Tekés had taken position. Notwithstanding their numerical inferiority, the dragoons and Cossacks dismounted and attacked the enemy, who made a vigorous resistance until the two pieces, having been unloaded and placed in battery, opened fire against the *kals* and the walls of the gardens. At the appearance of the guns, the defenders precipitately evacuated the position, making it possible for our detachment to accomplish its purpose.

"I find in the same year another example of the employment, and of the importance, of mountain artillery served by mounted cannoneers in the passage, by General SKOBELEFF, of the chain of the Kopet-Dagh, over ground absolutely impracticable for field artillery. This operation was of great importance, not only because it permit-

ted us to make numberless incursions, but also because its suddenness prepared the way for the ultimate success of our arms in the oasis of the Akhal-Téké. The only transportation for the entire expedition consisted of pack-animals. As soon as the detachment reached the crest, it opened fire on the adversary whose resistance was not very serious, merely because the mountain artillery dislodged him from all cover behind which he attempted to conceal himself.

It appears to me almost superfluous to add that the introduction of mountain guns into the composition of horse-batteries does not necessitate the suppression of horse artillery of higher caliber, since the latter is indispensable to fulfill other requirements of modern war.

Passing to the second condition which it is necessary to impose on the cavalry, our attention is called to matters of mobility and the rational training of the horses.

The satisfaction of this condition is directly subordinated: 1st. To the condition of the horses, that is, to their kind and their training; 2d. To the moral condition of the personnel, which includes the chief as well as the soldiers.

The author is satisfied with the supply of good horses obtainable in Russia,—not so as regards their training, and on this point he speaks as follows:

“A short time after the Crimean war we admitted frankly, in our cavalry, the necessity for increasing its mobility, and directions were given to render the troop horse light and manageable.

“To attain this end we commenced to make severe marches, to organize race courses, steeple chases, etc., and, all this being done without preparatory training, the only result obtained consisted in ruining the horses, and so this system was abandoned. Then commenced our other period: scouts to long distances, sixty five to one hundred and thirty miles in twenty four hours; scouts executed by officers accompanied by half a score of men chosen from the whole regiment; as a matter of course these scouts, thus carried out, could have no practical result, as they were conducted by only a few men and, in their very essence, had no definite end in view.

“As a final result we proved, in the last war, that the horses of our cavalry were very poorly prepared for work; and so poorly trained in time of peace that, on both theatres of war, our regiments of regular cavalry began to break down after two or three severe marches.

“Notwithstanding this, during the war of the Caucasus, certain regiments of dragoons, mounted like the others, and having been on campaign duty for several months, made marches of forty miles in twenty-four hours, not only with all their baggage, but also transporting three days' forage and five days' rations, and, after so rough a test, they were in condition to give battle.

“Comparing these two facts, we cannot explain the difference existing in favor of the second, except by recognizing the fact that, at the time of the war against the mountaineers of the Caucasus, the

horses of the dragoons had been kept in good condition and were worked almost continuously and thus became absolutely inured to fatigue. This fact inspires the conviction that it is necessary to give careful attention not only to the school training, but also to the general training of the troop horse, since, thanks to the railroads, any detachment of cavalry can be rapidly transported to the theatre of war, and there suddenly begins hard service for which, consequently, it ought to be prepared in time of peace. The most natural and most rational method of obtaining this end consists in marches in which regiments or entire squadrons are united under their chiefs, all the officers being present, the trains complete, and in which the rules of marching in time of war are observed. It will be advantageous to execute, once a week, an exercise of this kind, pushing out to a distance of thirteen to sixteen miles from the garrison, and, moreover, executing it in a fixed time, so that the entire march, going and returning, will not require more than one day.

“The regulations for the instruction of the cavalry troops prescribe the execution of marches of ten to thirteen miles by all the fractions, corps or detachments of the army; even the details of these marches are therein prescribed. Unfortunately, the dispersion of our cavalry in small detachments prevents these marches from being made as the regulations design, and that in all the detachments without exception.”

The fact that the regulations on this subject are not punctually observed, is attributed to the smallness of the ration, about nine quarts; this is recommended to be increased for evident reasons. To continue:

“We can see that exercise is necessary and profitable from the fact that the greatest ability to endure fatigue has always been a characteristic of *natural cavalry*, if we may so express ourselves; that is to say, of our Cossacks, of mountaineers, of the Calmucks, of the Tekes and of other tribes of horsemen. We may ask where, when and how they and their horses are trained to fatigue. Evidently, it is not in the riding school nor on the square, but only by constant practice in rapid rides to long distances, resulting from their mode of life. To acquire, at least in part, this untiring energy of men and horses, our regular cavalry ought to be trained not only to long marches (for good cavalry twenty-five or thirty miles are a mere bagatelle), but to long continued marches conducted with judgment. These exercises should only take place in temperate seasons, that is, when the cold is not below forty-five degrees F. On the return from the march, the horses must be inspected. In this way the chief may impress upon the men what the horse ought to be to the rider, that one cannot exist without the other, and that he ought to care for his mount more than for himself. As an example, we may cite the mountaineer or the nomad of the steppes, whose horse is his best friend; in campaigning, this is easily understood,—the horseman feels the value of a horse, instructed and trained, which carries

him away from danger or which overtakes an enemy: but such an experience acquired too late costs dear and is dangerous. \* \* \*

"We may assume, as a rule, that cavalry can make daily, at least twenty-five to forty miles, and that marches of sixteen miles should be exceptional. Short marches in time of peace are excellent for infantry, but pernicious for cavalry, who thus get into the habit of marching at a slow gait, a thing to be avoided if we wish to render ourselves mobile and suited to modern war. It should be well understood that, for the army, time of peace is not the time for repose, but for preparation for war: consequently, if the necessities of war demand a cavalry mobile to the highest degree, the latter should be instructed in conformity with these demands, and the horses should not be eternally kept in the riding school or on the maneuver ground."

This Russian General attacks the ordinary methods of instructing cavalymen in quite as severe terms, affirming that not less than a year should be devoted to the individual training of the young soldier. Lost in the ranks of the squadron he is too apt to forget all he has learned, to ruin his horse, and to become confirmed in every bad habit. By increased attention to early training, all matters will be begun with method, and it will be found much easier to form and keep good habits than it is to rectify vicious ones already acquired.

It appears on the whole that most services have things to grumble about, and we find in this paper, our own everlasting complaint that we cannot get our men for military purposes, that we have men of all stages of instruction mixed up together, simply because it is impossible to get a respectable command in line without it.

Speaking on the subject of irregular cavalry, the writer is inclined to deplore the introduction of Cossacks into regular divisions, and he gives the familiar arguments that the former troops are losing their former warlike qualities as a result of the change. In operations of an independent or partisan character, he would assign the Cossacks to the task, reserving the regulars, as a rule, for the field of battle.

The paper ends with some good ideas on cavalry leadership:

"A happy selection of chiefs is certainly of great importance in all arms, but the chief in the cavalry must particularly possess initiative, presence of mind, decision and energy. The necessity for these qualities results not only from the special character of cavalry, not so much from the arm, but from the particular circumstances in which the chief of a party of cavalry may find himself suddenly placed in time of war. A hesitating and apathetic man, however well instructed, should never be selected as a chief of a cavalry detachment. In such hands the best troops will soon be worthless and incapable of rendering the services expected of cavalry. A good chief of cavalry should have a generous supply of good sense, should be impregnated to the very marrow of his bones with life, with en-

ergy, with love of his profession, and he should remember that his bearing in service will for all time affect and influence the military spirit of his subordinates.

"I happen more than once to have heard said of a chief of cavalry: 'He is full of good qualities, he is energetic, he rises early, he is active, and he would be good in time of war, but he is unbearable in time of peace, he unsettles the nervous system of his subordinates.' Personally, I do not agree with the opinion that an effeminate, apathetic and lazy chief is less dangerous in time of peace than in a campaign, and, passing that by, I much prefer a chief who unsettles the nervous system of his subordinates to one who unsettles the detachment confided to him and renders it useless in war."

"We know what cavalry has been worth in the hands of men of valor with the knowledge of the profession of the cavalryman, such as a MURAT, a ZEIDLITZ, a DOROKHOV, a FIGER, and their successors in modern times, a STUART, a SHERIDAN, a GRIERSON."

JOHN P. WISSER.  
*Lieutenant, First Artillery.*

## HOW A RUSSIAN OFFICER RODE TO THE EXPOSITION.

[By J. PAVLOVSKY, in *Supplément Littéraire du Figaro*.]

TRANSLATED BY MRS. E. W. LATIMER, LITTELL'S "LIVING AGE."

LAST autumn, when the imperial maneuvers were taking place in southern Russia, a number of young officers seated round the table of one of their number began discussing the various qualities of the war horse of Russia. They all agreed as to his strength and his powers of endurance. From horses to horsemen was no great step, and they went on to relate the various equestrian exploits known to them. Especial mention was made of a certain Count ZUBOVITCH, who, fifteen years ago, rode to Paris from Vienna. This exploit had been always considered by sporting men something remarkable.

"I could do more than that. I am ready to ride from this place (Lubny) to Paris," quickly remarked Lieutenant MIKHAEI ASSEEFF, of the Twenty-sixth Dragoons.

The rest of the party laughed.

"On what kind of a horse?" said one of them.

"On any horse, so long as he is a Russian charger."

This assertion seemed so rash that those present looked on their comrade with amazement. ASSEEFF was a well-built young man, with a resolute look in his face, soft eyes full of intelligence, and his comrades knew him to be incapable of making a vain boast about anything.

"Your horse would give out long before you reached Paris, and yourself, too," said one of them, gravely.

But ASSEEFF was not a Cossack officer for nothing. He was thoroughly familiar with horses. He was not only a remarkably skillful rider, but was gifted with what we call in Russia, an iron frame.

He persisted in declaring that such an exploit was quite possible, not even very difficult.

When the party broke up that evening the guests went back to

their quarters, whispering among themselves that ASSEEFF was a queer fellow, with some odd ideas in his head.

After that, whenever two or three of them met him, they invariably asked him the same bantering question, with good-humored irony:

"Well, ASSEEFF, when are you going to set off for Paris on horse-back?"

"I'll wait for the opening of the exposition," was invariably his answer.

At last, spring came. The young lieutenant got leave of absence, and a passport, and then he disappeared.

Nothing was heard of him for two weeks, and then it was in connection with a somewhat curious circumstance. He had been arrested at Novgorod-Volink by order of the ispravnik or chief of the district.

It was a blunder, but a very natural one. The too zealous official had been informed that a young man, wearing a leather vest cut after the Swedish military fashion, browned by the sun, and covered with dust, was passing through the town on horseback, leading another horse by a leading-string. His bearing was thought to be that of a soldier. His holsters, his saddle-bags and his cloak, rolled up in military style, were all his baggage.

Whither was he riding in such haste? And this question being asked him, the young man had answered, "To the frontier."

The nearest frontier was that bordering on Austria. Now, just at that moment, all the newspapers were writing about three Austrian officers who were visiting the frontier, drawing plans and taking notes. Two had been arrested, but the third was still at large. Was it not evident that this young man was the spy—the man wanted by the police at St. Petersburg? True, his papers seemed all in order, but everybody knows that those whose conscience accuse them of wrong doing take care to have their passports all right.

So the spy was marched off to the watch-house.

When he was searched, loaded pistols were found upon him, a guide-book, and a portfolio full of stenographic notes. All these were convincing proofs of his culpability.

The watch-house proved to be the place of residence of the ispravnik. Duty may demand severity, but it does not exclude courtesy. Besides, an Austrian officer on service, and a Russian officer on half-pay are, after a fashion, comrades; so, until the affair should be cleared up, the spy was invited to take his meals at the family table, and was seated next to the master of the house. This gave great un-

easiness to the lady of the ispravnik, who whispered to her husband to be on his guard; for suppose the Austrian officer should commit such an impropriety as to strike a blow under the table with his dinner knife at the representative of the autocrat of all the Russias!

But her husband had made up his mind to risk everything. He meant to discover the truth should it cost him his life.

"Tell me now frankly," said he to his prisoner, "since you are caught, what were the instructions given you by your government?"

The criminal's only answer was a hearty laugh.

This detention cost ASSÉEFF two days. It was his first, but not his last adventure upon Russian soil. Everywhere he met with great suspicion. Though he took the precaution whenever he entered a town or village to call at once upon the chief of the rural police, the stanovoi, or on the ispravnik, he was not always made safe by this prudent measure.

One day in a little village near Kiev, a rural policeman would not let him pass till he had minutely scrutinized his papers. He got off at last, and had ridden about twelve miles from the village, when he found himself pursued, and heard cries of: "Stop! Stop!" It was the rural official. "Well, what is the matter now?" "Our chief has ordered me to take a copy of all your papers."

In selecting his route MIKHAEL ASSÉEFF followed the example of the Emperor NICHOLAS, who, when he was presented with the plan for the construction of a railroad from St. Petersburg to Moscow, which showed abundance of crooks and curves, took a pencil and drew a long straight line between the two capitals, quietly remarking:

"That is the line which I wish followed." Like him ASSÉEFF thought that a bee-line is the shortest road between two places. He stretched a silk thread across his map of Europe, from Lubny, a little town in southern Russia, to Paris, and made that his route.

On Russian soil, which it took him two weeks to get over, he found his way without any serious difficulty. His road was plain before him, but when he reached Bohemia and Bavaria, the grand duchy of Hesse-Darmstadt, and that of Luxembourg, his route lay up hill and down nearly all the way. As it grew dark he often came near breaking his neck over rocks and precipices.

ASSÉEFF made no halts for rests, and he rode at least eleven hours a day. When he reached the inn where he proposed to pass the night there was no rest for him. He had to see about stabling his horses, and to wait until they were cooled off before giving them water and food. He never trusted this office to anybody, and it took him about

two hours to give them proper care. When at last he could sit down to his food he had to satisfy public curiosity, the whole village turning out to look at, and ask questions of the mysterious traveler. However he might be bored, he knew it was good policy to conciliate the villagers, and so get them to give him local information which might be of use to him *en route*. All this may be easy enough when one can speak the language of the country, but ASSÉEFF was not proficient either in German or French. At last when his interviewers retired, he was free to make his bed in the stable with his horses.

Two ideas haunted him during his long thirty days' ride. What should he do if his horses were stolen, or if they fell sick?

Twice he had to have them shod by strangers, and even now he cannot tell you what he felt, without emotion. Suppose they had either of them been lamed by the careless driving of a nail! All would have been lost. When a man succeeds in an unusual enterprise every one is charmed with his performance. If he fails they jeer at him, and even if the failure be due to mere accident or a loose horse shoe.

"The first time I had to take my horses to the forge of a village blacksmith," said ASSÉEFF, "I went off, not having the heart to be present at the operation, the thought of which to me was absolute torture, but I had to come back, for my horses could not understand the blacksmith. They wanted me as an interpreter."

One of ASSÉEFF's greatest difficulties at first was to prevent the flagging of his horses. They had been used to regular exercise, and to abundant food, and could not have borne at first any unusual fatigue. ASSÉEFF put them through a special training to accustom them to the work he expected to get out of them.

At first their food was only bran and hay, then equal parts of bran and oats, then only oats with sometimes a little salt. The horses ate never less than thirty-seven pounds of oats and nine pounds of hay a day.

In proportion as he increased their food, ASSÉEFF required more work and more speed from his horses. At first they made about thirty miles a day, but by the last week they could accomplish more than seventy.

He himself observed no special regimen. All through his journey he slept only five or six hours daily, and after the first week he felt no fatigue. Indeed, after riding fifty miles and being eleven hours in the saddle, he dismounted as fresh as if just beginning his day's journey.

As long as he was in Russia the days did not seem to him long, but after he had passed the frontier they became very wearisome.

"I had no resource," he said, "but to refresh myself with a few mouthfuls of good brandy, and I had nobody to speak to. The Germans seemed to me all alike. I could take no interest in them."

It must be owned that ASSÉEFF took little interest in the countries he passed over. His interest lay in matters connected with his journey. The question that interested him most was one that he found himself obliged to solve by his own experience. Which was best for speed in the long run and for the health of the horse, to walk or trot, and if trotting, how much rest was necessary? He arrived at the conclusion that the best way was to let the horse under the saddle, make the best time possible. His day's work was regulated in the following manner: First he started at a walk, then took five minutes' trot in every half hour; then five minutes' trot every quarter of an hour, and then steadily ten minutes' walk to ten minutes' trot. In this way he was able to make between six and seven miles an hour.

ASSÉEFF'S two animals were mares. One, called Vлага, was seven years of age, and was of the breed of Little Russia. She was only a troop horse. The other, Diana, was a cross of English and Russian blood. She was five years old, and had belonged to an officer. Both were ridden, turn and turn about, according to the Turkish custom. The first twenty or twenty-five miles were made on Diana, the remainder of the day's journey on Vлага. When Diana was ridden, Vлага, who was an animal of extraordinary intelligence, would follow of her own accord, being sometimes a hundred yards behind. She would stop to graze, or to drink in little streams, from roadside fountains, or from the pails of peasant women; but if she lost sight of Diana she neighed anxiously, and came up with her at a gallop.

Both rider and horses suffered much from heat. The boots of the latter were disposed to crack, and they had to be softened with glycerine. Along the highways, at the inns, and in the towns ASSÉEFF was besieged with questions as to where he was going; to which he always replied: "To Belgium, to the stud farm of Professor REEL."

He did not like to tell the Germans that he was bound for France, fearing to create difficulties. At every frontier he was bothered by the officers of the custom house, and he had to pay a drawback on his horses. This done, a ribbon was hung round the horse's necks, the two ends of which were fastened by a leaden seal, which also served as a sort of passport for the rider. Every time a local policeman showed any doubt as to the authenticity of his papers, ASSÉEFF pointed to the seal affixed to the ribbon.

One day on the frontier between Bohemia and Bavaria a sentinel refused to let him pass on horseback. He insisted that he and his horses could only cross the border by rail. This requirement seemed absurd and humiliating. "I have ridden an immense distance," said the Lieutenant, "just to prove what I can do without a railroad."

The sentinel referred the question to his superior, and he in turn to his chief, who, won over by the beauty of the two horses, permitted them to go on.

After twenty-seven days' journey, one morning at ten o'clock ASSÉEFF crossed the Luxembourg frontier, and was in France. Two soldiers seized the bridle of his horse.

"Where are you going?"

"To the Exposition."

"Where do you come from?"

"From Russia."

The guard was so astonished that they hesitated to let him pass, in spite of his papers being in order. They took him to their officer who gave him a guard, by whom he was escorted to Longwy, where he was carried before the chief custom house officer. At Longwy he was received with open arms. The inhabitants rushed in crowds to see a Russian officer, the representative to them of a great power, their country's ally, and he was overwhelmed with sympathetic demonstrations. When he rode off in the midst of friendly acclamations, the street *gamins* accompanied him nearly six miles. He put them, three at a time, upon Diana, and they were proud to prance along beside a Cossack. They were not the least afraid of him, and wanted him to let them go on to Paris.

At last, on the thirtieth day, through a thick fog, the Russian officer caught sight of the object that was to end his journey; the Tower Eiffel. Greatly inspired, he urged his horses forward, and an hour afterwards entered Paris. He had ridden seventeen hundred miles, and had been three hundred and thirty-nine hours and a half in the saddle, but he seemed as fresh and gay as if he had been taking a mere ride for pleasure. The only physical change he could perceive in himself was that he had lost eight pounds.

The singular exploit of ASSÉEFF has drawn on him the attention of his Russian military superiors. The Russian military attaché at Paris, Baron FREDERICKZS, was expecting his arrival, and had telegraphed to the frontier, begging the authorities to send him word when the Lieutenant passed them. But when the telegram was sent the Lieutenant was already in Paris, never suspecting that he was an object of interest to the Russian embassy.



General **FREEDERICKZ** received him very cordially and presented him to the French Minister of War, who kindly offered him quarters for his horses in the stables of one of the French cavalry barracks, and the privileges of a French officer.

Reader, if you find yourself in Paris, and meet upon the boulevards a tall young man of twenty-five, handsomely dressed, and with something peculiarly gentle in his looks and manners, you will find it hard to believe that he is the man who made this wonderful journey from Russia, a feat unparalleled in the annals of European equestrianism.

## LETTERS ON CAVALRY, BY PRINCE KRAFT ZU HOHEN- LOHE-INGELFINGEN.

TRANSLATED BY COLONEL R. F. HUGHES,  
INSPECTOR GENERAL, U. S. A.

### FOURTEENTH LETTER.—SQUADRON EXERCISES.

**W**HEN I come to speak of cavalry exercises, the time of the year when these take place seems to me to be a matter of so much importance that I can not avoid beginning with it. In earlier days, cavalry of the Guard in Berlin got through the regimental course of instruction in time to pass inspection about the middle of the month of May. In order to do this the instruction of the squadrons had to begin about the first of April; and, even then, the time was very short for accomplishing the work required, say about three weeks. Many things had to be passed over hurriedly and were not thoroughly mastered. The worst of it was, that the exercises of the squadron and regiment, which are the most trying of the annual course, fell at a period when the horses were shedding their hair, were weak, and easily made sick. On this account the inspection of the cavalry regiments in Berlin was, several years ago, postponed until about the middle of June. The squadrons must complete their instruction by the middle of May and be ready for the inspection. The special conditions existing at Berlin did not admit of fixing a later date for the completion of the spring instruction; for, at the capital, the Guard troops must be ready as soon as possible for all peace evolutions, it being among the possibilities that the appearance they present before foreign rulers or ambassadors may have a greater influence on the course of politics than many an action in war.

The great body of our cavalry, being accustomed to observe and copy the manner of instruction pursued in the Guard without other authority than general consent, also designated the middle of May as the end of the squadron exercises, but there was no positive requirement for this. The Guard had a second course of instruction

in the summer in recognition of the fact that, in the spring, it was not possible that everything could be done with sufficient thoroughness.

I found, upon taking command of the Twelfth Division, that it was customary to inspect the instructed squadrons on or after the 15th of May. The commanding general had taken the wise precaution that each body of troops should be inspected but once during the period of instruction concerned, by which their training was greatly furthered, as the troops were not deprived of their time for instruction by any more days of inspection than were absolutely necessary.

The various inspecting officers had to arrange to make their inspections on the same day. I myself, as well as the brigade commanders, joined the regimental commander when he made his squadron inspection. At the first of these inspections on the 15th of May and succeeding days, I perceived that the squadrons stationed in the climate of Upper Silesia, where the winter lasts longer than in Berlin, had to go through the course of squadron instruction during the early spring when the temperature is most changeable, when on very warm days the horses shed their hair freely, while on cold, snowy days the process is suddenly interrupted. The horse is injured by such changes and should be spared, instead of which he is especially tried by the exercises; the conditions are conflicting. The result is that either the horses are much debilitated or the squadron is not properly instructed. For the following year I fixed the time for the squadron inspection in the latter part of June, so that by the end of June the last squadron must be inspected. I remember well the look of thanks with which my order was received by those squadron-chiefs who were interested in the welfare of their horses.

The result proved so satisfactory that the following year I was confirmed in my decision. This enabled the squadrons to postpone the detailed instruction in equitation until the end of April. Every zealous cavalryman will feel how necessary it is for correct company equitation that the entire month of April be given it for the purpose of putting on the final finish. Every cavalryman knows how much less a thoroughly broken and trained horse is fatigued by such changes and exertions as are unavoidable during instruction, than a horse that has to contend against many difficulties that he has not yet overcome.

During the latter part of April and first part of May the regimental commander makes the final inspection of the detailed instruction in equitation. The following fortnight may be occupied either

in exercises of the troop and the platoon, or specially devoted to bringing up, in their instruction, such young, or not fully educated, horses as the regimental commander may have designated at his inspection as being in need of improvement. The squadron-chiefs have, in this way, the necessary time to carry into effect the instructions given by the regimental commander at his inspection the same year.

The squadrons formerly completed their exercises about the middle of May, at which time they now begin them. They even have sufficient latitude to postpone them a few days longer if, owing to stormy weather the shedding period has been delayed, for they have almost six full weeks for this period of instruction.

I shall disagree perhaps with many old squadron-chiefs who have become accustomed to the short, hurried period of exercise. They will say that too much time is thus employed, that nothing is gained by exercising too long and too much, that it wearies the mind, and that finally no improvement is made. My experience, however, has been different. The main thing, after all, is that the horse, which is more an animal of habit than the man, must be gradually accustomed to the exercises and to the exertions required of him.

To accomplish this a long period is necessary, and it should immediately follow the period devoted to the course in equitation, during which the distance covered at a trot and gallop have been gradually increased and have at last reached a length that justifies undertaking the instruction of the squadron as a unit. It is only by this systematic training that the horse can be put into condition to meet the requirements of an attack, trotting and galloping five miles without either injuring himself or being blown. The fat which the horse has accumulated must be gradually worked off. If this is attempted too suddenly, inflammation of the lungs may result. The riders must also be gradually accustomed to long trots and gallops. They must not only be in condition to execute them, but they must not become excited while so occupied. The young recruit can only become accustomed gradually to the sharp gallop, the noise of the trampling horses about him, the clouds of dust and the sharp wind; he should find pleasure in them, should feel himself perfectly at home, and hold eye and ear open for the sign of command of his leader; he should not tire, but such movements should be stimulants to him. A cavalryman who feels thus, is less heavy on his horse and does not fatigue him like a rider who is filled with anxiety, and who, by crowding and with a heavy hand, gives the poor horse wrong guidance with the bridle and halter.

It is therefore rational treatment of the squadron to gradually increase the exertions of the horses during the course of instruction in the evolutions in such a way that, finally, this requirement can be answered without injury to them.

I have previously stated that I have seen this done, and that no horse in the squadron was blown. The horses were also in good condition, without unnecessary fat, but round, muscular and solid.

In order that the minds of the commanders of squadrons and troops might not be worried by the exercises being extended over six weeks and, likewise, in order that no time might be lost from the other branches of instruction, I designated the end of June as the initial date for field work, and directed that the course of instruction in target practice should be well advanced by that date, and that both branches of instruction should be completed by the end of July. The instruction in target practice, and in field work, can go hand in hand with the drills fairly well.

It is not absolutely necessary that the horses be exercised in the open air every day in order to get them in good condition "of wind." They might be left stationary for one or two days in the week besides Sunday, but daily exercise in the open air is beneficial to the general health of the horse. This latter consideration has given rise to the following routine: squadron exercises three or four times a week, (in going to and in returning from the drill grounds each command must march in war formation, viz: with detachment of observation thrown out, measures taken against surprise, measures of security, reconnoitering patrols, etc., and in this manner firmly grounding the young soldiers in the forms and principles of this work); once each week field exercises should be practiced, and, if the good of the horses renders it advisable, this day's work should be at a walk or slow trot in light field equipment; once or twice per week they have target practice and the horses are ridden to the target ground at a walk and thus receive their needed exercise. On drill days they must go back to the elementary equitation of the riding hall, and not drill by platoons with a mixture of the instructed and uninstructed men and horses, but by classes (remounts, second and first classes, and recruits). Thus variation prevents *ennui*.

According to this arrangement, the inspection at the conclusion of the exercises of the squadron falls at the culmination of many branches of instruction, viz: the elementary exercises, drill by signals, battle maneuvers, elements of field service, riding by classes, on the parade, individual combat; and, after the squadron is recalled, the young remounts are inspected in the riding hall. Naturally, so

many different branches of instruction cannot be thoroughly inspected without devoting a good deal of time to it, and it may shock a good many cavalymen who are not accustomed to it, when they hear that the inspection of a single squadron often requires from four to five hours. When there are two squadrons united in one garrison, and they can be inspected together, the inspection lasts from six to seven hours. It might be supposed that the horses would be injured; but that is not the case if the inspection is conducted with due regard to their strength, and, which is the chief point, if they have been put "in wind" systematically, in the manner previously indicated.

One apparent means of sparing the strength of the horses at inspection consists in not permitting them to be kept in parade position on the exercise ground. The parade position, and the time lost in waiting, absorb a considerable amount of the horse's strength. With the best will in the world, delays cannot always be avoided—the superior is detained by some unavoidable cause so that it sometimes happens that the squadron, which would rather be a quarter of an hour too early than half a minute too late, waits for full half an hour in the tiresome parade position. The result is a great exertion, and absorption of strength; and, besides, it frequently occurs that many horses from weariness become restless, refuse to stand on the bit, and the first alignment is entirely lost. The commander, who has aligned his troop carefully, gives the command for the salute upon the approach of the inspector, rides to the flank of his troop and is as much surprised as the inspector is dissatisfied to see his troop entirely out of line. I have seen a cavalry troop which I knew to be exceedingly well drilled excite, in this way, the extreme dissatisfaction or impatience of the inspector from the very beginning; then came a parade march at a walk in which the horses, on account of their waiting, were quite restless and fidgety, and the inspecting officer received a very unfavorable impression. If one is to see exactly the condition of a squadron and not how it may accidentally appear, it is recommended that it be directed to remain in readiness in the stable, that the inspector go there and order it out and witness its coming out and forming and wait until the squadron-chief reports that the squadron is formed in line on the stable ground. In this way the interior service of the squadron is seen. As the squadron thus stands, its equipment and arrangement and also its cleanliness can be carefully examined. The double result is obtained of an economy of time and of seeing the elementary field work during the march to the exercise ground. To accomplish this it will be suffi-

cient to require the squadron, in marching off, to carry out some very simple tactical idea.

The squadron arrives upon the drill ground at a trot and attacks a supposed, or represented enemy. If two squadrons are being inspected at once, one can be sent off first, and the other can follow and a collision can be arranged between the two on the exercise ground.

As a general thing in the elementary exercises, when there are two squadrons, one is first put through and then the other, the unemployed one dismounting in the mean time. During the elementary exercises, the parade position and the parade march may be introduced wherever desired. For relaxation, the proficiency of the men in the use of arms is then inspected. This is a real relief, for as one class is employed the others are dismounted and rest. In the class itself only two or three horses are at work while the others are at "place rest." Then follows the exercises in battle tactics and whatever the inspector wishes to see, going off at full speed, cutting and thrusting at heads, etc. Finally the squadron returns to quarters at a rapid gait, executing en route such tactical evolutions, and such field exercises as the inspector may call for. It such an inspection does not last over six hours it will not exceed the strength of the horses, for all the horses have had several rests and have stood nearly half the time with the bridle reins in the hands of the dismounted troopers. In the warm days of June it is a matter of indifference whether the horses rest in the stable or in the open air. The greater the rank of the inspector the more apparent it is that he cannot devote as much time to each individual squadron as this kind of inspection requires. I cannot refrain from remarking that my then commanding general, who was an enthusiastic cavalryman, very willingly undertook this kind of an inspection and if he did not have the necessary time, preferred to inspect but a part of the squadron rather than to make the inspection less thorough.

Allow me to mention a few more details that have appeared to me worthy of special mention in connection with the exercising of single squadrons.

I touched above upon the subject of drill by signals, which is authorized by paragraph 110 of the regulations of July, 1876. When this regulation appeared, a single squadron-chief exercised his troops in this way, not only as regards movements referred to in this paragraph of the regulations, such as to advance, to halt, and to change direction, but he also executed most of the platoon evolutions, such as breaking into column and half column, forward into line, changes

of front, and changes of direction, and changes in gait, the latter by designating that the squadron must ride at the gait at which he rode. The other squadron-chiefs of the division soon followed suit. In order to secure harmony in these exercises, and in the signals employed, the brigade commander sought out those that proved the best and prescribed them for all the squadrons. In fact, he went farther than was provided for in paragraph 110 and things were occasionally seen that were forbidden by the order introducing the regulations. But the result was so important that I took no action. The chiefs threw their squadrons about over the exercise ground in all possible formations, and all gaits, without giving a single command. It produced a peculiar impression to see a squadron, without either a sound or command, adroitly sweep across the plain. When the ground was soft and no trampling of horses' feet was heard, the cavalry came before me like ghosts guided by some invisible spirit, and it may be imagined that a command led in this way might succeed in reaching the flank or rear of an enemy and take him by surprise. The idea that a squadron could be led in such an artificial manner in the clash and turmoil of the evolutions of a great mass of cavalry was not, however, what I had reference to when I spoke of the important results of the experiment; but I consider it rather a means to an end. Troops drilled by simply observing the motion of a sabre became accustomed to paying greater attention to their officers, and it accustoms the officers to keeping their eyes upon their leader.

The perfect silence of the squadron chief is impressive, and, in consequence, not a word is uttered in the squadron,—the habit of talking being one into which the troops fall, not through want of discipline, but through a desire to prevent mistakes. It may be stated that exercises by motions of the sabre were more correctly and exactly executed than those by command; and that after they had been practiced, the result was apparent, in the greater precision with which movements were executed at all drills, whether by signal or by command.

The same paragraph prescribes that the squadron must be exercised in riding upon a designated object. I had a peculiar experience in this after assuming command of the division, viz: that when this riding upon a designated object is not specially practiced it is extremely difficult to strike the object. My orders that the squadron chiefs should make their attack upon me in person in the position in which I stood and should strike me with the center of their squadrons, were scarcely ever executed. Most of the squadrons shot by me. Still harder was it when I moved, if only at a walk. The

guide was then right: since that time, God be praised, the guide has been changed to the center, and the officer of the directing platoon gives the direction; the men really have to follow the officer, who is the guide of direction and gait and from whom the center guide (file) keeps his distance; this is a great improvement. But this exercise is very necessary and especially against objects which are in motion. The main thing is, that the squadron be able to attack the point against which it is directed. Of what use is all our instruction in equitation if the attack falls upon our friends instead of upon the enemy. In earlier times, before I had any cavalry under my command, I had frequently heard the fault found that the leader could not strike the object attacked; but no one showed the unfortunate, much censured, squadron-chief how it could be done, and they were never given time to learn it. Now, that the guide is changed to the center, it is necessary that the evolution should be frequently practiced and especially against objects in motion, as they will be in a hither and thither wavering cavalry action. If the guide (officer) rides at the full attacking gait and makes a change of direction in hurling himself against a moving object, the pivotal wing will be thrown into a confused mass while the outer wing will be thrown into open order. He must ride his curving line in moderate pace so that the outer wing will be able to come round, and the inner wing must keep in line with it; otherwise the attack will be an irregular one.

Let us say a word on irregular attacks. How often has it been written and said that attacks were too irregular and that they must be ridden in close order! But, my honored friends of all arms, all the saying and writing in the world will do nothing if it is confined to talking and fault-finding, and no one goes upon the field and demonstrates *why* the attack is *irregular* and *how* it is to be *remedied*. The regulations show how an attack is to be made on the level drill ground. Still more practice is necessary in making an attack upon a moving object. But that is far from sufficient.

If a troop has fortunately overcome all the difficulties of making an attack in line, if it has made attacks in line on the drill ground, even if it has been exercised in attacking moving objects, it will sometimes happen that this same troop will fall into disorder at the grand maneuvers, and reach its objective without cohesion and in disorder, when it should come up like a living wall. Then, there is much fault-finding, criticising and punishing, and the mistake is pronounced quite inconceivable and unheard of; but no one informs the much-reviled leader how, when, and where, the fault originated

It is easy to foresee that the expressions, mob, band, horde, etc., will be immediately heard. But where was the trouble? How is it to be avoided in the future? I never heard an answer given to these questions.

Yet the cause of the failure was very apparent, and was sufficient excuse for it; and a friendly admonition, by simply calling the officer's attention to the cause, would have done more good than the most severe censure. In maneuvers, and in actual campaign, it is an extremely rare occurrence that a cavalry attack is made in a straight line, as practiced upon the drill-ground. Most attacks immediately follow a movement to the flank—a wheel by squadron—or a wheel into line of platoons—followed at the exact moment by the command, "Charge." Most squadron-chiefs, through their zeal and anxiety to act, keep their eyes upon the enemy and give the command, "Charge," with uplifted saber, immediately after the command, "Wheel," and do not look around to see whether the troop has completed the wheel or not. If the wheel is not completed, the wheeling flank cannot come up, and the attack must be irregular, for the pivot has too much the start when it moves off. This fault is much more apt to occur with dashing, bold squadron-chiefs who push forward far in front of their troops to throw themselves upon the enemy. They must be made to understand that, by such over-haste, they bring in question the results of all their care and bravery, and that a look, a single glance upon the situation of their squadrons, must precede their giving the command, "Charge." He who recognizes the root of this evil will see that it is easier to eradicate it by inviting attention to it in a good natured way, than by scolding and wrangling; for it springs from excess of zeal, and desire to act, and not from negligence or indolence.

Concerning the last subject of the exercises in detail that I shall touch upon, I know that my views will not agree with those of most cavalrymen. This is the subject of the so-called minor school of the squadron. Many superior officers of the cavalry firmly believe that this course should be gone through and the greatest precision required at all gaits, that the squadron coming upon the drill in column of files right in front should be able to execute the right about, form threes, form twos, execute the left about, and then wheel into line and stand like a wall. From half an hour to an hour of each day's drill is devoted to this sort of thing. During all this time there must never be a shock, or closing up, otherwise, alas! alas! alas!

When I, with the *naïveté* of a layman, asked the reason of this, I received the answer: "This is absolutely necessary in order to preserve proper intervals when a squadron marching in a long column

comes to a narrow defile." In war, I have never seen the cavalry march otherwise than by threes, and not a single one of all the squadron chiefs whom I have interrogated, has ever made use of the above maneuver. How much care, strength and time is consumed in drumming the school of the squadron into the men's heads! How many horses are injured in the shoulder by being pulled up suddenly; how many are injured in the fetlocks in order to provide against a never occurring, but possible eventuality; how much time and strength could be spared for more important and more practical instruction, if so much value were not placed upon this so-called squadron school, if it were held to be sufficient for each man to know where he should be in the "right about," in wheeling "by threes," "by twos," etc., etc., and if the changing from one formation to another did not make an important part of the inspection! These exercises are so wearisome and annoying to the men that they have become proverbial in the cavalry, and when a cavalryman wishes to state that he administered a severe scolding to some one he uses the expression, "I set him right about." It would be much more to the point if they were taught to take up the trot in long columns, rather than the passage from one formation to another, for the chief thing is, that the gait, order, and cohesion should be good under all circumstances, and not that the changes of formation should be well executed. Is there still a cue hanging behind us which it would be well to cut off? My comrades of the cavalry will certainly not take this expression in bad part for I am certainly not unfriendly to them. Many squadron chiefs will certainly be thankful to me, and will say: Yes, if the regulations will provide that this squadron school shall not be inspected with the precision of a battalion of infantry, then I shall not weary my men so much with it.

## NEW DRILL REGULATIONS FOR CAVALRY, U. S. ARMY.\*

### SCHOOL OF THE TROOPER — *Continued.*

#### *Training Horses.*

555 As in the U. S. Cavalry service but few horses are, as a rule, issued at a time, it ought to be possible in each troop to intrust their education to a few picked men, who should not be changed until the horses are sufficiently instructed to take their places in the rank.

Horses are trained by the best horsemen, under the supervision of an officer or non-commissioned officer, and the men employed in this most important part of the horse's education must be selected for their natural fondness for animals as well as for their patience, coolness and intelligence.

It should be carefully impressed upon the men that the horses may be made gentle and obedient by patience, kindness and fearlessness; that punishment is only resorted to when necessary, and then only administered immediately after the commission of the offence, that he may know why he is punished. No punishment should ever be administered to the horse in anger.

Restlessness and impatience frequently arise from exuberance of spirits or playfulness, which must be carefully distinguished from that which arises from viciousness and timidity. When restless, the horse should be handled quietly until he becomes calm; when submissive after punishment he should be treated kindly.

The power and qualities of the horse can best be brought out by kindness and encouragement. If harsh treatment is adopted he will become timid, then sullen, and at length violent and unmanageable.

The man should endeavor to inspire him with confidence, and he should gradually be accustomed to firing, beating of drums, etc.; and as one horse is apt to be governed by the actions of another, trained horses, which are indifferent to such sounds, should be interspersed among the new ones.

\*The publication of the New Drill Regulations for Cavalry commenced with No. 5, of the *USARV*, June, 1881.

The first object to be attained in training the horse is to render him gentle and tractable by progressive lessons. For this purpose all proper means must be employed, such as feeding, handling, patting him, taking up his feet, etc., and the practice of the longe.

When the horse will allow his feet to be readily handled and lifted, the trooper should practice gently tapping them to accustom him to the action of shoeing.

The trooper must endeavor to discover the horse's natural inclinations and to gain a thorough knowledge of his abilities, in order that he may know how to take advantage of these qualities in the future.

Every action of the soldier should have a tendency to induce the horse to have a full confidence that no harm is intended and nothing but kind treatment is to be expected.

On arriving at the troop the new horses should be led into stalls adjoining old and quiet horses and the troopers in approaching them for any purpose should do so quietly, and always take care to speak to them and gradually accustom them to their presence; they should be carefully fed and gradually accustomed to the government forage ration; as many of them will be entirely unused to eating oats, corn or barley, great care must be taken or serious trouble will follow. By commencing with the larger part of the ration consisting of hay, and bran, and, where possible, crushing or grinding the feed, the horse will gradually be brought to the habit of eating the service ration without injury to himself.

From their arrival the horses should be exercised one or two hours daily in the open air. For this purpose the new horse will be equipped with the halter only, and led by the trooper in charge of him, who will be himself mounted on a well trained horse. After a few days a bit may be placed in the young horse's mouth and the reins tied loosely and thrown over his neck.

#### *The Cavesson and Longeing (Plates).*

556. The cavesson is a light halter, with the brow-band, throat-latch and cheek-pieces like the bridle head-stall, and has a nose-band that may be adjusted with a buckle. A ring in which to fasten the longeing strap is attached to the front part of the nose-band about two inches in front of each cheek-piece square; there is also a running ring in the chin strap for the longe. The longeing strap is from twenty to thirty feet long. The lariat may be used.

The snaffle bridle having been properly fitted, the horse should be encouraged and the cavesson put on; the nose-band should be

placed about three inches above the nostrils, so as not to affect the horse's breathing; it should act both as a nose-band and curb, and should go over the snaffle. It must not be buckled so tightly as to make the horse uneasy. An additional strap from cheek-piece to cheek-piece under the jaw-bone will keep the cavesson back from his eyes. These preparations should be made with great care so as not to alarm the horse.

The first lesson to be taught a young horse is to go forward. Until he does this freely nothing else should be required of him. When he obeys freely he should occasionally be stopped and caressed.

The practice of the longe is to supple and teach the horse the free and proper use of his legs. It thus aids in forming his gaits and in fitting him for the cavalry service.

This lesson should be begun on a circle from fifteen to twenty feet in diameter. As horses are usually fed, watered, saddled and led from the near side, they are inclined to lead better from that than the off side. It will therefore generally be found necessary to give two lessons on the right to one on the left.

If a horse hesitates or stands still when he is ordered to move on, he should be encouraged, as such hesitation oftener comes from fear or ignorance as to what is required than from obstinacy or vice.

The horse is first led several times round the circle at a walk. A man with a whip follows at a short distance and shows the whip occasionally if the horse is inclined to hang back. If this does not produce the desired effect, he should strike the ground in rear of the horse and at length touch him lightly with the whip until he obeys. After he has begun to move freely at the walk the man holding the longe should gently urge him to trot and gradually lengthen the rein so that the horse may scarcely notice it; he should continue to go round the circle at an active pace nearly opposite the horse's shoulder so as to keep him out and press him forward.

If the horse takes kindly to this lesson the man holding the longe may lengthen it by degrees, until he has only to turn in the same spot, the man with the whip being careful to keep the horse out to the line of the circle.

Should the horse break his pace, or plunge, the rein should be shaken horizontally without jerking, until he returns to the trot.

The trooper holding the longeing rein should have a light and easy hand. For the first two or three days the horse must not be urged too much; if he goes gently without jumping or resisting, enough is accomplished. He should be longed to the right, left and right again, changing from the trot to the walk and back again in

each case. He should be frequently halted by gently feeling the rein and speaking to him; and at the conclusion of each lesson, the rein should be carefully shortened and gathered up in the hand and the horse-led to the center of the circle and caressed before being dismissed.

After a few days of the above practice, the horse may be urged a little more in the trot, but the greatest care and attention are requisite to teach him to use his limbs without straining them. Much harm may be done in this instruction by a sudden jerk or a too forcible pull of the longe.

Care must be taken that the lessons are not made so long as to fatigue or fret the horse. At first they should be short, and gradually increased in length as the instruction progresses. The man holding the longeing rein should take it short in one hand, at the same time patting and rubbing the horse about the head and neck with the other; he should then try to bend the horse's neck a little to the right and then to the left by means of the longeing rein; the bend should be in the very poll of the neck, and this exercise should be repeated at the end of each lesson, cautiously and by slow degrees, until the horse responds easily; this will greatly facilitate the future instruction of the animal. The longe will be used to instruct the new horses, especially if timid, to jump the bar and ditch.

Before commencing the bending lessons, it is well to give the horse a preparatory one of obedience, to make him sensible of the power man has over him. This first act of submission will prove of great service; it makes the horse quiet and gives him confidence, and gives the man such ascendancy as to prevent the horse at the outset from resisting the means employed to bring him under control.

Go up to the horse, pat him on the neck, and speak to him; then take the reins off the horse's neck, and hold them at a few inches from the rings of the bit with the left hand; take such position as to offer as much resistance as possible to the horse, should he attempt to break away; hold the whip in the right hand, with the point down; raise the whip quietly and tap the horse on the breast; the horse naturally tries to move back to avoid the whip; follow the horse, at the same time pulling against him, and continuing the use of the whip; be careful to show no sign of anger nor any symptom of yielding. The horse tired of trying ineffectually to avoid the whip, soon ceases to pull, and moves forward; then drop the point of the whip and make much of him. This repeated once or twice, usually proves sufficient. The horse having found how to avoid the

punishment, no longer waits for the application of the whip, but anticipates it, by moving up at the slightest gesture.

557. The running-rein is of great value in teaching a horse to keep his head in a proper position, and affords valuable aid in his first handling. If judiciously used it saves the rider a great deal of trouble and the horse much ill usage, and simplifies the subject of bits and biting. It is especially useful in controlling horses that are inclined to bolt.

It should act directly on the snaffle-bit itself and is wholly independent of the reins.

The running-rein consists of three parts: the chin-strap, rein and martingale.

The *chin-strap*, about six to eight inches long, on which is suspended a loose ring, is fastened to both snaffle-bit rings. The *martingale* has only one ring; the loop, through which the girth passes, is made adjustable by a buckle. The martingale is so adjusted that when taut, the ring will be on a level with the points of the horse's shoulders. The *running-rein* is about eight and a half feet long; one end is buckled into the near pommel-ring; the free end is then passed through the martingale-ring from rear to front, thence through the chin-strap ring from left to right, thence through the martingale-ring from front to rear and is held in the rider's right hand.

A pull on this running-rein will act directly on the mouth piece, drawing it back and somewhat downward toward the horse's breastbone.

#### *Bending Lessons.*

558. These lessons should be given to the horse each day, so long as the snaffle-bit is used alone; but the exercise should be varied, so that the horse may not become fatigued or disgusted.

The balance of the horse's body, and his lightness in hand, depend on the proper carriage of his head and neck.

A young horse usually tries to resist the bit, either by bending his neck to one side, by setting his jaw against the bit, or by carrying his nose too high or too low.

The bending lessons serve to make a horse manageable by teaching him to conform to the movements of the reins, and to yield to the pressure of the bit. During the lessons the horse must never be hurried.

559. *To bend the horse's neck to the right.* Take a position on the rear side of the horse, in front of his shoulder and facing toward his neck; take the off rein close up to the bit in the right hand, the near rein in the same way with the left hand, the thumbs toward each



other, the little fingers outward; bring the right hand toward the body, and at the same time extend the left arm so as to turn the horse's head to the right.

The force employed must be gradual, and proportioned to the resistance met with, and care must be taken not to bring the horse's nose too close to his chest. If the horse move backward, continue the pressure until, finding it impossible to avoid the restraint imposed by the bit, he stands still and yields to it.

When the bend is complete, the horse holds his head without any restraint, and chomps the bit; then make much of him, and let him resume his natural position by degrees, without throwing his head around hurriedly.

A horse, as a rule, chomps the bit when he ceases to resist.

The horse's neck is bent to the left in a similar manner, the man standing on the off side.

560. *To arch the horse's neck.* The trooper at Stand to Horse Cross the reins behind the horse's jaw, taking the near rein in right hand, and the off rein in the left hand, at about six inches from the rings, and draw them across each other till the horse gives way to the pressure and brings his nose in. Prevent the horse from raising his head by lowering the hands. When the horse gives way to the cross-pressure of the reins, ease the hand and make much of him.

561. *To make the horse lower the head.* The trooper will now mount, and, taking the right rein in the right hand, the left rein in the left hand, will lightly feel the mouth of the horse. Then holding the hands low, he will play with the bit, gently drawing in the reins as the horse drops his nose. When the horse, opening his mouth, yields the lower jaw to the bit, and brings in his head so that the face is vertical to the ground, the rider will release the tension of the reins, and caress the horse for his obedience. By degrees the horse can be taught to depress the head to any extent.

562. *To make the horse elevate the head.* The rider will induce the horse to elevate his head by holding the reins separated, as described above, and with arms extended forward, make light pulls upward upon the reins. When the horse has obeyed, the rider will lower his hand so that the horse can lower his muzzle, and he will then quietly demand that the face of the animal shall be brought into the vertical position.

563. *To bend the head to the right.* The rider will hold the reins as previously described, and, drawing the right rein toward his body, he will carry the head of the horse a little to the right; the left hand will be used to measure the effect of the other, to keep the

face of the horse vertical, and to aid in keeping the jaw pliant. The rider should be satisfied with slow progress, but in time the head should be brought round so that the face, with the nose down, shall look to the rear. By this exercise the whole of the head and neck are supplanted and made submissive. After the head has been bent to the right, the left hand, supported by the right hand, will carry the head back to a line with the body, and the vertical position of the head will be demanded by a play of both reins. In a similar manner the head will be bent to the left.

564. After the horse has submitted quietly to this instruction he will be required to move forward.

For this purpose the rider takes the snaffle rein in each hand and feels lightly the horse's mouth; the man with the longe leads the horse forward and longes him first to the left and then to the right, at a walk; if the horse shows any disposition to kick or plunge, the longe is shaken lightly to engage his attention and keep up his head.

After a few times the rider dismounts, the horse is petted and dismissed.

These lessons are continued until the horse can be made to go forward, to the right and left, to halt and rein back by gentle application of the aids.

#### *Throwing the Horse, etc.\**

565. The horse is considered as an animal of a single idea: that he has no reasoning faculties beyond the limits of his experience, and consequently that we reason with him by acts alone. Early impressions are seldom forgotten and it is important that each move be correctly begun. In familiarizing him with objects that excite his fear or timidity, the horse should be allowed to smell or touch them with his nostrils, for in a certain sense they are to him what the fingers are to man.

The basis of the following system is the *throwing* of the horse, by which, in a personal contest, he is convinced of his own helplessness and of man's power over him. He is thus made to submit to man's control without exciting his resentment or suffering any other physical pain than that resulting from his own resistance.

The application of this system supposes the man to act with deliberation and good judgment; to speak with a kind voice and never to use harsh treatment; also that each trooper train his own horse, that the result may be to the benefit of both man and horse.

\*The Tactical Board expresses its appreciation to Captain G. A. Dorn, Third Cavalry, for its indebtedness for communication on this subject, transmitted by the Adjutant-General, U. S. A.

During each drill every horse present will be thrown or made to lie down three or four times, and in exceptional cases oftener. The application of the system will at first be confined to simply throwing the horse or making him lie down; and later to firing in the vicinity and then around and over him while in the recumbent position. These results are attained progressively. The system may also be applied for the purposes of disciplining refractory horses at mounted formations.

To attain the most satisfactory results the system must be applied with persistence and without long intermissions.

Intallible rules cannot be laid down for the proper training of all horses, as it will be found that each horse requires peculiar treatment.

566. The method explained is a modification of the one generally known as "RAREY'S Method." The horse is equipped with the watering bridle and surcingle. The surcingle is buckled securely, not tightly, around the horse's body just back of the withers. The horse is taken to an open space, preferably covered with turf, free from stones, sticks, glass, etc., to prevent injuring the horse's knees. The trooper is provided with two strong straps. "No. 1" is about ten feet long; one end of it about one inch wide, is made into a loop, or has an iron ring sewed fast. "No. 2" is about three feet six inches long, and from one and a half to two inches wide; one end having a strong buckle and two keepers (one on each side of the strap). In the absence of straps as specified, the halter strap may be substituted for "No. 1," and the stirrup strap for "No. 2."

♦ Put No. 1 strap once around the off fore pastern, passing the free end of the strap through the loop or ring, making a slip loop, draw the strap taut and pass the free end over the horse's back from the off side and under the surcingle from front to rear, the free end hanging down on the near side; see that the loop around the pastern has no twist in it. Pass the free end of "No. 2" through the inside keeper and make a slip loop; raise the near fore foot, place the loop around the pastern with the buckle outside and draw it snug; raise the heel against the forearm, pass the free end of the strap, from the inside, over the forearm and buckle the strap sufficiently tight to hold the leg in this position. Let the bridle reins either hang down or place them on the neck; it is important that the off fore foot be kept from the ground after the horse first raises it, and this will be more surely secured if both hands are used at strap "No. 1" during the first plunge, although the horse will be prevented from plunging so violently if the reins be held in the hand and pulled down to prevent raising the head.

The trooper takes his place on the near side of and close to the

horse behind the surcingle, the left foot in advance; the left hand grasps securely the free end of "No. 1"; if long enough make a turn around the hand; the right hand grasps the same strap loosely, fore fingers close to surcingle, back of the hand against the horse's back. Quietly and gently urge the horse to move; the instant he raises his foot pull the strap quickly downward with the left hand bringing the heel against the forearm, the strap slipping through the right hand which should be kept in place, but which grasps the strap as soon as the foot is sufficiently raised, and holds it firmly; make a turn with the strap around the right hand and take both reins in the left hand on the near side of the horse. The horse is now brought to his knees, raising the horse's nose well to the left and raised, placing the right shoulder and arm against the horse's side thus indicating to him that he is to lie on his right side. It is probable that he will rear and plunge to free himself from restraint, but as he moves, so should the trooper, maintaining his relative position to the horse and a firm hold of the strap. Many horses will remain in the kneeling position for some time, and this they should be permitted to do until ready, at their own volition, to lie down; the trooper should not urge his horse further than by commanding *down*, in a deliberate but gentle voice, and this word is repeated at opportune times until the horse goes down; no other word should be permitted. The trooper will not be allowed to *push* the horse down, one object of this training being to teach the horse to lie down of his own volition, at command. After plunging about until exhausted, the horse will remain a short time in the kneeling position and then lie down. The trooper maintains his hold of the strap and reins until the horse is quiet and shows no immediate disposition to attempt to rise; or he has the strap and reins so placed that he can grasp them directly the horse attempts to get up.

To dispel his fears and reconcile him to his unexpectedly assumed position he should now be petted, spoken to in a kindly tone of voice, and generally made much of. When he becomes quiet and ceases to struggle, the trooper should pass around him, handle his feet, straighten out and rub his legs. If the horse shows no inclination to rise before being told to do so, the strap may be unfastened and removed, but so long as the eye shows a wild, startled expression the strap should not be removed. The eye is a true index of the horse's feelings and disposition, and if closely observed will always betray his intentions.

After remaining in the lying position for a short time, after the straps have been removed and he no longer struggles or attempts to

rise, or if he attempts to rise and he cannot be prevented from doing so, the trooper should raise the horse's head a little with the reins and command: Up.

When the horse gets up, he should be made much of and given to understand that he has done what was desired of him. Repeat this exercise three or four times at the first drill. In subsequent drills it may be had from three to eight times. It will be found better not to have the exercise repeated in rapid succession lest the horse become discouraged and disgusted.

*To Teach the Horse to Lie Down Without the Strap.*

567. The horse having been thrown and handled for several successive days, and there being reason to suppose he understands for what purpose the straps have been used, he may be taught to lie down without using them. The horse is equipped as before. The trooper raises the near fore-foot and holds it in the position as when strapped up, with the left hand, which also holds the reins; with the right hand he grasps the surcingle and pulls downward and commands: Down; holding the left fore-leg on the bent position until the horse drops on both knees. If the horse be slow in dropping on his knees, the trooper may lightly touch him on the off fore-leg, at the same time commanding: Down; under no circumstances should the leg be kicked or force used to compel the horse to bend his knees. If the horse has been sufficiently and properly instructed, he will kneel and lie down, after which he should be caressed and made much of. If the horse refuse to lie down both straps should be used at once, and the horse thrown several times before making another attempt to get him down without them.

If, however, the horse has obeyed the command, he should not in the earlier lessons be required to get down oftener than three times at each drill, nor should he be kept down longer than a few minutes.

*To Teach the Horse to Lie Down at the Command of the Trooper.*

568. The trooper holds the reins in the left hand; he lightly taps the horse on the leg with the right hand and commands: Down; the horse will probably turn round on his forefeet a few times, with head lowered, to make an examination of the ground, then drop on his knees and lie down. He should then be made much of. If the horse refuses to obey the command, raise the foot as in Par. 567, and if still obdurate use both straps as in Par. 566. But the trooper must persevere until by one of the methods the horse is compelled to lie down. It is at this stage that the greatest care and patience must be exercised, as harsh treatment, ill temper or failure to compel the horse to obey may defeat the advantage of previous instruction.

*To Teach the Horse to Remain Quiet after Having Been Thrown.*

569. It will be found that some horses, even after having been repeatedly thrown, will refuse to lie quietly after the straps have been removed. In such a case after the horse has been thrown the free end of strap "No. 1" should be brought down and fastened to "No. 2" on the near leg so as to keep the off fore leg in the bent position. The trooper may now quit the horse and permit him to struggle, kneel or plunge, without restraint, until exhausted and willing to lie down and remain quiet. The trooper should now handle him; if the horse makes no further struggles to free himself, and the eye indicates submission, the straps should gradually be removed. This lesson should be repeated until the horse remains quiet while lying down.

570. To hold the horse after the straps have been removed, place the knee against the horse's head just behind the ear, and securely holding the reins close to the bit, raise the horse's nose off the ground.

*To Accustom the Horse to the Report of Fire-arms.*

571. This part of the horse's education should not be commenced until he has become so familiar with the straps that he makes no resistance when they are applied, and has become accustomed to lying down. The trooper is armed with a revolver loaded with blank ammunition. The horse is thrown and secured as in Par. 569. He is then shown the pistol, allowed to smell it, made familiar with the sound of the cocking and the falling of the hammer, the trooper at the same time talking to and caressing him to allay his fears. A blank cartridge is fired near him. The horse will be startled, but his fears will be dispelled by kind words and caresses. The horse's fears having been quieted other shots will be fired, but the same precaution will be observed after each shot, as enjoined after the first one. At first vicious or very timid horses will probably rise to a kneeling position after each shot.

Great care should be exercised that the pistol be not discharged too near the horse's ears or so close to him that the powder will burn him; a horse once injured in this way will nearly always be nervous in the presence or during the act of firing.

This lesson is repeated several times. When the horse no longer flinches materially, nor struggles after a shot is fired, the straps may be removed and the drill continued; the trooper, however, places himself in a position to hold the horse down in case he attempts to get up.

The horses having been instructed individually will be made to lie down on the skirmish line and accustomed to the firing by volley and at will.

A horse having been thoroughly trained to remain quiet lying down during firing, will generally be indifferent to the firing under other circumstances, provided he has not suffered an injury from the fire-arm.

#### *Management of Vicious Horses.*

572. After a stubborn horse has been thrown several times, it may happen that he will not permit his fore foot to be strapped up, or a vicious horse may resist by rearing, plunging or kicking. In such cases another strap, "No. 3," may be necessary. It is simply a leather surcingle in which two iron rings, two feet, six inches apart are securely fastened. Two long straps "No. 1" are used. One is placed on each front pastern without raising the foot, the free end being run through one of the rings on the surcingle, and then both are held as a pair of driving lines by a trooper in rear of the horse; another trooper approaches and attempts to take up the near fore foot. When the horse strikes, rears or plunges, the trooper in rear pulls the lines taut and the horse is brought to his knees; after this is repeated several times the horse will allow his foot to be strapped up. Should the horse stand or refuse to move the whip may be used.

#### *To Discipline Refractory Horses.*

573. This same principle is used for disciplining horses which rear, plunge or buck when the trooper is mounted. In this case the mounted trooper retains hold of the straps and exerts sufficient force, when the horse is refractory, to bring him to his knees. This same means may be used to discipline horses which refuse to carry double; the trooper in rear holding the straps.

#### *To Break the Horse of Kicking.*

574. The horse is thrown: A "No. 1" strap is secured to each hind pastern; the free end of each is passed through the rings of "No. 3" and fastened to the bit rings. The horse is then made to get up and every provocation resorted to to make him kick. This is continued until he refuses to move his hind legs. The method used in Par. 572 is useful in this connection.

575. Another method for disciplining horses that balk, buck, etc., is to whirl them. The trooper being on the near side of the horse takes hold of the halter strap or bridle reins with the left hand about one foot from the head, draws the head around to the left, passes the

right hand over the rump, grasps the tail and makes the horse turn rapidly to the left several times until the horse becomes dizzy and nearly ready to fall. To start him and give celerity to his movements administer an occasional blow with the top of the foot across the buttock. By this method the will of the horse is brought into submission by a few moderate efforts of the trainer, lasting only a few seconds each.

576. Another method for throwing a horse for disciplinary purposes: Being mounted, reach forward with the right hand to the right of the horse's neck, grasp the left branch of the bit, pull the horse's head well around to the right, the nearer to his side the better; carry the right leg near to the left as in dismounting; make a sudden lurch to the horse's left thus throwing him off his center of gravity and bringing him to the ground; as the horse falls, the rider must push himself away from the horse, else he will fall under him.

577. Horses that shy, etc., may be treated in this way: Tie a rope with a slip knot around the body over the loins; the free end of the rope under the horse is passed between his fore legs and carried up through the halter ring and made fast to a suspended rope, sustained in place by guy ropes to prevent too much lateral motion.

The object in having a suspended rope is to prevent the horse from hurting himself and yet allow him freedom to move his branches around. The picket rope if high enough will do.

The horse being thus secured, such articles as robes, blankets, etc., of which he may have shown fear are brought into his sight and he is encouraged to smell or touch them. Pistol firing, etc., is practiced until he ceases to show signs of alarm.

#### *Gaits of Horses.*

578. The *gaits* are the walk, trot, canter and gallop.

The *walk* is at the rate of four miles an hour, or one mile in fifteen minutes, or one hundred and seventeen and one-third yards in a minute.

The *manoeuvring trot* is at the rate of eight miles an hour, or one mile in seven and one-half minutes, or two hundred and thirty-four and two-thirds yards a minute. For purposes of individual instruction the rate of the trot may be diminished to the rate of six or six and a half miles an hour by the commands "Slow trot." At the command "Trot out" the rate is eight miles an hour.

The *canter* is at the rate of eight miles an hour and is generally used for individual instruction.

The *manoeuvring gallop* is at the rate of twelve miles an hour,

or one mile in five minutes, or three hundred and fifty-two yards a minute. The length of the stride is about ten feet.

The *full or extended gallop* is at the rate of sixteen miles an hour.

The *charge* is at full speed, and is determined by the speed of the slower horses.

To instruct in the maneuvering cadences, stakes are placed on the drill ground, on a convenient line for a long track, one hundred and seventeen and one-third yards apart. The troopers and guides are required to march over the spaces at the rate of one, two or three per minute according as the gait is the walk, trot or canter, or the gallop.

Instruction in each of the gaits must be practiced, individually and collectively, until each shall know whether he has the proper speed or cadence by the *rhythm of motion*.

Horses may be trained to walk in column under favorable conditions, four and one-quarter miles an hour, making 125 steps a minute, the stride being 0.98 yard.

The average walk of a horse is a mile in sixteen minutes, 3.75 miles an hour, making 120 steps (110 yards) each minute, the stride being 0.916 yard.

The average trot of a horse is a mile in eight minutes, 7.5 miles an hour, making 180 steps (220 yards) each minute, the stride being 1.22 yards; the trot for a column in route marches is at the rate of six and one-half miles an hour, one mile in nine minutes and four-tenths seconds.

Multiply the number of yards passed over in one minute by .0341, or in one second by 2.046 and the result will be very nearly the rate of miles per hour.

#### *Analysis of Gaits.*

579. The walk is a gait of four distinct beats, each foot being planted in a regular order of succession: e. g., right fore-foot, left hind-foot; left fore-foot, right hind foot, and so on.

The trot has two distinct beats: the horse springs from one diagonally disposed pair of feet to the other pair; between the steps all the feet are in the air.

The canter has three beats, the regular order of succession being, e. g., right hind-foot, left hind and right fore-foot, left fore-foot, and so on. From the left fore-foot the horse goes into the air when cantering to the right hand.

The gallop has four beats, the regular order of succession being, e. g., right hind foot, left hind-foot, right fore-foot, left fore-foot, and so on; from the left fore-foot the horse goes into the air when galloping to the right hand.

#### *Swimming Horses and Fording.*

580. As it is often necessary for cavalry to cross streams by swimming, the exercise is important for young horses, to give them confidence.

The horses at first are equipped with the watering-bridle, and are without saddles. The reins are on the horse's neck just in front of the withers and knotted so that they will not hang low enough to entangle the horse's fore-feet; care being taken to have them loose enough to permit the horse to push his nose well out and to have entire freedom of the head. The horse should be watered before putting him into the stream.

The trooper mounts, rides into the stream and when he gets into deep water, drops the reins, seizes a lock of the mane with the upstream hand, allows his body to drift off quietly to the downstream side of the horse and floats or swims flat on the water, guiding the horse as much as possible by splashing water against his head, only using the reins when the splashing fails. The horse is easily controlled when swimming; he is also easily confused; it is therefore necessary that the trooper should be gentle and deliberate. The trooper must be cautioned that pulling on the reins is apt to pull the horse over backwards. When the horse touches the bottom at the landing the trooper pulls himself on the horse's back and takes reins. The trooper will be cautioned that when the horse touches bottom he may begin to plunge.

The trooper may also be required to swim holding the horse's tail, allowing the horse to tow him.

After the trooper and horse have gained confidence, the trooper may be required to be seated on his horse while swimming. The trooper's weight presses the horse down and impedes his movements. The trooper should hold the knees well up to lessen the resistance, and steady his seat by holding on the mane or the pommel of the saddle.

The troopers will also be practiced in swimming the horses when fully armed and equipped. The stirrups will be crossed and secured. The sling belt will be taken off the person but attached to the carbine, which will be carried at "advance carbine;" the sling is left attached to assist in recovering the carbine if it should be dropped in the water; the horse is guided by the hands. The men are instructed in crossing running water, to keep their eyes fixed on the opposite bank.

581. When large, swift rivers are to be swum, too hazardous for all the horses to be ridden, the bridle reins are secured to avoid the danger of their being caught by the horse's foot, or that of an-

other horse swimming close to him, the stirrups are crossed and secured; a trained horse is selected for a leader and is ridden without a saddle; all the horses are led or driven to the approach and can generally be made to take the water without much difficulty. The approach should be selected at some distance above the landing. It is practicable a few horses should be taken over and placed at the landing, and some men stationed near them to receive the horses as they land.

If there be a pontoon bridge in the immediate vicinity, the crossing should be below it.

When a horse is towed or led from a boat, he should be held astern of the oars, and on the down stream side or in the wake.

582. When a stream with a treacherous bottom is to be forded, stakes or brushes should be placed so as to mark the limits of the ford, or may be placed so as to mark the dangerous places only. When the stream is to be forded at night, lighted lanterns should be fastened to the stakes and one displayed at the landing, or a fire built there.

583. When the stream has a swift current and the water is above the horses' bellies, the subdivisions should cross with as wide a front as practicable, to permit a freer flow or prevent damming of the water which might carry a horse off his feet. The column of twos is less objectionable in crossing a dangerous ford than a column of fours.

Cavalry should generally cross streams above infantry or so far below that the water will not be dammed against them.

584. It sometimes may happen that there are no means of crossing the men who cannot swim. In this case the horses are placed in column, the halter strap of each horse is tied to the tail of the horse preceding. Those men who cannot swim are mounted on their horses. A trooper who can swim is mounted on a leader and he leads the first horse in the column with a lariat.

This method is hazardous, and much depends upon the coolness and skill of the leading trooper and horse.

#### CAVALRY HORSES.

585. Cavalry officers should make themselves thoroughly acquainted with the natural history and physiology of the horse, and with the effects of different methods of treatment, changes of diet, etc., upon his system and powers of endurance. An officer deficient in such knowledge will either have a troop lacking in efficiency and reliability, or make necessary the expenditure of large sums to supply the troop with remounts. Cavalry officers should familiarize themselves with the best methods of breaking and training horses.

All cavalry officers should have a familiar knowledge of the symptoms and methods of treatment of the diseases that are common to horses, what to do in emergencies, and a good knowledge of the effects of the medicines supplied to the troop.

It is the duty of the commanding officer to have his officers instructed in the foregoing requirements. To this end he prescribes such recitations and practical instruction as may be necessary, and frequently requires them to be present when sick horses are being treated and when horses are being shod.

586. Horses when received at the regiment, are assigned to troops according to color, under the direction of the commanding officer. They are branded on the near hip with the number of the regiment and the letter of the troop.

Each captain makes permanent assignments of horses to men. After a horse has been so assigned, his rider will not exchange him, nor allow him to be used by any other person, without the permission of the captain.

587. Troop commanders, the adjutant, and the regimental quartermaster, will keep a descriptive book of the animals under their charge, showing the name, sex, age, size, color, marks, brands and special peculiarities of each; how and when acquired; how long each has been in the service, and his fitness therefor; the particular use to which he is applied and the name of his rider. The date and cause of the death or transfer of every animal will also be recorded.

588. Taking the useful effects of a man's daily labor as unity, a horse can carry a load on a horizontal plane from 4.8 to 6.1.

A horse carrying a soldier and his equipments, say 225 pounds, travels twenty-five miles in a day of eight hours, including ordinary resting stops. A pack animal can carry 200 to 240 pounds for the same distance.

Ice of from 4.5 to 6.5 inches thick will bear cavalry marching in column of troopers or twos.

#### *Treatment and Care of Horses.*

589. Horses require gentle treatment. Docile but bold horses are apt to retaliate upon those who abuse them, while persistent kindness often reclaims vicious animals.

A horse must never be kicked or struck about the head with the hand, reins or any instrument whatever.

At least two hours' exercise daily is necessary to the health and good condition of horses; they should be marched a few miles when cold weather, muddy ground, etc., prevents drill.

Horses' legs will be often hand rubbed, particularly after severe exercise, as this removes enlargements and relieves or prevents stiffness.

In mild weather, the sheath will be washed occasionally with warm water and castile soap, and then greased; in cold weather, when necessary, the sheath should be greased.

Horses used freely in snow and slush, cannot with impunity be placed in a hot stable with littered stalls.

The greatest pains will be taken in the fitting of the saddles; sore backs are generally occasioned by neglect, and the men must never be allowed to lounge or sit unevenly in their saddles.

#### *Sick Horses.*

590. In the absence of a veterinary surgeon, the horses on sick report are under charge of the stable sergeant, who reports daily to the captain for instructions as to their treatment.

In treating sick horses, it is to be observed that very little medicine is ordinarily required, and that unnecessary doses do a great deal of harm.

If a horse sustain an injury, neglect his feed, refuse his water, or give any evidence of illness, it will be at once reported.

No horse on sick report will be taken from the stable or picket line for exercise or work, without permission from proper authority.

If there be at any time a suspicious discharge from one or both nostrils of an animal, it must be immediately reported.

To prevent contagion to man or beast, an animal who shows any decided symptom of glanders is to be isolated at once and confined or tied up in some locality where no other animal can approach him.

A glandered horse should be killed as soon as possible. The stall in which he stood is torn down and all the wood work burned, and the iron work disinfected, or otherwise it is closed, and must remain empty until the rack, manger, and every part of the iron and wood work, as also the vessels used in watering and feeding, and his saddle and bit, have been three or four times thoroughly washed with a five per cent. solution of carbolic acid or a one to 1000 solution of corrosive sublimate; all parts to which it has been applied, should be thoroughly scrubbed with hot water to remove all traces of the poisonous salt. The application of a lime-wash to all the stalls, after complete disinfection, will be desirable. Small articles such as bits, etc., can be disinfected by keeping them immersed for a half hour in boiling water. All articles of little value that have been used with a glandered horse, such as halters, bridles, horse-cloths, saddle-cloths,

blankets, nose-bags, curry-combs, brushes, etc., should be destroyed.

Stables occupied by infected or suspected horses should be disinfected daily by washing exposed surfaces with a five per cent. solution of carbolic acid, and nose-bags, halters, buckets used for drinking water, etc., should be carefully washed with the same solution or with boiling water.

#### *General Directions for Shoeing Horses.*

591. In preparing the horse's foot for the shoe do not touch the frog, sole, or bars with the knife. In removing surplus growth of that part of the foot which is the *seat of the shoe*, use the cutting pliers and rasp, but not the knife. The shoeing knife may be used if necessary in fitting the toe clip. *Opening the heels* or making a cut to the angle of the wall at the heel must not be allowed. The rasp may be used upon this part of the foot when necessary and the same applies to the pegs. No cutting with a knife is permitted, the rasp alone being used, when necessary. *Flat footed horses* should be treated as the necessity of each case may require. *In forging the shoe to fit the foot*, be careful that the shoe is fitted to and follows the circumference of the foot clear around to the heels. The heels of the shoe should not be extended back straight and outside of the walls at the heels of the horse's foot, as is frequently done. Care must be used that the shoe is not fitted too small, the outer surface of the walls being then rasped down to make the foot short to suit the shoe, as often happens. Heat may be used in preparing and shaping the shoe, but the hot shoe must never be applied to the horse's foot under any circumstances. Make the upper or foot surface of the shoe perfectly flat, so as to give a level bearing. A shoe with a concave ground surface should be used.

592. Habitually in garrison, at the discretion of the Colonel or commanding officer, the horses will be left unshod. Shoes will be fitted and kept ready to be put on the horses.

#### *Hygiene of Stables.*

593. Foul air and dampness are the cause of many diseases of the horse; hence the importance and economy of spacious, clean, dry and well ventilated stables. Ceilings should be twelve or fifteen feet high, with large ventilators through the roof and a window or side aperture in each stall, which should be placed well above the horses' eyes. If possible, the building should have no upper story or loft.

Double stalls should not be less than four feet six inches by nine feet to each horse, and not less than 1200 cubic feet should be allowed to each horse in the stable.

In stables with a loft, ventilation from the top is always insufficient, and there must be side openings well above the horses, so that the draught will pass over their heads. These openings must never be closed except on the windward side, to keep out the rain or snow.

If the stable is partitioned off into single stalls, each stall should be five feet in width to permit the horse to lie down without difficulty.

A picket line is established in the immediate vicinity of each troop stable, the horses being tied to a hemp or wire rope or chain passed through the picket posts. There should be shallow trenches behind the horses to carry off rain, the ground on which they stand having just slope enough to let water run into the trenches, or there may be a single drain in the center along the line of the picket posts. Constant attention must be paid to maintaining the ground about the picket line in good order.

#### *General Rules for Stable Management.*

594. The following general rules are recommended:

The stable sergeant takes immediate charge of the police and sanitary condition of the stable, picket line, etc., and is the custodian of the forage and stable property generally.

The stable is to be kept thoroughly policed, free from smells, and well lime-washed, but care must be taken that no portion of the stalls which the horse can reach be washed, as the lime will take off the hair and produce unsightly scars. There must be no accumulation of manure or foul litter inside, or near the doors or windows without. The feed boxes are washed from time to time, and kept clean. The ground about the picket line is swept daily, and all dung, etc., carried to the manure heap.

Except at night, when the horses are bedded down, no manure or urine is to remain in the stalls; the stable police remove it as it accumulates.

If practicable, all wood work within reach of the horses and not protected with sheet-iron or other metal should be painted with thin gas tar to prevent its being gnawed. The same precaution may be followed with regard to troughs, picket posts, and picket line. It should be thoroughly dried before putting horses near it.

Smoking in stables, or in their immediate vicinity, is prohibited.

One or more lamps will be hung in each stable to burn during the night.

The horses are stalled according to their positions in the squads, their places at the picket line will be in accordance with the same rule.

The name of each horse and that of his rider are placed over his stall.

Clay is the best for earthen floors, as it packs well. Gravel, or sandy earth, is not suitable.

The sloping of the floor of stalls from the manger to the heel post is injurious and uncomfortable for the animal, which stands in an unnatural position, with the fore legs higher than the hind ones. When the earthen floors are level, the horse will paw a hollow for his fore feet unless he can elevate his hindquarters by backing out of the stall.

Whenever horses go out of the stable, the windows of their stalls are to be kept open, unless necessary to exclude rain or snow or when cold draughts affect the animals in contiguous or opposite stalls.

Stable doors are never closed in the daytime, except to keep out wet or to exclude cold winds which blow on the horses. If the doors are in a single piece, bars are put across the doorway; if divided in half, it will be usually sufficient to open the upper part. At night, the entrance to the stables should be secured in such manner as will prevent the escape of animals.

When circumstances permit horses should be turned loose in a paddock during the daytime or herded under charge of a guard. When this is impracticable they should, except in very cold, windy weather, or in very hot weather where there is no shade, stand most of the day at the picket line, as they have better air and are less confined, while the stables become drier and more healthful.

In ordinary climates, cavalry stables must be kept as cool as possible. If the horses do not stand directly in the draught, the colder the stable the less will they suffer if called suddenly to take the field. For the same reason, horses should never be blanketed in the stable, except during very cold weather in high latitudes.

\* \* \* \* \*

#### *Stable Duty.*

\* \* \* \* \*

#### *Route Marches.*

\* \* \* \* \*

#### SCHOOL OF THE TROOP.

616. The management of the troop, and its effectiveness, are dependent upon the grouping of the men into squads, under the leadership and immediate control of the non-commissioned officers who are held responsible for the discipline and order in camp and quarters, and are trained as leaders of groups for battle.



The objects of the School of the Troop are to confirm the troopers in the previous drills, to prepare the troop to act independently and to take part in the drills and maneuvers of the squadron.

