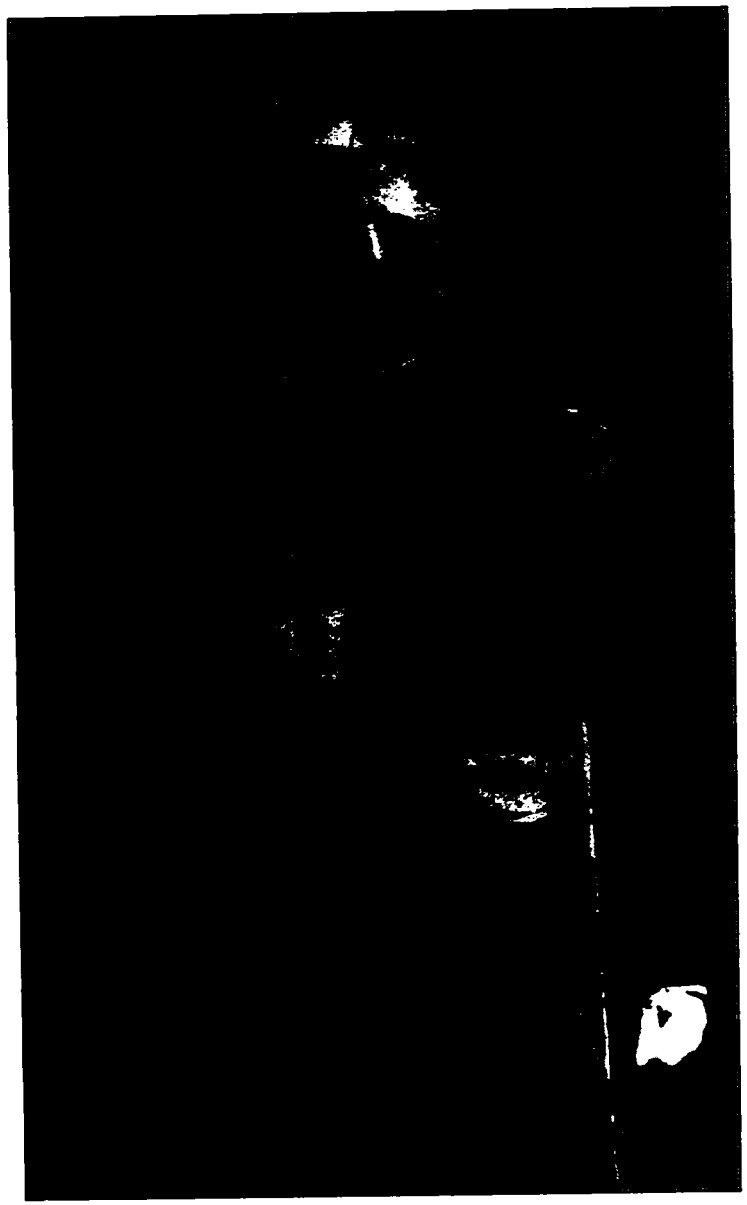


BRIGADIER GENERAL ALBERT L. MILLS.
U. S. ARMY.

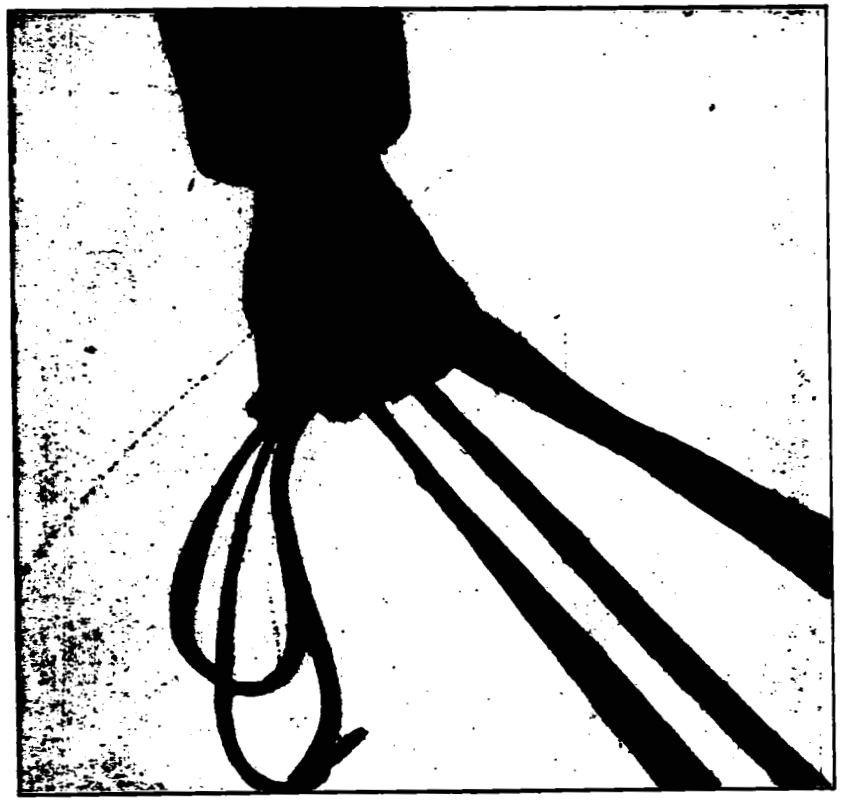
A LESSON IN PICTURE

BRIGADIER GENERAL [illegible]
[illegible]

A LESSON IN PICTURE

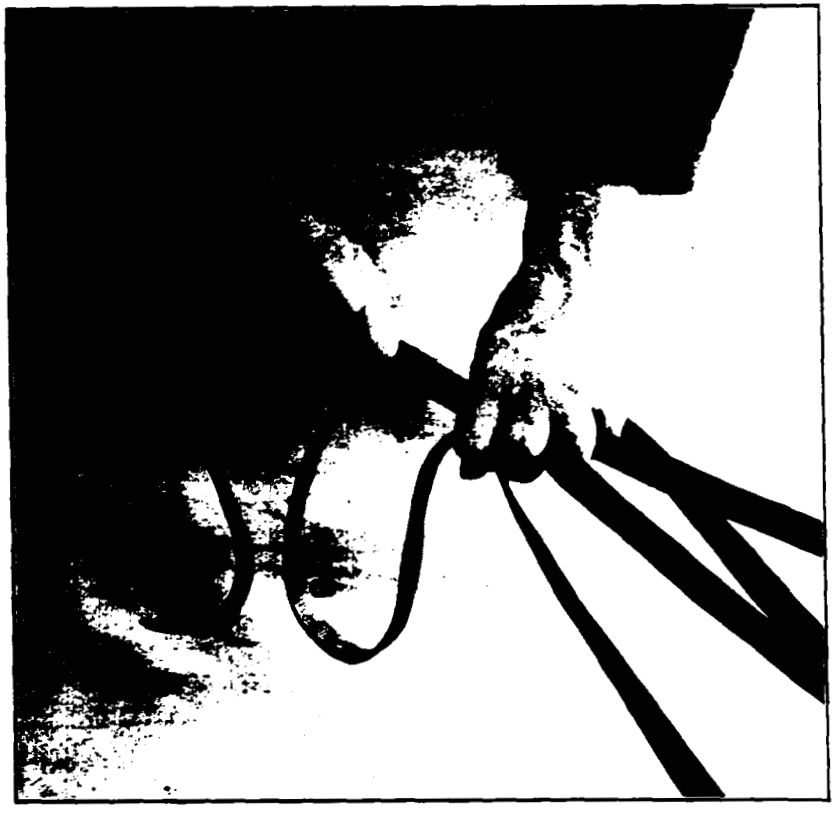
BIT AND BRIDOON, PROPERLY ADJUSTED.

GATHERING AND SEPARATING THE FOUR REINS.

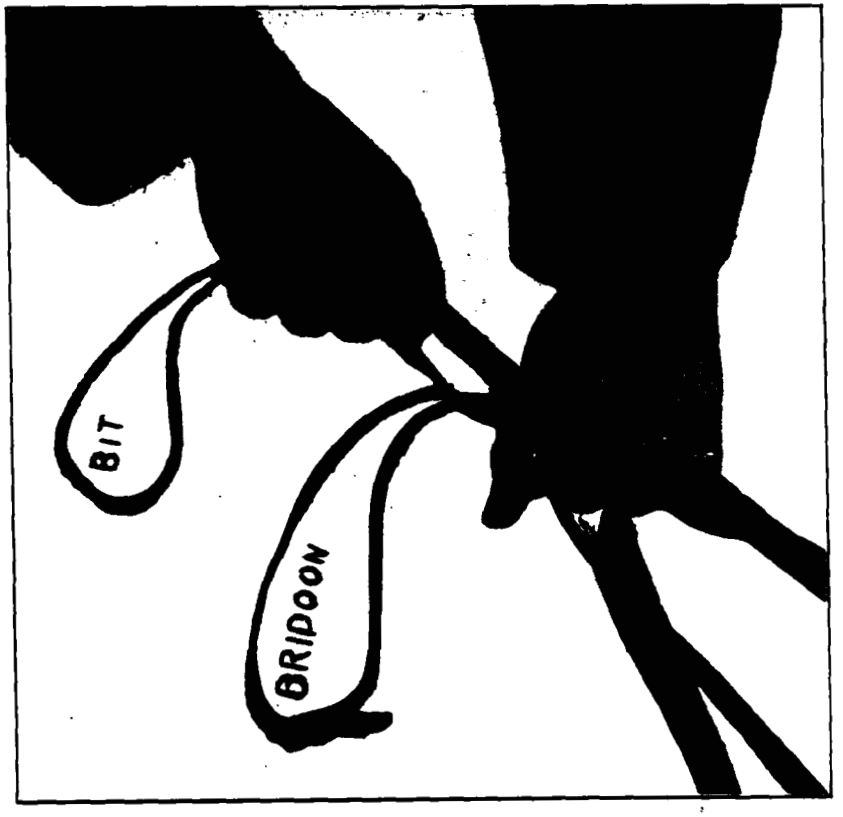


NORMAL GRASP OF FOUR REINS IN LEFT HAND.
BEST FOR MILITARY WORK.

METHOD OF CHANGING THE POSITION OF THE LEFT HAND IN ORDER TO LENGTHEN OR SHORTEN ALL FOUR REINS.