617. When troops are small, two or more may occasionally be united for drill. The troop thus formed is drilled by one of the captains. The lieutenants command the platoons and the sergeants and corporals are posted according to rank. One object of thus uniting troops is to give officers experience in handling a troop of nearly the legal maximum, or war strength.

618. Movements are first taught at the walk, that the mechanism of the movements may be thoroughly understood; habitually thereafter the movements will be at the trot. They will not be ordered so as to succeed each other too rapidly; that is, one movement must be completed before another is ordered.

619. Mounted drills will be frequently conducted without saddles or blankets, also with the saddles packed.

620. The captain may require the chiefs of platoons to repeat such commands as are to be immediately executed by their platoons. In successive movements, each chief will be particular to give his commands at the proper time and place.

621. During the execution of a successive movement, the captain may reduce the gait or command *halt*, at any time; only those units of formation which have completed the movement reduce the gait or halt; the others execute the movement at the original gait. During instruction, for the purpose of correcting errors, the instructor may command: 1. *In place*, 2. *HALT*; all the officers, file-closers and troopers halt at once and remain in place.

To resume the movement, the instructor commands: 1. *Troop*, 2. *MARCH*, and the movement is then completed.

622. The captain is held responsible for the theoretical and practical instruction of his officers and non-commissioned officers. He requires them to study and recite these regulations so that they can explain thoroughly every movement before it is put into execution.

Sergeants should be capable of drilling the platoons; the lieutenants will frequently drill the troop under the superintendence of the captain.

#### *Formation of the Troop.*

623. The troop is formed in single rank and is divided into two, three or four platoons, according to its strength; the division is so made that the platoons may be of nearly equal strength. Habitually the platoons should consist of not less than four nor more than six sets of fours.

When the rank is composed of less than twenty-four troopers the division into platoons may be omitted.

In whatever direction the troop faces, the platoons are designated from the right when in line, and from the head when in column, *first platoon*, *second platoon*, and so on.

624. When the platoon is composed of four or more sets of fours, it is divided into two squads of nearly equal strength, the division falling between sets of fours. A non-commissioned officer is assigned as the leader of each squad and placed as No. 1 of its right four. Non-commissioned officers and experienced privates are assigned as No. 1 of the other fours; in the absence of the assigned squad leader, one of these is designated to take his place.

The squads while in the rank with the troop, are designated as *right squad first platoon*, *left squad first platoon*, etc.; when in extended order or detached, each squad is designated by the name of the non-commissioned officer in command for the time being; e. g. *Sergeant* (or *corporal*) —'s *squad*.

625. The captain may require the troop to be formed so that men of the same squad as provided in Par. 259, A. R., 1889, shall be in consecutive order; this arrangement into squads may be made according to size, so that when the troop is formed the tallest men may be in the center and the shortest on the flanks.

#### *Posts of Officers, Non-Commissioned Officers and Trumpeters in Line.*

626. The *captain* is six yards in front of the center of the troop. As instructor he goes wherever his presence is necessary.

When the troop is divided into two platoons, the *first lieutenant* commands, and is two yards in front of the center of the first platoon; the *second lieutenant* commands, and is two yards in front of the center of the second platoon.

The *first sergeant* is two yards in the rear of the second four from the right; the *second sergeant* is two yards in rear of the second four from the left. They are called respectively the *right* and *left principal guides*; in addition to their duties as principal guides, they are charged with the duties of file closers.

When the troop is divided into three or more platoons, the center platoons, in the absence of officers, are commanded by the senior sergeants, in the order of rank; when there are three platoons, the chief of the center platoon is two yards in front of the right or the left four of his platoon. When there are four platoons, the chiefs of platoons are two yards in front of the centers of their platoons.

One sergeant carries the guidon\* and is posted on the right of the troop; he is not counted in the rank.

Absent officers and non-commissioned officers are generally replaced by the next in rank or grade.

When the trumpeters are not united in the squadron, one trumpeter accompanies the captain and is one yard to the left and one yard to the rear of the captain's horse.

The other trumpeter is in the line of file closers in rear of the second four, to the left of the right principal guide.

#### *To Form the Troop.*

627. In case of alarm or surprise, "*to horse*," is sounded. The men then saddle, pack, bridle and mount with the utmost celerity, and repair to the place of assembly, which is always previously designated.

Except in case of an alarm, the signal "*Boots and saddles*," precedes all mounted formations and is followed after an interval of five minutes, by the assembly.

At the sounding of the "*assembly*," the first sergeant takes his position in front of where the center of the troop is to be formed and facing it, and commands: **FALL IN.**

The guidon places himself facing to the front where the right of the troop is to rest and at such a point that the center of the troop shall be six yards from and opposite the first sergeant; the men fall in as in Par. 137, on the left of the guidon; the other sergeants assist in the formation and take their posts.

The first sergeant brings the troop to the right shoulder, he himself taking that position, and calls the roll; each man answers

#### *\* Position of Carry Guidon (Dismounted).*

The lance of the guidon is held vertically in the right hand, the thumb in front on the lance, the forefinger along the side, the butt about six inches from the ground. It is thus carried in marching.

When leading the horse, the lance is held in a corresponding position in the left hand.

#### *Position of Order Guidon.*

The butt of the lance rests on the ground, one inch to the right of the right toe; the right hand grasps the lance in the same manner as when at a carry.

Parade rest is executed as with the carbine, except that the forearms are nearly horizontal. At the command *attention*, resume the order.

At stand to horse, the butt of the lance rests on the ground one inch to the left of the left toe; the lance is held vertically with the left hand at the height of the neck, elbow and forearm closed against the lance.

At the command *prepare to mount*, raise the butt of the lance slightly from the ground while stepping back; upon halting, place the butt on the ground about one foot in front of the left foot of the horse.

After mounting, pass the lance with right hand under the left, which lets go of it without quitting the reins; raise the lance over the horse's neck between the reins and body, then lower and place the butt in the socket; the right hand then grasps the lance at the height of the neck, the arm through the sling. This is the position of carry guidon, mounted.

"*Halt*," and comes to the order as his name is answered. The first sergeant marches the troop, habitually in column of fours, to the cables, causes the men to saddle, bridle and prepare to lead out.

628. At the signal "*To horse*," the first sergeant commands **LEAD OUT.** The troopers lead out, the guidon, habitually mounted, takes post where the right of the rank is to rest, and faces in the direction in which it is to face; the troopers form on the left of the guidon at stand to horse, in single rank and with intervals of eighteen inches between the horses; non-commissioned officers as far as practicable take their places at once, otherwise they take post in an or and near their places in line.

The first sergeant, mounted, commands: **CALL OFF.**

At this command, the troopers count consecutive numbers from 1 to 4, commencing on the right of the rank. The first sergeant divides the troop into platoons and squads, causes the non-commissioned officers to take their posts, and commands: 1. **Platoons,** 2. **Next fours.** If there be but one trooper in the left four of a platoon, he is ordered into the line of file closers, or assigned to an incomplete four in another platoon; if it consist of two or three troopers, it may work as if a complete four, or that number may be assigned to incomplete fours in other platoons or may be ordered into the line of file closers.

The first sergeant, six yards in front of the center of the troop, turns about so as to face toward the captain, salutes with the right hand, reports the result of the roll call, and then without command takes his post, habitually at a trot or canter.

The chiefs of platoons as soon as the first sergeant reports, take posts ten yards in front of and facing their platoons, and draw their sabers.

The captain takes post twelve yards in front of and facing the center of the troop, he returns the salute of the first sergeant, draws saber, and commands: 1. **PREPARE TO MOUNT,** 2. **MOUNT,** 3. **Form,** 4. **RANK.**

At the command *rank*, the chiefs of platoons move forward, turn to the left about and take their posts.

629. If the formal roll call is to be omitted, the troop, dismounted, may be assembled in column of fours; the first sergeant posts the guidon in or indicates the direction the column is to face; at the assembly the first sergeant commands: 1. **In column of fours,** 2. **FALL IN.**

The men form in column of fours, the leading four abreast of the guidon and between him and the first sergeant.

*To Form the Troop for Dismounted Service.*

630. The men fall in, the roll is called, the troop is formed and turned over, and the officers and non-commissioned officers take posts as at mounted formations, except that the first sergeant salutes with the carbine salute and takes his post at quick time; the sergeants, who in mounted formations have places in the rank, take posts as file closers between the first and second sergeants, and both trumpeters take post in the line of file closers.

Whenever the troop falls in without arms, the men form as when under arms.

Movements by the troop dismounted are executed as explained in the School of the Troop, conformably to the principles prescribed in the School of the Soldier.

*Alignments.*

631. The captain places himself on the flank of the troop towards which he wishes to align the troop, three yards from the point of rest facing to the left or right according as the alignment is to be made to the right or left, and commands: *GUIDES OUT.*

At this command, the guidon moves quickly and takes post at the point of rest, facing to the front; the principal guide on the flank opposite the point of rest moves quickly and takes post a little more than the front of the troop from the guidon, on a line with the captain and guidon, facing to the front; their positions are verified by the captain.

632. The alignments by trooper and troop are executed as explained in the School of the Trooper, Par. 425. The guidon and principal guide may first be established as in Par. 631. In the alignments by trooper, each chief of platoon moves up when the first trooper of his platoon moves out.

The captain may direct the chiefs of platoons on moving up, to face their platoons; each chief of platoon faces to the front when the last man of his platoon has arrived on the line.

The captains, chiefs of platoons and file closers observe requirements of Par. 428.

633. At the command *front*, the captain and the principal guide take their posts. *This rule is general.*

*Being in Line or Column of Platoons, to Dismount.*

634. The captain causes the troop to dismount; at the command *prepare to dismount*, the chiefs of platoons move forward, turn to the left about and halt, so as to be about ten yards in front of their platoons. *This rule is general.*

*Being in Column of Files, or Rows, to Dismount.*

635. Being at a halt, or marching, the captain commands: 1. *PREPARE TO DISMOUNT.* 2. *DISMOUNT.* Executed as in Par. 462.

The chiefs of platoons and file closers turn outward from the column.

*To Rest, and to Resume the Attention.*

636. The troop is rested and called to attention as in Pars. 315 and 316. After dismounting the command *rest* or *stand at ease* may be given either before or after forming rank; the chiefs of platoons dismount and when at rest may leave their places.

637. The troop executes the movements laid down in the Preparatory Lessons for the School of the Troop on the principles therein explained, unless otherwise provided in this school, substituting *troop* for *squad* in the commands.

The same movements are applicable to *platoons, detachments, details*, etc., substituting their designation for *squad* in the commands.

*The Firings.*

638. In the different firings, at the first command, the captain and chiefs of platoons take corresponding positions in rear of the line. After the command, *Cease firing*, the command *Posts* is given, when the captain and chiefs of platoons return to their posts.

*To Dismiss the Troop.*

639. The captain causes the troop to dismount and form rank, and directs the first sergeant: *Dismiss the troop*; the officers return sabers and retire; the first sergeant salutes and the troop is dismissed as in Par. 317.

*To March in Line.*

640. In marching in line, Par. 432, if the guide be right or left, the guidon takes post by the side of the guide on the flank indicated; if the guide be center, the guidon takes post two yards in rear of the guide. He assists in regulating the march of the guide.

In the direct march in line, or in column of platoons, the guidon by his position indicates the direction of the guide. When the guide is changed by command, the guidon changes accordingly.

According as the guide is right, left or center, the chief of the right, left or center platoon is responsible for the gait; the guide preserves the distance of two yards in his rear.

To halt the troop the captain commands: 1. *Troop.* 2. *HALT.*

NOTE.—Par. 4, for 1. *Back rank*, 2. *MARCH*, substitute *FALL OUT*. Par. 26, for 1. *In mass*, 2. *MARCH*, substitute *DISMOUNT*. Par. 317 for 2. *Back rank*, 3. *MARCH*, substitute *FALL OUT*.

*To Pass Obstacles.*

641. The captain breaks the troop into column of fours; or, if the obstacle covers only one platoon, the chief of that platoon breaks it into column of fours to the front on the most convenient flank; as soon as the obstacle is passed, he reforms line.

*Turnings.*

642. 1. *Troop right (or left).* 2. MARCH, is executed as in Paragraph 436.

The chiefs of platoons move by the shortest lines to their new positions; the guidon takes post abreast of the pivot trooper; each file closer follows the trooper in front of him; the captain verifies the alignment from the pivot flank.

643. 1. *Right (or left) turn.* 2. MARCH, is executed as in Paragraph 437.

The guidon does not change position during the execution of the movement. The chiefs of platoons and file closers conform to Par. 642.

*Movements of Fours, Twos and Troopers.*

644. Being in line, to march in column of fours, the captain commands: 1. *Fours right (or left).* 2. MARCH, executed as in Par. 438; or, 1. *Right (or left) forward.* 2. *Fours right (or left).* 3. MARCH, executed as in Par. 444.

Each chief of platoon takes post on the left of the leading four of his platoon.

In column of fours, twos or troopers, the captain marches opposite the center, on the side of the chiefs of platoons and six yards from the flank of the column.

The guide is always without indication on the side towards the chiefs of platoons. The chief of platoon at the head of the column regulates the march of the leading guide.

The guidon marches abreast of the leading four, two or trooper, on the side opposite the chiefs of platoons.

The principal guides march abreast of the second and rear fours, twos or troopers; the other file closers, if there be any, march abreast of the nearest fours, twos or troopers; all on the side opposite the chiefs of platoons.

645. Being in column of fours, twos or troopers, to change the guide, or the chiefs of platoons to the opposite flank, the captain commands: 1. *Chiefs of platoons, on the right (or left) flank.* 2. MARCH.

At this command, the chief of the leading platoon, guidon and leading principal guide pass by the head of the column to their new

positions on the opposite flank; the other chiefs of platoons turn to the left about; the other file closers turn to the right about, change to the opposite flank and hasten to their posts.

The captain passes by the head or rear of the column.

In changing to the opposite flank of the column, the chiefs of platoons pass between the column and the file closers.

646. In wheeling about in column of fours, twos or troopers, the captain turns about and gains the space necessary for his interval from the column; the chiefs of platoons and guidon turn about and hasten to their posts; the file closers turn about individually and take their places abreast of their fours. All turn in the same direction as the fours wheel.

647. In wheeling about in line, the captain and chiefs of platoons pass around the flanks; or when necessary may pass between the fours. The guidon takes his place on the nearest flank or in rear of the center according as he was on the flank or center before the about, or as may be directed by the captain; the file closers pass around the flanks.

648. When the column is wheeled into line toward the side of the file closers, each chief of platoon may pass between his leading four and the rear four of the preceding platoon; the trooper on the marching flank of the leading four slackens his gait to allow the chief of platoon to precede him; when necessary the chiefs of platoons pass around the flanks; the captain and the file closers pass around the flanks; if the line be halted, the guidon takes post on the marching flank of the leading four, unless otherwise directed by the captain.

649. When the column is formed on right (or left) into line toward the side of the chief of platoon, each file closer follows the four nearest him, passing in front of the next following four; the guidon takes post abreast of the leading four on the flank at the point of rest.

650. When the column is formed front into line toward the side of the file closers, each chief of platoon passes in front of his leading four, after the rear four of the preceding platoon ceases to oblique and begins to move forward; the file closers pass around the flanks or between the fours; the guidon takes post abreast of the leading four on the flank nearest the point of rest.

651. The captain in forming line from column of fours goes to his position by the shortest line without passing between the fours.

*Being in Line, to Form Column of Platoons to the Right or Left.*

652. The captain commands: 1. *Platoons right (or left).* 2. MARCH. Executed by each platoon as in Par. 436.

Chiefs of platoons move by the shortest line to their posts in front of their platoons.

The guidon takes post abreast of the pivot trooper of the leading platoon. The position of the guidon in column of platoons is abreast of the leading platoon, on the side of the guide, or side toward which the column is dressed.

The position of the captain in column of platoons is abreast of the center and six yards from the flank of the column on the side of the guide, or toward which the column is dressed.

653. Each chief of platoon as soon as his platoon is dressed, commands: *FRONT*, and takes his post, if not already there. *This rule is general for dressing a platoon column.*

*Being in Line, to March by the Flank in Column of Platoons.*

654. The captain commands: 1. *Platoon's right (or left) to turn*, 2. *MARCH*, 3. *Guide right (or left)*.

Executed by each platoon as in Par. 437.

The chief of the leading platoon is responsible for the uniformity of the gait; the guide of that platoon maintains the distance of two yards from the chief of platoon and is responsible for the direction. The guidon marches by the side of the leading guide and assists in regulating his march. The guides of the platoons following the first preserve the trace of the one next in front and preserve platoon distance.

655. The trace and distance, when lost, are gradually recovered. The trace is recovered by inclining slightly to the right or left. Distances are recovered by a slight increase or decrease of gait. *These rules are general.*

*Being in Line, to Break by the Right or Left of Platoons to the Front into Column.*

656. The captain commands: 1. *Left (or right) of platoons*, 2. *Front into column*, 3. *MARCH*.

At the second command, the chiefs of platoons turning to the left and halting, command: *Left forward, fours left*, and repeat the command *march*; at the command *march*, each platoon executes *left forward, fours left*; as the rear four of each platoon wheels to the front, its chief commands: 1. *Fours right*, 2. *MARCH*, 3. *Platoon*, 4. *HALT*, 5. *Right*, 6. *DRESS*, 7. *FRONT*. The command *march* is given as the rear four completes its wheel and the command *halt*, as the fours unite in line.

The captain and guidon take post on the right flank.

*Being in Line, to Break by the Right or Left of Platoons to the Rear into Column.*

657. The captain commands: 1. *Right (or left) of platoons*, 2. *Rear into column*, 3. *MARCH*.

At the second command the chiefs of platoons turning to the right and halting, command: 1. *Fours right*, 2. *Column right*, and repeat the command *march*; each platoon executes *fours right* and changes direction to the right; each chief of platoon moves forward, turns to the right and hails sons to be on a line with the rank when formed, and allows his platoon to march past him; as the rear four of each platoon wheels to the rear its chief commands: 1. *Fours left*, 2. *MARCH*, 3. *Platoon*, 4. *HALT*, 5. *Left*, 6. *DRESS*, 7. *FRONT*.

The command *march* is given as the rear four completes its wheel, and the command *halt* as the fours unite in line.

The captain and guidon take post on the left flank.

*Being in Line, to March in Column of Platoons to the Front.*

658. Being at a halt, the captain commands: 1. *Right (or left) of platoons*, 2. *MARCH*, 3. *Guide left (or right)*.

At the first command, the chief of the right platoon commands: *Forward*; the other chiefs, *Right half turn*; at the command *march*, repeated by all the chiefs, the right platoon moves forward, its chief repeating the command for the guide; the other platoons make a right half-turn, the pivot trooper in each platoon reining in slightly until uncovered by the platoon on his right; each chief of platoon, on the completion of the half-turn, commands *guide left*, and the platoon marches in the new direction until the left guide arrives near the trace of the leading platoon, when he commands: 1. *Left half-turn*, 2. *MARCH*. The command *march* is given when the guide arrives one yard from the trace of the guide of the leading platoon.

If executed on the march the chief of the leading platoon commands, *Guide left*, as soon as disengaged, and the movement is executed as from a halt. If executed at an increased gait, all the platoons take the gait ordered at the command *march*.

*To Put the Column of Platoons in March.*

659. The captain commands: 1. *Forward*, 2. *Guide (right or left)*, 3. *MARCH*.

*Being in Column of Platoons, to Oblique.*

660. The captain commands: 1. *Right (or left) oblique*, 2. *MARCH*.

In obliquing in column of sub-divisions, the sub-divisions preserve their parallelism to their original front; if the sub-divisions are

unequal in size and the oblique is made towards the side opposite the guide, the guides during the oblique, maintain the same relative position they had at the instant of commencing the oblique.

To resume the direct march, the captain commands: 1. *Forward* 2. MARCH.

*Being in Column of Platoons, to Change Direction*

661. Being in march, the captain commands: 1. *Column right (or left)*, 2. MARCH.

At the first command, the chief of the leading platoon commands: *Right turn*; at the command *march*, repeated by the chief, the leading platoon turns to the right.

The other platoons march squarely up to where the leading platoon turned, and at the commands of their chiefs turn to the right.

As, in turning, the dress is always toward the pivot, without command, each chief upon the completion of the turn, cautions his subdivision *guide right (or left)*, according as the guide was right or left before the turn.

*Column half-right or half-left*, is similarly executed; each chief gives the preparatory commands: *Right (or left) half-turn*.

To put the column in march and to change direction at the same time, the captain commands: 1. *Forward*, 2. *Guide right (or left)*, 3. *Column right (or left)* 4. MARCH.

*To Face the Column of Platoons to the Rear and Halt*

662. The captain commands: 1. *Fours right (or left) about*, 2. MARCH, 3. *Troop*, 4. HALT.

The command *halt*, is given as the fours unite in line; the guidon turns about individually and moves up abreast of the leading platoon, on the nearest flank; the troopers dress to that flank and cast their eyes to the front without command. Should the platoons be unequal in size, the guides regain the trace and distance when put in march.

*To March the Column of Platoons to the Rear*

663. The captain commands: 1. *Fours right (or left) about*, 2. MARCH, 3. *Guide left (or right)*.

*Being in Column of Platoons, to Form Line to the Right or Left*

664. To form line and halt, the captain commands: 1. *Platoon right (or left)*, 2. MARCH, 3. FRONT.

The guidon takes post on the pivot flank of the rear platoon.

Before forming line, the captain, if necessary, may cause the guides to cover at the proper distance; this is usually done by put-

ing the column in march and ordering the guide on the flank toward which the line is to be formed.

665. To form line and halt, the captain commands: 1. *Platoon right (or left) turn*, 2. MARCH, 3. *Guide right, left or center*.

Line may be formed by first forming column of fours to the front and then forming line.

*Being in Column of Platoons to Form Front into Line*

666. Being at a halt, the captain commands: 1. *Right (or left) out into line*, 2. MARCH, 3. FRONT.

At the first command, the chief of the first platoon commands: 1. *Forward*, 2. *Guide left*, the other chiefs command: *Right half-turn*.

At the command *march*, repeated by the chiefs, the first platoon advances thirty yards when its chief commands: 1. *Platoon*, 2. HALT, 3. *Left*, 4. DRESS, the other platoons execute *right half-turn*; on the completion of the half-turn, each chief commands: *Guide left*. When the left guide, marching in the new direction, arrives one yard from the point opposite his place, the chief commands: 1. *Left half-turn*, 2. MARCH, 3. *Guide left*. Each chief halts his platoon just short of the line, and commands: 1. *Left*, 2. DRESS.

It marching at a walk, the chief of the first platoon commands: *Guide left*.

If marching at a walk, and the command be *trot*, the captain commands: *Guide left*, immediately after the command march. The chief of the first platoon cautions, *continue the march*, and repeats the command for the guide, the chiefs of the other platoons repeat the command *trot*, each commanding: 1. *Walk*, 2. MARCH, on arriving abreast of the leading platoon.

It marching at a trot, the movement is executed in the same manner, the chief of the first platoon commands: *Walk*, at the first command of the captain; he repeats the command *march*, and also the command for the guide.

If marching at a gallop, or at a trot and the command be *gallop*, the same principles apply, the first platoon moves at a trot; the chiefs of the other platoons command: 1. *Trot*, 2. MARCH, when abreast of the leading platoon.

If the troop be halted during the movement, only those platoons halt which have arrived abreast of the leading platoon; the others complete the movement, each being halted by its chief upon arriving in line.

*Being in Column of Platoons, to Form on Right or Left into Line.*

667. The captain commands: 1. *On right (or left) into line*, 2. MARCH, 3. FRONT.

At the first command, the chief of the first platoon commands 1. *Right turn*; at the command *march*, repeated by its chief, the first platoon turns to the right; when the platoon has advanced thirty yards the chief halts it, and commands: 1. *Right*, 2. DRESS.

Each of the other platoons marches platoon distance beyond the point where the platoon preceding began the turn, when, by command of its chief, it turns to the right; the chief halts it near the line and then commands: 1. *Right*, 2. DRESS.

It executed from a halt, at the first command, the chiefs of the platoons following the first, command: 1. *Forward*, 2. *Guide right*, and repeat the command *march*.

In forming on right or left into line at a trot or gallop, the same principles apply as in forming line to the front, Par. 666; the leading platoon continues the march in the new direction at a walk or trot.

*Being in Line, to Advance in Line of Platoons in Column of Fours.*

668. The captain commands: 1. *Platoons*, 2. *Right (or left) forward*, 3. *Fours right (or left)*, 4. MARCH, 5. *Guide right, left or center*.

The captain takes post as in line. The guidon takes post as in column of fours by the platoon of direction. If the guide be center the center, or right center platoon is the platoon of direction.

The interval between platoons is four yards less than platoon front.

*Being in Column of Fours, to Form Line of Platoons in Column of Fours.*

669. *To the front.* Being at a halt, or marching at the walk, the captain commands: 1. *Right front into line of platoons in column of fours*, 2. MARCH.

The chief of the first platoon marches his platoon thirty yards to the front and halts it; each of the other platoons is marched by its chief by the shortest line until by a change of direction it will be platoon distance in rear of and opposite its place in line. Each chief halts his platoon when abreast of the leading platoon.

The principles laid down in Par. 666, govern in this formation.

*Being in Column of Fours, to Form on Right or Left into Line of Platoons in Column of Fours.*

670. Being at a halt, or marching at a walk, the captain commands: 1. *On right (or left) into line of platoons in column of four*, 2. MARCH.

At the command *march*, the chief of the leading platoon causes his platoon to change direction to the right, and halts it after advancing platoon distance and thirty yards in the new direction; each of the other platoons marches forward and beyond the preceding platoon, changes direction to the right when opposite its place and is then abreast of the leading platoon.

If marching at a trot or gallop, on the command *be trot or gallop*, the leading platoon marches at a walk or trot, the other platoons enter the movement at the trot or gallop and take the walk or trot arriving abreast of the leading platoon, Par. 666.

*Being in Column of Fours, to March in Line of Platoons in Column of Fours, to the Right or Left.*

671. The captain commands: 1. *Platoons*, 2. *Column right (or left)*, 3. MARCH, 4. *Guide right, left or center*.

*Being in Column of Platoons, to March in Line of Platoons in Column of Fours.*

672. The captain commands: 1. *Fours right (or left)*, 2. MARCH, 3. *Guide right, left or center*.

*Being in Line of Platoons in Column of Fours, to Form Line.*

673. The captain commands: 1. *Platoons*, 2. *Right (or left) into line*, 3. MARCH, 4. *Trump*, 5. HALT, 6. *Left (or right)*, 7. DRESS, 8. FRONT.

The command *halt*, is given when the leading fours have advanced thirty yards.

If executed at a trot or gallop, the captain, after the command *halt*, adds: *Guide left (right or center)*.

*Being in Column of Platoons to Form Column of Fours.*

674. The captain commands: 1. *Platoons*, 2. *Right (or left) column*, 3. *Fours right (or left)*, 4. MARCH.

The platoons unite in one column of fours.

In breaking the column of platoons into column of fours from the side of the guide, should any platoon be composed of a greater or less number of fours than the one preceding, its gait will be slightly increased or decreased, to enable all the fours to take their proper distance in column.

If the platoons be broken from the side opposite the guide, the column of fours of the leading platoon marches straight to the front; the other platoons, after breaking into column, will, if necessary, slightly change direction so as to follow the preceding platoon.

*Being in Column of Fours, to Form Column of Platoons.*

675. The captain commands: 1. *Platoons*, 2. *Right (or left) into line*, 3. *MARCH*.

Each platoon executes front into line. If executed at a walk, the captain halts the column after advancing thirty yards. If executed at a trot, or gallop, the captain commands: 1. *Guide left (or right)*.

*Being in Line of Platoons in Column of Fours, to Oblique to the Right or Left.*

676. The captain commands: 1. *Platoons*, 2. *Column half-left (or half-right)*, 3. *MARCH*.

The right platoon is the platoon of direction; the other platoons march parallel to it; the line of chiefs of platoons should be parallel to the original front.

To resume the march in the original direction, the captain commands: 1. *Platoons*, 2. *Column half-left (or half-right)*, 3. *MARCH*, 4. *Guide (right, left or center)*.

*Being in Line of Platoons in Column of Fours, to Change Direction to the Right or Left.*

677. Being in march, the captain commands: 1. *Change direction to the right (or left)*, 2. *MARCH*.

At the first command, the chief of the first platoon commands *Column right*; the other chiefs command: 1. *Column half-right*, 2. *March*.

At the command *march*, the first platoon changes direction to the right; the other platoons take the trot, each chief marches his platoon by the shortest line to its place abreast of the first platoon, and commands: 1. *Walk*, 2. *MARCH*.

If marching at the trot, the first platoon marches at the walk; the other platoons continue at the trot. If marching at the gallop, or at the trot and the command be *gallop*, the first platoon marches at the trot, and the others march at the gallop.

If at a halt, the chiefs of platoons give the commands necessary to put their platoons in march.

*Order in Echelon*

678. Sub-divisions in echelon are designated from right to left as in line.

The leading sub-division is the sub-division of direction and the guide is always on its outer flank when in line.

*Being in Line, to Form in Echelon*

679. Being at a halt, the captain commands: 1. *Form echelon*, 2. *First (or fourth) platoon*, 3. *Forward*, 4. *MARCH*.

At the command *march*, the designated platoon marches to the front; the second platoon, at the command of its chief, moves to the front when at platoon distance from the first platoon; the other platoons move to the front in succession as explained for the second platoon. If marching, the designated platoon continues to march to the front; the other platoons halt, or take the next slower gait, until they have platoon distance, when they in succession take up the front at the same gait as the leading platoon.

The position of the captain is the same as when in line. If so, the captain commands: 1. *Forward*, 2. *MARCH*.

If at a halt, the captain commands: 1. *Forward*, 2. *MARCH*.

681. To form the echelon of platoons in column of fours, the captain commands: 1. *Platoons*, 2. *March*, or, 1. *Platoons*, 2. *Forward*, 3. *March*, or, 1. *Platoons*, 2. *Forward*, 3. *March*.

The echelon marching in column of fours to form echelon facing the same direction, the captain commands: 1. *Platoons*, 2. *Right (or left) oblique*, 3. *Forward*, 4. *MARCH*.

682. Being at a halt, to reform the line, the captain commands: 1. *Reform line*, 2. *MARCH*, 3. *Forward*.

The designated platoon stands fast.

At the first command, the chiefs of platoons in front of the designated platoon command: *Fours right (or left) about*, according as they are to the right or left of the designated platoon; those in rear command: *Forward*; at the command *march*, the chiefs of platoons in front of the designated platoon, march their platoons a little in front of the line of the designated platoon, and command: 1. *Fours right (or left) about*, 2. *MARCH*, 3. *Platoon*, 4. *HALT*, 5. *Left (or right)*, 6. *DRESS*.

The chiefs of the rear platoons halt their platoons on the line and command: 1. *Right (or left)*, 2. *DRESS*.

If executed on the march, the designated platoon is halted by its chief at the command *march* by the captain.

683. Being in echelon, to form oblique line towards the inner flank of the leading platoon, the captain commands: 1. *Platoons*, 2. *Left (or right) half-turn*, 3. *MARCH*, 4. *Guide center*.

At the command *march*, the platoons execute the *left half-turn*; at the fourth command, given immediately after the command *march*, the center or right-center platoon marches straight to the front; the chiefs of the other platoons direct their march so as to close to the center platoon.



684. *Being in column of platoons or in line, to form oblique wheel.* The captain commands: 1. *Platoons.* 2. *Left or right wheel.* 3. *MARCH.*

The guides march so as to cover about one-third of the platoon next in front and to have a distance equal to about one-half the platoon front.

*To Inspect the Troop.*

685. *Being in line, the captain commands:* 1. *Prepare for inspection.* 2. *MARCH.* 3. *FRONT.*

At the command *march*, the chiefs of platoons take post six yards in front of their platoons; the guidon on the right of the rank; the right principal guide on the right of the guidon; the trumpeters two yards to the right of the right principal guide, on a line with the rank; the other file closers on the left of the rank, the left principal guide to their left. All dress to the right.

The captain verifies the alignment of the chiefs of platoons and the rank, commands *front* and takes post in front of the guidon in line with the chiefs of platoons.

To resume the posts in line, the captain commands: *Posts.*

At this command, the chiefs of platoons turn to the left about and move forward, and by another left about resume their places; the right principal guide turns to the right about and resumes his post; the trumpeters resume their places, the file closers on the left of the rank successively turn to the left about and resume their places in rear of the rank.

The troop is inspected as in Par. 410.

When the captain dismounts the troop, the guidon dismounts with it, the chiefs of platoons return sabers, dismount and stand to horses facing their platoons. The captain dismounts and his horse is held by his trumpeter. If the arms are not to be inspected, the commands therefor are omitted.

The chiefs of platoons face toward the troop during the inspection and stand at ease, or the captain may require one or both lieutenants to accompany or assist him; if dismounted, their horses are turned over to the trumpeters.

686. Should the inspecting officer be other than the captain, the captain prepares the troop for inspection and awaits the orders of the inspecting officer. Upon the approach of the inspector, the captain salutes him; the inspector returns the salute and informs him of the kind of inspection; the captain turns to the left and gives the necessary commands, faces to the front and when inspected accompanies the inspector. The captain does not return his saber when mounted.

*Route Marches.*

687. The captain and first lieutenant march at the head of the column, the trumpeters and non-commissioned officers near the head of the column march in rear of the officers and in front of the leading four; the file closers or other non-commissioned officers near the rear of the column march in rear of the rear four; the chief of the rear platoon marches in rear of the column. Non-commissioned officers commanding platoons may march with the file closers.

THE CHARGE.

688. Cavalry must always attack, must always take the initiative and never allow itself to be attacked, the object being to ride the enemy down and complete his overthrow with the saber and pistol.

The strength of cavalry is in its impetus, but swiftness alone does not assure success; order, uniformity and the proper employment of reserves are equally essential.

No precise formation can be laid down for cavalry in the attack, which depends upon the ground, and the character of the enemy and his dispositions, but as a rule it should be made in line.

Cavalry cannot effectively preserve formation in charging *down hill* if the incline be greater than five degrees; it can canter down *up hill* and charge *up hill* and preserve formation, if the incline be not greater than ten degrees.

689. The ground over which a command is to charge should be reconnoitered as thoroughly as possible; ground scouts should always precede the charging force.

The service of ground scouts and combat patrols requires most careful attention, and the men employed on this duty should be selected for their intelligence and daring, and should be fully instructed in their duties. They should reconnoitre the ground to a considerable distance in front of the command, taking care, however, not to get too far ahead to communicate by signals information of value.

When the charge is sounded or commanded, the scouts and combat patrols clear the front of the advancing line and join on the nearest flank.

Owing to the present general use of wire fences, ground scouts in actual service against the enemy should be equipped with wire nippers.

690. The platoons separately, and the troop entire, are instructed in the charge according to the principles explained for the squad.

When the troop entire executes the charge, the captain, or the

troop leader is in front of the center; the center troopers make room for the guidon, who moves up into the interval between them, takes the duty of guide and follows in the trace of the leader.

During the instruction, when the captain does not personally conduct the charge, he goes wherever he can best observe the errors, and corrects them.

The enemy is outlined, Par. 470, by a non-commissioned officer and two or three men at a distance of 1,000 to 2,000 yards, who are so placed as to represent a platoon of the enemy. The platoon is directed against the outlined enemy; when at 800 to 1,200 yards from it, the chief of platoon commands: 1. *Gallop*, 2. MARCH; the chief of platoon directs his march against the enemy's flank or center as he may have been directed. The center trooper follows directly in the trace of the leader.

The outlined enemy approaches the platoon and conforms to its gaits, preserving the skeleton formation of a platoon. When the platoon charges, the troopers outlining the enemy turn left about individually, and retire at full speed.

691. The further conduct of the troop or platoon is governed by Par. 471. If the *pursuit* be intended, the signal *charge* is sounded; *to halt the pursuit the recall* is sounded; if *retire* be intended, *face to the rear* is sounded; if *break rank in the melee*, the signal *skirmishers* is sounded; at this, the troopers disperse, as in confusion, but remain in the immediate vicinity riding around each other at the walk; crossing sabers, cutting against infantry, etc. To stop the melee the rally is sounded.

To stop the progress of the charge at any moment the instructor sounds the *recall* and *halt*; he then explains the faults and how to correct them.

692. The charge as foragers is conducted upon the same principles. The troop or platoon rallies and assembles as in Paragraphs 500 and 501.

While in extended order as foragers, the troop or platoon may be marched by the flank and to the rear by the same commands and means as when deployed as skirmishers.

#### *The Troop Acting Alone.*

693. As a rule when the troop is acting alone in charging the enemy, it is divided into two or three parts, viz: into the *attacking line* and *support*; or *attacking line*, *support* and *reserve*, when the troop is of nearly full strength.

If the attacking line, support or reserve consist of only one platoon it is led by its chief; if it consist of two or more platoons it is led by the senior chief of platoon, or by the captain.

694. When a chief of platoon takes post as leader of two or more platoons, the principal guide on the nearest flank takes his place as chief of that platoon. The other principal guide goes with the support. The guidon joins the reserve if there be one; if not, the support. Whenever the *rally* or *assembly* is sounded, the guidon goes at once to the position of the captain, or to the rallying or assembling place as indicated by the captain.

#### *To Charge.*

695. The captain designates the attacking line, the support, and there be one, the reserve.

Marching in line at the trot, when the troops arrive at the place to take the formation for the charge, the captain points out the direction or object of attack and commands: 1. *To the charge*, 2. MARCH. or 1. *To the charge as foragers*, 2. MARCH.

At the first command, the leader of the attacking line commands: *gallop (or as foragers)*; the leader of the support and reserve commands: *trot*.

At the command *march*, the attacking line takes the gallop (or deploys) and charges as in Par. 465 or 468.

When the support has a distance of about eighty yards from the attacking line it takes the gallop and follows the movements of that line, unless the leader has been given special orders as to its point of attack, such as to charge the support of artillery, etc., when it arrives at the proper distance, it charges to support the first line.

The reserve, if there be one, follows the support at a distance not greater than 150 yards, unless otherwise ordered by the captain, and charges when at the proper distance.

The captain may give special instructions to govern the leaders of the support or reserve or both.

696. Marching in column of platoons at the trot, and no support or reserve having been designated, the captain commands: 1. *To the charge*, 2. MARCH; or, 1. *To the charge as foragers*, 2. MARCH.

At the first command, the chief of the first platoon commands: *gallop (or as foragers)* and charges as in Par. 465 or 468 according to the command of the captain.

The platoons in rear of the first continue at the trot, each taking the gallop, or deploying as foragers when the preceding platoon has a distance of about eighty yards, and each takes the charge over the same ground as the leading platoon.

As each platoon takes the gallop, the guidon joins the next succeeding platoon.

If the charge is made as foragers and the *fully* be commanded or signaled, each platoon that has charged rallies in rear of the column, the guidon taking position at the head of the column; the platoons that have not charged remain in column. If the remainder of the troop has been formed in line, the platoons that have charged rally in their places in line.

Each platoon counts fours as soon as rallied.

697. The charge may be made from column of fours.

Marching at the gallop, the fours successively take the extended gallop when the four next preceding has gained the distance of one horse's length. The fours rally in rear of the column.

#### *The Troop in the Squadron*

698. The troop in the squadron charges on the same principle as when alone, except that it does not have a support or reserve, unless so ordered by the major.

Except when charging from line of platoon columns, the captain puts as much of his troop in the attacking line as possible.

## PROFESSIONAL NOTES.

### THE JOURNAL.

The popularity of this Journal and the value of its pages to professional readers are evinced in many ways, and in no way more so than by the copious extracts that other publications are making from its pages. We would point particularly to the *New Drill Regulations* which at least three publications have been reprinting. We have observed this with a pride which might have been increased, if these journals had seen fit to give credit for their extracts.

### SOUTHERN CAVALRY.

While only a few of the northern States maintain even a single troop of cavalry as a part of their organized militia, the State of Georgia is forging to the front with her horsemen. She has today a complete regiment, finely uniformed and fairly mounted, working its drill and instruction with the object of uniting at a camp in summer or fall. Some of the troops, like the Georgia Hussars Savannah, the Liberty Troop and the McIntosh Light Dragoons are old and war-tried commands, while the Governor's Horse Guard Atlanta and the Macon Hussars are only recently mustered in. Despite their newness, even these last mentioned companies won very praise from judges selected from the regular service at the State Fair held at the autumn fairs, while the horsemanship and saber work of the older troops were beautiful to see.

The most progressive State in the new South is the first to give militia substantial encouragement. The legislature of Georgia has just provided means for camps and systematic instruction, and at a recent convention of the officers, it was resolved that, despite the color of the old gray, the troops should be uniformed hereafter in the standard blue.

Although a single Southern State contains more organized cavalry than a half dozen Northern and Western States combined, it is not that there are excellent troops at the North. The Milwaukee Light Horse Squadron, the Cleveland Troop and the City Troop of Philadelphia are well known. Troop "A" of New York, numbering 100 men, although a comparatively recent organization, has already won commendation by its drill and appearance, and will be heard of again.

It now begins to look as if a really national spirit was being infused into our volunteers. If this be so, the attractions of service as a cavalryman are so many, each duty of the trooper can be made so much of a pleasure and a privilege, that there is every reason why the volunteer cavalry should contain the pick and pride of the country.

### MORE ABOUT THE HORSE-ARTILLERY GUN

A recently published report on the construction of fifty 3.2 inch field limbers, one caisson and one combined battery wagon and forge at the national armory, Springfield, Mass., contains information of much interest.

Starting with the necessity which arose for these new constructions in consequence of the adoption of the 3.2 inch gun, the report first describes the radical changes introduced into the new harness devised by Colonel Winstanley—the substitution of the neck-yoke for the pole-yoke, and of the double and single-trees for the splinter bar. Then follows the description, with details of the new construction.

The bodies of limbers and caissons are made of angle iron, with tubular steel axles and wooden ammunition chests.

The battery wagon and forge constitute one carriage, the four wheels carrying all that pertains to the forge except the sledge, anvil, and vise; these, with all that pertains to the battery wagon, are carried by the hind wheels. A four-horse carriage, called an artillery store-wagon, is added to the battery; in this the horses are driven with reins, the driver being provided with a seat on the wagon. The function of this wagon is to carry ammunition for the small arms of the battery, spare small-arms not in use, spare intrenching tools, water barrel and the knapsacks of cannoners. Road brakes are attached to both caissons and battery wagon, and these can be applied or released while the wheels are in motion. From the tables of weights given, which was made up from model carriages, equipment, etc., are taken the following:

3.20-inch B. L. rifle.....	829 pounds
Carriage with brakes, heavy.....	1,300 "
Carriage with brakes, light.....	1,166 "
Implements.....	31 "
Limber with implements.....	1,631 "
Ammunition, including forty-two rounds of shell and shrapnel.....	734 "
Total for heavy carriages.....	2,927 "
Total for light carriages.....	793 "
Weight per horse for heavy carriage.....	654.5 "
Weight per horse for light carriage.....	632 "
Weight of caisson complete with implements and ammunition, including one hundred and twenty six shell and shrapnel.....	553 "
Weight of forge and battery wagon with tools, implements, etc., but without stores.....	1,071 "

For horse-artillery, it is proposed to remove the front chest of each caisson body so as to reduce the weight and give space for two

The weight per horse will then be 607 pounds. These weights compared with the corresponding weights of the French and German horse artillery as given by Captain R. F. JOHNSON, R. A., as well as with those Captain JOHNSON prescribes as admissible, though not to be exceeded:

	French	German	As prescribed by Capt. Johnson	U. S.	inch
Light per horse, gun team.....	708 lbs.	661 lbs.	746 lbs.	632 lbs.	
Light per horse, caisson team.....	718 "	792 "	667 "	607 "	

Commenting on a very interesting account of the services of the "D" Second Artillery, which was armed with light twelve inch guns and was attached in 1863 to General Brion's cavalry division, the report says:

This experience with a gun of 645 pounds per horse for gun team and 635 pounds for caisson, without cannoniers and without extra weight mentioned in the above statement in the actual campaign is more instructive than any amount of even fine theory. The roads traveled over could hardly be worse in this or any country where they are at all practicable for four-wheeled vehicles. In the light of this experience, it can hardly be questioned that the 3.2 inch gun equipment, horse or mounted, has a mobility equal to any demand on it.

### REPORT OF THE CHIEF OF ORDNANCE FOR 1889

The Chief of Ordnance reports that all efforts to obtain a smokeless powder have been abortive in this country, and that American powder-makers and chemists have not been awakened to the lucrative opportunity presented to them. The report then says:

"In view of the present status of the powder question it is not deemed expedient to produce a small caliber rifle for compressed powder cartridges. Such a rifle, however excellent in itself, would be inferior to foreign arms using smokeless powders, and, consequently, unsatisfactory to the army and the country at large. It is believed, however, that all the elements entering into the problem except the powder are ready for use the moment this powder is obtained. A 30 caliber rod bayonet Springfield rifle has been made, and a rod bayonet 30 caliber magazine arm is now in progress of construction in anticipation of the final acquisition of the much needed powder, so that no time may be lost in presenting for trial both single-loading and magazine small-caliber rifles."

The weekly testing of a number of the current manufacture of rifles, by expert marksmen on the armory rifle ranges, serves to maintain the excellence of the Springfield .45 caliber rifle, with which a team of American riflemen (Massachusetts volunteer militia) has recently won five successive contests abroad with five different teams of English volunteers.

Two of the American team are workmen of the armory and members of the Armory Rifle Club, which performs the aforesaid duty of testing Springfield rifles. The members of this club, all armory workmen, combine, generally, the excellence of skilled mechanic with that of expert marksmen, having few if any superiors. The practice on the ranges the past year has shown no falling off in the excellence of the rifle. On the contrary, for several years there appears to have been a progressive gain in accuracy.

The estimates for the fiscal year, 1890-91, include items for the manufacture of metallic carriages for the horse artillery gun. Altogether, it is pretty sure that this gun will soon be ready in all respects for service.

### ENCOURAGEMENT OF HORSE RACING IN FOREIGN ARMIES

Horse racing is made obligatory among the officers of the Russian cavalry and horse-artillery. Last year, out of 2264 officers, all but 198 participated in the races, these being excused on account of illness of horse or rider, not being provided with a mount, and thirty were excused on account of the horse not being suitable for hurdle racing.

The prizes were offered by the Russian War Department, and amounted to about \$15,300; the distance was about a mile and a third, and the races were over hurdles.

A single hurdle race and steeple chase, over double the above distance, was made voluntary, and the prizes were offered by the members of the Imperial family.

In Italy, a recent order of the War Department states that horse racing among officers is conducive to bold and daring horsemanship, and that it induces officers to keep good and serviceable mounts. Eight prizes, of about \$285 each, are offered and rules are prescribed for conducting the races; the principal requirements are, that the horses must be those used in military service and that officers must ride their own mounts. — *Military Wochenblatt* C. K.

### THE COLONEL.

By General DRAGOMIROV, in his Manual of the Training of Troops for Combat.

The commander of a regiment is a great personage: "He drives, but does not drag the coach." He acts in everything by intermediary; through the battalion commanders and adjutants in matters of personnel and instruction; through the major in questions of accountability and administration; and through the surgeon in matters of hygiene.

He is at the head of the regiment; the father of the family; the most zealous supporter of good fellowship, of love of the trade, of respect for that profession, in which man is called upon to make the supreme sacrifice on the altar of his country.

He weighs everyone by his merits; he intercedes with the higher authority for those of his subordinates who get into trouble, when they are worthy of his care.

His word is the law of the regiment. Hence he can never relieve himself of a responsibility by casting it upon his inferiors, but cast it upon himself, with the reflection that, right or wrong, he is at head, the responsible chief of his regiment.

He takes an especial care of the health of the men confided to his leadership.

In all things he fixes clearly the end, constantly supervises the effort to attain it, and persistently exacts the realization of his ideal.

He sees that all is done well at the proper time; that all duties are done together; that is to say, that there is no craze about the more agreeable details at the expense of others less attractive.

If he requires anything new, he should himself show how it is to be done.

His influence is felt in the companies through the intermediaries, the battalion commanders, but he never usurps their roles; and very much less does he ever take upon himself the functions of the company commanders.

The chiefs of battalion are the immediate auxiliaries of the colonel, to control the punctual performance, in the companies, of duties which he prescribes, and of all the regulations and instructions; if there is anything wrong, it is upon them that his wrath should fall.

In their turn, the battalion commanders hold the company commanders responsible.

To pass over the heads of battalion commanders, in commanding a regiment, is a serious blunder. This fault is born of the fact that in peace it seems possible to do it without inconvenience.

In peace, perhaps it is; but in war, No. And then it is too late to expect from these battalion commanders, the initiative, the sense of responsibility, that we neglect to develop in time of peace. — *Revue de l'Armée Militaire* F. S. F.

### RAID OF A DETACHMENT OF CAVALRY

The maneuvers of the Fourth Corps in the District of Vilna have given the Russian cavalry the opportunity to display, once more, the brilliant qualities that have established its reputation. \* \* \*

A detachment was to destroy the railroad station at Baranovitch-Brest and Baranovitch-Polesie, and carried pyroxyline and tools for the purpose. Accompanied by a section of horse-artillery, it comprised in all, six officers and two hundred men, taken from the chasseurs and scouts of the different regiments of the Fourth Cavalry division.

The detachment started August 24th, at 4 p. m., and was to reach its destination not later than noon on the 26th. Leaving Volkorysk,

it arrived at Izabelina (eight miles) in one hour and ten minutes. After a half hour's rest to examine shoes and equipments, it marched again at 5:40 p. m., and reached Menjirietchie at 7:10. At a mile and a half from the village the detachment dismounted and led, for the purpose of resting the horses, so as to be able, immediately upon arrival, to take them to the stable and unsaddle. The total distance of sixteen miles had been traversed in two hours forty minutes, without counting the half hour's halt.

Starting the next day at 6 a. m., and crossing a ford, seventy-five yards wide with water up to the saddle, the detachment arrived at 9:25 at Pachenitche, leading for half a mile and halting for an hour and twenty minutes. Resuming the march, it reached Jirovitsky, maneuvering to take the village, which was supposed to be occupied by a large provision-train, escorted by two companies and a platoon of cavalry. This distance (Menjirietchie to Jirovitsky), thirty-three miles, was traversed in seven hours twenty minutes, from which taking two hours thirty minutes for the halt and maneuver, we have an average rate of about seven miles per marching hour. At this point a halt was made for three hours forty minutes. The horses were unsaddled, rubbed down and then blanketed, watered and fed out.

Starting once more at 5 p. m., Lokosvy was reached in three and a half hours; whence, after an hour's halt, the detachment marched over a difficult road through the woods lighting its way by pine torches. On approaching the Brest station, a maneuver was made to take the place and it was occupied a half hour after midnight; that of Polésie was captured by 2 a. m. The party proceeded immediately to the destruction of the road, paying particular attention to the telegraph line, the switches, tanks and round-houses.

Thus the detachment had fulfilled its mission twelve hours before the fixed time. It had made seventy-two miles in twenty hours (Menjirietchie to Polésie). If we deduct the time of rest and maneuver, the march proper had occupied eleven hours (rate, six and a half miles per hour).

No horse was hurt and there were but one or two accidents to the shoes.

On the 26th at 1:30 p. m., the detachment set out again for Slo nim, where it arrived at 1 a. m. on the 27th. So, from the 25th at 6 a. m., to the 27th at 1 a. m. (forty-three hours), it had marched one hundred and nineteen miles, the marching time being eighteen hours.

Great attention had been paid to regulating the gait; in general the column marched ten minutes at the walk and fifteen minutes at the trot, sometimes this was reversed.

The horses which took part in this operation were far from being choice animals; many were destined for condemnation — *Recueil Cerele Militaire*. F. S. F.

## RULES FOR UMPIRES AT PEACE MANEUVERS, FROM GERMAN FIELD SERVICE REGULATIONS

Translated by Captain G. L. W. GUNN, S. R. A. Proceedings of the Royal Artillery Institution

The *role* assumed by umpires is meant, as far as possible, to take the place of the results caused by war which are wanting in peace. Their decisions must be accepted in the name of the chief-in-command as law, and officers of higher rank than the umpires must submit to the orders the latter give. At all maneuvers the chief-in-command is equally umpire-in-chief. Umpires must only take into consideration the actual situation, and not what was intended. They must base their decisions on circumstances, which, in like cases in war, would be decisive either of victory or defeat. The umpire-in-chief is alone justified in further interference, in order that, in his capacity as chief-in-command, he may as much as possible keep the progress of the maneuvers in hand.

Umpires are authorized to obtain any information they may require from the commanders of troops, and are in duty bound to see that their decisions are carried out.

They must at once inform the umpire-in-chief of important decisions, during which it is the duty of the commanders of troops to report the same to their senior officers, and communicate with the troops on either flank.

The number of umpires employed must not be insufficient, while decisions are being awaited a large number of umpires will obviate the chance of impossible situations occurring in other parts of the field.

The chief-in-command will appoint the umpires from the total number of senior officers available, and will attach officers of lower rank to them as assistants, according as they are required. The adjutants of senior commands, and regimental adjutants remain with their corps. During the Imperial maneuvers, the umpires will be appointed from the Grand Head-Quarters, and the Chief of the General Staff of the Army will appoint officers of the General Staff as assistants.

When maneuvers are being held against a "marked enemy," umpires can also be employed.

Umpires and officers attached as assistants will wear a white band on the left arm above the elbow.

Before the maneuvers begin, the umpires receive information as to the situation and the orders issued on either side. The chief-in-command will then tell them off to a particular "rayon;" as a rule, the umpires will be distributed either by lines or by wings. According to circumstances, special umpires may be appointed to individual bodies of troops, such as advanced guards, detachments, etc. In the case of cavalry acting independently, it is best to assign to it special umpires. This distribution, however, does not preclude any umpire from giving a decision in place of some other umpire who may not happen to be on the spot at the time, in the "rayon" to which he belongs.

Umpires must always be told off to watch outposts and any night operations.

In that he knows the situation and circumstances attendant thereon, the umpire must endeavor to see ahead of the measures taken, deployments, etc., in order that he may be on the proper spot at the proper time. He must keep himself, personally, with the aid of his assistants, "*en contact*" with the measures taken by either side and endeavor to see all he can by skilfully selecting his standpoint. According as he thinks fit he will communicate to the commanders his observations on the handling of the troops on either side, in order that there may be no check therein, that the subordinate leaders may act independently, and that situations impossible in war may be avoided, such as columns standing in the open under effective fire, flank marches made in the open, etc.

When, in actual fighting, a decision would be arrived at by arms, the decision of the umpire replaces it. Umpires alone, and not their assistants, are authorized to move in the above-mentioned communications between troops, and to give decisions. Should several umpires meet, then the senior in rank gives the decision. A decision once given can be altered by the umpire-in-chief only.

It must be stated in decisions whether troops are to advance further, whether they must retire, and in which direction, and for what space of time they are to remain unfit to fight. Decisions given concerning artillery must specify whether the guns are able to move, and for what time they are to remain unable to move, should it be so decided.

Troops which are declared unfit to fight must move back from the zone of fighting troops, and must not be employed during the time they are considered unfit to fight, and when they are again employed it must first of all be in the reserve. In order not to influence their "*morale*," troops are, only in very exceptional cases, to be adjudged unfit to fight for the whole of the remainder of the day. Should an attack have been carried out to "*decision giving*," then the umpire declares which side is victorious, and appoints for it a time as a "*fight pause*," necessary for reforming, before it passes on to the pursuit. In cases where troops have become much split up by reason of the ground and "*locale*," the fight must be broken off for a short time, in order that both sides may reform, according as their umpires order.

Shelter trenches and gun emplacements or other cover, the construction of which is not prohibited from a peace point of view, are only to be taken into consideration when they have been actually thrown up in accordance with the regulations.

To judge of the value of shelter trenches, it is necessary to ascertain whether or not a sufficiently free field of fire has been assured.

When it is impossible, from peace considerations, to execute certain tasks, "*marking*" is allowable; such cases are the blowing up of bridges, making barricades, defending walls and crossing fields, while, latter, owing to injury to crops, must be avoided. Should work of the above description be marked, then the troops concerned must

apply to the nearest umpire, who will give his decision regarding the work executed, and see that the enemy pays due regard to the case in question.

Infantry fire effect is influenced by various considerations, such as the distance at which the enemy is, and the correct estimation of the height, the nature of the object aimed at, the intensity and duration of the fire, fire discipline, and any surprise or disturbing element caused by the enemy to the troops that are engaged.

When opposed to a well conducted, severe and steady rifle fire, closed bodies of troops in the open can only get up to 600 or 800 metres, or move to a flank when the fire of their own skirmishers is in a measure equalled that of the enemy. Closed bodies of infantry, even when covered by strong skirmishing lines, can only move backwards or forwards over the fire-swept zone under 600 metres. A halt made for any length of time within this zone without cover will at once necessitate an umpire's decision.

At distances under 300 metres, the decision on the fire fight of skirmishers in the open must be speedily given, so that either the bayonet attack may be carried out or one side falls back.

Bodies of cavalry can appear only in attack formation, in front of infantry that is in hand, within a distance of 800 metres, be the infantry either in close or extended formation. Any other movements or halts made in the open under 800 metres are to be decided against the cavalry.

Artillery can come into action *under infantry fire* within 800 metres (875 yards) only under specially favorable circumstances, for instance, behind effectual cover. Should it accompany the advancing infantry to the decisive attack under the above distance, *it must not be prevented from so doing*; the losses consequent on such a movement in actual fighting must, however, be considered when the umpire's decision is given. At shorter ranges artillery, when in the open in action, soon loses its mobility, and from 200 to 300 metres (219-328 yards) *it can no longer advance at all*. An increased effect must be ascribed to flanking infantry fire.

The previous effect produced by infantry and artillery fire must be taken into consideration when adjudging the success of a bayonet attack in the first line. The following points must be noticed: the number of fresh troops which both sides have thrown into the fight; the way in which the fighting has been carried out; the attitude of the enemy and the ground. Further, it is of importance to note whether the attacker has succeeded in attacking a weak position, or turning a flank. Taking into consideration that the consequences of a hand-to-hand fight of infantry are always accompanied by great loss, decisions must in this case be given one way or another, but the time of the day need not be considered as decided by a successful or unsuccessful attack of strong infantry masses.

The fleeting course of a cavalry attack increases the difficulty of judging the case in question. The umpires must on such an occasion be specially early on the scene.

In adjudging the result, the situation of the enemy and the execution of the attack are specially important considerations after the consideration of the respective strengths. Should hostile cavalry succeed in attacking their opponents while deploying, it can be adjudged victorious when inferior in strength; otherwise great superiority of numbers will not be effective should the leader fail to employ such superior numbers at the right time. Cavalry attacking cavalry should rely less on covering long distances quickly than on delivering a powerful shock charge, boot to boot, to insure success.

When attacking infantry, it is of still greater importance to take it in flank. In an attack on shaken and weak infantry bodies a deep formation may be dispensed with by cavalry, so that even small bodies of cavalry may reckon on successful action in such cases. Against unshaken infantry, a deep formation and an attack driven home with unison and carried right through is required. Should the ground not admit of a screened approach or of surprise, then the cavalry must get quickly over the ground which is swept by fire. Should the infantry be tempted to alter its formation, or deprive itself of the coolness indispensable for effective fire action, then it gives the cavalry a great advantage. Such attacks will always be accompanied by heavy loss to the cavalry. Artillery, when on the move, must be considered at the mercy of a cavalry attack, should it be unprotected by the other arms.

Guns in action have to fear most for their unsupported flank.

A frontal attack on guns will suffer heavy loss, but should not be considered impracticable, provided it has sufficient depth.

The final decision should be guided by the consideration as to whether in actual fighting the victorious cavalry would be able to carry off guns or limbers, or else render them useless, or if it has time to insure its success in some other manner.

Attacks of cavalry against cavalry must halt when the opponents are within 16 metres of each other, which will represent the *mohr*.

The side adjudged by the umpire to be defeated must fall back in all cases 300 metres (328 yards) first of all, and in extended order. The victorious side may either rally, or else pursue with their whole force or with part of it: a distance of 100 metres (109 yards) must be kept. Should the pursued side not be disengaged, or have its retreat covered, then it must fall back without reforming before the victors, so long as the latter pursue in sufficient strength. The umpire must be careful to prevent the pursuit being carried out to too great an extent, and must define a time, according to the nature and strength of the pursuit, during which the defeated force has to consider itself as unfit to fight.

The fire effect of cavalry, fighting on foot, must be considered in a similar manner to that of infantry, with the prescribed limitations (range of carbine, etc.).

As regards artillery action, the point to be considered is whether its advance is screened together with its development, being a surprise to the enemy; also, and in general, the choice of the position as

regards effective fire action and cover, and the facility of observing the effect of the fire, and rendering it difficult for the enemy to observe his fire and find the range; further, the distance the guns are from their object, its extent, visibility and mobility, the nature of the fire employed, the duration and rate of fire, the number of batteries engaged on a similar object, and also, finally, the losses caused by hostile rifle and shell fire, with which must be considered the manner in which the limbers are placed under cover.

Fire effect may be assumed to have begun with the first shots, should a correct estimation of the range have been obtained from batteries which have already found the range; otherwise, some time must be allowed for finding the range, and it must be observed that hurried opening of fire delays the correct finding of the range.

Closed bodies, equal in strength to a company or squadron, can act in the open only at ranges between 1,500 and 2,000 metres (1,640—2,187 yards) under artillery fire well sustained and well directed, when such fire is equally taken to task by the artillery of the side to which such bodies belong. Great effect must be attributed to artillery fire when delivered at ranges from 1,500—1,000 metres (1,640—1,093 yards) on closed bodies of troops in the open. In such cases infantry can only move backwards or forwards in line, unless the ground admits of temporary cover; cavalry cannot move at a walk under such fire.

At ranges at about 1,000 metres (1,093 yards) artillery can hold out against rifle skirmishing fire; should thereafter strong skirmish lines be allowed to approach to 600 metres (656 yards) of the guns in action without the latter being sufficiently protected by their own infantry, then the artillery must retire or else become liable to be adjudged unfit to move. Cavalry can appear in front of guns in action under 1,000 metres (1,093 yards) in closed bodies only when moving at a quick pace; under 600 metres (656 yards) only when in an attack.

Artillery which has found the range can endanger the unlimbering of a superior number of hostile guns up to a range of 2,400 metres (2,625 yards). The giving of a decision on the artillery duel at ranges over 2,400 metres (2,625 yards) is in reality dependent on the superiority in guns on either side, together with the cooperation displayed by the other arms. At ranges of 2,400 metres and under, even a slight superiority is of great value. During the opening of the action, then, the greater the superiority of one side over the other in number of guns the earlier must a decision be given. Moreover, should the two artilleries be unequal in power, the nearer they are to each other the quicker must a decision be given.

Flanking artillery fire must have much greater importance attached to its effect.

Capturing individual men, taking away led horses and such measures, in order to represent a success, are inadmissible.

The communications made by the umpires regarding the manner in which the enemy's troops are handled must be used circumspectly



and taken every advantage of, according to circumstances, and supplemented by the communications made regarding the troops of one's own side.

Apart from these communications and decisions, umpires must abstain from all other participation.

*When decisions are given, all main, laid down principles must be observed only in the light of general aids, as even in maneuvers, numerous circumstances are in cooperation which cannot be shaped into definite rules beforehand.*

In all decisions special importance must be attached to moral influences, in so far as they obtain in peace, and which show themselves in the front line in the order and steadiness that prevail among the men, and in the assured transmission of orders thereon.

The troops also, against which a decision is given, must, as far as possible, remain assured that the victory has only been given against them as seen from the maneuver point of view, which cannot take into consideration the inner qualities of troops. Useless and premature decisions are to be avoided, in that they unsettle the commanders and militate against the object of the training. When troops are standing opposite each other with grounded arms, they should not be kept long waiting for a decision to be given; in such cases it is more important to decide generally and quickly than that the decision should take the nature of a laborious and time-robbing investigation.

#### OBJECT MARKING FOR ARTILLERY.

Each battery carries a frame 70 centimetres square (about 28 inches) which is covered on one side with white, on the other with red cloth, and fastened by one corner (in prolongation of diagonal) to a stake 2.50 meters long (8.31 feet).

When the guns are firing against infantry the frame is raised and the red side is shown towards the enemy; when firing at cavalry the white side is shown, and against artillery the frame is lowered

## DISCUSSION AND CRITICISM

### A WALKING HORSE.

In the June number of this Journal, Captain Wood, in speaking of quick walking horses, says: "We will all probably be retired for age before seeing one of the former,"—that is, a horse which can walk five miles an hour. If the captain will take Morganton, N. C., on his route, next time he goes north, I will take great pleasure in showing him a young mare, five years old, which can do it in great shape. I have walked her five miles in an hour, over a very hilly road, and on two occasions, one mile in ten minutes.

GEORGE H. MORAN.

### THE HELIOGRAPH.

Appropos of remarks on the heliograph, we have a report by Colonel W. J. VOLKMAN, chief signal officer of the Department of Arizona, which shows that a highly favorable idea of the heliograph exists in the minds of many officers, and that extensive experiments are making for the purpose of testing its use. During November last, the first attempts to hold concerted heliograph practice were had. As a result, most creditable to beginners, the Colonel reports sending a test message of seventy-five words and receiving a reply, through six stations each way, in nine hours, not counting one unavoidable over-night detention.

At the same time, reaching squarely for the source of alleged defects, the report goes on to say: "It is only by the clearest understanding and active co-operation between adjoining divisions, as to the exact places of stations, and periodical local and concerted practice between such stations, that entire success of the general heliograph system of the department can be had."

### POST INSTRUCTION.

Although the government has a right to expect at least eight hours of work each day from its soldiers, and more than that, that they should feel under obligations to respond at any hour of the day or night, when their services are required, the thing may be overdone. "All work and no play, makes Jack a dull boy," is a good say-

ing; but at the same time a maximum amount of work increases the worth and contentment of both the officers and soldiers.

But an hour of drill, requiring constant attention, is very different from an hour of labor, when the movements are generally free and unconstrained. For this reason I think that short, quick drills produce better results than long ones. On a rough estimate, Lieutenant SMITH would require between five and six hours of drill daily, and this, many will think, is too much.

The lecturer is sound in regard to the saving of time that would result from a general policing on Saturday. When it comes to training horses to trot, is it not the well-bred, ambitious animal, who gives trouble in the troop? Must he not be taught in the troop, and not out of it, just as men must be instructed together in the march, in line or column, at quick or double time?

W. A. NICHOLS,  
*Lieutenant, Twenty-third Infantry*

### ON PISTOL FIRING

Much is said about lack of time for pistol firing, and about the impossibility of obtaining good results where the number of detailed men is so great, and their duties so many. It would be well to set such arguments at rest by a few plain facts.

First of all, it must be accepted as a fact, that detailed men are as much a part of our system as are the men who perform any other duty. Of course there are some that cannot be reached at all times, but the majority can, and enough men can be trained, to pay for the work performed.

There was a day when the craze of target practice pervaded most of our troops of cavalry, day after day from morn till night. Yet it was not the full cavalryman's duty they were learning; it was simply making riflemen of the men, by ignoring the education of the horses. What this shows is that there is time enough for pistol firing, if we go at it in a whole-souled manner.

It is a little absurd to talk about want of time when there are so many hours in the day that are not used. How many hours of drill have we in the average garrison? How much time in the fall and winter is wasted because it is not in the "drill season?" How do our drill hours compare with those of the European soldier, or with the hours of the laborer? How often do we go into winter quarters to hibernate till spring, as soon as the annual inspection is over?

The question ought to be, not how to get the time, but how to make the best use of what we have. On this there will be a variety of opinions, but there are certain ways of *not* doing it, that all may agree upon. These are such as *beginning* work where another troop has arrived after months of training; going through the work in a perfunctory manner, whereby the instructor's lack of enthusiasm is communicated to the men; encouraging the men to think it is all wrong because it involves an element of danger.

With a short target season the principal difficulty will be to train the horses to stand fire and to approach the targets without fear.

Much of this can be effected while other work is going on. The targets, while not in use on the range, may be set up where they may be constantly seen by the horses. Put targets in the corral, on the road to water, and around the stables, and they will soon become familiar to the horses. Let the horses view the targets, passing in a body on the firing track, that they may gain confidence by association with others. During the drill season let the targets be kept constantly on the ground, and let all charges be directed on the line of targets.

As to teaching horses to stand fire, the well known expedient of firing a few blank cartridges during feeding and grooming at the picket-line, is not sufficiently tried. In the artillery, we hitch our new horses in quiet teams, and gradually bring them near to the firing point. It is accomplished with little difficulty. At all drills there should be some firing. At first this should take place only when the horses are busy with the most rapid gaits; the gaits should then be decreased until the firing can take place at a halt. The line of fire may be brought more and more to the front until a horse will stand fire in any direction. I have seen a troop move forward in closed line at a walk, and the command was given "Commence firing." The firing was to the front of course, over or between the horses's heads, but the line kept moving forward almost as well dressed as at a review, and not a horse showed sign of fear. Having used more than one troop horse which stood fire with perfect steadiness, and having fired a double-barrel shot gun resting between a horse's ears without his flinching, I know it can be done, if we go at it in a rational manner, with patience and perseverance.

Of course there are some troop horses who are not amenable to training and teaching. They are not numerous, and are generally such as have been ruined in their early experience. They should be condemned at once.

If time is short for work on the target range, is there not a whole year which can be devoted to such work as that indicated here, all of it leading up to the final result?

If light-artillery is to be armed with the revolver, as should be done, it should also learn the use of the weapon. The saber *cannot* be used by a light-artilleryman as it should be used. The driver has both hands full with his team to handle, and nothing is more absurd to think of, than his using a saber even if the battery should charge.

The cannoneer is even more helpless, whether on foot or seated on an axle-seat or chest, so that it is now a fashion for only drivers to wear the saber and then only at inspections. The thing to do is to give us the revolver and *make us learn to use it*.

CHARLES D. PARKHURST,  
*First Lieutenant, Fourth Artillery.*

## BOOK NOTICES AND EXCHANGES.

REGIMENTAL LOSSES IN THE AMERICAN CIVIL WAR. By Lieutenant Colonel William F. Fox, U. S. V. Albany Publishing Co., 1889.

We are apt to measure the excellence of troops and the terrors of war by the lists of killed and wounded, without taking proper consideration of the numerous other circumstances that should count. The writer frequently warns us that this is the case, and he gives many brief explanations of events, in a way that adds greatly to the interest and value of his work. He gives not only the regimental losses in many varieties of form, but a great mass of other statistics most attractively arranged, so that we are apt to imagine ourselves reading of the startling changes of battles themselves, rather than a book of statistics. The writer goes by the official record alone and here, perhaps, he might have done better in some cases, by consulting regimental histories which have been published since the war, with nominal lists of killed and wounded, and which, with every allowance for prejudice, ought to be more correct than the returns made at the time. But whatever criticisms are made, they must be slight indeed, when compared with the value of the entire work. Colonel Fox has rendered a service to the military student, as well as to every American, by his laborious undertaking. It must be that a race is made better by a war which could call forth such a magnificent record of manhood as this. Such examples as are here shown are needed from time to time, to show that decay of patriotism is far off, that our countrymen are not entirely absorbed in the pursuit of gain, and that the dream of a universal peace is not altogether beautiful.

Although there were 10,596 cavalry, killed or died of wounds, the losses of that arm are by no means startling, when compared with those of the infantry. From the nature of the arm and the character of the country, the former was not used as an attacking or delaying force, in the desperate situations that infantry found so frequently. It also happens that a cavalry charge, by its limited area and brief time, will not compare in the aggregate of its casualties, with the steady losses of an infantry command, extending through many hours over changing scenes. It was thus that numerous brilliant cavalry charges, pushed home though they were, against hopeless odds of numbers, have failed to be of record in a book which is devoted to the gallant deeds of our soldiers. On the other hand, full credit is given to

the arduous nature of this service. While the losses of infantry and artillery were divided among a comparatively few battles, the cavalry was in a constant skirmish; almost might we say that they were fighting night and day. The First Vermont cavalry records forty-five engagements in which it suffered a loss of killed and mortally wounded, and as many more in which it sustained a loss of wounded and prisoners, while the times when members were liable to exposure, death and capture cannot be estimated. This reconnoitering and outpost service is the hardest and the least glorious duty of a soldier. The losses in prisoners are also out of all fair comparison with those of other commands. Here, by its isolated nature and exposed position, capture implies generally the venturesome spirit of the rider; there it implies defeat. Thus in the Gettysburg campaign there were 11,000 cavalry in the Union armies, which lost 4,932 in killed, wounded and prisoners. In the Shenandoah campaign, Sherman's victorious cavalry lost 3,917 out of 12,000.

The author's researches in contemporary military history do not seem to have been profound. Eager to establish that the war of the States was the greatest of the century, he appears to lose sight of some of the elements of a fair comparison. As Americans we might be glad to accept his flattering estimates, but as soldiers we cannot agree with the justice of some of his conclusions. He dismisses the battles of the Napoleonic era in rather a summary fashion, and goes on to say that Meade's loss at Gettysburg was greater than that of Moltke at Gravelotte, with half the number engaged. To reach this conclusion he ignores several important points, and among others, the fact that Gravelotte was fought in twelve hours and Gettysburg during three or four days. He might also have stated that the German loss from about noon of the 16th until night of the 17th of August, was over 36,000, with 1,460 missing, and that Meade's loss was 23,000, with 5,434 missing.

The most stubborn field of the Franco-Prussian war was Vionville-Mars la Tour. Our bloodiest day was that of Antietam. The Germans had about 58,000 engaged and lost 15,799. McClellan had about 60,000 engaged and lost 12,410.

The writer makes another mistake when he would compare the loss of a German regiment of 3000 men, with that of one of our own regiments of several hundred. At Mars la Tour the five battalions of the Third Infantry Brigade went into action with ninety-five officers and 4546 men and suffered a total loss, including some 370 prisoners, of seventy-two officers and 2542 men, consequently nearly sixty per cent. of the original strength—the proportion between killed and wounded being as three to four. This might be placed beside the heaviest losses of American troops with no detriment to Teutonic valor. The heaviest losses of divisions and brigades recorded by Colonel Fox are Hancock's Division, Frederickburg, 2029 out of 4,834; Longstreet's Division, Gaines' Mill and Glendale, 4338 out of 8,831; Harrow's Brigade, Gettysburg, 763 out of 1,246; Garnett's Brigade, Gettysburg, 941 out of 1,427.

The author's authority on the loss of the Third Westphalian Regiment at Mars la Tour differs from the official account of the German staff. The loss is there given at 1,785, and other figures make it probable that the regiment numbered not over 2,700; this would give a loss of sixty-six per cent. In that regiment there were twenty-seven officers killed, twenty-one wounded and one missing; a loss of ninety per cent. if every officer stood in his appointed place on that afternoon.

Similar examples are not wanting in other wars. Thus the Russian losses in the third assault on Plevna were 18,216 killed and wounded, out of about 60,000 engaged, and Skobelev lost 5,000 out of his 18,000\* in his battle on the Lovtcha road.

These figures are given to show, not that our troops displayed less steadiness, but that others have shown it as well. It is a fact that good soldiers, well led, will fight well at all times, whatever their race, creed or color. This is abundantly proved in this very book, by such examples as the Irish Brigade, which lost more men killed and wounded than it ever mustered at any one time, by the record of the colored troops, the "German Rangers" and the "Highlanders."

The author again shows a disposition to elevate our gallant soldiers somewhat unduly above others when he says that the Germans in France lost 3.1 per cent. in killed and died of wounds, and the Americans 4.7 per cent. on one side and over nine per cent. on the other. Truly no comparison like this was necessary to show the staying qualities of our countrymen. Especially should it be remembered that the war of 1870-71 lasted only six months and that our losses were scattered along through four years.

Colonel Fox views the war principally from a northern point of view. He has not failed, however, to make a careful study of Confederate records and to give abundant credit to that side. He deploras as a good soldier should, the fact that these records are so incomplete, and that so many meritorious instances of American pluck should lie in the unrecorded history of the cause that was lost.

Narcissus, we are told, became enamored of his own image and pined away and died of love. There is an evident danger into which we too may fall while contemplating the beautiful spectacle of our countrymen in war. The fact that American volunteers fought so well is cited as an argument that they would do so again if called to arms, and the fallacy is advanced that armament and an organized force are therefore unnecessary in time of peace. But the veterans of 1863 can never be mustered for another Gettysburg. Three years of war were needed before they formed their steadfast lines of that day. Another 1861 will see as tall skedaddling as helples blundering and as improvident a waste of treasure as there was thirty years ago. As a consequence of well directed military training a time of peace look at the men of Westphalia three weeks after they left their farms and counting-houses, holding the hedges and vine yards north of Mars la Tour against two corps of infantry. Who can

\* Forbes says 15,000.

say that such a thing can be done in this country? If so we are better than our fathers, for our military training is about the same.

It is well enough to feel pride in the excellence of our volunteer army, but there were many things wrong in the system which brought about that army, and in which we may learn good lessons from the conscripts of Europe. In our own volunteer army, called out, not by the ambition of kings, but to fight for a principle, there were nearly twenty-five per cent. of desertions; abroad this crime is almost unknown. What we need is a system of training applied to regulars and militia in time of peace that will make them able to repeat their best deeds at occasion should call. Above all we must not imagine that any land can furnish soldiers, like the dragon's brood of the fable, who sprang, full grown and armed, from the furrows of the field. We must realize the fact that many other lands possess soldiers, who, for purposes of war, are at this instant far better than our own.

A second edition should include Colonel Lew. Benedict, 162d New York, in the list of brigade commanders killed on the field; it should also correct the middle initial of Stonewall Jackson's name.

GREAT CAPTAINS—ALEXANDER. By T. A. Dodge. Cambridge: Riverside Press. 1890.

A MANUAL OF GUARD DUTY. By Lieutenant I. W. V. Kennon, U. S. Army. Cambridge: Riverside Press. 1890.

HANDY LISTS OF TECHNICAL LITERATURE. Milwaukee: National Publishing and Printing Co. 1890.

FORTY YEARS A FILE CLOSER. By Captain Minus Wombat. Washington: Chapman.

COLUMB'S UNITED SERVICE MAGAZINE. January 1890.

Weapons of War. The Welsh Border. David Deen. Kuram Valley. A Soldier's Friend. Returned Emigrants. The Volunteer Force of India. A Perilous Incident in China.

JOURNAL OF THE ROYAL UNITED SERVICE INSTITUTION OF INDIA. Vol. XVIII. Number 78.

A Trip to Bokhara. The Aka Expedition. Horse Breeding Operations. Musketry Fire in the Hills.

UNITED SERVICE INSTITUTION OF NEW SOUTH WALES.

Inaugural Address by the President, Major-General Richardson, C. B. Lecture IV—The Clothing of the Soldier as Suitable to the Climate. Lecture V—The Maxim Gun. Lecture VI—Naval Attack on a Protected Harbor.

## ARMY AND NAVY GAZETTE.

Volume XXX., 1889: General Brackenbury on Street Fighting—931. Military Prisons and Military Crime—948. An Advance in Musketry—965. The Portugese in South Africa—967. Canadian Horses—967. Lord Wolseley and the Volunteers—967. Count von Moltke—977. The Pinto Episode—1008. The Ordeal of Battle—1034. Volume XXXI, 1890: The French Helmet—5. Supply and Transport in 1889—41. The Adjutant-General on an American Barrel Organ—81. The United Service Institution and Aldershot Military Society.

## JOURNAL OF THE ROYAL UNITED SERVICE INSTITUTION. No. 151, 1890.

Military Training of Boys. Horse Breeding in Australasia. The Cavalry Division as a Body in the Fight. Extracts from an Infantry Captain's Journal.

## PROCEEDINGS OF THE ROYAL ARTILLERY INSTITUTION. Volume XVII Numbers 7 and 8.

The Dutch Field Artillery. A March of Royal Horse Artillery from Neemuch to Mhow, 1889. The German Field Artillery Drill Regulations: *Part 4: The Fight*. The Influence of Smokeless Powder on the Tactics of the Battlefield. The French Artillery. Army Customs, One Hundred Years Ago. A Breech-Loader for Mountain Artillery. The French Mountain Artillery in Tonkin, 1883 to 1887. The Swiss Artillery. The German Rules for Umpires. Old Recruiting Notices.

## ILLUSTRATED NAVAL AND MILITARY MAGAZINE. December 1889 and January and February 1890.

Great Commanders of Modern Times. Turenne—Marlborough. Naval Warfare, VI, VII and VIII. Military Topography by Captain Verner, II and III. Wanderings of a War Artist. Boxing. Artillery at the Paris Exposition. Polo in India. Epochs of the British Army. Imperial Colonization. Battle of Edgehill. The American War.

## REVUE DU CERCLE MILITAIRE.

1889, No. 47: An Episode of the Retreat from Moscow. National Songs and Military Music. The New Colt's Revolver and the Cart-ridge Pack. No. 48: The Moral Education of the Russian Soldier. The Defense of Plevna. No. 49: Smokeless Powder: Its Influence on Tactics. No. 51: Osman Pasha. No. 52: The Moral Education of the Soldier, and Particularly of the Trooper. Military Cycling in Denmark. Letter from the U. S. 1890, No. 2: A German Study of the French Army. Cavalry and Smokeless Powder. No. 3: The Cossacks of the Oural at Home and at War. No. 5: Night Attacks

## MILITAER-WOCHENBLATT.

Series 1889, Nos. 86 and 87: Tactical Retrospect on the Use of Artillery in the Battles of the Franco-Prussian War. No. 91: Smoke

less Powder and the Combat. The Lance. No. 92: Cycling Exercises in the English Army During the Fall, 1889. No. 93: Smokeless Powder and the Field Artillery. No. 94: Experiments to Determine the Velocity of sound. No. 95: Hints for Conducting Infantry Fire against Infantry, Cavalry and Artillery. No. 106: Smokeless Powder and the Attack. Series of 1890: The Fifth Squadron of French Cavalry Regiments—32. Instruction of Cavalry—14-143. A French Opinion of the Achievements of the German Cavalry During the War of 1870-71—88. The Dismounted Action of Cavalry—313-403. The Lance—267-373. Remarks on the Instruction of Field Artillery in Riding—49. Refractory Horses—114. Remounting of the Russian Cavalry—152.

The Italian Army in the Autumn of 1889—26. The Effect of the Ricochet Fire of the French Infantry—33. The Territory of the Ural Cossacks as a Center of Horsebreeding—61. The Penetration of Bullets of Small Caliber and Shelter Trenches—77. Examination of English Officers in Foreign Languages—94. Tactical Retrospect of the Battle of Gravelotte, with Special Reference to the use of Artillery—103, 137, 175, 261, 294. Additional Cavalry Regiments for the French Army—181. Drill Regulations for Infantry.—Edition of 1889—171. Peculiar Disease of the Hair among French Soldiers—187. Esteem of Foreign Military Men for the Writings of Prince Hohenlohe-Ingelfingen—236. Fire Tactics for Infantry—225. Smokeless Powder and Field Artillery—326. Fortresses of Germany—341. Reply to Several Passages in the Article, "Hints on the Management of Infantry Fire"—347. Health of the English Army—349. Desertion in the Army of the United States—350. Three Thousand Versts on a Velocipede—353. Quick Firing Cannon—360. The Marshals of France—393. The Improvements in Fire-arms and the Offensive—397. Improvement of the Rifle—415. The Military Department of the Paris Exposition—426, 455.

## JOURNAL OF THE MILITARY SERVICE INSTITUTION. Numbers 42 and 43.

Military and Naval Pensions in the U. S. Danger from Lack of Preparation for War. Mackenzie's Last Fight with the Cheyennes. Mountain Artillery. A Trip to India, China and Japan. Heavy Artillery Target Practice. Esprit de Corps. Development of Submarine Mines and Torpedoes. Instruction of Non-Commissioned Officers. Military Instruction of our Youth.

## PROCEEDINGS OF THE U. S. NAVAL INSTITUTE. Vol. XV, No. 4. 1889.

Description of the Works of the Bethlehem Iron Company. Our Future Navy. Steam Trials of the Lepanto. Management of Boats in Surf.

## THE UNITED SERVICE.

December 1889. The Evolution of the Torpedo Boat. One View of the Army Question. The U. S. Revenue Cutter Service. The Annual Inspection of the National Guard by Army Officers. January 1890: Our Coast Defences. Modern Naval Education. Individual Dis-

cipline of the National Guardsman. Some Cavalry Leaders. February, 1890: Some Glances at the Wars of Tomorrow. Our Coast Defences. Notes on National Guard Staff Duty. Operations Before and the Fall of Atlanta. March 1890: The Indian as a Soldier. National Guard Staff Duty. Great Commanders of Modern Times. Battle of Thompson's Station and Trial of the Spies at Franklin Tenn. The Trials of Staff Officers.

PENNSYLVANIA MAGAZINE OF HISTORY AND BIOGRAPHY. No. 4, of Vol. XII. January 1890.

Pennsylvania and the Declaration of Independence. Autobiography of Robert Proud, the Historian. Governor Pownall's Reasons for Declining the Government of Pennsylvania, 1758. Letters of William Penn to John Aubrey.

HUDSON'S ARMY AND NAVY LIST. December 1889. January and February 1890.

THE NATIONAL TRIBUNE. Weekly. Washington, D. C.

THE INVENTIVE AGE. Weekly. Washington, D. C.

THE SPIRIT OF THE SOUTH. Weekly. New Orleans, La.

## JOURNAL

OF THE

### UNITED STATES CAVALRY ASSOCIATION.

C. C. C. Carr.

Editor.

VOL. III.

JUNE, 1890.

NO. 9.

#### THE STORY OF A MARCH.

IN ALL the discussions as to the proper method of marching cavalry, and in the many valuable papers bearing upon that subject that have appeared in the JOURNAL OF THE ASSOCIATION, I have seen no reference to a forced march made by a mounted regiment of our service in the midst of the greatest of all the campaigns against the hostile Indians of America. That no more notice was taken of it at the time, was due doubtless to the tragedy of the Little Horn which overshadowed the entire campaign; and, though having as important bearing on the general result of a summer's operations as the overthrow of STUART by the horsemen of GREGG at Gettysburg, it failed to its due share of attention for almost similar reasons. There are few cavalrymen who have not heard much of the campaign of 1876. Whatsoever may have been the result of each separate skirmish, combat, or battle, the final effect was the dismemberment of the Sioux nation as such, and the subjugation of the bravest and most brilliant warriors of the western plains—the Cheyennes.

Divided into two great bands, this tribe was long regarded as the most powerful of the totemen along our frontier. Numerically inferior to the confederation of the Dakotas, they were their acknowledged superiors in plaincraft and the science of light cavalry fight. The Northern Cheyennes, intermarrying with the Brules and

Ogallallas, had taken to the warpath as their allies at the very out break of the campaign. The Southern Cheyennes, on the contrary, had no vestige of excuse for their part in the war, and with the exception of the uncontrollable spirits among the younger men, assumed at the start what might be called an attitude of armed neutrality. Oddly enough, however, as many as six or eight hundred of them, happened to be at the reservation east of old Fort Robinson apparently waiting to see "which way the cat would jump."

A singular state of affairs existed in June, 1876. Three columns had taken the field against the hostile tribes now known to be assembled in strong force along the northeastern slopes of the Big Horn range. There, with GALL, CRAZY HORSE, RAIN-IN-THE-FACE and other acknowledged chiefs to lead them, and that shrewd old humbug SITTING BULL, to absorb the credit of the campaign, a force of at least four or five thousand fighting men lay uneasily watching the marches of concentration by which CROOK from the south, TERRY from the northeast, and GIBBON from the northwest, were closing in upon their chosen grounds.

The combats of the early spring and of the first week in June had dispelled all doubts as to their strength and armament; they were far more than a match for any one of the three expeditions, and so completely did they utilize their advantage of interior lines, that communication between CROOK and his associates along the Yellowstone proved utterly impossible. Strong in numbers as they were, and abundantly supplied with arms and ammunition, ponies and provisions, it seemed that with every day they received accessions from the reservations along the White river, two hundred and fifty miles to the southeast.

General SHERIDAN had reason to believe that a broad, well defined trail led from these reservations across the valleys of Hat creek and the South Cheyenne, thence north-westward in the direction of Pumpkin Butte, and so across the Powder and Tongue rivers to the chosen haunts of the renegades. Early in June he sent his special inspector of cavalry to the reservations to look into the situation and meantime ordered eight troops of the Fifth Cavalry, then serving in Kansas, to move by rail to Cheyenne, and there await orders.

Very possibly the inspector's telegraphic report was of such a character as to make our division commander determine on an immediate personal visit to the scene. At all events, the former, returning, had an opportunity of looking at the regiment as it broke camp at Cheyenne on the 11th of June, and the latter drove into Fort Laramie just after we pitched our tents along the flats below the post.

On the 22d our eight troops marched to Raw Hide Butte *en route* to the South Cheyenne; every captain commanding his company, and every officer who happened to be on leave throwing it to the winds and joining before we crossed the Platte. On the 25th of June, a glorious sunshiny morning, just at the time that the Seventh was in the midst of its desperate battle on the Little Horn, our advanced guard climbed the bluffs across the Mini-Pusa, and found the Indian trail across the Cheyenne just as General SHERIDAN had prophesied. It was about as broad, and quite as clearly defined, as Fifth Avenue.

Our orders, it seems, were to the effect that we should remain hidden among the cottonwoods in the broad valley, some forty miles west of the Black Hills; keep vigilant watch of that trail, and put an end to the system of reinforcement then in full blast.

The week between June 26th and July 3d was not especially venturil. We had several short runs, and finally, one long chase after our fleet-footed antagonists, which resulted in greater loss to us than to them, as two or three of our horses dropped, shot, or died from exhaustion. By the end of the week the whole reservation knew that the white soldiers were across the big trail, and all the Indians had to do was to select some other route, a trifle longer, perhaps, but otherwise quite as practicable. By the end of the week, too, there had come a change in the *personnel* of our commissioned force. The numbers remained as before, but one officer fell out with a bullet hole through the left wrist, and another joined and immediately took command,—our new colonel. Coming direct from the presence of the division-commander the latter had, doubtless, instructions of which we knew nothing. It was evident, however, that he considered our further presence in that neighborhood as of no avail; for on the glorious Fourth we retraced our steps, scouting in dispersed columns across the country, and upon the afternoon of the 7th, were bivouacked near the old stockade at the head of what was then called Sage Creek. It was here, on the 7th, that we got the tidings of the disaster at Little Horn; here we received, on the night of the 11th, orders to fall back to Fort Laramie, and the word sent through the column that we were to go forthwith to the support of General CROOK *via* Fetterman. We bivouacked on the night of the 12th in a furious storm at the foot of Cardinal's Chair, near the head waters of the Niobrara, and the next night were sheltered under the lee of friendly old Raw Hide Butte.

And now I beg leave to quote from a description written full ten years ago, when the events of this campaign were even fresher in my mind than they are to-day:

"We were now just one long day's march from Fort Laramie, and confidently expected to make it on the following day. At reveille on the 14th, however, a rumor ran through the camp that dispatches had been received during the night indicating that there was a grand outbreak among the Indians at the reservation. Of course we knew that they would be vastly excited and encouraged by the intelligence of the CUSTER massacre; furthermore it was well known that there were nearly a thousand of those Cheyennes who as yet remained peaceably at the Red Cloud or Spotted Tail reservations, but who were eager for a pretext on which to 'jump,' and now they might be expected to leave in a body at any moment, and take to the warpath. Our withdrawal from the Cheyenne river left the old favorite route again open; and the road to the Black Hills was once more being traversed by trains of wagons and parties of whites on their way to the mines—a sight too tempting to Indian eyes.

"Major JORDAN, commanding the post at Camp Robinson, had described the situation in a dispatch to our colonel, and when shouts and saddles sounded and we rode into line, we saw our quartermaster guiding his wagons back over the ridge we had crossed the day before, and in a few minutes we were following in their tracks. Straight to the east we marched that morning down the stream, and at noon were halted where the road connecting Fort Laramie with the reservation crossed Rawhide Creek. Here Captain ADAM with troop 'C' left us and pushed forward to the Niobrara crossing, twenty-five miles nearer the Indian villages, while the indefatigable Major STANTON, our 'polemical paymaster', was hurried off to Red Cloud to look into the situation. The rest of us waited further developments.

"On Saturday, the 15th of July, just at noon, the Colonel received a dispatch from the Red Cloud Agency which decided the subsequent movement of his command. It led to his first lightning march, with his new regiment. It impelled him to a move at once bold and brilliant. It brought about an utter rout and discomfiture among the would-be allies of SITTING BULL, and won for him the commendation of the Lieutenant-General, although it may have delayed us a week in finally reaching Crook at the Big Horn. The information was from Major STANTON substantially to the effect that eight hundred Cheyenne warriors would leave the reservation on Sunday morning, fully equipped for the warpath, and with the avowed intention of joining the hostiles in the Big Horn country. To continue on his march to Laramie and let them go, would have been gross neglect; to follow by the direct road to the reservation, sixty-five miles away to the northeast, would have been simply to drive them out and hasten their movements. Manifestly there was but one thing to be done: to throw himself across their path and capture or drive them back; and to do this he must practically march over three sides of a quadrilateral, while they were traversing the fourth, and must do it undiscovered. If the Colonel hesitated ten minutes, his most intimate associate did not know it. Leaving a small guard with the wagon train, and ordering our quartermaster, HALL, to catch up with us at night, the Colonel and seven companies swing into saddle, and

at one o'clock are marching up the Rawhide away from the reservation, and with no apparent purpose of interfering in any project the Indians may have had in view. We halt a brief half hour under the peak, fourteen miles away, water our thirsty horses in the clear running stream, remount and, following our chief, lead away now north-westward. By five p. m. we are heading square to the north. At sunset we are descending into the wide valley of the Niobrara and, just at ten p. m. we halt and unsaddle under the tall buttes of the Running Water, close by our old camp at Cardinal's Chair, only thirty-five miles by the way we came, but horses must eat to live, and we had nothing but the buffalo-grass to offer them. We post strong guards and pickets to prevent surprise, and scatter our horses well out over the hill-side to pick up all they can. Captain HAYES and I are detailed as officers of the guard and pickets for the night, and take ourselves off accordingly. At midnight HALL arrives with his long wagon train. At three a. m. in the star light, the Colonel arouses his men, coffee and bacon are served out, the horses get a good feed of oats from the wagons, and at five o'clock we are climbing out of the valley to the north.

"The sun rises over the broad lands of the Sioux to the eastward as we leave the shadowy Niobrara behind. The Colonel's swift-stepping gray at the head of the column keeps us on our mettle to save our distance, and the horses answer gamely to the pressing knees of their riders. At ten-fifteen we sight the palisade fortifications of the infantry company which guards the spring at the head of old Sage Creek. Here officers, men, and horses take a hurried but substantial lunch. We open fresh boxes of ammunition, and cran belts and pockets until every man is loaded like a deep-sea diver, and fairly bristles with deadly missiles. Then on we go, east-northeast over the rolling, treeless prairie, and far to our right and rear runs the high, rock-faced ridge that shuts out the cold north winds from the reservations. The day is hot; we are following the Black Hills road and the dust rises in heavy clouds above us; but it is a long, long way to the Indian crossing and we must be the first to reach it.

"At sunset, a winding belt of green in a distant depression marks the presence of a stream. At eight p. m. silently under the stars we glide in among the timber. At nine the seven troops are unsaddled and in bivouac close under the bluffs where a little plateau around which the creek sweeps in almost a complete circle, forms excellent defensive lair against surprise. We have marched eighty-five miles in thirty-one hours, and here we are square in their front, ready and eager to dispute with the Cheyennes their crossing on the morrow. Every man, every horse, in thorough condition, and ready for anything that may occur. Not a sore back, not a case of fatigue!

"By some odd complication in the roster it becomes again my duty to go on as officer of the guard. We grope out in the darkness, and post our pickets in hollows and depressions where best they can observe objects against the sky. The night passes away without alarm of any kind. At three o'clock the morning grows chilly, and the



yelping of the coyotes out over the prairie is incessant. My orders are to call the Colonel at half past three, and making my way through the slumbering groups I find him rolled in his blanket at the foot of a big cottonwood, sleeping with one eye open, apparently; for he is wide awake in an instant, and I return to my out-post toward the southeast.

—Outlined against the southern sky is a high ridge some two miles away. It sweeps around from our left front, where it is lost among the undulations of the prairie. Square to the east, twenty miles distant the southernmost masses of the Black Hills are tumbled up in sharp relief against the dawn. Objects near at hand no longer baffle our tired eyes, and the faces of my comrades of the guard look drawn and wan in the cold light. We are huddled along the slope, which did well enough for night watching, but, as the lay of the land becomes more distinct, we discern four hundred yards further out to the southeast, a little conical mound rising from a wave of prairie, parallel to our front, but shutting off all sight of objects between it and the distant range of heights. So I move my out-post to the new position, and therein we find unobstructed view. To our rear is the line of bluffs that marks the winding course of the stream, and the timber itself is now becoming mistily visible in the morning light. A faint wreath of fog creeps up from the stagnant water where busy beavers have checked its flow, and from the southward, not even an Indian eye could tell that close under those bluffs seven companies of veteran cavalry are crouching, ready for a spring.

—Turning to the front again, I bring my glasses to bear on the distant ridge and sweep its face in search of moving objects. Off to the right I can mark the trail down which we came the night before, but not a soul is stirring. At half past four, our horses, saddled and bridled, are cropping the bunches of buffalo grass in the swale behind us. Four men of the picket are lying among them, huddled in hand. The Corporal and I, prone upon the hill-top, are eagerly scanning the front, when he points quickly to the now plainly lighted ridge, exclaiming: "Look, Lieutenant, there are Indians." Another minute and two miles away we sight another group of six or seven mounted warriors. In ten minutes we had seen half a dozen different parties popping up into plain sight, then rapidly scurrying back out of view. At five o'clock they have appeared all along our front for a distance of three miles, but they do not approach nearer. Their movements puzzle us; we do not believe they have seen us; they make no attempt at concealment from our side, but they keep peering over ridges toward the west, and dodging behind slopes that hide them from that direction. The Colonel has been promptly notified of their appearance, and at five-fifteen, he and one or two of his staff ride out under cover of our position, and dismounting, crawl up beside us and level their glasses.

—What can those Indians be watching? is the question. The Black Hills road is off there somewhere, but no travel is possible just now, and all trains are warped back at the stockade. At half past five the mystery is solved. Four miles away to the southwest to our

light front, the white covers of army wagons break upon our astonished view. It must be our indefatigable quartermaster with our grain, and he has been marching all night to reach us. He is guarded by two companies of infantry, but they are invisible. He had stowed them away in the wagons, and is probably only afraid that the Indians won't attack him. Wagon after wagon, the white covers come gleaming into sight far over the rolling prairie, and by this time the ridge is swarming with war parties of Cheyennes. They are only a day's march from the reservation, and here, they think, are their first victims—a big train going to the Black Hills unguarded. No wonder they circle their swift ponies to the left, in eager signals to their related brethren to "come on, come on." In half an hour they'll have five hundred here, and the fate of those teamsters and that train sealed.

—Let the men saddle up, and close in mass under the bluffs, is the order.

—The little hill on which we are lying is almost precipitous on its southern slope, washed away, apparently, by the torrent that in the rainy season must come tearing down the long ravine directly ahead of us. It leads from the distant ridge and sweeps past us to our right, where it is crossed by the very trail on which we marched in, and along which, three miles away, the wagon train is now approaching. The two come together like a V and we are at its point, while between them juts out a long spur of the hills. The trail cannot be seen from the ravine, nor the ravine from the trail, while we, on our point, can see both. At the head of the ravine, a mile and a half away, a party of thirty or forty Indians are scurrying about in eager and excited motion.

—Even while we speculate as to their purpose, it suddenly becomes plain. Riding towards us, far ahead of the wagon train, two soldiers come loping along the trail. They bring dispatches to the command, no doubt, and, knowing us to be down here in the bottom somewhere, have started ahead to reach us. They see no Indians; for it is only from them and the train the wily foe is concealed, and as unsuspecting of their danger they come faintly ahead.

—And now is the red man's opportunity. Only a mile away come our couriers. Only a mile and a half up the ravine a murderous party of Cheyennes lash their excited ponies into full gallop, and down they come towards us. In a moment the Colonel has ordered every man down off the hill and into saddle,—every man with one exception—an officer is left at the crest to watch the advance, and give the word when the party should make its dash.

—Oh, what a stirring picture those Indians make, as once more we fix our gaze upon them. Savage warfare was never more beautiful than in these. On they come, their swift, agile ponies springing down the winding ravine; the rising sun gleaming on trailing war-bonnet and silver armlet, necklace, gorget; on brilliant, painted shield and beaded leggings; on naked body and beardless face stained most vivid vermillion. On they come, lance and rifle,

pennon and feather glistening in the morning light; the riders swaying in the wild grace of their peerless horsemanship. Nearer till we can mark the very ornament upon their leader's shield. And so, on, too, come their helpless prey. We hold vengeance in our hands, but not yet to let it go. Five seconds too soon and they can wheel about and escape us; one second too late, and our line-coats, couriers are dead men. On they come, savage, hungry-eyed, merciless. Two miles behind are their scores of friends, eagerly and applaudingly watching the exploit; but five hundred yards ahead of them, coolly awaiting their coming, are their unseen foes, beating them at their very game. Nearer and nearer; their leader, a gorgeous looking fellow on a bounding grey, signals to close and follow. Three hundred yards more and their gleaming knives will tear the scalp of our couriers. Twenty seconds and they will dash around that point with their war-whoop ringing in their ears. Two hundred yards—we can hear the pinging of their wiry steeds. One hundred and fifty—ten seconds more and they are on them. Then, crash go the hoots! There is a rush and scurry and scramble, a wild ringing cheer, and the little squad leaps from its cover, and charges home upon the Indian flank. There is a chorus of shots and shouts and warning cries. Their leader, cool as a cucumber, wheels and sends his bullet whistling past the Colonel's head. BUFFALO BILL, our old time scout, has tumbled a warrior from his pony, and both Indian and steed are stretched upon the turf, quivering in the death agony. Away whirl the foremost Cheyennes, dodging bullet or blade. "Look! Look to the front!" is the cry. And there, coffering the slope like a red cloud, down come their scores of comrades, full charge, to the rescue. Full charge for more than a half a mile, and then veer and swerve and sweep to right and left; for the long blue line of 'K' troop shoots up over the ridge, and in their right rear the grays of 'B' are echeloned. The bays of 'F' troop come plunging into line out on the left flank, and in less time than it takes to tell it, the seven troops are sweeping up the long, long wave of prairie, whirling the Cheyennes before them.

What a chase it was! What a glorious spurt cross country with our quarry sometimes in full view! What marvels of horsemanship were those piebald ponies. What a picture to recall in these days of piping peace—the scurrying bands far over to the south, the widely dispersed pursuit, some troops scattered as foragers, others stoutly maintaining their line. The prairie dotted with blankets, ration sacks, robes and all manner of "impedimenta" dropped in the Indian flight; the cloud shadows sweeping over the wavy slopes, the radiant sunshine, tempering the chill of the morning breeze, and then, at last the stirring trumpet peals, the "rally," the "recall," and finally the "gathering at the river," as we stop for breath and water our horses at Indian creek.

All the livelong morning, all the summer afternoon, the victors press their way, steadily herding before them the renegades back to

their reservation. Battered and astounded, for once in a lifetime, eaten at their own game, their project of joining SITTING BULL tipped in the bud, they mourn the loss of three of their best braves slain in sudden attack, and worst of all their provender and supplies lost in the hurried flight.

Wearied enough, we reach the agency buildings at seven that evening—disappointed, possibly, at having bagged no greater game; but our chief is satisfied, and the Fifth generally goes to sleep on the ground, well content with the affair of the War-Bonnet. For the first time, in that campaign at least, the Indian was beaten at his own tactics.

From the moment of the start at the Laramie crossing of the Rawhide, with its cool, deliberate formation, the steady, quiet, westward column of route; the alternation of "saddle and foot" as we crossed the ridges; the brief rest at the peak; the quickened gait, as we made the northward turn; the occasional trot as we jogged across the broad valley of the Niobrara deep into the star-lit night; the four hours' cat-nap at the Cardinal's Chair; the mount at break of day, and the same deliberate movement into column; the brief halt at the Sage creek camp, and then the long, long hours of rapid, tireless, unrelenting "forward"—it has always been to my thinking one of the most perfect cavalry marches in the story of our frontier service; and in its results it triumphantly sustained the judgment of our leader.

The dust of the toilsome July day long since settled back to earth; the scenes of the wild and weird campaign that followed are slowly fading from the memories even of many of its participants. Impressions then created, opinions formed under the influence of the hardship and suffering undergone during the ten weeks' march of the expedition of August and September, have been tempered even among canonie fault-finders by the softening influence of time. But among those who rode with the Fifth Cavalry in the battle summer of 1876 there has never been dissent from the view then taken; that the gem of the crown of experiences won by us during that six months' work was the march that led to the rout of the Cheyennes in the spirited fight on the banks of the War-Bonnet; and that no more brilliant move was made from first to last than this very backward leap across the pathway of the foe, so quickly conceived, so promptly determined, and carried so successfully to its execution by him, who from its very birth, we have hailed as Chief and President of our association.

CHARLES KING,  
Captain, U. S. Army, Retired.

### THE RIDING SCHOOL AND ITS IMPORTANCE IN THE TRAINING OF THE CAVALRY SOLDIER.

**T**HE first and most important step in the training of the trooper is to teach him to ride, and to acquire dexterity in managing his horse, and in using his weapons mounted. No man can become an effective cavalry soldier until he has acquired this facility. How is this result to be attained? Only by a thorough and systematic course of training in the riding school. At platoon, troop, or battalion drill, the attention of the instructor is necessarily directed to the precision and accuracy of movement of the entire command.

I have heard it remarked that men learn more about riding at battalion drill than in the riding school. This is absurd; no officer can give the necessary attention to the faults of the individual trooper when so many are to be observed. This instruction—if men are to be taught to ride—must be for individuals separately, or so united that the movements of each man can be carefully observed. Owing to the manner in which recruits are supplied, and the various duties which our troops are called upon to perform, it is difficult to lay down an invariable rule for the instruction of the cavalry recruit; it should, however, be made imperative, and enforced on post commanders as rigidly as are the requirements of target practice *that at least two months in each year must be devoted to instruction in the riding school.*

It is too frequently the case that recruits are required for field service before they have been taught the first principles of riding. Although men may have been thoroughly instructed, exercise in the riding school is equally as necessary for the old soldier. During the long winters of the west, both trooper and horse get out of practice, and when spring exercises are commenced a number of men are found who have forgotten, or who purposely disregard their previous instructions; horses are also out of condition, and more or less unmanageable, all from want of proper exercise and handling. These defects would disappear if each cavalry post were provided with a suitable

riding-hall or shed to cover the track and protect the men and horses from the inclemency of the weather. During the winter months, drills are necessarily confined to setting-up exercises, or the manual of arms, &c.; these are all good in their way, but of what use are they to a cavalryman if he is unable to ride? A recruit joins his troop in November or December, is drilled in the setting-up exercises, facings, evolutions and manual of arms for, say two months; then, on account of frequent guard duty, he is taken up as a private and goes on guard. In the spring,—if the troop is not ordered into the field,—a recruit is drilled in the ranks, or he may be taken to one side to receive his preliminary instruction in mounting, saddling and bridling, &c., from a non-commissioned officer, as officers must be with the troop.

With one good riding hall or shed, at each post where two or more troops of cavalry are stationed, all this could be avoided, and recruits, as well as old soldiers and horses, turned out in the spring, ready for troop drill; for the drill of the troop should always precede that of the battalion. In fact there are but two riding halls for the entire army,—one at West Point, and one, recently constructed, at Fort Leavenworth. How absurd this is for the standing army of a nation of over 60,000,000 people, the richest on the face of the earth. The smallest European army is provided with good riding halls at each cavalry post; at the cavalry school at Saumur, France, I am informed there are four large buildings constructed expressly for this purpose. Surely our Government could afford to build at least one at each large post.

It is not considered necessary to enter into a discussion of the best desirable form of building designed for use as a riding hall, all that is necessary is a building, sufficiently well lighted and ventilated, to enclose and cover the rectangular track 300 feet long by 100 feet wide. Our efficient Quartermaster's Department would at once, if their energies and money were directed that way, soon design buildings which would answer all the requirements of the service. The cost would be a small item when compared to the benefits to be derived by the cavalry service. At posts where lumber can be manufactured, the cost of constructing a good riding hall would not, probably, exceed \$1,500 or \$2,000. A hall of the size mentioned above would accommodate several detachments of recruits or a troop; the matter of providing an opportunity for the instruction of all would be very simple. If post commanders would recognize and value the importance of riding halls to the service, their construction could only be a question of a short time.

During my experience in the cavalry, serving at various posts the only systematic and effective arrangement of riding schools or tracks I have ever seen was that put in operation at Fort Custer; they answered their purpose well, and resulted in a marked improvement in the horsemanship of the men, and training of the horses. The simplicity of the construction of these tracks is a great point in their favor; each troop constructs its own hall by hauling manure and building an embankment about five feet high around a track of the regulation size. After the embankment is built it can be surrounded by ricks of cord wood to protect it from loose stock. When several troops are stationed together the tracks may be built adjoining each other, thus lessening the amount of embankment to be constructed. While this system will not meet all the requirements of the service at posts situated in localities where the winters are severe, it would probably serve every purpose for the more southern posts, and the brief description of construction given above is intended for the information of those who may not have seen the plan put in operation.

The necessity for the instruction in horsemanship of the cavalry recruit is so obvious that it need not be dwelt upon. We know of natural horsemen who are brought up with the horse, and are accustomed to ride from youth; they are almost "born on horseback," so to speak, Indians, Mexicans, Cossacks, Arabs and others. These people only feel truly at home when astride a horse. How natural and easy the Indian or Mexican appears as he handles his arms or lasso mounted. It is this ease, confidence and understanding between man and horse which the riding school teaches, and which the cavalryman must have before he becomes thoroughly effective.

Personal combat between individual cavalrymen may be of rare occurrence in future wars; but there will undoubtedly be cavalry charges, when the individuality of the trooper will be brought in play, and when his ability to control the movements of his horse quickly, easily, instinctively, and to handle himself and his weapons surely and effectively, will be of the greatest importance. The ordinary cavalry recruit is not a natural horseman; far from it, he must be taught to ride, to sit securely and with confidence in all positions which the horse is liable to assume. He must learn the uses of the bit, reins, and legs in controlling and directing the motions of the horse; and he must become accustomed to using his weapons while mounted. Can a man pick this up at troop or battalion drill? The answer must be, No! This instruction must be imparted in the riding

school, when the actions of each man and horse can be carefully observed and his faults corrected.

I do not intend to present any system of instruction to be employed; text books on the subject are numerous, and a fair portion of the new drill regulations for the cavalry is devoted to it. It is only necessary to present the importance to our service of supplying riding halls at cavalry posts. In addition to the improvement of the trooper, these institutions would be of great benefit to the cavalry officer. Enlisted men naturally look to their officers to set them an example in the performance of those exercises which they teach, and expect that the officer shall excel in the management of his horse and in the use of his arms.

Most line-officers are good shots, many expert marksmen; this is shown by a glance at the orders promulgating the records of each practice season. Officers therefore, do not hesitate to take up the carbine and illustrate to the recruit, by personal example, the proper position, manner of holding the piece, and the many other details necessary for accurate shooting. When the shot is fired, the recruit sees at once the practical result of the instruction given and will strive to follow it. Can anyone doubt the benefits which would result were this system of personal illustration by officers followed in the instruction given in the riding school?

Were our cavalry posts provided with these halls, officers would have ample opportunity during the winter months to practice the various exercises, running at the heads, leaping, etc., and would not hesitate, in drilling the troop or platoon to personally illustrate the instruction they have given; confidence in one's self is all that is required. Then again, officers would be incited to train their own mounts and, through interest in this work, to keep and use fine horses. What can be more gratifying to the cavalry officer with a proper pride in his profession, than to appear on parade or drill, riding a fine, well broken horse, and to know that the perfection in biting, docility, and gait displayed by the animal he bestrides is due to his own careful handling. There is nothing which would give greater stimulus to our cavalry service than a spirit of emulation among the officers as to the quality of their respective mounts, and their ability to ride and handle them well; and if we had the riding halls, this spirit would at once show itself and officers would soon be trying to procure from Kentucky or elsewhere, horses superior to the average cavalry horse. Once having such a horse, the owner will not allow anyone on his back, but will bit and break the horse himself, and finally go before his troop, or on parade, with an animal he knows

will not fail him for instruction purposes, or when it comes to the march or to the fight.

In addition to the purely military arguments which may be advanced in favor of the riding hall, it can also be recommended as recreation for the garrison. Pleasure riding at cavalry posts is much indulged in, and is of great benefit to all who participate in it. During the winter we are shut off from this, and on account of either bad weather or bad roads, must keep ourselves and our horses shut up. Were the riding hall available, we would daily find an opportunity to exercise ourselves and our horses on a safe and comfortable track, and, the hour for recreation purposes being designated, could take our lady friends to enjoy this exhilarating diversion.

With a view to the improvement of the cavalry service and especially to compel thoroughness in the individual instruction of the trooper, inspectors of cavalry are recommended. How many of the inspectors or acting Inspectors General of Departments are cavalry men? I have never seen one. An infantry officer inspecting a cavalry post generally forms his opinion of the instruction of the cavalry from the precision of their movements at battalion drill, and their ability to make a charge without all the horses running away; the finer points of equitation escape his observation. A cavalryman would call for more exhibition of individual horsemanship, and, of course, for the necessary amount of troop and battalion drill, which show more the instruction of the officers than of the men.

Perfection in horsemanship is required: it can be obtained by the construction of riding halls, and the enforced instruction of the trooper in the riding school. Let every one in authority, and those who are interested in the welfare of the cavalry arm, unite in urging that the only item wanting to make our cavalry superior to any other in the world be given us,—the riding hall.

R. P. PAGE WAINWRIGHT,  
*First Lieutenant, First Cavalry.*

### DISCUSSION.

plain F. K. UPHAM, First Cavalry.

I quite agree with Lieutenant WAINWRIGHT in nearly all he has said. The necessity for the particular instruction which can be given only in the riding school, will, I am satisfied, be admitted by every cavalry officer in our service.

Twenty-one years ago an Englishman—who apparently knew something of the cavalry service in his own country—said to me: "I notice that very few of your men ride alike, or have the same seat in the saddle; in our service they are all *made* to ride in the same way." At the time I was inclined to resent this criticism, and even saw in it doubt as to how much of it came from the arrogance of our BULL, and how much was a fair criticism as compared with the British cavalry. Certainly the English civilian riders whom we see in this country are not objects of envy to American horsemen. But this is not the point; ever since the remark of this Englishman my attention has been directed to this very important detail, and I have been forced to the admission that our men do not ride alike. I have never carefully observed a troop where this criticism might not be applied to a greater or less degree. The American cavalryman has the faculty of "sticking to his horse" well under sometimes very trying circumstances, and can endure an immense amount of hard riding, this generally without special injury to his horse; but too frequently he does this with great latitude as to method, and a style of riding approaching to that of the cowboy is not rare, even in the column of a well organized and carefully commanded troop. With the men under my command this defect has been constantly observed, but has been excused as not especially the fault of the trooper, rather that of the system of instruction,—perhaps better the want of such system. Lieutenant WAINWRIGHT has pointed out what the extent of this instruction has been.

The suggestion that the trooper may learn to ride at battalion drill as well as anywhere else, may be likened to an attempt to teach children to read by giving them the words first, trusting to luck that they may afterward by some good fortune discover the letters of the alphabet; or that their interest or curiosity may be so aroused that they will be led to look up these little matters of detail themselves. I remember to have seen it in print—the work of a cavalry officer of high rank and long service—that the best way to teach a recruit to ride was to put him on a horse and send him out on a long scout, or on a march across the continent. It is true that the early instruc-

tion of some of our best men, and most competent non-commissioned officers was mainly acquired by this kind of *practice*; but they learned from a natural aptitude and intelligence, and in spite of unfavorable conditions rather than with the assistance of a regular and fundamental system of instruction. Then too, among these are often found the irregular, or ununiform riders—so to speak—to whom reference has already been made. At this time, even this chance of learning has practically disappeared with the decreasing field service and long marches. I do not wish to be misunderstood as to the importance of the instruction which comes from the kind of service mentioned—which is invaluable in the education of the trooper—but that it is not a good method with which to teach the rudiments of horsemanship I think will be admitted. To say the most, it is a slow and tedious means by which an intelligent soldier may pick up a great deal when he realizes the necessity for it, and may learn by observation much that he should have been carefully taught. Admitting this defective instruction as being quite the rule, where does the responsibility lie? Is it owing to the neglect of troop officers in this direction, or to a want of proper appreciation of the matter by officers, etc., and the consequent lack of those means of instruction which can only be afforded by a properly equipped riding school? Another point: Much has been said and written as to the advisability of retaining the saber and pistol as a part of the arms of the cavalry trooper. Are we prepared to answer this question until all means have been exhausted for making good riders? With even a part of the attention and energy of the trooper absorbed in the management of his horse, can it be expected that he will become an expert in the use of either of these weapons?

I have said I quite agreed with Lieutenant WAINWRIGHT in *most* all he has said. While I admit the advisability of personal illustrations of horsemanship by officers,—running at the heads, taking to hurdles, and the dexterous use of the saber and pistol in the riding hall, and can even admit the absolute necessity for it, there is a limit to all things. "It is hard to teach an old dog new tricks," or to make an old fellow renew his youth. These things belong to young men, they have not been in the practice of older officers,—even at West Point, if I have been correctly informed. I will venture the suggestion that such personal "illustrations" on the part of some of our old captains would be of questionable assistance in the instruction of recruits.

First Lieutenant S. C. ROBERTSON, First Cavalry.

The lecturer's article has dealt with the main points of reform desired by most cavalry officers in the system of individual instruction. I would add that, like him, I believe the riding hall to be a *non quod non* in such instruction. In the rigid climate of the north and west generally, it gives our *only* method of carrying on instruction during at least four valuable months—from the middle of November, say, to the middle of March. In southern countries, it is equally valuable as a protection against heat; and, in all cases, whether north or south, it furnishes the seclusion desired by officers who are ambitious enough to wish to perfect themselves and their chargers in the refinements of the high school of riding, or in the various exercises of vaulting, saber drill, etc. It is the proper place for teaching horses to leap, and for giving them the biting and bending lessons. An outside track upon the prairie will suffice for this. New and unmanageable horses, now saddled and mounted at the picket line, with infinite danger to the life of the rider, from the presence of the other animals, stables and picket ropes, and from the nature of the hard, and slippery soil, can be ridden in the hall with at least *some* of the chances in favor of the rider. Leaving aside these and climatic reasons, there is always, outside of a hall, danger of horses escaping; and their attention is diverted by out of door objects that make them restless and unsteady and that render abortive any attempt, during their first education, to confine them to the more delicate movements of individual drill. The tan bark or saw-dust flooring of the hall renders safe and possible acrobatic feats and exercises that could not be undertaken on hard ground in the open. Exercises upon tracks near the barracks or stables have a publicity that must be distasteful to the officer in his own training; and the loneliness of a track on some sequestered prairie makes the pursuit of exercise or drill in such a spot a very dismal and unexciting affair. Men are spurred to their best efforts in most things by the emulation inspired by others—by the desire of their approval or fear of their contempt. A cavalryman going through his vaults or saber cuts on an isolated prairie track, alone and unobserved, is a very different man surrounded by the observant and critical eyes of his comrades or officers—and this is what he would be in the riding hall. It would become a place of daily rendezvous. Officers not on drill would often occupy the galleries, with which such halls should always be provided, and would soon acquire a very accurate idea of the individual skill of the recruits or troopers of their own and other commands. The men would be incited by individual pride to do their respective troops credit

under the watchful eyes of those outside critics. Officers themselves—if not those to whom Captain UPHAM jocularly refers as “old dogs that can’t be taught new tricks,” at least the younger ones, on whom the future instruction of our cavalry depends—would vie with each other and, outside of drill, would get incalculable benefit from the daily riding they would do for sport, or “just to keep their hand in.” Discussion as to relative merits as horsemen would be started in garrison in the case of both officers and men. It is safe to say that the impulse given in this way to riding would astonish the army in its results quite as much as did ten years ago the orders that did away with our absurdly inefficient system of target practice and made us by degrees the finest army of marksmen the world ever saw.

I would not by any means advocate doing away with the outside riding schools and using the hall exclusively for individual drill. On the contrary, I should consider the outer tracks as most important auxiliaries to the indoor drills, and I would add to them at every cavalry post one or more short steeple courses. These should be 600 or more yards in length with, for a distance of, say 600 yards, five or six obstacles, including logs, a hedge of dry brush, a ditch and a set of wooden bars.

After the recruit or animal is properly trained to leap the hurdle and bar in the riding hall, much amusement and profitable instruction may be attained by a judicious use of these tracks in the spring. The art of riding should be surrounded with all such features which can make it to the military man, whether officer or soldier, attractive and interesting.

The recruit in our service now has but the most pitiful and inadequate amount of individual drill, the reasons for which are very aptly touched on in Lieutenant WAINWRIGHT’S paper. He is generally drilled by non-commissioned officers who even if they are (and by careful schooling, but by long experience in the service and saddle) good practical riders themselves, are unversed in the method of teaching real horsemanship. Recruits come, as Lieutenant WAINWRIGHT says, by small detachments, twos, threes, fours—not enough to form a respectable squad worthy the constant attention of an officer of the troop. They are told off to a sergeant or corporal who carries them along in a perfunctory manner for a week or so until the next snow falls or a new batch of recruits arrives. When the spring is late and encroaches upon the target season, they are perforce considered old soldiers as to horsemanship and no more individual instruction do they get, perhaps, before going on campaign or into troop or battalion drill. Unite these recruits in the riding

hall, keep them under the eye of the troop commanders and lieutenants, and of the post or battalion commanders, who would under such circumstances often be present at drill, and their education becomes a very different matter.

I would say here that in such European cavalry as I have experience of, more interest is generally manifested by the higher officers in the individual training of the trooper mounted than in squadron or battalion drill. It is no uncommon thing to see on the cavalry drill-ground of a French garrison, three or four field officers, or older captains, sitting about on well-groomed and well-trapped steeds, observing the progress of even the insignificant recruit. Faults in his instruction are as carefully observed and corrected as wrong evolutions at squadron drill would be. From the colonels down, officers are generally in the riding halls daily for a spin around the track; and the lieutenants, by the nature of their duties, are kept almost daily on the tan-bark, until they reach the grade of captain. The valuable effects of this state of affairs must not be underrated by officers of our own service. I have been a personal witness to many brilliant feats of horsemanship by the officers of foreign services who, as a baseless fiction in the minds of many of our people, “can’t ride with an American cavalryman.” It is a standing order that every cavalry regiment in the French service devotes the whole of each Saturday, for a greater portion of the year, to field service, and on these marches they often cover from twenty to forty and fifty miles a day. Their constant garrison practice in the halls and on the drill-plain, combined with these marches, necessarily renders them in all seasons much fitter for service than our own cavalrymen would be after a long winter in the west without any possible means of exercise in the saddle.

While I have the highest respect for the results accomplished by West Point instruction, and for the practice afforded by the long campaigns that used to habituate our officers and men to the saddle, I cannot help touching on the curious plea erected by some of our officers unto themselves in justification of the small attention paid our mounted recruit as compared with that given his European fellow. “Americans are natural horsemen,” these officers say, “and don’t need the instruction given the sabot-clad French peasant or the stolid Dutch brewery hand; our men ride instinctively!” At least I have often heard sentiments similar to these expressed. There could be no greater fallacy than that these officers labor under. Outside the west and south, the proportion of horses to the population of our country is smaller than in some of the larger nations of Europe,

and riding is, therefore, by no means, a common recreation or mode of travel in the most populated parts of our land: and when we recollect in addition that our cavalry comprises many foreigners from the least horsemanlike peoples and professions of Europe itself we can see how idle is any talk about the "inherent" horsemanship of American cavalymen.

But Lieutenant WAINSWRIGHT has indicated to us the proper means—the *only* means—of arrogating to ourselves superior skill in this necessary cavalry accomplishment. Let every post at which there is a battalion of cavalry have its hall. Make the period of instruction mandatory and sufficient for the purpose, as Lieutenant W. advocates, and as I have advocated in a preceding paper: and let time—one year, say—show the effects. I am glad this branch of the Cavalry Association has taken up this question. If officers elsewhere would do likewise and advocate it in an earnest way through the JOURNAL it would infallibly accomplish our end. We have a military administration in Washington most willing to give ear to whatever is good and practical and, in bringing our wishes and needs to attention, I would assert, without any wish to fan to life discussion as to the merits or demerits of our old friend, the saber, that in these days of peace "the pen is mightier than the sword."

#### AMERICAN PRACTICE AND FOREIGN THEORY.

**D**URING the prevalence of peace throughout the world, although all nations are prepared for war, many theories are advanced by military writers and strategists as to what may happen, and as to what should be done to complete and strengthen armies for field service. Some generals who have been prominent and successful in the field, but not so in the cabinet, do not believe that past actions can be made to form models for battles to come; and, if history teaches us anything, it is that theorists are not the men who do the fighting, and that when they undertake it they generally fail. A general, wedded to a theory which a little common sense may upset, is completely lost when things do not turn out as he had planned.

The talents necessary for success are treated by Baron VON DER GOETZ in connection with the principles of theory and practice, intelligence and will-power. He says:

"How intelligence, which in time of peace enjoys the greatest consideration, decreases in value in time of war when opposed to will, is seen in the result of almost every Council of War.

"Highly intellectual natures readily adopt an universal theory, which is prejudicial to success within the narrow sphere of actual service.

"In time of peace, when the will and courage are subjected to the responsibility of fewer trials than in time of war, the worth of an officer is, as a rule, exclusively determined by his intelligence, whilst this last guarantees success in war to a far less degree. Hence the frequent disappointment in the persons of generals who have in peace time been prematurely promised a great future, and upon whom sure hopes have been unwarrantably based."

This seems to be pretty sound doctrine; and, although our battles and campaigns during the Rebellion are said to furnish no lessons to the generals and theorists of Europe, certainly no campaigns in Europe have furnished better ground for the truth of the principle above quoted.

We may read our eyes out and devour every book and word printed on the art of war, and we may be commanded by most ac-



complished generals, students of the military art: and still if we have spent our time only in theorizing and are not otherwise prepared for real hard knocks, we will have simply wasted our time: occasion will surely find us lacking the essential characteristics of cavalry.

It is not the intention to attack all theory as such, to criticise the military student at his legitimate work, or to set up stubborn ignorance against intelligence; all men recognize intelligence as supreme, but to claim recognition it must be natural, original, and not artificial. Artificial military intelligence is that which induces a novice, after reading JOMINI, HAMLEY and SHAW, to become a military writer, suggesting theories of war, rehearsing and continuing errors, real intelligence not being the guide.

I believe I voice the opinion of many members of our Association when I say we are disposed to contest some of the propositions advanced concerning our arm of the service by men who have never "set a squadron in the field," and who continue to write about shock action as against rifle bullets. Where any writer deems himself an authority on the action of all three arms of the service, there may be a question as to the reliability of his information, for it must be second hand; and any cavalry officer can be much more profitably employed on the drill ground than in the study of a theory not based on common sense, or not having practical experience for its base.

For example: Among the lessons taught cavalry students at the Infantry and Cavalry School (should be Infantry School only) is the following: \* "Infantry is the only arm which can act independently under all circumstances, whether in attack or defense, in motion or at rest." This is Colonel SHAW's idea of one of the arms of the service, and it goes far to prove that he could not have had the experience necessary to qualify him as an authority worth notice, as any tyro knows that an infantry command on the march could be easily surrounded by a body of unarmed horsemen and starved out. So much for the independence of that arm and for Colonel SHAW's theory. The fact is, neither arm of the service can claim to be entirely independent. We all work best when we work together.

The rule is for cavalry to precede the march of any column when an enemy is to be looked for. This general rule will not admit of an exception, and precludes the supposition of the independence of either of the other arms.

The "eye and ear" theory and the idea that cavalry is an appendage to the army are still the belief of some military men. Students taking a course in HAMLEY find the following information on pages

\* SHAW, p. 13.

362 and 363: "While improvements in weapons have materially affected the actions of infantry and artillery, science has done nothing for cavalry;" and further he teaches, "No army has since possessed a cavalry leader or a body of horsemen who could claim any superiority over SEIDLITZ and his splendid squadrons."

Seeing and hearing everything that is going on and keeping the general commanding properly informed is still our duty, but in addition to that we propose now to stay and fight: and, in this important addition to our efficiency, science has done more for us than SEIDLITZ or HAMLEY ever dreamed of, in fact, more than it has done for either of the other arms. No improvement can be made in firearms that will not prove beneficial to the cavalry. The thing to be remarked is that no military writer of these days seems to be able to grasp the fact that the modern cavalryman when armed with the carbine, pistol, and saber, and properly instructed, is a soldier who has almost reached SHAW's ideal of perfect independence, whether in attack or defense, in motion or at rest. There is no reason now why every regiment of cavalry should not be able to fight on foot as well as any regiment of infantry, or, if required for mounted action, to charge as well as any regiment of lancers.

The Cavalry Corps of the Army of the Potomac demonstrated the fact that cavalry when properly handled may be used effectively as an independent fighting force at a distance, and that it may be depended upon to fight when necessary on the field of battle. This double action of cavalry, attained only in our country in modern times, puts the present European theory where it properly belongs; and, in view of what has been actually accomplished, it seems absurd to pick up a text book and learn from it that improvements have been made everywhere but in the cavalry, and that SEIDLITZ is still in advance with his splendid squadrons of helpless Lancers.

The following order was issued to the Fourth Cavalry Division of the Third German Army, August 4, 1870: "The Fourth Cavalry Division will move off from its bivouac at 5:00 A. M. and advance by way of Allenstadt along the Hagenau road, with a view to seeking out the enemy in the direction of Hagenau, Sutfenheim and Rappelsheim, and for the especial purpose of reconnoitering the ground. A regiment is to be sent forward from Sulz to the westward as far as Woerth to reconnoiter the ground as far as Reischoffen. The two railways at Hagenau and the railway at Reischoffen are to be destroyed as far as possible."

Under this order the division marched at 5:00 A. M., August 5th, in the direction of Sulz. The Bernhardt Lancer Brigade and the

Second Body Guard Hussars went on ahead to make the reconnaissance, the former along the Hagenau road with a squadron of Hussars as advanced guard, another squadron of the same on the left and the two remaining squadrons on the right. Here is an instance of a whole brigade of mounted men being sent on a reconnaissance and not being properly armed are under the necessity of being surrounded by squadrons of another organization for protection. Here is the report of the result of the expedition:

"No indications of the enemy were found this side of the Hagenau Forest. General BERNHARDI pressed forward with the main body of his brigade along the high road as far as the southern issue from the Forest; but on reaching this point, close to Hagenau, a bridge was found broken up and occupied by hostile infantry, upon whom the fire from the Hussars' carbines made no impression. As it was impossible for the Lancers to deploy in the forest, the brigade withdrew, the enemy's skirmishers following and keeping up a continuous fire upon it from both sides of the road."

This division bivouacked that night to the south of Hunsbach, between the First Bavarian and the Eleventh Army Corps, and in rear of its starting point in the morning. The railways at Hagenau and Reischoffer were still intact and in the hands of the enemy. Nothing of an unpleasant nature seems to have happened to the commanding officer of this division for disregarding his orders and we may therefore suppose that the "eye and ear" theory prevailed in that army, inasmuch as the cavalry heard some firing and perhaps saw the enemy; but not being prepared to fight men in the woods, withdrew.

See now what happens to a division commander in our service: almost a parallel case. The Second Cavalry Division, Army of the Potomac, 4000 sabers and a light battery, was ordered to march through Culpepper, Va., to the Rapidan river, with instructions to attack, rout, or destroy a Rebel cavalry force under General E. M. LEE and to break up the railroads in that vicinity. This force marched, between April 24th and May 4th, through Culpepper to the Rapidan, meeting no enemy deserving the name, and returned to the U. S. Ford on the Rappahannock May 4th, failing to follow and destroy the Rebel force and doing no damage to the railroads. The commanding officer of this division was at once relieved from his command and sent to report to the Adjutant-General in Washington. The Major-General commanding the army made the following report on this case:

"My reasons for adopting this course towards this officer will be found in the accompanying papers. From these it will appear that my instructions were entirely disregarded and, in consequence thereof,

the services of nearly 4000 cavalry were lost, or nearly lost to the country during an eventful period, when it was his plain duty to have rendered services of incalculable value. It is no excuse or justification of his course that he received instructions in conflict with his own, and it was his duty to know that none of them afforded an excuse for his culpable indifference and inactivity. If he disregarded instructions, it was his duty to do something. If the enemy did not come to him, he should have gone to the enemy. It is unnecessary for me to add that this army will never be able to accomplish its mission under commanders who not only disregard their instructions, but at the same time display so little zeal and devotion in the performance of their duties. I could excuse General \_\_\_\_\_ in his disobedience, if I could any where discover in his operations a desire to find and engage the enemy. I have no disposition to prefer charges against him and, in detaching him from this army, my object has been to prevent an active and powerful column from being paralyzed in its future operations by his presence.

"The reason assigned—that he heard cars arriving at Culpepper and not knowing but that they might be bringing reinforcements to the enemy—is very unsatisfactory, and should have no influence in determining the line of this officer's conduct. He was sent to perform a certain duty and failed to accomplish it from imaginary apprehensions."

Hundreds of instances of failure can be cited, but these two are sufficient to point out, in the first, the inefficiency of the troops, in the second, the indifference and incapacity of the commander.

No amount of theory or practice could have benefited either of these commands. General BERNHARDI may have been one of the best cavalry leaders, but he could not do anything with Lancers in the woods, even against oaks. The other command was thoroughly equipped and ready to meet any foe, but was driven back by steam-whistles, and on account of the imaginary apprehensions of its commander.

Our war closed in 1865, and the German war in 1871: since these periods thousands of theories have been advanced for future operations, supposed to be based on past failures, but the European cavalry still support their Lancers, and the American cavalry still have all kinds of commanders: in some cases infantry officers, who feel no interest in our arm, are allowed to command cavalry because they have rank enough to command a post. It is not intimated that these commanders would be indifferent as to success or failure in action, or that they would retreat on hearing a steam-whistle. But nevertheless they are obstructionists in time of peace through ignorance of the value of cavalry in war, and through indifference as to the necessity of constant preparation for the individual cavalryman for his duties.

Having discussed some failures made by cavalry, when not properly equipped and commanded, we turn now to the more agreeable field of success.

The records of the Cavalry Corps of the Army of the Potomac present to the world lessons in cavalry fighting unsurpassed in any other service. Fighting as it did against infantry, cavalry, or artillery, mounted or dismounted, by day or by night, through the frost, snow, and mud of winter, or in the heat and dust of summer, in advance or in rear, in building bridges, or running trains, or in burning bridges and destroying railroads, telegraphs and canals, in supplying themselves when there was anything in the country, or in cheerfully going on without when there was nothing to be had, its counterpart is unknown. Commanded by SHERIDAN who had all the theory there was about it in his own head, our present text book not having been printed, with MERRITT, GREGG, WILSON, CUSTER, DEVIN, GIBBS, DAVIES, IRWIN, GREGG, CHAPMAN and MCINTOSH commanding divisions and brigades, this body of horsemen was never defeated; and, whenever brought to a halt, the stoppage was always most regretted by the enemy. Its first move under SHERIDAN was the Wilderness campaign of 1864. If it had been under the command of a theorist going out only for observation, it might as well have remained in camp under the conditions which existed. In that dense forest nothing was to be seen or heard, and no mounted charges were possible. Fortunately there was a real soldier at the head, who, besides "seeing and hearing" as a cavalryman should, thought he could also take a hand in the fight even against infantry, and in the woods (no Lancers here, but hot work and at short range, all mounted).

From the 4th to the 7th of May inclusive, these three divisions of cavalry fought the enemy's cavalry and infantry on the left in front of the main army, protecting the left flank and holding the position at Todd's Tavern until the infantry came up.

In these operations we see the difference between our method and that of European cavalry. We go out prepared to fight any force, whether found in the open or in the woods. An objective point is given and we take it if we can; if not, we stay close by and hold until further orders from headquarters, while the Lancers and Hussars go only so far as permitted by circumstances. For instance, at men in the woods with rifles make it necessary for a whole division to withdraw, and to continue withdrawing until it reaches the protection of its own infantry.

It is not the intention to compile a history of the cavalry corp

but only to extract from the records sufficient information to prove assertions as we go along. There has been so much fiction written of our war by those who rely too much on their own recollections, that we desire in this paper to be governed entirely by official reports, when giving examples. The main object being to prove from actions in late wars, at home and abroad, that through the bitter experience of failure as well as by the benefits of success, this arm of the service has reached, as a fighting force, a position of so much importance that in the future it cannot be ignored, but on the contrary will hold in its grasp the keys of victory. It is pretty generally understood now throughout the military circles of the world that the side which has the best cavalry in the next campaign will have the advantage and be successful.

It happens sometimes that men possessing great minds are lamentably ignorant on some subjects important to their positions, and strange to say, to maintain themselves, they commit the error of adding stubbornness to ignorance. When in this Wilderness campaign SHERIDAN besought the Commanding General of the Army to let him have his cavalry that he might whip STUART, why was it that both ignorance and obstinacy should rule until the greater man appeared and said in his quiet way, "If he said so, let him go out and do it?" GRANT knew that the man had come, and he possessed confidence in his strength sufficient to accomplish something more than was then being done; and SHERIDAN knew from his four days' experience with those troopers that his proposition was a safe one. While these few words probably made the fortune of SHERIDAN, giving him the opportunity which was all he required from others, they also sounded the advance of the cavalry arm generally, and brought us forward, from the wagon-trains in the rear to the post of honor.

The cavalry corps, pulling itself together after four days' fighting on foot in the Wilderness, was truly glad to get out. It mounted and was off before a change of orders could take place; and in column of fours on one road swept round the enemy's right flank towards Richmond, destroying their rations by the million and their railroads by the mile. The Confederate cavalry by forced marches finally interposed between SHERIDAN's force and Richmond, and brought on the battle of Yellow Tavern, in which, while we regret the fall of STUART, we must not fail to note the redemption of SHERIDAN'S promise, then only three days old. And we must also note the ease and efficiency with which this cavalry did its mounted work: GIBBS' and DEVIN'S brigades hold fast while CUSTER, supported by CHAPMAN, attacks the enemy's left and battery in a mounted

charge." SHERIDAN was evidently much pleased with this additional evidence of efficiency in his corps, and says the charge was both brilliant and successful, and that the Confederate cavalry was badly broken up. On the second day after Yellow Tavern the corps found itself in front of Richmond, the advance under WILSON even inside the defences: but this was asking too much, and WILSON's division had to turn back. This necessitated the facing about of the whole command and the crossing of the Chickahominy at Meadow Bridge. It was then discovered that the enemy's cavalry had destroyed the bridge and was prepared to dispute the crossing: at the same time the Confederate infantry came out from their works and attacked the rear. This might be considered a difficult situation for "eyes and ears" only, or for the "splendid squadrons of SEIDLITZ," or even the more modern Lancer Brigade of Germany. SHERIDAN thus describes the situation and shows his confidence in his troops:

"Even had it not been our good fortune to defeat him, we could have crossed the Chickahominy if necessary, at several points that were discovered by scouting parties, which, while the engagement was going on, I had sent out to look up fords. This means of getting out from the circumscribed plateau I did not wish to use, however, unless there was no alternative, for I wished to demonstrate to the cavalry corps the impossibility of the enemy destroying or capturing so large a body of mounted troops. The chances of seriously injuring us were more favorable to the enemy this time than ever they were afterward, for with the troops from Richmond comprising three brigades of veterans and about five thousand irregulars on my front and right flank, with GORDON's cavalry in the rear, and FRIZZELL LEE's cavalry on my left flank holding the Chickahominy at Meadow Bridge, I was apparently hemmed in on every side; but, relying on the celerity with which mounted troops could be moved, I felt perfectly confident that the seemingly perilous situation could be relieved under circumstances even worse than those then surrounding us. Therefore, instead of endeavoring to get away without a fight, I concluded that there would be little difficulty in withdrawing even should I be beaten, and none whatever if I defeated the enemy." And this is how it was done. GREGG's and WILSON's divisions with ROBERTSON's horse artillery took care of the infantry from Richmond and drove it back, and also defeated GORDON's cavalry on the Brook road. MERRITT, in the opposite direction, drove the enemy's cavalry away from the crossing, re-built the bridge while the fight was going on, and crossed.

Military discussion on an action like this can lead intelligent

or prejudiced men to but one conclusion, and that is, to have cavalry worth anything it must be cared for, must have each individual armed and trained for attack and defense, mounted and dismounted; any, such as can be performed by infantry, should not be required of mounted men. Cavalry should not be allowed to soften by over-care, but should always be kept busy at its legitimate work. That work should look toward the opportunity that may come at any time for use as an independent force on the battle-field, or as a force able to thrust itself quickly beyond the flanks of the enemy and able to protect itself under all circumstances.

The cavalry corps after once breaking its halter shank, leaving the small end with the main army and the wagon trains, went loose during the rest of the war, being present however, on all occasions when it could be used, and doing some hard fighting in advance and on the flanks at Hanover Court House, Hawes Shop, Ashland, and Cold Harbor, where it dismounted, repulsed two attacks made by veteran infantry, and held its line until our infantry arrived to relieve it (if any student desires to read an account of real staying pluck, I recommend the detailed report of this action); again at Trevelian and Reams Stations, altogether marching and fighting fifty consecutive days.

Then came the siege of Petersburg and the cavalry, being of little use there, was divided. That portion going with SHERIDAN to the Shenandoah Valley continuing the same gait and always meeting with success, but returning to the main army in time for the final struggle; in fact, doing the greater part towards making that struggle final, for it must be conceded that the Confederate army would never have been halted when and where it was if it had not been for the cavalry corps. On this campaign the corps was at its best, no doubt; and history fails to show deeds more valiant or duty more vigorously performed.

Comparisons are said to be odious, but at the same time they may be instructive. If the military student, who is now learning from text books the gentle lesson that the cavalry should "keep the touch," imagines from his studies that all good cavalry can do no more, let him study this last campaign and learn, in addition, of the throttling process then first introduced by this cavalry. The perseverance, the determination, and the real bull-dog pluck, with which this cavalry grabbed the enemy—infantry and cavalry—at Dinwiddie, and though shaken off, again took hold at Five Forks, at Tabernacle Church and Amelia Court House, at Sailors Creek, at Farmville, and at the last shake appeared across the line of march on the last

road south of the James river, will not be found in accounts of cavalry anywhere else. The infantry came up in time, to be sure; but, if it had not, the cavalry was in position and proposed to take hold again.

It may be said that this cavalry was not made in a day, nor was it. It took three years of the hardest kind of work, and it will always require time and labor to make good cavalry. These conditions are absolute and a violation of them is destructive to our arm.

In conclusion, we may ask—what is our situation to-day after twenty-five years of peace? Let the dead on the CUSTER battle field in the White Bird Canyon, and on Milk river answer that question. The troops that went into those campaigns were not like those at Appomattox. And no wonder, for we had long before gone back to the infantry and wagon trains; and the dry rot of frontier posts had taken possession of all who had not the energy to overcome it, or the desire to fulfill a duty deemed hypothetical by those looking for an excuse. There is a lethargy existing to-day, at some of our cavalry posts, of such power that even the annual inspection and report of the Inspector General does not disturb it or change it for the better. So long then as efficiency and suitableness of commanders for cavalry is held second to rank and corps, and so long as inefficiency and indifference prove to be of no serious inconvenience to anybody, we may simply thank God that we exist. We may draw our pay regularly in peace and quietness, and trust that occasion may not require another sacrifice for the benefit of those who command and obstruct in time of peace, though palpably not able to accompany their troops in war, but who would send them out with a post order and would then be relieved from further responsibility or personal danger.

E. V. SUMNER.

*Lieutenant Colonel, Eighth Cavalry.*

## DISCUSSIONS.

Lieutenant ARTHUR L. WAGNER, Sixth Infantry.

All theories as to what *may be done* must, if sound, be based upon what *has been done*. All forecasts as to the tactical uses of the three arms in the next war must, therefore, of necessity, be based upon the lessons of conflicts in the near past. The experience of the War of Secession, the Austro-Prussian contest, the Franco-German struggle, and the conflict between Russia and Turkey, enables us to foretell with some degree of certainty the manner in which infantry and artillery will be handled in the battles of the near future; but, in re-

ard to the use of cavalry, the experiences in the different wars have been so different, and the deductions from actual facts so varied, that we must wait for the next great contest to decide the question: "What is the proper sphere of cavalry in war?" As yet, we can only apply the best logic at our command to the events that have actually occurred, and then enunciate our confession of tactical faith.

One class of extremists, basing their ideas mainly on VON BISMARCK'S brilliant dash at Mars-la-Tour, would have it that cavalry can be used to-day as in the days of SEIDLITZ and ZIETHEN; and this school of adorers of *l'arme blanche* is, as we well know, limited neither to Continental Europe nor to the Eastern Hemisphere.

Another class of extremists, found mainly in our own country and composed almost exclusively of infantry officers, would rule cavalry off the field of battle altogether, or make it mounted infantry pure and simple. The truth is to be found between these two extremes, and the fact that it has not been more generally recognized is due to the fact that the question has been too often discussed from the stand-point of *esprit de corps*, rather than from an entirely dispassioned point of view.

All authorities now concur in stating that the great use of cavalry is screening and reconnoitering duty. For this duty, the cavalry must be so armed and trained as to be able to drive back opposing forces of cavalry, to brush aside any smaller bodies of infantry, to seize and hold important points even against the assaults of infantry, and, in brief, be able to hold its own against any opposition that it is likely to encounter. For this duty the American cavalry, by virtue of its arms and training, is, in my opinion, the best in the world.

But although this is, undoubtedly, the greatest use of cavalry, it is far from being its only use. Next in importance come raids—a use of cavalry in regard to which American and European authorities differ radically. With all deference to VON DER GOLTZ and PRINCE HOHENLOHE, I must say that I do not think that they or any other Continental military writers have grasped the true idea of raids at all. Their objections would not hold good if the European cavalry were (as it is not) so armed and trained as to be really independent of the other arms. The difference of topography and density of population in Europe and America should not weigh so much in this question, as the difference, as to arms and training, between the European and the American cavalry. For raiding duty, extreme mobility and the utmost efficiency in dismounted fire action

are indispensable conditions; and the latter characteristic is wanting in Continental cavalry.

These are, however, strategic uses of cavalry. Tactically, cavalry should always be able to do much that our American cavalry can do, and which the *arme blanche* cavalry cannot. Colonel SHAW (whose excellent book has scarcely received just treatment from Colonel SUMNER) would place both cavalry and infantry in the support of the advanced-guard of a mixed force; the former mainly for reconnoitering, the latter to give power of resistance. In this case American cavalry could constitute the entire support, its fighting (that is, *firing*) power being amply sufficient to enable it to take care of itself. Its mobility would thus be unhampered by the infantry, which should be with the reserve. On the other hand, the fighting power of our cavalry combined with its mobility would adapt it superbly to rear-guard duty, in a way that the writer in question does not seem to contemplate.

On the field of battle, the cavalry has, I believe, at least as large a scope of usefulness as it ever had, though its use will differ from that of cavalry in the past. The cavalry divisions will mainly be on the flanks of the general line, as before, ready to repel attacks of hostile cavalry or to make attacks themselves, should the inefficiency of the opposing cavalry, or unexpected phases of the action, enable them to gain by surprise a position on the flank of the enemy's line. Anything like a decisive use of cavalry in this manner in future battles will probably be exceedingly rare. But there are other uses for cavalry on the field. If armed and trained properly, its mobility would enable it to be moved quickly to sorely-pressed points, where its firing power would enable it to reinforce the line of battle. Its power as a reserve will thus be much greater than formerly. Cavalry should not, however, be thus used, except in cases of the greatest emergency. Infantry, if at hand, should always be used; for its power in the firing-line will be at least one-fourth greater than that of the same number of cavalry, and the latter is too costly and too urgently needed for its strategical uses to be needlessly used in the line of battle. It is only, I repeat, where the emergency is such as to justify subjecting cavalry to heavy losses that it should be used in this manner.

"Each division should have attached to it a force of cavalry: with our organization, about six troops. Many opportunities may occur for a telling use of this divisional cavalry, as *cavalry* pure and simple. It may be accepted as an axiom that cavalry can never break good, intact infantry, well supplied with ammunition. But infantry

is not always good, it is not always intact, it is sometimes demoralized, and may have exhausted its ammunition. In the final pinch of the fight, too, (especially on the defense), when one's own infantry has suffered severely; when the men are sorely pressed, when they are "holding on by their teeth," as it were, the divisional cavalry may afford invaluable relief, and perhaps completely turn the tide of battle in that part of the field, by dashing upon a flank of a portion of the enemy's firing line, and either rolling it up or compelling it to take such a formation as to subject it to an enfilade fire of infantry and artillery. A small force of cavalry may in such a manner work great results. We should remember that the force with which VOX BREDOW saved the German left wing from destruction numbered only six squadrons. This, too, will be "emergency work," too dangerous to be undertaken save under the stress of absolute necessity. Indeed, all work of the cavalry on the battlefield will be full of the extremest peril. The great masses of cavalry which formerly rode over all opposition cannot live under the fire of modern artillery and infantry. Cavalry will be used in smaller bodies than formerly, and it must be prepared, in emergency, for self-sacrifice; for a commander may feel himself constrained to trade off troopers for time, in so delaying the enemy as to save his army, even at the expense of the destruction of part of his cavalry. The necessary attributes for a cavalry officer are higher to-day than ever before; not that the cavalry has, by any means, become a tactical jack-of-all-trades, but because the use of cavalry in its proper sphere now requires more intelligence, more prompt decision, and greater nerve on the part of its leaders than ever before.

Another use for divisional cavalry will be afforded in attacking the great lines of guns which will surely, in many cases, be injudiciously hurried into action in advance of their necessary supports. If the ground in front of such a great battery be such as to afford concealment for cavalry, a few squadrons judiciously posted might in the heat of action push rapidly forward, the gunners finding great difficulty in making a rapid change of range to accommodate the rapidly changing distance, and, once among the guns, might create dire havoc before the supports of the artillery came up. Colonel SUMNER may object that this is a mere theory of HAMLEY'S. It is, however, based on an actual occurrence at Tolitschau, in 1866, where VOX BREDOW performed a gallant feat fully equal to his action at Mars-la-Tour—a feat which HAMLEY might well have cited in support of his theory.

In regard to the use of divisional cavalry, let me not be misun-

derstood. I would not, by any means, break up the cavalry divisions to distribute their component troops as divisional cavalry. I assume that there are cavalry divisions *and* divisional cavalry. If divisional cavalry cannot be obtained except by breaking up the cavalry divisions, we shall have to do without it, and lament the fact that our army is deficient in cavalry.

After the battle terminates in either victory or defeat, the cavalry will be employed either to pursue the enemy or to cover the retreat of its own army. If the cavalry has been needlessly used up in performing duty in the fighting line which could have been better performed by infantry, so much the worse: for without good cavalry at this stage, victory cannot be made complete, and disaster will be overwhelming. While cavalry in cases of dire emergency must sometimes be sacrificed, a general is scarcely short of criminal when he *needlessly* subjects his cavalry to the losses of battle, by making it perform duties which properly belong to another arm.

I have given this epitome of the use of cavalry in modern war, solely because it is in accordance with the principles taught at the Infantry and Cavalry School. If Colonel SUMNER imagines that because a certain thing is stated in "SHAW," it is taught without correction or comment, at the school, he falls into an error which I should have expected him to avoid. His statement in regard to what is taught is unjust both to the school and to the instructors in the art of war.

Just where Colonel SUMNER draws the line between *mere* military theorists and careful military students is not apparent. It is not evident that he distinguishes a RÜCHEL from a VON MOLTKE, or a PALIKAY from a FREDERICK CHARLES. Nor is it clear just what he means by the "legitimate work" of a military student. Possibly, that legitimate work is to study hard and say nothing; but, in any event, the student can only get his information at second hand. Unless an officer gain his knowledge of the art of war by theoretical study, it is not clear how he can acquire it completely, unless by living to be as old as METHUSALEM, engaging in a hundred wars, and passing through every grade from private soldier to field-marshal.

All generals are not so free from theory as (according to Colonel SUMNER) General SHERIDAN seems to have been. In fact the greatest military leaders have generally profited by theoretical study. To the sin of being students of the theory of war, some of them have even added the crime of being military writers. VON MOLTKE had studied the theory of war from youth to old age before Austria, and then France, fell under his vigorous blows as a practical military leader.

On the other hand, BLÜCHER—that heroic old blackguard, who cared as little for the theory of war as he did for the Ten Commandments—was unable to grasp the simplest strategical idea; but was guided to success by the brilliant GNEISENAU, who had been a life-long student of the art of war. In every case a knowledge of the theory of war is a potent factor in the success of the commander, whether that knowledge be in the head of the general himself, or in that of his chief of staff.

The possession of ideas implies the construction of theories, which will be sound or the reverse, according to the information and mental make-up of the theorist. Men utterly devoid of theory are to be found only in the asylums for the feeble-minded. Colonel HOME sums up the matter admirably by saying: "Practice and experience alone can decide many points; practice and experience alone can give the power of applying rules; but theory, by which is really meant the experience obtained by others, is not the less important and valuable." Colonel SUMNER has, I think, been harder than he attended on military theorists. I am not sure that he has not surrounded military theory with military pedantry. A military theorist may be something more than a military visionary; a fact which Colonel SUMNER cannot fail to recognize when he reflects that he has himself been giving us some very interesting theories, which do not aim to be based entirely upon his own experience.

If there is to be found in the English language a better book on minor tactics than Colonel SHAW's, I do not know what book it is. SHAW's book is not perfect, but the text is not blindly followed at Fort Leavenworth. If Colonel SUMNER can refer me to a better book, I shall be greatly obliged to him, and shall take great pleasure in recommending it to the instructor in the art of war at the Infantry and Cavalry School.

As to the remark that the school should be for infantry only, I can attribute it only to a want of investigation by Colonel SUMNER of the methods and scope of the Institution. Surely there are cavalry officers on duty at the school, who give it the benefit, not only of their theoretical studies, but of their extended experience as cavalrymen in our own great war.

Lieutenant-Colonel GEORGE B. SANFORD, Ninth Cavalry.

The proposition of the writer as I understand it, is to develop in the cavalry arm the faculty now existing, but latent, of utter and entire independence of other arms of the service, and the ability to

be of use at any time and under all circumstances, either on foot or mounted. This is a most laudable ambition, and if it could be realized would be very desirable, but let us be careful that in attempting to grasp the shadow we do not in the end lose the substance.

The illustration in reference to the helplessness of a foot force, entirely unsupported by cavalry or artillery, when brought into the presence of and surrounded by hostile cavalry is striking; but is not that precisely the condition of affairs which would exist in an army which had allowed its cavalry to be weakened or destroyed by performing strictly infantry work in the line of battle? Would not such a force be practically helpless in the presence of hostile cavalry even after a successful engagement? Unable to keep that touch with the enemy, which is so important after an engagement, but which the writer seems to look down upon as the idea of theorists, it would also be unable to protect its own communications or care for its wounded.

To take another example which the writer uses in support of his theory—for he has a theory, though opposed to theorists—what was the course of General SHERIDAN in the great campaign in the Wilderness in 1864? It is very true that the corps was engaged in the tremendous line of battle fighting for several days, both against infantry and cavalry, but it was not SHERIDAN'S purpose or desire so to employ it, and it was in response to his indignant protest against such useless waste of a powerful force that GRANT ordered MEADE to let him go out and whip STUART if he could do it.

The result has been vividly described and from that time on until the close of the war, though the cavalry not only gave but received hard knocks, and certainly did as much as any other one corps to bring the struggle to a successful conclusion, it was chiefly employed in its legitimate work both on foot and mounted, of disposing of the enemy's cavalry, of screening and reconnoitering duty, and of attacking the enemy's communications while guarding our own. The apparent divergence from this course at Cold Harbor was only apparent, and was in reality strictly in accordance with the proper role of a cavalry force. In pursuance of its legitimate duty of watching and fighting the enemy's cavalry, the corps found itself after two successful cavalry combats, at Old Church and Cold Harbor, in possession of the latter most important point and in the presence of a powerful body of infantry. Here I agree with Colonel SUMNER that its duty was plain and most ably was it performed. The country being thickly wooded, the whole force was dismounted, hasty barricade thrown up and the position held against the desperate attacks of the enemy's infantry, until the arrival of the Sixth and Eighteenth Corps.