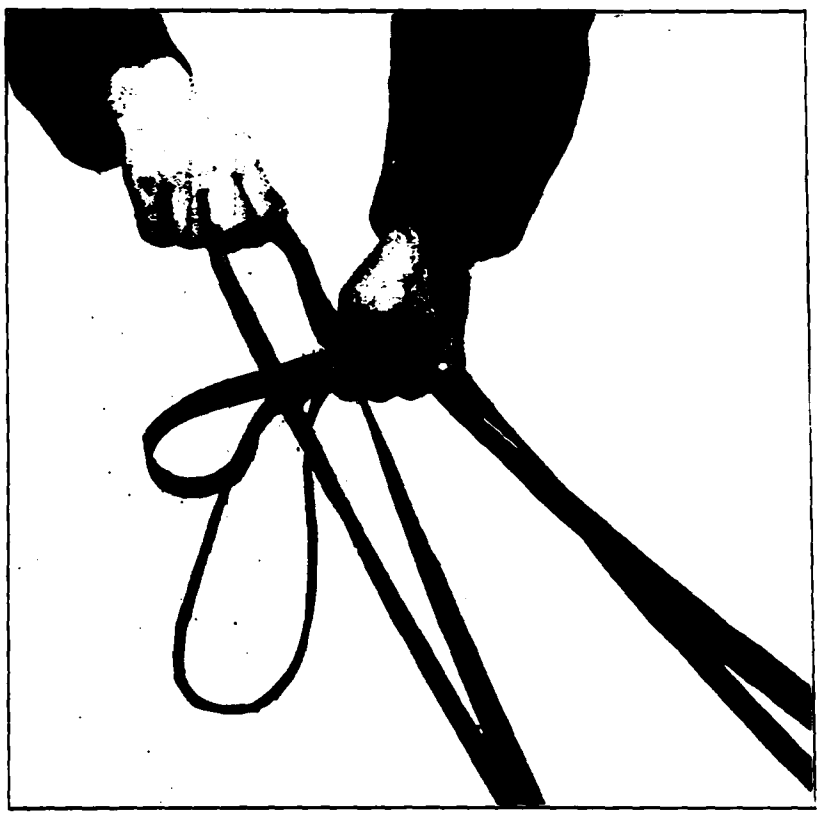


TO SHORTEN THE BRIDOON REINS ONLY.

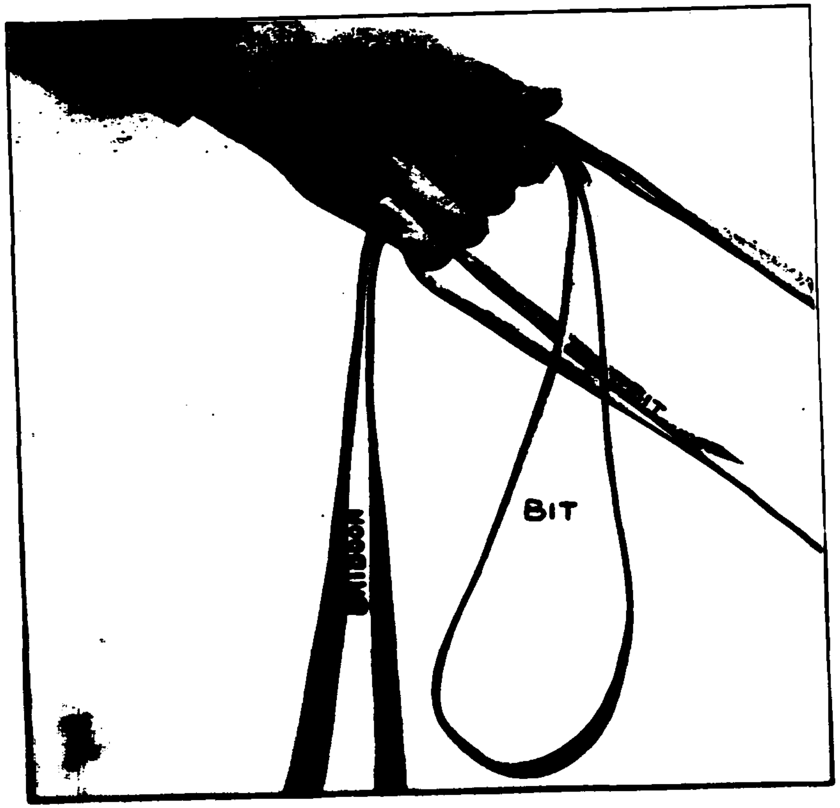


TO SHORTEN THE CURB REINS ONLY.

USE OF BOTH HANDS FOR SEPARATE ACTION OF BRIDOON AND BIT. THE BRIDOON REINS ARE CROSSED IN THE PALM OF THE RIGHT HAND BY THE USE OF THE THUMB.



PICKING UP A SINGLE REIN FOR ANY SPECIAL PURPOSE.



[illegible] GRASP OF FOUR REINS IN LEFT HAND FOR [illegible]

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OF THE

United States Cavalry Association.

VOL. XVI. JANUARY, 1906. No. 59.

FIVE YEARS A DRAGOON ('49 TO '54) AND OTHER ADVENTURES ON THE GREAT PLAINS.

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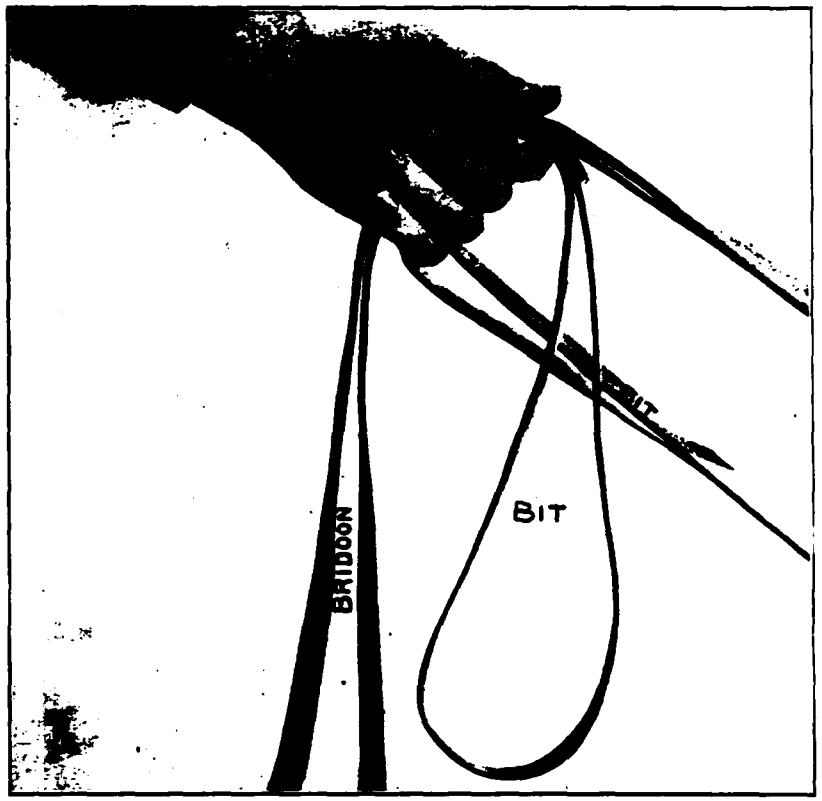

BEST GRASP OF FOUR REINS IN LEFT HAND FOR SCHOOL RIDING.

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SIX-MULE TEAM IN DAYS OF THE PLAINS.

horses (six hundred and fourteen), including some riding horses, comprised the outfit. When all were gone, I drove in my four-mule government ambulance to Fort Riley in two days. Pat Devine, who had been my driver to Denver the previous year, drove for me now, and fed me as well as circumstances would permit. If I lacked anything, it was not his fault. I slept in the ambulance every night from start to finish of the trip, except two nights that Captain Scott cared for me at Riley, one night that Colonel Leavenworth cared for me at Fort Lyon and six nights that my friend Captain William Van Vliet cared for me at Fort Union.

At Riley Captain Scott furnished me all the corn I cared to take.

The object in sending four-mule teams was to get as many wagons to New Mexico as possible with fewest mules; mules could be bought there but wagons could not. A big six-mule wagon is hard on four mules—jerks the leaders painfully and gives them sore shoulders. Six mules can haul 2,500 pounds with less injury to them than four mules can haul the empty

wagon, hence as a supply train for the horses the four-mule teams did not amount to much. This I did not realize for some days, as I had never before tried four mules on a big wagon. We loaded about 2,500 to each six mule team, 1,200 to each four-mule team, and two sacks of 112 pounds each to each horse-string, and the rule was to keep two whole sacks of corn in each horse-string wagon in case of any accident that might separate it for a night from the supply train.

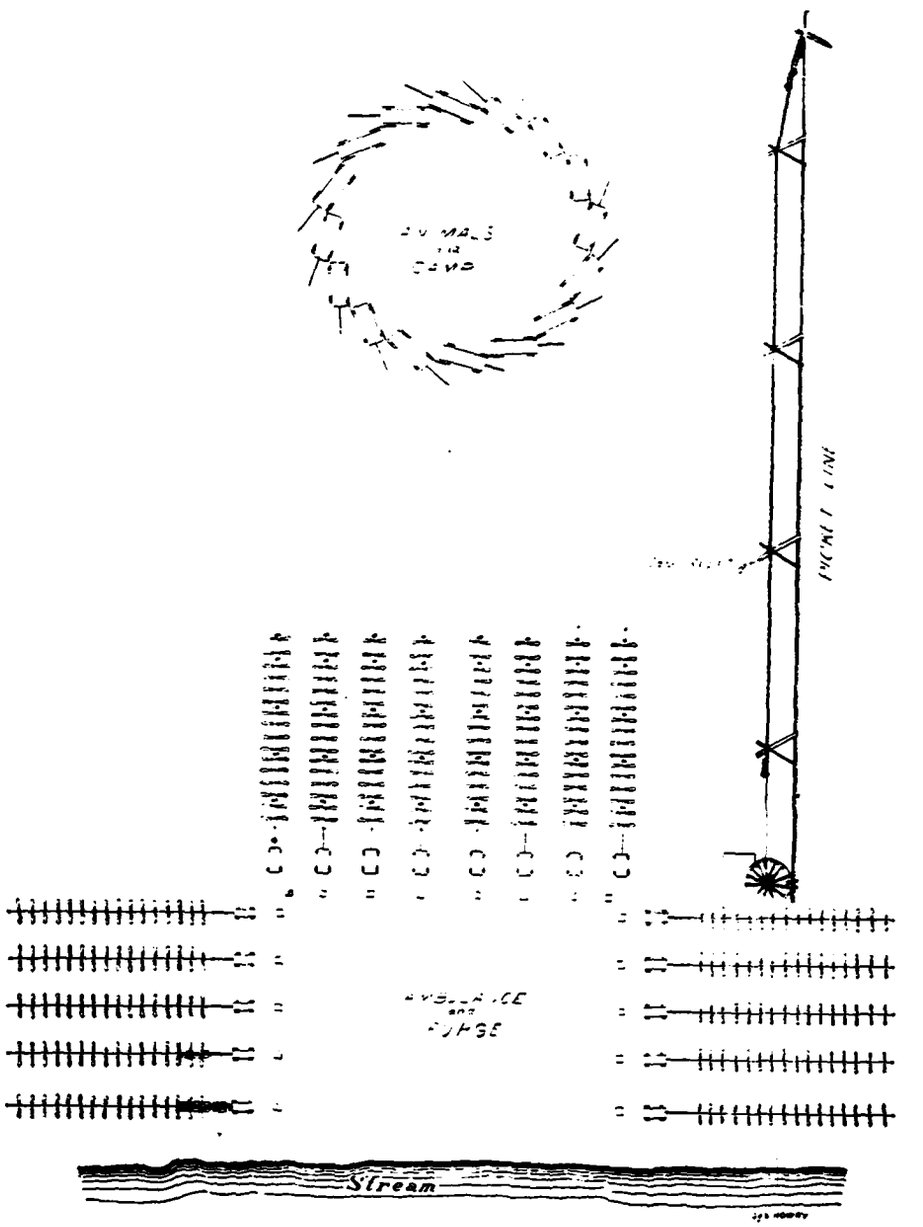
There was in my instructions no limit to the time I should take to reach Union or to make the round trip, but the general understanding was that as the season was getting late, the sooner the horses could be delivered, without too much strain, the better for them. They were not expected to gain flesh on the trip, and were always liable to accidents. Horses naturally travel more freely than mules, and hence the day's travel must, as a rule, be measured by the distance that the mules were able to make without injury to them.

I may here describe a horse-string and manner of managing it. A three-inch thimble skein wagon was what we used, with double covers and wheel harness for pair of horses. An inch and one-half or two-inch rope is put through the iron at the end of the tongue and spliced. At the other end the rope is put through an iron ring and spliced. About eight feet apart from tongue to iron ring, strong rings were seized onto the rope. In motion a pair of horses are hitched to the wagon, with which and the brake the driver manages it. At the end of the rope, another pair of horses are hitched to keep it straight. A man rides the near horse to manage the pair. Another pair of horses in the middle of the string, each wearing a collar, hames and back-strap with a chain hitched to the inside ring of each hame crossing under the rope to hold it up. A man rides the near horse of this pair to keep them steady. On either side of the rope a horse is tied to lead. Complete, the string may be made of any number of horses, according to its length; in my case, there were about thirty two on a string, including wheelers and leaders. The foreman and another rode horses, one on each side of the string, to be ready to dismount and assist in case of trouble. Horses were liable to get badly hurt by getting a

leg over the rope, and often the string must stop to shorten up if the horses were tied too long; so that a string crew consisted of foreman, cook, driver, lead-rider, swing-rider, and out-rider—six men in all. The cook slept in the wagon during the day and must see that the other men's attention was not diverted from the horses to get something to eat. Each string crew had its tent, mess-kit and rations, five water-buckets and ten-gallon water-keg which must be kept full, a big maul, and wooden picket-pins with iron rings around the top. Having arrived in camp, the first thing to do was to picket the wagon-wheels, so that they could not be moved, then the cross-jacks, about thirty feet apart, made of one and one-half by three-inch hardwood seven feet long, crossed and bolted together about one foot from the end. These were opened and set under the rope, as shown in the cut, raising it about four feet from the ground. In these the rope rests from the end of the tongue to the end of the rope, which is kept straight by another rope which extends from the end about ten feet farther, and is fastened by an iron-bound wooden picket-pin driven deep into the ground. To the picket line the horses stand tied as they traveled, the halter straps being tied long enough to reach the ground to eat hay or corn comfortably.

Always in camp the horses must be untied and led to water, unless the watering place is bad, in which case they must be watered from buckets. During the day they must be watered from buckets, if convenient; but if one trusts to men to water from buckets always some horses will suffer many times—partly the man's fault and partly because the horse never drinks as well from the bucket as when free to plunge his nose into the stream in his own way.

Each horse-string wagon carried two scythes, a scythe handle and stone, and we had a grindstone in one of the trains. Grass in abundance was cut and put along under the picket rope so that every horse could have plenty. Great industry would be necessary to take these horses 752 miles across the plains in good shape, and we started with this understanding and kept it constantly in view.



The mule trains left Riley the 10th of September, 1862, each traveling independently, with instruction to camp on the Smoky Hill River at Salina, then a mere stage station, until I came up. There was a plain road, but little traveled, and this the first government train of any importance to pass over it. The Kansas Stage Company ran their stages over it to Fort Larned, under the superintendence of my old friend L. G. Terry. The next day the horse-strings crossed Chapman's Creek, where I left them the morning of the 12th and overtook the trains at Salina that evening—thirty-nine miles in three drives. During the afternoon of that day I was asleep in the ambulance when Pat woke me and said there were two horsemen ahead going the same way that we were. I looked out, and as we drew near found them to be in soldier's uniform. A horse had been stolen from my back yard two days before I left Leavenworth, and one of these horses looked like mine. I told Pat to keep straight on by them until I told him to stop. When 300 yards ahead I got out and stood in the road with double-barrelled shotgun. When within a few steps I told them to halt and asked if they had any arms, to which they replied in the negative, and seemed extremely surprised at my action. They were mere boys and this their first taste of war, as they told me later. I asked where they were from and where going. They were from Leavenworth and were going to Larned to join their regiment, the Ninth Kansas Cavalry. In short, they enlisted under a rule to furnish their own horses, for which they were to be paid. I told one of them he was riding my horse, to which he replied that he had bought him in Leavenworth. I told him to raise the mane from the right side of his neck and if he did not find the letter "L" branded thereon, he could keep the horse and I would give him his value in money. He immediately said the brand was there, but he did not steal the horse, and I believed him, and invited both to camp with me at Salina and we would talk it over, which they did, and agreed to see me when I came into Larned if I would allow him to keep the horse until that time; to take him now would leave him afoot and he would be over the time allowed to report to his commanding officer. I was

sure that the youth was honest and that he had bought the horse of one of the numerous horse thieves, or "red-legs" who shouted liberty and union while they robbed the people right and left.

I found the trains all right at Salina. The next day we would lie by until the horse-string came up and from that time on traveled together.

About midnight a fearful storm of thunder, lightning, rain and hail came up suddenly. I never saw a worse storm. All the wagonmasters knew that in any extreme case of that kind my rule was for every man to get out, pull the picket-pins and tie mules to wagons. I found everyone doing his best except in one train, and the assistant wagonmaster and half of the men were out, and all of the mules made safe. At Riley this train had lost four mules, undoubtedly by neglect, and I made up my mind to dispense with the services of this wagonmaster. Morning came, and men were hurrying fires to dry themselves, the mules were all safe and being picketed out, when I saw the derelict wagonmaster crawling out of a wagon dry and comfortable. I had some whisky of my own, got it out, and with a little gill cup gave to every

GENERAL LANGDON C. EASTON.*

* Major Easton graduated at the Military Academy in 1838. He served in the Sixth Infantry until 1847, when he was made a captain in the Quartermaster's Department. He remained in this Department until retired, January 24, 1881. He was brevetted lieutenant colonel, colonel, and brigadier general for distinguished and important service in the Atlanta campaign, and major general for meritorious service during the war. Died April 29, 1884.

man who wanted it a "nip." All of the old timers took it. The dry wagonmaster came to explain to me how he got all of his mules tied up before the heaviest hail came, etc. I cut him off with the assurance that I knew that he was lying, and he could not have any whisky; he might take his mule and go back to Leavenworth and lie to the man who hired him, but if he took the mule he must take his "time" from me, in which I would state that he was discharged for gross neglect of duty and general worthlessness. He took it, and I wrote to Major Easton, quartermaster at Fort Leavenworth, a copy of his discharge. Henry Farmer came to me in 1855, and had been with me most of the time since. He was now in charge of a horse string at $45 per month, and I made him wagonmaster at $65. I did not have to lose any sleep for fear he would not do his duty. My wagonmasters were now John Wilson, who was with me in 1858 in Utah, Reed, Underwood, Farmer and Shehan.

The horse strings came up all right; they escaped most of the heavy storm and had no hail.

There was a family in Salina, and the nice woman had a few days before received a dozen chickens, brought on behind the stage-coach from near Silver Lake. Early she was out looking for them; the rooster failed to crow, and there were no hens hunting crumbs at her door. Of course she was sad. I sent Pat to her house for milk and eggs and he found her crying. She told him of her loss, sent me two eggs, all she had, and a quart of milk. I was *mad*. For a family out here in the wilderness to be robbed of precious hens was too much, but I said nothing. Strolling about from train to train, I was looking for evidence of chicken thieves. In Reed's train they had tried to burn the feathers, but failed; there they were, half consumed in the ashes. I lifted the lid from a big bake oven containing three chickens. Reed was with me and much embarrassed. I told him that I would not look any further, he could do the hunting; and the first thing to hunt was a dollar apiece for twelve chickens, and not a cent less, which must be given to that woman, and if a cent's worth of anything was stolen from any one I would break up the whole outfit but that it should be righted. We had come from the border

where thieves were stealing and robbing in the name of patriotism and liberty, but such things should not follow my trail. I would not have it said, as was often said of commands passing through the country, that they stole everything they could carry away. Reed was a fine man, did not know of the stealing until it was done, and like many other good men at the head of a troop or company, did not realize that he should teach "the boys" to protect people's property and not to steal it. The woman got her money and every man of my party a lesson.