But on their arrival SHERIDAN at once withdrew his command, and with his keen appreciation of its proper use was off on his well known Trevillian raid, drawing the cavalry of HAMPTON in his wake, and leaving GRANT at ease in regard to his communications, while he made his attack.

This I conceive to be the proper employment of our arm, and while I cordially agree in the sentiment that we must be fully prepared, not only to give but to receive hard knocks, yet I thoroughly deprecate the idea that we should lose sight of the importance of our own exclusive business, in the vain-glorious desire to prove that we are certainly the equals, possibly the superiors, of other arms in their legitimate work.

Let us perfect ourselves in our own trade first; we shall find quite enough to do I think before we get through with it, and be of more use to our country than by the futile attempt to rival other arms in their legitimate business.

The comparison of the quality of the forces engaged at the Little Big Horn, etc., with the cavalry of 1864-65 is scarcely a fortunate one for the writer's argument, the conditions being so entirely different; the commander at that disastrous battle was surely a tried and trusted cavalry leader, at all events; also, while agreeing that as a rule it is vastly better that cavalry officers should command cavalry, and infantry and artillery officers their battalions and batteries, we certainly cannot afford to forget that in the campaign of which the writer speaks, the name of PHILIP H. SHERIDAN was borne upon the muster roll of the Thirteenth Regiment of Infantry and that, though serving some time with a detachment of the First Dragoons, he never held a commission in the regular cavalry. On the whole I can see no reason to think that either the enlisted men or the officers of our cavalry force to-day are in any respect inferior to their predecessors of a quarter of a century ago. Certainly the interest displayed within our own Association would go far to refute a portion of this assertion. That the intelligence of our young soldiers compares very favorably with that of the cavalry of the Rebellion, I am sure every officer of that date will grant.



LETTERS ON CAVALRY, BY PRINCE KRAFT ZU HOHEN-  
LOHE-INGELFINGEN.TRANSLATED BY COLONEL R. P. HUGHES,  
INSPECTOR-GENERAL, U. S. A.

## FIFTEENTH LETTER—FIELD SERVICE.

THE exercises which take place during the month of July can only be considered in connection with those that are held after the maneuvers and before the arrival of the recruits: they consist chiefly of target practice, repetitions of the squadron exercises, of officers' rides and of small field exercises. These latter have taken a very different character since the last great war. Who does not remember the time when every little non-commissioned officer's field service exercise began with a very pretentious general idea, in which the officer giving the supposition had failed to crystallize the plan of execution in his own mind, and the non-commissioned officer had no appreciation of what the underlying idea was? If all these general ideas were not based upon some old incident in classic history and presented in some such way as follows: "Anhalt-Dessau, jealous of the growing power of Prussia;" or "The people of the west have revolted, and the people of the east march to oppose them, you, non-commissioned ADAM, conduct a patrol to the Brauhausberg, etc., etc.;" or "Berlin does not exist, etc., etc.;" yet they make such demands upon the imagination of the non-commissioned officers who were to execute them, that they only created undefined ideas, which were worse than none.

The field service has hitherto contended, and still contends, with the difficulty that a "situation" must underlie every general idea and that otherwise they will have no intelligent meaning. If a young lieutenant, or non-commissioned officer, must begin his day's work in field exercises by mastering a purely imaginative condition of war operations in which not only has he to act against a supposed enemy but the troops of his own side, who are to act on his flanks and rear

are also creatures of his imagination; and in which he may be still further required to imagine a seed field to be a marsh, and a rape field a lake: demands are made upon his understanding and his imagination that may exceed his capabilities, and which are entirely useless. In war these things do not occur. Then all surroundings remain in their natural condition, and such changes as do take place from day to day happen so gradually that they are not noticed, because they are part of the soldier's daily life: he has no suppositions to make, for the realities are present with him and about him.

Imbued with the feeling of this mistake in our minor field-service work, one of my regimental commanders initiated a plan for conducting this work so as to obviate the evil; and it was so satisfactory to me that I recommended it to my whole division, and I can recommend it for still wider adoption.

He set forth a supposed "situation" of actual hostilities in the spring of the year which was so drawn as to include in its solution all the garrisons of his regiment (four in number). This problem was worked out in three or four days of operations in the way of officer's rides and cavalry exercises, in which all the garrisons of his regiment took great interest. In this "war plan" he made an excursion of three or four days with his officers immediately after the squadron inspection. When he touched a garrison he would take the non-commissioned officers along with him. This exercise fell in the latter part of June and beginning of July.

This "war plan" then had to furnish the foundation for all the field service exercises for the year then current; and every exercise in field service had, in obedience to regimental orders, to be adjusted to this frame work, which was the underlying, general idea. The result of this was that it was not necessary for the instructor to create a new general idea for each minor field-service exercise, and thus disappeared the fanciful, very improbable, and in some instances, impossible, "war plans" which had so often confused the heads of those to whom they were given. The main advantage of this plan was that, during the entire year, both the officers and non-commissioned officers were thinking of some general idea and their field exercises assumed a much more natural character. Less time was lost in making the "war plan" or situation understood, and the exercise could always begin at once with a well defined purpose to occupy the attention and test the skill of the subaltern. This arrangement gave the very best results in the instruction of the men in field service.

A further useful arrangement was that every marching squadron,

not only in going to and returning from the field of exercise, but in the concentration—marches for regimental exercises, in going to the detachment exercises and to the maneuvers, should take the necessary measures of security; that reconnoitering patrols should be sent forward, and should not return to quarters before their report was made. Instead of reports of the enemy, reports of the terrain may be substituted. Only one point called for criticism, and I have had occasion to remark the same thing in all other cavalry troops, viz: Nowhere is the reconnoitering service sufficiently separated from the security service. It is not to be denied that these two duties have certain things in common. When the reconnoitering patrols have determined with certainty that the enemy have made their bivouac upon this or that point, we may, at a certain distance, be considered safe from their attack for that night; and, upon the other hand, a vidette or located patrol of the security-service may also be called a reporter of the enemy's movements. But it is very necessary that the *reconnoitering duty* and the *security-service* should be confided to distinct bodies of troops. This becomes much more evident upon the march. A squadron or half squadron which rides ahead with the proper safety-precautions as the advanced guard of the troops, has really done nothing in so far as relates to reconnoitering the enemy for the advanced videttes, and the flank detachments of this advanced guard are not to go beyond hearing of the discharge of their pieces upon which the advanced guard is to put itself in condition for action. All reports from these security detachments will come too late for before the situation can be understood, and the necessary measures taken, an energetic and enterprising enemy will follow so closely upon their heels that the commanding officer will have no time to make the necessary dispositions to offer an effective resistance. In no case are they sent far enough to the front to enable them to determine and report the condition of an enemy in position with sufficient exactness to enable their commander to determine upon the measures to be taken, and to execute them before coming under the enemy's fire.

The necessity is apparent that, in addition to the security service as now prescribed, officer's patrols should be sent far to the front. The *security-service* regulations require that the men should keep at a prescribed distance from the troops to which they belong while the *reconnoitering patrols* have to push to the front until they get touch of the enemy. The first regulate their conduct according to their own troops, the latter according to the movements of the enemy.

In most cases, when a squadron at maneuvers receives instructions at the rendezvous to move forward and report the news of the

enemy, the advanced guard trots off in fine style in accordance with paragraph 206 of the regulations, patrols and videttes gaining their stance at a gallop. But to remain halted in order that a few verbally instructed reconnoitering patrols might be pushed out on the various roads and to leave to them a quarter of an hour to gain the necessary distance never occurs.

In opposition to all this, I read a complaint in a late number of the *Wochenblatt* to the effect that there was too great a misapplication of officer's patrols at our autumnal maneuvers. Had I ever perceived this misuse, I should have been much pleased, for the purpose of the maneuvers is that all the troops should be sufficiently exercised, and I can only consider it a fortunate circumstance for officers of cavalry if they have frequent opportunities at maneuvers, under concrete circumstances, to make such rides, and to submit the corresponding reports. That we do not have in actual war a sufficient number of officers to admit of our sending out one-third of the number that are sent out at maneuvers is very probable. But at maneuvers all can not be done as in war. The necessity of getting all possible instruction out of the expensive days of maneuver leads to many unnatural things; it is scarcely to be avoided. I remember that on exercise days three battles have been fought, one after the other, and this would continue for three days. If we were to maneuver naturally; i. e., as in war, the entire maneuver might result in a single action, in many cases not in any, and the small amount of instruction in fighting exercises obtained would not stand comparison with the expense which the maneuvers cause the state. Owing to the great importance attached to the reports of officer's patrols during war, it is very necessary that officers should be exercised therein as often as possible, in order that they may learn to judge great military situations correctly and to report what they have seen clearly and briefly. When we read of the great influence the well-known reconnoitering ride that Major (now General) v. UNSER made on the 2d of July, 1866, had upon the decision of our army commanders; how, in the advance to the Moselle on the 12th and 13th of August, 1870, General Staff officers, and even officers of the general staff who were also chiefs of staff of Corps d'Armee, accompanied the most advanced patrols to the Moselle, in order to determine the condition of the enemy; how important were the reports of those dashing cavalry officers who penetrated the lines of the enemy's army corps on the 24th, 25th and 26th of August, 1870, and definitely ascertained the direction of McMAHON's march; how GOEBEN decided upon the concentration which brought about the battle of

St. Quentin upon the report of a single officer's patrol: it makes one wish that every young officer, who is sent out upon such a patrol, had the education of a general staff officer in order that he might be in a position to correctly grasp and reproduce the tactical and strategical situations.

I know full well that I announce nothing new in stating that the reconnoitering and security services should be separated. We can read the same thing in the criticisms made a short time ago by a general of high rank in a neighboring army, in submitting his report on maneuvers in which he had taken part with his command. VERDY demands, practically, the same thing in his studies of "the cavalry division in army organizations," but without announcing the principle.

Even an advanced cavalry division, which is peculiarly and wholly a reconnoitering corps, is advised to push entire squadrons beyond the line of out-posts in the direction of the enemy. These measures are not always possible, especially when the debatable ground between the videttes of the contending forces is limited. But there is no fixed system, no prescribed rule, for the reconnoitering service of the cavalry. The necessary measures are so dependent upon the terrain, the condition of the forces, the activity or inactivity of the enemy, upon the distance between the contending forces and many other circumstances, that each case possesses its special features and the course to be pursued must be determined *by uniting with a good understanding, a thorough knowledge of the terrain, and of the strategical situation.* No distinct forms and axioms are applicable as in the security service. For this reason they must be performed by entirely different people.

For example: If a vidette is to perform the duty of a patrol, it must either abandon the duty of a vidette or must not go very far from the command; and if the "point" (vidette) of the advanced guard is ordered to perform reconnoitering duty on the march, the advanced guard would be without a "point" (vidette) most of the time. These and similar occurrences are by no means rare, and I have thought it not superfluous to say how necessary it is that the reconnoitering service should be separated from the security service.

I can not avoid making an assertion which sounds paradoxical, but which has occurred to me on many occasions both in war and in peace, viz: that in many, yes, in most cases, a single officer's patrol reconnoiters better and sees more than a whole squadron, or a larger command. Besides, a squadron is more easily seen at a distance and much harder to conceal, while a little undergrowth suffices

to hide a single patrol, which can move hither and thither without attracting attention. Then a full squadron is more apt, although sent out to reconnoiter, to be tempted to measure swords with the enemy, and to be betrayed into, and absorbed by operations not consistent with the special purpose for which it was detached. It is well said, that they should not do so; but they do it, and sometimes can not be avoided without compromising their honor. But, to an officer who is sent out with but four men, to bring in news of the enemy, it will never occur to make an attack. I distinctly remember that, at a maneuver, a squadron was sent out to reconnoiter on the side, while the opposing force sent out an officer's patrol on this duty. The squadron drew the fire of the enemy's artillery upon itself and had to fall back without being able to bring in any information as to the enemy's infantry line; the officer's patrol, however, slipped through ravines and swales under cover and came up close to this same squadron, unseen by it, and sent the most exact information, not only relative to this squadron but of the entire position of the enemy. The objection immediately presents itself that this squadron could easily destroy or disperse an officer's patrol. But if a squadron is commissioned to do all this duty, it will be very unwilling to confine its work within the limits of a subordinate activity; and if the squadron is forced to fight, the officer out on patrol will be sorely tempted to hasten to the assistance of his comrades with the few cavalrymen he has with him.

I remember also a case in which a squadron broke through the enemy's out-posts on one of his wings as a feint, while on the other wing, under the protection of the disturbance caused by this feint, an officer's patrol detached from the same squadron was able to penetrate the enemy's position, and secure the desired information. I can not, therefore, dogmatically assert that an officer's patrol always sees more than a squadron, but only that it will do so, as a general rule. It is mandatory in war to well consider the economy of strength, not to engage or expend, for a given purpose, more than is absolutely necessary. Therefore, it should be well considered, before pushing out an entire squadron for reconnoitering duty, whether the work could not, in this special case, be as well done by an officer's patrol, if indeed it could not be better done.

## NEW DRILL REGULATIONS FOR CAVALRY, U. S. ARMY.

Par. 8. (a) In movements from the halt or when marching at the walk if the gait be not specified in the command, the movement is executed at the walk and terminates at the halt.

(b) In movements from the halt or when marching at the walk if the command *trot* or *gallop* be given, or when marching at the trot if the gait be not specified in the command, the leading unit moves at the walk and continues the walk until halted; the others execute the movement at the gait ordered, and upon its completion take the walk.

(c) If marching at the gallop, or at the trot and the command be *gallop*, the leading unit moves at the trot; the others execute the movement at the gallop and upon its completion take the trot.

(d) During the execution of a movement, the instructor may reduce the gait or command the halt at any time; the units that have completed the movement reduce the gait, or halt, at the command; the others conform as they complete the movement.

In the text, reference is made to this paragraph in movements coming under its provisions.

## SCHOOL OF THE SQUADRON.

699. In this school a major is the instructor, but a captain may be substituted; a trumpeter accompanies the instructor.

700. If necessary, the instructor may preface the commands laid down in the text, by the command *attention*.

If a command should not be heard by a captain he will observe and conform to the movement of the nearest troop.

701. Captains repeat such of the commands as are to be immediately executed by their troops, as *forward*, *four right*, *march*, *halt*, etc.; they do not repeat the instructor's commands in executing the manual, nor those commands which are not essential to the execution of a movement by their troops, as *close column*, *deploy column*, etc.

702. After the movements are understood, they will habitually be executed at the trot or gallop. (See Par. 618.)

703. In any successive movement, each captain gives his commands so as to insure its execution by his troop at the proper time.

704. When the formation will admit of the simultaneous execution of movements by troops or platoons, the major may cause them to execute movements prescribed in the School of the Troop by preface, when necessary, the command: *Troops (or platoons) to the commands therein prescribed*; e. g.: 1. *Troops*, 2. *Right forward*, 3. *Four right*, 4. *MARCH*; 1. *Troops*, 2. *Column right*, 3. *MARCH*; 1. *Troops*, 2. *Right front into line*, 3. *MARCH*; etc.

The major adds the commands for the guide when the sub-divisions are formed in line, or the squadron is formed in line or line of columns.

*Instruction of Officers.*

705. The major is responsible for the instruction of his squadron. The officers are assembled for theoretical and practical instruction.

The instruction of officers embraces the drill regulations, and such other instruction as pertains to their duties in peace and war.

Each captain should be required to drill the squadron.

*Formation.*

706. The interval between troops in line is eight yards.

The squadron consists of not more than four nor less than two troops. In this school the squadron consists of four troops. Where troops are from any cause much depleted in officers and men, two or more may be consolidated for the purpose of drill or maneuver.

When forming the squadron, troops take their places in line in an order depending on the rank of their captains; the first on the right, the second on the left, the third on the right center, (or center, if there be but three troops), and the fourth on the left center.

Troops whose captains are absent take their places in line according to the relative rank of the officers present in command of them. A troop whose captain is absent for a few days only, or who is in command of the squadron, retains its place according to his rank, unless otherwise directed.

After the squadron is formed, no cognizance is taken of the relative order of the troops or of the platoons in the troops.

In whatever direction the squadron faces, the troops are designated numerically from right to left in line and line of columns, and from head to rear in column, *first troop*, *second troop*, and so on. When a new formation necessitates a change of numbers, the change takes effect upon the completion of the movement.

In designating their troops, the captains use the letter designation; as, *Troop "D"*, etc.

The troops to the right of the center of the squadron in line constitute the *right wing*; those to the left of the center, the *left wing*. If there be an odd number of troops in line, the center troop always belongs to the right wing.

*Posts of the Major, Adjutant, and Sergeant Major.*

707. In line or line of columns, the major is thirty yards in front of the center.

In column and in double column of fours, the major is opposite the center, thirty yards from the column, on the side of the guide; if the guide be center, he takes post on either flank.

He is not, however, to confine himself to any particular position, but rides where he can best superintend the movements of his squadron.

The adjutant and sergeant major accompany the major, superintend the posting of the guides, and execute such orders as they may receive from him.

The adjutant is one yard to the left of the major.

The trumpeter and sergeant major ride two yards in rear of the major and adjutant respectively.

An adjutant or sergeant major may be detailed by the squadron commander whenever required.

In *route marches*, the major and the adjutant are at the head of the column, the sergeant major is in rear of the adjutant, the trumpeter in rear of the major.

*To Form the Squadron.*

708. The troops being formed and mounted on the ground designated, adjutant's call is sounded, at which the adjutant and sergeant major, the latter on the left, draw saber and proceed to the squadron parade and post themselves, facing each other, a few yards outside the points where the right and left of the right center troop are to rest in line.

The troops approach the line so as to arrive from the rear, and parallel to the line established by the adjutant and sergeant major. The right center troop (or center, if the number of troops be three) is first established on the line.

As the right center troop approaches the line, the guidon and the right principal guide detach themselves and, preceding the troop by fifteen or twenty yards, place themselves between the adjutant and sergeant major, facing to the front; the guidon at the point where the left of the troop should rest in line, and the right principal guide at a distance from him a little greater than the front of the troop.

The adjutant rectifies the position of the right principal guide, the sergeant major rectifies the position of the guidon.

The line is prolonged in the right wing by the adjutant posting the guidon and right principal guide as prescribed for the right center troop, and similarly in the left wing by the sergeant major posting the guidon on the right and left principal guide on the left of each troop.

Having rectified the positions of the guides of the troop which gives first on the line, the adjutant turns right about, moves toward the right and again turns right about so as to place himself beyond the right principal guide of the troop next on the right.

The sergeant major turns left about, moves toward the left and again turns left about so as to place himself beyond the left principal guide of the troop next on the left.

The captain of the right center troop halts his troop short of the line, places himself on the line, facing to the front, at the point of rest, dresses the troop to the left against the guidon and commands: *POST*, at which command the captain and principal guide take their posts. (See Par. 633.)

The other troops successively approach the line in their order, on the right and left of the right center troop.

Each captain conducts and halts his troop as prescribed for the first troop, he then dresses it toward the troop first established.

Captains, when dressing their troops in line, place themselves on the line, on the flank toward which they dress, facing to the front. *This rule is general.*

When the adjutant has posted the last guide in his wing, he turns to the front and passing in front of the line of officers, moves at the trot or gallop directly to a point midway between the line and the major, faces toward the line and halts.

The sergeant major having posted the last guide in his wing, turns to the front and joins the major at the trot or gallop.

The major takes post in front of the center and facing the squadron at a convenient distance, generally about half its front.

As soon as the adjutant sees that the dressing of the line is completed, he turns to the front, salutes the major and reports: *Sir: The squadron is formed.*

The major returns the salute with the right hand, directs the adjutant: *Take your post, Sir*, and draws his saber.

The adjutant moves at the trot or gallop and joins the major, passing by his right and rear.

709. The squadron may be formed in line on the right or left troop on the same principles, the guides being posted as in the left or right wing.

The squadron may also be assembled in column of fours.

In both cases the troops are arranged in the same relative order as when the formation is on the center troop. When assembled in column, the adjutant reports to the major as soon as the last troop has taken its place.

*To Rest and Dismiss the Squadron.*

710. The squadron is *rested* and called to *attention* as in Par. 315 substituting *squadron* for *squad* in the commands.

To dismiss the squadron, the major commands: *Dismiss your troops*, at which each captain conducts his troop to its own ground where it is dismissed as prescribed.

*To March in Line.*

711. Being in line at a halt: 1. *Forward*, 2. *Guide center*, 3. *MARCH*.

The right center troop (or center, if there be but three troops) is the troop of direction. The center guide of that troop, under direction of the guidon, is the guide of the squadron. The chief of platoon is charged with the gait and moves steadily to the front as prescribed in the School of the Troop. The center guides of the other troops, under direction of the guidons, move so as to preserve the alignment and the prescribed interval.

The major may command: 1. *Forward*, 2. *Guide right or left*, 3. *MARCH*.

The center guide of the right (or left) troop is then the guide of the squadron.

If the guide of the squadron does not move accurately to the front, the major commands: *Incline to the right (or left)*, at which the guide of the directing troop, with the assistance of the guidon, selects new points on the ground and directs his march a little to the right of his former direction. The directing troop conforms gradually to the march of the guide; the captains of the other troops so that the guides conform to the movement of the directing troop, and gradually quicken or slacken the gait according as they are in rear or in advance of the line, obliquing slightly when necessary to preserve the intervals.

712. The squadron being in line of columns, and at a halt, put in march by the commands: 1. *Forward*, 2. *Guide (right, left or center)*, 3. *MARCH*.

A line of columns marches on the same principles as when in line unless specially provided for.

713. When line formation is used for advancing over considerable distances, the squadron habitually advances in line of troops or platoons in columns of fours, or in line of platoon columns.

*Being in Line, to Face the Squadron to the Right, or to March it to the Rear.*

714. The major commands: 1. *Fours right (or left) about*, 2. *MARCH*, 3. *Squadron*, 4. *HALT*; or, 3. *Guide center*.

The command *halt* is given as the fours unite in line. Captains immediately take post in front of their troops.

In wheeling by fours, if the pivots cover and the fours wheel properly, no dressing is needed; the major will direct a captain to dress his troop when necessary.

If the squadron be not halted, the major commands: 3. *Guide center*, as the fours unite in line.

*Alignments.*

715. Should the major wish to rectify the alignment after the squadron has halted, he commands: *Captains rectify the alignment*. The guidons take post at once on the inner flank of their troops. The captains of the right wing dress their troops successively to the left, the captains of the left wing, to the right, the center troops being the first dressed.

In this alignment no effort is made to correct intervals should they have been lost.

716. To give a general alignment, the major orders the guidon and the right principal guide of the center or right center troop on the line, establishes them facing to the front on the direction he wishes to give the squadron and then commands: 1. *Guides on the line*, 2. *On the center*, 3. *DRESS*.

At the first command, the guidon and the principal guide on the side farthest from the point of rest of each troop are posted as in forming the squadron, (Par. 708,) on a line with the guides already established.

At the command *dress*, each captain conducts his troop, if not already there, to the line established by the guides, halts it, and dresses it up on the guides.

The troops are dressed to the left or right, according as they are to the right or left of the base troop.

The major may establish the guides of the right or left troop and command: 1. *Guides on the line*, 2. *Right (or left)*, 3. *DRESS*.

In a general alignment, intervals between troops are corrected by the captains if necessary, move their troops to the right or left so as to dress up on their own guides.

If any of the troops are in advance of the new line, the major causes them to be moved to the rear before establishing the guides, so that in dressing on the guides no troop will have to rein back.

*To Pass Obstacles.*

717. When marching in line or in column, captains will, without the command of the major, so conduct their troops as to pass obstacles with the greatest facility, and then resume the original formation.

*Being in Line, to Oblique.*

718. 1. *Right (or left) oblique.* 2. MARCH.

The interval between troops is preserved and the squadron continues parallel to its original line.

*Being in Line, to March by the Flank.*

719. 1. *Fours right, (or left).* 2. MARCH.

The distance between troops in column of fours is nine yards.

*To Break into Column of Fours from the Right or Left, to March to the Right or Left.*

720. Being in line at a halt: 1. *Column of fours.* 2. *Break to the right (or left) to march to the left (or right).* 3. MARCH.

At the second command, the captain of the right troop commands: 1. *Right forward.* 2. *Fours right.*

At the command *march*, the right troop moves in column of fours to the front; when the leading four has advanced thirty yards, the captain commands: 1. *Column left.* 2. MARCH: the guide directs his march parallel to the front of the squadron.

The other troops successively execute the movements explained for the right troop in time to follow nine yards in rear of the preceding troop.

721. The squadron in column of fours is halted, put in *march*, obliques, changes direction, marches to the rear, forms column of twos and troopers, and re-forms in column of twos and fours as prescribed to the troop, squadron being substituted for troop in the commands. In breaking by twos and troopers and in reforming twos and fours, captains regulate the march of their troops so as to preserve the distance of nine yards between them.

*Being in Column of Fours, to Form Line to the Right or Left.*

722. 1. *Fours right (or left).* 2. MARCH. 3. *Squadron.* 4. HALT.

The squadron halts as the fours unite in line: each captain at once takes his post in front of the center of his troop.

If the squadron be not halted, the major commands: 3. *Guide* *etc.* as the fours unite in line.

*General Rules for Successive Formations.*

723. Successive formations include formations either into line or column in which the several sub-divisions arrive in their places successively.

When line formations terminate at the halt, line will be formed on the principles prescribed in Par. 708. The troop first arriving on the line will be considered as the *base troop*, and the formation is prolonged on it under the supervision of the adjutant or sergeant major, or both, as may be directed by the major. The guidon is posted at the point of rest, and the principal guide of the opposite flank takes position a little more than troop front from him, both facing to the front. In formations from a halt in which the command of the major indicates that the movement shall be terminated at the halt, the guides are established at the preparatory command, and indicate the direction in which the line is to extend.

If marching and the movement is to terminate at the halt, they step ten toward the point of rest at the preparatory command, and are established at the command *march*.

In successive movements the troops are halted near the line and dressed up on the guides.

Should the command indicate a continued movement, the guides are not posted.

In forming front into line, the guides are established thirty yards to the front of the head of the column.

In forming on right or left into line, the guidon at the point of rest is established thirty yards to the right or left of the head of the column.

In changes of front, the guidon at the point of rest is posted thirty yards from the right or left of the designated troop, according as the change of front is to the right or left.

When the line is to be formed facing to the rear, the guides of each troop are so posted as to permit the troop to pass between them, after which, the one farthest from the point of rest closes to a little greater than troop front.

In formations in which the guidon marks or takes post at the

point of rest of his troop, he goes to this point in the most direct and convenient manner; the captain does not necessarily wait for the guidon to take his post before dressing his troop.

*In dressing the troops, as a rule, align themselves without passing up.* Prompt alignment should be insisted upon.

The guides should be taught to post themselves without aid.

When the guides do not anticipate a movement promptly, the captain commands: *Guides out.* (Par. 631.)

*Being in Columns of Fours, to Form on the Right or Left into Line.*

724. Being at a halt: 1. *On right (or left) into line.* 2. MARCH.

At the first command the captains in rear of the first troop command: *Forward.*

At the command *march*, the first troop executes *on right into line.* (Par. 447.)

Each of the other captains commands: 1. *On right into line.* 2. MARCH, when the heads of the horses of his leading four have advanced six yards beyond the left flank of the troop which preceded.

If marching, the captains following the first omit the command *forward.*

*Being in Column of Fours, to Form Front into Line.*

725. Being at a halt: 1. *Right (or left) front into line.* 2. MARCH.

At the first command, the captain of the first troop commands: 1. *Right front into line.* 2. *Trot;* the captain of the second troop commands: 1. *Forward.* 2. *Column right;* the other captains command: 1. *Forward.* 2. *Column half right.*

At the command *march*, the first troop executes *right front into line.* (Par. 448.)

The captain of the second troop conducts it opposite to the left of its place in line, changes direction to the left and when thirty yards from his place in line, commands: 1. *Right front into line.* 2. *Trot.* 3. MARCH.

The other captains conduct their troops to points troop distance and thirty yards in rear of the left of their places in line, change direction half-left, and when at thirty yards from the line, conform to what is explained for the captain of the second troop.

If marching, the captains in rear of the first omit the command *forward.*

The principles of Par. 8 apply.

When executed at a trot or gallop, the leading troop continues to be the troop of direction until changed by the major, its captain

commanding: *Guide center;* the other captains command: *Column half-right* and the movement is completed as prescribed.

*Front into line* may be executed in a direction oblique to that of the column, by first causing the leading troop to execute a partial change of direction. The line is formed at right angles to the new direction of the leading troop. The other troops are so marched, if possible, as to arrive opposite their positions at troop distance and thirty yards in rear of the line.

*Being in Column of Fours, to Form Front into Line, Faced to the Rear.*

726. 1. *Right (or left) front into line, faced to the rear.* 2. MARCH.

This movement is executed as in Par. 725, except that each captain halts his troop just beyond the line, and when all his fours have arrived in line, he wheels his troop to the left about by fours, halts it and dresses it to the right.

In forming line faced to the rear, each troop is wheeled about by fours toward the point of rest and halted. *This rule is reversed.*

*Being in Column of Fours, to Form Line by two Movements.*

727. In forming line by two movements, the command *march* is given as the head of a troop is about to change direction.

A part of the column having changed direction to the right, to form line to the left, the major commands: 1. *Fours left.* 2. *Rear troops, left front into line.* 3. MARCH.

The troops that have changed direction wheel by fours to the left; each captain halts his troop as the fours unite in line. The rear troops execute *left front into line*, the leading fours advancing only so far as to be in line with the troops which have wheeled into line.

Should the major wish to form line and advance without halting, the commands: 1. *Fours left.* 2. *Rear troops, left front into line.* 3. *Trot.* 4. MARCH. 5. *Guide center.*

The troops that have changed direction wheel by fours to the left and move forward at a walk. The captains of the rear troops repeat the command *trot*, and the movement is executed as before, each captain commanding *left front into line*, in time to command *march*, when the leading four arrives abreast of the line already formed.

The principles of Par. 8 apply.

728. A part of the column having changed direction to the right, to form line to the right, the major commands: 1. *Fours right.* 2. *Rear troops, left front into line, faced to the rear.* 3. MARCH.

The troops that have changed direction wheel to the right and halt. The rear troops execute *left front into line*, faced to the rear.



In forming line by two movements, intervals if lost will be regained subsequently.

729. If the column has changed direction to the left, to form line to the right, the major commands: 1. *Fours right*, 2. *Rear troops, right front into line*, 3. MARCH, or, 3. *Trot*, 4. MARCH.

The principles of Par. 8 apply.

To form line to the left, he commands: 1. *Fours left*, 2. *Rear troops, right front into line, faced to the rear*, 3. MARCH.

*Being in Line, to Break by the Right or Left of Troops Front into Column.*

730. 1. *Left (or right) of troops front into column*, 2. MARCH.

At the first command, the captains command: 1. *Left forward, fours left*; as the rear four completes its change of direction, each captain forms his troop into line to the right, halts it as the fours unite in line and dresses it to the right.

In column of troops, each captain takes post on the side of the guide, six yards in front and six yards from the flank of his troop. If the guide be center, he takes post on the same flank as the major.

The distance between troops in column at full distance is troop front and five yards.

*Being in Line, to Break by the Right or Left of Troops Rear into Column.*

731. 1. *Right (or left) of troops*, 2. *Rear into column*, 3. MARCH.

At the second command, each captain commands: 1. *Fours right*, 2. *Column right*.

Each captain halts so as to be on a line with the rank when formed and as his rear four completes its change of direction, forms his troop into line to the left, halts it as the fours unite in line and dresses it to the left.

*Being in Line, to Form Column of Troops to the Right or Left and Halt.*

732. 1. *Troops right (or left)*, 2. MARCH.

Each troop executes the turn and halt. (Par. 642.)

*Being in Line, to Form Column of Troops without Halting.*

733. 1. *Troops right (or left) turn*, 2. MARCH, 3. *Guide right (left or center)*.

Each troop executes the turn (Par. 643). The guide of the leading troop is charged with the direction.

734. To change slightly the direction of march, the major commands: *Incline to the right (or left)*; the guide of the leading troop comes gradually into the new direction, the rank conforming to his movements. The troops in rear make a slight change of direction on the same ground and in the same manner as the leading one.

Whenever a guide is forced out of the direction, he recovers it gradually; the rear guides conform successively and gradually to his movements. (Par. 655.)

*Being in Column at Full Distance at a Halt, to Put the Column in March.*

735. 1. *Forward*, 2. *Guide right, left or center*, 3. MARCH.

*To Halt the Column.*

1. *Squadron*, 2. HALT.

At the command *halt*, the column halts and the guides stand fast, though they may have lost their distances and be out of the direction of the guides in front.

*Being in Column at Full Distance, to Change Direction.*

736. Being in march: 1. *Column, right or left*, 2. MARCH.

At the first command, the principal guide of the leading troop on the side toward which the turn is to be made, places himself abreast of the rank and two yards from its flank; the captain of the first troop commands: *Right turn*.

At the command *march*, repeated by the captain of the leading troop, the leading troop turns to the right, the principal guide halts and remains in place, so as to mark the turning point; he returns to his post when the rear troop begins its turn.

The other troops march squarely up to where the leading troop turned, and each at the command of its captain, turns to the right as explained for the leading troop.

In the turn the dress is always toward the pivot without command, each captain, upon its completion, cautions his troop, *guide right, left or center*, according as the guide was right, left or center before the turn.

*Column half-right, or half-left*, is similarly executed; each captain gives the preparatory command: *Right (or left) half-turn*.

*To put the Column in March and Change Direction at the Same Time.*

737. 1. *Forward*, 2. *Guide (right, left or center)*, 3. *Column right or left*, 4. MARCH.

*To Face the Column to the Rear, or to March it to the Rear.*

738. 1. *Fours right (or left) about*, 2. MARCH, 3. *Squadron*, 4. HALT; or, 3. *Guide, right, left or center*.

The command *halt* is given, or the guide announced, as the fours unite in line.

Should one troop be smaller than the others the guides regain the trace and distance on the march.

*Being in Column at full Distance, to Form Line to the Right or Left.*

739. 1. *Troops right (or left).* 2. MARCH.

Before forming line by this movement, the major causes the guides to cover at the proper distance and on the flank toward which the line is to be formed.

To form line and continue the march: 1. *Troops.* 2. *Right (or left) turn.* 3. MARCH. 4. *Guide center.*

*Being in Column at Full Distance, to Form on the Right or Left into Line.*

740. Being in march: 1. *On right (or left) into line.* 2. MARCH.

At the first command, the captain of the first troop commands *Right turn*; when the troop has advanced to the guides, the captain halts it and dresses it to the right.

Each of the other captains commands: 1. *Right turn.* 2. MARCH when his troop has advanced six yards beyond the left flank of the troop which preceded and completes the movement as prescribed for the first.

Being at a halt, at the first command, the captains of troops in rear of the first, command: 1. *Forward.* 2. *Guide right.*

*Being in Column at Full Distance, to Form Front into Line.*

741. (a) Being at a halt: 1. *Right (or left) front into line.* 2. MARCH.

At the command *march*, the first troop advances thirty yards and halts; the second troop executes *right forward, fours right*, changes direction to the right so as to march a little in rear of and parallel to the line, and when opposite its place forms line to the left; the other troops execute *fours right, column half-left*, and complete the movement as prescribed for the second.

Marching at a walk, the first troop is halted after advancing thirty yards, and the movement is completed as before.

The principles of Par. 8 apply.

(b) To form front into line without reducing the front of the troops. Being at a halt: 1. *Right (or left) front into line.* 2. *Troop right (or left) half-turn.* 3. MARCH.

At the second command, the captain of the first troop commands: 1. *Forward.* 2. *Guide left*; the captains of the other troops command: *Right half-turn.*

At the command *march*, the first troop moves forward, and is halted near the line and dressed to the left; the other troops execute the *right half-turn*; each captain upon the completion of the half-turn by his troop, commands: *Guide left*; when the left guide is opposite

its place in line, the captain commands: 1. *Left half-turn.* 2. MARCH; the troop is halted and dressed as prescribed for the first.

The principles of Par. 8 apply.

(c) *Front into line faced to the rear*, is executed as explained, except that the troops march just beyond the line and wheel about by fours and halt.

*Being in Line, to Change Front.*

742. (a) 1. *Change front on first (or fourth) troop.* 2. *Troops left half-turn.* 3. MARCH.

At the second command, the captain of the first troop commands: *Right turn.*

At the command *march*, the first troop executes *right turn*, is halted near the line and dressed to the right. The other troops execute *left half-turn*.

The movement is then completed as in front into line from column of troops. (Par. 741b.)

To change front faced to the rear, the major adds: *faced to the rear*, to the first command.

(b) The major may direct the guides to be posted in an oblique direction; the movement is then executed in the same manner, the designated troop forming on the line established by the guides.

(c) The change of front may be effected by wheeling by fours to the right or left and then forming front into line. (Par. 725.)

(d) To change front in rear of the line, the major causes the squadron to wheel about by fours, and then gives the commands as before.

*Being in Line, to Advance in Line of Columns of Fours.*

743. 1. *Troops.* 2. *Right (or left) forward.* 3. *Fours right (or left).* 4. MARCH. 5. *Guide (right, left or center).*

At the command *march*, each troop executes *right forward, fours right*. The guides preserve the alignment and interval. The major takes post as in line; the captains take post on the side of the chiefs of platoons six yards in front of their leading fours and six yards from the flank of the column.

*Being in Line, to Retire in Line of Columns of Fours.*

744. 1. *Fours right (or left).* 2. *Troops, column right (or left).* MARCH. 4. *Guide (right, left or center).*

*Marching in Line of Columns of Fours, to Oblique to the Right or Left by the Heads of Columns.*

745. 1. *Troops.* 2. *Column half-right (or half-left).* 3. MARCH. (Par. 676.)

To resume the original direction: 1. *Troops*, 2. *Column half-left* (or *half-right*), 3. *MARCH*, 4. *Guide center*.

*Being in Line of Columns of Fours, to Close and Extend Intervals, Gaining Ground to the Front.*

746. The full interval is troop front and four yards.

The close interval is eleven yards.

Marching at the walk (or trot): 1. *On second* (or *such*) *troop*, 2. *Close intervals*, 3. *MARCH*, 4. *Guide center* (right or left).

At the second command, the captain of the second troop cautions: *Continue the march*; the captains to the right command: 1. *Column half-left*, 2. *Trot* (or *gallop*); the captains to the left command: 1. *Column half-right*, 2. *Trot* (or *gallop*).

At the command *march*, the designated troop moves forward; the other troops move at the increased gait, each changes direction half-right or half-left when it has the close interval, moves abreast of and takes the gait of the designated troop.

If at a halt, the captains give the commands necessary for putting their troops in march. If marching at a gallop, the designated troop takes the trot.

Intervals are extended gaining ground to the front in a similar manner; the major commands: 1. *On* (such) *troop*, 2. *Extend intervals*, 3. *MARCH*, 4. *Guide center* (right or left).

747. To close intervals without gaining ground to the front, the major wheels the fours to the right or left; the column is then closed in mass, (Par. 753) after which the squadron is wheeled by fours to the left or right.

Intervals may be extended on the same principles, the squadron is wheeled by fours to the right or left, and full distance taken as in Par. 755, after which the squadron is wheeled by fours into line of columns of fours.

*Being in Column of Fours, to Form Front into Line of Troops or Platoons in Columns of Fours.*

748. 1. *Right* (or *left*) *front into line of troops in columns of fours*, 2. *MARCH*.

The movement is executed as explained for forming front into line of platoon in columns of fours, (Par. 669).

The troops form at intervals of troop front and four yards.

The principles of Par. 8 apply.

To form the column of fours front into line of columns four at close intervals, the major adds: *At close intervals*, to the first command. The troops form at intervals of eleven yards.

749. The squadron executes *right* or *left front into line of platoons columns of fours* on the same principles except that each troop approaches the line perpendicularly and when thirty yards from it the captain commands: 1. *Right* (or *left*) *front into line of platoons in columns of fours*, 2. *MARCH*. Executed as in the School of the Troop, Par. 669.

750. On right or left into line of troops or platoons in columns of fours is executed as prescribed for forming line of platoons in columns of fours (Par. 670) except that the line is always halted.

*Being in Line of Troops in Columns of Fours at Close Intervals, to Form Column of Fours.*

751. 1. *Column of fours*, 2. *First* (or *fourth*) *troop forward*, *MARCH*.

The designated troop moves out and is followed by the other troops at the proper distance.

The line of troops or platoons in columns of fours is *put in march*, is *halted*, is *marched to the rear*, at the *oblique* and *by the flank*, and *changes direction* by the same commands and means as in the troop.

*Close Column or in Mass.*

752. The distance between troops in close column is twelve yards. Close column is always formed with the leading troop, or the one designated, in front.

The positions of the major and captains are the same as in column at full distance.

*Being in Column of Troops at Full Distance, to Form Close Column.*

753. Being at a halt: 1. *Close in mass*, 2. *Guide right* (left or center), 3. *MARCH*.

At the second command the captain of the first troop cautions: *Stand fast*; the other captains command: 1. *Forward*, 2. *Guide left*.

At the command *march*, the rear troops move forward; each is halted when it arrives at twelve yards from the one that precedes it. If necessary the captains dress their troops toward the side of the guide.

If marching, the major omits the command for the guide, and the captains of the rear troops omit the commands for putting them in march.

The principles of Par. 8 apply. If executed at a walk the leading troop is halted at the command *march*.

(b). To close the column on the rearmost troop, the major

wheels the squadron about by fours, and the column is then close as before; when the column has closed, the squadron is again wheeled about by fours.

*Being in Column of Fours to Form Close Column.*

754. 1. *Close in mass.* 2. *First troop, right (or left) front into line.* 3. MARCH.

At the command *march*, the first troop executes *right front into line*; the other troops move forward and successively execute *right front into line*, each in time to be halted at close distance.

*Being in Close Column, to take Full Distance.*

755. Being at a halt: 1. *Take full distance.* 2. *Guide right (or center).* 3. MARCH.

At the second command, the captain of the first troop commands: 1. *Forward.* 2. *Guide right.*

At the command *march*, the first troop advances; each of the other captains commands: 1. *Forward.* 2. *Guide right.* 3. MARCH when his troop has full distance.

If marching, the major omits the command for the guide and the first troop continues the march; if at a walk the other troops halt or, if at a trot or gallop, they take the next slower gait and successively take the gait of the leading troop when at full distance.

If the major commands a more rapid gait, the first troop takes that gait at the command *march*, each of the other troops when at full distance.

*Being in Line, to Ploy into Close Column.*

756. Being at a halt: 1. *Close column on first (or fourth) troop.* 2. *Fours right (or left).* 3. MARCH.

At the first command, the captain of the first troop commands: 1. *Forward.* 2. *Guide left.*

At the command *march*, the first troop advances sixteen yards, is halted and dressed to the left; the other troops execute *fours right*.

The captain of the second troop halts in rear of the left of the first, and as his rear four passes him commands: 1. *Fours left.* 2. MARCH, 3. *Troop.* 4. HALT, 5. *Left.* 6. DRESS, 7. FRONT.

The left trooper of the second troop is established directly in rear of the left trooper of the first troop, and twelve yards from him.

The other troops incline to the right, and each moves by the shortest line so as to enter the column and form line to the left, halts and dress to the left, twelve yards in rear of and parallel to the preceding troop.

If marching at a walk, the movement is executed in the same manner; the captain of the first troop cautions: *Continue the march*, and adds, *Guide left.*

The principles of Par. 8 apply.

It played on the fourth troop, the troops are dressed to the right.

*Being in Column of Fours, to Ploy into Close Column, Faced to the Front.*

757. (a) 1. *Close Column.* 2. *First Troop.* 3. *Column right (or left).* 4. MARCH.

At the command *march*, the first troop executes *column right*; when twelve yards from the flank of the column, the captain halts, and as his rear four passes him, he commands: 1. *Fours left.* 2. MARCH, 3. *Troop.* 4. HALT, 5. *Left.* 6. DRESS, 7. FRONT.

Each of the other troops moves forward, enters the column, forms line to the left and is dressed to the left, twelve yards in rear of the preceding troop.

If at a halt, captains give the commands necessary for putting their troops in march.

(b) Close column may be formed in an oblique direction by substituting the commands: 3. *Column halt, right (or halt left)* for *Column right (or left)*.

(c) To form the close column, faced to the rear, the major adds: *Faced to the rear*, after *close column* in his command.

The movement is executed as just explained, except that the troops in rear of the first successively enter the column beyond the point where the first changed direction, and each captain forms his troop in line to the right or left according as the troop changed direction to the right or left.

Close column faced to the rear *always terminates with the halt.*

*Being in Column of Fours, to Ploy into Close Column, Faced to the Right or Left.*

758. 1. *Close column.* 2. *First troop.* 3. *Fours right (or left).* 4. MARCH.

The first troop executes *fours right*, and when it has advanced fifteen yards, the captain halts it and dresses it to the right; the other troops form close column as from line. (Par. 756.)

If at a halt, the captains give the commands necessary for putting their troops in march.

The principles of Par. 8, apply.

*Being in Close Column, to Form Column of Fours.*

759. (a) Being at a halt: 1. *Column of fours.* 2. *First troop.* 3. *Right (or left) forward.* 4. *Fours right (or left).* 5. MARCH.

At the command *march*, the first troop executes *right forward fours right*.

Each of the other troops executes the same movement in time to follow the one preceding.

(b) Or, the major may command: 1. *Column of fours*, 2. *Fours* (or *fourth*) *troop*, 3. *Fours right* (or *left*), 4. MARCH.

At the command *march*, the designated troop executes *fours right*.

Each of the other troops executes *fours right*, or *right forward fours right*, in time to follow the one next preceding.

#### *Movements in Close Column.*

760. A close column is put in march and halted, oblique marches by the flank and resumes the march in column, gains ground to the right or left when marching by the flank and resumes the original direction, faces to the rear, marches to the rear and changes direction, by the same commands and means as a column at full distance.

#### *Being in Close Column, to Change Direction by the Flank.*

761. 1. *Change direction by the right* (or *left*) *flank*, 2. *Fours right* (or *left*), 3. MARCH.

At the second command, the captain of the first troop commands: 1. *Right forward*, 2. *Fours right*.

At the command *march*, the first troop executes *right forward fours right*; the captain, as his rear four completes its wheel to the front, commands: 1. *Fours left*, 2. MARCH, 3. *Troop*, 4. HALT, 5. *Left*, 6. DRESS, 7. FRONT.

The other troops execute *fours right*, and are so marched as to enter the new column in rear of and parallel to the first.

As each troop arrives in rear of the one next preceding, it is formed in line to the left and dressed to the left.

(b) The major may order the first troop to be inclined at any angle to the original front. By this method any direction may be given to a close column.

(c) The close column marching by the flank changes direction by the same commands and means as when at full intervals (Par. 677).

#### *Being in Close Column, to Form Line.*

762. *To the right or left*. The major first causes the column to take full distance (Par. 756), or forms column of fours (Par. 759) and then forms line.

763. *On the right or left*. The movement is executed by the same commands and means as from column at full distance.

#### *To Deploy the Close Column.*

764. (a) Being at a halt: 1. *Deploy column*, 2. *Fours left* (or *right*), 3. MARCH.

At the second command, the captain of the first troop cautions: *Stand fast*.

At the command *march*, the first troop is dressed to the right; the other troops execute *fours left*; each captain halts when eight yards beyond the left of the preceding troop, and as the rear of his troop passes him, commands: 1. *Fours right*, 2. MARCH, 3. *Guide right*, halts the troop near the line and dresses it to the right.

The principles of Par. 8 apply.

(b) The same result may also be accomplished by first forming column of fours, (Par. 759b), and then forming line to the right or left.

(c) *To deploy the close column faced to the rear*, the major adds: *Faced to the rear*, after *deploy column*.

The first troop wheels about by fours; the other troops deploy as before and form line faced to the rear.

765. Close column of wings is played and deployed by the same commands as close column of troops, substituting *right* (or *left*) *wing* for *first* (or *fourth*) *troop* in the commands, the closed distance being troop front and five yards.

The captains take post as in line.

In playing on the right wing from line both troops of the right wing move forward, each is halted and dressed to the left by the command of its captain, the right troop regulating on the left; the troops of the left wing execute the movement at the commands of their captains, each being halted in rear of the corresponding troop of the right wing.

The ployment on the left wing is made on the same principles by inverse means.

If there be but three troops, close column of wings is formed on the right wing only; the left wing forms line so that its center shall be about opposite the interval of the right wing.

#### *Movements by Platoons.*

766. The squadron being in line, forms into column of platoons to the right or left, and breaks by the right or left of platoons to the rear or front into column, by the commands and means prescribed in the School of the Troop.

Being in column of platoons, the squadron executes all the movements by platoon prescribed in the School of the Troop, with the following modifications in regard to *on the right or left into line*, and *front into line* —

*Being in Column of Platoons, to Form on the Right or Left into Line.*

767. Being in march: 1. *On right (or left) into line*. 2. MARCH.

At the command *march*, the first troop executes *on right into line*; the other troops march beyond the first, each captain commanding 1. *On right into line*. 2. MARCH, when his leading platoon is six yards beyond the left flank of the preceding troop.

*Being in Column of Platoons, to Form Front into Line.*

768. Being at a halt: 1. *Right (or left) front into line*. 2. MARCH.

At the first command the captain of the first troop commands *Right front into line*; the captain of the second troop commands: 1. *Forward*, 2. *Guide left*, 3. *Column right*; the other captains: 1. *Forward*, 2. *Guide left*, 3. *Column half-right*.

At the command *march*, the first troop forms *right front into line*; the second troop changes direction to the right, moves forward, changes direction to the left so as to approach the line opposite the position of its left platoon, and, when at thirty yards from the line, the captain commands: 1. *Right front into line*. 2. MARCH; the third and fourth troops march diagonally in rear so as to change direction half-left when at a distance from the line equal to the depth of the troop in column of platoons increased by thirty yards, and complete the movement as explained for the second.

If marching, the captains of troops in rear of the first omit the commands for putting them in march.

The leading troop remains the troop of direction until change by the major.

The principles of Par. 8 apply.

769. The line *faced to the rear* is formed in a similar manner; each troop passes just beyond the line and halts, wheels about by four when the last platoon has arrived in line, and dresses up on the line.

#### *Platoon Columns.*

770. A platoon column is a troop in column of platoons.

The interval between troops in line of platoon columns, except when *full interval* is stated, is twelve yards.

In line of platoon columns, the position of the major is the same as in line. The captain takes post six yards in front of his guide.

#### *To Form Line of Platoon Columns.*

*Being in column of platoons, to form line to the right or left.*

771. Being at a halt: 1. *To the right (or left) into line of platoon columns*. 2. MARCH.

At the first command, the captain of the leading troop commands: 1. *Forward*, 2. *Guide left*, 3. *Column right*; the other captains command: 1. *Forward*, 2. *Guide left*.

At the command *march*, the leading troop changes direction to the right; when its rear has cleared the column by twelve yards, the captain commands: 1. *Troop*, 2. HALT, 3. *Left*, 4. DRESS, 5. FRONT.

The other troops move forward, and each in turn changes direction to the right, so as to arrive abreast of and to the right of the first troop, with the prescribed interval between it and the troop which preceded it in the movement; each troop completes the movement as explained for the first.

If marching, the captains omit the commands for putting their troops in march.

The principles of Par. 8 apply.

Should the movement terminate at a halt, the guidon of each troop precedes it on the line and is established at the point of rest, facing to the front. *This rule is general for forming line of platoon columns.*

772. *On the right or left into line of platoon columns* is similarly executed, each of the rear troops changing direction beyond the point where the one preceding entered the line of platoon columns.

*Being in Column of Platoons, to Form Front into Line of Platoon Columns.*

773. Being at a halt: 1. *Right (or left) front into line of platoon columns*. 2. MARCH.

At the first command, all the captains command: 1. *Forward*, 2. *Guide left*; the captain of the second troop adds: 3. *Column right*; the captains of the troops following add: 3. *Column half-right*.

At the command *march*, the first troop advances thirty yards when the captain commands: 1. *Troop*, 2. HALT, 3. *Left*, 4. DRESS; the second troop changes direction to the right, moves forward, and then changes direction to the left, so as to be opposite its position in line, halts abreast of the first troop with the proper interval, and dresses to the left; the other troops move diagonally until, by a change of direction half-left they are brought opposite their places in line, and complete the movement as explained for the second troop.

Being in march, the captains omit the command *forward*.

The principles of Par. 8 apply.

When ordered at an increased gait, the second troop moves diagonally to its new position.

774. The squadron being in column of fours, executes *right or left front into line of platoon columns* on the same principles; each troop

approaches the line perpendicularly, the captain commanding, when at thirty yards from the line: 1. *Platoons*, 2. *Right (or left) front into line*, 3. *MARCH*, 4. *Troop*, 5. *HALT*, 6. *Left (or right)*, 7. *DRESS*, or 4. *Guide left (or right)*.

*Being in Line of Platoon Columns, to March by the Flank.*

775. 1. *Fours right (or left)*, 2. *MARCH*, 3. *Guide right, left (or center)*. The captains take post as in column of troops. (Par. 730)

*Being in Line of Platoon Columns, to Form Column of Troops.*

776. 1. *Platoons right (or left)*, 2. *MARCH*; or, 1. *Platoons right (or left) turn*, 2. *MARCH*, 3. *Guide (right, left or center)*.

*Being in Column of Troops at Full Distance, to Form Line of Platoon Columns with Full Intervals.*

777. 1. *Platoons right (or left)*, 2. *MARCH*; or, 1. *Platoons right (or left) turn*, 2. *MARCH*, 3. *Guide center (right or left)*.

*Being in Line of Platoon Columns with Full Intervals, to March in Column of Platoons.*

778. Being in march: 1. *Troops*, 2. *Column right (or left)*, 3. *MARCH*, 4. *Guide right (or left)*.

*To March again in Line of Platoon Columns with Full Intervals.*

779. 1. *Troops*, 2. *Column right (or left)*, 3. *MARCH*, 4. *Guide (right, left or center)*.

*Being in Line, to Advance in Line of Platoon Columns with Full Intervals.*

780. 1. *Troops*, 2. *Right (or left) by platoons*, 3. *MARCH*, 4. *Guide center (right or left)*.

*Being in Line of Platoon Columns with Full Intervals, to Form Line.*

781. 1. *Troops*, 2. *Right (or left) front into line*, 3. *MARCH*.

The principles of Par. 8 apply.

782. Being in line of platoon columns, intervals are extended and closed by the same commands and means as prescribed when in line of troops in column of fours (Pars. 753, 755).

When closing without gaining ground to the front, the troops in rear close to thirteen yards from the rear of the troop preceding.

*Being in Line of Platoon Columns, to Change Front.*

783. Being at a halt: 1. *Change front on first (or fourth) troop*, 2. *MARCH*.

At the first command, the captain of the first troop commands: 1. *Forward*, 2. *Guide right*, 3. *Column right*; the other captains command: 1. *Forward*, 2. *Guide right*, 3. *Column half-right*.

At the command *march*, the right troop changes direction to the right and is halted when the pivot trooper of its rear platoon has advanced twelve yards in the new direction; the other troops change direction half-right, and each is so conducted that by another change of direction half-right, it will move parallel to the column next on the right, and is halted on the line.

If marching, the captains omit the command *forward*.

The principles of Par. 8 apply.

*Being in Line of Platoon Columns, to Form Column of Platoons.*

784. Being at a halt: 1. *Column of platoons*, 2. *First (or fourth) troop*, 3. *Forward*, 4. *Guide (right or left)*, 5. *MARCH*.

At the command *march*, the first troop moves forward; the other captains put their troops in march, and make a partial change of direction to the right, so as to follow the troop next on the right at a distance equal to platoon front and five yards.

*Being in Line, to Break from the Right or Left to March to the Front in Column of Fours.*

785. 1. *Column of fours*, 2. *First (or fourth) troop*, 3. *Right (or left) forward, fours right (or left)*, 4. *MARCH*.

At the third command, the captain of the first troop commands: 1. *Right forward, fours right*; the other captains command: *Fours right*.

At the command *march*, the first troop executes *right forward, fours right*; the other troops execute *fours right*, move forward and change direction to the front on the same ground as the first troop.

*Being in Line, to Form Double Column of Fours.*

786. 1. *Double column of fours*, 2. *Center forward*, 3. *MARCH*, 4. *Guide right (or left)*.

At the second command, the captain of the center or right center troop commands: *Left forward, fours left*, the captain of the right troop commands: *Fours left*, the captain of the left center troop commands: *Right forward, fours right*, and the captain of the left troop commands: *Fours right*.

At the command *march*, the center troops break to the front in column of fours; the first troop wheels by fours to the left, and follows the second, the fourth troop wheels by fours to the right and follows the third. The left column regulates on the right, and preserves the interval.

The interval may be reduced or extended as circumstances may require or as directed by the major.

The double column of fours changes direction as prescribed for a line of columns of fours (Par. 677).

*Being in Double Column of Fours, to Form Line to the Front.*

787. 1. *Right and left front into line.* 2. MARCH.

The right column forms right front into line and the left column forms left front into line (Par. 725).

*Being in Double Column of Fours, to Form Line to and on the Right or Left.*

788. 1. *Fours right (or left).* 2. *Left (or right) fours on right (or left) into line.* 3. MARCH.

At the command *march*, the right column forms line to the right; the left column forms on right into line, on the left of the leading troop of the right column (Par. 724).

*Order in Echelon.*

789. The distance between troops in the order in echelon is troop front and five yards.

The squadron in line forms echelon on the first or fourth troop as prescribed in the School of the Troop, substituting *troop* for *platoon*, and *squadron* for *troop*.

790. Being in echelon of troops or of troops in columns of fours, the squadron executes the movements in echelon as prescribed in the School of the Troop, regard being paid to intervals and the distances between troops and platoons.

791. Line of platoon columns and line of troops in columns of fours are formed in echelon on the same principles as from line. The distances between troops in echelon in any formation, are the same as in column.

792. The squadron in echelon of platoon columns or troops in columns of fours marches to the front, to the rear and by the flank, and is formed into line by the commands and according to the principles prescribed as when in echelon from line.

*Instruction.*

793. The major by markers or in some other manner indicates a line to be occupied by the squadron, and also indicates the position of a supposed enemy; he designates the officer to command, indicates to him the formation at the close of the movement, and directs him to place the squadron on the new line. Upon completion of the movement the major gives his judgment upon the following:

Was the squadron marched to its position by the best and shortest route, in the simplest manner and the most suitable formation, under the conditions supposed?

Was it halted at the proper time and is it in the formation designated?

No movement looking to correction is permitted after the command *halt* is given, until after the major gives his observations.

In accordance with the principles laid down in Par. 470, 471, various exercises may be devised looking to the prompt and proper maneuvering of the squadron.

*The Charge.*

794. The squadron in line, in line of platoon columns, in column of troops or column of platoons charges according to the principles prescribed in the School of the Troop.

In charging by squadron the major takes post in the line of captains.

In charging the enemy by sub-division the sub-divisions charge successively, each at such distance from the one preceding as to support it promptly, or to enable it if repulsed to clear the flanks of the column and reform in its rear. The successive sub-divisions continue the attack, break through the enemy's line, rally in his rear and charge again as they return.

When troops charge separately from line they reform in their places in line, passing by the flank and rear.

All movements for formation should, if possible, be made beyond the range of the enemy's fire.

The weak points of a line or column are the flanks. The flanks may be protected by forming the flank troops in order in echelon.

If time will permit, officers and men should be instructed as to the particular object of attack for each troop, the rallying point and the renewal of the attack.

*The Squadron Acting Alone.*

795. In the instruction of the squadron in the charge, the major will be governed by the principles of Pars. 470, 471 and 691; a definite tactical object should be given.

The squadron when alone is formed in two or three lines, the same as the troop when alone.

The senior officer with each of the lines is leader of the line and takes post as such.

The attacking line may consist of one, two or three troops.

When necessary the major designates the formation to be taken



by each line and directs the relative positions of the support and reserve, with reference to the attacking line, and explains the special part each is to take in the attack.

Each troop in the attacking line will be complete, that is, parts of each will not be detached for the support or reserve, but one or more platoons of the flank troops may be placed in echelon on the outer flanks.

The reserve and support may be taken from the same troop.

#### *To Charge.*

796. The major designates the attacking line, the support and the reserve, and if the pistol is to be used designates that arm.

When the squadron has arrived at the position for taking the formation, the major commands: **FORM FOR ATTACK.**

Each captain of the attacking line causes his troop to draw saber, or raise pistol, if that arm has been designated by the major. The captains of the support and reserve cause their troops to draw saber.

The attacking line takes the trot; the support and reserve move toward their positions on the flanks and each takes the trot when the attacking line has gained the proper distance (Par. 695).

When the attacking line has arrived at the proper place to begin the rapid advance, the major commands: 1. *To the charge*, 2. **MARCH.**

The attacking line advances, guiding on the center; as the time or place for taking the charge is approached, the gallop is increased progressively and the charge is made as explained for the troop (Par. 695).

Foragers may be deployed on the flank or flanks of the attacking line, the captain designating the platoon to deploy. At the command *to the charge, march*, the platoon deploys; at the command *charge*, the foragers swarm around the flank and rear of the enemy.

If the enemy avoid the charge, the major may send a troop in pursuit, as foragers or in compact line. The rest of the line, held in compact order, follows the pursuit.

#### **EXTENDED ORDER.**

##### *General Principles and Rules.*

797. The squad is the basis of extended order. The men will be taught to regard the squad as the unit from which they ought never to be separated. But if the squad should be broken up, or the men become separated, they are assigned to a squad, or place themselves under the nearest leader and remain with his squad as if it were the one to which they originally belonged.

Officers and non-commissioned officers will give their attention to preserving the integrity of the squad; they organize new ones when necessary, and see that every man is placed in a squad.

The captain, the commander of the echelon or the chief of platoon appoints leaders of squads newly organized, or new leaders to replace those disabled.

798. When necessary for any chief to leave his post, he will return to it as soon as possible.

799. The officers, and when necessary the non-commissioned officers, repeat the commands and cause them to be executed as soon as given. (Par. 490); the commanders of echelons give the commands necessary for the execution of the orders of the captain and, in general, give their attention to the control and direction of the fire, and to maintaining cohesion and concert of action.

#### **THE TROOP.**

##### *Formation.*

800. In this drill the troop is supposed to consist of four platoons of two squads each; it may consist of a less number of platoons.

When forming a part of the squadron, the formation of the troop in extended order consists of an attacking (or firing) line and a support.

When the troop is acting alone, the formation consists of an attacking (or firing) line, a support and, when necessary, a reserve.

##### *Posts and Duties of Officers, etc.*

801. When the mechanism of the drill is understood, the captain will cause movements to be executed on varied ground and will prescribe programmes for instruction, the execution of the details being carried out by the subordinates.

802. The captain is accompanied by a trumpeter and takes post between the attacking line and support, or when the troop is in three echelons, near the support.

He directs the action of the whole troop, controls the reinforcement of the attacking line, and keeps up the supply of ammunition, regulating its distribution and expenditure.

His orders, given by word of command, signals or delivered by orderlies, are directed to the commanders of the attacking line, support and reserve.

The principal guides and guidon conform to the requirements of Par. 694.

803. One lieutenant commands the attacking line; the other lieu-

tenant commands the reserve, or if there be no reserve he commands the support. If there be an additional lieutenant he may be assigned by the captain; if the formation be in three echelons he would usually command the support.

804. The attacking line is commanded by the lieutenant whose platoon is on the line; he takes post about thirty yards in rear of the line and is accompanied by a trumpeter.

The chiefs of platoons on the attacking line must frequently look to the commander of the line to see his signals. The chief of the platoon to which the base squad belongs gives particular attention to the march of that squad, and sees that the other squad takes and keeps its interval; the other chiefs of platoons see that their squads take and keep their intervals.

805. The support, in line or column as may be expedient, takes position about two hundred yards in rear of the center of the attacking line and maintains that relative position. The captain may direct the support to take position in rear of one flank.

Scouts or patrols are sent out to protect the flank not already covered by the reserve, a natural obstacle, or by a contiguous organization.

The commander of the support takes a position from which he can observe the progress of the action, and if possible watch the scouts or patrols, keeping a good lookout for the commands and signals of the captain.

806. When there is a reserve it is commanded by the lieutenant posted with the part of the troop from which the reserve is taken.

The reserve takes position about one hundred yards in rear of the support and usually opposite one of the flanks of the attacking line; when the troop is acting alone, if the support has position opposite one flank, the reserve should generally take position opposite the other flank.

When necessary, scouts are sent from the reserve on the flank not covered by the support.

The commander of the reserve takes a position from which he can see the support, observe the scouts, and, if possible, see the captain's signals. If unable to make these observations in person, he must keep himself in communication with the captain and the support by means of men sent forward to carry messages and repeat signals.

Whenever the support is advanced to the attack, or absorbed in the attacking line, the reserve takes its place.

807. The troop may be extended by squads, platoons or deployed as skirmishers, from any formation; the captain will designate the

platoon or platoons for the firing line and those for the support and reserve. These designations should be made when a deployment is imminent, and thus avoid a possible source of confusion in an emergency.

As a rule the platoons to be designated for the attacking (or firing) line are taken from the left when the troop is in line; the leading platoons are designated when in column.

The captain indicates the objective and gives the commands necessary for the deployment.

The commander of the attacking line moves his line, forms line of squads or deploys as skirmishers and orders the firing, etc., according to real or supposed circumstances, or as the captain may direct.

The support is moved to its position when the attacking line halts or has gained the proper distance and is held ready to move to the assistance of the attacking line and to act toward either flank.

808. When the entire troop is deployed, the captain takes immediate control of the line, and takes post about fifty yards in rear of the center; he is accompanied by a trumpeter, the principal guides and guidon.

Each chief of platoon commands his platoon, but the captain may apportion the line to the senior chiefs of platoons, and in this case the principal guides take their places as chiefs of platoons.

809. In all movements by squads, the squad leader gives the commands necessary for the movements of his squad and leads it into position.

810. In deploying as skirmishers by the flank, the squad leaders supervise the deployment from opposite the rear of their squads; in forming line of platoons and deploying as skirmishers to the front, they keep their places in rank, retaining however, the supervision of their squads.

811. The troop deployed, *charges, dismounts and mounts*, as prescribed for the squad substituting *troop* for *squad* in the commands and explanations.

#### *To Form Line of Squads.*

812. The squads are designated as in Part 624.

The normal interval between squads in line is forty-eight yards; to take a greater or less interval the command: *At (so many) yards*, is added to the first command for deployment.

813. Marching in line, the captain gives the point of direction and commands: 1. *Line of squads*, 2. *On left (or right) squad*, 3. *Fours right (or left)*, 4. *MARCH*.

At the command *march*, the squad leader of the left squad marches it in the indicated direction; the other squads execute *fours right*, *column half-left*, and are marched by their squad leaders obliquely to the right; each is marched in line to the front when it has its interval from the squad next toward the base.

The chiefs of platoons take post ten yards in rear of the center of their platoons.

The principles of Par. 8 apply.

If the captain designates the line to be occupied, the squad leader of the base squad halts it on arriving on the line.

Being at a halt, the base squad stands fast; the other squads move by the right flank and each is halted by its leader when it has its interval.

During the deployment the base squad usually retains its formation; the other squads will habitually be conducted to their new positions, each in column of fours, and then take the same formation as the base squad; but if the configuration of the ground or other necessity make it expedient to change the formation, as from line to column of fours or the reverse, the squad leader may make the change.

814. To deploy on an interior squad: 1. *Line of squads*, 2. *On (such) squad*, 3. *Fours right and left*, 4. MARCH.

The squads to the right of the base squad take their intervals to the right and those to the left take their intervals to the left (Par. 813).

815. To halt the troop: 1. *Troop*, 2. HALT.

The base squad halts; the others are halted on arriving on the line.

The squad leaders halt their squads faced to the front. *This rule is general.*

*Being in Column of Fours, to Form Line of Squads to the Front.*

816. 1. *Right (or left) front into line of squads*, 2. MARCH, 3. *Troop*, 4. HALT.

The movement is executed as in Par. 669, the squad leaders marching their squads to their proper places on the line.

The principles of Par. 8 apply.

817. On right or left: 1. *On right (or left) into line of squads*, 2. MARCH.

The movement is executed as in Par. 670.

The principles of Par. 8 apply.

818. To the right or left: 1. *Line of squads*, 2. *To the right (or left)*, 3. MARCH.

At the second command the squad leader of the rear squad commands: *Fours right*.

At the command *march*, the rear squad forms line to the right, advances six yards and is halted; the other squads continue the march and each in succession from the rear of the column, when it has its interval, is formed into line to the right and halted on the line of the base squad.

*To Deploy as Skirmishers.*

819. Being in line of squads, to deploy the squads to the right or left front, or to a flank: 1. *As skirmishers*, 2. *Right (or left) front into line*, 3. MARCH, or, 1. *As skirmishers*, 2. *Fours right (or left)*, 3. MARCH.

Each squad deploys as prescribed (Par. 494 or 497).

820. It during the deployment by squads, the captain wishes to deploy the skirmishers, he commands: 1. *As skirmishers*, 2. MARCH.

Squads already on the line deploy from the point of rest; the other squads deploy, each when it has its interval.

821. Being in line, the troop deploys as skirmishers to the front or to a flank, as prescribed for the squad; the squad leaders see that the men of their squads march to the front or halt as they individually gain their intervals.

822. Being in line, to deploy by both flanks: 1. *As skirmishers*, 2. *On (such) squad*, 3. *Fours right and left*, 4. MARCH.

The base squad and squads on its right wheel *fours right*, and the squads to the left of the base wheel *fours left* and successively deploy (Par. 497).

823. Being in column of fours, the troop deploys as skirmishers, as prescribed for the squad (Par. 494 and 497).

*To Increase and Diminish Intervals.*

824. Being in line of squads: 1. *On (such) squad to (so many) yards extend or close*, 2. MARCH.

The squads open from or close toward the base squad. If marching, the squads are marched obliquely at an increased gait; if at a halt, they are marched by the flank.

825. Being deployed as skirmishers: 1. *On (such) squad, to (so many) yards extend or close*, 2. MARCH.

The skirmishers extend or close as explained for the squad (Par. 499).

*The Assembly.*

826. Being deployed as skirmishers or by squads, the captain takes post, or sends the guidon, where he wishes to form the troop and commands: 1. *Assembly*, 2. MARCH.

497b. Marching in column of fours, to deploy to a flank: 1. *As skirmishers*, 2. *To the right (or left)*, 3. MARCH.  
The skirmishers deploy as when extending by the right flank.

The skirmishers or squads and the support and reserve, move promptly toward him and reform in the normal order.

Being deployed as skirmishers: 1. *Assemble by squads, or platoons*. 2. **MARCH.**

Executed by each squad (Par. 499).

#### *The Rally.*

827. The captain goes quickly, or sends the guidon, to the squad or place selected as the rallying point and signals or commands **RALLY.**

The rally is executed as explained for the squad. The support forms on the line, or acts under special instruction. As soon after rallying as practicable, the troop is assembled or again deployed.

828. *To rally by platoons*, the captain commands: **RALLY BY PLATOONS**, and then joins one of the platoons. Each platoon rallies as explained for the squad.

*To rally by squads*, the captain commands: **RALLY BY SQUADS.**

#### **MARCHINGS.**

##### *To Advance.*

829. Being deployed as skirmishers or by squads, the captain designates the base squad and to its leader the point of direction, and commands: 1. *Forward*. 2. *Guide center (right or left)*. 3. **MARCH.**

The base squad marches in the given direction; the other squads march abreast of the base, keeping their intervals. (Par. 489).

##### *To March to the Rear.*

830. 1. *To the rear*. 2. **MARCH**. 3. *Guide center (right or left)*.

If deployed as skirmishers, each squad marches to the rear. (Par. 503).

If in line of squads, each squad leader wheels his squad left about by fours. The captain designates the point of direction to the base squad.

Upon halting, or if the commands *forward, march*, are given, the squads are wheeled left about by fours.

831. The captain should occasionally make slight changes of direction in order to accustom the squads to conform promptly to the movements of the base.

To make a considerable change, the captain designates the point of direction and commands: 1. *Change direction to the right (or left)*. 2. **MARCH.**

The right squad, which is the base, changes direction as if it were alone (Par. 500) and halts facing the new point of direction; the other squads conform to the new alignment.

#### *To March by the Flank.*

832. 1. *By the right (or left) flank*. 2. **MARCH.**

If deployed as skirmishers, the movement is executed as in Par. 503; if deployed by squads, the leaders march their squads by the flank in column of fours; the rear squads follow.

833. Marching by the flank, to change direction, the captain commands: 1. *Column right (or left)*. 2. **MARCH.**

#### *Firings.*

834. The firing line executes the *firings* as explained for the squad. (Pars. 509, 510). The captain commands: **COMMENCE FIRING** and **CEASE FIRING.**

He may, when necessary, indicate the objective, the kind of fire, the number of rounds and the range.

The squad leaders take part in the firing, except when firing by squad.

835. To fire by squad: 1. *Fire by squad*. 2. **COMMENCE FIRING**, 3. **CEASE FIRING.**

Each squad executes the firings as if alone.

One or more squads may be designated to fire.

#### *To Deploy by Platoons.*

836. The troop may be deployed and movements may be executed by platoons by the commands and means prescribed for deploying by squads substituting *platoon* for *squad*.

The interval between platoons in line is ninety-six yards.

The chiefs of platoons take post as prescribed in the School of the Troop.

#### *Platoon Drill.*

837. The platoon may be drilled in the extended order movements as explained for the troop. The chief of platoon is the instructor.

#### *Movements Dismounted.*

838. The movements as prescribed in close order mounted, may be executed by the platoon, the troop, the squadron and the regiment dismounted, conforming to the principles prescribed in the School of the Soldier. But it must be borne in mind that the efficiency of mounted troops depends upon their ability to execute the movements mounted; and the greater relative importance of the mounted drills must always be kept in view.

Movements in extended order dismounted are executed by the same commands and means as when mounted, conformably to the

principles prescribed for dismounted drills: the movements are executed in quick time unless the command *double time* be given.

In deploying into line of squads dismounted, the interval between the squads in line is *twelve yards*.

*To Dismount to Fight on Foot.*

839. The troop being in column of fours, to dismount to fight on foot to the front, the captain commands: 1. *To the left (or right) front*, 2. *TO FIGHT ON FOOT*.

At the second command, the troop dismounts to fight on foot and the leading squad forms as prescribed in Par. 519; each of the other squads forms on its leading four, which stands fast.

The horses of the captain and his trumpeter are held by the other trumpeter, or by a man detailed for this purpose, who remains mounted; the horses of the chiefs of platoons are held by No. 4 of their rear fours and on their left: the principal guides link their horses to those of No. 1 of the fours behind which they are posted.

When a reserve is designated it remains mounted as a guard to the led horses, except when directed to dismount.

The guidon remains with the led horses, and usually takes immediate charge of them (Par. 516).

The led horses are to be drilled to lead at all gaits, while linked, to execute simple movements such as the wheeling by fours, changing direction, etc., as when mounted.

840. The troop having been dismounted and the squads formed, the troop may be assembled or deployed. In assembling or deploying, if squads in rear arrive on the line before others which should precede them, they must leave interval to form in normal order.

*Being in Column of Fours to Dismount to Fight on Foot to the Right or Left.*

841. The captain commands: 1. *To the right (or left)*, 2. *TO FIGHT ON FOOT*.

Executed by each squad as prescribed in Par. 520.

*Being in Line of Squads, to Dismount to Fight on Foot.*

842. The captain commands: *TO FIGHT ON FOOT*.

The squad leaders dismount their squads to fight on foot so as to fall in to the right front, or on the flank toward the enemy.

The led horses are moved to cover in rear of the squad, or are assembled.

843. During a deployment, if the instructor commands: *To fight on foot*, each sub-division on the line, or as it arrives on the line, dismounts to fight on foot and falls in so as to extend its front from the point of rest. *This rule is general.*

844. The troop dismounted to fight on foot, is mounted by the captain, as prescribed for the squad. (Par. 524). If the *recall* be sounded, the squad leaders march their squads toward the horses, closing intervals if necessary.

*To Relieve the Firing Line.*

845. The captain notifies the commanders of the firing line and support. The commander of the firing line notifies his group leaders.

The support is deployed or extended so as to complete the movement in rear of the firing line and is advanced to the position to be occupied, either in advance or in rear of the old line: the latter is then marched to the rear and assembled and becomes the support.

*To Reinforce the Firing Line.*

846. When there are intervals in the firing line, either on the outer flanks or between groups, the reinforcement is placed in these intervals. This method, called the group reinforcement, will be used when practicable.

When advancing, or being at a halt under cover, the firing line may diminish intervals toward one flank: the support then moves into the space made vacant.

Under a heavy fire, the support may be deployed on the march and moved up on the line, the men placing themselves on the line between the skirmishers: officers and non-commissioned officers take charge of their proportional part of the line and the action progresses as if no mixing had taken place. This method should be used only when the emergency demands a prompt reinforcement above all other considerations.

THE SQUADRON.

847. In battle exercises, when the enemy is imaginary or outlined, the major prescribes the programme and directs an officer of the squadron to command the movements. The major performs the duties of chief umpire.

*Formation.*

848. The squadron in extended order, whether operating alone or in regiment is formed in three echelons, viz: The *attacking (or firing) line*, the *troop support* and the *reserve*.

The attacking line consists of one, two or three troops.

Whatever the formation of the squadron, the major designates the troop or troops for the fighting line and those for the reserve, also, if necessary, the size of the troop support.

The fighting line consists of the troops in the attacking line, including their supports.

The reserve takes position about one hundred yards in rear of the supports, or as may be directed by the major, and is commanded by the senior officer with it.

*To Form Line of Squads.*

849. Being in line, the major commands: 1. *Line of squads.* 2. *On (such) squad, (such) troop.* 3. MARCH.

At the second command, the officers and non-commissioned officers take their posts, and, when necessary, the support of the base troop and the reserve are halted or moved a little to the rear so as not to interfere with the deployment.