The 14th was lovely and we moved ten miles to "Spring Creek." This was the first camp where we had all been together, and I made it as I intended making it when camping on a stream where there was room. Spring Creek runs from west to east. The first horse string crossed the creek, turned east and stopped; the next string passed beyond and turned the same way, placing wagon and horse-string about twenty-four feet beyond the first; third, fourth and fifth go the same distance beyond and face the same way—that is, five wagons in line facing the same way, the same distance apart. The sixth string goes past the rear end of the first five far enough to be out of the way of the last one and stopped, fronting north; the next string obliques enough to place the wagon twenty four feet beyond, west of the last one, and so on until eight wagons and horse strings front north. Then the fourteenth string passes west far enough advanced to be out of the way of the thirteenth, the other following in like order until the camp stands thus: Five wagons fronting east, eight north and five west, all horse-strings fronting out, rear end of wagons forming three sides of a square and river the fourth side. Inside of this square my ambulance and traveling forge, and room to hobble or picket a few horses that had met with some accident or need extra care, or horses or mules waiting their turn to be shod. Always more or less horses were under special treatment, and this inside space was referred to as "the hospital." And now I made my big round corral two hundred yards in front of the long side of the horse camp. The camp is shown by the accompanying cut. The horse string tents are shown behind the wagons. The wagonmaster's tents

were near the corral. And now the mules are turned out with lariats on without picket-pins. All wagonmasters and twenty men besides myself mounted—the mules driven away from the horse strings, for they were sure to stampede the first time they were turned loose. After circling around for a while, all settled down to grazing and there was no more trouble. A man led a gentle white horse with big bell on his neck, and the mules learned to follow him to the corral. After two or three days the lariats were stored away in the wagons and not used any more. In the middle of the afternoon a large herd of buffalo came in sight, evidently going for water at Spring Creek, moving straight for our camp. They were moving toward the sun which blinded them so that they could not see the wagons until near to them. The mules were corralled quickly and the gap closed, guns were gotten out and a long skirmish line thrown out between the buffalo and the camp. After a good deal of shooting the buffalo sheered off and crossed the creek a mile west of the horses and continued their course until out of sight. Several buffalo were killed and many wounded. It was quite an exciting battle, but if not turned they would have been in our horse camp before they knew it, and the ruin would have been great.

And here the rules for the future were laid down: The mules would be herded, a wagonmaster or his assistant always on herd with ten teamsters, who stayed on until midnight and were then relieved and the mules corralled at early dawn, and any time in the night that there seemed to be danger; we must not be caught out in a bad storm; in fact, with the gray horse and the bell, they were very little trouble. All hands were roused at early dawn and the mules fed two quarts of corn each—no corn for the mules at night—the grass was good enough. The horses were fed two quarts of corn at night and green grass piled up under their picket lines; in the morning they were fed two quarts of corn each and groomed. Breakfast over they were watered, preparation was made for starting, and at 7:00 o'clock we rolled out, the horse strings in front, the first string to-day the rear string to-morrow, and so on to the end; the trains moved in the same order following the

horses. The horse-strings naturally traveled a little faster than the mule teams, but where there was no danger of Indians it made little difference if the trains were a little behind. If anything caused a horse-string to stop, the others passed on and the delayed one fell in behind: the same way if a team would stop for any purpose. All found their proper place in camp and there was no confusion. And here I made a rule that about two miles out of camp horse-strings would pull out of the hard road on to the grass and stop ten minutes, while the men readjusted anything out of place or attended to their own necessities. While waiting this ten minutes, three horses out of four would urinate. The mule teams must do the same way, with like results. The amount of suffering for men and animals thereby avoided cannot be estimated.

On the 15th we moved twelve miles and again camped on Spring Creek, the same as yesterday. Only two or three buffaloes seen to-day. As soon as camp is established horses are led to water, and again after feeding corn and grooming.

I am determined that these horses shall go through to Union in the best condition possible. We are a comfortably provided for party, and men need not give way to carelessness and neglect because they are away from home. They fare as well as men do on farms and are much better paid, and must not permit things to go at loose ends because it is "Uncle Sam's" property. And here I will say that the men with me this trip were the best civilians that I ever traveled with. More than half of them had never been on the plains before; had been raised in good homes in Missouri, but on account of troubles growing out of the war, when the news went through the country that this big caravan would go to New Mexico the best young men in the border counties came. There was a singular reticence about them—apparent desire not to talk of themselves from the fear of being condemned for rebels if they hailed from Missouri, and all the way to New Mexico and back there was a quietness unusual on the plains. The men were young and willing to do right, and among the nearly three hundred with me there were no quarrels, no jarrings. Two youths in adjoining horse strings fell out and drew pistols. I rode in between them and made

each bring his pistol to me, and each tell his grievance, which amounted to nothing, and I lectured them; told them of home, family and friends. I stated to them that it was no unusual thing in civilian outfits going long journeys for men to fall out and some one be killed, and assured them that no one would be hurt with me. I would allow no man to ill-treat another, especially such men as they were. I was going to send them home to Missouri wiser and better men, and here and now they must shake hands, which they did. I did not tell them so, but imagined each one felt his honor vindicated by showing pluck enough to draw his pistol, and his vanity was satisfied.

I pass my daily journal because too voluminous. Crossed the Smoky Hill at the stage station called Ellsworth, where Fort Harker was afterwards built. I never drove in my ambulance during the day from Salina to Union, with two exceptions. I rode one horse during the day and had another one saddled to use after coming into camp. Each horse-string had a man on guard the fore part and another the last half of the night, whose duties were to walk up and down the horse-string and be ready to attend to a horse that got his foot over the rope or in any other trouble, so that the string crew, including foreman and cooks, were on guard half of every night. I had a man to ride all night from one horse-string to another around the corral out to the herd and every point about the whole camp, with instructions to report to me if there was anything wrong, if a watchman was asleep, or any one neglecting his duty. He slept in a wagon nicely fitted up during the day. His name was John Gartin, and I never saw his equal for faithful endurance.

I was instructed to go this route because it was supposed to be much nearer than by the old Santa Fe trail. I arrived on the high ground overlooking Cheyenne Bottom and was surprised at its extent—an expanse of about ten miles of bottom with a mere trail but little traveled and apparently wet. I could not plunge into that without examining it. I had an inkling that there was such a bottom, and had ridden some miles ahead of the horse-strings, and now wrote a few lines to the man in charge of the first string telling him and all to halt here until my return, put it on a stick and stuck

it in the ground. I kept an assistant wagonmaster with me, and we rode across the bottom to a good camp on the west side and back in about three hours. I determined to take the horse-strings across, but if I got the loaded wagons into that bottom and it should rain, which was threatening, I might wallow in the mud indefinitely, and so I instructed the trains to corral. If it rained I would have to go south to the old Santa Fe trail. The horse-string wagons were so light that I could risk them. The horse-strings crossed all right, and were in a good camp on the west side before dark. I was off in the morning early, reached the trains by starting time and led them over the bottom, and on across Walnut Creek, the horse-strings coming in a little later. The next day we passed Pawnee Rock, and crossed Pawnee Fork at its mouth (where now stands the town of Larned) and camped on the west side. I was told when I left Leavenworth that a strong escort would be ready at Fort Larned to accompany me all the way through to Union, and I sent a man from my Walnut Creek camp with a letter to the commanding officer at Fort Larned, apprising him of my approach and requested that the escort join me en route and save delay. I knew that every mail carried from Fort Leavenworth to Fort Larned something upon that subject and had reason to suppose that the escort would be ready. It was eight miles out of my way to go by Larned and I wanted to avoid it. Capt. Reed of the Ninth Kansas, commanding Fort Larned, with my messenger met me at camp, where I learned that there were few troops at Larned and they hardly initiated as soldiers, and all that he could possibly spare would be Lieutenant Dodge, of a Wisconsin battery, and twenty-five men of the Ninth; he would select the very best that he had and they would be well disciplined with a good officer. After lunch we drove in my ambulance to the Fort and saw the escort which would move to join me early in the morning. I knew, and so did Captain Reed, that I would have to pass through the whole Kiowa and Comanche Nations, camped along the Arkansas in the vicinity of where now stands Dodge City, and the sight of 600 fine horses passing close would be a great temptation to possess themselves of some. I ought to

have an escort of 500 men, but they were not to be had. Be it remembered that an Indian's weak point (or strong point) is horse; horses, scalps, and squaws are what contribute to his happiness and make life worth living. Captain Reed said that the young man with my horse had reported to him and was in trouble. He was sent for. I believed him honest, and wrote and gave him a bill of sale (or rather "a bill of gift"), reading:

"I have this day presented to Private ———, of ——— Troop, Ninth Kansas Cavalry, one small bay horse seven years old, branded L on right side of neck, said horse having been previously stolen from me at Leavenworth and sold to said ———, who was an innocent purchaser.

(Signed) "P. G. LOWE."

To say that the young man was greatly relieved would be putting it mildly. I liked Captain Reed immensely and am sorry I do not know his career.

The next day we moved up to near where is now Kinsley, and Lieutenant Dodge and command joined us. His party were well mounted, and from first to last Dodge and his men were to me all that that number could be. Having no mess or servant, I invited Dodge to join me, which he was glad to do. He placed his men wherever I asked him to and relieved me of much care all the way through. My horse-string men were armed with revolvers and teamsters with muskets, and I inspected them carefully and saw that they had plenty of ammunition. The next morning, a short distance from camp, we met Company F, Second Colorado,—about seventy-five men under Lieutenant Weis, of Denver. They were on the way from Fort Lyon to Larned to report to Captain Reed. "Billie" Weis was a fine saddler and worked in the shop at Fort Leavenworth a number of years. On the Cheyenne expedition he went with me as saddler, and was of much service fixing up the pack-trains, and went with them. On the Utah expedition he was my cook to Camp Floyd. When I went into business with Mr. Clayton he went as cook to Denver and cooked for our mess until we set him up in the saddlery business, and now he was a good officer, commanding as fine a company of men as I ever saw,

every man a pioneer, experienced in everything that makes a man on the plains or in the mountains self-supporting—all recruited in Denver. I knew several of them, and was introduced and shook hands with the whole company. I wrote a note to Captain Reed requesting him to order Lieutenant Weis to join me and go all the way through, and told the Lieutenant where I would camp and wait for him to join me, for I did not want to reach the Indian camp until he did join. He had wagon transportation, could make good time, and he was as anxious to go as I was to have him. At early dawn the next morning John Gartin called me and said that Lieutenant Weis wanted to report. Here he was with his company twenty hours after he left me. The distance traveled to Larned and back to where he joined was sixty-five miles I told him to let his men sleep as long as he wanted to; I would only move ten miles and camp two miles east of the Indian camp. I had ridden up and selected my camp the night before and would not move early. We moved out about 9 o'clock and camped on high ground near the junction of the Dry or Coon Creek route and the river road. For miles along both sides of the Arkansas, commencing two miles above my camp, were Indian tepees with numerous inhabitants. My camp was carefully made, as it always was, and abundance of grass collected. Dodge's men picketed the high points. Weis came up and was assigned a position just west of the horse-strings. A line was designated for the sentinels, and all of his men put on guard, and no Indian allowed to cross the line without my permission. Hundreds came, but only two, Satenta and Lone Wolf, were permitted to cross the line, and they stayed and dined with me and Lieutenants Dodge and Weis. "Joe" Armijo, who had been with me nearly five years, was my interpreter; all of the Indians understood Mexican. I left the impression upon the minds of these chiefs that the soldiers were asleep in wagons and that those on post were only a few of what we had. Each teamster placed his musket so that it stuck out from under the wagon covers. I impressed upon them that while we did not believe the Indians would purposely annoy us, the curiosity of young

men, women and children might cause them to come too near, frighten the horses and give us trouble, which could be avoided, and they could see the big train pass by just as well at a little distance—a few hundred yards away. They promised that all of their people would observe my wishes and I need feel no uneasiness about it.

I had traveled two horse-strings and two wagons abreast during the last two days to keep them more compact, as was always customary on the Santa Fe trail from Walnut Creek to Bent's Fort. There were two, three and sometimes four well broken roads for many miles through the Indian country along the Arkansas River, from the west line of what is now McPherson County to Bent's Old Fort, and now I rolled out three abreast, six horse-strings long and three wide; forty mule-teams long and three wide. Muskets protruded from under the wagon covers, soldiers were wide awake and plain to be seen. Dodge rode ahead with me with a skirmish line of a dozen of his men spread out wide, indicating that none must come inside of this width, while the balance of his men picketed the hills. For one who knew the curiosity of Indians under such circumstances it was remarkable how by thousands, men, women and children observed the promise the chiefs had made the day before. For more than ten miles these people trudged on foot, or cavorted about on ponies on either side of the train, never approaching nearer than 200 yards. When we had traveled more than twenty miles and started up over the Seven-mile Journada, most of them were out of sight; but the two chiefs referred to and a few others came to shake hands and say good-bye. Armijo conveyed to them my thanks, and I had a barrel of hard bread and small sack of sugar gotten out for them.

Seven-mile Journada was a rugged bluff running down to the river, very broken—a good place for an ambush. I explained to Dodge, who rode ahead with his skirmish line and examined every break. There could be no traveling abreast, there being but one hard gravelly road only wide enough for one wagon. All horse-strings and wagons returned to single file and we reached the Arkansas River and Cimarron Crossing in safety, went into a fine camp at the

end of the thirty-five mile drive, without stopping to water. Fortunately the day was cloudy and cool. It is hardly necessary to tell how eager the horses were for water and how, when turned loose, the mules rushed into the river to drink and roll on the sandbars. Possibly I could have made half of the distance and camped without trouble but I should have revealed the weakness of my escort, and the temptation to crowd in would make it almost impossible to restrain a thousand or two young bucks. I never heard the wisdom of my action questioned by any of my party. Dodge and Weis freely expressed themselves as pleased; it was a great relief to have passed safely by that great camp and to feel that they were left behind; but we did not relax our vigilance: the Indians might think we had grown confident and careless, and the guards were doubly cautious.

COL. JESSE H. LEAVENWORTH.*

From the Cimarron Crossing to Fort Union was the best natural road probably in the world, and shorter than by the Raton route by about one hundred miles, but the impression prevailed at Fort Leavenworth that it was very dangerous for my outfit on account of the Confederate guerillas and Apache Indians, hence my orders were to go the Raton rtoue.

Next morning we rolled out at the usual hour and traveled about twelve miles. There was nothing worthy of note

*General Henry Leavenworth, the founder of Fort Leavenworth, Kansas, left an only son, Colonel Jesse H. Leavenworth. Colonel Leavenworth graduated at West Point in 1830 and served in the Fourth and Second Infantry until 1836, when he resigned to engage in civil engineering. In 1862 Secretary Stanton commissioned him to organize a regiment of cavalry in Colorado, and this organization became known as the "Rocky Mountain Rangers." It did valiant service in protecting a thousand miles of Western frontier from the encroachment of hostile tribes of Indians. He died in 1885, and his remains rest at Milwaukee. His four daughters reside in Chicago and Tacoma.

until we reached Fort Lyon, commanded by Colonel Leavenworth of the "Rocky Mountain Rangers," a son of the founder of Fort Leavenworth. We were two days here; got all the hay we wanted and turned over 100 horses. Up to this time I had abandoned two horses, hopelessly crippled, so that I left Lyon with 510.

From Lyon west and southwest, there had been a drought and the grass was too short to mow. We filled all the wagons at Lyon and fed sparingly. Crossed the river at Bent's Old Fort and camped ten miles above. Here was a species of canebrake, flat-leaved, and relished by animals in the absence of other long forage. I had all cut, and piled into the wagons all that was not eaten. The next day it was thirty miles to Timpas without water between camps; grass good for mules running loose, but none could be cut with a scythe. On this route from the Arkansas to the Picketwire River (Purgatoire) was always a hard problem for forage and water. My little supply of hay and cane would be all consumed to-night, and I did not expect to use a scythe again this side of the Raton Mountains. The mules could be herded where grass could not be mowed, but it was too late to break the horses to herd, and I would not be justified in trying it, if I met with an accident; but I will here express the opinion that divided into herds of 200 or 300 the horses would have gone to Mexico better on grass than they would on strings with plenty of hay and corn. From Timpas to water holes was fifteen miles, and as I knew, no place to camp. Six miles further was Hole in the Rock, and nothing but volcanic rock and stunted pine and cedar. Twelve miles more to Hole in the Prairie, there ought to be grass and water.

In all these places watering must be done with buckets, and so it looked as if we would travel thirty-three miles and camp at Hole in the Prairie. The horse-strings reached the water holes and were well watered. While they were watering the trains came and were told to pass on to Hole in the Rock to save time. The horse-strings came up and passed the trains while watering at Hole in the Rock. With an assistant wagonmaster I rode on to Hole in the Prairie, where the ground showed no signs of rain for a long time, and was covered with a white scum of alkali and water strongly impregnated with it. Surely I could not camp anything here and let the animals drink. When the strings got here they would have traveled eighteen miles since watering and the trains twelve, in all thirty-three miles from Timpas. Fortunately the weather was cool.

When the strings came up I sent them right on, not allowing men or beasts to use the water. I showed where the trains should camp on high ground above the alkali bottom; told the wagonmaster in charge to have the mules herded without allowing them in the bottoms or near the water; to corral the mules at dark and start early in the morning. Then I got into my ambulance with an assistant wagonmaster and drove for the Picketwire; arrived there, I found the road had been changed since 1854 and ran up the north side. Following it about three miles, I saw a cabin and some stacks of oats. A young man living here alone had come from St. Louis in the spring, raised a crop of oats and a good garden. It was like an oasis in the desert. In short, I bought his three stacks of oats, as fine as I ever saw, and sent my assistant back to the turn of the road to bring up the horse-strings. Two dollars a bushel the man wanted for his oats. That was the government price at Maxwell's ranch on the Cimarron. I did not dispute the price, and he left it to me to say how many bundles should make a bushel. They were large and I allowed a dozen, which was satisfactory.

Near sunset the horse-strings came up at the end of their forty-seven mile drive, and the horses all led into the beautiful clear stream up to their knees. Had we found no feed but the corn we had, they were fortunate to be here instead of at the Hole in the Prairie. All of the foremen of strings and myself stood by to see that the horses were led out before drinking too much. They were watered all they wanted an hour later. Three bundles were given each horse and no corn. A gorge of water with corn might cause some sickness; they ate every straw. After watering next morning they were given two bundles each and ate it clean before noon, and the balance was put into the wagons and taken along. Three hundred dozen bundles of oats the man

sold me, and reserved a few dozen for his horse. It was cheap feed under the circumstances for my horses, and none too much for him to get. We bought some nice vegetables from him also.

Half a mile above lived Mr. —— whose wife was a sister to Kit Carson, and she had a nice five-year-old boy. She brought him with her when she came with some milk and eggs to my camp to sell—a bright little fellow, and I had quite a romp with him. A week later he died from the effects of a rattlesnake bite. I was shocked to hear it on my return.

The next morning I rode up to where now stands Trinidad and selected a camp. A man named Hall, formerly sergeant in the Second Dragoons, lived there with a Mexican wife—the only inhabitants. He had raised a crop of corn and had a stack of fodder cut off above the ears and nicely cured. I bought it. The trains came up and watered where I bought the oats, and camped near Hall's. They found fairly good grass on hills. The horse-strings came up in the afternoon.

Since leaving Lyon we had been feeding mules the same amount of corn that we did the horses on account of short grass. The next day we moved about twelve miles up the cañon towards the Raton summit. The mules did well herded on gramma grass and the horses had fodder. The next day we had before us three miles to the summit and then down ten miles of steep, rocky, mountain road and three more to water holes. We had passed all the alkali country without losing an animal, but here a horse died.

Colonel Leavenworth assured me that great efforts would be made by guerillas, rebel sympathizers, etc., of which he claimed to have positive knowledge, to capture my outfit; that said guerillas were in strong bands ranging through the country; this would be a rich haul for them, and once captured they could easily run to Texas or Indian Territory, and there were no troops in the country to pursue or make them afraid. And the Colonel declared that these same guerillas were presuming that the civilians of my party would have little incentive to fight, and my hundred soldiers,

suddenly surprised by two or three hundred Texans, might not stand up very long either. To myself I must admit that with a well organized party of such men as I had known I could surprise and stampede a herd of mules and demoralize a lot of horse-strings without great loss.

There was nothing strange in the Colonel's story, and why an enterprising enemy should permit such a valuable caravan with so little protection to escape seemed a mystery. Armed as my men were they would seem a strong defensive party, and so they were in corral and could protect it, but a party of rough riders dashing into a herd or a train en route could cause much demoralization, and all the teamsters could do would be to care for their teams, and the horse string men would be too busy to fight, so that as a fighting force my men amounted to nothing en route. On the open plains with my little squad of cavalry on the lookout, we were tolerably safe, but in the mountains or broken country it was more dangerous. I had talked with Lieutenants Dodge and Weis a good deal, and they fully appreciated the danger and were extremely vigilant. Surely if I was to have trouble it would be in getting down the south side of the mountain.

Dodge was off early and covered a wide range without seeing a man or anything to arouse suspicion. As the horse-strings worked their way slowly down with great difficulty Weis's men faithfully picketed the way. It was a hard road for horse-strings, but we finally reached camp at the water holes, when some wagons came in sight and kept coming until sunset, when all were in camp and no animals hurt, F Company bringing up the rear. It was a faithful day's work for all concerned and no sign of an enemy.

Early the next morning I sent Mr. Sharp, a man in charge of a horse-string, with a letter to Mr. Maxwell, of Maxwell's ranch, requesting him to deliver at my camp on Vermijo, fifteen miles northeast of his ranch, 2000 bundles of sheaf oats, or an equivalent in hay or other long fodder—whatever he had. It was twenty eight miles, and I found Sharp and the oats ready for me. Sharp's ride was fifty-eight miles, and if he had not stayed with the Mexican ox drivers, they would not have reached my camp.