At the command *march*, the base troop deploys: the troops to the right are marched in column of fours to the right and each, when the rear of its column is opposite the left of its position, is deployed by its captain: in a similar manner the troops to the left are moved to the left and deployed.

The principles of Par. 8 apply.

Before reaching position for deployment, the captains may detach their supports, which then march to their positions without interfering with the other troops.

850. To halt the squadron: 1. *Squadron.* 2. HALT.

If the major designates the line to be occupied, the captain of the base troop halts it on arriving on the line.

851. Being in column of fours: 1. *Right (or left) front into line of squads.* 2. MARCH.

The first troop deploys as in Par. 816; the other troops are marched to the right front opposite the left of their intervals and deployed.

The principles of Par. 8 apply.

852. The column of troops is deployed by the same commands: the first troop deploys on its left or right squad according as the formation is to be to the right or left front: the other troops are marched opposite the left or right of their positions and then deployed.

853. Being in column of fours: *On the right or left into line of squads and line of squads to right or left* are formed by the commands and means explained for the troop. Each captain deploys his troop when opposite its position on the line.

The principles of Par. 8 apply.

*To Deploy as Skirmishers.*

854. Being in line, the major commands: 1. *As skirmishers.* 2. *On (such) squad (such) troop.* 3. MARCH.

The base troop deploys at once; the troops to the right gain their intervals to the right and deploy; those to the left gain their intervals to the left and deploy.

If marching, the deployment is made gaining ground to the front, and the principles of Par. 8 apply.

Being in line of squads or platoons, or while such line is forming, the major deploys the skirmishers as explained for the troop.

855. Being in column, the major commands: 1. *As skirmishers.* 2. *Right (or left) front into line.* 3. MARCH.

The first troop deploys right front into line; the other troops are marched opposite their positions and deployed.

856. The major may designate one or more troops to deploy by squads, by platoons or as skirmishers to the right front, and others to the left front.

Being in double column of fours, the squadron may be deployed to the right and left front: or, the right or left column only may be deployed according to the principles explained.

*To Increase or Diminish Intervals.*

857. Being in line of squads or as skirmishers: 1. *On (such) squad (such) troop to so many yards extend (or close).* 2. MARCH.

The movement is executed as explained for the troop: Par. 824, 825.

*The Assembly.*

858. The major causes the *recall* to be sounded. The captain assembles or rally their troops. The major causes the *adjutant's call* to be sounded, or commands: 1. *On (such) troop.* 2. *Assembly.* 3. MARCH: the troops including the reserve, are marched to the point occupied by the major, or to the designated troop: the squadron is formed in its normal order, and in such formation as the major may direct.

To assemble at the trot or gallop, the *trot or gallop* is sounded immediately after the *adjutant's call*.

The major may designate certain troops only to assemble.

859. The squadron in extended order marches to the front and to the rear, changes direction when in line, marches by the flank, and changes direction when marching by the flank as prescribed for the troop.

*To Fight on Foot.*

860. The major designates the troops for the fighting line and for the reserve, and indicates the size of the troop supports.

When the squadron is acting alone, the reserve, as a rule, remains mounted, and guards or furnishes the guard for the led horses.

When the squadron is with the regiment, the squadron reserve is dismounted, but the major may designate a mounted escort for the led horses.

861. Being in column of fours, the major commands: 1. *Troops*; 2. *To left (or right)*; or, 2. *To the left (or right) front*; 3. *TO FIGHT ON FOOT*.

After dismounting, the squads fall in and each captain assembles his troop on what was his leading squad before dismounting.

The squadron in column of fours may be deployed front into line of troops in column of fours and then dismounted to fight on foot (Par. 843).

862. Being in line of troops in column of fours, the major commands: 1. *Troops*, 2. *To the left (or right) front*, 3. *TO FIGHT ON FOOT*.

Each troop dismounts to fight on foot and the captain assembles it left front into line on the leading squad.

863. Being in line of platoon columns, the major breaks the troops into columns of fours to the front and dismounts them.

Being in column of troops, at full distance or in close column, the squadron is wheeled by fours to the right or left: the troops are then dismounted to fight on foot and deployed or assembled; or the squadron may first be deployed front into line and then dismounted, or the troops dismounted as they successively arrive on the line.

The double column of fours is dismounted to fight on foot to the right and left, so as to form on its outer flanks.

Whatever the formation, the major may designate one or more troops to fight on foot, and assign them to such positions as the emergency may require.

864. The squadron having dismounted to fight on foot, and the troop having assembled, the major may cause to be executed such movements as may be necessary without assembling the squadron.

865. Being deployed on foot, the supports and reserve are posted as when mounted and maintain their relative positions.

866. The led horses are kept under cover in rear of their respective sub-divisions or assembled by troop; or, the major may direct them to be assembled in rear of the reserve.

When the led horses of the squadron are assembled under cover they should if practicable be in line of columns of fours at closed in

tervals and so faced as to permit the quickest possible movement toward the dismounted troops, except when it is designed that the led horses should retire as retreating troops approach.

*To Assemble the Squadron.*

867. *Adjutant's call* is sounded and the major commands: 1. *On such a troop*; 2. *Assemble*; 3. *MARCH*.

The designated troop stands fast or takes such position as the major may direct; the other troops are closed toward the designated troop and form on it with intervals of *two paces* between troops.

*To Remount the Squadron.*

868. The major causes the *recall* to be sounded, at which each captain rallies or assembles his troop, marches it to the led horses, and mounts it. The squadron is then assembled (Par. 858).

The major may cause the led horses to be conducted to the dismounted line, the captains assemble their troops and mount them, or mount them deployed, according as the *recall* or *prepare to mount* is sounded. The squadron may then be assembled (Par. 867).

*The Regiment.*

869. The principles for movements in extended order and for dismounting to fight on foot are the same as for the squadron.

If the deployment be from line, the colonel designates the troop and squadron on which the deployment is to be executed; the designated squadron deploys as explained; each of the other squadrons is marched by the flank until opposite its place on the line, when it is deployed on the troop nearest the designated squadron.

If the deployment be from column, the leading squadron deploys as explained; each of the others is conducted opposite its place on the line and is then deployed to the right or left front.

## RECENT DISCUSSIONS UPON HORSE-SHOEING

**D**URING the year just closed, a discussion of some interest upon the desirability of shoeing cavalry and artillery horses, has appeared in the journals of the Military Service Institution, and of the U. S. Cavalry Association, for a proper understanding of which, a brief résumé of the several contributions thereupon will here be given.

The first article, and the one that led to the discussion in question, was contributed by the commanding officer of a battery of light artillery.

This officer, after a general condemnation of various errors in horse shoeing, now believed to be happily obsolete, gave an interesting account of some experiments of his own, with their results, in the so-called "hardening" of horses' feet; and ended by a statement of conclusions, drawn from those experiments, which may be condensed as follows:

1. Horse-shoeing is usually cruelly and brutally performed.
2. All shoeing, however carefully and skilfully done, is eminently hurtful and ultimately destructive to the horse's foot, and ruins thousands of horses every year, that would otherwise be healthy and useful.
3. A horse, whose hoofs have been properly "hardened," withstand any and every possible contingency of service without becoming "tender-footed" or lame.

To show the solid basis of experience from which these startling conclusions were deduced, the author somewhat naively affirms as follows: "I have had over fifty horses under my charge for the past two years" and "I am entirely convinced, having experimented sufficiently to convince the most skeptical," that "they can march distance, over any kind of roads, without the slightest injury to their feet."

This would seem to be a case, in which, to reverse an old proverb, a rather undersized mouse of experience has brought forth, in the labor, a decidedly full grown mountain of confidence.

The article just mentioned was submitted by the editor, with request for remark, to a considerable number of cavalry and artillery officers; and their comments thereon, being published in the next ensuing number of the JOURNAL, disclosed a unanimity of opinion and uniformity of experience, that were as gratifying as they were unexpected.

They admitted, generally, the superior nimbleness and sure footness of the unshod horse; condemned the heavy and ill-shaped shoes furnished by the Department; and united with the author of the first article in a severe denunciation of certain barbarities in preparing the foot for the shoe, which not one of them seems to have noticed, but which each one seemed to think had been done habitually by all the rest of the world. Finally, it is admitted that shoeing is frequently overdone by many people, and that, in a great many cases, it might be dispensed with without harm; yet it is insisted that, for extremes of fast travel, heavy burdens and bad roads, shoeing is a necessity not to be avoided; and personal experiences are freely narrated to sustain this position. As a corollary, since in active service provision must be made for every possible contingency, it was claimed that for the field, at least, shoeing could by no means be safely omitted.

Following this very gratifying consensus of harmonious opinion and identical experience, two articles, but sufficiently similar in language and purport to be considered as one, appeared—one in each of the journals above mentioned—written by a subaltern of the same light battery, the commander of which, following exactly though unconsciously the example of ALEXANDER THE GREAT, had endeavored to "harden" his horses' feet by standing them upon sharp rocks. This officer, an enthusiastic follower of his chief, detects at once that the success of the non-shoeing theory depends upon the efficacy of the "hardening process"; all experience showing conclusively that unshod horses, previously unprepared, can by no means endure the vicissitudes of rough campaigning. As herein lies the gist of the controversy, it may be desirable to insert, at this point, a description of this "hardening process," given in the words of its advocate. He says, speaking of the picket line:

"The ground was first plowed and then thoroughly gone over to break up all lumps and clods, and to bring the surface to an even grade, with a slope towards the center, as well as in the length of the line. A central ditch about 2' x 2' was dug the whole length of the line; its bottom graded so as to drain in its length, and then filled with large blocks of broken stone to form a blind drain.

"The line proper was then closely packed with large blocks of



stone bedded down into the soft dirt, the ground having been broken up as stated to form such a bed, as well as to permit of grading. Cobble stones could not be had, and therefore the stones of the country had to be used.

"The foundation then laid is covered in with a layer of smaller stones, bringing the whole up to a hard even surface and grade, with nothing but sharp rocks for the horses to stand upon. A filling of sand is to be used so as to help bind the rock, and at the same time to prevent the gradual filling in of manure that would otherwise happen. By this means, a hard, sharp and yet clean surface can always be maintained."

And, after reciting the means by which the surface is to be kept always dry, he adds: "They—the horses' feet—will be kept dry and hard, will be worn down naturally, and this wear will keep them healthy and in a condition to stand wear and tear upon any surface."

Upon this rock surface the horses stood about five hours a day for a period of six months, at the end of which time their condition is thus described: "Every horse has splendid hoofs that do not break and crack, but wear away naturally. The frogs have developed, are large and hard, and the *soles* (the author evidently intends to say *walls*) are so hard that very little impression can be made on them with the rasp, and none at all with the knife."

Upon the results and permanency then of this hardening treatment rest the entire hopes of the advocates of non-shoeing. Indeed, the experience of all men of the inefficiency of unshod horses, colts, pack mules and Indian ponies is claimed by our authors as really confirmatory of their own experiments. Of the Indian pony the junior says: "His feet are generally no harder nor more natural than those of our colts," and "his very inability to stand this work is thought to be convincing proof of the necessity of the hardening process." As a measure of the success of this procedure, the author relates the following history of a recent very surprising trial of its merits:

"It may be of interest to know that Battery 'F,' Fourth Artillery, with unshod horses, marched from Fort Riley, Kansas, to Canby, Schofield, I. T., a distance of 184 miles in eleven days; took part in all of the operations of that camp from September 23d to October 11th, including several rapid marches for a considerable distance over the rocky and natural surface of the country; and marched back to Fort Riley, over a route 174 miles in length, in eight days, and all of this without any lame or footsore horses. The feet of all the horses were in as good condition on their return as when they started, and were all in sound, healthy and durable shape, ready to have prolonged their march indefinitely."

"The roads, going and coming, were the ordinary dirt roads of

the country. There were rocky places, gritty places, muddy places, and patches of macadamized road encountered. The battery took the same roads and made the same marches as the cavalry. Returning we had several days of rain and heavy muddy roads, but the horses pulled through with but little slipping, and *their feet did not soften or wear down* from traveling in the mud or standing on wet and soft ground.

"While in camp, and on the whole trip, the horses stood on natural ground, wet or dry, according to the weather. The hoofs showed no signs of wear or of softening, although away from their stone picket-line for nearly six weeks."

"The farrier had to begin to *cut down* on *upborn* hoofs immediately on the return, rather than to doctor up any tender and worn down feet."

For those to whom these experiments are not yet quite conclusive, there would seem to remain logically no place for further theoretical discussion. A proof by strict practical demonstration, that even the prepared unshod hoof cannot stand rapid and continued travel over rocky country, seems to be all that is left for the advocates of shoeing. But in the absence of facilities for such practical demonstration, indulgence is requested for a brief theoretical consideration of the "hardening process" so-called, together with an account of some experiences of the writer that seem to bear, to some extent at least, upon its merits.

That the horse's hoof is directly and powerfully influenced by the nature and condition of the soil upon which it treads is a discovery as old as the domestication of the animal itself and, when this habitat of a breed remains fixed for a long period, a distinctive character of hoof determined by this habitat, will become an uniform inheritance of that breed. Instances are the flat and spongy hoof of the Flemish horse and the hard and narrow one of the Shetland pony. It should not surprise us, therefore, that it was possible, in so short a time as six months, to considerably toughen and harden the hoofs of horses. But the assumption that this condition would remain constant, after the causes which produced it were removed, seems almost a contradiction in set terms. That you can harden a horse's hoof by standing him upon dry rock, and yet cannot soften it by subsequently standing him upon wet earth, is logically about equivalent to saying that you can heat an iron rod by putting it in the fire, but cannot cool it by taking it out again. And, unfortunately, the conditions of active service are apt to be the very opposite of those desired for the welfare of the hoof. Mud and water for considerable periods alternating with rocky and gritty roads are what we may expect in any prolonged campaign. I, myself, from this very

post, have made a scout of over three weeks' duration, during which not for one hour were my horses' feet unexposed to the influences of snow, water and mud. The well known effects of water upon horn render it very likely that the most thoroughly prepared unshod hoof would have been made soft and yielding by this prolonged immersion.

At the breaking out of the Nez Percé campaign, General HOWARD secured as transportation several pack trains that had been employed for some years in carrying supplies from the head of navigation at Lewiston, Idaho, to the mines in the Salmon River mountains; these mines being at once abandoned for fear of the hostile Indians. The mules composing these trains were of Mexican burro ancestry, had never been shod, and were descended from an immemorially unshod ancestry on both sides. Considering the remarkably rocky and broken nature of the country between Lewiston and the mines and the superior toughness of the mule foot, as compared to that of the horse, I think it may be reasonably claimed that the hoofs of these little pack-mules were fully equal in resisting qualities to the "prepared" ones of our big American horses. Yet, after only three or four days' travel in a miry and swampy part of the Lolo Trail, upon regaining the high and rocky ground, a large number of these mules were lame and had to be shod; and this shoeing was continued, it is said, until not one was left barefoot. I remember the circumstance well, for the chief packer explained to me that it was the muddy road of the few previous days that had so softened the mules' feet that they wore rapidly away upon resuming the hard and gritty mountain trail.

I am very sure, also, that I have traveled over country impossible to any unshod horse—for instance, the lava beds of southern Oregon. Considering the great rapidity with which the horses' shoes were worn out, it may safely be said that the horse's hoof would have to be harder than iron or steel to endure much travel over such a country.

Practically, as the casualties of a campaign would have to be made good from horses with unprepared hoofs, the smith—the worst enemy of the horse, to quote one of our authors—must still be a necessary appendage to a troop or battery.

There is in the articles from which I have been quoting, in addition to the scornful denunciation of certain ignorant and obsolete methods of shoeing, alleged to be practiced by somebody somewhere, but no names or localities given, somewhat less of fair and temperate statement than we might expect to find in a plain argument upon

a matter of prosaic interest merely. For instance, these expressions, ancient the results of shoeing: "One horse wearing out a half-dozen sets of legs." "A five hundred dollar horse upon a five dollar pair of legs." "Feet *unhorsed* by knife or rasp." "Blacksmiths whitening out enough chips from a horse's foot to fill a forage cap," etc., etc. And this final assertion: "Our claim is, therefore, that even the *simplest* shoe, applied in the most rational manner, cannot be used without injury to the feet."

If this extreme statement were well founded, what would we necessarily find? Why, that all horses which had been continuously shod for a long period were crippled in the feet; and it would be a fair deduction that, of the great number of horses annually condemned in the cavalry, a large proportion were rendered unserviceable by the effects of shoeing. How far that is from the facts, the following figures will show:

There are at this post, three troops of cavalry with a total of one hundred and fifty-eight horses; and, of this whole number, only one solitary horse is afflicted by disease or lameness that can, by any stretch of the imagination, be attributed to shoeing; yet, of these one hundred and fifty-eight horses, forty-seven are from fifteen to twenty-three years old, with an average service of a little more than ten years. Still more, in the troop which I commanded there have been condemned in the last ten years, sixty-five horses, and of these, only one—less than two per cent—was condemned for foot trouble. What an answer do these plain facts make to the picture these gentlemen draw, born of wide reading and narrow experience?

The records of the Post Hospital will show that the enlisted men suffer vastly more from bad shoeing than horses do, and, when our authors are returned to a dismounted command, according to the custom in the artillery, let us hope that the "hardening process," so graphically and enthusiastically described by one of them, in its application to the barefooted Negro portresses of the West Indies, may be introduced where all experience shows it is most needed.

In conclusion, one of the possible reforms in store for us is a narrow and light steel shoe, and for garrison use—tips, or a modification of them.

GEO. S. HOYLE,  
*First Lieutenant, First Cavalry.*

## PROFESSIONAL NOTES.

## A FINE TROOP.

Among the finest equipped and best organized cavalry troops in the National Guard is the First Cleveland Troop, of Cleveland, Ohio. The following are extracts from the report made by the inspecting officers of the Ohio National Guard about this troop:

"The troop aims to have a membership of sixty enlisted men, and that number is about full. The members are all young men of the highest social station and unlimited wealth, who spare no trouble or expense to make the organization perfect. They own a fine building and a large number of saddle horses, all well broken in the military style of riding. To help pay expenses, the troop maintains a first class riding school in their building, which is patronized by the better class of society. The troop horses are therefore continually practiced, and are therefore in excellent shape for close maneuvering.

"The troop is commanded by Captain GEO. A. GARRESON, a graduate of West Point and a former officer of the Fourth U. S. Artillery. He is a splendid disciplinarian, and handles his command in an excellent manner. The drill is performed by the troop was almost perfect. Every trooper had his mount well in hand. All equipments were in the best of order.

"This troop is certainly a model military organization, and is the only cavalry troop in the Ohio National Guard."

## THE LANCE.

The lance can by no means be considered a discarded weapon lately resumed; for, with but few exceptions, it has been the *arme blanche* of a fair proportion of the cavalry of most of the European armies since the beginning of the century.

At the present time:—

Germany	has	93	cavalry	regiments,	78	of	which	are	armed	with	lances.
England	"	31	"	"	"	5	"	"	"	"	"
Belgium	"	8	"	"	"	4	"	"	"	"	"
Italy	"	22	"	"	"	10	"	"	"	"	"
Spain	"	24	"	"	"	8	"	"	"	"	"
France	"	85	"	"	"	12	"	"	"	"	"
Russia	"	75	"	"	"	17	"	"	"	"	"

Austria has 41 cavalry regiments, and is the only European power at the present time whose cavalry armament is without lances.

The lance was abolished in France after the war of 1870-71, and restored in 1889; it was partially suppressed in Russia after the war of 1877, and disappeared from the armament of the Austrian cavalry in 1884.

In Germany a commission was appointed last year to consider the question of the armament of the cavalry, and after investigation and experiment, it recommended the suppression of the cuirass and the adoption of the lance for the entire Prussian cavalry. The report of the commission was sent to all the cavalry regiments for an expression of the views and wishes of the officers, three-fourths of whom concurred in the recommendations of the commission,—whereupon an imperial decree was promulgated, directing the entire Prussian cavalry to be armed with the lance and suppressing the cuirass. There is good reason to believe that this measure will soon become general for the entire German cavalry, which, at present, with the exception of fifteen regiments, is uniformly armed with the lance, saber and carbine.

The reasons for the almost general adoption of the lance are said to be due to:

1. The superior moral value of the arm, which augments the bravery of those who carry it, and produces a corresponding dread in those threatened with it.
2. The superior efficiency of the weapon as an *arme blanche*, not only in the cavalry combat, but especially in the attack against infantry. The latter now lie down to receive the attack, and are easily accessible to lance thrusts which are capable of inflicting murderous wounds; whereas the saber, under similar circumstances, would be comparatively harmless.

It is claimed that the moral effect of masses of cavalry, armed with the lance, attacking infantry which has already been subjected to the demoralizing and decimating effects of the fire of modern magazine rifles, will be more powerful than heretofore.

Although the term of service with the colors is only three years in the German army, it is claimed there is ample time to instruct the cavalry soldier in the use of all his arms, on account of his amenability to discipline and the thoroughness of his instruction.

Cavalry armed with a magazine carbine, and thoroughly trained for the dismounted combat, is now considered capable of independent action; and may execute its strategical and tactical rôle, without having to depend upon infantry.

The dismounted combat must, however, be exceptional, and resorted to only when the conditions are such that a mounted attack is impossible. A prolonged attack against infantry is discountenanced, as the cavalry cannot afford to sustain heavy losses in an unequal struggle, which would soon render it useless for the rôle for which it is especially designed, and would entirely destroy its efficiency as a mounted arm. The loss of each man results in an additional led horse, and the loss of comparatively few men places the cavalry *hors de combat*.

In the dismounted combat one mounted man is required for each led horse, leaving only three-fourths or two-thirds of the command, as the case may be, available for the fight.

Although a great majority of the officers favor the lance, the number of its opponents is by no means small; the latter object to it on the ground that it is unsuitable for light cavalry, consisting of small men and horses, for the service of exploration and security and for skirmishing; and they claim that it should only be given to the line cavalry, heavily manned and horsed for shock tactics.

The partisans of the lance affirm that the official statistics of the war of 1870-71 prove beyond a doubt that, in those engagements where the lance opposed the saber, the damage inflicted by the former was very great, and out of all proportion to the casualties caused by the latter.

The traditions of the wars at the beginning of the century have been assiduously studied in Germany of late years, and have no doubt greatly influenced the Germans in their views respecting the future employment of cavalry. FREDERICK and NAPOLEON are the principal sources of inspiration and the most modern masters recommended to the study of the German cavalry.

The German lance consists of a hollow steel tube, terminating in a triangular head and has a pointed butt. It is about ten feet in length.

In 1889, the German lance was examined and tested by an Army Commission in Roumania, from whose report the following extracts are taken:

#### ADVANTAGES.

- (a.) The steel lance is much superior to the wooden lance in resisting power, the latter not standing a blow of 150 pounds.
- (b.) It weighs less than the wooden lance.
- (c.) When struck with a violent blow of a saber, only a slight indentation is made, whereas under similar circumstances the wooden lance is splintered.

#### DISADVANTAGES.

- (a.) The varnish coating does not protect the lance from rust.
- (b.) The thickness of the shaft is insufficient to prevent injury to the shape when struck by the kick of a horse.
- (c.) A triangular head is used instead of one of quadrangular cross section as in case of the bayonet.

The commission recommended the purchase of 1500 lances for the Roumanian cavalry, with the modifications suggested.

In France the lance was abolished after the war of 1870-71, the law reorganizing the army in 1875 omitting the lance regiments and converting the same into dragoons.

The reasons alleged for the suppression of the lance were as follows:

1. The necessity of arming the entire cavalry with carbines.
2. The impossibility of thoroughly training the cavalry in the use of the lance and carbine on account of the short service with the colors.
3. Inability to devise a method for carrying the lance without injury to the withers of the horse, and excessive fatigue to the arm of the trooper.
4. The probability that cavalry will rarely attack infantry in future wars.
5. The inferiority of the lance to the saber in the mêlée.

It was also claimed that the lance disclosed the presence of the cavalry in exploration, and was very embarrassing and valueless in operations in a wooded country.

The lancer regiments of France have enjoyed a brilliant but ephemeral existence: first organized in the year 1806 by NAPOLEON, they were suppressed in 1815; but they had become so renowned and had rendered such good service during the last years of the Empire, that public opinion formally charged their abolition to the demands of the allies. In 1830 Louis PHILIPPE reestablished them in conformity with the wishes of the nation, and they continued to form a part of the cavalry arm until after the close of the war of 1870-71.

A reaction has again set in in favor of the lance for the line cavalry, and of the employment of masses of horsemen on the field of battle, as in the Napoleonic wars; and last year twelve regiments, of the six brigades of dragoons belonging to the independent cavalry divisions, were armed with the lance in the front rank.

It is curious that after the lapse of eighteen years, during which time, not a voice had been raised in its favor, this weapon should have suddenly become so popular.

The advantages and disadvantages of the lance are thoroughly discussed in an anonymous brochure of recent publication, "*La Cavalerie dans la Guerre Moderne*," supposed to have been inspired by the generally acknowledged cavalry leader of France, and to echo the views of the progressive Cavalry School. We quote as follows:

"When General MARMONT, after the wars of the Empire, declared that, the lance is the principal weapon of the cavalry and the saber an auxiliary arm, he manifested a just appreciation of modern tactics—the tactics which always lead to a final and unique phase, the shock. Whether considered from a material or moral point of view, whether the shock is an accomplished fact or merely a threat, the lance is the sovereign weapon which decides the victory. If two bodies of cavalry come into collision, it is evident that the success of the shock will be mainly due to the long line of thrusting weapons. The lance is incomparably the surest and the most far reaching of all thrusting weapons. If one side should hesitate or turn back it is undoubtedly due to the superior morale of the other, whose quick resolution and energetic boldness decides the victory. But this resolution, which is born of confidence, can only come from a superiority of armament—other things being equal. The lance is, of all weapons, the one calculated to create terror in the enemy's ranks. What can be more formidable than the forest of lances lowered in the charge? To conclude, the lance is preeminently the arm for the shock, whether considered materially or morally. In the struggle which follows the shock, its supremacy vanishes, and in the confusion it degenerates into an ordinary if not embarrassing arm. Although the mêlée will most frequently result in pursuit, we must however guard against every contingency and, having given the lance to the front rank to break or threaten the enemy and prepare the victory, we must give the saber to the rear rank to complete it. This is to—

day the generally acknowledged solution of this question, the principle advocated by Jomini himself, after the close of the Napoleonic wars. "The armament and organization of cavalry," he wrote, "have been the subject of much controversy, but the whole question may be reduced to a few simple truths. The lance is undoubtedly the best offensive weapon for line cavalry, which can strike an enemy who is powerless to return the blow; but there should be a second rank or reserve armed with the saber, for this weapon is easier to handle in the mêlée, when the ranks are no longer united." \* \* \* "Some soldiers of great experience incline toward the lance even for the cuirassiers, convinced that such cavalry would be able to overwhelm everything it opposes." Thus delegating the service of exploration and security to the light cavalry, the illustrious tactician advocates the lance for the front rank of the cuirassiers and dragoons. \* \* \* But in spite of every argument one fact alone is sufficient to decide this question for us, the German cavalry have the lances. This solves the problem. We should be running a great risk, if we exposed our young squadrons to the surprise and demoralizing effect produced by a weapon whose aspect and powers were unknown to them. But this question involves a still more important consideration. The mere fact that a new weapon answers the general requirements, the abstract ideal, is insufficient to warrant its spontaneous adoption: it must above all things be in direct accord with the spirit and very object of the tactics it represents, and this alone is the motive, the *raison d'être* of the lance—a weapon which implies the absolute offensive, the attack in compact lines, in a word, that cohesion in the charge which is the key-note of all modern theories of attack. Modern cavalry will thus be armed with two most redoubtable weapons—the lance and the carbine—the former for the shock, the latter for fire combat, and its power and sphere of action will be greatly augmented; but if it is to remain a powerful arm in battle, it must preserve intact the very basis of its tactics—the offensive, for the dismounted combat—the defensive, can never lead to general results. The carbine will be used exceptionally and perhaps to great advantage, still the white weapon alone can give decisive results."

The new French manual for the employment of the lance (a little volume of twelve pages) approved by the Minister of War in 1889, gives official sanction to the following sentences which have been taken bodily from DE BRACK'S "Light Cavalry Outposts": "The lance is the *arme blanche* of the greatest moral value and can inflict most murderous wounds. \* \* \* Its length offers special advantages to the trooper who can reach his adversary armed with the saber, while the latter cannot strike back: he has no weak side like the sabreur, his left side being quite as strong as his right. \* \* \* The lance is preëminently the arm for the pursuit. \* \* \* In order that the lance may retain all its advantages in the hand to hand combat, the lancers must scatter."

In Austria-Hungary the lance was abolished by imperial decree in 1884 (upon the recommendation of the Archduke ALBERT), and car-

bines were distributed to the Uhlans. In that year the new laws of national defense made military service personal and universal, and reduced the term of service with the colors to three years; and it was thought to be impossible to thoroughly instruct the lancers in the use of three arms in so short a time. The suppression of the lance may also have been influenced by the fact of its abolition in the Russian regular cavalry, one year previous. The question of restoring the lance to the Uhlan regiments is now being agitated, and it is said the matter has been referred to the officers of the cavalry regiments for an expression of their views. If the decree of 1884 should be revoked, the reissue of the lance to the Uhlan regiments could be accomplished very rapidly, as the lances are all in store in the Vienna arsenal and would be immediately available for issue.

At the close of the war of 1877-78, the Russian Minister of War ordered a commission for the purpose of considering the modifications in the armament, instruction and equipment of the army, rendered necessary by the experience of the late war.

One of their recommendations resulted in the transformation of the lancers and hussars of the line into dragoons (imperial decree of 1882), the assignment of Don Cossack regiments to all the cavalry divisions, the disappearance of the lance from the armament of the regular cavalry, and the retention of the lance by the front rank of the Don Cossack regiments.

The principal reason alleged for the abolition of the lance in the regular cavalry was the insufficiency of time, afforded by the short service with the colors, to permit of the thorough instruction of the men in the use of three arms.

As regards the armament of the Cossacks, opinions were very conflicting, but the commission finally decided to recommend the lance for the front rank only, basing this conclusion upon the following arguments: "If the troopers of both ranks are armed with the lance, one of two things will happen in the charge at the moment when the shock takes place: the front rank man will either leave his lance in the body of his adversary or, failing in this, his lance will be parried by the saber and he will find himself virtually disarmed in the mêlée; and the same thing will happen with the men of the second rank. But if the lance be given to the front rank only and the saber to the rear rank, the latter will be able to come to the rescue of their file leaders in the mêlée."

"In the charge *en ligne* especially, the *sotnia* (squadron), consisting of a long line of alternate lances and sabers will be able to profit by the advantages afforded by each weapon: the lance for the shock, the saber for the mêlée."

On the other hand, the short period of service of the Cossacks with the colors does not permit of their thorough instruction as lancers and dragoons. If we take into consideration the fact that they must also receive some practical instruction in elementary field fortification and gun drill, it would seem to be better not to attempt too much, but to try to develop those things for which each man has some

special aptitude. All the troopers, it is true, should receive the same general preliminary instruction; but, as soon as they have shown what they are best suited for, the men intended for the front rank should be perfected in the use of the *armes blanches*, while those of the rear rank should be more specially trained for dismounted combat.

Incidentally, the commission alluded to the assertion of some partisans of the lance, that this weapon augments the bravery of the troopers who carry it. It would be, they declared, a sad indication of a want of confidence of the trooper in his own powers, if he valued the lance only because it enabled him to strike the enemy at a greater distance and was unwilling to expose himself to the blows of his adversary in a hand to hand encounter.

In contrast to this view, the commission cited the example of the French cavalry who hastened to abandon the lance after the war of 1870-71.

Finally they declared that, "if this weapon has many disadvantages in the *mêlée*, dismounted combat and outpost duty, etc., it would nevertheless be premature to affirm that it will no longer play an important part on the field of battle, especially when it is remembered that the tactical regulations of all the armies of Europe without exception, recognize the employment of masses of cavalry on the field of battle.

"The value of our armament cannot be fully determined until we have tried conclusions with our western neighbors."

In the Russian cavalry drill regulations the principle is laid down that the saddle is the proper place for the cavalry soldier, and that he is to fight on foot only when no infantry is available, and when mounted action is impossible, such as in the defense of a post, or the capture of a wood, village or building.

It is considered possible for cavalry to overthrow even unbroken infantry, if the latter be taken by surprise, especially in flank; and that it may attack artillery with impunity in flank, even if it be in action.

The "lava" attack formation of the Cossacks referred to, is as follows: In the case of a *sotnia* acting singly, about half are extended in single rank, with a small detachment under a special leader following in close order fifty paces in rear, to serve as a rallying point. The remainder of the *sotnia* forms the reserve, in line or column, some three hundred paces in rear.

A Cossack regiment forms two "lavas", the first consisting of three *sotnias* and the second of two, the latter being drawn up in echelon behind one or both wings of the first, and the remaining *sotnia* in close order forms the reserve.

## RECENT DEVELOPMENTS, AS AFFECTING THE RÔLE OF CAVALRY.

In the *Militär-Wochenblatt* of April 2d appears a discussion of the rôle of cavalry, in the light of recent experiments and trials of the small caliber rifle. While a study of results will afford matter for serious reflection, it must be remembered that the cavalry of the nation where these experiments took place is at this day armed with cold steel, apparently ready and eager to try conclusions at close quarters. The writer says:

If the cavalry ride directly against the front of infantry in position and the ground afford no cover, it will receive shots at a much greater distance than before; for the dangerous space of an object six feet in height is now over 550 yards, and the zone of effective fire has been extended from 375 to over 1100 yards. Therefore, it is more than ever important that this zone be crossed at the greatest possible speed.

The increased penetration of the bullet of the new weapon makes it probable that a single projectile may disable the front rank man or his horse and the rear rank file as well.

Hence it is probable that the first line at least, of the attacking cavalry, will be in dispersed order, and that its duty will not be to break and ride down the enemy, but rather that of drawing his fire, penetrating his position, and preventing him from delivering a calm and deliberate fire upon the lines following in close order. For this purpose one platoon in a squadron may perhaps be sufficient.

Passing now to the distance between attacking lines of cavalry, it becomes evident that the present 150 yards must be increased. It is plain that this second line should ride at such a distance that shots, fired with a proper elevation, which miss the first line, could not attain the second. Placing the distance between lines at over 200 yards, the shots which pass through gaps in the first line will bury themselves in the ground before reaching the second, while the second line will only be reached by shots which pass several feet above the first. This rule will apply to any lines following the second, the delay in delivering an attack being increased a few seconds in each case.

It is apparent that the almost invisible smoke and the feeble report, as well as other new and superior qualities of the new rifle, will have the effect of rendering the reconnoitering duty of cavalry extremely hazardous; and this will be especially true in reconnoitering a position held by the enemy.

And yet it must be attempted and accomplished under all circumstances, for it will be impossible for a commander to form plans until he has reliable information about the enemy.

Let us see what lessons in reconnoitering duty can be obtained for the cavalry from the latest experiences. At present an expert marksman ought to hit a single horseman every time at 650 yards; a stationary position, within this distance from a hostile patrol, or double post, is not, therefore, to be thought of. It is also determined

that objects of some height may be fired at with fair success at ranges between 650 and 1100 yards, so that a halt, even at this distance, should be avoided, if it expose the patrol to the fire of the enemy's detached marksmen.

Now, a distance of 1100 yards is too great to permit the naked eye to form even a moderately reliable idea of the extent and strength of a position which affords cover for the enemy's marksmen; such a reconnaissance could only be made with a good glass.

Since every cavalry patrol will, at times, find itself compelled to obtain accurate information of an infantry position, another expedient must be sought, and we find it in rapidity of movement.

Although the trajectory of the new rifle is excessively flat at short ranges, nevertheless at the longer ranges it is considerably curved. Between 750 and 975 yards, the dangerous space varies between fifty-five and one hundred yards.

There can be but little risk then, if we require a single cavalryman, attempting to reconnoiter an infantry position, to move at a gallop from a distance of 1100 to 650 yards.

We will now try to find out what he has to do when he reaches that point, i. e., where the enemy's aimed fire begins to be effective. If the ground has any cover, such as hollows, hillocks, embankments, sunken roads or buildings, the scout will, as a matter of course, try to profit by them.

In doing so, if he has to approach still nearer to the enemy, he will do well not to ride straight towards him, but in an oblique direction or with a circuitous course; for, with an elevation of 650 yards and a target six feet in height, the dangerous space is 150 yards and, with 550 yards elevation, the entire trajectory forms a dangerous space. If the scout rides in a direction perpendicular to the enemy he will, therefore, be as easy to hit as if he were standing still.

For the cover to be of value, it should be strong enough to withstand a bullet and high enough to completely cover a horse. The rider can shelter himself by leaning forward on the horse's neck. The requisites of cover have been much increased by the greater penetration of the new bullet. Wood to be effective should be not less than eighteen inches thick, and thin walls are worse than useless on account of splinters.

Earthworks must be at least two and one-half feet thick. If no suitable cover is to be found, the rider must ride obliquely along the enemy's front, and at a distance of from 550 to 650 yards. His pace should be the gallop. In riding in this way he will indeed present a considerable surface to the enemy's fire but his rapid and uncertain movements will prevent any very great accuracy of aim.

It will not be uninteresting to attempt to discover how far, in such a case, the marksman should hold in front of his target to secure a hit. The velocity of the bullet, twenty-five yards in front of the muzzle, is about 670 yards; hence it will require about one second to pass over the distance in question, 550 to 650 yards. The rate of speed of a galloping horse is about 430 yards per minute, or twenty-

one feet per second. If the marksman aim directly at the horse, the bullet will therefore pass about one and one-half horse's lengths behind the animal's tail, and he ought, in order to hit the mark, to hold about two horse's lengths or sixteen feet in front of him. If the rider urge his horse to a speed of about 550 yards per minute, the marksman ought to increase his interval by about five feet. If the range be about fifty yards longer, he must hold about two feet farther to the front.

Every experienced hunter will remember how difficult it used to be for him to hold far enough in front of game running quartering away from him. An infantry soldier, who has been instructed in firing at none but stationary targets, will have great difficulty in securing a hit under the circumstances supposed. His task will be lighter, however, if there be several cavalrymen following each other at short distances; for example, a rider, following another at about two horse's lengths, will be struck by a bullet aimed at the first.

It is not at all necessary for the assembled horsemen of a patrol to ride so near the enemy; it will be sufficient for one to do this, while the others remain out of effective fire. If the leader be an officer, his honor will, as a matter of course, compel him to reserve this duty for himself.

If the position in question be not too extensive, a trooper will attempt to ride around one flank of it, at a distance of about 650 yards, or to penetrate through a gap in order to get a view of the rear of the position. This is very important and in most cases quite practicable, when not prevented by the enemy's cavalry patrols; for the hostile infantry will, as a rule, remain concealed behind the cover of the position until the direction of their opponent's advance is perfectly apparent, and the position itself will until then, be held by only a few advanced companies.

In regard to the action of a patrol which is suddenly taken by surprise and fired upon, the foregoing discussion enables us to affirm that the troopers must not wheel about and ride off, each in a straight line; but they must spread out in different directions to assemble again out of the enemy's fire. They must in this way quickly complete their reconnaissance in order to avoid another advance. Surprise by the enemy's fire will almost always be the rule, even in a moderately close country, for concealed sentinels or marksmen are hard to discover at 650 yards distance if they do not fire; still less, if they are carefully concealed with a view to decoying the patrol within the range of effective fire. It is, therefore, absolutely necessary that the troopers of a patrol do not ride in a body, but always at considerable intervals.

It is indispensably necessary that every cavalryman should thoroughly comprehend the action and capabilities of the infantry weapon and should know how to act when opposed to it. But it is just as necessary that the rules that are laid down for this purpose should be accurately followed in all peace maneuvers, else the trooper, in time of need, will not be found equal to the task assigned to him. It cannot be concealed that, in future wars, cavalry will find its diffi-

culties and dangers much increased on screening and reconnoitering duty, and that the demands which will be made on both man and horse will be of the greatest.

The trooper, as he careers at speed along the enemy's firing line, should endeavor, in a very few seconds, to obtain a view of the enemy's strength and position; at the same time he must keep a wary eye on the ground, for a halt at an impassable obstacle might, at such a time, have serious results. The powers of the horse will also be exerted to the utmost. After a hard ride, several miles in length, he must still have strength and wind for a hard gallop across country; he must take every obstacle he meets without slackening speed, and finally must bear his master and his important intelligence to the camp. It is hoped that the unwearied devotion of the cavalry will enable it to satisfy the demands which the improvements in firearms have so materially increased. R. H. W.

### FIRST AIDS TO THE WOUNDED.

The number of killed on the battle-field in modern war, may safely be put at one in every forty-nine combatants, and the number of wounded at seven times as many.

Taking into consideration the great distances from the fighting line to the points where the field ambulances can be established, and also the small amount of transportation that can be allowed for field hospitals, it becomes imperative that the soldier shall be prepared to dress and care for his own wounds or those of his comrades, in such a way as to escape the evil consequences of delay in professional treatment.

Now, seventy-four per cent. of all wounds are to be found in the arm or leg, hand or foot. The soldier can give valuable first aid in all these cases and, therefore, this alone will be sufficient reason for his careful instruction in aiding the wounded.

These *first aids* are treated of under three heads: 1st. Temporary support to prevent motion among parts of fractured bones. 2d. Checking of hemorrhages. 3d. Immediate antiseptic dressing of wounds.

Under the first head, we have only to do with the fracture of the leg or thigh, though it will be well to support any fracture if time allow. It is very dangerous to carry the patient to the rear without supporting the member, as not only does the rasping of the broken bone draw upon his remaining strength and increase inflammation, but the ragged splinters may pierce the skin and let in the air—the worst enemy of wounds.

For this support, we require two splints—rifles, sword or bayonet scabbards, boards from a biscuit box or sticks of wood, some kind of padding to protect the limb from shocks and the pressure of the rude splints and, lastly, ties to fasten the splints in place.

Now stretch the limb into a straight line, if possible, though this will be rectified later. Then roll in either end of an over-coat or

shelter tent a rifle and a scabbard, lay the limb in the cradle between the splints thus cushioned and strap everything firm with five or six handkerchiefs, or as many straps taken from equipments.

The arrest of hemorrhage aims at a still more immediate danger where each second counts, when death is at the door.

The arterial hemorrhage, with its bright scarlet blood jetting out as though pumped by a piston at each pulsation of the heart, is the only one to be considered.

The artery, like a rubber pipe, can be closed by compressing it against a hard body—a bone. The special points where this can be done, must of course, be known—the inside of the thigh and of the arm—but to check the flow, you need only a handkerchief and a good sized pebble somewhat flattened. This pebble is rolled in the middle of the handkerchief whose two free corners are then passed around the limb and tightly tied on the outside, the arteries always being found on the inside of the members, where they are best protected from accidents.

The pebble being large enough to permit an error of an inch or so in location, the compression should always be effective if the bandage be twisted sufficiently tight. The success of the compression can be determined by the suppression and return of the pulse as the pressure is increased or relaxed.

3. *Immediate Antiseptic Dressing of Wounds.*—The packet, which the soldier carries for the purpose, consists of a square of muslin and a bit of wadding, both impregnated with bichloride of mercury and wrapped in a piece of parchment paper. The muslin is applied to the wound, destroying the germs which may be there. The wadding is placed upon this to prevent the intrusion of germs from the air; and over all the parchment paper is tied by the aid of a handkerchief, thus establishing an effective quarantine. — *Revue du Cercle Militaire*. F. S. F.

### THE RIVER CITY DRAGOONS.

Under this title, a second troop of cavalry has been organized at Portsmouth, Ohio, the Cleveland Troop being the first formed in the State. It has started into life under very flattering auspices, its commander, Colonel A. L. BRESLER, being an officer of several years' experience in the German Hussars, an enthusiastic cavalryman and a cultured gentleman of wide experience in military affairs. We have no doubt that, under his command, with a cheerful submission to the demands of a rational discipline, and, above all, inspired by an honest desire to fit themselves to emulate, should occasion offer, the gallant deeds of the Ohio cavalry regiments whose standards waved so proudly upon many a hard-fought field during our great war, the River City Dragoons will, in the near future, be esteemed a valuable and honored addition to the Ohio National Guard.

C. C. C. Carr.



## DISCUSSION AND CRITICISM.

## REVOLVERS AND REVOLVER PRACTICE.

Our experience has proved that neither of the revolvers now furnished is suitable for the cavalry service. Their length makes them unnecessarily heavy and clumsy, while a shorter weapon is just as accurate for all practical purposes, within the distance at which pistols should be used.

The handle of the pistol must be made to conform as closely to the hand as possible; if corrugations were cut for the fingers, greater accuracy would be obtained for the reason that, in "snap shooting," the result depends entirely on the revolver being always held in the same position in the hand. The stocks found on the new models of revolvers more nearly fulfill the requirements than those of any of the old single action weapons. Concerning single and double action revolvers, there is little difference of opinion as to the merits of the two for dismounted work. An infantryman should carry a single action revolver with a very light trigger pull; for mounted work, the double action weapon should be used. There is one defect in the present hammerless revolver which will postpone its adoption; if the cartridge happens to be a trifle too thick at the base, the friction against the recoil plate renders it impossible to revolve the cylinder. It seems to be the great drawback with all double action weapons that the forefinger is not strong enough to overcome the necessary resistance when the revolver becomes fouled; whereas, with the strength of the thumb and the assistance of the hammer, the pistol can always be cocked.

Nevertheless, with proper discipline, there is no reason why the hammerless Smith & Wesson could not be put into the hands of enlisted men. There is altogether too much objection to efficient weapons by inefficient officers whose principal objection is that the men cannot be made to understand and take proper care of complicated and delicate arms. There is ample means at hand to make them understand and care for them, and it is sad to see such puerile reasons blocking every attempt at improvement.

The hammerless revolver is by far the least dangerous one in the ranks. A short time ago a soldier of my regiment, in leaning down to drink, was killed by his revolver slipping from the holster and having the hammer strike a rock,—this kind of accident is not rare

For safety, it is not well to leave a chamber empty, for when one needs a revolver he needs all six loads; and the same safety may be procured by letting the hammer down between the cartridges. In order that a proper weapon may be obtained, the Ordnance Department should issue revolvers for experimental purposes to officers; and at competitions, officers should be allowed to use any revolver, firing six shots, using the regulation charge. In this way, comparisons could be made and we could keep ourselves informed of all improvements that are being made.

The pistol should never be fired from a raised position, unless it be required to fire a volley, to the front, in close order.

The preparatory position of the revolver should always be with the revolver in the holster. The men should be taught to draw quickly, and, while holding the barrel downward in the general direction toward which the fire is to be delivered, to cock, raise and fire; and they should be so drilled until it becomes a second nature. Ninety per cent of all accidents and all the poor revolver shooting that is done are due to the negligence of the officers, whose duty it is to see that their men have received sufficient preparatory instruction. No suggestion of an aim should be taken in firing a pistol mounted. We must have snap shooting and nothing else, plenty of drilling, and three times our present allowance of ammunition.

The dismounted practice is perfectly valueless for the trooper, for he will never be able to use his revolver on foot to better purpose than his carbine; it is time and ammunition wasted. If it were not for the pack, a pistol holster should be on the saddle, as there is no necessity for the man having any weapon but his carbine when on foot, and he should then be as lightly loaded as possible.

The present pistol holster is ridiculous; there is no reason for carrying a pistol backwards, and by so doing the efficient handling of it is impaired. The pistol handle should be to the rear, the belt should be worn loosely for comfort and then the pistol will fall just where the hand will grasp it. There should be a light strap attached to the muzzle of the holster, buckling it to the thigh to hold it steadily and prevent its thumping the horse. Although it is recommended to cut down the barrel, to facilitate quick handling and to reduce weight, we should by all means retain our present caliber and even increase slightly the weight of the bullet.

To be efficient, a revolver must be capable of stopping a horse, or at least putting a man entirely out of fight as soon as struck. The reasons are self-evident, from the hand-to-hand nature of its employment.

The allowance of ammunition is entirely too small; at least three dollars per man should be allowed in addition to the former allowance of round bullets, which are very good for preliminary practice.

The firing should be first from the halt, then at a walk, at a trot, and finally at a full run. The present regulation gallop ruins the gait of the horse and does not require the men to learn to use the revolver as it should be used, and sacrifices efficiency to "paper record."

Firing to the front is most necessary and no pains should be spared to teach the men to fire in this direction. As for making horses gun-shy, or burning them with powder, these are matters that again depend upon the discipline of the organization and preparatory training. The revolver, properly fired to the front, will never be as near the horse's ears as is the muzzle of the carbine in mounted firing. And right here it would be interesting to know the object in having men use their carbines from the saddle: it seems a most unnecessary waste of ammunition.

In firing to the front the first shot is nearly always thrown away. The trooper should be allowed to shoot "at will" while advancing on the target, and he should be made to charge on a line perpendicular to the line of targets. I have never experienced any trouble in firing in this manner and, where one shot will be needed against an enemy on a flank, fifty will be needed to the front. The shooting of horses and the accidental discharge of pistols are less arguments against the pistol or its manipulation than evidences of lack of training. The guard-house is a most necessary auxiliary in teaching the use of the pistol.

If we had less paper work, reports, figures of merit, etc., it would be a relief. Conscientious officers, interested in their work, are only hampered by artificial adjuncts and the work accomplished and the experience gained by them is of far more value to the service than that which the reports force upon the drones who go through their duty in a perfunctory manner. There is great reason for asking why the revolver competitors are selected from the men sent to fire at carbine competitions,—as well send the latter to a fencing tournament. The revolver competitors should by all means be selected for their proficiency with the revolver, and officers of cavalry, light artillery and staff corps should be particularly encouraged by this means. The practice of officers competing at any time with their men is unfair to the latter. It is not well to place officers on an official equality with their men at any time; it is detrimental to discipline and it is quite time to break up the socialistic tendencies that seem to be gaining ground in our service. The revolver competition, as at present conducted, is not a thorough test. No distance below twenty yards should be ridden, and at least twelve rounds should be fired in each direction.

A discussion as to the relative value of revolver and saber will not now be attempted. Both weapons are indispensable, each within its proper sphere. On any ground, horses and men being equal in strength and training, with plenty of room available for open order, the pistol will prevail over saber or lance,—in fact one man with plenty of room ought to kill or wound at least three men armed with lance or saber. When cavalry charges in compact masses or in defiles when they must get through and cannot deploy, or on causeways over marshes, sabers will be wanted to push back an enemy. Revolvers would not be used under such circumstances.

At present, there are very few of our troopers capable of using either weapon. The reasons generally advanced for the lack of

practice are not conclusive, for with all the complaints of "detailed" men there is ten times more time thrown away than used. There seems to be a fear that if the men are made to return the amount of hours in work, that they are paid for, that they will desert or will not reenlist, or at any rate that it will be disagreeable to them. Leaving aside the men, why at least are our officers so deficient in the use of their arms?

We have numbers of men who wear badges of sharpshooters and even medals; but we all know that beside them are men who, for equal efficiency, the country pays but thirteen dollars a month. An officer should be able above all else to use the weapons of an officer,—not that he should be a fencing master or pistol "sharp" alone, but when one sees the number of physically incapable officers and knows that the reason for their being so frequently arises from causes not incident to their hard service, one sighs for such men as Sir FREDERICK ROBERTS, who, as Captain MILLS tells us, is, at fifty-five years of age, able to compete with his youngest officers in physical contests.

POWHATAN H. CLARKE,  
*Lieutenant, Tenth Cavalry.*

#### THE CAVALRY IN MEXICO.

In the JOURNAL of March, speaking of General HARNEY, this sentence occurs: "As a result, we see HARNEY able to collect only a small force of four companies from his three regiments to charge the Belen Gate, City of Mexico." Now, the facts are, there was not one mounted soldier nearer than from two to three miles of the "Belen Gate" when it was charged and taken, on the 13th of September, 1847. General HARNEY, on that day, was at least four miles away, by the most practicable route, at "Mixcoac," the newly established depot for the army. He had with him at the depot, all the cavalry, except that under the command of Major SUMNER, who was with his command, attached to and serving with General WORTH's Division, which was moving towards the new Cosme road and gate, and he entered the city by that gate. Major SUMNER's command consisted of six companies of the Second Dragoons, one company of the First Dragoons, and one company of the regiment of Mounted Riflemen, and was at least three miles from the Belen Gate when it was taken by the eight companies of the regiment of Mounted Riflemen, "intermingled with the South Carolina Volunteers." These eight companies of the Mounted Riflemen were dismounted in consequence of the loss of their horses in the Gulf of Mexico; and they served on foot in General P. F. SMITH's Brigade, Twigg's Division, from Vera Cruz to the capture of the City of Mexico. Of course, other troops were following the Rifles and the South Carolina Volunteers along the causeway on each side of the aqueduct to the Belen Gate; but these two regiments led, and were the first at the gate, and there was not a mounted soldier in sight; even the guns being served by Captain DRUM, assisted by Lieutenants BENJAMIN and PORTER, were handled

without the assistance of horses. Captain DRUM and Lieutenant BENJAMIN were both killed, and PORTER was wounded. Colonel LORING, commanding the eight companies of Mounted Riflemen, lost his arm, about the same time and place.

When it is understood that the causeway, leading from Chapultepec to the city through the Belen Gate, is flanked to the right and left by swampy ground under water—in some places impassable for foot troops even, and that there is an aqueduct in the middle of the causeway on elevated arches, and that the roadway on each side of the aqueduct is hardly broad enough to accommodate cavalry in column of fours, it will at once be seen that it was no place for cavalry to operate to any good purpose against artillery behind earth-works, much less to *charge* the Belen Gate, which is more than a mile from Chapultepec; necessitating the marching of cavalry that distance on two closely shut-in roads directly facing guns that completely commanded both roads. It was therefore utterly impossible to *charge the Belen Gate with cavalry!*

The troops engaged along the causeway, and at the Belen Gate, were fresh from participating in the capture of Chapultepec, and moved towards the gate and city immediately after. General QUITMAN was in command of and up with the front of the troops on the aqueduct. A writer on the Mexican War, in 1849, spoke of him, in reference to this occasion, to this effect: "Discovering this (moving the guns from the gate) QUITMAN ordered a charge. The Americans sprang forward with eager impetuosity, entered the work at a few minutes past one o'clock in the afternoon, and captured two of its guns. General QUITMAN was among the first at the Garita Gate, and none of the colors having yet come up, attached a silk handkerchief to a rifle and waved it over the battery, amid the joyous shout of his brave soldiers." These facts can be verified by official reports, and by those still living, who were there.

General HARNEY's command at Mixcoac, in addition to his cavalry, consisted of the Twelfth Infantry under Lieutenant-Colonel BOSHAM, one company of the Third Infantry and one company of the Seventh Infantry, and perhaps some artillery. Colonel HENRY B. JUDD, U. S. A., (retired), told me a short time ago that he was to the depot, at Mixcoac, on the 13th, to re-supply his battery with ammunition; and saw and heard General HARNEY for a short time during the progress of the battle going on at Chapultepec. He said that HARNEY was fearfully excited, and was storming up and down on the flat roof of a house, spy-glass in hand, and was giving expression to his feelings in his usual forcible style. He was in full view of the castle and hill of Chapultepec, and could plainly see the storming parties, and other troops, as they slowly but steadily drove the Mexicans before them, and gradually forced their way to the top of the hill, planted their ladders and entered the works. Colonel JUDD is a member of the church, and I could see he did not tell all HARNEY said on that occasion, but enough to give a pretty good idea of the scene, and enough to convince any one who had a correct estimate of HARNEY's character, that he would have charged

attempted to charge the Belen, or any other gate, if he had been given an opportunity.

It is probable that the writer of the article on HARNEY had in his mind the charge made by the dragoons, under HARNEY, on the afternoon of the 20th of August, 1847, after the Mexicans had been defeated at Churubusco, and were being driven toward the city through the San Antonio Gate (not the Belen Gate). It was then the cavalry was given a small chance to do some work. General SCOTT, in his autobiography, speaks of it in this way: "As soon as the bridge-head was carried, the greater portion of WORTH's and PILLOW's forces passed the bridge in rapid pursuit of the flying enemy \* \* \* within a mile and a half of the capital. Here Colonel HARNEY, with a small portion of his brigade of cavalry, rapidly passed to the front, and charged the enemy up to the nearest gate. The cavalry charge was headed by Captain KEARNEY, of the First Dragoons, having in squadron with him his own troop that of Captain McREYNOLDS, of the Third. The gallant captain, not hearing recall that had been sounded, dashed up to the *San Antonio Gate*, sabering in his way all who resisted. Of the seven officers of the squadron KEARNEY lost his left arm, McREYNOLDS and Lieutenant LORIMER GRAHAM were both severely wounded, and Lieutenant R. S. EWELL, who succeeded to the command of the escort, had two horses killed under him. Major F. D. MILLS, of the Fifteenth Infantry, a volunteer in this charge, was killed at the gate." In a history of the Mexican war, published in 1849, this is said in regard to HARNEY's charge at Churubusco: "At the special request of Colonel HARNEY, the way was cleared, and he was permitted to follow the enemy with a part of his brigade up to the Gate of San Antonio, interchanging sabre cuts with the Mexican forces, and cutting down all who refused to surrender."

There were many gallant and heroic things done by our small force of cavalry during the Mexican war which would be interesting to the readers of the JOURNAL. Take, for instance, the affair at Medellin, on the 25th of March, 1847, or that which took place on the 8th of September, of the same year, at Molino del Rey, where six or seven companies of cavalry (about two hundred and seventy men and seventeen officers) under Major SUMNER stood under fire as if on parade, during the battle, and kept in check ten times their number of Mexican lancers, who were threatening General WORTH's left. Many were killed and wounded, and among seventeen officers present, thirteen officers and horses were wounded. There was no *charge* of cavalry, no noise, no excitement and no hurrah, but a steady performance of a duty which assisted very materially in winning the battle. The service performed by this body of cavalry was not to be measured by the number of the enemy they killed, or by their own numbers, but by the number of Mexicans kept out of the fight. General WORTH could well say, as he did, that "Major SUMNER was always in the right place." Of course, had the Mexicans been armed with the gun of the present day this little body of cavalry would have been very soon swept away, as they were not more than six hundred yards from the fortified position of the Mexicans at Molino del Rey;

but, on account of the inferiority of the Mexican arms, many of the wounds received by the cavalry were from *spent balls*. Any one who ever knew Major SUMNER, either then or during the war of the Rebellion, knows very well that it would have required a very slight hint from the commanding general, or any other commanding officer, to have caused SUMNER to attempt the charge of the hill of Chapultepec itself; and the officers and men of his command would have followed him without question, taking it for granted there was something good to be accomplished.

I will give another instance of the good conduct and efficiency of cavalry in Mexico, although, as on all previous occasions, the force was very small. In September, 1847, General JOSEPH LANE left Vera Cruz with reinforcements for our army in the interior of Mexico, but more especially to relieve Colonel CHILDS, who was being hard pressed at Puebla. General LANE's whole command amounted to about 3,300 men. On reaching Perote he learned that there was a large force of Mexicans concentrating in his front; and, on reaching a point between Perote and Puebla on the 9th of October, he ascertained that this force of Mexicans was at the city of Huamantla, which place is a little east of the National road. General LANE at once went into camp, organized, and took command of a party of about 2,000 men, leaving the remainder to guard his camp. Of this 2,000 men with General LANE, there were four companies of cavalry, under command of Captain WALKER, amounting perhaps to 250 or 300 men. On arriving within three miles of Huamantla, General LANE ordered Captain WALKER to move some distance in advance of the command with his cavalry, but to be careful not to go beyond the reach of support from the main body. About the same time a large body of Mexican cavalry (some two thousand) was seen rapidly approaching the city, on a road parallel to that being traveled by our troops. It is more than probable that the rapidity of Captain WALKER's march was increased in order to reach the city before this body of Mexican cavalry; at any rate he was soon far in advance of the main column of our troops, and out of reach of immediate support should he need it, and he soon did need it very much. However, he entered the city rapidly and at once made his way to the Plaza. Here he found a party of about five hundred Mexicans with three pieces of artillery. Without a moment's hesitation, he made a dash at them with his men, drove them off and took their guns. Being too eager in the pursuit, and probably allowing his men to scatter, he was very roughly handled before the other troops, under General LANE, came up. Captain WALKER was killed. This incident affords a good example of the advantage of cavalry when skillfully used at the right moment and place. This dash of a very small, bold body of horsemen was far-reaching in its effects. In that place, it was the *beginning* of the defeat of the Mexicans by General LANE at this place; and, in addition, it meant the opening of the road for our supplies from Vera Cruz to Puebla and the City of Mexico, and the speedy relief of Colonel CHILDS at Puebla.

W. B. LANE,  
Major of Cavalry, Retired.

## BOOK NOTICES AND EXCHANGES.

CATECHISM ON CAVALRY OUTPOSTS, RECONNAISSANCE, AND ADVANCE AND REAR GUARDS. By E. A. Garlington, First Lieutenant, Seventh U. S. Cavalry. Seventy-five Pages, Plates and Complete Index. 1890.

Lieutenant Garlington's Catechism on Cavalry Outposts supplies a deficiency long felt to exist by the progressive officers of the cavalry. Heretofore, officers desiring to instruct their men in outpost and reconnoitering duties either had to prepare a course of lectures on those subjects or else make a compilation from different foreign text books. Either method involved a great deal of labor which deterred all except the most energetic from attempting any systematic course of instruction. Added to this were the lack of uniformity in details, which the different methods followed and the particular fads of each officer, entailed.

Lieutenant Garlington, by giving us an excellent compilation from the best modern works and adapting the whole to our regulations and drill, has conferred a great boon upon the service.

Some of the details of the work will have to be revised when the New Drill Regulations are published. One suggestion for such a revision would be to have the vedettes and advanced scouts take the position of LOWER PISTOL, as prescribed in Par. 171, Cavalry Drill Regulations, instead of ADVANCE CARBINE. The position of LOWER PISTOL would be less fatiguing to the trooper, render him less conspicuous during the day, and enable him to defend himself more effectively if suddenly attacked and to give the alarm more quickly.

W. H. S.

HENRY DODGE, COLONEL FIRST DRAGOONS.

Running through recent numbers of the *Iowa Historical Record*, and not yet completed, is a biography of General Henry Dodge, the first colonel of the First Dragoons, Governor of the original Territory of Wisconsin, and a man who held many important stations in life, both as a soldier and as a civilian. He possessed, in a marked degree, the qualities necessary to make him a leader of men, in such scenes of border warfare and adventure as those in which his life was passed. An early portrait of the General accompanies the sketch, as well as a very careful account of some of the early Indian wars of the century, in which he was a prominent actor.

PROCEEDINGS OF THE UNITED STATES NAVAL INSTITUTE. No. 53, 1890.  
Report of Policy Board.

JOURNAL OF THE MILITARY SERVICE INSTITUTION. No. 44. June, 1890.  
Outline of a Manual of Infantry Drill. Development of Submarine Mines and Torpedoes. Artillery During the Rebellion. Regimental Court of Honor. Practical Work for Infantry. The Military Situation in France.

JOURNAL OF THE UNITED SERVICE INSTITUTION OF INDIA. No. 79.  
Alexander the Great's Invasion of India. The Sushai Country. Opinions on the Supply of Remounts. Cavalry Formations. Professional Instruction of N. C. Officers. The Accles Machine Gun of 1889. Military Defense of the Empire.

PROCEEDINGS OF THE ROYAL ARTILLERY INSTITUTION. Volume XVII.  
Nos. 9 and 10.

Practice of Garrison Artillery over Sea Ranges. Armament to R. H. A. Batteries with a Cavalry Division. Mountain Warfare. The Ambela Campaign. Sound Velocity Applied to Range Finding. Some Notes on the Swiss Artillery. Experiences at Okehampton in 1888. The English Army in Flanders.

REVUE MILITAIRE BELGE. April, 1890.

Constantinople and the Balkan Peninsula. History of the Siege of Ostend. Theory of Aerostats. Instruction for Siege Artillery Recruits. Indirect Siege and Fortress Fire. Officers of the Reserve in Germany. Russian Cavalry Drill Regulations. New Cavalry Drill Regulations in the United States. Pointing Heavy Cannon by Means of Electricity. Zalinski's Pneumatic Cannon.

THE UNITED SERVICE. April and May, 1890.

Prince Hohenlohe on Field Artillery. Nomenclature of our Military War. A Night's Tragedy. The U. S. Revenue Cutter Service. Chronicles of Carter Barracks. Great Commanders of Modern Times—"Marlborough." Notes on National Guard Staff Duty. The Military Schools of the United States. A Modern Battle Ship. Goss Pasha, "A Hero of the Soudan." A Romance of a Government Com-Survey. A California Pioneer. National Guard Elections. Trials of Staff Officers.

THE ILLUSTRATED NAVAL AND MILITARY MAGAZINE. Vol. 5, Nos. 16 and 17.

Epochs of the British Army. III: The Revolution. IV: Marlborough. Great Commanders of Modern Times. III: Frederick the Great. Naval Warfare. The Cinque Ports. Two French Admirals. Future Infantry Tactics. Tactical Use of Mounted Infantry. Algiers an Old Story Retold. Compulsory Service for Great Britain. Russian Masters of Ordnance. Colonel Forde at Kondur. The American War. Smokeless Powder. The Georgian Epoch of the British

Army. Portsmouth. Some Remarks on the Militia and Volunteers. The Warriors of British New Guinea. Naval Warfare. Her Majesty's Nursing Sisters. Great Commanders of Modern Times. Fortifications of the Meuse. Steel Armor Plates. A Submarine Vessel. A Week on the Bhutan Frontier. Waterloo Panorama.

REVUE DU CERCLE MILITAIRE. Series of 1890.

No. 1: Supplying Artillery in the Field. Moral Education of the Soldier of the Cavalryman especially. No. 2: A German Study of the French Army. General Yuseef. Strategic Transportation. Cavalry and Smokeless Powder. No. 3: The Ural Cossacks at Home and in War. The Ills of the Soldier. No. 4: Lieutenant Palat. Providing Beds for Troops. On Artillery Fire in Action. No. 5: Night Marches and Combats. Infantry Outposts. No. 6: The Russian Soldier in Barracks. No. 7: A Hand-Book for the Italian Soldier. No. 9: The Preparation of Field Artillery for War. Stenography. Espionage. No. 10: The German Marine. The Italians in Abyssinia. The New Russian Firing Regulations. No. 12: The War in Senegal. No. 14: The German Rifle Model of 1888. The Italian Mobilization. No. 15: Notes on the Clothing and Equipment of the Infantry Soldier. No. 16: Notes on the Food of the Soldier in the Field. No. 17: A Year in Tunis. The Military Institutions of China.

MILITAER-WOCHENBLATT. 1890.

No. 32: Smokeless Powder and Tactics (continued). The Founding of the German Empire by WILHELM I. General Torre's Report on the Italian Army and the Recruits of the Class of 1888. Remarks on the Consolidation of Field Batteries. No. 33: Smokeless Powder and Tactics (continued). Remarks on the Paper. "Fire Tactics of Field Artillery." Candor of a French Cavalry Officer. Effect of Fasting on the Health of Russian Soldiers. New Ration for the Army of Chile. New Headgear for all French Troops except Cavalry. No. 34: Centennial Jubilee of the Archducal Regiment of Dragoons, No. 23, and of the Field Artillery Regiment. No. 25: Solution of Certain Difficulties Encountered in Marching Troops. Swimming Cavalry. No. 35: A Picture of Military Life During the Time of the War of Positions and the Attack of the Lauterburg Lines, August 14, 1712. Independent Patrols. Thoughts of an Old Cavalry Officer on our Cavalry Depots. No. 38: Influence of a High Price of Provisions on the Cost of the Ration. From Dogali to Adua. Comparison between the Russian Train and those of other Armies.

Hudson's Army and Navy List. April, 1890.

THE NATIONAL TRIBUNE. Weekly. Washington, D. C.

THE INVENTIVE AGE. Weekly. Washington, D. C.

THE SPIRIT OF THE SOUTH. Weekly. New Orleans, La.

NOTE.—We regret that the late receipt of this article has prevented its insertion under the proper heading. The high reputation and extensive experience of its author are so well recognized that it has been determined to publish this able review in this place rather than deprive the readers of the JOURNAL of the pleasure and profit of perusing it. *b. b. b. b.*

WAR PATH AND BIVOUEAC. By JOHN F. FINERTY.

Some months since, I had a conversation with an officer of a foreign service, a gentleman of distinction and experience, who made a criticism upon our military literature which may bear repetition.

In his opinion, there was a great deal in the way of translation which, under the most favorable view of the case, could not be expected to interest officers on the other side of the Atlantic, to whom the originals would be familiar; there was a considerable portion of theory, some of it of value, and an undue preponderance of reminiscential matter printed for the apparent purpose of correcting errors in the personal or regimental history of individuals or organizations taking part in the war of the rebellion, but there seemed to be a great lack of the material from which the military student might learn the principles upon which we acted in the great question of the pacification of our savage tribes west of the Missouri, which could serve as lessons to the great nations now excited by a paroxysm of colonization and brought face to face with similar questions, and with equally savage tribes, in Africa and elsewhere.

The importance of the work accomplished by our little army in making civilization a possibility could not be over rated and should not be left to the searcher through mouldy official reports in the latter half of the next century, but assumed now while notes and memoranda were still accessible to the participants in the great struggle.

There has been a certain amount of work already done in this line and among it may be mentioned such books as Dunn's "Massacres of the Mountains," and Fry's "Army Sacrifices," both excellent in their treatment of the subject, but open to the objection mentioned above that the authors relied more upon official data than upon personal observation. "Campaigning with Crook," by Captain Charles King was bright and entertaining, and should have been followed up by more work of the same kind from the same author.

Finerty's book comes closer to supplying the needed link in the chain of our frontier military history than any other with which I am acquainted: it is to all intents and purposes a reproduction of the vivid and graphic letters which stamped him as one of the most ob-

servant critics who followed our expeditions in the Big Horn and Yellowstone country in 1876-77-78 and 1879.

The life of our soldiers, their hardships, privations, and dangers are photographed with fidelity and in proper focus; the privations and dangers are given as a matter of course, are not magnified and are allowed to speak for themselves.

I am unable to do full justice to this book for two reasons. First I find that, influenced no doubt by the impulses of the strong friendship existing between us for so many years, Mr. Finerty has alluded to myself in several places in complimentary terms, and much against my inclination, I refrain from what, to people unacquainted with us both and with the circumstances of the case, would seem like a reciprocation of courtesies.

Another reason, and really the stronger one, is that some books cannot be reviewed, but must be read, and Finerty's is eminently one of these. It should be in every post library that our rising generation of cavalry and infantry soldiers might learn what their comrades did and suffered, and in every collection of books, public or private, wherein the history of our Nation's development is to be preserved and those who made that history, honored.

Finerty criticized military movements freely and, in the main, in an able and judicious manner; he certainly tried to be fair and impartial and got his facts on the skirmish line, so that no one could complain of his inferences, no matter what they might be.

During the terrible march from the head of Heart River, Dakota, down to Red Cloud Agency, when officers and men were tramping without shelter and in rags, with a pitiless rain beating down upon them by day and by night, with no food but the flesh of our worn-out horses, Finerty never lost his invariable good humor, and was as full of fight and enthusiasm at the finish, as at the beginning of that dreadful campaign, which has no parallel in American or any other military history.

I was looking over my old note-books last evening,—under the inspiration of Finerty's volume, and was surprised to see how many of our brave and loyal comrades of those trying days had joined the Great Majority: Crook, Crawford, Von Leutwitz, McKinney, Munson, Meinhold, Foster, Andrews, Burroughs, Cain, Bache, MacKenzie, Teddy Egan, Lawson, Tim Baker, Thornburgh, Wells, Gordon,—but why lengthen the list? Some have gone down by bullets, some by disease and exhaustion, but all with unsullied records.

We, who are left, can pledge a toast to their memories, and I am sure, all my old comrades will join me in saying, "Here's How" to Finerty.

JOHN G. BOURKE.  
*Captain, Third Cavalry*

## JOURNAL

OF THE

## UNITED STATES CAVALRY ASSOCIATION.

VOL. III.

SEPTEMBER, 1890.

NO. 10.

WITH THE RESERVE BRIGADE.

SECOND PAPER.

THE retreat of EARLY's defeated forces after the battle of Winchester, being covered by darkness, the pursuit was suspended and the cavalry bivouacked for the night in the fields adjoining the turnpike a short distance south of the town, and were in the saddle at daylight on the morning of September 20th. Pursuing south, on the two principal roads, it was soon found that the enemy had taken up a strong position at Fisher's Hill just south of Strasburg. The Valley here narrows in so that both flanks of EARLY's army were protected by the precipitous mountain ranges on either side of the Valley. General SHERIDAN, having formed a plan of battle for the 22d, in which the Eighth Corps, under General CROOK was to be used to turn the enemy's left flank by scaling the mountain on that side, sent General TORBERT, commanding the Cavalry Corps, with the divisions of MERRITT and WILSON, to proceed through the Luray Valley, so that in the event of victory at Fisher's Hill he might fall upon the retreating columns of the enemy at Newmarket on the Valley pike some thirty miles south of Strasburg.

On the 21st, we marched to Front Royal where we passed the night, and on the 22d, resumed our march. Soon after noon we came

AND D D D

C. C. G. Carr.  
*Editor.*

upon the enemy strongly intrenched near Millford. The Luray Valley at this point contracts into a gorge, and the rough, inaccessible character of this mountainous region rendered the entrenched position of the enemy an almost impregnable one. The road here crosses a deep and unfordable mountain torrent, a tributary of the Shenandoah, and the bridge having been destroyed, the enemy from behind well constructed earthworks on the opposite bank made a determined resistance to our further advance. The greater portion of the force was dismounted and engaged the enemy on foot, while the artillery went vigorously to work shelling the position: but all seemed to be of no avail. The brigade was held in reserve well up to the front: it was in fact under fire much of the time, and had several men and horses disabled. During the afternoon the brigade commander, with several other officers, made a careful examination of the ground in our front and the position of the enemy, and all became convinced of the utter hopelessness of any attempt to carry it by direct attack. We had confidence, however, that a way out of the difficulty would be found by a movement around one of the flanks of the enemy, and waited patiently to take instant advantage of any movement indicating a weakening or withdrawal of the force in our front: but as the afternoon wore on the outlook began to appear somewhat discouraging. The same steady rattle of carbine shots could be heard on the right and left with the occasional cheers of some portion of the line essaying an advance, but the location of the lines remained obstinately the same. Finally, as the approach of evening seemed to demand a movement of some sort or an acknowledgment of defeat, an order was received by Colonel LOWELL to charge with his brigade, mounted, down the road and endeavor to carry the position by a direct attack.

The brigade was at this time behind the crest of a hill which overlooked the stream in our front, the whole face of the hill being covered with a dense growth of timber and underbrush. The road led down the steep hill toward the creek, and at the foot of the hill turned sharply to the left. The road was here formed by an excavation from the side of the hill, with a precipitous wall of rock on one side and the swift and deep mountain torrent on the other. After stretching along the stream in this manner for a hundred yards or more, it abruptly terminated at the abutment of the burned bridge. The enemy, from his entrenchments on the opposite bank of the creek, within short rifle range, commanded the whole of that portion of the road extending along the bank of the stream. A force, supposing it to have reached the abutment of the destroyed

bridge, would have had no method of escape from the murderous fire of the enemy, and must have plunged into the swift and roaring torrent in the vain attempt to cross, or have retraced its steps back along the bank and up the hill. The brigade was mounted, sabers drawn, and we moved in column of fours into the road. As we started down the hill, the Rebel gunners, with fine accuracy, dropped a couple of shells into the head of the column, badly demoralizing the first set of fours. The requirements of romance and poetry demand that at this juncture we should have taken the gallop, and the charge, and ridden with cheers, colors flying, and blades tossed aloft, into the murderous *cul-de-sac* awaiting us.

"Though the soldier knew  
Some one had blundered."

But it would not have been war, and Colonel LOWELL, appreciating the situation, and preferring to save his brigade for future work, commanded instead, "Fours right about," and we returned to our position behind the hill.

An examination of the ground two days later, after the withdrawal of the enemy, fully justified this action. Had the brigade charged when first directed to do so the loss must have been frightful, with no possibility of any compensating advantage. It was certainly very unfortunate that no way could be found of carrying or flanking this position. The battle of Fisher's Hill was won on the afternoon of the 22d, and General SHERIDAN in his report says: "Had General TORBERT driven the force in his front, or turned the defile and marched to Newmarket, I have no doubt that we would have captured the whole Rebel army."

On the 22d we withdrew, leaving the enemy in possession, and marched back toward Front Royal. Soon after daylight, as the column was moving sleepily along a mile or two from Front Royal, we were startled by shots and cheers in front, and perceived the Second Cavalry charging, while the ambulance train which preceded the advance of the column appeared to be in some confusion. We at once went forward, at the gallop, to support the Second, and joined in a lively chase after a band of MOSBY's guerrillas, who, seeing the ambulance train with only a small escort in advance, had thought it a good opportunity to secure an invoice of mules for EARLY's army, and to supply themselves with clothing and the many other useful articles which a Yankee train usually afforded. But it is presumed they would have hesitated before undertaking this pleasant enterprise had they known that two divisions of cavalry were close at hand. The pursuit was continued in every direction after the dis-



persed band as long as a "grey coat" could be seen, and then we rallied at Front Royal.

A number of Mosby's men were killed and some ten or twelve taken prisoners. The Second lost a brave officer, Lieutenant McMASTERS who, in the excitement of the chase, became separated from his men and was surrounded and captured by the "bushwhackers." After robbing him of his watch, money, and boots, they cruelly and deliberately shot him through the body. These facts were learned from his own lips, he having been found by his men after the pursuit was ended, and taken to Winchester, where he lived several days. A few days before the battle of Winchester, several men of CUSTER's brigade had been captured and cruelly murdered by Mosby's men. The prisoners taken on this occasion were turned over to the provost guard at Front Royal; and, later in the day, several of them were found hanging by the neck to trees near the town, with placards attached to their feet setting forth that they had been executed in retaliation for the shooting of a Union officer after capture. Camp talk at the time (whether truthfully or otherwise cannot be stated) attributed these hangings to the incensed comrades of the men of CUSTER's brigade who had similarly suffered a few days previously.