The next day twenty-five miles to Sweet Water. I found men putting up hay, claiming they had the right, and I bought from them enough for one night and to haul along for to-morrow night, for I knew we would find none at Ocate, where we arrived the next day—fourteen miles.

At the Sweet Water camp, a young Mexican complained that two men had come to his sheep herd and taken two young sheep, shot them, took out their entrails and packed the sheep off on their backs. His employer would take $2 apiece out of his wages for losing them, and he wanted that much money. I went around with him, found fresh mutton, and he pointed out the men who took the sheep. I told the men to hustle the $4 and I would make no fuss about it; otherwise, I would find a way to get it It was soon paid, and notice given that no robbery would be permitted; "the damn greaser," as they pleased to call him, had rights that must be respected. No more sheep were stolen

Ocate to Fort Union, twenty miles, where I was well received by Captain Craig, the quartermaster (whom I had not seen since 1854), Captain VanVliet, military storekeeper, old Captain Shoemaker, ordnance officer (whom I had met here in 1854), and Colonel Moore, the post trader. This was the 10th of October, and we had traveled 622 miles from Fort Riley in thirty days, including two days lay-by at Fort Lyon. Our losses had been three horses and four mules.

I turned over all wagons, except the eighteen light ones used by horse-strings and my ambulance, all mules except nineteen four-mule teams and five riding mules, and all horses except two. A few men wanted to remain in New Mexico and found employment, but 250 returned with me.

I disliked parting with Lieutenant Weis and Company F and Lieutenant Dodge and his Ninth Kansans, but I no longer needed them and they did not need me. I would travel much faster than they, and so we parted, on my part regretfully. I do not know Dodge's career, but fear that he joined the great majority during the terrible war. Major William Weis, after many adventures—ups and downs, can be found at his saddlery shop industriously making an honorable living at 2630 Champa Street, Denver, Col.

But about half of the men could ride at one time in the eighteen wagons. I put a wagonmaster or foreman of horse-strings in charge of each wagon, and the men were divided off so that each man knew the wagon and mess that he belonged to, and the man in charge must see that they rode turn about. Some men never rode: one, "Dick" Anderson of Platte County, Missouri, left camp as soon as he got breakfast and was in camp in the evening among the first. He came from Utah with me in 1858, and never rode a step except when snow was deep. Weather on the return trip was good until towards the last—just cold enough to make men relish walking.

I measured the road from Union to Leavenworth, 752 miles, with an odometer on my ambulance wheel. The second night from Union we camped at Sweet Water. A high promontory juts out into the plain south of our camp: wagons came around it following the road with half of the men strung along on foot: and bringing up the extreme rear was a cavalcade of about twenty men mounted on ponies, horses, mules or burros. They had improvised bridles of lariat ropes. I inquired where they got their mounts, and they claimed to have found them loose and picked them up as strays and thought they had a right to them. I told them that ranchmen had stock all over this country: all of them were branded: this was a public pasture, and to take an animal from it without consulting the owner, was stealing just as much as was stealing a horse from a farm, and they must turn them loose. One tough fellow said that the people in this country were "nothing but a damn set of rebels anyhow;" to which I replied that he was not commissioned to judge of the loyalty of any man, and if he did not go back to the other side of that bluff and turn loose the horse that he was riding and the pony that he was leading I would turn him loose without a scratch to show the amount due him and he should not be permitted to travel with my party. Turning to the other men I told them that my remarks applied to them also. All but two said they had no idea they were stealing, and laughingly rode back and turned loose. I told the two sulky ones not to come near my camp until they got ready

to live up to my rule. Two or three men went out and talked to them, and they finally rode around the bluff and returned on foot. This incident stopped all lawlessness. If it had been permitted, all of the unscrupulous fellows would have come into Leavenworth mounted, and flattered themselves that they were brave.

We made two drives, herding the mules night and day, fed two quarts of corn to each animal to Fort Lyon; Lyon to Riley one quart, and then four quarts the balance of the way. I did not want to take much corn from Union or Lyon; nor did I want to haul so much as to keep men from riding. From Riley east grass was dead and I bought hay.

Where the Indian camp stood on the Arkansas when we went west were camped two companies of the Second Colorado, under command of Captain Scott J. Anthony, of Denver. The Indians had gone south for the winter.

Approaching the Saline River to select camp, traveling along the west bank was an immense flock of wild turkeys. I got out with my shotgun and killed two, and they did not fly; did not seem to know what it was all about, and I killed one with my pistol. They ran and fluttered along into the thick timber where they roosted. After we were camped, men got after them and one German, who had a double-barreled shotgun, killed a dozen. The weather was cold and I kept my largest one until I got home, November 17th.

In the 1,500 mile round trip with more than 250 men, representing all classes, with no doctor, dependent upon the box of medicines that my friend Dr. Samuel Phillips put up for me, without the loss of a man by desertion or illness, with no serious illness or other inability to perform hard duty, we made the return trip from Union to Leavenworth in thirty-one days—more than twenty-four miles per day—half of the way on foot. The cold weather was upon us; we were all anxious to get home, and there was no complaint. I came in two days ahead of my party.

Again my vanity prompts me to challenge comparison with anyone who has ever traversed the Great Plains with horses or mules. Five or ten per cent. of loss was not unusual, but here we sent 614 horses 550 miles and 510 horses

more than 200 miles further, and 534 mules 732 miles, and return two horses and eighty-one mules with a loss of but three horses and four mules, and 250 men return in perfect health, after more than two months of out-door exposure and hard work, and no sickness.

But the merit of my trip, if any be due, lies in the safe delivery of so many animals at the end of so long a journey with so little loss, and a bill of health unparalleled for that length of time with that number of men. With few exceptions, wherever I have met one of these men I have felt no hesitancy in recommending him. Men who could work so hard and faithfully without any previous discipline can be trusted anywhere. Most of the men entered trains and continued in government employ without losing time, and I had the pleasure of placing many of them in good positions. Three men of this party served with me in the First Dragoons—Mr. William P. Drummond, who was a sergeant in my (B) troop, was this trip in charge of a horse-string. Warren Kimball (since dead), who joined with me as a recruit, and Mr. James H. Beddow, whom I knew in K Troop, and who is now and has been ever since he returned with me from New Mexico, an employee of the quartermaster's department, now and for many years, having police supervision of the Fort Leavenworth military reservation and wearing the star of deputy United States marshal—universally respected for his long and faithful service.

Probably thirty men of my party had been with me on other trips, and to them I was indebted for much of the good order and discipline.

THE BATTLE OF THE SHADES.

By AN UNKNOWN CONTRIBUTOR.

CAPTAIN JOHN STARK was enjoying a post-prandial smoke when an orderly trumpeter interrupted to deliver an envelope from the adjutant's office. After noting the hour of receipt and signing his initials in the orderly's book, he opened the envelope and glanced through a long series of indorsements on the enclosed paper. When he came to the first of the returning indorsements he threw away his cigar and became absorbed in reading it.

The enclosure was Captain Stark's essay for the first year in the post-graduate course of the garrison school for officers. He had submitted it just before he left the States for the Philippines. The indorsement which absorbed his attention read: "Respectfully returned. The ideas set forth in this essay are not in accordance with advanced military thought. It is regretted that Captain Stark does not keep more nearly abreast of the advanced thinkers of his profession."

The indorsement was signed by Lieutenant-Colonel Smith, who was a plebe when Stark was a first-classman at the Academy. He was a well known officer. Ever since he graduated he had been on staff duties of various sorts, such as his many amiable qualities fitted him for.

During the Sioux campaign he was a lieutenant of the same regiment in which Stark was serving, but was on duty in Washington at the time. Captain Stark now remembered that Smith had written a paper on that campaign which had been printed with his photograph, and had been widely and favorably commented upon by officers on duty in the War Department. Stark had read the paper while he was at Fort Meade recovering from a wound.

Captain Stark had never been a prominent officer. He had been continuously on duty with his troop since he left

the Academy. The winds of the plains and the sun had burned and bronzed his face until he had a parchment-like complexion. His hair and mustache were gray and somewhat grizzled. Lonely service had given him that reserved and silent bearing which is characteristic of a man of deeds and daring in the West. He had never failed in the performance of any duty which came to him by assignment or lot.

The part of his education which impressed him as being of the most value was that which he had acquired by experience. The essay now returned to him was on "The Care of Horses in Winter Campaigning." For this essay he had obtained his ideas from the Sioux and other campaigns. He had written what he had observed to be true, not what other people thought.

"I wish I was not so dense," he mused, as he refolded the paper. "There must be something in the air of Washington that instills military knowledge into people. Smith has always served there, and now he is a lieutenant-colonel—almost a colonel. I have stayed with my troop, and Smith says I am behind the times and don't know how to take care of horses in the winter time.

"Shades of great commanders! I wish I could learn to be a soldier," he sighed.

"We are here," said a hollow, sepulchral voice.

An unearthly light filled the room, and the light upon the table seemed to burn dimly. Phosphorescent shades of material figures stood about. It was a notable company from the unexplored country. Nearly all were generals, marshals, or emperors, but some had been famous in civilian roles.

Now, our honest captain was known to have no fear of any earthly being or known device of war, but spirits had not heretofore been in his line. His invocation of the spectral forms had been sincere enough, but he had not had faith that they would appear.

The shade of the venerable Duke of Wellington had spoken. It continued: "We are here to give you any aid you ask. What is your pleasure?"

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coming as courtly as he knew how, he replied: "Sire, I desire to succeed in the profession of arms. I would like the advice of this illustrious company as to how I am to attain that end."

"In the bright lexicon of youth there is no such word as fail," quoth Richelieu solemnly, adjusting the shade of his cardinal's hat.

"I know better," said Hannibal feelingly. "I presume you never had your head used as a foot-ball?"

"No, but I have used generals as foot-balls," thundered the shade of the old ruler of thrones.

"You played at politics and won your victories in ladies' chambers," sneered Cæsar, "and——"

"It is not right that our reasoning should be turned aside so far from the issue. We are here as imperial counselors to aid this man in securing a crown," said Demosthenes, speaking with careful distinctness.

"Oh, forget that crown business!" exclaimed Æschines.

"Have you found it very easy to do?" Demosthenes queried, sarcastically.

"When you politicians have finished your quibbling the generals will decide the matter in hand," declared Alexander.

"But for politicians you generals would have nothing to decide," Epictetus remarked, sagely. He was present as a spectator, apparently.

"That is even so," assented Cæsar. "Politicians are the life and death of generals."

The shade of Brutus seemed pained at this remark.

"Let us get to work," urged Wellington. "It cannot benefit this officer to hear you talk about issues which died with you. The politics of the world of shades cannot interest the denizen of this. Let the Captain state more definitely in what way we can serve him."

"I am about to go on a small campaign, and I believe that if I had the aid of the most illustrious soldiers who ever lived I might bring myself to the attention of the educated soldiers in Washington. I desire the help and coöperation of

the consolidated military genius of the past," the Captain explained.

"I suggest that a committee be appointed to go with Captain Stark on the campaign and direct and advise him," suggested Gustavus Adolphus.

"That is a good plan," agreed Wellington. "Let the committee league itself with the Captain and, through him, command his forces."

After some discussion it was decided that Captain Stark should be in league with Wellington, Napoleon, Alexander, Hannibal, Julius Cæsar and Marshals Ney and Murat. Others of the shades were permitted to accompany the expedition, but were to remain non-combatants unless placed on duty by Captain Stark or one of the committee of commanders. All were free to aid by gaining information.

The expedition in prospect, to which Captain Stark had referred, was to be commanded by Colonel Jones, who had been for years a distinguished success in Washington, where he was on duty as an acting commissary. He had written extensively upon "Scouting and Trailing," "Irregular Warfare," "The Principles of Campaigning," and other similar themes. He was a captain in the regular service, junior in rank to Stark, but he had been made a colonel of volunteers. When the insurgents in this province became troublesome and illusive, he had been selected on account of his knowledge of woodcraft and irregular warfare, as the man to bring order out of chaos.

Days had been devoted to preparations. Colonel Jones had summoned and questioned the *presidentes* of all the neighboring towns. He had located the insurgent forces definitely, and had had maps prepared which he had permitted no one to see except his engineer officer, his adjutant and his quartermaster.

According to the information obtained, there were fully 500 insurgents. Colonel Jones had determined to lead against this force eight companies of infantry, two troops of cavalry and one platoon of mountain artillery. The distance to be marched was about forty miles. In view of the length of the campaign, he had all the men examined by the surgeons

to determine their fitness to go. Those pronounced unfit were left behind to garrison Sumilao, the base of supplies.

These preparations puzzled Cæsar and Napoleon, but were very entertaining to the rest of the committee of shades.

"Are these barbarians blind, or have they no spies?" queried Cæsar, as he watched the natives going and coming, and being closeted with the Colonel.

"They have a peculiar religion. They believe that human actions go by contraries. The commander is playing upon their superstitions," explained Alexander, nudging Gustavus Adolphus.

"I could never trust the superstitions of the Gauls," said Cæsar, thoughtfully.

"You and the Gauls are behind the times," dryly remarked Hannibal.

"I do not seem to grasp the idea," said the shade of Napoleon. "We are not in accord," he sighed, as he reached into his boot and withdrew the shade of a mountain leech.

The day of the departure came after ten days of preparation. The column marched at 9:00 o'clock in the morning. The troops were reviewed in the plaza and then halted in line while the Colonel went to headquarters and wired the Department Commander, "I take the field this morning."

"That sounds like business," declared General Booth when he received the dispatch. He had read all of Jones's books and articles, and knew he had the right man in the right place.

"What is the purpose of having the cavalry in the rear?" asked Napoleon.

"I am to guard the pack train," replied Captain Stark.

"Suggest that you be allowed in front as a screen. Then you can push on, fight an advance guard action and end the campaign."

"I have suggested that I take the advance guard work, but Colonel Jones told me that experts no longer consider a cavalry advance guard advisable where contact is desired," Captain Stark answered sadly.

"I wish the Russians had had more experts," muttered

the shade of the man of destiny, doubtless recalling the retreat of the Grand Army.

The column wound its way across plateaus and through cañons, preceded by an infantry advance guard, formed according to the diagrams in text books. The artillery marched at the head of the main body. The progress was very slow, for the flanking groups maintained by Colonel Jones could not keep pace with the march of the column.

The committee of shades rode about Captain Stark, visible to him but not to others. He conversed with them *sotto voce*. The younger officers noticed that he occasionally muttered to himself, but they attributed this to the abstraction of deep thought.

During the night following the third day, dispositions were made for an attack upon the enemy at dawn the following morning. Colonel Jones's map showed the enemy's stronghold to be in a town surrounded by slightly higher ground. Native guides indicated the high ground, upon which troops were arranged for an attack from three sides against the town the following morning. The men got little or no sleep on account of frequent changes of positions of troops during the night. They were formed ready for attack long before dawn. The cavalry was kept with the commanding officer as a reserve, to guard the pack train and to carry messages.

At dawn a salvo from the artillery, which had been posted on the highest ground in the center, started the attack. The infantry advanced in normal formation, pouring a steady rifle fire into the town, which could be distinguished in the gray dawn as a group of bamboo shacks among clusters of hemp plants. The artillery kept up a rapid shrapnel fire upon the helpless village until the infantry was so close that it was no longer safe to fire over their heads.

Colonel Jones made a heroic figure as he sat on his white horse watching the attack. He had put on a horseman's cape and thrown half of it back over his right shoulder—doubtless a freak of absent-mindedness, due to the abstraction of genius. It was neither raining nor cold. His staff stood about him spellbound with admiration. The cavalry was in

his rear under cover of the hill, mounted and waiting for orders. Captain Stark had ridden forward a little to watch the display before him.

"Our forces are suffering no losses at all," observed Alexander. "I had supposed that modern arms were more deadly."

"They are not under fire," said Captain Stark. The shades seemed puzzled.

"Order a charge along the whole line," thundered Colonel Jones, turning to his staff officers.

The staff officers dashed away to carry his orders to the different provisional battalion commanders. Soon a terrific rapid fire was poured into the town. Colonel Jones now dashed up to the line and rode in with the charge, which was made at once, the troops yelling lustily and looking foolish.

"Cease firing" was soon sounded, and Colonel Jones came dashing back to where the cavalry had remained. "Captain Stark, deploy and follow up the enemy's retreat," he ordered. "Remember that you are to take advantage of his confusion and punish him severely, but do not get out of supporting distance of the infantry."

The Captain formed the cavalry in a line of squads and swept through the town at a brisk trot. About the only havoc wrought in the town was upon inanimate objects. The church was pretty badly damaged by shells, and one or two shacks were demolished. A carabao was dying at one side of the little plaza, and a wounded pig was running about squealing. No native, living or dead, was to be seen. The infantry soldiers were hunting about for firewood with which to cook breakfast coffee.

"The attack was anticipated," said Alexander, sadly. "It was splendidly conceived and beautifully carried out. It is a pity there was no enemy."

"Were you accustomed to attack, in the dark, a position which had not been reconnoitered," asked the shade of Ney.

"No," replied Alexander, quickly, seeming to desire to end a discussion which might offend Captain Stark, "but my fighting was different."

"We may now be able to help our protegé," said Wellington, as Stark formed column on the road with scouting parties to the front and flanks.

"Orders do not permit us to get out of supporting distance," observed Gustavus Adolphus.

"Orders did not permit me to get out of Egypt," said Napoleon, with some sarcasm, "but I got out and never went back."

"I will not get out of reach of all the support I need from Colonel Jones," observed Captain Stark as he gave the signal for increasing the gait.

After the party had been riding for about an hour the shade of Fouché appeared coming back over the trail. He reported to Napoleon, saying that he had been present at a conference of insurgent officers, and had learned the location of their forces and had secured their plans. He had made a copy of the map they were using, and also of the written orders governing their plans, on a piece of asbestos. It was the intention of the insurgent commander to avoid contact with the combined forces, and to attack smaller bodies sent out to reconnoiter.

Napoleon took the map and the orders, studied them intently for a time, and then handed them to Alexander. The shades dropped behind and rode along together, conferring over the map and orders—all except Napoleon, who rode at one side of the trail alone. He was wrapped in the shades of thought. His face was sombre and expressionless.

"It is eight leagues to their position. The battle must be fought to-day. Push forward and get contact along their front," he directed.

About noon word was sent back by the advance that insurgent couriers were riding ahead, out of range.

"Push on rapidly and strike hard," urged Alexander.

Soon a river was reached with a wide channel and precipitous banks. Here the advance guard was greeted with a fierce volley from across the stream.

"Close up with half your forces, engage and hold their attention," said Napoleon.

Soon a troop, dismounted, was under cover along the bank, firing with spasmodic intensity at a line of stone trenches on the farther bank. The fire returned was terrific, the bullets giving the cracking sound of the Mauser, but nearly all passing harmlessly overhead. Gustavus Adolphus and Cæsar were everywhere, directing and advising upon the details of the frontal attack, contriving to give it a constant appearance of desperation. The trumpeters were moved down the stream with a platoon and the fire slackened at the first point of attack. With a great sounding of trumpets it opened again lower down, and the insurgents were sure an attempt would be made to cross below and were prepared to meet it.

In the meantime Captain Stark was prepared to ride rapidly up the stream with one troop, accompanied by Murat, Ney and Alexander. He first outlined his plan to Captain Stone, who was left in command at the crossing. Stark was to cross a few miles above, get between the enemy and his mountain stronghold, attack him on his flank and force him into the open country below.

It was a long, hard ride over rough ground and through tangled growth, but before long a suitable crossing was found. Alexander and Ney began a dispute over the best methods for crossing such streams, but soon Alexander noticed that Captain Stark and the troop were across, adjusting saddles after the swim. Telling Ney that the discussion would have to be resumed at another time, he urged Bucephalus into the stream and, followed by Ney, joined the command. Murat smiled and asked them if they had agreed, but he got no reply.

Captain Stone noticed that the enemy's fire had slackened and that he was leaving his trenches. He sent one platoon to rush across with their horses, while he kept down the enemy with a fire from the other. The platoon first across gained a part of the trenches, leaving its horses under the bank. The platoon opened fire and Stone crossed with the other platoon. The Americans had taken the trenches and were prepared to hold them.

The fields beyond were filled with confused, retreating

insurgents, upon whom a merciless fire was now poured by Captain Stone's troop.

The charge rang out from Captain Stark's troop, which suddenly appeared on the higher ground to the right. It was taken up by Stone, who swept down upon the enemy in his front.

Hemmed in, the insurgents sought to rally, but the fury of the ages was upon them. On the right of Captain Stark rode the shade of Alexander, and on his left those of Murat and Ney. Among the troopers with Stone towered the imperial Cæsar. Revolvers cracked and sabers flashed and fell, and fell again. On the high ground, near the trenches, the shade of Napoleon sat upon the shade of the horse which he rode at Austerlitz. He was watching the melée, calm and inscrutable. Gustavus Adolphus stood by his side, looking pensively upon the scene. A little apart was Wellington—a tinge of regret upon his countenance. These cavalrymen were charging over a sunken road, and doing it successfully.