It will be acknowledged by all that the crimes of which Mosby's men were guilty were deserving of the severest punishment; and yet these retaliatory measures were extremely ill-advised. A few days later, Mosby's men having captured a number of dismounted men who formed the escort to a train en route to Harper's Ferry, they were required to draw lots that a number might be selected for execution. The men so selected were taken to the vicinity of Berryville, where several of them were put to death. Fortunately the futility of retaliation as applied to the inhuman acts of these guerillas became apparent to our people, and the punishment of their crimes was deferred to a more convenient season.

The news of the battle of Fisher's Hill having been received on the 23d, we, by a night march, retraced our steps to Millford, found the strong position of the enemy abandoned, and pushing on, at about 2 P. M. of the 23d, encountered the enemy's cavalry near the town of Luray. The valley at this point opens out into a comparatively smooth and level country, suitable for cavalry operations, and by a determined attack we regained our self-respect which had been somewhat impaired by our repulse at Millford. The enemy was routed and only escaped destruction by a rapid retreat, our pursuit being somewhat less vigorous than usual, owing to the jaded condi-

tion of our horses from the incessant and severe work of the previous days.

On the 25th we reached Newmarket, and, finding ourselves in rear of our victorious columns, pushed forward, reaching Harrisonburg and the front the same day. EARLY's army, continuing its retreat, crossed the Blue Ridge, leaving, for the time, the Union forces in undisturbed possession of the Valley. MERRITT's division was ordered to Port Republic, and General TORBERT with WILSON's division and the Reserve Brigade, temporarily detached for the purpose, to Waynesboro via Staunton. Orders were given for the destruction of the railroad bridge across the South River at Waynesboro, and, in falling back, for the burning of all barns containing forage, all mills, and in short, for the complete destruction of everything which could contribute to the subsistence of the Confederate army. This was in accordance with the determination of General GRANT that this fertile valley should no longer be used as a supply depot for the enemy.

Arriving at Waynesboro on the 27th, we picketed strongly south of the town in the direction of Rock Fish Gap, where the enemy was found in considerable force with artillery in position. On the morning of the 28th, the advanced posts were reinforced until quite a respectable skirmish line was formed, with the remainder of the brigade in reserve near Waynesboro. A large portion of WILSON's division was employed in carrying out the orders for the destruction of supplies. A force went to work at the railroad bridge early in the morning and wrestled with it all day without accomplishing its overthrow. It was a well constructed iron bridge, and in the absence of proper appliances and skilled workmen it was no easy task to demolish it. The day was bright and pleasant, and during the whole morning all remained quiet on the picket line. About noon a few shots were exchanged with some of the enemy's scouts who attempted a stealthy reconnaissance of the force in their front. They promptly withdrew upon being discovered and all became quiet again, though the opinion was freely expressed by officers on the advanced posts that we would have our hands full before night.

At about 5 P. M., without the slightest warning, our skirmish line was furiously attacked and driven in, and a force of cavalry came charging down the road yelling as though the fate of the Confederacy depended upon the strength of their lungs. The squadrons forming the immediate support to the skirmish line were instantly in the saddle and, with sabers drawn, moved to the front, took the gallop and the charge, to meet the noisy force rapidly approaching.

Either because we made the more noise, or because they did not like our appearance, they would not permit us to make a closer acquaintance, but went about and back in the direction from which they had come. We were continuing our headlong course in the endeavor to overtake them, when, looking to the left, we saw a long column of Confederate infantry marching steadily up the railroad track, and a glance along the grey line showed that they were pouring out of the railroad tunnel which, at this point, pierces the mountain. We, in turn, thought it prudent to go to the right about and fall back toward our reserve. Finding, however, that we were not pursued, we again threatened their advancing cavalry force, by a succession of charges, as it continued to advance under cover of the infantry. It never waited to receive our attack but seemed to endeavor to draw us on so that we might suffer from the fire of the infantry, which was advancing on both sides of the road with skirmishers well out. A battery now commenced a vigorous shelling and it began to look as though we were being attacked by the whole Confederate army. The remainder of the brigade came up, a line was formed, and an effort made to retard the advance of the enemy until WILSON's division could prepare to receive him, but, in spite of all our efforts, we were steadily forced back into the little village of Waynesboro, where we were assailed by what was more formidable than the enemy's bullets—the tongues of the women. The variety of epithets in their vocabulary was truly astonishing, and when their supply of these was exhausted they did not hesitate to resort to missiles of a more tangible nature with which they pelted us from the windows of their houses. The remainder of the Confederate force, infantry, cavalry, and artillery, coming to the assistance of the women, we were ignominiously expelled from the town, and the enemy, as though the object of his tremendous attack had been accomplished, appeared for the time contented with his achievement; or, it is possible, paused to exchange congratulations with his fair allies. WILSON's division being now withdrawn toward Staunton, the Reserve Brigade was directed to deploy a skirmish line for the purpose of retarding, as far as possible, the enemy's advance.

It was now quite dark; and the Rebel artillery treated their friends in Waynesboro to a brilliant pyrotechnic display by shelling the supposed Yankee position. Our men appeared to enjoy it equally with the other side, as its only effect was to hurry up WILSON's stragglers, some distance in rear of our line. While awaiting the enemy's advance it was reported that a force was marching along the railroad track, which here runs through a somewhat deep cut, and, by pass-

ing around our left flank was getting to our rear. Upon investigation this report was found to be correct and the circumstance was reported to the brigade commander, but, owing to the darkness of the night and the consequent difficulty of prompt communication, some time elapsed before orders were received for the withdrawal of the skirmish line. This was finally accomplished without trumpet signals and as silently as possible.

The brigade having assembled, we found our ranks considerably depleted by the rough handling we had received. Some of the men, after our hasty withdrawal from the town, had continued on the road to Staunton supposing the brigade had retreated in that direction. One regiment of the brigade was not present, having been detached on a reconnaissance before the attack was made. While awaiting orders in the darkness, the officers having assembled and being engaged in discussing the situation, a number of shots were fired directly in our rear. General TORBERT and the officers of his staff were a short distance from us, and one of them called out: "Stop that firing! You are firing on your own men." The answer came in tones more forcible than polite: "We know d—d well who you are!" And another volley followed. An officer in the group around General TORBERT could be heard directing some one to ride out and have that firing stopped. Then, after a moment's parley, a distant voice from out the darkness called: "Who are you?" The staff officer replied in stentorian tones: "General TORBERT and his staff!" A crash of musketry—and instantly a line of fire appeared directly in our front—we having faced to our late rear—and a swarm of bullets whistled over and around us like the swift and angry flight of some new sort of night-bird. In an instant all was confusion. The only command was: "Come on!" as TORBERT and his staff, followed by the Reserve Brigade staff and line, made a rush out of the field into the road, and tore madly past the lines of the enemy's infantry, deployed along the rail fence which bordered the road. The line was distinguishable only by the sheet of flame from the muzzles of the muskets which seemed almost to touch the flying horsemen. Had the road been obstructed dire confusion and slaughter must have resulted; but, fortunately for us, our tricky adversaries had neglected this obvious precaution in their little bagging game. In a few brief moments we had passed the line of fire and, a little further on, halted and reformed. It was impossible at this time to form any idea as to our casualties. The different regiments of the brigade were represented by fragments only, but we knew, of course, that all absentees were not killed or captured.

In the disorderly retreat incident to the darkness many officers and men had continued their course along the road; and I suspect that some of the men who knew of the movement of the enemy's infantry to our rear had exercised that freedom of judgment which was at this time the acknowledged prerogative of the American soldier, and had taken the road to Staunton before the night attack was made. It resulted, however, that our losses in this affair, although considerable were not excessive; the explanation being found in the fact that the road over which we passed was sunken several feet below the level of the fields in which the enemy was posted and that, consequently, the most of their fire passed harmlessly over our heads as we hugged the necks of our horses in the wild ride past. Resuming our retreat, a rear guard was designated and directed to build barricades across the road at intervals and defend them stubbornly against any attack.

The march back to Staunton was trying in the extreme. The night was so black that it was impossible to distinguish friend from foe at the distance of a few yards. Straggling parties coming in were in danger of being mistaken for the enemy, and the utmost care and circumspection were requisite to avoid disastrous mistakes. Fortunately the enemy did not pursue, and before daylight we reached Staunton, where we found Wilson's division in position with a strong picket line established, so that the Reserve Brigade was given an opportunity to gather in its fragments and begin another day's work in something like order. Although this expedition might not have been considered a brilliant success, it was felt by the Reserve Brigade that its whole duty had been well and courageously performed, and that it had no cause for self-reproach or chagrin at its result.

On the 29th we marched back down the Valley to Bridgewater, burning everything of a combustible nature *en route* except dwelling houses. Our infantry fell back to Harrisonburg; and the cavalry, after completing the destruction of everything which could be of service to EARLY's army south of that point, proceeded to hold the advanced line at and near Mount Crawford, picketing strongly toward Mount Sidney, to which point EARLY's army advanced a day or two later. During the ensuing two or three days we were in immediate contact with the enemy's cavalry, and not a day passed without sharp skirmishing. At about this time General Wilson was relieved from duty with the Army of the Shenandoah and ordered west to take command of the cavalry forces operating with the armies under General SHERMAN. General CUSTER succeeded to the command of the Third Division which, under that dashing cavalry leader, added new lustre to its former brilliant record. General SHERIDAN having

decided that, in the absence of proper lines of supply, a farther advance of his army was inadvisable, was directed to withdraw his forces to a defensible position in the northern end of the Valley near to his base of supplies, and to send such portion of his forces as could be spared to reinforce our armies in front of Petersburg. The movement commenced on the morning of the 6th of October, the cavalry stretching across the valley, continuing the distasteful work of destruction rendered necessary by the stern requirements of war. POWELL's division prolonged the line into the Luray Valley and performed the same duty in that region. As our forces fell back the enemy advanced, manifesting unusual activity and aggressiveness, the cavalry, especially, making themselves extremely obnoxious.

This unusual activity was explained by several causes. EARLY's army had been reinforced by the return of KERSHAW's division which had been withdrawn to LEE's army just before the battle of Winchester. Brigadier General T. L. ROSSEY, of the Confederate army, had also just arrived in the Valley with his brigade of cavalry, and by his rank had succeeded to the command of FITZ HUGH LEE's division, which, during the absence of its proper commander, disabled by wounds, had been commanded by Brigadier General WICKHAM. ROSSEY had a fine reputation as a cavalry officer, and hopes were entertained that under his command the Confederate cavalry would be able to retrieve its reputation, which had suffered in its various encounters with our mounted forces.

But there was another cause more potent than the arrival of reinforcements or General ROSSEY. Many of the officers and men of EARLY's army had their homes in the Shenandoah Valley, and in their marchings and counter-marchings through this region all had partaken of its hospitality and bounty. They saw this beautiful valley lying before them in flames, desolation, and ruin; from their point of view, the cruel and needless work of the hated invader. At this time it was impossible for them to appreciate the exigencies of the situation which made this destruction a necessary and justifiable act of war. To them it appeared a wanton and cruel act of vandalism, more in keeping with the times and methods of WALLENSTEIN and TILLEY than with those of modern civilized warfare. They must have been more or less than human, not to have had their resentful passions stirred to their inmost depths, and their resolves strengthened and arms nerved to strike in defense of their burning homes, or to avenge themselves for the ruin already wrought. An unfortunate circumstance which occurred at this time doubtless added to the

bitterness of their feelings. Lieutenant MEIGS, a brilliant young officer, a son of the Quartermaster General, and an engineer officer on SHERIDAN's staff, was killed near Harrisonburg under circumstances which led to the belief that he had been murdered by guerillas. In retaliation, General SHERIDAN ordered all dwelling houses within a radius of five miles from where his body was found to be burned. The valley and adjacent mountains were infested by lawless partisans who were sheltered, fed and protected, by the people of the Valley; and, although it has since been claimed that this young officer met his death at the hands of a cavalry soldier of WICKHAM's brigade, the circumstances, as they at the time appeared, fully justified General SHERIDAN's action.

There are two principal roads extending the length of the Valley, the Valley turnpike, a broad macadamized thoroughfare, and what is known as the "Back Road," which extends along the west side of the Valley near the base of the North Mountain. MERRITT's division held the pike, while CUSTER with his division marched on the Back Road. We were followed on the pike at a respectful distance by LOMAX, while ROSSER who, with his brigade, was full of confidence, devoted himself to CUSTER. On the 8th, ROSSER became so persistent in his attentions that CUSTER's rear guard was engaged nearly all day, and it was found necessary toward evening to send the First Division to his assistance. General SHERIDAN, surprised and annoyed at this arrogance of a defeated enemy decided on the evening of the 8th, that he would halt his army for a day and give the cavalry of the two armies an opportunity to settle any little differences which might exist between them. That there might be no mistake as to his intentions he sent for General TORBERT and told him "To start out at daylight and whip the Rebel cavalry or get whipped himself."

Orders having been given for the whole command to be in the saddle at daybreak, we went to our rest with the consciousness that we had a tidy bit of work before us for the next day. Our camp this evening was on Tom's Brook, which runs along the base of Round Top Mountain about three miles south of Strasburg. We were in the saddle at dawn, and, as we moved out across the little stream in our front, the rosy light of the rising sun could be seen over the summit of the Massanutten Mountain, presaging a lovely day and, as we hoped, success to our arms. LOMAX and his men were already in motion, and as we came into position his lines could be seen forming in the distance. The Reserve Brigade was given the post of honor on the pike, with the Second Brigade on our right

and the First on the right of the Second connecting with CUSTER's left. The enemy's artillery opened as we began forming, got the range promptly, and pitched in their shells with fine accuracy until they were replied to by a section of WILLISTON's battery of our brigade, and obliged to change position. An advance of the enemy's right having been promptly checked by a rapid movement of our left, he now deemed it prudent to get his men out of the saddle and established behind rail barricades. Our artillery was kept well up to the front and made lots of trouble for the Confederate troopers in their attempt to establish dismounted lines. It now became evident from the sound of artillery on our right that our forces on the Back Road were engaged, and we proceeded to crowd our adversaries by a general forward movement. The artillery on this occasion distinguished itself by keeping well up with our advance; and, by pouring in canister at short range, contributed in a great measure to the demoralization and final rout of the enemy. The opportune moment having arrived, we leave the artillery to shift for itself and move into the pike. The charge is sounded—the whole line goes forward with a cheer—and we ride for the battery which is now directly in our front; they are too quick for us; all the guns but one are limbered up and off at a gallop before we can reach them. This one gun they appear willing to sacrifice for the sake of the execution it will do at close quarters. There is one discharge which has no effect toward stopping the head of the column; the cannoneers can be seen ramming home another charge; the gunner is making frantic efforts to get it off, but his nerves are evidently at fault, and while he is yet adjusting his lanyard we are upon him and the gun is ours. Nobody thinks of pausing to secure trophies; we have the advance, and pressing on are soon in the midst of the flying rabble, their officers in vain expostulating, cursing, and imploring them to stop. The blinding dust of the pike obscures everything; Union or Confederate, we are all the same color, and as we come upon their guns one after another, the drivers plying whip and spur in the vain effort to escape, it takes a saber stroke to enforce a command to halt. Wagons, caissons, and ambulances are passed, and still the chase continues. We leave to our comrades in the rear the work of securing prisoners; our only thought is to press on so that there shall be no possibility of their disorganized forces halting to reform. We dash through the streets of Woodstock, and the people, even though the flying cavalymen are their friends and neighbors, become so imbued with the excitement of the chase that they fairly cheer us on. Finally at the little town of Edinboro, eighteen miles from our starting point, when the last

trooper of LOMAX's force is clean out of sight and everything on wheels is in our possession. we pause to take breath and permit our scattered forces to reform.

The length of the chase was such that the question of who should keep the advance was largely one of horse-flesh. The little squad of officers and men who had had the good fortune to keep their places at the front, having halted a moment before crossing the river at Edinboro, was joined almost immediately by the brigade commander, Colonel LOWELL, alone and unattended, staff and orderlies having been left far behind. The remainder of the brigade soon came up, but as the work assigned to it seemed to have been completed it was there halted and reformed. The pursuit was at that point taken up by the Second Brigade and continued to Mount Jackson, eight miles further on, and twenty-six miles from where the attack was made. This affair has received the official designation of Tom's Brook; but the soldiers, having in mind the paudits of the fair Confederates in Woodstock as they chased their friends and sweethearts through the town, called it "The Woodstock Races;" by which name it will always be known by those participants who were on the winning side. ROSSER in his encounter with CUSTER on the Back Road fared no better. His forces were routed and pursued, on the jump, some fifteen miles, with the loss of all his guns, baggage-wagons, etc. There were eleven guns captured altogether in this fight; five by our forces on the pike, and six by CUSTER. Several of them were quite new and just from the factory at Richmond, and were said to have been marked, "General P. H. SHERIDAN, care of JUBAL EARLY."

The decisive results of this cavalry action caused it to take rank as a battle; and the thanks of the War Department were tendered to General SHERIDAN and his cavalry in the following dispatch:

WAR DEPARTMENT, WASHINGTON CITY.

October 12, 1864—8 P. M.

Major General P. H. Sheridan:

This Department again tenders its thanks to you and through you to Major General TORBERT, Generals MERRITT and CUSTER, and the officers and soldiers under their command for the brilliant victory won last Sunday, by their gallantry, over the Rebel cavalry in the Shenandoah Valley. Under gallant leaders, your cavalry has become the efficient arm in this war that it has proved in other countries, and is winning by its exploits the admiration of the Government and the country.

(Signed)

EDWIN M. STANTON,

Secretary of War.

This was about the last of the Confederate cavalry in the Valley. In the organization of the Confederate cavalry each trooper owned

his own horse, receiving from the Government a per diem allowance for its use. The divisions of LOMAX and FITZ LEE were largely recruited from this region, and the destruction of the forage and crops, and the driving off of all the horses in the Valley was a severe blow to their efficiency, as it rendered it not only difficult for them to subsist their animals, but impossible for them to procure remounts or to afford their worn out animals an opportunity to recuperate. As bearing upon the "saber question," it may be of interest to quote from EARLY's report of this affair to General LEE, in which he says: "LOMAX's cavalry is armed entirely with rifles, and has no sabers; the consequence is, they cannot fight on horseback, and in this open country they cannot fight successfully on foot."

MOSES HARRIS,  
Captain, First Cavalry.

## TROOP AND COMPANY PACK-TRAINS.

**T**HE system of pack-animal transport used in the United States and Mexico is of Spanish origin. The Spaniards excelled the rest of Europe in their art, and their descendants in Mexico improved upon them. The discovery of gold in 1848 suddenly peopled the mountains of California with thousands of miners, and large towns sprang up hundreds of miles from the coast. In the early days these were all supplied from the sea-board and from points on the Sacramento and San Joaquin river, by pack-trains, introduced and managed by Mexicans and native Californians; but many Americans soon engaged in this profitable business. Although the railroad and wagon train soon superseded these pioneer carriers throughout the greater part of the State, they never entirely displaced them; and there remains a mountainous mining district about 250 miles long by 150 miles wide, in northwestern California and southwestern Oregon, in which all freighting is done by pack-trains, which are organized, equipped and conducted according to what the long experience of intelligent men has proved to be the best methods.

\* \* \* \* \*

The Department of Arizona, owing to the nature of the country and the service which the troops there are liable at any time to be called upon to perform, is better provided with pack-trains than any other. Nearly every post has a large one, and during my service there, January, 1885, to July, 1887, each troop of the Fourth Cavalry had its own train. A description of that of Troop "B," of which, as troop quartermaster sergeant, I had charge for a year, will fairly apply to all. The troop received from the Quartermaster's Department twelve mules, two of these for saddle animals and reliefs in case of accident, and ten aparejos and rigging complete. The mules were quartered in the troop stables, forage and other allowances being drawn for them, shod by the troop blacksmith, and turned out daily with the troop horses, so that they soon became attached to them and

indifferent to others, therefore easy to herd. They were looked after by the wagoner, farrier and stable orderly. These men were taught to pack and frequently practiced. So were others. The aparejos were kept in the stables. The quartermaster sergeant had charge of the stables, pack-train and kitchen, and drew and accounted for the forage, stable allowances and rations. He was required to have always on hand in the store room of the troop quarters ten days' rations, liberally estimated, with other articles necessary for taking the field, viz:

Flour .....	500 lbs.
Hard bread .....	50 "
Bacon .....	350 "
Sugar .....	75 "
Coffee .....	60 "
Beans .....	50 "
Salt .....	25 "
Baking powder .....	20 "
Box of ammunition (carbine) .....	110 "
Box of mule shoes and nails, (two shoes and nails per mule) about .....	25 "
Six camp kettles, about .....	40 "
Two mess boxes, about .....	15 "
Twenty mess pans, about .....	10 "
An axe, spade, small coffee mill, two butcher knives, two long forks, two long spoons, three or four tin plates, three frying pans, a few farrier's remedies, soap, pepper and matches, about .....	25 "

An excess over the ration, of one hundred pounds of flour and bread, fifty pounds of bacon, fifteen pounds of sugar and twenty pounds of coffee; allowing for the contingency of guides or couriers being attached for rations; for any necessity for "making the ration hold out a little longer;" and for the tendency of men, in the absence of vegetables, to consume an over-allowance of the above-named "component parts." The mess boxes were of light wood, about two and one-half feet long, one and one-half feet wide, and two feet deep, strengthened and made practically water tight by a rawhide cover. Six camp kettles were necessary because water was sometimes found in places inaccessible to live stock, whence it had to be drawn by ropes and kettles. One of the mess boxes then served as a watering trough, and the animals were watered without interrupting the work of the cook and baker. The coffee was roasted and placed in a bag made of a rubber blanket and was, once a month, taken out for use and replaced. The total weight of the above, including an officer's bundle of about thirty pounds, and twenty pounds of fresh bread always taken upon starting out, was about 1400 pounds, or an average of 140 pounds per mule, which the necessary protecting covers

brought up to about 145 pounds. Everything was weighed and divided into ten loads, of twenty side packs, allowance being made and places left for the bundle and fresh bread referred to. The camp kettles, being of three sizes, were telescoped into two sacks, ready for slinging over a pack. With each load were laid the sling-rope and lash-rope for lashing it to the aparejo.

The quartermaster sergeant and farrier slept in the stable. Upon notification at night of an order to move out, these men began putting the aparejos on the mules, being soon joined by four or five men from the quarters. The party then saddled, mounted, took the mules to the store-room, lashed on the packs, and joined the troop, which, generally within half an hour from the receipt of the order was out of the post—usually in less time than if ordered out during the day, there being no herd to be brought in, nor men dispersed about the post on various duties to be sent for. On the march the train followed at sufficient distance to prevent the mules crowding in among the horses when the troop halted or was crossing bad ground. The cook and baker rode ahead, with one man, to keep the mules together during halts or to halt them when necessary, while four others rode in the rear, where the packs could be overlooked. The mess boxes were borne by the "kitchen mule," an animal selected for its good behavior, steady habits, and easy gait—shaking its rather miscellaneous load as little as possible—which always kept the trail, and could be easily caught when its pack needed adjusting. Upon reaching camp the mules were turned out with the horses or picketed, according to circumstances. Every soldier, as soon as he had finished his duty to his horse, brought an armful of wood for the cook and baker, these men having no assistants.

The twenty pounds of fresh bread was taken for the first meal after reaching camp. The hard bread was reserved for emergencies; to be used when from lack of fuel or reasons of precaution, the baker's large fire could not be built, and for issue to men detached for service away from the troop, as couriers, etc. The baker was required, after the first camp, to keep us always provided with bread for at least one day ahead. He baked in the twenty mess pans mentioned. These pans were of sheet iron, circular, and made in two sets, one about twelve inches in diameter across the top and nine inches across the bottom, and the other about eleven inches across the top and eight inches across the bottom. All had the same depth,—about five or six inches. They were thus very easy to pack in the mess boxes. The baker commenced by digging a trench a little over a foot wide and a foot deep, and about twelve feet long, built a fire

near it, and then mixed forty quart cups of flour with salt, baking powder and water in one of the mess boxes, and divided the dough as nearly as he could into ten equal parts, each of which was placed in one of the ten smaller mess pans. He then covered the bottom of the trench with a layer of coals about three inches thick, placed upon this layer the mess pan containing the dough, and covered each by a larger pan, bottom up, the sides extending around and below the edge of the lower pan and protecting its contents from ashes and dirt. He next filled the trench and covered the tops and sides of the double pans with coals, making an oven from which, in an hour and a quarter, he took ten loaves of four rations each. No separate cooking was done for the officers. Each carried his own mess kit and lived on the ration, paying therefor into the company fund. Every evening the packs were rearranged, the weights fairly distributed, the ropes put in place, and such changes as were necessary made in the rigging, shifting the side stuffing, lengthening or shortening the crupper, etc.

\* \* \* \* \*

The foregoing describes a train attached to a cavalry troop, much lighter laden than under ordinary circumstances, because held ready to keep up with it at the walk, trot and gallop for twelve or fifteen hours a day, for several consecutive days, over rough country. The horses were favored by their riders sometimes dismounting and leading them, and by their saddles being occasionally removed, or cinches loosened, if only for a few moments. Besides, they carried live weights, but the pack-mule carried its dead load all day, without a moment's relief. Every halt was taken advantage of to cinch it tighter, and if it were stopped on the march for an adjustment of its load it made up for the delay by increasing its gait. I have known the troop to travel for three days in the Sierra Madre with the men dismounted and leading their horses almost the entire distance. It once made 140 miles the first three days after renewing rations, and in each of the above cases the pack-mules kept up, though some of them suffered very much. The troop spent five months in Mexico in 1886. For the first six weeks it was supplied by a large train which kept in its general course as a moving base of supplies. Whenever rations were drawn from this train fresh mules were taken to replace those which appeared to be weakening, the latter being received into the large train. After six weeks it was found better to have the large train accompany the troop, and it did so, the troop train being included in it, and all enlisted men being relieved from duty with it. Under those conditions, this was certainly the best plan. But when a troop is held ready to take the field at short notice

for scouts of ten or fifteen days, or longer, even in a section where it can be easily re-supplied without great deviation from its course. I consider the troop train the best.

\* \* \* \* \*

Among the California, Oregon and Idaho trains, no mule carries less than 300 pounds, some of them 400, and I once saw one on Klamath river, California, loaded with an iron casting weighing over 500 pounds. But they travel from twelve or fifteen to eighteen or twenty miles a day, over good trails, and are well cared for under a perfect system. The moment a pack is observed riding too far to one side, too far ahead or behind, too high or too low, or aparejo or crupper appears too tight or loose, two expert men are at the mule's side, and the fault is almost instantly remedied. The gait of the best mules is the so-called running walk, which enables them to make the day's drive in as short a time as possible, without rocking their loads or shifting the aparejo. It is as hard on them to stand under a load as to travel under it; and, on the other hand, an hour's gallop is harder on them than a day's walk. The ordinary aparejo is generally used, and sometimes the Humboldt aparejo, so named from the county of California in which it originated. This consists of the ordinary aparejo, fitted over a wooden tree with cross-bar to which the sling rope is attached, projecting about two inches above the aparejo, and is used over very steep trails. Its advantage is the prevention of the sliding backward or forward of the load, which sometimes occurs with the common aparejo without too tight cinching, or rather lashing. Its disadvantage, besides its lack of adaptability to the backs of different animals and the absence of elasticity in the tree, lies in the fact that the improper placing of a load by an inexperienced man is almost certain to make a sore back, while with the ordinary aparejo it *might* only unduly tire the mule. The saw-back pack-saddle is very convenient for light loads and short distances; but the bearing surface is so small that, no matter how well fitted to the back, nor how heavily padded it may be, it cannot be used by the most expert man, with any considerable load, for more than a few days at a time without danger of giving a sore back.

A. A. CABANISS.

*Second Lieutenant, Twentieth Infantry.*

#### A RECONNAISSANCE WITH THE FIRST MAINE CAVALRY.

THE first of October, 1863, the Army of the Potomac was in bivouac about Culpeper, between the Rappahannock and Rapidan rivers. The Rebel army was south of the Rapidan. A movement by the Rebel army to turn the right flank of ours was discovered. GREGG's division of cavalry, to which the First Maine belonged, was guarding the right flank and rear of our army, and the camp of the First Maine was at Sulphur Springs, near Warrenton. On the morning of the 10th of October, in pursuance of orders, the regiment broke camp and marched southwesterly past the right flank of our army, and bivouacked at dark near James City. The next morning before daylight a staff officer brought orders to the colonel for the regiment to move out at once. "Boots and saddles" was substituted for "revueille." Blankets were rolled and saddles were packed in haste, and the troopers mounted for their second day's march, without breakfast. On that day, the 11th of October, our army retreated to the north side of the Rappahannock, and the First Maine cavalry did its share in guarding its rear and flank. At dark the regiment found itself back in its old camp at Sulphur Springs, which it had left on the morning of the 10th.

These movements are given, as preliminary to the reconnaissance to be related, to show that the men had been in their saddles and the horses on the march two full days already.

The next morning, October 12th, long before daylight, having been summoned to report to brigade headquarters, orders were received to proceed with my regiment to the Blue Ridge at Gaines Cross-roads, (Chester Gap), thence along the Blue Ridge via Little Washington to Sperryville, (Thornton Gap), to observe any movement the enemy might make in that direction and report promptly whatever of the enemy might be discovered. The important character of the reconnaissance ordered to be made was impressed upon me by Colonel GREGG, the brigade commander. He authorized me to pick up and take along with my command a detachment of an-



other regiment which was on picket, and which would have to be passed through.

The regiment broke camp and started before sunrise, and proceeded to Gaines Cross-roads without halting. Small parties of MOSBY'S, WHITE'S or GILMORE'S men were seen in different places, but they caused us no delay. They were on the alert, however, and probably knew a great deal about the purpose of that grand movement of those two great armies which was already begun. At Gaines Cross-roads, the entrance to Chester Gap, Captain PAUL CHADBOURNE, with his troop, "I," was detached to observe and report to me whatever of importance might happen. The command then proceeded to Little Washington. On the way there a second observing party was detached and posted. On arriving at Little Washington, a detachment of one hundred of the strongest horses was selected and pushed forward under a field officer, (two field officers went, Lieutenant Colonel BOOTHBY and Major BROWN), to Sperryville, the entrance to Thornton Gap, with orders to return as soon as practicable. At the same time Lieutenant HARRIS, of Troop "F," with an escort of twelve men was sent back to Sulphur Springs with a report to the brigade commander, of our progress and all that had been done, and also that the command would return to Sulphur Springs as soon as the detachment returned from Sperryville.

Colonel BOOTHBY's detachment returned a little before sunset with nothing of special interest to report. One hour was allowed it in which to unsaddle, groom, feed and make coffee. At the end of the hour we started homeward, just a little before dark. On our way we picked up the last party that had been left on the outward march, and made no other halt till Gaines Cross-roads was reached. Captain CHADBOURNE had seen Lieutenant HARRIS and party pass that point on their way in. He had nothing else of importance to report. It was then decided to send Captain CHADBOURNE, with a detachment that had had the most rest during the day, to Sulphur Springs at once with another report, and put the rest of the tired command into camp near Amisville to rest till morning.

Captain CHADBOURNE and his detachment therefore took the lead and the rest of the command followed. It was some five miles to the proposed camping place. As we drew quite near to it and to the town of Amisville, Captain CHADBOURNE'S advance guard was briskly fired upon, and some of the men came back in confusion to the head of the column, where I was riding. It was supposed that the attack had been made by a party of guerillas who might have observed our going out, and were waiting in ambush for our return. In a few

moments, however, Captain CHADBOURNE came back and reported to me that a large force was in our front: that he was on higher ground and could see their camp fires far and wide. There were two dwellings near by, one on each side of the road, in which some poor white folk continued to live. Inquiries were made at those houses as to the troops in camp, and information was obtained that A. P. HILL'S corps had been going into camp about Amisville since three o'clock.

The two front troops were at once deployed to be in readiness to meet any attack. At the same time Lieutenant Colonel BOOTHBY was to go to the rear of the column, instruct the captains, while passing them, to face their companies about, and conduct the column back to Gaines Cross-roads. Upon arriving at the cross-roads, he was to put out a picket on the Culpeper road, find a guide who could conduct us across the country to Orleans and then wait till joined by me. As soon as the column got well out of the way, the two deployed companies were ordered to withdraw and follow it, and with a small party I followed in the rear. We crossed a small creek and stopped to tear up the bridge over it, when a squad of the enemy that was pursuing, suddenly came upon us in the dark. We captured two of them and took them along with us.

On arriving at the cross-roads I found that BOOTHBY had secured a colored boy some fourteen years old for a guide. The boy said he had never been to Orleans, but "know the way most thar; it is only a hog path part way." It was now midnight and we were cut off by the Rebel army, but were not in any immediate danger of being captured. If we had thought only of our own escape we would have gone through Chester Gap towards Front Royal, thence through Manassas Gap, and thus back to our army by a long and safe detour. But we were the possessors of most important information relating to the welfare of our army. If General MEADE remained at Rappahannock Station during the 12th, then we knew that LEE was fully abreast of him in a race for his communications to his rear. And had we known then the fact that three of our army corps had actually recrossed the river and marched toward Culpeper on that day, we would have been even more strongly impressed with the necessity of reporting promptly. Our object, therefore, was to get back to our army by the shortest line: to graze the enemy as closely as possible and not get caught. We were on the south side of the north branch of the Rappahannock, which we had always crossed near Amisville or at Sulphur Springs, and were now cut off from both those fords. It was therefore necessary to find a new route across



in a piece of woods to remain while the column was passing, because he said "those soldiers in the rear will not let me take this horse if they see him." It is quite possible that he was right. Soon after dismissing the guide we reached the Warrenton turnpike.

Our route thus far had been chosen upon the supposition and hope that our forces were still at Warrenton; and, as we drew nearer the town, speculation was rife at the head of the column as to the probabilities of the case. We were hoping and rather expecting every moment to encounter the pickets of some of our forces. We were descending a hill through a thin belt of timber, when suddenly there was disclosed in the immediate front of the advance guard and just to the right of the turnpike, a camp of cavalry, all asleep, apparently. The column halted and Major THAXTER, of the regiment, without my knowledge, quickly rode into the camp and, sitting upon his horse in the very midst of the sleeping soldiers, called out, "What regiment is this?" A man raised his head and replied, "The Twelfth." "The Twelfth what?" asked the major. "The Twelfth Virginia, you damn fool!" was the Virginian's indignant reply. The major returned even more quickly than he went and, in a very loud whisper, reported, "Colonel! Colonel! it is the Twelfth Virginia Cavalry!" In the meantime a volunteer had been called for to ride into camp to determine the matter, and was just receiving instructions what to do and how to do it, when Major THAXTER so unexpectedly to me reported his discovery.

We then concluded, as was afterwards shown to be true, that the main body of Rebel cavalry was still in our front. This "Twelfth" regiment that we had run into was in a place of supposed safety, being between the main body of their cavalry and a corps of their infantry. There was no one stirring in camp, not even a camp guard. It is very possible that we might have captured the whole regiment. But capturing regiments was not in our line just then. We had just as much elephant already as we wanted to carry.

The fence was ordered to be thrown down on the north side of the road and the column headed northward over fields, pastures, stone walls, woods, high lands and low lands. Before the rear of the column left the road the "Twelfth" was considerably astir, but did not pursue.

New Baltimore was northeast from us, and there is a turnpike from Warrenton to that town. It was possible that the enemy had advanced even to that place. It was therefore desirable to proceed parallel with the turnpike at a distance from it, in order that we might approach New Baltimore from the northwest by the Thorough-

fare Gap road and thus avoid the possibility of again being cut off by the enemy. We had no apprehension of being captured, because we had an open country to the northward and could make a safe detour in that direction from any point, but, as before stated, we wanted to return to our army by the quickest and shortest line to tell it what we knew; yet we could not incur the risk of being cut off again at New Baltimore, because it would be daylight before we could get there.

It was about three o'clock in the morning when we ran into the "Twelfth," and took a new departure across the country. There was no moon and it was more or less cloudy all night. Yet it was not a very dark night. More or less stars were visible all the time. We picked our way the best we could for several miles, and came to a fine looking plantation house surrounded by trees whose shade made the entrance through the enclosure quite dark.

A loud rap brought an elderly and refined appearing gentleman, accompanied by a colored boy who may have reached his teens, to the door. In the dark they could not tell who, nor how many we were. I learned from the gentleman that our cavalry had retired through Warrenton, followed by the Rebel cavalry, the day before, and that considerable fighting had been done. I also learned that we were about a mile northwest of the Warrenton and New Baltimore turnpike, and that we were then on a road by which we could approach the latter place from the northwest as desired. We took the colored boy for our *third* guide who conducted us by the indicated route, and we reached new Baltimore between daylight and sunrise—a "bright rosy morning." The only person discovered was one Rebel cavalryman riding over a hill beyond the town in the direction of Warrenton. He had probably availed himself of the opportunity to visit home or his sweetheart for a night. We passed through the little town and took the turnpike in the direction of Gainesville. We came to rising ground from which the turnpike in our rear could be seen a long distance, and upon which a patch of corn had been cut up and shocked. Here we formed line faced to the rear, fed our horses and unsaddled and groomed them by detachments. Many of the men made coffee.

After an hour's rest, we resumed the march by the shortest route to Bristoe Station. Major BROWN, of the regiment, was dispatched to find and report to proper authorities our discoveries. He found army headquarters at Catlett's Station. As soon as it was discovered there who he was, where he had been, and *what he knew*, he became quite a lion, and he also knew how to make the most of the situation.

At a subsequent interview with General MEADE, he emphasized to me the great value of the information which I sent him by Major BROWN at that time. For two days he had not received any reliable information of the movements of the Rebel infantry, and was worried and annoyed in consequence. He blamed our cavalry for inefficiency, while in fact, as it subsequently appeared, the cavalry had done and was doing its best. The two cavalry forces were fiercely contending on the 13th for the ground between the two armies, and each became a curtain to conceal the infantry, which the other could not penetrate.

Continuing our march, we arrived in the vicinity of Bristoe Station about midday. We selected a comfortable place and abandoned ourselves to rest and sleep. The next morning we crossed the railroad but remained in the vicinity of Bristoe most of the day, watching the interminable wagon trains hastening to the rear through Brentsville. In the afternoon A. P. HILL's corps arrived at Bristoe Station and gave battle to our Second Corps, which lasted till after dark. Before dark we moved back to Manassas Junction, where we waited and observed the retreating columns of our infantry till late in the night. We did not make any special effort to find our command. The army was retreating and our division might come to us sooner than we could go to it.

Near midnight the last of our infantry passed us. Our cavalry division was passing to the rear below us at Union Mills, but we did not know it then. So we resumed the march and followed the infantry across Bull Run to the higher ground toward Centreville.

As soon as we crossed Bull Run we were among the camps of the infantry, much to their indignation. Infantrymen never had much use for cavalry except when the latter was well to the front between them and the enemy. It was a mortal offense for cavalry to cross their line of march or to invade their camps. On this occasion we were orphans, or rather vagrants, and did not belong to anybody. We therefore meekly picked our way among their bivouacs until we found a space large enough to form on and dismount. The cavalymen then quickly sought their beds beneath their horses' heads, each with an arm or leg through the bridle for a hitching post. Next morning, however, found us surrounded by many friends, among whom I especially and pleasantly remember Colonel FRANK HEATH, of Maine.

During the forenoon we learned that our division was in the vicinity of Union Mills and Fairfax Station, and we had started for the latter place to join it, when we were met by General WARREN who gave me orders to turn back, advance to Manassas or beyond,

until we found the enemy, and capture some prisoners if we could. Frequent reports were to be sent back to him. We advanced to Manassas and met the Rebel cavalry just at Fort Beauregard. We skirmished with them and held them in check till they brought some artillery to the front. We then fell back slowly to Bull Run again. Our batteries behind Bull Run opened upon the advancing enemy at long range, and an artillery duel and considerable skirmishing followed.

Soon after we met the enemy at Fort Beauregard, a young staff officer, a stranger to me, was noticed near the skirmish line. I asked him if he had any orders to communicate or suggestion to make, and he courteously answered that he had not, but only wished to observe. I soon forgot him. Perhaps I did not even learn his name at the time. Since then, however, he became my friend, and, for a time, my commanding officer, and recalled to me that occasion of our first meeting. His name was R. S. MCKENZIE.

The same evening we marched to Fairfax Station, where we arrived at a late hour. The next morning, the 16th, after an absence of four days, we rejoined our division and drew our forage and rations amidst congratulations and honors. We had been officially reported as captured.

We marched all day the 10th, all day the 11th, all day and night the 12th, were cut off twice by the enemy and employed three guides. We marched almost all day the 13th, were moving all day and night the 14th, and were marching and fighting all day the 15th. This is only a brief chapter of the services of the First Maine Cavalry.

This narrative should not be closed without a relation of the adventures and misfortunes of Lieutenant HARRIS and party, who were sent back from Little Washington on the 12th with a report.

The party passed Anisville before HILL's corps arrived there, but when it reached Jefferson, near Sulphur Springs, it encountered the Rebel cavalry. The party then retraced its steps to return to the regiment again, but before it reached Anisville it encountered the Rebel infantry and was thus hemmed in between the two forces. Lieutenant HARRIS avoided detection, took his party into some thick pines and concealed horses and men. Before dark two Rebel soldiers wandered into the same place and were taken prisoners right within their own camp. During the night Lieutenant HARRIS abandoned his horses, horse equipments, and sabers. The men took only their fire arms and their two prisoners. Thus Lieutenant HARRIS conducted his party out through the Rebel camps and across the river into the country northward.

The next morning they met WHITE with a small party of his scouts who demanded their surrender. Lieutenant HARRIS took position behind a stone wall, displayed the two prisoners from the top of the wall and challenged the enemy to shoot. WHITE evidently took in the situation, because he passed on. HARRIS then proceeded to the vicinity of Thoroughfare Gap, where he met MOSBY with a large force to whom he had to surrender. The party was taken back to Sulphur Springs where it arrived after dark. There was our old camping ground. We all had left there only about thirty-six hours before and HARRIS knew the place well. There was a small frame house with a hall through the center. The entrances, both front and rear, were rather high and the steps of the rear door had been taken away, leaving it quite inaccessible. The door was too high for one to even jump from to the ground with safety, especially in the dark. The captives were shown into the front door of this house and ordered to go into the room to the right. The men went into the room, but Lieutenant HARRIS slipped quietly through the hall, lowered himself to the ground from the back door and concealed himself in some tall weeds. The captors soon produced a light to identify their prisoners when, behold! the officer was not there. Search was made for him indoors and outdoors, without success.

The retained captives were soon sent to Richmond. Lieutenant HARRIS concealed and subsisted himself several days within the enemy's lines, until the Rebel army retreated again to the Rappahannock, tearing up the railroad as it went, and our army in turn advanced to Warrenton Junction, at which point he reentered our lines.

Lieutenant HARRIS was a brother of gallant General B. F. HARRIS of the famous Sixth Maine Infantry. They served their country with sacrifice of limb and life. Lieutenant HARRIS was as brave and indomitable as the foregoing narrative indicates. He met a soldier's death while on picket, May 16, 1864, at Jones Bridge, on the Chickahominy.

C. H. SMITH,  
Colonel Nineteenth U. S. Infantry,  
Brevet Major-General U. S. A.,  
Formerly Colonel First Maine Cavalry.

## KILPATRICK'S RAID AROUND ATLANTA, AUGUST

18TH to 22D, 1864.

AFTER the failure of the cavalry movements against the railroad about Jonesboro, under STONEMAN and MCCOOK, General SHERMAN became convinced that cavalry alone could not establish a permanent lodgment on the railroad below Atlanta, and therefore concluded to move so as to reach it with his main army. With this in view he reorganized his cavalry into three divisions under Generals GARRARD, MCCOOK and KILPATRICK. KILPATRICK was placed in the right rear in support of SCHOFIELD'S exposed flank. GARRARD remained on the left and McCook's division was held somewhat in reserve about Marietta and the railroad.

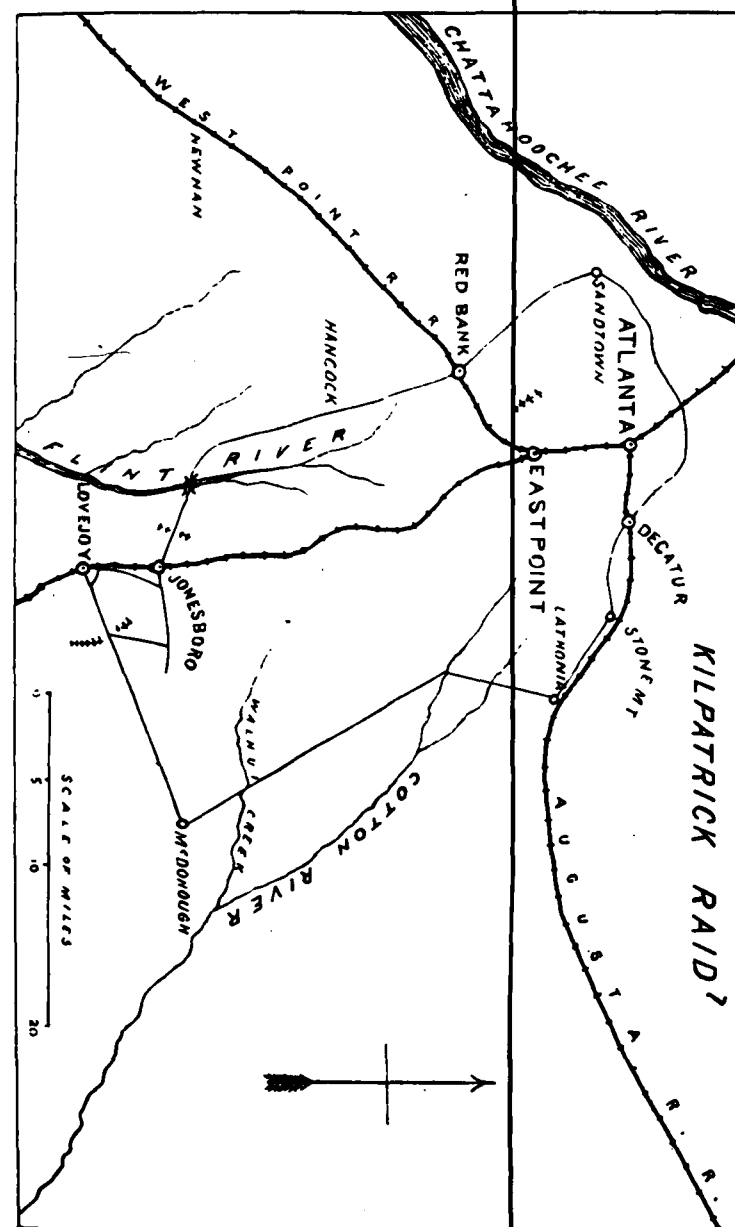
A large portion of the Confederate cavalry under WHEELER had been dispatched around the left flank of SHERMAN'S army, and struck the railroad about Resaca. Another detachment of the enemy's cavalry appearing at Allatoona led General SHERMAN to believe that Hood had sent about all his cavalry to raid upon the railroad.

General SHERMAN at once ordered strong reconnaissances forward from both flanks. He was so well pleased with the dash and activity of KILPATRICK'S work, together with its success, that he concluded to suspend the general movement of the main army, and send him with his division to break up the Macon road about Jonesboro, hoping that it would force HOOD to evacuate Atlanta. With this in view two brigades of GARRARD'S division were dispatched from the left flank to the right rear to act as a reserve in support of KILPATRICK. These two brigades were commanded by Colonels MINTY and LONG, MINTY the senior, and were composed of the following troops:

First Brigade:		
Fourth U. S. Cavalry.....	273	Captain MCINTYRE
Seventh Pennsylvania Cavalry.....	329	Major JENNINGS
Fourth Michigan Cavalry.....	250	Major MIX
Headquarters.....	73	Colonel MINTY
Second Brigade:		
First Ohio Cavalry.....	346	Colonel EGGLESTON
Third Ohio Cavalry.....	477	Colonel MURRAY
Fourth Ohio Cavalry.....	479	
Headquarters.....	81	Colonel LONG
Artillery:		
Chicago Board of Trade Battery.....	90	Lieuts. ROBINSON and BENNETT
Total.....	2,398	

These brigades marched from camp near Peach Tree Creek, north-east of Atlanta, at 1 o'clock A. M., August 18th. At 6 A. M. they were halted on the banks of Utoy Creek. Resuming the march after a short rest they reached Sandtown, where Colonel MINTY reported to General KILPATRICK. In an article by Colonel MINTY in the *National Tribune*, under date of July 10th, he says that General KILPATRICK at once assembled his brigade commanders, turned over the command of his division to Colonel MURRAY, assumed command of the corps, and gave them a synopsis of his plan, viz: That they were to march at dusk, so as not to be seen by the enemy, reach Red Oak on the Atlanta and West Point railroad about 9 o'clock, and Jonesboro on the Atlanta and Macon road before daybreak; ambulances and wagons to be left behind, and no wheeled vehicles to be taken other than artillery. Colonel MURRAY's division to take the lead; to push forward as rapidly as possible for Jonesboro; upon striking the railroad at that point to begin its destruction; to move south continuing the destruction. Colonel MINTY to follow Colonel MURRAY keeping close until reaching the Atlanta and Macon road; there to take position forming line of battle between him and Atlanta, facing Atlanta. They expected to meet no enemy *en route* other than such as might be sent from Atlanta. The troops commanded by KILPATRICK previous to the arrival of the brigades above referred to, numbered 2,400 men and four pieces of artillery. (I have not been able to get the organization of this division), the total strength of his command being 4,798 cavalry and eight guns.

At the request of Colonel MINTY he was allowed to take his ambulances, on condition that they were to be destroyed if they impeded, in any way, the progress of the troops. The march was taken up about dusk, but the Atlanta and West Point railroad was not reached until daylight, at which time the rear brigades were ordered to the front. The leading brigade had crossed the railroad when the head of the one following was sharply attacked by artillery and VALE, in his "History of Minty's Cavalry," says, mounted infantry, but were repulsed, the aid of two pieces of artillery being brought into requisition. KILPATRICK then ordered an advance with instructions to drive the enemy towards Jonesboro. The country to the front was thickly wooded and poorly suited to the operations of cavalry. The woods were also barricaded. The leading regiment, the Third Ohio, was dismounted, and advancing on foot, drove the enemy in front of them across Flint River. The enemy here mentioned comprised the cavalry brigades of FERGUSON and ROSS. The bridge over Flint River had been partially destroyed and the enemy was posted on



the rising ground on the opposite bank in rifle pits. On the appearance of the Union troops the Confederates opened on them with artillery, which was answered by a similar compliment from a portion of the Board of Trade Battery. General KILPATRICK then ordered up the remaining pieces of artillery, which soon silenced the enemy's guns. Under cover of this fire, the two brigades under MIXT were dismounted and being advanced to a somewhat sheltered position along the bank of the river, opened fire with carbines and soon drove the Confederates from their rifle pits. A portion of the troops crossed over on the stringers of the bridge and forming a skirmish line continued to drive the enemy. The bridge being repaired by making a floor of fence rails, the rest of the command crossed over and, with the assistance of the artillery, the Confederates were driven into the town of Jonesboro.

Storming columns were formed and the enemy was forced from the town. This put the Union troops in possession of the railroad, the permanent disabling of which would be a stepping stone toward the forced evacuation of Atlanta, and deprive HOOD of the only remaining link of communication with the Confederacy.

The destruction of the railroad was at once begun, one brigade being detailed to hold the enemy in check while the work progressed. About two miles of road was destroyed, when, on attempting to move further south, it was found that several regiments of Confederate infantry under General REYNOLDS were strongly posted behind barricades of felled trees. Finding it impossible to advance farther along the railroad, KILPATRICK left one brigade to hold in check FERGUSON, ROSS and REYNOLDS, and moved off toward McDonough, intending, by a circuitous route, to regain the railroad at Lovejoy Station, and continue its destruction. Information had been obtained in the meantime that CLEBURNE's division of infantry and MARTIN's division of cavalry were en route from Atlanta to reinforce the Confederates.

While halted on the march toward McDonough (4 A. M.) the rear of the column was attacked by the Confederate cavalry, two brigades dismounted, and one brigade of infantry, but was repulsed by a counter charge of LONG's brigade, driving them back into Jonesboro. After proceeding about five miles toward McDonough the column turned toward the right, by a road leading directly to Lovejoy Station. When about one-and-a-half miles from the station, one regiment, the Fourth Michigan, was detached and sent by a branch road to the right, which crossed the railroad about one mile above Lovejoy Station. These troops succeeded in reaching the railroad and doing

some damage, but were shortly afterwards instructed to rejoin the command.

The main column, while advancing toward the station, struck a body of the enemy, mounted, about a mile from it, charged and drove them for several hundred yards, when a strong force was developed in front. One regiment, the Seventh Pennsylvania, was dismounted and pushed forward as a line of skirmishers to within a short distance of the railroad. The woods were thick along the roadside, and the railroad at this point ran through a cut, from three to four feet deep. REYNOLDS' brigade of infantry was posted in the cut and extended beyond both flanks of the Union skirmish line. Seeing this, the Fourth U. S. Cavalry was detached to extend and protect the flanks, one squadron to the left and the remainder to the right. It moved into position at the gallop, and was dismounted and moved forward at double time. When near the railroad the Confederates fired a withering volley, and springing from the cut, with a yell charged over the skirmishers and were only checked when another brigade was brought into position, and with the aid of four pieces of artillery.

While the head of the column was receiving such rough treatment the rear was attacked by a portion of CLEBURNE's infantry and ROSS' and FERGUSON's cavalry, driving it forward to the forks of the road before mentioned, where line was formed by the rear division, and, with the assistance of four pieces of artillery, the advance of the enemy was checked.

The position at this time was about as follows: In the rear of the Union troops were two brigades of CLEBURNE's infantry, ROSS' and FERGUSON's brigades of cavalry and about a thousand State troops, which had been sent up from below Lovejoy; closing in on the right were the remaining brigades of CLEBURNE's infantry. MARTIN's and JACKSON's divisions of cavalry were in rear of the left. A brigade of infantry and six pieces of artillery had been sent up from Macon, and were at Lovejoy Station. REYNOLDS' infantry, as before stated, was along the railroad in front. There were also twelve pieces of artillery which had been sent down from Atlanta. It thus seems that there were surrounding the Union troops five brigades of infantry, eighteen pieces of artillery, and six brigades of cavalry; in all, a force of twelve thousand men of the three arms. As before stated, KILPATRICK had the Second Division with four pieces of artillery, (at this time one disabled) and the Third Division with four pieces of artillery; in all 4,798 cavalrymen and seven guns.

Finding himself completely surrounded by such an overwhelm-

ing force, he called his division commanders together and instructed them to cut their way out, designating as the point to strike, an old deserted plantation. We see that up to this point, although his command was composed exclusively of cavalry and field artillery, the cavalry had been fighting almost entirely as infantry; but now his troopers were to be accorded the privilege of a cavalry charge in its true sense, and their sabers which had been allowed to rust in their scabbards during the expedition, were to be brought into requisition.

KILPATRICK, a cavalry general, remembering the mistakes which had been made on a former expedition for the same purpose, instead of scattering his troops, massed them. Colonel MINTY, with the Second Division was ordered to form on the right of the McDonough road and Colonel MURRAY with the Third Division on the left, both facing to the rear, that is, toward McDonough. One regiment of the Third Division had been left in the rear to hold in check REYNOLDS' infantry about the railroad cut. The Second Division was formed with Colonel MINTY's brigade in front, in line of regiments in column of fours, with regimental interval. The Seventh Pennsylvania on the right, Fourth Michigan in the center and the Fourth U. S. on the left. Orders were given Colonel LONG to form his brigade in close column of regiments in rear of the leading one. There seems to have been either considerable confusion or disobedience at this point, for LONG, in the charge, followed the leading brigade in column of fours and the Third Division, after a gap was made along the road, took up the march for McDonough. The ground over which the charge was to be made was cut up with washouts and crossed by two rail fences. The Confederates had formed in three lines about fifty yards apart and constructed barricades of fence rails. While these preparations were being made the troops were exposed to the fire of two batteries of artillery, one in front and one right front. When the charge was sounded the First Brigade bore down upon the Confederates, breaking through the fences and riding over the first and second lines, scattering and sabering the men and capturing their artillery. The third line broke and fled in confusion. The Confederate cavalry, it seems, did not wait for the contact, but fled before the charging columns reached them; the first two lines stood firm keeping up a continuous fire until ridden down by the cavalry. After the charge the Third Division took up the march through McDonough, the Second Division being instructed to cover the retreat. No effort seems to have been made to ascertain the number of killed and wounded, or to capture many prisoners, and most of those taken were allowed

to escape. Possibly KILPATRICK did not care to be burdened with them, as the sole object of the expedition was to destroy the railroad. It is, however, claimed by VALE that at one time there were at least four thousand Confederates killed, wounded or prisoners in the Union hands. Colonel MINTY says that at least eight hundred Confederates were sabered, and the Confederate battery and about six hundred prisoners were captured by the First Brigade.

The following is an extract from the *Memphis Appeal*, Atlanta, Georgia, early in September 1864, and is inserted as the only account of the affair at Lovejoy from the Confederate standpoint that I have been able to obtain. It will be seen that the account concerning the conduct of the Confederate cavalry differs materially from that of the Union commanders:

"The newspapers have lately been full of accounts of how MARTIN's division of cavalry was run over by the Yankees at Lovejoy on the 20th ultimo. The writer was on the field on that occasion and in justice to the much abused cavalry states the facts in the matter: MARTIN's division supporting the battery was formed on the McDonough road. ROSS' and FERGURSON's commands on foot were in front and on each side of the battery, behind rail breastworks. A brigade of CLEBURNE's infantry was on the left of the road in three lines, the last one in a piece of woods. About one hundred yards in rear of the position of the battery, on the right of the road (east side) the State troops were formed in line. When the Yankees charged they came in a solid column, ten or twelve lines deep, running their horses and yelling like devils. They didn't stop to fire or attempt to keep any kind of order or formation, but each fellow for himself rushed on swinging his saber over his head. They rode right over ROSS' and FERGURSON's men in the center, and over and through CLEBURNE's lines one after the other on the left. CLEBURNE's first line, they say, tried to use their bayonets, but the Yankees cut them to pieces. After the Yankees had cut through all the other forces and captured the battery, MARTIN, seeing the field was lost, retreated in good order to the east and joined CLEBURNE's main body, and aided in the final defeat of the enemy on the McDonough road that evening, and pursued them to and through McDonough that night, recapturing nearly five hundred of our men which they took in the charge. The effort to arouse the people against MARTIN and his brave division is more disgraceful and demoralizing than the Yankees' charge itself, and should be frowned upon by all who wish well to our cause."

The command being under way toward McDonough, Colonel LONG was directed to cover the retreat with his brigade. The Confederate troops from about Lovejoy coming up made a furious attack upon this brigade, the fight lasting nearly two hours. It was finally withdrawn with a loss of ten per cent. of the men killed, and its commander seriously wounded.



The Confederates followed for some distance but were held in check by the rear guard of Long's brigade, consisting of two regiments and two pieces of artillery. Both guns becoming disabled were withdrawn, and a heavy rain setting in, the Confederate attack ceased.

The column passed through McDonough about midnight and made a short halt at Walnut Creek about 2 o'clock A. M.; but by the time the rear of the command had closed up, the march was resumed and Cotton River was reached about 6 A. M. The heavy rain had so swollen this river that the bridge was carried away, necessitating a delay of about two hours until the stream subsided, after which it was crossed by swimming the horses, a number of which, with many pack animals, were drowned. It being impracticable to get the disabled cannon across, the wagon in which they were being transported was destroyed and the cannon buried, and the site marked as the graves of two soldiers of the Fourth U. S. Cavalry. A long and tiresome march was kept up until after dark, when the command bivouacked at Lithonia on the Augusta railroad, and here obtained the much needed rest and sleep, of which it had been deprived since its departure from Sandtown on the 18th.

On the following day, the 22d, the march was continued through Latimer and Decatur terminating at Peach Tree Creek, thus completing the circuit of both armies in five days. The casualties in the Second Division were: total, officers 14, men 192. I have not been able to get the same information regarding the Third Division.

General SHERMAN says in his "Memoirs," that on KILPATRICK'S return he reported that he had destroyed three miles of railroad, etc., which it would probably take ten days to repair, but that trains were seen on the following day, the 23d, running into Atlanta, so he became more than ever convinced that cavalry could not or would not work hard enough to disable a railroad properly, and therefore resolved at once to proceed to the execution of his original plan. The "Rebellion Records" not being in print for this period, and not having access to any official documents, I have taken the accounts of this affair from different writers, all of whom agree in the main features of the raid, but vary somewhat in the details.

W. S. SCOTT,  
*Second Lieutenant, First Cavalry.*

## A NEW LECTURE ON THE HORSE'S FOOT.

IN every stage of human progress the horse has been an important power, aiding independence and the development of commerce. The pony express carried mail from San Francisco to St. Joe with swiftness nearly equalling steam; VIRGIL immortalized the sound of the ringing hoof in song and rhyme; BEN HUR won the race with a team whose lineage records filled a trunk with ivory tablets; a Roman emperor built a palace for his horse; a legend tells us of a horse shod with shoes of gold; and CHILDERIC, chief of the Salian Franks, of the lower left bank of the Rhine, father of CLOVIS, first king of France, is recorded as having shod his horse's hoofs with iron, 481 A. D.

We have developed the horse in nearly every way except the very important one of increasing the strength of his hoof. In fact the hoof is weakened whenever we attempt to protect it with iron in the present orthodox manner.

We have but to compare illustrations "A" and "B," to be convinced how completely our efforts fall short of their aim, and how crippling the results produced by persistence in the present practice.

The former "A," is a natural unshod foot which remains unaltered throughout life; the other "B," is a hopelessly contracted foot, the painful result of our ineffectual efforts to make the horse stronger and last longer by shoeing.

Lameness interrupts the horse's continued usefulness more frequently than any other weakness. We have hunted for the cause of this trouble in fast driving, hard roads, bad workmanship, worse shoeing—all in vain, and concluded that it is a constitutional defect more flagrant in some varieties of horses than others.

That a horse must be shod to be continuously serviceable in all localities is a fact taught by centuries of experience.

The natural hoof shown in illustration "C," taken from the Encyclopedia Britannica and "D," photographed from nature, admirably exhibit the order of the details we are about to examine.

Underneath the last bone—the bone of the foot<sup>1</sup>—of which the

tips are enfolded each by a blue cushion, we find the thick yellow plantar<sup>2</sup> cushion; beneath this is a thick pink tissue,<sup>3</sup> the sensitive sole, and underlying this, the horny sole and frog<sup>4</sup> closing the horn box which constitutes the hoof.

I will point out the nature and relation of the principal details of the ground surface of the hoof, that we may instantly recognize any departure which another foot may present. Turn to "A" and "F"; measuring over all, the width is greater than the length.

The sole proper<sup>1</sup> is crescent shaped and has a horizontal grain along which the scales separate when it becomes redundant. The wall<sup>2</sup> and bars<sup>3</sup> whose grain is up and down, enclose the sole proper as a continuous rim. At the heels the wall and bar make with each other a horizontal angle of eighty-four degrees for the outer, and seventy-six degrees for the inner heel.

The bars incline toward each other in the triangular space between the heels, with a pitch from the vertical of sixty-two and sixty degrees for the outer and inner respectively, and the ridge space between them is filled in by the frog. See section "D."

The hoof that is never shod retains the relation of parts pointed out as constituting the ground surface of the foot "A" or "F"; but as soon as this foot is shod in the customary manner, changes set in, altering it thus:

The horizontal angle between wall and bars becomes less; the inclination of the bars toward each other becomes less also—they tend from this nearly horizontal position to become upright; the length of the foot becomes greater than the width, and the broad heel becomes narrower and grows higher in spite of the effort to keep it cut down. See "B."

After seven or eight years of constant shoeing, and work like that done by the car and cab horse, the hoof becomes like that in "B," in which the bars have become vertical, and thus ceased to be an element of safety and strength.

Having lost their broad, nearly horizontal, flexible position, they now stand upon edge, pressing into the quick at every step, and are a source of torture. Indeed, any day we can see a horse standing patiently in the street, easing and significantly pointing one foot and then changing off to point the other.

Take such a horse to the smith's, and the smith will declare, after examination of the hoof, that there is nothing the matter with the horse. Nevertheless he is suffering with what may be aptly described as an aggravated case of "ingrown toe-nail."

When barefooted, the entire plantar surface reaches the ground.

but when shod, the wall only reaches the ground by means of the shoe; the rest, i. e., the bars and frog, is held above the ground and is thus without direct point of support.

Let us examine the track of the bare foot made in half hardened mud or plaster and ascertain whether the weight carried by it is evenly or unevenly distributed; then what part of the plantar surface carries the most.

A glance at "E" shows us that the load is unevenly distributed, for parts of the plaster have been made very dense and smooth by pressure, and contrast strongly with the rest, which carried less weight and so remained rough and pitted. The imprint of the bars shows that they carried the greater weight, which is astonishing in the light of the usual shoeing practice, for they are ordinarily cut away and never permitted to rest on a firm support. The transverse section of the hoof ("D") enables us to appreciate the strength and carrying capacity of the bars, for in this they form an arch keyed by the frog.

We know that the greatest wear and tear are at the place where the greatest pressure and strength are exerted; and from this inspection of the track we deduce the following rules for guidance in shoeing:

We must not cut away the bars, neither leave them without solid support in mid-air, but we must include them in the weight bearing surface, and give them shoe bearing the same as the wall. To obtain this it is only necessary to widen the iron at the proper place, so as to spread over the bars as well as the heel.

My task ends with this recommendation: to shoe the bars as well as the wall. This is not an innovation, as the barefooted horse usually carries his weight on the bars and the point of the toe; for the quarters and sides chip and break away, while the bars, on account of obliquity, flexibility and location, are subject to wear only, as is clearly shown in "F." It is the privilege and duty of every lover of a horse to verify the foregoing facts, provided his experience does not already attest them.

Let us now carry our investigation to the iron surface which replaced the ground in the immediate touch with the plantar surface of the shod hoof.

Here is a well worn shoe "G" with large heel marks.

The estimate of size, depth and outline of the marks can be gained by seeing and feeling. We discover that the sides slope unequally; the steeper is found toward the outside of the shoe, and the gentler slope extends toward the inner side.

This shows that the heel which, as a rule, makes an angle of forty degrees with the ground, and approaches the horizontal still nearer while put forward in taking the step, glides along the top of the shoe in the direction corresponding to the inclined position of the horn of the heel.

The mark is a fact. The moving or yielding of the horn is also a fact, for it cut the mark, and, as this mark is deeper near the outer edge, and, as the direction of the horn is forward, the yielding must be forward and under.

Again, let us examine the nail-holes at the quarters and those next to them. We find that the rectangular form of the hole has been destroyed on the inner and forward side by the rubbing of the nail. See "G." This shows that at the quarters the horn springs or yields inward. These marks written on the iron, tell us then in positive terms that at every step the hoof yields under and inward, being firmly compressed with every effort made by the horse in progression.

We have already seen that the bars form an elastic arch of horn closed at the top by the frog. See "D." That this arch yields at every step is proclaimed by the mark on the shoe "H," where the base of the arch rested. The mark is there, so the yielding must have taken place. This yielding of the bar may be easily reproduced by a light card-board model of the hoof.

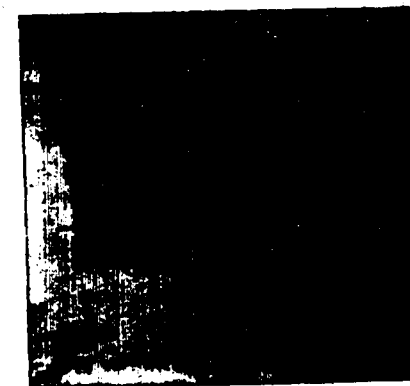
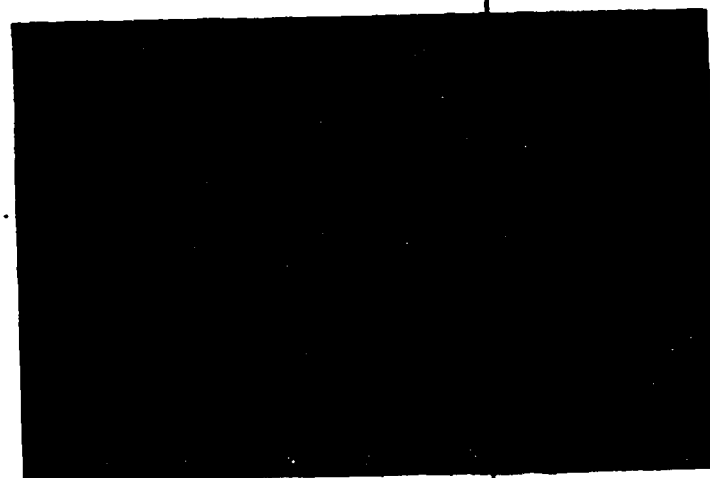
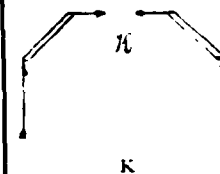
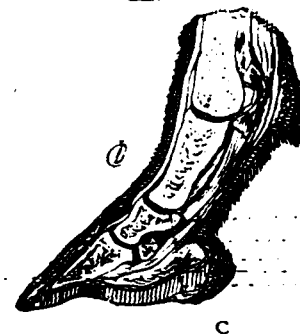
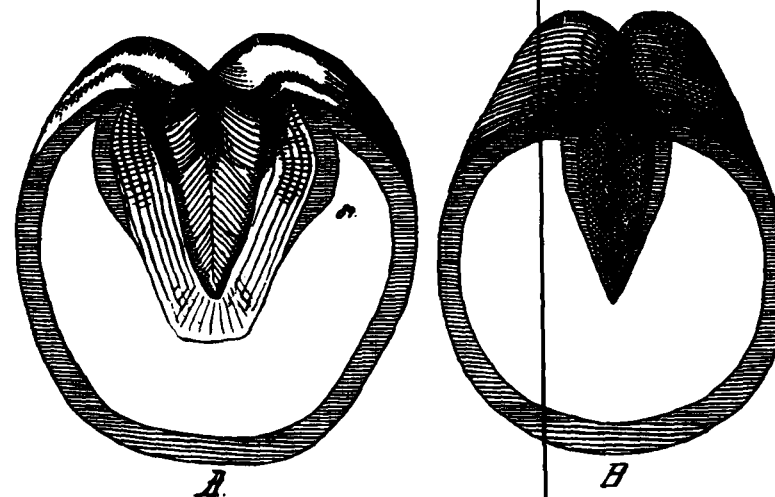
When such a model is subjected to a gentle blow, or a moderately exerted pressure, we shall see the heels yield forward and under, the quarters spring in, and the bars take up a compensating displacement which makes them nip the frog with a shearing action. The combined action of the bars and frog tends to dissipate all blows into horizontal components. See Figure "K." Now we all know that a horse will go lame very soon with a "picked up" pebble between frog and bar; for this pebble so placed, sends the blow of every step directly to the quick by spreading the arch apart at the summit.

We understand now why the hoof with unimpaired bars can stand the temporary loss of the external frog, through dry thrush or atrophy, and not be painful or lose strength.

On the other hand, in the contracted foot, in spite of scrupulous cleanliness and careful nursing, the frog will wither because deprived of the stimulating action of the bars.

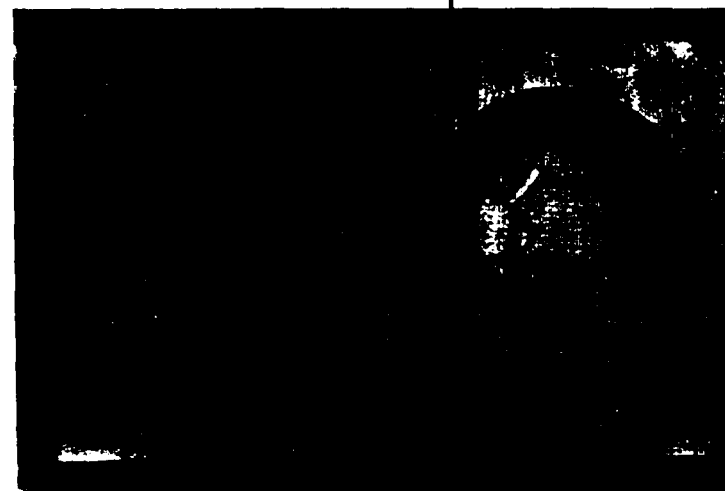
#### THE PRACTICAL TEST.

Horses in Troy and Albany, New York, have been shod agreeably to the foregoing principle for nearly two years now, with satisfactory





G



I



II

results. The shoe "I" is shaped to satisfy the principle, and in addition possesses length of metal for shoeing with calkins.

On the worn shoe "H," the bar has written as emphatic a mark as the wall has. No argument is therefore needed to prove that a part of the plantar surface of the foot which records its usefulness so distinctly ought not be cut away; and, furthermore, no horse can be deprived of its use without impairing the strength and value of the animal.

The practical use of the advocated principle will extend the endurance of shod hoofs so as to be coëval, like the barefooted hoof, with the natural length of the horse's life.

H. J. GOLDMAN,  
*First Lieutenant, Fifth Cavalry.*

### AN UNEXAMPLED RIDE—FROM THE PACIFIC TO THE BAL TIC ON A SINGLE HORSE.

**T**HE results of such a bold and hazardous journey are very instructive and therefore it is not astonishing that Sotnik \* D. PESCHKOF has attracted the attention of all, not only in Russia but throughout the whole of Europe.

The government, fully recognizing the merit of Sotnik PESCHKOF, who undertook on his own account and at his own risk this unexampled journey, rendered a triumphal reception to this young officer upon his entering St. Petersburg. Two regimental bands and a squadron of Cossacks under the command of General GREKOF (commander of the Life Guard Attaman Regiment) were sent to meet him. Besides this, the local military administrations arranged receptions for the rider as he passed through the towns of Tomsk, Omsk, Fämen, Perm, Kasan, Nijni-Novgorod, Moscow, Novgorod and Valdai. The cavalryman and his horse were weighed at several of these places.

Sotnik PESCHKOF brilliantly verified the almost legendary endurance, strength and boldness of the Russian soldier and the Russian cavalry horse. It is true that the marches to Paris in 1813, and those across the Balkans in 1877, and even the journey of ASSEEF on horseback to Paris last year sufficiently demonstrated the courage, perseverance and endurance of Russian military men and horses; but PESCHKOF, if he did not prove more, at least clearly demonstrated the valiant audacity and iron firmness of a Russian Cossack in struggling with cold, famine, dangers and apparently insurmountable obstacles.

The journal "*Novoié Vremja*" rightly says: "That from a cavalry point of view the journey of Sotnik PESCHKOF is absolutely remarkable and surpasses, probably, the excursion of Cornet ASSEEF to Paris, who, however, made greater speed, being provided with two horses."

\* Lieutenant of Cossacks

To know how to save the strength, both of horse and rider over such an enormous distance speaks for itself; and it is not at all remarkable that, everywhere, military men honor PESCHKOF as a welcome guest.

By passing the 5400 miles he showed: *First*, The possibility of traveling day by day for more than half a year on a single horse, with halts not longer than a night; *Second*, That a horse, well cared for, can go continuously 193 days without losing anything in weight and without becoming fagged or sick; *Third*, The possibility of making marches during hard winters with a temperature of many degrees below zero, through snow-drifts, snow-storms, etc.; *Fourth*, To the Military Department, a direct route from Blagovestchensk to St. Petersburg, indicating all the advantages and defects of the road; and *Fifth*, By personal experience, that another "impossibility" has been rendered possible.

#### THE START FOR THE JOURNEY.

The cold and severe Siberian winter had just begun. One evening in the far distant town of Blagovestchensk, (situated on the river Amoor) which the post, from St. Petersburg, requires two and one-half months to reach—there was an assembly of officers in consequence of the news respecting the journey of Cornet ASSEEF to Paris on two alternating horses. Much was said for and against the object of such an excursion; many jokes and jests were heard. The month of November came on and the first few lines relative to ASSEEF's journey arrived at Blagovestchensk after the close of the Paris exhibition and when ASSEEF was back at St. Petersburg. From Omsk, the Siberian center, to Blagovestchensk there are over 3300 miles of the most dreadful road without any proper means of communication. Here, one may find hundreds of miles without habitations, thousands of acres of forests and waste grounds; in some places roads, in the shape of tunnels, are cut through the thickest forests in which, for a distance of many miles, no daylight can be seen. Almost the entire population of these forests is composed of wild beasts and fugitive convicts.

"According to my idea, there is no glory in making a journey to Paris; I intend to undertake a trip to St. Petersburg on my 'Seri' (gray)" remarked PESCHKOF, who was at the assembly when the first news of ASSEEF's journey arrived at Blagovestchensk.

"What a joker that PESCHKOF is," laughed his comrades.

"I am not joking; I seriously intend to take a ride to St. Petersburg," replied PESCHKOF.

"Is it possible to make 5400 miles on one horse over such roads as we have?"

"I think I can, and that is why I want to try; and why not? On my 'Seri' I often make over fifty miles for pleasure, and at the end of the ride the horse seems as lively as when first brought out of the stable."

"And here, you have 5400 miles! Fifty miles we all often make with ease."

"Nonsense, gentlemen! The greater distances can also be made in a reasonable time."

The longer the conversation continued the surer PESCHKOF became of the possibility of accomplishing the journey, and three days afterwards he made application to his commander for six months leave.

"Why do you want so long a leave?" demanded the commander.

"I wish to ride to St. Petersburg on my horse."

"What?"

"I should like to try, for I think I can do it."

"Now, at the severest time of winter! But do you know what awaits you in these wild deserts with snow-storms and the temperature at present many degrees below zero?"

"I know everything; I am not afraid and, with God's help, will realize my intention."

PESCHKOF was inexorable. The commander did not refuse him the leave, being of the opinion that the sotnik would change his mind on the road and would surely return from Irkutsk.

Three days were taken for preparation and early on the morning of November 7th, Sotnik PESCHKOF, after the "Te Deum" in the church of Blagovestchensk, jumped into his saddle and started off on his ride to St. Petersburg.

The day promised to be severely cold but PESCHKOF was so lightly dressed that one might have supposed that he was going to take a ride around the town.

The farewells were of a very hearty, cordial character; all the officers with their families, the population, and even the soldiers, accompanied their bold Siberian fellow countryman down to the gates of the town, where PESCHKOF bowing on both sides, gathered his reins and put his "Seri" into a full trot.

"I will write my will in St. Petersburg," laughed PESCHKOF in sending a last farewell to his friends.



PERSONALITY, BIOGRAPHY AND LIFE OF SOTNIK PESCHKOF.

Who is PESCHKOF? asked every one when the first news of his journey arrived at St. Petersburg.

PESCHKOF is a Cossack officer and that is all; but, in examining him quite closely, we see an iron will and character; he is deeply religious. He is an Amoor Cossack by origin, native of the Albasinsk "stanitza" (Cossack villages), hardened by the rough nature of Siberia. He did not prepare himself for military service, but when a boy entered as telegrapher at the Upper Amoor Mine Telegraph Station. The quiet, peaceful service of a telegrapher did not satisfy the stirring and eager disposition of the present hero.

"I want to be a Cossack officer," said he to himself, and in five years realized his dream. With great difficulty manuals and elementary books were received, and, in two years, he prepared himself, without any help of others, so well that he easily passed the examinations for volunteer and entered the Irkutsk Military School. Three years were passed in studies and PESCHKOF, having admirably finished

the full course of studies, was promoted to the grade of sub-cornet, and three weeks later cornet. At present he is a sotnik.

The figure of PESCHKOF is not that of an athlete; he is small in stature, robust, with a dark, sunburnt face, of rather irregular features, but very sympathetic.

His costume consisted, besides the ordinary uniform of a Cossack officer, of a large leather coat made in military fashion, with lieutenant's epaulets, of leather trousers with yellow stripes, and high hunting boots. His head was covered with a high "papacha," (head-cover of Cossacks) made of sheep skin, the wool outside, trimmed with silver braid; he wore the papacha, like all the Cossacks, on the right side so that the right ear was quite covered. A Caucasian cowl made of camel's wool completed the costume; a Circassian saber, with round silver handle, hung on the left side under his arm, and on the right side a small traveling bag and a "nagalka," (Cossack whip) at the end of whose lash is secured a piece of something heavy, usually a piece of lead.

During very severe cold, PESCHKOF wore also a jacket of Japanese silk, the inside of which is down and wadding, and a small round fur cap with folding visor and lappets, such as Siberian miners wear. During hard snow-storms, his hands were covered with sheep skin mittens and his legs with woolen socks and boots made of deer skin, (the hair inside) generally called by the Siberians "anti."

#### SOTNIK PESCHKOF'S HORSE.

Its exterior qualities are in no way remarkable. The horse is of the local breed, purchased by Sotnik PESCHKOF two years ago from a Cossack of the Konstantinof Stanitza, for seventy roubles (about forty dollars). It is a light grey, nearly white, nine years old, very docile, twelve hands three inches high; its step is long, even, with an ambling gait, the speed of which is wonderful for the size of the horse. In appearance it seems to be an ordinary, plain and clumsy little animal; all that is remarkable in it is a rare strength in its legs and good pasterns and hoofs; its back is a little humpy, without any traces of saddle bruises, notwithstanding the 5000 miles which it made under the saddle. The rider himself looked after the horse, cleaned it every day and gave it food and drink. During the progress of the journey he gave it more and more oats so that, on arriving at Omsk, it had thirty pounds of grain a day or twenty-two pounds more than when it started; the hay allowance was fifteen pounds. It preferred snow to water that was the least tainted or stagnant. The average rate per day, including the twenty-four days of stoppage

at towns lying on his road, was more than thirty-seven miles; there were days when he made forty-six miles, and once near Kolyvani, even fifty-six miles. The average rate per hour was about six miles.



SOTNIK PESCHKOF AND HIS HORSE.

The following description of its gait was given by Mr. PROKSAEF, a well known Moscow correspondent:

"Sotnik PESCHKOF's horse has a remarkable walk; we could keep up with him only by running. After four or five miles, when the rider jumps off of it and runs about two-thirds of a mile, the walk increases and it is hard to overtake it even at a run."

The saddle is an ordinary Cossack saddle, possibly heavier than



the American cavalry saddle, but did not at all rub the horse's back. The saddle outfit was very small, consisting of a small valise and two bags containing the rider's uniform, two changes of underclothes, reserve horse-shoes, nails, hammer, file, hoof knife and tongs for horse-shoeing. No provisions at all were carried, not even tea or sugar: PESCHKOF bought these at stations where he passed the night. All the luggage, including his winter clothes, weighed fifty-four pounds: he himself weighs only one hundred and twenty-six pounds. therefore the horse carried one hundred and eighty pounds.

The strength of the "steppe" horses was long ago proved, but no one dared say that they were capable of making such a long and hard journey. The reputation of our cavalry, regular and irregular, is now by "Seri" more clearly established than ever before.

#### HOW PESCHKOF RODE.

When once started, he never stopped elsewhere than at the places where he had fixed before-hand halts for the night. It once happened, when leaving Vladimir, he did not have time to take his lunch so went on quite hungry. In this manner he went from place to place without stopping, passing hamlets, villages and towns, if they had not been previously selected for night halts. According to him to "stop" meant to loosen the girth, to feed the horse and give it water, and this he did not do more than once a day. In such a way he rode 5478 miles, and on the one hundred and ninety-third day reached the end of his journey. He always rose at seven in the morning and retired at nine in the evening.

"I would take no luggage or provisions with me," said he, when I met him on the day after his arrival in this town, at the house of Mrs. ANNIE REPENAK, wife of a well-known doctor of St. Petersburg. "it was quite impossible to do otherwise; the provisions were purchased at the stations where I passed the nights. Yes!" added he, when recollecting his journey, "I passed many dreadful hours; at a temperature many degrees below zero, with snow-storms, tired, broken down altogether, when arriving at places where I hoped to pass the night, every one often refused me hospitality, and doors were closed upon me with such words as 'I cannot let you pass the night here: God knows who you are.' With such receptions it is not to be wondered that I passed many days in hunger."

The first section which Sotnik PESCHKOF passed was 386 miles, to the town Albasin, situated on the left bank of the Amoor river (53° 23' N. latitude and 141° 57' E. longitude). After this first section the horse was in splendid condition and not tired at all.

The second section was a distance of 323 miles, (one of the most difficult, and severely tested the strength and will of the sotnik) to Pokrovsky, situated at the junction of the rivers Schilka and Argunin.

The last days of November came on; the weather was cold, with enormous snow-storms every day; it was difficult to move and the rider hardly made twenty-six miles a day, notwithstanding that he followed the post road which was altogether lost in deep snows in which "Seri" seemed to founder.

The third section was a distance of 390 miles to Stretensk; this stage was also very hard on account of the cold of December; the population here is very sparse; often in a ride of ten to thirteen miles no house can be found. There were passages of twenty to twenty-six miles along narrow paths cut through dark forests.

The fourth section of 273 miles, the journey to Verchneudinsk, on the rivers Uda and Selenza, was also difficult; he had already passed 1326 miles, the horse was in the same admirable condition.

The fifth section to Irkutsk, a distance of 295 miles; he arrived here in January and, on the next day after his arrival, he fell ill and was compelled to remain two weeks on account of "la grippe," (influenza).

The sixth section to Nijneudinsk, of 321 miles, was passed during the most severe January (or Stretenski as they are called here) colds.

The seventh section to the town of Atchinsk, on the river Tchu-lima, a distance of 456 miles, was one of the longest and was made in sixteen days.

The eighth section to Tomsk, 257 miles, was made with the same difficulty.

The ninth section to Omsk, a distance of 581 miles; he arrived there on the 27th of February, or 113 days after his start, having made 3252 miles.

Here, by order of the commander of the military district, the horse of Sotnik PESCHKOF was examined; its body looked well, the back was in perfect order without bruises, only a small quantity of hair near the hoofs on the left feet seemed to have been rubbed off.

The tenth section, a distance of ninety-one miles to Tyukalinsk, (government of Tobolsk) was passed easily in three days; he stayed half a day in the town and then went on.

The eleventh section, very small, of 126 miles to Tschim on the left bank of the river of the same name, was made in four days with more comfort than before, for the dreadful storms and cold had ceased.

The twelfth section to Valutorosk, on the river Tobola ( $56^{\circ} 39' N.$  longitude and  $83^{\circ} 59' N.$  latitude) a distance of 148 miles, was made in six days during beautiful weather which, however, was not good for the horse.

Spring commenced and "Seri" was getting tired; nevertheless the rider did not want to make any more long halts, wishing to finish the journey in as short a time as possible.

The thirteenth section to Tyumen of fifty-four miles, where he arrived on March 27th, was made comfortably; "Here," said he, "it smelled Europe," and the road was thenceforth without danger; here he stopped only a few hours and then went on to Perm where he arrived on April 1st.

The fourteenth section of 301 miles, from Perm to Kasan, parallel to Kama river, through Vjatka government with its well known forests, was less populated than the Ural, but was passed without misfortune; this passage is the most difficult in all European Russia as there are hardly any roads. The rider arrived at Kasan on April 12th.

On April 17th he arrived at Moscow, not stopping at Vladimir and other towns situated between Kasan and Moscow. At Moscow he was stopped till May 4th and then continued his journey to St. Petersburg, passing by Valdoi, Jver, Novgorod, Lüban, etc.

When the rider was approaching Lüban he was met by one of the lieutenants of the Imperial Guard, Cossack Regiment, who, at fifty-three miles from St. Petersburg, informed him that the commander of said regiment, as well as the officers, would be pleased if he would accept their hospitality and stop at the quarters of the regiment during his residence in St. Petersburg; which invitation Sotnik PESCHKOF accepted.

The last halt of PESCHKOF before the end of the journey, was made in Joans, twenty miles from St. Petersburg, where he arrived on May 18th.

Here, when unsaddling his horse, he heard a band approaching the village; on going down the road he met a beautiful cavalcade of officers of the Cuirassier Imperial Regiment, accompanied by their commander, who met PESCHKOF with the following words: "Sotnik PESCHKOF! In the name of all, both officers and soldiers, of the Lite Guard Cuirassier Regiment, of His Majesty, I am glad to meet you as an unexampled cavalry officer. You have once more proved that nothing is impossible for a Russian Cossack; your name will never die in the history of Russian Cavalry! Good health to Sotnik DMITRI PESCHKOF!" "Hurrah! Hurrah!" was the reply of all those pres-

ent. Then addressing himself to the soldiers who accompanied the cavalcade, the commander continued: "Soldiers! Before you stands a Cossack from the far Amoor regions; he is Sotnik PESCHKOF of the Amoor Cossack Horse Regiment; you must never forget the name of this officer who, on one horse, has made more than 5000 miles from Blagovestchensk to St. Petersburg." "Hurrah!" was the reply of the bold Cuirassiers, and the band played the air of the Meeting March.

Early on the morning of May 19th the sotnik arrived at St. Petersburg, where he was met by a large crowd and many local regiments; this day seemed to be a holiday as many shops were closed, the employes of which went down to meet the rider.

On May 22d, he was invited to a dinner offered him by the Cavalry School, the chief of which, together with the assistants, presented to him a silver cup with his name engraved on it.

On May 28th he had the honor to be presented to the Emperor who knighted him with the cross of St. Anne, Third degree. On the same day, the society for the Protection of Animals presented him with a gold medal, and a diploma as honorary member of said society.

On June 6th, having been informed that he would be attached for several years to the Cavalry School of St. Petersburg, he, being very religious, as has been said, went away to Jerusalem to pray.

A. N. KOVRIGIN.

ST. PETERSBURG, RUSSIA, August 7, 1890.

## NEW DRILL REGULATIONS FOR CAVALRY, U. S. ARMY.

The Tactical Board, 515 Walnut Street, Leavenworth, Kansas  
requests comments and suggestions.

### *Armament of Trooper for Garrison Duty, Dismounted.*

51. Complete armament: Carbine, pistol and saber.

For drill and inspection: As may be directed.

The saber belt will always be worn with full dress.

For duty out of rank, as orderly, witness, etc., saber and saber belt.

Full dress: Carbine (without sling) and cartridge box.

Undress: Carbine (without sling) and cartridge belt; or pistol and cartridge belt; or saber and saber belt, with or without pistol.

The saber is not worn when in rank on dismounted duty, except for saber drill, inspection of saber, or on duty that does not require marching.

Spurs are not worn on dismounted duty.

The carbine sling will be worn for drill when ordered.

### *Armament of Trooper for Garrison Duty, Mounted.*

354. For drill and inspection: As may be directed.

The saber belt is always worn with full dress, the cartridge belt with undress.

The saber is attached to the left side of the saddle, unless otherwise ordered.

Full dress: Saber and saber belt; the pistol and cartridge box when ordered.

Undress: Carbine (with sling), cartridge belt and saber; the pistol when ordered.

The spurs are worn on all mounted duty, except when otherwise ordered.

## EVOLUTIONS OF THE REGIMENT.

870. The regiment is supposed to consist of three squadrons, of four troops each. The instruction prescribed is applicable to a less number of squadrons, composed of a less number of troops, squadron commanders making the necessary allowance in distance.

## NEW DRILL REGULATIONS FOR CAVALRY. 287

871. In whatever direction the regiment faces, the squadrons are designated from the right in line, and from the head in column, *first squadron, second squadron and third squadron*. The troops are designated by the colonel according to their squadron and position in the squadron; as *second* (or such) *troop, first* (or such) *squadron*; etc.

If in two lines, the squadrons of each line are designated from the right in the first line, *first and second*; in the second line, *third*.

872. All movements should be executed at the trot, unless the colonel commands or signals *walk* or *gallop*.

### *The Colonel.*

873. The colonel is the instructor. In line, and in line of columns, he takes post sixty yards in front of the center of the regiment; in line of masses, thirty yards in front of the center of the regiment. In column, sixty yards, and in column of masses, thirty yards from the center of the column on the side of the guide. Generally, he should be where he can best superintend his regiment and make his commands heard.

### *The Lieutenant-Colonel.*

874. In line, in line of columns and in line of masses he takes post thirty yards in rear of the center of the regiment. In column, he is abreast of the center and on the side opposite the guide, thirty yards from the flank.

During field movements, the duties of the lieutenant-colonel are to assist the colonel, as the latter may direct, and he is not restricted to any particular post.

### *The Squadron Commanders.*

875. Each squadron is commanded by a major.

876. The major takes post as in the School of the Squadron, except in line of masses, but much latitude must be allowed in regard to his position. He must ride wherever he can best hear the colonel's commands, make his own heard, and superintend his squadron.

877. Each major gives the commands necessary to insure the execution of movements by his squadron at the proper time.

878. Unless otherwise ordered, latitude will be allowed the squadron commander in maneuvering his squadron into position. Methods given in the text should be followed, unless circumstances, such as the configuration of the ground, etc., suggest shorter and safer ones to accomplish the object of the movement, when he should not be required to comply literally with the text, so long as he uses movements prescribed in the School of the Squadron, *e. g.*: In the maneuvers for

forming line from column of fours, where it is prescribed that the squadrons shall move opposite to their places in line by obliquing by the heads of columns, the major may move the squadron in column of fours, and *vice versa*.

879. A squadron may stand *at ease* (Par. 315) while awaiting the completion of a movement by the other squadrons.

#### *Staff and Non-Commissioned Staff.*

880. The staff officers, sergeant-major and chief trumpeter accompany the colonel; the adjutant rides on his left, the other staff officers are in line, in the order of rank from right to left, six yards in rear of the colonel and adjutant; the sergeant-major, chief trumpeter and orderlies, three yards in rear of the staff officers.

In line, the non-commissioned staff except the sergeant-major, and the regimental non-commissioned officers except the chief trumpeter, are in one line in the order of rank, the senior on the right, abreast of the rank and six yards from the left flank: when the regiment faces about, they turn about individually, but do not change to the other flank. In column, they are six yards in front of the chief of the leading sub-division or twelve yards in rear of the rear sub-division, according as the column was formed toward or away from their flank. In marching by the flank of sub-divisions they are abreast of the nearest sub-division.

Except the adjutant and sergeant-major, the staff, non-commissioned staff and regimental non-commissioned officers may be excused from the regimental maneuvers other than ceremonies.

#### *The Band.*

881. In line, the left of its front rank is sixteen yards to the right and in line with the rank of the first squadron.

In column, it is sixteen yards in front of the officers of the leading sub-division.

The band may be excused from regimental maneuvers, or it may be assigned a position on the ground.

#### *The Guard of the Standard.*

882. The guard is posted as the left four of the center or right center troop of the center squadron, or of a single squadron; if there be but two squadrons it is posted as the left four of the left troop of the first squadron.

#### *Route Marches.*

883. In route marches, the colonel is at the head of the column accompanied by the staff, except the surgeons and quartermaster, and

by the non-commissioned staff, regimental non-commissioned officers and orderlies.

The lieutenant-colonel and the surgeons are in rear of the column, or as the colonel may direct.

The quartermaster is with the train.

The colonel may direct the standard and its guard to march at the head of the regiment, in rear of the orderlies.

#### *General Rules for Command.*

884. The commands of the colonel may be given by message.

In the evolutions of the regiment, the lieutenant-colonel, if commanding a separate line, and the majors unless otherwise directed, repeat the commands of the colonel. The preparatory command of the colonel is repeated as soon as given; each major then adds such commands and causes his squadron to execute such movements as are necessary to the execution of the general movement.

The colonel may preface the commands for each movement by the command: **ATTENTION.**

When the regiment is in more than one line, if a movement is to be executed by one of the lines, *first line, second line or third line* is specified in the preparatory command of the colonel; the squadron commanders in the designated line repeat the commands of the colonel.

Where the formation will admit of the simultaneous execution of movements by squadrons, the colonel may have them execute the movements prescribed in the School of the Squadron by prefixing the command: *Squadrons*, to the commands therein prescribed.

The colonel may designate a squadron to execute a separate movement by prefixing the command: (Such) *squadron*, to the commands prescribed in the School of the Squadron.

Where the formation will admit of the simultaneous execution of movements by troops or platoons, the movements are executed as in the School of the Squadron, the colonel giving the commands prescribed for the major, except that in announcing the guide, in line or in line of columns, he commands: (Such) *the base squadron*.

#### *To Form the Regiment.*

885. The regiment is formed by squadrons according to the principles for successive formations. It may be formed in line, in line of platoon columns, or in line of masses, at the discretion of the colonel.

It may also be formed in separate lines, or in echelon in any combination of the above formations.

When forming, the squadrons are posted in line from right to left in the order of the rank of their squadron commanders present, the

senior on the right; or are posted in such order as the colonel may direct. A squadron whose major is in command of the regiment retains its place.

The interval between squadrons in line is sixteen yards.

To receive the regiment, the colonel takes post facing the center: the staff, non-commissioned staff and regimental non-commissioned officers then take their posts.

The adjutant indicates to the adjutant of the base squadron the point of rest and the direction of the line, and takes post about thirty yards in front of the center of the regiment.

The formation completed, the adjutant commands: 1. *Squadrons*, 2. *ATTENTION*, 3. *Draw*, 4. *SABER*, 5. *Present*, 6. *SABER*, turns to the front, salutes the colonel and reports: *Sir, the regiment is formed*.

The colonel returns the salute with the right hand, directs the adjutant: *Take your post, sir*, and draws saber.

The adjutant moves at a trot or gallop and joins the colonel, passing by his right and rear.

#### *To Rest and Dismiss the Regiment.*

886. The regiment is rested and called to attention as in Par. 315, substituting *squadrons* for *squad* in the commands.

To dismiss the regiment, the colonel commands: *Dismiss your squadrons*.

Each major conducts his squadron to its parade ground where it is dismissed as prescribed.

#### *To March in Line, or Line of Columns*

887. The colonel may designate the point of direction (Par. 75).

Being at a halt: 1. *Forward*, 2. *Second* (or such) *the base squadron*, 3. *MARCH*.

The guide of the designated squadron selects new points on the ground as he advances; the other squadrons regulate their march upon the base squadron so as to preserve the intervals and the alignment.

The major of the designated squadron commands: *Guide center*; majors of squadrons on its right command: *Guide left*; majors of squadrons on its left command: *Guide right*.

888. In changing front, or in obliquing, the squadron on the flank toward which the movement is being made, is the base squadron for the time being.

#### *To Face the Line to the Rear.*

889. 1. *Face to the rear*, 2. *Fours right* (or *left*) *about*, 3. *MARCH*. Each major halts his squadron as the fours unite in line.

#### *To March the Line to the Rear.*

890. 1. *Fours right* (or *left*) *about*, 2. *MARCH*, 3. (Such) *the base squadron*.

#### *To Halt the Regiment.*

891. Being in march: 1. *Squadrons*, 2. *HALT*.

#### *Alignments.*

892. Being in line at a halt, to give a general alignment, the colonel selects a base troop, posts its guidon and principal guide opposite the point of rest in the desired direction, and commands: 1. *Guides on the line*, 2. *On the center* (right or left), 3. *DRESS*.

At the first command, the guidon and principal guide of each troop post themselves as in forming the squadron, taking care to preserve the intervals.

At the command *dress*, each squadron is dressed as in Par. 716.

If a squadron be at a considerable distance from, or in front of the position it is to occupy, its major will, at the first command, move it into proper position for dressing.

#### *Being in Line, to March by the Flank.*

893. 1. *Fours right* (or *left*), 2. *MARCH*.

*Being in Line at a Halt, to Break into Column of Fours from the Right or Left, to March to the Left or Right.*

894. 1. *Column of fours*, 2. *Break from the right* (or *left*) *to march to the left* (or *right*), 3. *MARCH*.

The first squadron executes the movement (Par. 720); the other squadrons follow successively at the command of their majors, each seventeen yards in rear of the one preceding.

895. The regiment in column of fours, forms line to the right or left, advances, obliques, changes direction, and marches to the rear as prescribed for the squadron.

896. The movements from column of fours are explained for execution on the march, but they may be executed from a halt.

#### *Successive Formations.*

897. In successive formations of the regiment, the completion of the movement should find the regiment halted.

The adjutant or sergeant-major of each squadron precedes it to indicate its point of rest.

The guidon and principal guide of the base troop of the base squadron are first established.

The guidon and principal guides of the leading troops of the rear

squadrons are established on the general line, the nearest guidon being at the proper interval from the flank of the squadron next preceding.

898. When in two or more lines or in column of squadrons, the normal distance is squadron front and seventeen yards; this may be increased or diminished, the colonel adding to his first command: *At (so many) yards distance*; or the colonel may send orders to the commanders of the second and third lines specifying the distance; or may send a staff officer to indicate the point of rest.

When in two lines, the second line in all maneuvers preserves its position relative to the first and conforms to its movements.

*Being in Column of Fours, to Form in Two Lines to the Right or Left.*

899. 1. *In two lines*, 2. *Fours right (or left)*, 3. *Third (or such) squadron, second line*, 4. **MARCH.**

The first and second squadrons form line to the right and halt. The third squadron inclines to the left until it gains the required distance, when it resumes the original direction, and is formed in line to the right and halted with its center in rear of the center of the first line.

*Being in Two Lines, to March in Column of Fours.*

900. 1. *Column of fours*, 2. *First Line*, 3. *Fours right (or left)*; or, 3. *Right (or left) forward, fours right (or left)*, 4. **MARCH.** The squadron commander of the second line adds: 1. *Fours right*, 2. **MARCH**, or breaks into column of fours to the front (Par. 785) in time to follow the preceding squadron at the proper distance. The squadron is marched by the shortest line to its place in column.

*Being in Column of Fours, to form On the Right or Left into Line.*

901. 1. *On right (or left) into line*, 2. **MARCH.**

The leading squadron executes *on right into line*; each of the other squadrons at the commands of its major, executes the same movement when its leading four has passed thirteen yards beyond the left flank of the squadron preceding.

*Being in Column of Fours, to Form in Two Lines on the Right or Left.*

902. 1. *In two lines*, 2. *On right (or left) into line*, 3. *Third (or such) squadron, second line*, 4. **MARCH.**

The first and second squadrons execute the movement as in Par. 899. The third squadron inclines to the left until it gains its distance (Par. 896), when it resumes the original direction, and forms on right into line so as to be in rear of the center of the first line.

*Being in Column of Fours, to Form on Right or Left into Line by Squadrons.*

903. 1. *On right (or left) into line by squadrons*, 2. **MARCH.**

The first squadron is wheeled by fours to the right and is halted after advancing thirty yards; each of the other squadrons marches beyond the one preceding, is wheeled by fours to the right at its proper interval, and is halted on the line.

*Being in Column of Fours, to Form in two Lines, on the Right or Left, by Squadrons.*

904. 1. *In two lines*, 2. *On right (or left) into line by squadrons*, 3. *Third (or such) squadron, second line*, 4. **MARCH.**

The first and second squadrons execute the movement as in Par. 903. The third squadron inclines to the left until it gains its distance, when it resumes the original direction, and forms line to the right in rear of the center of the first line.

*Being in Column of Fours, to Form Front into Line.*

905. 1. *Right (or left) front into line*, 2. **MARCH.**

At the first command, the majors of the rear squadrons command: *Column half right.*

At the command *march*, the first squadron executes *right front into line*.

Each of the other majors so marches his squadron that when the head arrives opposite its point of rest, it shall be at least troop distance and thirty yards in rear of the line, then changes direction half left, and when thirty yards from the line forms it right front into line.

In forming front into line, the majors of the second and third squadrons may march their squadrons diagonally toward their positions, by the heads of troops, *e. g.*: The majors command: 1. *Troops*, 2. *Column half right (or half left)* (Par. 879).

*Being in Column of Fours, to Form Front into Line, Faced to the Rear.*

906. 1. *Right (or left) front into line, faced to the rear*, 2. **MARCH.**

The first squadron executes *right front into line faced to the rear*; the others are marched toward their points of rest and formed right front into line faced to the rear on the left of the first.

907. *Front into line and front into line faced to the rear* may be executed on the rear of the column, by first wheeling about by fours and then using the means already explained.

*Being in Column of Fours, to Form Front into Line on the Head of a Rear Squadron.*

908. 1. *On third (or such) squadron, 2. Right (or left) front into line, 3. MARCH.*

At the second command, the major of the first squadron commands: 1. *Fours left about*; the major of the second: *Fours left.*

At the command *march*, the third squadron executes *right front into line*. The second squadron marches in line until it has cleared the left flank of the third squadron by eighteen yards, when the major wheels it by fours to the left, and commands: 1. *Right front into line, faced to the rear, 2. MARCH.*

The first squadron wheels about by fours, upon the completion of which, the major commands: 1. *Column half-right, 2. MARCH*, and marches his squadron so as to form it right front into line, faced to the rear, on the left of the second.

909. Front into line on the second squadron is similarly executed; the first squadron then forms as prescribed for the second (Par. 908); the second and third squadrons execute *right front into line* (Par. 905).

*Being in Column of Fours, to Form Front into Line, in Two Lines.*

910. 1. *In two lines, 2. Right (or left) front into line, 3. Third (or such) squadron, second line, 4. MARCH.*

The first and second squadrons execute *right front into line* (Par. 903). The third squadron inclines to the right and forms right front into line, in rear of the center of the first line.

Front into two lines faced to the rear may be executed according to the same principles. The second and third squadrons form front into line faced to the rear, forming the first line; the first squadron forms line faced to the rear, by two movements, in rear of the center of the first line.

911. To form in three lines, the third in close column, or in line of platoon columns, the colonel sends special instructions to the major of the third squadron as to its formation, and gives the commands to the other squadrons for forming in two lines.

*Being in Column of Fours, to Form Line by Two Movements.*

912. The column of fours having partly changed direction to the right, to form line to the left: 1. *Fours left, 2. Rear squadrons, left front into line, 3. MARCH.*

The squadron that has changed direction to the right forms line to the left and halts; the squadrons in rear execute *left front into line*, the leading fours advancing only so far as to be in line with the squadron that formed line to the left.

913. To form line to the right: 1. *Fours right, 2. Rear squadrons left front into line, faced to the rear, 3. MARCH.*

The squadron that has changed direction forms line to the right and halts; the squadrons in rear form left front into line faced to the rear.

914. The column, having partly changed direction to the left, is formed to the right and *right front into line*, or to the left and *right front into line faced to the rear*, by similar commands and means.

*Being in Column of Fours, to Form Right and Left Front into Line.*

915. 1. *Right and left front into line, 2. MARCH.*

The first squadron forms right front into line; the second forms left front into line on the left of the first, and the third forms left front into line on the left of the second.

If the colonel commands *left and right front into line*, the first squadron forms left front into line, and the rear squadrons form right front into line on the right of the first.

*Being in Column of Fours, to Form Right and Left Front into Line in Two Lines.*

916. 1. *In two lines, 2. Right and left front into line, 3. Third (or such) squadron, second line, 4. MARCH.*

The first squadron forms right front into line; the second forms left front into line on the left of the first; the third forms line by two movements (Pars. 727, 729), and is established in rear of the center of the first line.

If the second command of the colonel be: *Left and right front into line*, the first squadron forms left front into line and the second forms right front into line on the right of the first.

917. Being in column of fours, the regiment forms *line of troops in columns of fours* according to the principles for forming line; each major marches his squadron opposite its point of rest on the principles explained for forming the regiment front into line, or on right or left into line, and then forms it into line of columns of fours as in the School of the Squadron.

The interval between squadrons in line of columns of fours at closed intervals, is troop front.

918. All movements in line of columns of fours, School of the Squadron, may be executed by the regiment by similar commands and means, the colonel designating: (Such) *squadron*, when necessary.

919. The regiment in line of battle, advancing considerable distances or over broken ground, marches in line of squadrons or other sub-divisions in columns of fours, or in line of platoon columns.

*Column at Full Distance.*

920. The regiment being in line, forms *column of troops* or *platoons to the right or left*, as prescribed in the School of the Squadron.

921. The regiment being in column at full distance, forms *line to the right or left, marches to the rear, advances, and halts* as prescribed in the School of the Squadron.

To form line to the front, the first squadron forms front into line as prescribed in the School of the Squadron; each of the other squadrons is marched in column of fours opposite its position, and is then formed front into line (Par. 905).

To form on right or left into line, the first squadron forms on right (or left) into line as prescribed in the School of the Squadron; the others successively execute the same movement, each sixteen yards beyond the one preceding.

*Being in Column at Full Distance, to Change Direction.*

922. Being in march: 1. *Column right (or left)*, 2. MARCH.

The first squadron changes direction to the right (Par. 736); the others move forward and each at the command of its major changes direction on the same ground as the first.

The principal guide marking the turning point of the first squadron is relieved by a principal guide from the second, and he in turn by one from the third, each as soon as his squadron has passed him.

Being at a halt: 1. *Forward*, 2. *Guide (right, left or center)*, 3. *Column right (or left)*, 4. MARCH.

*Being in Column at Full Distance, to Face the Column to the Rear.*

923. 1. *Face to the rear*, 2. *Fours right (or left) about*, 3. MARCH. The majors add: 4. *Squadron*, 5. HALT, as the fours unite in line.

*Column of Masses.*

924. In column of masses, the distance of each squadron from the one preceding is equal to the front of its first troop.

925. In forming column of masses from line, the designated squadron plays into close column; the others play in rear of the one designated, the squadron nearest the point of rest taking precedence in the column. The rear squadrons are dressed to the same flank as the designated squadron.

926. Column of troops at full distance is closed in mass by the commands and means prescribed for the squadron (Par. 753); each

squadron in rear of the first is closed in mass when at troop distance from the one preceding.

927. Being in column of masses, full distances are taken by the commands and means prescribed for the squadron (Par. 755); each squadron in rear of the first takes full distance when its leading troop has troop front and thirteen yards from the preceding squadron.

*Being in Line, to Play into Column of Masses on the First Troop of the First Squadron.*

928. 1. *Column of masses*, 2. *On first troop, first squadron*, 3. MARCH.

The first squadron plays into close column on its first troop (Par. 756); the other squadrons wheel by fours to the right, incline to the right, and each marches so that its leading troop may enter the column at troop distance and fifteen yards in rear of the rear troop of the preceding squadron. The second squadron plays faced to the left in rear of the first (Par. 758), and the third plays in rear of the second; the left guides cover.

The regiment is played on the fourth troop, third squadron, on the same principles.

*Being in Line, to Play into Column of Masses on an Interior Squadron.*

929. 1. *Column of masses*, 2. *On first troop, second squadron*, 3. MARCH.

The second squadron plays on its first troop (Par. 750).

The major of the first squadron commands: 1. *Fours left*, 2. *Troops*, 3. *Column left*, 4. MARCH, 5. *Guide right*, and when his leading fours are troop distance and twelve yards beyond the rear of the second squadron, commands: 1. *Troops*, 2. *Column right*, 3. MARCH, and then plays his squadron faced to the right in rear of the second; the troops are dressed to the left; in a similar manner, the major of the third plays his squadron faced to the left in rear of the first.

The major of the first squadron may command: 1. *Fours left*, 2. MARCH, 3. *Column left*, 4. MARCH, and when the head of the column has advanced troop distance beyond the rear of the second squadron, he commands: 1. *Close column, faced to the rear*, 2. *First troop*, 3. *Column right*, 4. MARCH.

Should the command of the colonel be: 1. *Column of masses*, 2. *On fourth troop, second squadron*, 3. MARCH, the movement is executed on the same principles. The third squadron plays in rear of the second, and the first in rear of the third.



*Being in Column of Fours, to Play into Column of Masses, Faced to the Front.*

930. 1. *Column of masses*, 2. *First troop, first squadron*, 3. *Column right (or left)*; or, 3. *Column half right (or half left)*, 4. MARCH.

The first squadron plays faced to the front (Par. 757); the others successively execute the same movement, each in rear of the one preceding.

*Being in Column of Fours, to Play into Column of Masses, Faced to the Rear.*

931. 1. *Column of masses, faced to the rear*, 2. *First troop, first squadron*, 3. *Column right (or left)*, 4. MARCH.

The first squadron plays faced to the rear (Par. 757); the others move forward and successively execute the same movement, each major giving his command so that his first troop may enter the column at a point troop distance beyond the point where the last troop of the preceding squadron entered it.

*Being in Column of Fours, to Play into Column of Masses, Faced to the Right or left.*

932. 1. *Column of masses*, 2. *First troop, first squadron*, 3. *Fours right (or left)*, 4. MARCH.

The first squadron plays faced to the right (Par. 758); the others incline to the left and successively execute the same movement, each major giving his commands so that his first troop may enter the column at troop distance and fifteen yards in rear of the rear troop of the preceding squadron.

933. Being in column of troops or fours, column of masses is formed on the rearmost troop by first wheeling about by fours and then closing in mass; when the column has closed, the regiment is again wheeled about by fours.

934. The column of masses *advances, halts, marches by the flank, resumes the march in column, faces to the rear, marches to the rear and changes direction on the march*, by the same commands as the column when at full distance.

*Being in Column of Masses, to Change Direction by the Flank.*

935. 1. *Change direction by the right (or left) flank*, 2. MARCH.

The first squadron changes direction by the right flank (Par. 761); each of the others wheels by fours to the right, and is marched with the guide to the left, by two partial changes of direction to the left, to its position in the new column, then wheeled by fours to the left and halted.

TO DEPLOY THE COLUMN OF MASSES.

*Being in Column of Masses, to Deploy to the Right or Left.*

936. 1. *Deploy column*, 2. *Fours right (or left)*, 3. MARCH.

The first squadron deploys to the right (Par. 764a); the second is marched in close column to its position on the line to the right of the first and then deployed in the same manner as the first; the third, in a similar manner, is deployed on the right of the second.

The second and third squadrons may be marched in column of fours (Par. 759b) to their places on the line.

To deploy faced to the rear, the colonel adds: *faced to the rear, after deploy column*. The first squadron deploys faced to the rear (Par. 764c); the others form on the line faced to the rear.

937. To form line on the rear of the column, facing either to the front or to the rear, the colonel first faces the column to the rear, and then executes the movement as explained.

*Being in Column of Masses, to Deploy to the Right and Left.*

938. 1. *Deploy Column*, 2. *Fours right and left (or left and right)*, 3. MARCH.

The first squadron deploys to the right; the second and third deploy on the line, the second to the left of the first, and the third to the left of the second.

*Being in Column of Masses, to Deploy in Two Lines.*

939. 1. *In two lines*, 2. *Deploy column*, 3. *Third (or such) squadron, second line*, 4. *Fours right (or left)*, 5. MARCH.

The first squadron deploys to the right; the second forms line on the line of the first, and to its right; the third moves in column of fours and forms line in rear of the center of the first line.

If the colonel commands: 4. *Fours right and left*, the first squadron deploys to the right; the second forms line on the line of the first and to its left; the third deploys to the left.

If the colonel commands: 4. *Fours left and right*, the first squadron deploys to the left; the second forms line on the line of the first and to its right; the third deploys to the right.

*Being in Column of Masses, to Deploy in Three Lines.*

940. 1. *Squadrons*, 2. *Deploy Column*, 3. *Fours right (or left)*, 4. MARCH.

*Being in Column of Masses, to March to the Right or Left in Line of Squadrons in Columns of Fours.*

941. 1. *Squadrons*, 2. *Columns of fours*, 3. *(Such) troop*, 4. *Fours right (or left)*, 5. MARCH, 6. *(Such) the base squadron*.

*Columns of Squadrons.*

942. Being in line, or column of fours, the regiment plays into column of squadrons by approximating the principles for forming close column, School of the Squadron; except that the leading squadron halts upon forming line, and that the colonel when necessary specifies the distance (Par. 898).

*Being in Line to Play into Column of Squadrons.*

943. 1. Column of squadrons, 2. On first (or third) squadron, 3. Fours right (or left), 4. MARCH.

The first squadron stands fast. The second executes *fours right, column right*, marches squadron distance or the specified distance to the rear, changes direction to the left and forms line to the left in rear of and parallel to the first squadron. The third squadron executes *fours right, column half right*, and forms in rear of the second as explained for the second; the left flanks cover.

*Being in Line, to Play into Column of Squadrons on Second Squadron.*

944. 1. Column of squadrons, 2. On second squadron, 3. Fours left and right, 4. MARCH.

The second squadron stands fast; the first squadron executes *fours left* and forms line to the right in rear of the second; the third executes *fours right* and forms line to the left in rear of the first; the right flanks cover.

*Being in Column of Fours, to Form Column of Squadrons Faced to the Right or Left.*

945. 1. Column of squadrons, 2. First squadron, 3. Fours right (or left), 4. MARCH.

The first squadron forms line and is halted; the others incline to the left and each enters the column, forms line and halts at the prescribed distance in rear of and parallel to the one preceding; the right flanks cover.

*Being in Column of Fours, to Form Column of Squadrons Faced to the Rear.*

946. 1. Column of squadrons, faced to the rear, 2. First squadron, 3. Column right (or left), 4. MARCH.

The first squadron changes direction to the right and when its rear has cleared the flank of the column by ten yards, forms line to the right and halts.

The squadrons in rear move forward, and each, when it has passed squadron front and seventeen yards, or the specified distance, beyond the one preceding, changes direction to the right, forms line and halts as prescribed for the first; the right flanks cover.

*Being in Column of Squadrons, to Form Front into Line.*

947. 1. Right (or left) front into line, 2. MARCH.

The first squadron stands fast; the second forms line on the right of the first, and the third on the right of the second.

The colonel may direct that the third squadron shall form on the left (or right) of the line.

948. To form line faced to the rear, the colonel adds: *Faced to the rear*, to the first command. The first squadron is faced to the rear; the others form on the line faced to the rear.

*Line of Masses.*

949. The interval between squadrons in line of masses is forty-eight yards.

In line of masses, each major takes post twenty yards in front of the center of his first troop.

In all formations into line of masses, whether by a simultaneous or successive movement, the adjutant or sergeant-major of each squadron posts the guidon and principal guide of its leading troop.

*Being in Line of Masses, to Extend or Close Intervals.*

950. To extend intervals: 1. On (such) squadron, 2. Take displaying intervals, 3. MARCH.

The designated squadron stands fast; the squadrons to the right are marched by the right flank, and those to the left, by the left flank, inclining slightly to the rear; each squadron when it has its interval, is halted in close column on the line; intervals are closed on the same principles: 1. On (such) squadron, 2. Close intervals, 3. MARCH.

*Being in Line, to Form Line of Masses on the First or Third Squadron.*

951. 1. Line of masses, on first troop, first squadron, 2. MARCH.

The first squadron plays into close column on its first troop (Par. 756); the second squadron moves by the right flank and plays into close column faced to the left so as to have forty-eight yards interval from the left flank of the first; in the same manner the third plays on the left of the second.

Line of masses on the fourth troop, third squadron, is formed according to the same principles.

952. Line of masses may be formed on the second squadron, the colonel designating the first or fourth troop. The second squadron plays on the designated troop; the others play on the troop nearest the point of rest. Unless directed by the colonel, the squadron with the interval of sixteen yards does not correct it until the next movement; the other squadron closes to its proper interval before playing.

*Being in Column of Fours, to Form Line of Masses Faced to the Right or Left.*

953. 1. *To the right (or left) into line of masses.* 2. MARCH.

The first squadron plays into close column faced to the right (Par. 758); each of the others executes the same movement so as to have its interval of forty-eight yards from the right flank of the squadron preceding.

*Being in Column of Fours, to Form on Right or Left into Line of Masses.*

954. 1. *On right (or left) into line of masses.* 2. MARCH.

The major of the first squadron commands: 1. *Column right.* 2. MARCH, and his first troop having advanced sixty yards in the new direction, he commands: 1. *Close column.* 2. *First troop.* 3. *Column left.* 4. MARCH (Par. 757); each of the other squadrons passes in rear of and beyond the one preceding, and executes the same movement as explained for the first, so as to have the interval of forty-eight yards from the squadron on its right.

*Being in Column of Fours, to Form Front into Line of Masses.*

955. 1. *Right (or left) front into line of masses.* 2. MARCH.

The major of the first squadron commands: 1. *Close column.* 2. *First troop.* 3. *Column right.* 4. MARCH; the other majors command: 1. *Column half right.* 2. MARCH.

The first squadron plays into close column faced to the front (Par. 757); each of the other squadrons is marched to the right front and executes the same movement so as to have the interval of forty-eight yards from the one preceding.

956. *Right and left (or left and right) front into line of masses* is executed on the same principles; the first squadron plays into close column, as in executing right front into line of masses; the second and third execute *left front into line of masses*, to the left of the first.

*Being in Column of Fours, to Form Front into Line of Masses, Faced to the Rear.*

957. 1. *Right (or left) front into line of masses, faced to the rear.* 2. MARCH.

The first squadron plays into close column faced to the rear (Par. 757c); each of the other squadrons is marched to the right front and executes the same movement so as to have the interval of forty-eight yards from the one preceding.

*To Align the Line of Masses.*

958. If necessary to rectify the line, the colonel assures the guidon and principal guide of the first troop of one of the squadrons in the desired direction and then commands: *Guides on the line.*

The adjutant or sergeant-major of each of the other squadrons posts the guidon and a principal guide of its leading troop on the line of those established by the colonel, the guidon on the side of the base squadron; the majors dress their squadrons toward the point of rest.

The first troop of each squadron is dressed on the guides; each of the other troops is successively dressed at closed distance.

If the new line be established at a considerable distance from the squadrons, each major will move his squadron to its new position before dressing it.

*Movements of Masses.*

959. The line of masses *advances, halts, faces to the rear and marches to the rear* by the same commands and means as the regiment in line.

*Being in Line of Masses, to Change Front.*

960. 1. *Change front on first (or third) squadron.* 2. MARCH.

The movement is executed on the principles explained for the squadron changing front in line of platoon columns (Par. 783).

*Being in Line of Masses, to March by the Flank.*

961. 1. *Fours right (or left).* 2. MARCH, 3. *Guide (right or left).* The squadrons preserve the distance of forty-nine yards.

*The Line of Masses Marching by the Flank, to Change Direction.*

962. 1. *Change direction to the right (or left).* 2. MARCH.

The first squadron changes direction to the right (Par. 677); the others move forward, and, at the command of their majors, change direction on the same ground as the first.

If the regiment be marching at a gallop, the colonel reduces the gait to a trot before executing this movement.

*The Line of Masses Marching by the Flank, to Form Line of Masses to the Right or Left.*

963. 1. *Fours right (or left).* 2. MARCH, 3. (Such) *the base squadron, or 3. Squadrons.* 4. HALT.

*Being in Line of Masses, to Form Column of Fours.*

964. Being at a halt: 1. *Column of fours.* 2. *First troop, first (or third) squadron.* 3. *Right (or left) forward.* 4. *Fours right (or left).* 5. MARCH.

The first squadron forms column of fours to the front (Par. 759); each of the others successively executes the same movement and inclines to the right or left so as to follow the squadron preceding at the prescribed distance.

The colonel may command: 1. *Column of fours.* 2. *First (or fourth) troop, first squadron.* 3. *Fours right; or. 2. First (or fourth) troop, third squadron.* 3. *Fours left.* 4. *MARCH.*

The designated squadron forms column of fours to the right (Par. 759b); each of the others successively executes the same movement in time to follow the squadron preceding at the prescribed distance.

*Being in Line of Masses, to Form Column of Masses. Faced to the Right or Left.*

965. 1. *Squadrons.* 2. *Change direction by the left (or right) flank.* 3. *MARCH.*

Each squadron changes direction by the left flank (Par. 761).

*Being in Column of Masses, to Form Line of Masses, to the Right or Left.*

966. The colonel causes the squadrons to change direction by the left or right flank (Par. 761); or commands: 1. *Squadrons.* 2. *Column right (or left).* 3. *MARCH.*

*Being in Line of Masses, to Form Column of Masses. Faced to the Front.*

967. 1. *Column of masses on first (or such) squadron.* 2. *MARCH.*

The first squadron stands fast or is halted; the second is placed in close column in rear of the first, and the third in rear of the second.

If the third squadron be designated, the second takes position in rear of the third, and the first in rear of the second.

If the second squadron be designated, the first takes position in rear of the second, and the third in rear of the first.

Each major may maneuver his squadron into position in mass or in column of fours.

The adjutant or sergeant-major of each squadron moves in advance to indicate the point where his squadron moves by the flank, or changes direction, to enter the column.

968. Being in line of masses, to form the column of masses facing to the rear, the colonel first causes the squadrons to wheel about by fours, and then gives the same commands as before.

*Being in Column of Masses, to Form on Right or Left into Line of Masses.*

969. Being in march: 1. *On right (or left) into line of masses.* 2. *MARCH.*

The first squadron changes direction to the right and is halted when its rear has cleared the column by twelve yards; each of the

other squadrons marches beyond the preceding one, changes direction to the right, is halted and established abreast of the first with the interval of forty-eight yards.

*Being in Column of Masses, to Form Front into Line of Masses.*

970. 1. *Right (or left) front into line of masses.* 2. *MARCH.*

The first squadron stands fast or is halted. The second and third squadrons are moved in masses into their places, the second on the right of the first, the third on the right of the second. The colonel may direct that the third squadron shall form on the left (or right) of the line.

*Being in Line to Change Front.*

971. To change front, the colonel forms column of fours to the right or left and then executes *front into line* on the head of any squadron, or *front into line faced to the rear.*

*Movements by Platoons.*

972. The interval between squadrons in line of platoon columns is twenty-four yards.

973. All movements in column of platoons, and line of platoon columns, School of the Squadron, may be executed by the regiment by similar commands and means; the colonel designates: (Such) *squadron*, when necessary.

974. In forming line, or line of platoon columns, each major first moves his squadron into position on the principles for forming line from column of fours, and at the proper time gives the commands for forming line or line of platoon columns.

*Being in Line of Platoon Columns, to Extend or Close Intervals.*

975. Being in march: 1. *On (such) troop (such) squadron,* 2. *Extend (or close) intervals,* 3. *MARCH.*

The designated squadron extends intervals (Par. 746); the squadrons to the right oblique to the right by the heads of columns, each major giving the commands to extend intervals when his left troop has its interval from the squadron next on its left; the left troop changes direction half left, moves up on the line, takes the gait of, and dresses toward the designated squadron. The squadrons to the left of the designated squadron extend intervals in the same manner to the left.

976. Intervals are extended and closed without gaining ground to the front by the commands and means prescribed for the squadron (Par. 782).

*Being in Line of Platoon Columns, to March in Column of Platoons.*

977. 1. *Column of Platoons*, 2. *First (or fourth) troop, first (or third) squadron*, 3. *Forward*, 4. *Guide (right or left)*, 5. *MARCH*; or, 5. *Column right (or left)*, 6. *MARCH*.

The designated squadron executes the movement, and is followed by the others at the proper distance.

*Being in Line, to Form Double Column of Fours.*

978. 1. *Double column of fours*, 2. *MARCH*.

To the first command the major of the center squadron adds: *Center forward*; the major of the first adds: *Fours left*; the major of the third adds: *Fours right*.

The second squadron forms double column of fours as in Par. 786. The first squadron follows the right column, and the third squadron follows the left column, of the second squadron.

If the regiment consist of but two squadrons, the right squadron breaks from the left and the left squadron breaks from the right to march to the front in column of fours (Par. 785).

If the regiment be in two lines, each line forms double column of fours.

979. *Being in line*: 1. *Squadrons*, 2. *Double column of fours*, 3. *MARCH*, 4. *(Such) the base squadron*. Each squadron forms double column of fours.

#### ORDER IN ECHELON.

*Being in Line at a Halt, to Advance in Echelon.*

980. 1. *Form echelon, at (so many) yards*, 2. *(Such) the base squadron*, 3. *MARCH*.

At the second command, the major of the designated squadron commands: 1. *Forward*, 2. *Guide center*; the other majors caution: *Stand fast*.

At the command *march*, the designated squadron advances; the others take up the march, each when it has the specified distance from the one next preceding.

A principal guide from each rear squadron marches at the specified distance directly in rear of the nearest flank of the preceding squadron. Each rear squadron marches abreast of and preserves the interval of sixteen yards from its principal guide thus posted.

981. The regiment in echelon advances, halts, obliques, marches to the rear or by the flank, by the same commands as when in line (see Par. 678).

982. The regiment being in echelon of squadrons may be formed into echelon of troops or platoons as explained in the School of the Squadron.

*Being in Echelon of Squadrons, to Form line.*

983. 1. *Form line on (such) squadron*, 2. *MARCH*.

The designated squadron halts or stands fast; the others form on the line of the one designated, by moving to the front or rear.

A general alignment is given if necessary.

*Being in Echelon of troops, to Form Line.*

984. 1. *Form line on (such) troop (such) squadron*, 2. *MARCH*.

#### THE STANDARD.

The manual of the standard is as prescribed for the guidon (see foot note Par. 466), except that at carry standard, dismounted, the butt of the lance is supported at the right hip.

#### Standard Salute.

*Being mounted*: Lower the lance to the front by straightening the right arm to its full extent.

*Dismounted*: Slip the right hand up the lance as high as the eye, then lower the lance to the front by straightening the right arm to its full extent.

The standard salutes in the ceremony *escort of the standard* and when saluting an officer entitled to the honor, as provided in Par. 422 to 427, A. R. 1889, but in no other cases.

If marching, the salute is executed when at six yards from the officer entitled to the salute; the carry is resumed when it has passed six yards beyond him.

At a halt, the salute is executed at the command *present saber (or arms)*; the carry is resumed at the command *carry saber (or arms)*.

#### The Guard of the Standard.

The guard of the standard is composed of four non-commissioned officers, selected by the colonel.

The standard is carried by a sergeant who is No. 2 of the guard.

The standard is with the squadron designated by the colonel, usually the second, or the first if there be but two squadrons.

The standard, kept at the quarters or office of the colonel, is escorted by the guard to the standard troop on its parade ground; it is returned in the same manner.

The guard of the standard, at the command of the standard bearer, presents saber on receiving and parting with the standard; in the latter case, the guard returns to the carry at the command of the senior member of the guard.

*The Band*

The band is generally formed in column of fours. It may be formed in two or more ranks.

Dismounted, the band is formed in two or more ranks, with sufficient intervals between the men and distances between the ranks to permit a free use of the instruments.

In line, the band is posted with the left of its front rank sixteen yards to the right of the rank. In line of columns, the left of its front rank is sixteen yards to the right of the leading subdivision of the right column; in column, it marches with its rear rank sixteen yards in front of the officers of the first subdivision, or its front rank sixteen yards in rear of the rear subdivision according as the command is facing.

Dismounted, the band takes post as when mounted.

The trumpeters, when united, form with and in rear of the band; when the band is not present, the posts, movements, and duties of the trumpeters are the same as prescribed for the band.

When the command with which the band is posted wheels about by fours the band executes the countermarch.

Dismounted, when right, left or about face is executed, the band faces in the same manner; when marching, the different ranks dress to the right.

The signals for the movements of the band will correspond to the saber signals as far as practicable.

The chief trumpeter, when not with the colonel, takes post two yards in front of the center of the front rank of the band, and gives the signals for its movements. In the absence of the chief trumpeter his post may be filled by detail.

When the signals for movements of the band are not used by the chief trumpeter, the band is marched as explained for the squad, the command *band* being substituted for *squad*.

To open ranks. Being at a halt: 1. *Open ranks*, 2. MARCH. 3. FRONT.

The front rank dresses to the right; the other ranks move backward, each taking the distance of three yards (dismounted two yards) from the rank preceding, halts and dresses to the right.

1. *Inspection*, 2. INSTRUMENTS.

Each musician, as the inspector approaches him, raises his instrument in front of his body, reverses it so as to show both sides and then returns it to its former position.

To close ranks: 1. *Close ranks*, 2. MARCH.

The front rank stands fast; the other ranks move up and close to the proper distance.

A trumpeter when inspected executes with his trumpet what is prescribed for a band musician.

In rendering honors, whenever the standard salutes, the trumpeters sound the *march*, *flourishes* or *to the standard*, at a signal by the chief trumpeter.

The *countermarch* is signaled by *rear point*, and is executed by those in the leading rank or four, to the right of the chief trumpeter, turning individually to the right about, and those to the left of him turning individually to the left about, each followed by those covering him in the column; the chief trumpeter passes through the center. Dismounted, the chief trumpeter faces to the rear and signals the *forward, march*.

To *increase intervals*, wave the saber several times to the right and left in front of the body.

To *close intervals* extend the arm vertically and rapidly circle the saber around the hand.

The intervals are increased before executing the countermarch and closed after the countermarch.

## CEREMONIES.

*General Rules.*

On occasions of ceremony, troops are arranged from right to left in line, and from head to rear in column, in the following order: First, infantry; second, light artillery; third, cavalry. Artillery serving as infantry is posted as infantry; dismounted cavalry and marines are on the left of the infantry; engineer troops are on the right of the command to which they are attached. When cavalry and light artillery are posted together, the artillery is posted on the left. In the same line, regulars, volunteers and militia are posted in line from right to left, or in column from head to rear, in the order named. On all other occasions, troops of all classes are posted at the discretion of the general or senior commander.

When forming for ceremonies, the troops of the squadron are posted according to the rank of the troop commanders present, as prescribed in the School of the Squadron (Par. 543); the squadrons of the regiment, the regiments of the brigade, the brigades of the division and the divisions of the corps are posted from right to left in line or from the head to rear in column, in the order of rank of their respective commanders present, the senior on the right, or at the head. A troop whose captain commands the squadron retains

its place according to his rank, unless otherwise directed; the same rule applies to the higher units.

Non-commissioned officers commanding troops or platoons have the same armament as the men of their troops; they do not execute the exercises in the manual. In rendering honors, they execute the *present and carry*. Dismounted, they execute only the *order and parade rest*; in rendering honors, the *present and carry*; when marching, the *right shoulder and carry*.

Cavalry armed with carbine and pistol, or the carbine only, in rendering honors mounted, execute *advance carbine* at the command *present arms*.

#### *General Rules for Reviews.*

The adjutant or adjutant-general posts men or otherwise marks the points where the column changes direction, in such manner that the right flank in passing shall be about ten yards from the reviewing officer.

The post of the reviewing officer, usually opposite the center of the line, is marked by a flag.

The reviewing officer should be at the flag before the head of the column reaches that point; before that time he may take any position to observe the movements of the troops.

The reviewing officer salutes the standard whether entitled to a salute from it or not.

The staff of the reviewing officer is in single rank, six yards in rear of him, in the following order from right to left: Chief of staff, adjutant general, aids, then the other members of the staff in the order of rank, the senior on the right; his flag and orderlies place themselves three yards in rear of the staff, the flag on the right.

Officers of the same or higher grade, and distinguished personages invited to accompany the reviewing officer, place themselves on his left; their staffs and orderlies place themselves on the left of the staff and orderlies of the reviewing officer; all others who accompany the reviewing officer place themselves on the left of his staff, their orderlies in rear.

While riding around the troops, the reviewing officer may direct his staff, flag and orderlies to remain at the post of the reviewing officer; or, that only his personal staff and flag shall accompany him.

The staff officers, in passing around the troops, or in review, ride in one or more ranks, according to the number.

Commanders of brigades and divisions take their places in the column in time to allow the commanders in front of them to take their places when at one hundred yards from the reviewing officer.

The staffs, flags and orderlies of brigade, division and corps commanders place themselves in the order prescribed for the staff, flag and orderlies of the reviewing officer.

When the commander of a corps, division, brigade, regiment or squadron turns out of the column to place himself near the reviewing officer, his post is on the right of the commanders already there; his staff will arrange themselves in single rank on the right of the staff already there; his flag and orderlies in rear of his staff. Each commander, when his rear troop has passed, salutes the reviewing officer, and with his staff and orderlies rejoins his command.

Commanders of brigades, divisions and corps, and their staff officers, draw saber when they take their places in column before passing in review; they return saber immediately after placing themselves on the right of the reviewing officer.

The brigade commander, while the reviewing officer is not in front or in rear of his brigade, may cause it to stand *at ease*, *rest*, or to *dismount and rest*, and resume *attention* and *march* so as not to interfere with the ceremony.

The colonels repeat the commands of the brigade commander.

Whenever the colonel faces the line to give commands, the majors face at the same time; they resume their front after seeing the movement executed. All such commands are executed when they have been repeated by the majors. When the command repeated is *present saber* (or *arms*) the colonel's staff salute at the command of the colonel; the colonel and majors salute after resuming their front. The same rules apply to the colonels and majors and to the general's and colonel's staffs, when the brigade commander gives commands.

When the general or colonel faces the line to give commands, the staff and orderlies do not change position.

In line, at the command, *prepare for review*, *march*, the standard bearer takes post in front of his position, on the line of troop officers; in line of columns he takes post opposite the left of the leading subdivision on the line of the troop officers of that subdivision; at the command *posts*, he resumes his place in the rank.

When the rank of the reviewing officer entitles him to the honor, each standard salutes at the command *present arms*, given or repeated by the major of the battalion with which it is posted, and again in passing in review, when six yards from the reviewing officer; the standard is raised when it has passed six yards beyond the reviewing officer.

The band of each regiment plays while the reviewing officer is passing in front or in rear of the regiment.



Each band, after passing the reviewing officer, turns out of the column and takes post in front of the reviewing officer, continues to play until its regiment has passed, then ceases playing and follows in rear of its regiment; the band of the next following regiment then commences.

While marching in review, but one band in each brigade plays at a time, and but one band at a time within one hundred yards of the reviewing officer.

The trumpeters of each regiment are consolidated in rear of the band.

When the standard salutes, in formations for review, the *march*, or *flourishes* are sounded by all the trumpeters with the bands: in passing in review, by the trumpeters with the band that is halted in front of the reviewing officer.

The formation for review may be modified to suit the ground, and the *present* in line and the ride around the line by the reviewing officer may be dispensed with; the troops simply march in review with the guide either right or left, according as the post of the reviewing officer is on the right or left of the column; the officers and non-commissioned officers who have designated places on a flank of the column when the guide is right are on the opposite flank when the guide is left; in the latter case, commanders and their staffs turning out of the column take post as prescribed, but to the left of the reviewing officer.

Troops pass in review at a walk, trot or gallop. No salutes are made when passing at the trot or gallop.

In reviews of brigades, divisions and corps, each squadron, after its rear has passed the reviewing officer fifty yards, takes an increased gait for one hundred yards in order not to interfere with the march of the column in rear.

The troops having passed the reviewing officer, return to their camps by the most practicable route, being careful not to delay the march of the troops in their rear.

When it is necessary that an organization should be reviewed before an inspector junior in rank to the commanding officer, the commanding officer will receive the review and will be accompanied by the inspector.

#### SQUADRON REVIEW.

The squadron being in line, the staff, except the adjutant, in the order of rank, the senior on the right, take post with one yard interval, in line with the chiefs of platoons, four yards to the right of the rank; the non-commissioned staff and regimental non-commis-

sioned officers, except the sergeant-major, take post in a similar manner on a line with and eight yards to the left of the rank.

The reviewing officer takes his post.

The major in front of and facing the center commands: 1. *Prepare for review*, 2. *MARCH*, 3. *FRONT*.

At the command *march*, the staff, chiefs of platoons and standard bearer move up on the line of captains; the guidons take post on the right of the rank of their respective troops; the sergeant-major takes post on the right of the non-commissioned staff; the major's trumpeter joins the trumpeters; the line of officers, the rank and the line of file-closers dress to the right; the major rides at a trot or gallop to the right of the squadron and verifies the alignment of the officers and rank; the adjutant verifies the alignment of the file-closers.

At the command *front*, the adjutant takes post on the right of the staff; the major takes post facing to the front, twenty yards in front of the center of the squadron. The reviewing officer moves a few paces toward the major and halts, when the major turns about and commands: 1. *Draw*, 2. *SABER*, 3. *Present*, 4. *SABER*.

The officers and men present sabers and the guidons salute; should the rank of the reviewing officer entitle him to the honor, the standard salutes and the trumpeters sound the march or flourishes (Pars. 422 to 427 A. R. 1889); the major turns about and salutes.

The reviewing officer returns the salute, after which the major turns about and commands: 1. *Curry*, 2. *SABER*, turns again to the front, and returns saber.

The reviewing officer now starts for the right of the line; the major joins him, salutes, and, placing himself on his right, accompanies him around the squadron. The reviewing officer proceeds to the right of the band, passes in front of the troop officers to the left of the line and returns to the right, passing in rear of the file-closers.

The band plays while the reviewing officer is going around the squadron, ceasing when he leaves the right to return to his post. On leaving the right of the line, the major takes his place on the left of the reviewing officer, accompanies him a few yards, salutes, moves directly to his post in front of and facing the squadron, draws saber, and commands: 1. *Attention*, 2. *Posts*.

The chiefs of platoons and standard turn left about and take their posts. The staff and non-commissioned staff stand fast. The major then commands: 1. *Troops (or platoons) right*, 2. *MARCH*.

The staff place themselves on a line, with intervals of one yard, fifteen yards in front of the center of the leading subdivision, the adjutant on the right, the others in the order of rank from right to left.



The non-commissioned staff and regimental non-commissioned officers place themselves on a line equal to the front of the rear subdivision twelve yards in rear of the rear subdivision, the sergeant-major on the right, the others in the order of rank from right to left.

The band takes post thirty yards in front of the leading subdivision.

The column being formed, the major commands: 1. *Pass in review*, 2. *Forward*, 3. *Guide right*, 4. *MARCH*.

At the command *march*, the column moves off, the band playing; the column changes direction; without command from the major, at the marked points; the major takes post six yards in front of the staff immediately after the second change of direction; the band having passed the reviewing officer, turns to the left out of the column, takes post in front of the reviewing officer and remains there until the review terminates.

The major and staff salute together when the major is at six yards from the reviewing officer and return to the carry together when the major has marched six yards beyond him; the other officers, the non-commissioned staff officers, the regimental non-commissioned officers, non-commissioned officers in command of subdivisions and the guidons salute and return to the carry at the points prescribed for the major; in saluting, they turn the head and look toward the reviewing officer. Staff and non-commissioned staff officers without sabers or swords salute with the right hand. If the reviewing officer be entitled to the honor, the standard salutes when at six yards from him and is raised when at six yards beyond him; as the standard salutes, the trumpeters sound the march or flourishes, the band continuing to play.

Non-commissioned staff officers, regimental non-commissioned officers and non-commissioned officers in command of subdivisions salute as prescribed in the School of the Soldier (Par. 186).

The reviewing officer returns only the salute of the major and standard; he salutes the standard whether entitled to a salute from it or not.

The major, having saluted, takes post on the right of the reviewing officer, remains there till the rear of the squadron has passed, and then salutes and rejoins the squadron. His staff place themselves in rear of the major, on the right of the staff of the reviewing officer; they accompany the major when he rejoins the squadron.

The band ceases to play when the column has completed its first change of direction after passing the reviewing officer.

When the squadron arrives near its original position in column, the major commands: 1. *Trot (or gallop)*, 2. *MARCH*.

The squadron passes in review as before, except that there is no saluting, the band playing.

The review terminates when the rear troop has passed the reviewing officer; the band then ceases to play, and, unless otherwise directed by the major, returns to the position it occupied before marching in review, or is dismissed; the major and his staff rejoin the squadron.

The squadron then executes such movements as the reviewing officer may have directed or is marched to its parade ground and dismissed.

The march in review at the trot (or gallop) may, in the discretion of the reviewing officer, be omitted; the review then terminates as before. Or, the reviewing officer may require the squadron to march in review a third time at the gallop; the review then terminates as before.

#### REGIMENTAL REVIEW.

The regiment is formed in line, in line of platoon columns, or in line of masses.

##### *In Line.*

The colonel takes post facing to the front; the adjutant, during review, is on the right of the staff; the regimental non-commissioned staff, regimental non-commissioned officers and orderlies are three yards in rear of the staff, the chief trumpeter on the right, the sergeant-major on his left. Non-commissioned staff officers other than regimental are eight yards from the left of the left squadron.

When the reviewing officer approaches his post, the colonel faces the regiment and commands: 1. *Prepare for review*, 2. *MARCH*.

Executed in each squadron as prescribed for the squadron review; the lieutenant-colonel takes post twenty yards in front of the right flank. The majors having taken their posts, the colonel faces to the front.

The reviewing officer, accompanied by his staff, then approaches the colonel and halts at thirty yards in front of him.

The colonel then faces the regiment and commands: 1. *Draw*, 2. *SABER*, 3. *Present*, 4. *SABER*.

The colonel and majors face to the front and salute. The staff salute and return to the carry at the command of the colonel.

The reviewing officer having returned the salute, the colonel faces the regiment and commands: 1. *Carry*, 2. *SABER*, and faces to the front.

The colonel and his staff, non-commissioned staff, etc., then return *saber*; the colonel joins the reviewing officer, placing himself on his right; the colonel's staff place themselves on the right of the staff of the reviewing officer, unless the reviewing officer advances alone, in which case the colonel alone joins and accompanies him, the staffs remaining at their posts.

The reviewing officer then goes to the right of the line, passes in rear of the line of majors to the left, and returns in rear of the file-closers to the right, whence he proceeds to his post.

The band plays while the reviewing officer is passing around the regiment.

When the reviewing officer leaves the right of the line, after passing around the regiment, the colonel returns by the shortest line to his post facing the regiment, and draws *saber*; the colonel's staff take post at the same time in rear of the colonel and draw *saber*.

The colonel then commands: 1. *ATTENTION*, 2. *POSTS*, 3. *Troops (or platoons) right*, 4. *MARCH*.

The non-commissioned staff of each squadron take post as prescribed in the squadron review; the column having been formed, each major takes post twenty yards in front of the center of his leading subdivision, his adjutant six yards in rear of him; the lieutenant-colonel is in line with the major of the leading squadron, six yards to the right of the column; the band is thirty yards in front of the leading subdivision; the non-commissioned staff, other than regimental, twelve yards in rear of the rear subdivision, the sergeant-major of the rear squadron on their right.

The colonel then commands: 1. *Pass in review*, 2. *Forward*, 3. *Guide right*, 4. *MARCH*.

The column passes in review according to the principles prescribed in the squadron review. When the head of the column has made its second change of direction, the colonel places himself twenty-four yards in front of the band, his staff six yards in rear of him, the non-commissioned staff, etc., the sergeant-major on the right, three yards in rear of the staff.

The colonel having saluted, places himself on the right of the reviewing officer.

The majors do not turn out of the column after passing the reviewing officer.

The colonel rejoins and concludes the review as prescribed for the squadron, after which the squadrons unless otherwise directed, are marched to their parade grounds and dismissed.

#### *In Line of Platoon Columns*

With the following modifications, the rules for the review of the regiment in line apply.

When the colonel commands: 1. *Prepare for review*, 2. *MARCH*, each guidon takes post on the right of the first platoon of his troop; each captain six yards in front of his guidon; the chief of each first platoon and the squadron staff officers move up on the line of captains, the squadron adjutant on the right of the squadron staff; chiefs of rear platoons remain in place; the squadron sergeant-major and the non-commissioned staff officers other than regimental, in line with the leading platoons.

When the reviewing officer has passed around the regiment the colonel commands: 1. *Pass in review*, 2. *Column of platoons*, 3. *First troop, first squadron*, 4. *Forward*, 5. *Guide right*, 6. *Column right*, 7. *MARCH*. (See Par. 977.)

#### *In Line of Masses.*

The same rules apply as for the review of the regiment in line, except that when the colonel commands: 1. *Prepare for review*, 2. *MARCH*, each captain takes post two yards in front of his guidon; chiefs of platoons remain in place; the staff in line with the captains of the leading troops; non-commissioned staff, other than regimental, in line with the leading troops.

When the reviewing officer has passed around the regiment, the colonel commands: 1. *Squadrons*, 2. *Change direction by the left flank*, 3. *MARCH*.

The column having been formed, the colonel commands: 1. *Pass in review*, 2. *Take full distance*, 3. *Guide right*, 4. *MARCH*.

Each major takes post twenty yards in front of the center of his leading troop when his troops have full distance.

To march in review in column of platoons, the colonel commands: 1. *Pass in review*, 2. *Column of platoons*, 3. *Forward*, 4. *Guide right*, 5. *MARCH*.

The major of the first squadron commands: 1. *First troop*, 2. *Right by platoon*, 3. *MARCH*, 4. *Guide right*.

The first troop executes the movement, followed by the others executing the same movement when at the proper distance; the other squadrons execute the same movement, each when at the proper distance.

#### BRIGADE REVIEW.

The brigade is formed in line of masses or in line of platoon columns, with an interval of sixty-four yards between regiments.

Each colonel causes his regiment to prepare for review as prescribed in Regimental Review.

The brigade commander takes post thirty yards in front of the center of the line of colonels.

On the arrival of the reviewing officer, the brigade commander causes his trumpeter to sound *attention*, which is repeated in each regiment; each colonel then causes his regiment to draw saber.

The reviewing officer having halted at thirty yards from the brigade commander, the brigade commander and his staff draw saber; the brigade commander then faces the brigade and causes his trumpeter to sound attention, and commands: 1. *Present*. 2. *SABER*, faces to the front and salutes the reviewing officer.

The reviewing officer having returned the salute, the brigade commander faces the brigade, commands: 1. *Carry*. 2. *SABER*, and faces to the front; he and his staff return saber and join the reviewing officer.

The reviewing officer accompanied by his staff, and the brigade commander and his staff, then proceeds to the right of the brigade, passing in front of the colonel of the first regiment, to the right of the line, thence around the brigade passing to the left in rear of the majors, and to the right in rear of the file-closers of the rear subdivisions.

The colonels remain at their posts facing to the front while the reviewing officer is passing around the brigade. When the reviewing officer leaves the right of the line, the brigade commander causes *attention* to be sounded; the colonels then command: 1. *ATTENTION*. 2. *Posts*, and cause their squadrons to execute *change direction by the left flank*; the colonel of the leading regiment then gives the preparatory commands for passing in review in column of troops or platoons as prescribed in Regimental Review.

The brigade commander then causes the signal *forward, march*, to be sounded, which is repeated in the leading regiment.

The column moves off as in Regimental Review.

The colonels of the center and rear regiments give the commands for passing in review, each in time to follow the regiment preceding at sixty-four yards and subdivision distance.

Each colonel takes post twenty-four yards in front of his band when the head of his regiment has made its second change of direction.

The brigade commander takes post thirty yards in front of the colonel of the leading regiment, when at one hundred yards from the reviewing officer.

The brigade commander and colonels, when they have saluted,

turn out of the column and take post with the reviewing officer.

The review terminates when the rear squadron has passed the reviewing officer.

#### *Division Review.*

The division is formed in one, two or three lines of masses, or lines of platoon columns with an interval of one hundred yards between brigades.

Each regiment is prepared for review as prescribed in Brigade Review.

Upon the arrival of the reviewing officer, the general commanding the division joins and accompanies him, and causes the signal *attention* to be sounded, which is taken up in the right brigade of the first line.

#### *In One Line.*

The reviewing officer receives the salute of each brigade when he arrives at its right, except when he approaches a brigade from its left or front, in which case he receives the salute as prescribed in the Brigade Review.

The reviewing officer receives the salute of the right brigade, passes along its front from right to left, then receives the salute of the next brigade, and so on to the left of the division, thence in rear of the division to the right, and back to his post.

Each brigade commander salutes, facing to the front, then faces his brigade and brings it to carry saber, and remains at his post.

The reviewing officer having passed around the division, the division commander causes the signal *attention* to be sounded.

The commander of the right brigade then forms his brigade in column, and, when the signal *forward, march*, is sounded, gives the commands for passing in review as in the Brigade Review.

Each of the other brigades is called to attention, formed in column and put in march in time to follow the next preceding at a distance of about one hundred yards.

The division commander with his staff, flag and orderlies takes post thirty yards in front of the commander of the leading brigade when at one hundred yards from the reviewing officer.

The review is conducted as prescribed in the Brigade Review.

#### *In Two or Three Lines.*

The reviewing officer passes around each line in succession, beginning with the right brigade of the first line.

With this exception, the rules prescribed for the single line apply.

## CORPS REVIEW.

The corps is formed in one, two or three lines, with each division in a single line of masses, or line of platoon columns, with an interval of one hundred yards between divisions.

On the arrival of the reviewing officer, the corps commander causes *attention* to be sounded, which is repeated by the trumpeter of the commander of the right division of the first line, and is taken up in the right brigade of that division.

The reviewing officer passes in front of the first line from right to left, receiving the salute of each brigade as prescribed in the Division Review, passes in rear of the line to its right, thence to the second line, passing around it in like manner, and so on.

Each division commander accompanied by his staff, joins the reviewing officer and corps commander as they approach his division, and accompany them while passing in front and in rear of his division; he then remains near the right of his division.

The reviewing officer having passed around the troops, the corps commander causes *attention*, and *forward, march*, to be sounded; the march in review is conducted on the principles for the review of a division.

On approaching the reviewing officer, the corps commander places himself about fifty yards in front of the commander of the first division.

The artillery of the corps is reviewed as prescribed in the Drill Regulations for Artillery.

The review of a command larger than a corps is conducted on the same principles.

The troops may be marched in review in column of masses.

## GUARD MOUNTING.

*Mounted.*

(The present signal *assembly of guard details* followed by *boots and saddles* is the first call for mounted guard mounting, and is followed at a prescribed interval by *to horse*; *adjutant's call* follows the signal *to horse* at a prescribed interval.)

At *to horse*, the men warned for duty form in single rank, at stand to horse, on their troop parade grounds, the non-commissioned officers falling in as file-closers; the supernumeraries do not fall in; each first sergeant verifies his detail and inspects the dress and general appearance; he then mounts, draws saber and causes his detail to mount.

The band takes post on the parade so that the left of its front rank shall be sixteen yards to the right of the guard when the latter is formed.

At *adjutant's call*, the adjutant proceeds to the parade ground and takes post so as to be twelve yards in front of and facing the center of the guard when formed; the sergeant-major reports to the adjutant and takes post facing to the left, the crop of his horse twelve yards from the left of the band, on a line with its front rank; the details are marched to the parade ground by the first sergeants, the first sergeants with their sabers drawn, the details at return saber; the detail that arrives first is so marched to the line that upon halting, the man on the right shall be on a line with the sergeant-major and one yard in front of the sergeant-major's horse; the first sergeant having halted his detail, places himself in front of and facing the sergeant-major at a distance a little greater than the front of his detail; he then commands: 1. *Right*, 2. *DRESS*: the rank dresses up to the line of the sergeant-major and first sergeant; the non-commissioned officers rein back so as to be six yards in rear of the rank; the first sergeant commands: *FRONT*, salutes with the saber and then reports: *The detail is correct*; or, (so many) *sergeants, corporals or privates are absent*; the sergeant-major or acting sergeant-major, then returns the salute with the right hand; the first sergeant then passes by the right of the guard and rear of the sergeant-major, and takes post six yards in rear of the non-commissioned officers of the guard.

The other details, as they arrive, are formed in like manner on the left of the first; the rank, non-commissioned officers, and first sergeant of each detail dress on the rank, non-commissioned officers and first sergeant of the detail next preceding.

The troop details alternate in taking the right of the line.

When the last detail has formed, the sergeant-major draws saber, verifies the details, causes the guard to count fours, and if there be more than three fours, divides the guard into two platoons; he then commands: 1. *Right*, 2. *DRESS*, verifies the alignment of the rank, the line of non-commissioned officers, and the first sergeants, and then returns to the right of the rank, turns to the left, commands: *FRONT*, passes to a point midway between the adjutant and center of the guard, halts facing the adjutant, salutes, and reports: *Sir, the details are correct*; or, *Sir, (so many) sergeants, corporals or privates are absent*; the adjutant returns the salute, directs the sergeant-major: *Take your post*, and then draws saber; the sergeant-major turns to the left and takes post facing to the front, three yards to the left of the rank.

When the sergeant-major has reported, the officer of the guard takes post, facing to the front, six yards in front of the center of the guard and draws saber.

The adjutant then directs: *Inspect your guard, sir*, at which the commander of the guard turns about, commands: 1. *Inspection*, 2. *ARMS*, and inspects the guard.

During the inspection the band plays.

The adjutant, during the inspection, observes the general condition of the guard, and, when so directed, selects an orderly for the commanding officer; he may require a trooper to move out of the rank, and to dismount for a more minute inspection; he also notifies the two senior non-commissioned officers to serve as chiefs of platoons. If any trooper does not present a creditable appearance, his captain is notified through the first sergeant and sends a trooper to the officer of the guard, at the guard house, to replace him.

If there be a supernumerary officer of the guard, he takes post, facing to the front, six yards in front of the center of the first platoon; he may be directed by the commander of the guard to assist in inspecting the guard; the adjutant notifies the senior non-commissioned officer to serve as chief of the second platoon.

If there be no officer of the guard, the adjutant inspects the guard, and during inspection, notifies the senior non-commissioned officer to command the guard, the next two senior non-commissioned officers to serve as chiefs of platoons.

The inspection ended, the adjutant places himself about thirty yards in front of and facing the center of the guard; the officers of the day take post in front of and facing the guard, about thirty yards from the adjutant; the old officer of the day three yards to the right of and two yards less advanced than the new officer of the day; the officer commanding the guard takes post facing to the front, six yards in front of the center of the guard, and thereafter takes the same relative positions as the captain of a troop.

The adjutant then commands: 1. *Drum*, 2. *SABER*, 3. *SOUND OFF*.

The band, playing, passes in front of the officer of the guard to the left of the line and back to its post on the right, when it ceases playing.

The adjutant then commands: 1. *Attention*, 2. *POSTS*, at which the chiefs of platoons take their posts two yards in front of the center of their platoons facing to the front, and the commander of the guard, if not already there, takes post six yards in front of the center of the guard facing to the front; the file-closers close to two yards from the rank.

The commander of the guard and chiefs of platoons having taken their posts the adjutant commands: 1. *Present*, 2. *SABER*, faces toward the officer of the day, salutes and then reports: *Sir, the guard is formed*.

The new officer of the day, after the adjutant has reported, salutes with the hand and directs the adjutant: *March the guard in review, sir*.

The adjutant turns about, brings the guard to a carry and commands: 1. *Platoons right*, 2. *MARCH*.

The platoons execute the movement as explained in the School of the Troop; the band takes post in front of the column. The adjutant places himself abreast of the first platoon and six yards from its left flank; the sergeant-major abreast of the second platoon and six yards from its left flank.

The adjutant then commands: 1. *Pass in review*, 2. *Forward*, 3. *Guide right*, 4. *MARCH*.

The guard marches at the walk past the officer of the day, according to the principles of review, the adjutant, the commander of the guard, chiefs of platoons, sergeant-major and chief trumpeter saluting. The new officer of the day returns the salute of the commander of the guard with the hand.

The band, having passed the officers of the day, turns to the left out of the column, places itself opposite and facing them and ceases to play when the rear of the column has passed; the trumpeters detach themselves from the band when the latter turns out of the column, and remain in front of the guard, commencing to play when the band ceases. In the absence of the band the trumpeters do not turn out of the column, but continue to play in front of the guard.

The guard having passed the officer of the day, the adjutant halts, the sergeant-major halts abreast of the adjutant and one yard to his left; they then return saber and retire. The commander of the guard forms it into column of fours, without halting, and marches it to its post. The officers of the day turn toward each other and salute, the old officer of the day turning over the orders to the new officer of the day.

While the band is sounding off, and while the guard is passing in review, the officers of the day and first sergeants remain at attention; the first sergeants return saber and retire at the same time as the adjutant and sergeant-major.

When the guard is not divided into platoons, the adjutant commands: 1. *Guard right*, 2. *MARCH*, and it passes in review as before; the commander of the guard is two yards in front of its center; the

adjutant is six yards from and abreast of its left flank; the sergeant-major covers the adjutant, abreast of the file-closers.

The officer of the day may direct the adjutant: *March the guard to its post, sir.* The adjutant then faces the guard, and commands: 1. *Guard to its post,* 2. *Fours right,* 3. *MARCH;* or 2. *Right forward,* 3. *Fours right,* 4. *MARCH,* or causes the guard to march at the trot.

The trumpeters take post in front, and the guard marches off in column of fours; the adjutant, sergeant major and first sergeants return saber and retire; the officers of the day salute each other and the band retires.

As the new guard approaches the guard house, the old guard is formed in line at the carry, its trumpeters two yards to its right; when the trumpeters at the head of the new guard arrive opposite its left, the commander of the old guard commands: 1. *Present,* 2. *SABER,* and when the new guard has passed, commands: 1. *Carry,* 2. *SABER.*

The new guard marches at the walk past the old guard, sabers at the carry, commanders of both guards saluting.

The trumpeters and guard continue marching, without changing direction, until the rear of the column has passed eight yards beyond the trumpeters of the old guard, when the commander of the new guard commands: 1. *Fours right,* 2. *MARCH,* 3. *Guide right.*

The trumpeters and guard are marched three yards in rear of the line of the old guard, when the commander of the new guard commands: 1. *Fours right about,* 2. *MARCH,* 3. *Guard,* 4. *HALT,* 5. *Left,* 6. *DRESS,* 7. *FRONT.*

He then, facing to the front, aligns his guard so as to be on a line with the old guard.

The new guard having been dressed, the commander of each guard, in front of its center, facing to the front, commands: 1. *Present,* 2. *SABER,* and salutes.

The officers having saluted face their guards and command: 1. *Carry,* 2. *SABER,* 3. *Return,* 4. *SABER.*

Should the guard be commanded by a non-commissioned officer, he takes post as prescribed for the officer of the guard and presents saber with his guard.

The reliefs call off from right to left and are marched in column of fours or twos; the sentinels are posted successively from the head of the column; the sentinels relieved form successively in rear of the column.

The detachments and sentinels of the old guard are relieved, and, as they come in, they form on its left; both guards draw saber; the

commander of the old guard then marches it with the guide right, twelve yards to the front, when he commands: 1. *Fours right,* 2. *MARCH.*

The guard wheels by fours to the right, the trumpeters begin to play, and the guard marches at the walk past the new guard, which stands at present saber, commanders of both guards saluting.

On arriving on the regimental, post or camp parade ground, the commander of the old guard forms it in line and halts it, draws cartridge, orders successively the troop details six yards to the front, and sends each, under charge of a non-commissioned officer or private, to its troop.

When sentinels and detachments are at a considerable distance from the headquarters of the guard, the old and new guards are dismounted while awaiting the return of the reliefs.

In bad weather, at night, or after long marches, the music may be dispensed with, or the trumpeters may take the place of the band and sound off, standing on the right of the guard, and the review be omitted.

#### *Dismounted.*

(The present signal *assembly of guard details* is the first call for guard mounting, dismounted.)

Guard mounting dismounted is conducted in single rank on the same principles as guard mounting mounted, with the following modifications:

At the *assembly*, the men warned for duty fall in on their troop parade grounds, non-commissioned officers and supernumeraries falling in as file-closers; each first sergeant then verifies his detail, inspects the dress and general appearance and replaces by a supernumerary any man unfit to march on guard.

The sergeant-major takes post, facing to the left, sixteen yards from the left of the band; the band plays in quick or double time; the details are marched to the parade ground, with arms at the right shoulder; the detail that arrives first is so marched that, upon halting, the breast of the man on the right shall be near to and opposite the left arm of the sergeant-major; the first sergeant, having halted his detail, commands: 1. *Open ranks,* 2. *MARCH.*

The rank dresses up to the line of the sergeant-major and first sergeant, the man on the right placing his breast against the left arm of the sergeant-major; the non-commissioned officers step back and halt three yards in rear of the rank; the supernumerary steps back and halts three yards in rear of the non-commissioned officers.

Seeing the rank opened, the first sergeant commands: *FRONT*, salutes, reports, passes by the right, takes post three yards in rear of his supernumerary and orders arms.

When the sergeant-major has reported, the officer of the guard takes post three yards in front of the center of the guard and draws saber.

The adjutant then commands: 1. *Officer (or officers) and non-commissioned officers*. 2. *Front and center*. 3. *MARCH*.

The officer advances and halts three yards from the adjutant; the non-commissioned officers carry arms, pass by the flanks and form in the order of rank from right to left, three yards in rear of the officer; the adjutant then assigns the officer and non-commissioned officers according to rank in the following order:

*Commander of the guard, chief of first platoon, chief of second platoon, right guide of first platoon, left guide of second platoon, left guide of first platoon, right guide of second platoon, and file-closers.*

The adjutant then commands: 1. *Non-commissioned officers*; or, 1. *Officer and non-commissioned officers*. 2. *Posts*. 3. *MARCH*.

At the command *march*, all except the officer commanding the guard, face about and take post as follows:

*Chief of first platoon*, three yards in front of the center of the first platoon; *chief of second platoon*, three yards in front of the center of the second platoon; *right guide first platoon*, on the right of the rank of first platoon; *left guide second platoon*, on the left of the rank of the second platoon; *left guide first platoon*, in the line of file-closers in rear of the second man from the left of the first platoon; *right guide second platoon*, in the line of file-closers in rear of the second man from the right of second platoon; *file-closers*, three yards in rear of the rank, to the right of the left guide first platoon, and to the left of the right guide of the second platoon; each orders arms when he takes his post. A non-commissioned officer commanding the guard takes post on the right of the right guide first platoon. A non-commissioned officer designated as chief of platoon, takes post in the line of file-closers opposite the center of his platoon.

The adjutant then directs: *Inspect your guard, sir*.

During the inspection the adjutant replaces by the supernumerary any man who does not present a creditable appearance.

The inspection ended, the officer commanding the guard takes post three yards in front of the center of the guard.

The adjutant then commands: 1. *Parade*. 2. *REST*. 3. *SECOND OFF*.

After the band sounds off, the adjutant commands: 1. *Guard*. 2. *ATTENTION*, 3. *Close ranks*, 4. *MARCH*.

The file-closers close to two yards from the rank; the officer commanding the guard faces about and takes post facing to the front, two yards in front of the center of the guard; if there be a supernumerary officer of the guard, he takes post in the line of file-closers opposite the center of his platoon.

In presenting the guard to the officers of the day, the adjutant commands: 1. *Present*, 2. *ARMS*.

When forming column of platoons to march in review, each chief of platoon after verifying the alignment of his platoon, takes post two yards in front of its center, facing to the front; the left guide of the first platoon and the right guide of the second platoon place themselves on the left and right flanks of their respective platoons. A non-commissioned officer commanding the guard takes the post of an officer commanding the guard, when in column or passing in review.

The adjutant brings the guard to a right shoulder.

The guard marches in review at quick time, and is brought to a carry by the commander of the guard when at forty yards from the officer of the day.

While the band is sounding off, and while the guard is marching in review, the officers of the day stand at parade rest with arms folded, and come to attention before the guard is to be presented and again as the head of the column approaches.

The first sergeants and supernumeraries come to parade rest and attention with the guard; they remain at order arms while the guard is being presented and formed into column.

The senior first sergeant commands: 1. *Parade*. 2. *REST*, at the command *march*, for passing in review, and: 1. *Supernumeraries*. 2. *ATTENTION*, when the officers of the day come to attention.

The first sergeants come to parade rest, and to attention with the supernumeraries. When the adjutant halts, after the guard has passed in review, each first sergeant marches his supernumerary to the troop parade ground and dismisses him.

When the guard is directed to march to its post, it may be marched in double time.

The new guard marches in quick time past the old guard; arms at a carry; the trumpeters having marched three yards beyond the trumpeters of the old guard, change direction to the right and, followed by the guard, change direction to the left when on a line with the old guard; the changes of direction are made without command. The commander of the guard halts on the line of the rank of the old guard, allows his guard to march past him, and, when its rear approaches, forms it into line to the left, halts it, establishes the left

guide three yards to the right of the trumpeters of the old guard and on a line with its rank and then dresses his guard to the left.

The new guard being dressed, the commander of each guard in front of and facing the center commands: 1. *Present*, 2. *ARMS*, faces to the front and salutes.

The commanders having saluted, each faces his guard and commands: 1. *Carry*, 2. *ARMS*, 3. *Order*, 4. *ARMS*.

Should a guard be commanded by a non-commissioned officer, he presents arms with the guard, standing on the right or left of the rank, according as he commands the old or new guard.

The old guard is advanced six yards and then marched by the flank, in quick time, past the new guard.

Before dismissing the troop details, the commander of the old guard causes the guard to open chamber.

For detailed instructions for guards and sentinels, see Manual of Guard Duty.

#### SQUADRON PARADE.

At to horse the troops are formed mounted on their respective parade grounds and are inspected by their captains; the inspection being completed, *adjutant's call* is sounded, at which the squadron is formed on the squadron parade ground (Par. 708).

The band takes post on a line with the rank of the squadron, the left of its front rank sixteen yards from the flank of the squadron; the trumpeters form with the band.

The sergeant-major, having posted the last guide in his wing, takes post four yards on the left of the rank facing to the front.

The adjutant, having posted the last guide in his wing, takes post facing to the left two yards to the right of the rank on the line of captains.

The staff, except the adjutant, takes post four yards to the right of and in line with the chiefs of platoons, in the order of rank from right to left, the senior on the right. The non-commissioned staff and regimental non-commissioned officers take post in a similar manner two yards to the left of the sergeant-major.

The major takes post at a convenient distance in front of the center of the squadron, facing the line.

As soon as the adjutant sees that the last troop has formed on the line, he directs the first captain to cause his troop to *draw saber*. The captains, commencing on the right, successively turn about and command: 1. (Such) *troop*, 2. *Draw*, 3. *SABER*, and resume their front.

The adjutant takes post four yards to the right of the staff, and commands: *SOUND OFF*.

The band, playing a march, passes in front of the captains, to the left of the line, and back to its post on the right, when it ceases playing. At evening parade, when the band ceases playing, *retreat* is sounded by the trumpeters.

When the music ceases, the adjutant moves up on the line of captains, turns to the left and commands: 1. *Squadron*, 2. *ATTENTION*, 3. *Prepare for parade*, 4. *MARCH*.

At the command *march*, the commissioned officers commanding platoons ride forward and halt on the line of captains; the guidon of each troop, if not already there, takes post on the right of his troop, passing in rear of the rank; non-commissioned officers commanding platoons take post on the line of the rank one yard to the right of the guidon, or one yard to the left of the troop, according as their platoons are on the right or left of the center of the troop; a non-commissioned officer commanding a troop takes post on the line of the rank to the right of the chiefs of platoons on the right of the troop; the staff officers move up and halt on the line of captains; all dress to the right.

The adjutant verifies the alignment of the officers, the rank and the file-closers. The officers and file-closers cast their eyes to the front, as soon as their alignment is verified.

The adjutant having verified the alignment returns to the line of captains, turns to the left, halts, commands: *FRONT*, then moves at the trot or gallop by the shortest line to a point midway between the major and the center of the squadron, faces the squadron, halts and commands: 1. *Present*, 2. *SABER*. He then turns left about, salutes the major, and reports: *Sir, the parade is formed*.

The major returns the salute and directs the adjutant: *Take your post, sir*. The adjutant moves at a trot or gallop, and, passing by the major's right, takes post, facing the squadron, three yards to the left of the major and one yard less advanced.

The adjutant having taken his post, the major draws saber, commands: 1. *Carry*, 2. *SABER*, and adds such exercises in the manual of arms (saber, carbine and pistol,) or saber exercise as he may desire, concluding with the squadron at return saber.

The officers do not return saber.

He then directs the adjutant to receive the reports, and returns saber. The adjutant, passing by the major's left, advances at a trot or gallop toward the center of the line, halts midway between it and



the major, and commands: 1. *First sergeants*, 2. *Front and center*, 3. *Trot (or gallop)*, 4. *MARCH*.

At the first command, the first sergeants and chief trumpeter draw saber.

At the command *march*, they leave their posts, and passing in rear of the line of officers assemble opposite the center, facing to the front. The adjutant then commands: *Report*.

The chief trumpeter and first sergeants, commencing on the right, successively salute and report: The chief trumpeter, *Band and trumpeters present or accounted for*; or, (so many) *musicians or trumpeters absent*; the first sergeants, *Troop "D," etc., present or accounted for*; or, (so many) *sergeants or corporals or privates absent*.

The reports having been made, the adjutant commands: 1. *First sergeants*, 2. *Posts*, 3. *Trot (or gallop)*, 4. *MARCH*.

At the command *march*, the chief trumpeter and first sergeants successively turn to the right and left, resume their posts and, except the chief trumpeter, return sabers. Each first sergeant passes around the right flank of his troop.

The adjutant then turns about, salutes and reports: *Sir, all are present or accounted for*; or, (so many) *officers or enlisted men are absent*. The major returns the salute and directs: *Publish the orders, sir*.

The adjutant turns about and commands: *Attention to orders*; he reads the orders and then commands: 1. *Officers*, 2. *Center*, 3. *MARCH*.

At the command *officers*, all the officers return saber.

At the command *march*, the officers turn and close toward the center and successively turn to the front and halt eleven yards from the line; the two officers nearest the center preserve an interval for the adjutant, who passes through, four yards to the rear, turns about and halts; all the officers having formed, the adjutant rides up to his place. The senior troop officer commands: 1. *Forward*, 2. *Guide center*, 3. *MARCH*.

The officers advance, the band playing; the adjutant is the guide and marches on the major; at six yards from the major, the senior troop officer commands: 1. *Officers*, 2. *HALT*.

The music ceases; the officers halt and salute, keeping the band at the visor till the salute is returned, and dropping it at the same time with the major's. The major then gives such instructions as he may deem necessary, and this concludes the ceremony.

As the officers disperse, the music is resumed; each first sergeant draws saber, rides in front of his troop, commands: *Posts*, and marches his troop to its parade ground and dismisses it; the band plays till the troops leave the parade ground.

The commanding officer may direct that the first sergeants march their troops in line, or column of platoons, around the parade ground, as in passing in review; after passing the major, they march them to their troop parade grounds and dismiss them. Or, the commanding officer may direct that the troops move off in echelon and march to their parade grounds. In these cases, the officers, unless excused, remain with the major until the troops have passed.

Previous to executing the saber exercise, the major may cause the troopers to take distances to the front (Par. 416).

The troop officers, staff and non-commissioned staff officers, regimental non-commissioned officers, band, and non-commissioned officers commanding troops or platoons advance and preserve their positions relative to the rank of Nos. 1: the guidons stand fast until Nos. 4 have their distances, then move up and halt in line with them. The file-closers preserve their relative distances in rear of Nos. 4. At the conclusion of the parade, each first sergeant causes his troop to form rank, and dismisses it as prescribed.

The squadron may be formed in line of platoon columns.

The parade is conducted as when in line with the following modifications:

At the command *prepare for parade, march*, the captains and guidons if not already there, take post on the right of their respective troops (Par. 611) each guidon passing by the rear of his first platoon; the lieutenants take post on the line of captains, the first lieutenant in front of the center of the first platoon, the second lieutenant in front of the left of the first platoon, the additional second lieutenant midway between the first and second lieutenants. A non-commissioned officer commanding the first platoon takes post one yard to the right of the guidon; a non-commissioned officer commanding a troop takes post on the right of the chief of the first platoon; a non-commissioned officer commanding a rear platoon remains in front of his platoon.

#### REGIMENTAL PARADE.

The regiment is formed in line, or in line of platoon columns.

At *to horse*, the troops are formed and inspected.

At *adjutant's call*, each squadron is formed in line; the squadron adjutant, having taken his post in front of the center before reporting the squadron to the major, receives the reports of the first sergeants as prescribed in the squadron parade.

When the squadrons are formed, *adjutant's call* is again sounded; the regiment is then formed in line or line of platoon columns; each major, as soon as his squadron has formed on the line, commands:

1. *Prepare for parade*, 2. **MARCH**, verifies the alignment regulating on the base squadron, commands: **FRONT**, and moving at a trot or gallop takes post twenty yards in front of and facing the center of the squadron; he then commands: 1. *Draw*, 2. **SABER**, and faces to the front.

The lieutenant-colonel takes post twenty yards in front of the right flank.

The post of the adjutant is six yards to the right of the post of the lieutenant-colonel.

The sergeant-major takes post six yards to the right and abreast of the rank.

The other non-commissioned staff officers, etc., take post as in Par. 880.

The adjutant, after indicating the point of rest and direction of the line, takes his post and faces to the left; when the first squadron has formed, he turns to his left, commands: **Sound Off**, and takes his post facing to the front.

The band, playing, passes in front of the adjutant and field officers to the left of the regiment and back to its post on the right, when it ceases playing.

The adjutant then moves by the shortest line, at a trot or gallop, to a point midway between the colonel and center of the regiment, faces the regiment and commands: 1. *Squadrons*, 2. **ATTENTION**, 3. *Present*, 4. **SABER**, faces the colonel, salutes and reports: *Sir, the parade is formed*.

The colonel returns the salute and directs the adjutant: *Take your post, sir*. The adjutant takes post three yards to the left of the colonel and one yard less advanced, passing by his right and rear.

The colonel and staff officers draw saber; the colonel then commands: 1. *Carry*, 2. **SABER**, and adds such exercises in the manual of arms or saber exercise as he may desire, concluding with the regiment at return saber.

The colonel then directs the adjutant to receive the reports, and returns saber; the staff, except the adjutant, return saber at the same time.

The adjutant advances by the left of the colonel toward the line, halts midway between the colonel and center of the regiment, and commands: 1. *Adjutants*, 2. *Front and center*, 3. *Trot (or gallop)*, 4. **MARCH**.

At the command *march*, the squadron adjutants, passing in front of the troop officers, close to the center and halt, facing to the front, midway between the line of field and troop officers. The adjutant then

commands: *Report*; the squadron adjutants, commencing on the right successively salute and report: (Such) *squadron present or accounted for*; or, (Such) *squadron (so many) officers and enlisted men are absent*. The adjutant then commands: 1. *Adjutants*, 2. *Post*, 3. *Trot (or gallop)*, 4. **MARCH**.

The squadron adjutants, moving by the shortest lines, then take post in the line of field officers, each three yards to the left of the major of his squadron. The adjutant then faces the colonel, salutes and reports: *Sir, all are present or accounted for*; or, *Sir, (so many) officers and enlisted men are absent*. The colonel returns the salute and directs: *Publish the orders, sir*. The adjutant faces the regiment, commands: *Attention to orders*, publishes the orders, and then commands: 1. *Officers*, 2. *Center*, 3. **MARCH**.

At the command *officers*, all the officers return saber.

At the command *march*, the troop officers turn and close toward the center, and successively turn to the front and halt eleven yards from the line: the two officers nearest the center preserve an interval for the adjutant, who passes through, four yards to the rear, turns about and halts; the lieutenant-colonel, the squadron commanders and their adjutants turn individually left about, move to the rear and form on the line of officers; the lieutenant-colonel and the commander of the first squadron, with his adjutant on his left, on the right of the line; the commanders of the second and third squadrons, each with his adjutant on his left, are on the left of the line; all the officers having formed, the adjutant rides up to his place.

The lieutenant-colonel or senior squadron commander then commands: 1. *Forward*, 2. *Guide center*, 3. **MARCH**.

The officers advance, the band playing; the adjutant is the guide and marches on the colonel; at six yards from the colonel, the lieutenant-colonel commands: 1. *Officers*, 2. **HAUT**.

The ceremony then concludes as prescribed in the squadron parade.

The lieutenant-colonel and adjutant join the colonel; all the other officers rejoin their squadrons; the squadrons are marched to their parade grounds and dismissed.

#### TROOP INSPECTION.

Being in line at a halt, the captain commands: 1. *Prepare for inspection*, 2. **MARCH**, 3. **FRONT**.

The chiefs of platoons take post four yards in front of their posts in line, i. e., six yards in front of their platoons; the guidon on the right of the rank; the right principal guide one yard to the right of the guidon; the trumpeters two yards to the right of the right prin-

cial guide, on a line with the rank; the other file-closers one yard to the left of the rank; the left principal guide on their left. All dress to the right.

The captain verifies the alignment of the chiefs of platoons and the line, commands: **FRONT**, and takes post in front of the guidon in line with the chiefs of platoons.

The chiefs of platoons cast their eyes to the front as soon as their alignment is verified.

The captain commands: 1. *Inspection*. 2. **ARMS**.

The troop is inspected as in Par. 410.

The trumpeters raise their trumpets for inspection when the inspector approaches to inspect carbines.

When the captain dismounts the troop, the guidon dismounts with it; the chiefs of platoons return saber, dismount and stand to horse facing their platoons; the captain dismounts and his horse is held by his trumpeter. If the arms are not to be inspected, the commands therefor are omitted.

The chiefs of platoons, when the inspection of the rank begins, face toward the troop and remain *at ease*, resuming their front on the completion of the inspection of arms, or the captain may require one or both lieutenants to accompany or to assist him; if dismounted, their horses are held by trumpeters. The captain may require each chief to inspect his own platoon, himself making a general inspection.

While inspecting the troop or accompanying the inspector, the captain does not return his saber while mounted; if dismounted he returns saber.

To resume the posts in line, the captain commands: 1. *Attention*. 2. **POSTS**.

The chiefs of platoons turn to the left about, move forward, and by another left about resume their places; the right principal guide turns to the right about and resumes his post; the trumpeters resume their places; the file-closers on the left of the rank successively turn to the left about and resume their places in rear of the rank.

Should the inspector be other than the captain, the captain prepares the troop for inspection and awaits the orders of the inspector. Upon the approach of the inspector, the captain at his post in front of the guidon salutes him; the inspector returns the salute and informs him of the kind of inspection; the captain gives the necessary commands, faces to the front and, when inspected, accompanies the inspector.

At inspection of quarters, the men, without accoutrements, stand uncovered in front of their respective bunks; in camp, they stand

covered, without accoutrements, in front of their tents; the senior non-commissioned officer, upon the approach of the inspector, commands: 1. *Troop*, (or *squad*.) 2. **ATTENTION**.

The men come to attention and do not salute; in camp the non-commissioned officer salutes.

#### TROOP INSPECTION DISMOUNTED.

The troop is formed for inspection as when mounted.

Arms are inspected as prescribed in the School of the Soldier.

At the command *inspection arms*, the lieutenants carry saber, and when the inspection of the rank begins, face about and stand at ease, saber at the order: upon the completion of the inspection of arms and ammunition, they come to attention, carry saber, face to the front and order saber.

#### SQUADRON INSPECTION.

If there be both inspection and review, the inspection may either precede or follow the review.

The squadron being in column of troops at full distance, the major commands: 1. *Prepare for inspection*. 2. **MARCH**.

Each troop forms for inspection as prescribed in Troop Inspection.

The trumpeters return to their troops.

The band, if there be one, passing by the right flank of the squadron, takes post facing to the front, sixteen yards in rear of the rear troop, and opens ranks.

The guard of the standard is marched by the adjutant, and takes post twelve yards in front of the center of the first troop.

The staff officers form on a line equal to the front of the first troop, fifteen yards in front of the standard, the adjutant on the right, the others in the order of rank from right to left, the senior next the adjutant.

The non-commissioned staff and regimental non-commissioned officers form in a similar manner, six yards in rear of the staff, the sergeant-major on the right.

The major takes post in front of the center of the column, six yards in front of the staff.

Field and staff officers senior in rank to the inspector do not take post in front of the column, but accompany him.

After being inspected, the major and staff officers return saber, and the inspector, accompanied by these officers, passes down the column looking at the front and rear of each rank.

The major now commands: **REST**.

The inspector, commencing at the head of the column makes a minute inspection of the non-commissioned staff and regimental non-commissioned officers, the guard of the standard, and the arms, accoutrements, dress, ammunition, horse and equipments of each trooper of the several troops in succession, and inspects the band.

The adjutant gives the necessary commands for the inspection of the non-commissioned staff and regimental non-commissioned officers, the guard of the standard and the band.

The non-commissioned staff, regimental non-commissioned officers and guard of the standard may be dismissed as soon as inspected.

As the inspector approaches each troop in succession, its captain commands: 1. *Troop*, 2. *ATTENTION*, 3. *Inspection*, 4. *ARMS*, and takes his post in front of the guidon; as soon as inspected, he accompanies the inspector.

The inspection being finished, the captain, on intimation from the inspector, marches the troop to its parade ground and dismisses it.

The band plays during the inspection of the troops.

In a long column, some of the rearmost troops, after the inspection of dress and general appearance, may be permitted to dismount and rest; before the inspector approaches, each is called to attention and mounted.

The inspection of dress and general appearance may be dispensed with; on intimation of the inspector, the squadron is brought to rest as soon as the major and staff have been inspected.

After the inspection of dress and general appearance, if the inspector desires to inspect the squadron dismounted, the major causes the troopers to take distances to the front (Par. 416) and dismounts them; or, dismounts the squadron without forming rank.

At inspection of quarters, the inspector is accompanied by all the officers, or by such of them as he may designate.

#### REGIMENTAL INSPECTION.

The regiment being in column at full distance, the colonel commands: 1. *Prepare for inspection*, 2. *MARCH*.

Each squadron forms for inspection as prescribed in Squadron Inspection.

The band takes post in rear of the regiment.

The guard of the standard is marched by the adjutant and takes post six yards in front of the major of the first squadron.

The staff officers of the colonel form on a line equal to the front of the column, fifteen yards in front of the standard, the adjutant

on the right, the others in the order of rank from right to left, the senior next the adjutant; the non-commissioned staff and regimental non-commissioned officers form in a similar manner six yards in rear of the staff officers, the sergeant-major on the right; the colonel takes post six yards in front of the center of the column; the lieutenant-colonel takes post three yards to the left of the colonel.

The colonel, lieutenant-colonel, and staff officers of the colonel, as soon as inspected, return saber and accompany the inspector, who then inspects the dress and general appearance of the regiment.

The adjutant brings the non-commissioned staff and regimental non-commissioned officers to a rest as soon as the inspector begins his inspection of the first squadron.

Each major accompanies the inspector while inspecting his squadron and then brings his squadron to a rest.

The inspector after passing to the rear of the regiment, commences again at the head of the column, makes a minute inspection of the regiment as prescribed in Squadron Inspection. Each major with his staff officers accompanies the inspector through his squadron, after which the major marches his squadron to its parade ground and dismisses it.

#### REGIMENTAL OR SQUADRON MUSTER.

Muster is preceded by an inspection, and when practicable by a review.

The adjutant is provided with the muster roll of the field, staff and band; the surgeon with the hospital roll, and each captain with the roll of his troop. A list of absentees alphabetically arranged, showing cause and place of absence, accompanies each roll.

Being in column of troops at *prepare for inspection*, each captain, as the mustering officer approaches, causes the sabers to be drawn and commands: *Attention to muster*.

The mustering officer, or captain then calls the names on the roll; each man, as his name is called, answers *here*, and returns saber.

Dismounted, each captain, as the mustering officer approaches, commands: 1. *Right shoulder*, 2. *ARMS*, 3. *Attention to muster*. Each man, as his name is called, answers: *Here*, and brings his carbine to order arms.

Men who are not formed with the troop, and who attend muster without arms, are two yards on the left of the rank; each, as soon as he answers: *Here*, passes two yards in front of the rank from left to

right, salutes the mustering officer as he passes him, and quits the parade ground.

After muster, the mustering officer, accompanied by the troop commanders and such other officers as he may designate, verifies the presence of men reported in hospital, on guard, etc.

A troop may be mustered in the same manner on its own parade ground, the muster to follow the troop inspection.

#### ESCORT OF THE STANDARD.

The regiment being in line, at carry saber, the colonel details a troop, other than the standard troop, to receive and escort the standard to its place in line.

The escort is formed in column of platoons, the band in front, the standard bearer between the platoons. The escort then marches without music to the colonel's quarters, is formed in line facing the entrance and halted, the band on the right, the standard bearer in the line of file-closers.

The first lieutenant, standard bearer, and the right principal guide, dismount in front of the colonel's quarters, their horses being held by a trumpeter; the standard bearer, preceded by the first lieutenant and followed by a sergeant of the escort, then goes to receive the standard.

When the standard bearer comes out, followed by the lieutenant and sergeant, they halt before the entrance and mount, the lieutenant on the right, the sergeant on the left; the trumpeter returns to his post; the captain then commands: 1. *Present*, 2. *SABER*; the escort presents saber, the trumpeters sounding *to the standard*.

The sabers are brought to the carry; the lieutenant and sergeant return to their posts; the troop executes *platoons right*; the standard bearer places himself between the platoons.

The escort marches with the guide left, back to the regiment, the band playing; the march is so conducted that when the escort arrives at fifty yards in front of the right of the regiment, the direction of the march shall be parallel to its front; when the standard arrives opposite its place in line, the escort is formed in line to the left and halted; the standard bearer, passing between the platoons, advances and halts twelve paces in front of the colonel.

The standard bearer having halted, the colonel, who has posted himself thirty paces in front of the center of his regiment, faces the line, commands: 3. *Present*, 4. *SABER*, faces to the front and salutes:

the trumpeters sound *to the standard*, and the standard bearer returns the standard salute.

The colonel then faces about, brings the regiment to a carry and the standard bearer, passing through the interval to the left of his troop, turns to the left about and takes his place in the guard of the standard. The escort presents and carries saber with the regiment at the command of the colonel, after which the captain forms it in column and marches it to its place in line, passing around the left flank of the regiment.

The standard is escorted by the guard of the standard from the parade ground of the standard troop to the colonel's quarters.

#### ERRATA.

Page 309, *General Rules*; first line should read: "On occasions of ceremony, except *Funeral Escort*," etc.

Page 313, second line; for "eight yards" read "six yards."

## PROFESSIONAL NOTES.

## A NEW METHOD OF THROWING HORSES.

The subject of throwing horses for disciplinary purposes and for the performance of surgical operations, is one of great importance to troop commanders. For several years I have used this means of reducing refractory, obstinate and vicious horses to the proper degree of obedience, thus convincing them of their utter inability to contend with any chance of success, against their natural masters. With this view of the importance of this matter, it was with considerable dismay that I read in the last JOURNAL (March, 1890, pp. 63-5.) the plan of throwing contemplated by the Tactical Board and recommended by Captain GEORGE A. DODD, Third Cavalry. I will cite a few of the numerous objections to this method:

1. The length of time required to cast the animal. I have known it require, under this old "Rarey System," from ten to twenty minutes to get the horse on his side. In fact, without pushing him over, it cannot be accomplished until he is exhausted.
2. The danger to the operator. There are horses in my troop which I do not think any man would dare to stand beside as contemplated in this method.
3. The danger of injury to the horse himself. The certainty of his bruising or breaking his knees, unless they have been previously padded, and the probability of his breaking his neck or knocking out his teeth.
4. The difficulty of keeping the horse down after he is thrown, etc., etc. Several years ago I ran across, somewhere in my researches for authorities on the horse, a small pamphlet by JOHN GRACE, a California trainer, I believe, who advocated the following method of "casting," which I shall transcribe in nearly his own words:

"The easiest and most effectual method of throwing a horse is to strap up the near fore foot, put on a surcingle with a ring fastened to the top of it, tie a half inch rope around his neck halterwise, placed up near the throat latch with the knot on the near side of the face. Pass the rope into the mouth and bring it along his neck on the off side, then pass it through the ring in the top of surcingle on the back,

standing off on the near side about six or eight feet from the horse and opposite the near hind leg, keeping the rope sufficiently tight to prevent him from disengaging it from his mouth. Pull carefully until he yields his head a little to the off-side, then give a sharp, strong, continuous pull until the horse falls, which will occupy from one to five seconds. As he goes down, lying on the near side, keep the rope tightened and he cannot get up. \* \* \* He can be thrown on either side by this process with perfect safety."

For tying up of the fore leg I use a strap similar to the one described in the JOURNAL as No. II. Of course it will be understood that if the animal is to be thrown on his right side, the process is reversed, the off fore leg being tied up. Instead of webbing in the surcingle, I use canvas, doubled, three and one-half inches wide, and very strong; the ring must be very securely fastened to the canvas surcingle. This method is safe for horse and operator, is absolutely sure and the casting can be accomplished by any man, no matter what the strength of the horse. The only objection to it is the "burning" of the animal's mouth by the friction of the rope. My troop farrier (HUNT) suggested a very simple method of obviating even this objectionable feature. It is merely to attach to the regulation halter an adjustable strap one inch wide, with a sliding loop and buckle, this strap to pass under the animal's chin and to be fastened to the two lower rings in the cheek strap; in other words to be adjusted in opposition to the nose band. When drawn taut it will prevent the halter from slipping up. The casting rope need not then be passed through the horse's mouth nor tied around his neck; instead, secure the end of the rope in the lower ring in cheek piece of the halter, or, better still, in an additional ring attached by a strap, one inch wide and six inches long to the halter ring. This strap when doubled will bring the additional ring about two and one-half inches from the horse's lower jaw, and when the rope is tightened at right angles to it. This will give sufficient purchase for the operator to govern the animal's head.

This morning I selected the wildest and strongest horse in the troop, (six years old, weighing 1250 pounds) and after adjusting the surcingle and rope one man threw him, the first time in eight seconds and the second time in three.

After the animal has been thrown a few times he can be made to lie down by the rider raising the left fore leg, and at the same time pulling the head gently to the right with the reins.

On horses with very low withers a crupper should be attached to the surcingle.

I submit this plan for what it is worth, in no wise claiming for myself the credit for its origin, and would be glad to have it discussed by some of our practical horsemen.

Very respectfully,

J. L. RICHARDS, JR.,  
First Lieutenant, Fourth Cavalry.

## A NOTE ON THE TRAINING OF RECRUITS.

Now that the different methods of obtaining recruits are attracting so much attention in army circles a few words on training them may not be out of place.

By the present system of sending recruits from rendezvous to Jefferson Barracks for a certain time before assigning them to regiments, it is intended to instruct them thoroughly in the duties of the individual soldier. But as a matter of fact the instruction which they receive there amounts to very little, so little that troop commanders find it necessary to start their recruits in the very elements, the same as though they had received no instruction at all.

In place of this system I suggest, at least for those cavalry regiments stationed in the south west, say Texas, Arizona and New Mexico, where out-door drills may be carried on every day in the year, that recruits be sent out in detachments every three months direct from rendezvous to regimental headquarters, and there placed under the command and instruction of the regimental adjutant, for, say a nominal period of six months. If a recruit becomes thoroughly proficient in his duties as an individual soldier and in those as a member of a squad before the end of six months assign him to a troop and let him choose the one he will go to provided there is a vacancy. On the other hand if a recruit is backward and he does not reach the required standard of proficiency at the end of six months turn him back into the next succeeding class of recruits so that he would be nine months under instruction.

This system would necessitate detaching to regimental headquarters one non-commissioned officer and about three horses from each troop, provided the band be mounted and the band horses be used for recruits.

After this system once got under way there would be two classes of recruits of about fifty men each under instruction at once, and every three months well instructed and well set up and disciplined men could be assigned to troops and at once taken up for duty. Troop commanders would then cease having to bother with three or four recruits at a time, and instead of having them drilled for a month or so in a haphazard manner by any non-commissioned officer who happened to be available each day, and finally taking them up for duty when only half instructed, they would have men turned over to them thoroughly drilled and instructed under the supervision of the regimental adjutant—presumably one of the smartest and best officers of the regiment—and by non-commissioned officers specially selected for their military bearing and qualifications for imparting instruction.

This would also afford a good school for the youngsters when first joining from the academy; a place where they could be broken in under the eyes of the colonel and adjutant, and taught the hardest and most important duties a cavalry officer has to learn, viz: the individual instruction of men and horses.

Keeping the recruits at regimental headquarters and having all

their time for six months devoted to theoretical and practical instruction, would enable the adjutant to make smart and efficient soldiers of them. They should not be put on post guard except during the last month, and then only for instruction. They might, however, be put on stable guard and fatigue during the last three months, thus taking care of their own stable and horses.

One objection which will probably occur to troop commanders is that it would keep their troops reduced in numbers. This would be the case to a certain extent; troops would only average fifty-four or fifty-five men; but this objection is believed to be more than counterbalanced by having all the men of the fifty-four or fifty-five well instructed soldiers individually, at least.

This system would also increase the labors of the regimental adjutant a great deal, but it would give him a power and influence in his regiment and encourage him to be a real soldier and not a mere head clerk. Besides, if the post adjutant's duties were taken off his hands, it is believed he would have ample time to attend to his regimental ones.

WM. H. SMITH,  
*First Lieutenant Tenth Cavalry.*

## THE SHOEING OR NON-SHOEING OF CAVALRY HORSES.

I have been much interested in the discussion carried on in the June number of the JOURNAL relative to the shoeing or non-shoeing of cavalry horses.

Some fifteen years ago the same question excited attention, but the outbreak of the great Sioux-Chéyenne war, following the occupation of the Black Hills buried it out of sight.

With your permission I will repeat the views formed at that time, to which I still adhere.

There has been much experience gained upon this point, both by ourselves and by the Indian tribes employed as our allies or pursued as our enemies. Picket line experiments are not to be relied upon any more than we should trust the chemist's crucible to determine the market value of a mine.

No argument can be based upon the fact that the horse in a wild or half-wild state has no shoes; he has no weight to carry or to haul, can pick his own path instead of following blindly in column, and when tired, can rest and roll—comforts which the cavalry animal, bitted, saddled and heavily burdened cannot hope to enjoy.

Where the soil of a territory is homogeneous, say, for example, sandy, like the greater part of Arabia, the valley of the Gila, and the Mongolian habitat near the desert of Gobi, or, a mixture of sand and clay like the section of the Missouri Valley forming the eastern portions of South Dakota, Nebraska and Kansas, or alluvial, like the low countries, the horse or mule, whether as a pack or saddle animal, in garrison or in campaign might be trusted unshod, but no

such confidence can be reposed in the strength of its hoofs, when through changes of climate or changes of soil it is at one moment compelled to tread upon soft clay and at another upon hard rock, or hard rock altogether.

The Arabians, the Mongols, the Pima Indians of the Gila valley, let their animals go unshod because the regions they inhabit come under my first classification.

I should say, however, that in December, 1872, I was a member of an expedition which entered the Superstition Mountains and the Cañon of the Salt river in Arizona; one morning we recaptured a herd of Pima ponies abandoned by the Apache raiders because their hoofs had become worn out in the mountains.

When we hunt for examples among Indians living in mountainous or rocky countries, we find one of two things: either each warrior going on a campaign provides himself with two, or even three ponies, which, in consequence are not subjected to the constant strain which the single horse of the cavalryman must endure; or, if unable to provide more than one animal he will beg, borrow or steal shoes for at least the fore feet, from the quartermaster.

I can recall instances in support of this statement from scouts of the Crow, Ree, Shoshone, Arapahoe, Cheyenne, Sioux, Pawnee, Navajo, Apache, Hualpai, Pima and other tribes.

The Hualpai Indians, living in the Grand Cañon of the Colorado—the best possible country in the world for the “unshod” theory to be proved in, if it be the correct one—never failed to shoe the fore feet of their ponies when it could be done.

“SKOPUS” (The Strong Man,) known to the whites as “ONE-EYED MIGUEL,” chief of the Mogollon or White Mountain Apaches, had a blacksmith's kit in his band as far back as 1869. There were some among the Navajos about the same time and the names of two of the chiefs of the latter tribe; “HERRERO PRIMERO” and “HERRERO SEGUNDO” (first blacksmith and second blacksmith) are not altogether without significance.

It was not always, of course, possible for savage Indians to supply their animals with iron shoes; substitutes were, however provided in the shape of raw-hide boots, put on green and allowed to dry. Specimens of such shoes I obtained from the Apaches eight or ten years ago and at various times since, and have deposited a set in the National Museum. In 1886 Captain VIELE, Tenth Cavalry, brought to me at Fort Bowie, a set which he had cut from the hoofs of a Chiricahua pony abandoned on the trail by “GERONIMO.”

Very truly yours,

JOHN G. BOURKE

*Captain, Third Cavalry.*

WASHINGTON, D. C., July 27, 1890.

### A SHORT TALK ON HOOFS AND HORSE-SHOEING.

Every cavalry officer knows, or should know, that the good condition of the hoofs is deserving of the greatest attention.

This is especially true of horses for cavalry, for undoubtedly the most efficient services are performed by this branch of the service when mounted, and a mount with sore or diseased hoofs will always prove to be a very poor mount.

To insure a good condition of hoofs, one of the prime features is proper and practical shoeing, that is, if horses are to be shod at all. To decide whether or not horses are to be shod, let us look at the origin of horse-shoes.

In the earliest stages of horse-shoeing, shoes consisted of iron plates curved upward at the edges, conforming in shape to sandals, the human foot-gear of those days. Those shoes were tied, later strapped to the pastern and the shank.

When nails were first introduced, the iron plates had been changed to the form of the hoof, covering it entirely, and had a hole in the center.

These shoes were undoubtedly the outcome of the necessity to have something to resist the wear and tear of hoofs after the introduction of artificial roads covered with stones and gravel.

Thus it is seen that shoes were introduced for use on hard roads, and it seems therefore that horses in cities, especially, should not be without shoes.

A famous German cavalry officer, Count ROSENBERG, continually objected to the shoeing of cavalry horses and persisted in calling shoes “a necessary evil while horses are in cities, but an unnecessary evil while in the field.”

It is evident that interference with the works of nature generally is more or less of an evil, and the penetration of the hoofs with nails and their coercion by the shoes is certainly such interference.

As the U. S. Cavalry principally does duty in regions where hard roads are rather the exception, it would seem that in that case horse-shoeing is an “unnecessary evil.”

But as the customs provide for the shoeing of horses, we will now consider a serviceable and rational system of shoeing.

The hind feet need no shoes at all, for on soft ground a healthy hoof is ample for any work required of a saddle-horse. If any shoeing is to be done, let it be confined to the front feet, for these are more easily worn off.

The English custom of having the shoeing done at the stables in the regular stalls, and not at a shop, seems a good one. This does away with all unnecessary excitement, to which every horse, when placed in or tied to a strange stall, is more or less subject.

At any rate the shoeing of all horses should be superintended by an experienced officer, who should require each horse after being shod to be led past him, both at a walk and a trot. If he notices the



slightest imperfection in the motion of the feet, he should order the shoes to be removed and refitted.

Imperfect nails should never be used and nails improperly placed should be removed at once.

While it is injurious to keep shoes on too long, on the other hand too frequent changing is also detrimental. Twenty-two days has proved to be a good average for keeping shoes on the feet.

Before each drill all shoes should be closely inspected, for a horse may fall on account of a loose shoe, and if a shoe should come off while the horse is in motion, it would almost always carry a piece of the hoof with it.

When preparing the hoof great care should be exercised. Every dead substance should be removed, but no live parts should be touched. Great attention must be paid to the proper and careful removal of effete portions of the frog, and that the hoofs should never be left too long.

With the hoofs great care and special cleanliness are essential; but next to frequent cleaning of hoofs, something should be done toward strengthening them. Frequent rubbing of the hoof inside and outside with pure lard keeps it pliable and in good condition.

A. L. B.

#### BATTERY "B," FOURTH U. S. ARTILLERY IN CAMP.

Battery "B," Fourth U. S. Artillery, Major HARRY CUSHING, commanding, are in camp in this city in the fields near the Seekonk river on South Angell street. The battery is out on practice march and duty by special orders from the War Department. It left Fort Adams at 11 o'clock Thursday morning and marched on that day as far as Stone Bridge, camping there that night. Friday at 6:30 A. M. the march was resumed, and evening found the company in camp at Rumstick Neck. At 5:45 A. M. Saturday the march was again resumed, and the camping ground on South Angell street was reached at 9:30 o'clock. The battery as it is now in camp numbers four guns and forty-eight officers and men all told.

Arrived in camp, tents were pitched immediately, the guns parked, horses picketed, commissary quarters established and within the hour the battery was receiving its first cleaning since its departure from Fort Adams. The men had also groomed their horses, and were looking after their personal appearance. The cook was preparing dinner for 12 o'clock, and appearances indicated long established camping quarters. At 2 o'clock the battery according to orders, marched to the Dexter Training Ground for the purpose of drill, which also included that of firing off forty rounds. The battery has only 100 rounds of ammunition, for the caissons had to be used for baggage, as only one small army wagon could be procured for this march. The battery will strike camp on Monday morning and march to Scituate, thence to South Manchester and New London, Connecticut, and crossing the ferry, proceed through South County towns to

the fort, arriving there about July 10th. The march is primarily to test the endurance of the horses to march without shoes, report of which will be made to the War Department. The horses have been on short marches around Newport, and have been picketed on paved ground at the fort, and their hoofs are hard as flint. There are as yet no signs of lameness in any of the horses. It is said that the artillery and cavalry horses at Fort Riley, Kansas, have not been shod for more than a year, and with but very little resulting lameness.

The drill by the battery at 3 o'clock on the Training Field was a splendid sight, and extremely interesting. It was in accordance with the provisional new tactics, issued, but not adopted as yet, by the Government.—*Providence Sunday Journal*, June 29, 1890.

*Editor Journal U. S. Cavalry Association, Fort Leavenworth, Kansas.*

MY DEAR SIR:—The review, in your March number, of the work "Regimental Losses in the Civil War," was read with interest; and although you take exceptions to some points, the article was read with pleasure also, for intelligent criticism is welcome at all times.

In justice to myself, however, I would say that I anticipated your idea of consulting regimental histories as well as official records, and examined carefully the roster in every regimental history that has been published. The individual records as given in these histories were of great assistance in determining the losses; especially in distributing a loss to the actions in which it occurred, the muster-out-rolls too often recording a man as killed, without giving the date or place of death.

My figures for the loss of the Sixteenth German Infantry (Third Westphalian) at Mars-la-Tour were taken from the official publications of the German Government, compiled by Dr. ENGEL, the Director of the Royal Statistical Bureau. As stated there, the loss was:

	Killed.	Wounded.	Missing.	Total.
Officers.....	23	18	—	41
Non-commissioned officers.....	52	56	14	122
Enlisted men.....	434	546	342	1321
Total.....	509	619	356	1484

In this statement the mortally wounded are included with the killed. You will notice, also, that this loss includes 356 who were captured or missing.

In the German army, Franco-Prussian War, there were eight regiments only whose casualties exceeded 1000 in any one action; or, about thirty-five per cent. They were as follows:

Sixteenth Infantry, Mars-la-Tour.....	1484*
Twenty-fourth Infantry, Vionville.....	1092
Forty-sixth Infantry, Worth.....	1016
Fifty-second Infantry, Mars-la-Tour.....	1248
First Grenadier-Guard, St. Privat-la-Montaigne.....	1059
First Foot Guards, St. Privat-la-Montaigne.....	1058
Second Foot Guards, St. Privat-la-Montaigne.....	1075
Third Foot Guards, St. Privat-la-Montaigne.....	1090

\*Including 356 captured or missing.

In each case, just mentioned, the regiment sustained its loss in its first engagement, into which it carried its full complement of 3,000 men, or not far from that number. A German regiment of infantry numbered, when full, 3,000 officers and men, *not including non-combatants*.

Mention should also be made of the Garde-Schutzen Battalion (1,000 strong, not including non-combatants) which sustained 461 casualties at St. Marie-aux-chênes. This battalion, during the entire war, lost 119 killed, and sixty-one mortally wounded; total, 180, or eighteen per cent.

But the Second Wisconsin lost 19.7 per cent. in killed; and, that too, as based on an enrollment which included non-combatants. Someone will probably say in reply: "But the Franco-Prussian war was a short one, and hence smaller percentages of loss." Well, the Fifty-seventh Massachusetts lost 19.1 per cent. in killed, and yet this regiment was not organized or recruited until April, 1864, the last year of the war. The First Maine Heavy Artillery sustained all its terrible losses—19.2 per cent. killed—within the last eleven months of the war.

In the German army there were only three regiments whose loss in killed and mortally wounded exceeded twelve per cent. of their enrollment. Nor would a prolongation of the war necessarily have resulted in any larger percentage; for it would have necessitated the filling up of these regiments, and the increased enrollment would then have decreased their percentage of loss.

Another thing regarding the comparative length of these two wars. The Union armies during the four months following May 3, 1864, sustained a loss greater than that of the German army during the whole Franco-Prussian war. Nor were these Union losses fruitless and unproductive of adequate results. They brought us victory; they gave us Atlanta, and the final position at Petersburg.

Yours very respectfully,

WILLIAM F. FOX.

### THE NEW GAS GUN.

At the headquarters of the London Scottish Rifles yesterday afternoon some interesting experiments were conducted with M. PAUL GIFFARD's appliance for the employment of liquefied gas as an explosive—or, to be more strictly accurate, one should say as a means of propelling projectiles—in place of gunpowder. M. PAUL GIFFARD's scientific reputation as inventor of the pneumatic tube, and of the "Giffard injector," so largely used in connection with steam power, stands so high that any invention to which his name was attached would be worthy of attentive consideration.

The weapon now introduced by him, however, is something more than an ingenious appliance; it is a discovery which not only promises to revolutionize the gunmaker's art, but it is applicable also to many other purposes as a motive power. Those who are interested in the

Giffard gun claim that it is the military weapon of the future. The idea of using liquefied carbonic acid gas as a propulsive power is not new, but Mr. GIFFARD is the first who has turned it to practical account.

The gas gun is a model of simplicity, so far as one can judge without examination of the discharging mechanism, in which much of the merit of M. GIFFORD's invention lies. A small cylinder, called a cartouche, is attached to the barrel of a rifle or a smooth-bore gun. This cylinder contains liquefied gas enough to discharge 220 shots, equal to about fifty bullets of an ordinary service rifle, with a velocity to kill at 600 yards. There is no other explosive. The pellet is simply dropped into an aperture of the barrel which is hermetically sealed by pressing a lever, and the loading is complete. When the trigger is pressed a small quantity of liquefied gas becomes released and expands in the breech chamber. There is no louder report than the drawing of a champagne cork makes; no smoke and no fouling of the barrel. In all these respects M. GIFFARD's gas gun seems to fulfill the requirements of an ideal weapon for warfare; but whether in other respects liquefied gas has advantage over ordinary explosives for military purposes remains to be proved. The inventor says there would be no difficulty in refilling the cylinders with gas on the battlefield; but it is obvious, even if that be the case, that reserve cylinders would have to be supplied to each man, in order to make up the number of rounds now thought to be necessary; and, as bullets would of necessity be carried in addition, the ammunition for a gas gun would weigh just as much as ordinary cartridges, weight for weight.

—*London Daily News.*

### GEORGIA CAVALRY IN CAMP.

\* \* \* \* \*

As the left battalion came up, the long column of cavalry filed through the gate of the track and formed column of companies. It was the first time in all my visits to State encampments that I had seen more than two companies, and much as I had heard of the excellence of this command, I was not prepared for such an appearance. The material is the very pick and flower of the young men of the southern portion of the State. A large number owned their own horses, and those who did not had the use of horses from friends. Every horse was a genuine saddle horse bitted and broken. The men were such horsemen as could only be found in a community where every fairly well-to-do boy rides almost as soon as he walks.

The Georgia Hussars, Colonel Gordon's old troop, rode with a very handsome seat, much like the English military, but which looked better because there was not the studied effort to drop the heel, which gives the straddling or tongs across-a-wall effect. The Liberty troop had a true cavalry seat which was not as handsome to a soldier's eye, but they are holy terrors in keeping the saddle. There were in their ranks a lot of Texas ponies, and some of them knew how to buck in

good frontier style, but they could just as easily have tossed PAWNEE BILL or MEXICAN PETE as these long-legged Georgia boys. I had little faith in militia cavalry. I had been accustomed to the big raw-boned animals hired for the occasion from street car and omnibus lines, and the appearance of a cavalry orderly pounding across the field riding all over his horse, was an occasion for endless mirth to the infantry. Here I saw companies moving in admirable dress, ranks closed boot to boot, officers splendidly mounted and splendid horsemen, and the whole command infused with the finest soldierly spirit.

This is due to the admirable material, to the fact that the officers were the pick of a picked organization and that Colonel GORDON is not only the best disciplinarian in the State, but that he has that rare union of unruffled courtesy with the most unbending sense of duty, which has enabled him to bring out the very best results from this high spirited and intelligent material. I do not mean that they drilled in all the movements as well as our regular cavalry, but I do say that they kept their horses better closed than many regulars I have seen, and that while their mounts and their horsemanship would compare well with the best we've got, their swordsmanship, owing to constant practice in tilting and head-cutting is ahead of anything in America except a picked squad of West Point cadets. Lieutenant Colonel WYLIE, a tall, handsome soldierly figure, is probably the most finished horseman in the State of Georgia. At the close of the ceremony which was really good, except that the battalions would not take the commands "attention," "carry" and "present arms" from the Adjutant-General, but waited for their own commanders, the adjutants and field officers came to the front and closed in good shape. Lieutenant LAWTON of the cavalry battalion, an admirable soldier, splendidly mounted, would have done credit to the famous Fifth Horse in the days when CHARLEY KING was adjutant.—*The Spirit of the South, New Orleans, August 3, 1890.*

#### WANTED!!

An honest able bodied snap shot, of sound mind. No "quick aim shot," though he may by actual practice demonstrate his ability to shoot a pistol more quickly and more accurately than the bona fide "snap shot," need hope to palm himself off for the latter.

We must have a snap shot. See page 223, JOURNAL OF THE U. S. CAVALRY ASSOCIATION for June, viz: "We must have snap shooting and nothing else." We were led to believe that our agent had secured us a "snap shot" some time ago, but upon examination and close scrutiny we caught him peeping over the sights as his pistol was fired; he tried hard to explain to us that it was a way he had, which really had nothing to do with his skilful use of the pistol. Our agent, a very blameless man, shed a silent tear, and simply replied: "Oh come off."

Any one having a live snap shot, of strict probity, who is willing to lend him to us, may rest assured that we will take excellent care

of him, and will try to keep his secret if he should by any accident be caught taking even a "suggestion of an aim." See page 223, JOURNAL OF THE U. S. CAVALRY ASSOCIATION for June.

We will be candid and state right here that no snap shot will be considered, who draws, and raises his pistol upward and fires, without first coming to "raise pistol." We make this stipulation for reasons that seem to be good. First, we are prejudiced in favor of this particular world, and are not altogether sure of any gentleman's chances for a better, who of his own free will, follows the profession of "snap shooting" at his fellow man; though he may never seriously damage anybody the intent is there, and with some of us, not only intent to kill, but a sincere suspicion that we may succeed, even if we look away, and try not to see what we are doing.

Our next reason for objecting to the "snap shot" who will not raise his pistol, is owing to the difficulty of training horses to curl their heads underneath their bodies while this kind of warfare is going on to the "front," and even if fairly well trained, he may grow tired of inspecting his obsolete toe, and wish possibly to count the killed and wounded, when up comes his head and off goes a reasonably good ear, and maybe a better rider.

To secure the shot we want, for we must have one, no other conditions will be named. He may belong to an "inefficient officer who objects to an efficient weapon," regardless of the length of service or hard campaigns that may have helped to make the officer inefficient, at a time when service on the plains, if all accounts are true, was somewhat different from what it is at present, or regardless of the fact that he may be gifted enough by nature to have discovered a reason of his own for wishing to retain his present weapon until he is sure that the change is for the best. He may even doubt the unproved, though forcibly and confidently stated opinion, that "the present regulation gallop ruins the gait of the horse," to which gait the regulations alluded to, can hardly claim priority of discovery, dating as it does back to a period not within the memory of man, and somewhat later than the first discovery of the gait by the noble animal himself, doubtless sometime before the Aryan dispersion.

Minor points of this kind will be made to give way before the all important first requisite, to-wit: Wanted, an honest able bodied snap shot, too pure minded to tell a lie, and too unselfish to let his secret die with him.

G. A. PADDOCK,  
Captain, Fifth Cavalry.

## BOOK NOTICES AND EXCHANGES.

RECOLLECTIONS OF GENERAL GRANT. By George W. Childs. Philadelphia. 1890.

History generally shows great commanders only as they appear at the heads of armies, and orators only as they appear in the tribune; while great authors are known to us not by their personality, but by the thoughts expressed in their books. It is but natural that we should desire to know our heroes as they exist in everyday life as well as in their more splendid spheres: to know them not as demigods, but as men. Personal reminiscences of famous men are, therefore, always welcomed by the reading public, as the complement of the picture presented by history.

In this little book, Mr. Childs introduces us, as it were, to General Grant, and acquaints us with the personal traits of one whom we have known only as a military leader. He shows us not the general, but the man; and the picture presented is drawn by the loving hand of a warm friend of the deceased chieftain.

Grant, it seems, was far from being an ardent student; but he was a careful, thoughtful reader; remembered what he read, and could make use of his knowledge. "His power of observation and mental assimilation was remarkable." Though known to the world as a reticent man, he was fond of talking when with his intimate friends, "doing perhaps two-thirds of the talking"; but the entrance of a stranger was sufficient to cause him to resume the taciturnity for which he was noted, and which seems to have been due solely to diffidence. His power of remembering faces and names was great, and having once fixed his mind upon a person he never forgot him. He was able to go without food or sleep for long periods, and was blessed with the power of sleeping whenever and wherever he chose. His nature was simple and guileless; and suspecting no guile in others, he was often deceived. When asked what feature of political life had caused him the most distress, he replied: "To be deceived by those I trusted." He was, himself, the soul of loyalty to his friends, and one of his favorite expressions was: "Never desert a friend under fire."

It will be a surprise to some to learn that General Grant had decided artistic taste, and that in his younger days he showed talent as

an amateur artist. He does not, however, seem to have had any corresponding talent for music, and once remarked that he knew only two tunes, one of which was Yankee Doodle and the other wasn't.

Grant, it seems, had almost a superstition in regard to turning back when he had once started for any destination; and Mr. Childs asks: "Was not this trait one of the secrets of his success in war?" Undoubtedly it was: it was certainly a valuable trait—a priceless superstition—just after the battle of the Wilderness. A similar trait is the foundation of Von Moltke's generalship: for the great German's prime rule of strategy is never to swerve from an object once selected, unless compelled by resistless circumstances to adopt a new plan.

Mr. Childs' little book is of more interest and value than many ponderous and pretentious ones that cumber the shelves of libraries. Incidentally, it makes us acquainted not only with General Grant, but with the large hearted philanthropist, whose friendship for the great captain was an honor to both.

A. L. W.

STANDING ORDERS, FIRST CORPS CADETS, MASSACHUSETTS VOLUNTEER MILITIA.

In this excellent little volume of 236 pages, is collated a brief historical sketch of the corps: its by-laws, bill of dress peculiar to the corps, rules for guard and camp duties, extracts from regulations etc. The corps was organized in 1741 for special duty: was included in the volunteer militia in 1840; during the Rebellion it furnished nearly one hundred and fifty men to the army, nearly all of them to hold commissions. Membership is limited and can only be obtained upon the recommendation of a member. Par. 43: "No button intended to fasten, must be left unfastened," might well be added to our regulations. Regarding excuses from fines, Par. 76 has the true ring, and helps to account for the high standing and efficiency of this celebrated corps: "Play or pay; if the ranks lose the services of a soldier, the treasury gets the benefit of his fine." The instructions for sentinels, including grand rounds, challenges and answers are most complete. This little book cannot be too highly commended. Its value is increased by a copious index. *b. a. b. bar.*

STRATEGIE TACTIQUE ET POLITIQUE. By General Jung. 316 pages, 8vo., Plates and Index. Paris: Charpentier et Cie. 3 Frs. 50c.

In this book General Jung, the well known author of "Bonaparte et son Temps," has made a valuable contribution to military literature. In the discussion of his subject, which may be translated as "Tactical and Political Strategy," he adopts the somewhat novel but very effective method of giving analogous definitions to the several branches of the subject and showing their mutual dependence upon and relation to each other. For example, he says: "Strategy and tactics taken together comprise all dispositions which tend to secure the judicious employment of men, means and methods, both before and during war. Military tactics comprises all dispositions which tend

to secure the judicious employment of men, means and methods for a purpose definitely known. Infantry tactics comprises all dispositions which tend to secure the judicious employment of the foot soldier, of the Lebel rifle, and of methods both in attack and defense. Cavalry tactics comprises dispositions which secure the judicious employment of the trooper, of his horse, and of the ground, both as regards the combat and the collection of information." Similar definitions are given for engineer troops, the administrative departments, the navy and general tactics; and an elaborate discussion of tactical qualities, and the participation of the state in tactical matters, is also furnished. Strategy he defines as "All the dispositions taken to secure the judicious employment of men, means and methods for a purpose not always immediate but always constant, which is the security of society," and he divides it into the following branches: positive, political, naval, and the participation of the state in active strategy. Under this head he also treats of strategical qualities, influence of political considerations, politics and their influence upon the army, etc.

The author has handled all these subjects with great thoroughness and perspicacity; throughout this book, as in so many recent French military writings, may be plainly seen his desire to reanimate the French army and restore its confidence. He pays us the compliment of saying: "The ideal formation for infantry is the American single rank with the men placed elbow to elbow." General Jung is apparently well satisfied with the present condition of the French army, and regards it as worthy of the pride and confidence of the nation. Interesting episodes described are the arrest and execution of the spy Schull in 1870, the actions and methods of Marshal Bazaine at Metz, the circumstances which prevented General Dedaen from attaining a high command, and the curious prophecy of the battle of Werl. This instructive and entertaining treatise is recommended to the notice of every military student. *R. A. Wilson, 8 Feb.*

**PRACTICAL INFORMATION FOR NON-COMMISSIONED OFFICERS ON FIELD DUTY.** By Brevet-Colonel Guy V. Henry, U. S. Cavalry. 55 Pages. 1890.

The little pamphlet with the foregoing title is one more addition to the books which have been compiled by American army officers in the past two or three years in order to render possible the teaching to enlisted men many things absolutely necessary for them to know in order to be able to properly perform the duties required of them in garrison and in the field—but principally the latter. It is a sign of healthy progress that our officers are beginning to learn that the Army Regulations, valuable as it is, does not contain a complete course of instruction in the science and art of war, and that it is possible to offer to soldiers in a more pleasant and practical shape, a method of acquiring information absolutely essential to the welfare as well as the safety and success of an army.

Perhaps the multiplication of such text books, so common in all European armies may, in the near future, induce the War Depart-

ment to recognize the necessity for the compilation of some book which, under the seal of its authority, may make instruction in all field duties uniform throughout the army.

Colonel Henry has succeeded in introducing into his book under three heads, Camps, Marches and Useful Information, a large amount of valuable instruction for the inexperienced, as well as some which may present itself in the form of a genuine surprise to many who have seen years of service, but have always preferred to create their own art of war as the need for it arose, without troubling themselves about other people's experiences or opinions regarding it.

To one remark of the author we wish to take decided exception, and that is, that "rifle practice is now admitted to be the most important part of the soldier's instruction," if by the word soldier is meant the trooper; for it requires no argument to show that, admitting the advantage possessed by the trooper who can handle his carbine effectively over one who can not, yet there are many other duties equally important which have been, to a certain extent lost sight of in the craze for making marksmen and sharpshooters out of cavalymen. *G. B. L. L.*

**GENERAL JOHN HAMMOND, COLONEL FIFTH N. Y. CAVALRY.**

Among the blessings of war is the knowledge that a nation may depend upon her sons in case of need. Not till then does she know that there are men who will exchange the pleasures of wealth and home for danger, wounds and death or imprisonment. Such a man was John Hammond, Brevet Brigadier General U. S. Volunteers, Colonel Fifth New York Cavalry. He was one of the first to offer his services at the head of a company of his neighbors and friends whom he mounted and armed at his own expense. He served through most of the campaigns of the Army of the Potomac, was twice wounded, and won, on many fields, the praise of his superiors and the commendation of his ~~own~~. He was honored in peace as well as in war, and was followed to his grave by many sorrowing friends.

A memorial volume, recently published from the press of P. F. Pettibone & Company, Chicago, gives many of the incidents of General Hammond's adventurous career. *E. S.*

**JOURNAL OF THE MILITARY SERVICE INSTITUTION.** Nos. 45 and 46. 1890.

Infantry Battle Tactics. Reform in Army Administration. Place of the Medical Department. Fifth Corps Ambulance Train—1864. The Proper Diet of the Soldier. Infantry Ammunition on the Battle Field. Trip to India, China and Japan. III: Light Artillery Target Practice. Recent Japanese Maneuvers. Meritorious Discharged Soldiers. Infantry Fire Tactics.

**PROCEEDINGS OF THE UNITED STATES NAVAL INSTITUTE.** No. 3. 1890.

Navy Boats. The Howell Automobile Torpedo. Desertion and the Bertillon System for the Identification of Persons. Naval Training.

**THE ILLUSTRATED NAVAL AND MILITARY MAGAZINE.** Nos. 19, 20, 21, 1890.

Epochs of the British Army. VII: The Crimean Epoch. VIII: The Egyptian Epoch. Great Commanders of Modern Times—Napoleon. The Cinque Ports. II: Dover. The True Story of Jellalabad. "Our Daggers"; or, How to Use the New Bayonet. Naval Warfare. Some Notes on Military Topography. The Fortifications of Roumania. Among the Junks. Colonel Forde at Bidevva. The Ruggien di Lauria. Heligoland. French Torpedo Vessels in 1890. The American War 1861-5. Some Russian Ideas on Fortification. Recent Changes in the German Army. Our Critics in Germany. British Battle-fields in Portugal. The American Naval War of 1812. Scientific and Human Horse Training. The Bulgarian Army.

**THE UNITED SERVICE.** July, August and September. 1890.

History of the Mormon Rebellion of 1856-7. Some Reminiscences of Philip Spencer and the Brig "Somers." The Battle Tactics of Today. Captain Morgan's Choice. Frederick the Great. National Guard Camps. The Trials of Staff Officers. The United States Cavalry, Past and Present. The Instruction of the Infantry Soldier. Looking for the Charlotte. Napoleon. The Chinese Army. Philosophy of "Cant." The Capture of Philadelphia and the Attack of the British Fleet on the Defenses of the Delaware, 1777. "Old Lost It." Obligatory Military Service for the Spanish American Republics.

**PROCEEDINGS OF THE ROYAL ARTILLERY INSTITUTION.** June, July and August. 1890.

Old and Scarce Books on the Military Art. Submarine Mines in Relation to War. The Mexican Army. "Laws and Ordinances of Warre." Fire Control in Fortresses. Instruction of Army Signallers in Observing and Reporting Ships. The Military Defense Forces of the Colonies. A Range and Training Indicator. Remarks on Paper entitled Horse Artillery Progress in the British Army. Essai de Critique Militaire—A Review.

**JOURNAL OF THE UNITED SERVICE INSTITUTION OF INDIA.** Vol. XIX. Nos. 80 and 81.

Recent Ideas on Fortification. The Company as the Tactical Unit of the Future. The Hindustani Panatics. The Effect on Cavalry of Recent Improvements in Fire-arms. Training of Russian Company Officers in Central Asia. Acclimatization of Australian Horses in India. Prize Essay: The Organization and Employment in War of Native Cavalry.

**THE IOWA HISTORICAL RECORD.** July. 1890.

General William Thompson. The First Territorial Legislature of Iowa. The First United States Dragoons.

**THE PACIFIC NATIONAL GUARDSMAN.** May and June. 1890.

Major General William H. Dimond. Examination of Officers. Hazing and Drill at West Point. Target Shooting. Ancient Artillery. The Next War. The Last Benediction. State Camp Grounds. History of California Volunteers During the Civil War. A Russian Officer's Ride to the Exposition. The Three Hundred. A Close Call.

**REVUE DU CERCLE MILITAIRE.** Series of 1890.

No. 18: A Russian's Estimation of our Present Armament. Military Institutions of China. The War in Senegal. No. 19: The New Belgian Rifle. Carrier Pigeons. No. 20: The Russian Officer in Society and in the Army. No. 21: Continuation of the Russian Officer in the Army and in Society. No. 22: The Danish Rifle, Model of 1889. The Barrel Jacket in the German Rifle. The Russian Officer in the Army and in Society (concluded). No. 23: The Operations of the Geographical Service in 1889. The German Navy. American Indian (Cheyenne) Cavalry. Field Stadiometer. No. 25: Servo-Bulgarian War of 1885. No. 26: One More Word Concerning the Servo-Bulgarian War of 1885. No. 26: Registering Apparatus for Regulating Ranges on the Battle Field. No. 27: Discussion of Two Year's Service in Germany. Mountain Artillery. The Chinese Navy. No. 29: The Curvigraph and Its Uses, Civil and Military. No. 30: The New German Firing Regulations. The Curvigraph (concluded). No. 31: The Trans-Sahara. Heligoland. Roman Fortifications. The New Austro-Hungarian Firing Regulations. No. 32: The Trans-Sahara (continued). The New German Firing Regulations (continued). Concerning the New Drill Regulations. No. 33: The Trans-Sahara (conclusion). The New German Firing Regulations (continued). No. 34: New German Firing Regulations (continued). No. 35: The Russian Maneuvers at Narva. A New Type of Officer's Revolver.

**MILITAER-WOCHENBLATT.** Series 1890.

No. 39: The Lance. Smokeless Powder. The Organization of the French Military Telegraph. The Future of Cavalry. Russian Field Mortars. No. 40: Lebel Carbines for the French Cavalry. No. 41: Opinion of Blücher in Regard to General Inspections of Cavalry. Smokeless Powder. No. 42: The Italian Army in the First Quarter of 1890. Illustrations of the Uniforms of the Prussian Army from 1655 to 1758. Reorganization of the French Cavalry. Change in the Forage Ration of the Russian Cavalry. No. 43: A French Officer on the Three Years' Term of Service in the Cavalry. The Qualities and Peculiarities of the Turkoman Horse. No. 44: Disposition of the Artillery of an Army Corps. No. 45: Disposition of the Artillery of an Army Corps. Instruction of Cavalry Recruits. No. 46: Tactical Retrospect of the Battles of the Franco-German War, with Special Reference to the Use of Artillery. Hunting in the Caucasus. No. 47: Tactical Retrospect of the Battles of the Franco-German War, with Special Reference to the Use of Artillery.

Change in the Organization of the French General Staff. General Suchotin's Opinion of the Lance. No. 48: Tactical Retrospect of the Battles of the Franco-German War, with Special Reference to the Use of Artillery. No. 49: Instruction of the Men and Horses of Field Artillery. No. 50: Smokeless Powder and Tactics. Summer Maneuvers of the Russian Army. No. 51: The Tactics of the Future. Trial of a New Lance in Belgium. No. 52: Trials of Smokeless Powders Manufactured by Krupp and Gruson. Smokeless Powder and Tactics. The Question of Remounts in France. The Abyssinian Troops. No. 53: Tactical Retrospect of the Battles of the Franco-German War, with Special Reference to the Use of Artillery. Equestrian Games. The Reorganization of the Chinese Army. No. 54: Tactical Retrospect of the Battles of the Franco-German War, with Special Reference to the Use of Artillery. A Mountain March of the Swiss Cavalry. Trial of Smokeless Powder in France. No. 57: Tactical Retrospect of the Battles of the Franco-German War, with Special Reference to the Use of Artillery. Instruction of Officers in Hungary. No. 58: Tactical Retrospect of the Battles of the Franco-German War, with Special Reference to the Use of Artillery. New Methods of Instructing the Russian Cavalry. The Coast Defenses of France. No. 59: Frederick the Great in His First Campaign. Tactical Retrospect of the Battles of the Franco-German War, with Special Reference to the Use of Artillery. Smokeless Powder. No. 60: Tactical Retrospect of the Battles of the Franco-German War, with Special Reference to the Use of Artillery. Swimming Drills for Cavalry. Practice Marches with Squadron Skirmishers. Trials of Smokeless Powder in France: Regulations Concerning the Marriages of Cossack Officers. No. 61: Swimming Drills for Cavalry (concluded). Fortresses and their Attack and Defense. The Campaigns of Field Marshal Radetzky in Upper Italy in 1848 and 1849. No. 62: Major General C. B. Brackenbury. Fortresses and their Attack and Defense (concluded). A French Opinion of Our Cavalry Drill Regulations. No. 63: The Russian Army in War and Peace. On the Natural Inclination of the Horse. The Unburned Part of Smokeless Powder. French Regulations for the Leadership of Attached Cavalry. No. 64: The Founding of the German Empire under Wilhelm I. The Strength, Formation and Armament of the French Cavalry Division. The Role of the Italian Fleet. Russian Criticism of the German Field Artillery. No. 66: The New Infantry Tactics on the Drill Ground. Extraordinary March of the 32d Feldjäger Battalion. General Ferrou's Instructions for the Use of Smokeless Powder. No. 68: Influence of Smokeless Powder upon the Training, Arming and Use of Field Artillery. A Belgian Reitefest at Ostend. The New French General Staff Law. No. 69: Influence of Smokeless Powder upon the Training, Arming and Use of Field Artillery (concluded). The Field Kitchen. Military News from Holland. No. 70: Comparison Between German and English Cavalry Instruction. An Attempt to Solve the All-important Question, "By What Formation Can the Losses Caused by the New Arms be Diminished?" From the Camp of Krasznó Selo. No. 71: The

Standards of the Corps of Cadets. Saddle and Lance. From the Camp of Krasznó Selo (continued). No. 72: Artillery in Field Maneuvers. French Shooting Practice. No. 73: Reasons For and Against Arming Dragoons with the Bayonet. Pneumatic Dynamite Cannon. No. 74: The Security of Route Stations. Shrapnel Firing at a Balloon at the Camp of Ust-Ishora.

NOTES ON CAVALRY LITERATURE. TREATING MORE ESPECIALLY OF ITS ARMAMENT. Parts I and II. By Major G. M. Elliot, Third Bengal Cavalry. Allahabad, 1890.

UNITED SERVICE INSTITUTION, NEW SOUTH WALES.

Lecture I: The Defense of a Protected Harbor, by Lieutenant-Colonel Boddam, Engineer for Military Works. II: Harbor Defense by Guard Boats and their Duties, by Commander Bocanquet. Naval Artillery Volunteers. III: Round About Apia, Samoa, by Captain Castle, R. N. H. M. S. Rapid. IV: The Australian Soldier, by Captain McCutcheon, First Regiment Volunteer Infantry, (Hon. Sec.).

AMERICAN CONGREGATIONAL ASSOCIATION. Thirty-seventh Annual Report.

NEW DRILL REGULATIONS OF THE ITALIAN CAVALRY.

THE IOWA HISTORICAL RECORD. July. 1890.

The First United States Dragoons; Account of Its Organization in 1834.

REVIEW OF REVIEWS. Vol. 1, No. 6; London: June, 1890. Vol. II, No. 9; September, 1890.

OHIO MILITARY ACADEMY, PORTSMOUTH, OHIO. Catalogue 1890-91.

BALLISTICS—THE WIND PROBLEM IN GUNNERY. By John W. Ruckman, Second Lieutenant, Fifth U. S. Artillery, Fort Hamilton, N. Y. H. April, 1890.

THE PENNSYLVANIA MAGAZINE OF HISTORY AND BIOGRAPHY. No. 2, Vol. XIV. July, 1890.

Itinerary of General Washington from June 15, 1775, to December 23, 1783. The Leaders of the Old Bar of Philadelphia. Genealogical Gleanings, Contributory to a History of the Family of Penn. Autograph Collection of Ferdinand J. Dreer. A Journey on Horseback from New Brunswick, New Jersey, to Lycoming County, Pennsylvania, in 1799.