Cries of "*tenga piedad!*" "have mercy" came from hundreds of insurgents, now prostrate and terrified. The troops swept wide, cutting off all egress from the trap, and the firing ceased.

The fight had ended. Pasedena, with eight hundred riflemen, was taken. The field yielded three hundred dead and wounded.

"This was a case where the Lord was not on the side of the largest battalions," observed Napoleon.

Captain Stark withdrew a short distance from his men, and thanked the shades for their aid.

"It will be our pleasure to be present when you are rewarded," said Wellington. "Even the victory at Waterloo was not more complete, and destiny was master there."

"Mud was master," hotly rejoined Napoleon. "If there had been less mud I would have managed the destiny part of that battle."

"Well, let us not quarrel now over our laurels," remonstrated Wellington. "I admit that destiny's name might have been mud on that occasion."

"I must return home to-night, as Claudia and I are to entertain Xerxes and Horatius at a game of bridge," said Cæsar. "I propose that we meet Captain Stark at Sumilao and witness his reward for his remarkable fight."

"I also have an engagement," said Napoleon. "Czar Alexander has promised to give me a definite answer to a letter I sent him just before I crossed the Niemen. He had not quite decided last week what he would say."

Alexander was to dine with the Queen of Sheba. Gustavus Adolphus had some work to do on a military code which he was reviewing with Blackstone and Justinian. Murat was expected at a *bal masqué* given by Madame de Pompadour. So it was that the shades vanished for the time being.

Captain Stark dispatched an officer with an escort to carry a brief report to Colonel Jones, and then entered upon the work of collecting arms and caring for the wounded. A platoon was sent to the enemy's base of supplies a few miles back in the mountains, where it destroyed all buildings and stores, and captured the insurgent funds.

The officer sent to Colonel Jones returned before dawn with instructions for Captain Stark to bring all prisoners and arms to Sumilao. In a note the Colonel expressed gratification that his "carefully prepared plans" had been so faithfully and loyally carried out by the officers and men of his command.

The march back to Sumilao was slow and trying. The afternoon of the fourth day Captain Stark's column arrived at that town. Colonel Jones and his staff rode out to meet it and rode in at its head. The pack-train which had been sent to Stark toiled along, loaded down with arms, and behind came the prisoners carrying the wounded.

When the column had been dramatically dismissed by Colonel Jones, Captain Mitchell of the infantry, handed Stark a Manila paper, saying: "Here is some news for you."

Flaring headlines declared that Colonel Jones had destroyed the insurgents in the Island of Oanaduim in a short campaign which was marked at every stage by evidences of remarkable military genius. By his well known military skill he had pacified an island which had exasperated and

baffled the army for months. He was to be appointed a brigadier general at once as a reward for his work.

Then followed Jones's report, which detailed his preparations and the march to the insurgent position, and continued:

"During the night I made dispositions so as to attack the enemy's positions at daylight. The artillery opened a brisk cannonade at 5:30 o'clock in the morning. The infantry was sent forward in normal attack, its fire being very effective. The charge was ordered and the town taken at 6:30 o'clock. I conducted the charge personally. Without delay the cavalry was brought up in pursuit of the flying enemy. At 1:00 o'clock in the afternoon the last remnant of the insurgent force was surrounded and captured at Gusa River. The enemy's loss is 600 killed and wounded, and 1,600 captured. Large quantities of arms and stores were taken and destroyed.

"The victory was complete, and is due to the officers and men who so faithfully carried out the plans which I had made with much attention to detail. The campaign has convinced me that it requires merely intelligent field work to conquer these insurgents.

"I desire to commend to the attention of superior authority Captain Henry Scott, adjutant, and Captain John Williams, quartermaster. These officers showed great gallantry, remaining near me in the severest part of the action, and giving intelligent aid. All officers did their duty as they should."

Following this was this dispatch to Colonel Jones:

"*Jones, Colonel, Sumilao:*

"Report received. Although you modestly give credit to officers and men, it is plain you were the genius of campaign. Recommended you for brigadier general. Brilliant work always brings reward. Commendatory order to be issued.

"BOOTH,
"*Brigadier General.*"

"I'll be damned!" said Stark in a resigned sort of manner.

"Don't; it hurts," advised the shade of Fouché, who had been looking over his shoulder and reading the article to the other shades.

Captain Stark suddenly realized that he was surrounded by the shades of the geniuses who had been in league with him.

"Well, how does the reward strike the allies of the ages?" asked Wellington.

"I never swear," remarked Gustavus Adolphus, turning away.

"There was never an artistic liar in France," declared Napoleon, speaking as though he was suddenly convinced.

"I have been sorry the library was burned," said Alexander, "but there is still hope. Myths may yet be written which will surpass all the priceless ones lost there."

"Look!" whispered Fouché, indicating Colonel Jones, who was passing near. Talleyrand and Richelieu were walking on either side of him. Both were looking askance at the shades of the illustrious generals, chuckling merrily.

"There is no such word as fail—when you go at it right," said Richelieu, *sotto voce*.

The illustrious military shades affected not to hear or see the merriment of their political friends, but Fouché called their attention to another, a stooping, bewhiskered shade following close behind Talleyrand. He called this shade to the group.

"Ananias, where have you been?" he asked.

"With the force of Colonel Jones," replied that most ancient prevaricator, looking from beneath shaggy brows with a sinister leer.

"Probably Judas Iscariot was detained at home by illness," suggested Wellington. "This has been a remarkable sequel, Captain Stark. We have given you our combined aid, and have failed. My advice to you is either to league yourself with the Devil, or become content with your present rank and clear conscience."

The shades vanished and have been seen no more on earthly battlefields.

There is little more to tell.

Colonel Jones was made a brigadier general. Captain Stark, constantly oversloughed by the selection of men of greater literary military attainments, was retired as senior captain of the army.

LES GRANDES MANŒUVRES.

By SAMUEL A. PURVIANCE, First Lieutenant Fourth Cavalry.

THE French army maneuvers of 1905, or as they are commonly called, "The Grand Maneuvers," to distinguish them from the corps maneuvers which immediately precede them, were held in the country around Brienne, about 150 miles east of Paris, commencing September 8th.

In the vicinity of the little town of Brienne le Chateau, which was the early school-place of the great Napoleon, were quartered over 100,000 French troops of all arms, with the usual swarm of camp followers of all conditions.

These troops were divided into two armies, approximately equal in numbers: Army A, or the Army of the North, under the command of Major-General Hagron, which was quartered in Chavanges and in other villages to the north of Brienne, and Army B, or the Army of the South, commanded by Major-General Dessirrier, which was quartered in Brienne and other towns and villages to the south of Brienne.

The general situation throughout the maneuvers was that Army A represented a hostile force which had crossed the frontier and was marching on Paris, while Army B was sent out from Paris to check and drive back the invaders. The only distinguishing mark between the two forces was that the invading forces wore white caps instead of the usual red caps of the French soldiers, so in speaking of the different movements of the troops, we shall use the term "Red" for the Southern forces and "White" for the Northern forces.

On September 7th, a companion and myself who had been spending part of our leave in Paris, took the morning train, and after a rather tedious ride, arrived at Brienne le Chateau late in the afternoon. On going to a small inn near the

station we were told that it, in fact both of the local inns, were filled, and that every house in town was crowded with officers and soldiers.

This was not encouraging, and as we walked down the main street on our quest for quarters, the outlook seemed hopeless, as every large house, stable or building of any kind was filled with soldiers, while the smaller cottages bore notices on the front door saying that they were reserved for such and such officers.

As we spoke only a little French of the café brand, with a strong Kansas accent, our progress was slow and it took us some time to go down the main street, but we eventually finished without finding any unoccupied room. We then tried the other street (there are two streets in Brienne, crossing at right angles so that one can leave town in any direction) and finally found a small room which we promptly took for the week at a regular war time price.

The street was crowded with soldiers coming back from the day's maneuver, and we strolled along it watching the different regiments march by until we reached the public square where a band concert was going on.

Here we were fortunate in meeting the war correspondent of one of the leading London newspapers, who not only gave us the program for the next day's maneuvers, but also offered to show us where the only good restaurant in town was to be found.

As we have always found war correspondents to be good foragers as well as good fellows, we gladly accepted his offer and accompanied him to a small inn where for three francs we obtained a good table d'hote dinner and a bottle of very fair claret; and here we spent several very pleasant hours listening to reminiscences of the Soudan, South Africa and Manchuria, from our companion who had followed the English flag in several wars, and had just returned from Manchuria where he had been for some months with the Japanese forces.

After dinner, he put us still further in his debt by offering to take us to the maneuvers the following day in his automobile. So bright and early next morning we were dashing along the road leading north from Brienne towards

Rosnay, where the first contact was expected. As we passed through the country we saw that it was an ideal one for maneuver purposes, being a farming country, with no fences to impede the progress of troops, and while fairly level and open, contained enough hills and forests to vary the terrain and conceal the movements of the troops.

As we moved along the road we passed different parts of the Red forces on their way to the front: first some infantry, then a battery, then some more infantry, and as we neared Rosnay we saw a battery climbing a large hill to the left of the road: and as the time and place seemed a favorable one from which to witness the opening of the conflict, we left the automobile alongside the road and followed the battery up the hill.

On reaching the top, we found we had indeed struck the proper place to watch the opening of the day's fight, as we were on the spur of a long ridge which afforded a view in all directions.

Back of us, just below the crest of the hill, the Red battery was opening fire on a hostile battery on a wooded ridge about 2500 yards to our right front.

Further down on the military crest of the ridge, and concealed by a hedge, was a regiment of Red infantry. Far out in front were the mounted scouts feeling for the enemy, while with our glasses we could see a large body of the Red cavalry moving rapidly on our right flank in an endeavor to outflank the invading force.

It was a beautiful panorama of a well planned and well executed movement, and we watched eagerly for coming developments.

We have seen map problems so ruthlessly blue penciled by instructors at our service schools; we have heard all the movements of the day so fully criticised by the umpires in the big tent at our maneuvers, and we have read the long range criticisms on actual engagements by the writers of our yellow journals, till we have grown skeptical and come to believe that perfection in military movements was to be found only in novels or on the comic opera stage.

But here before us seemed to be the beginning of an ideal movement, and our hearts beat high with hope which even as we watched was dashed to the ground. A brigade of infantry marched up and leaving the road, where it had been sheltered by a low ridge and a fringe of trees, marched across an open plain straight at the hostile battery, which turned its guns upon it with full force.

The brigade marched in line of quarter columns to within 900 yards of the battery, and then formed two lines and continued the advance in close order, with the men shoulder to shoulder and about three yards intervals between the companies, and the supporting line about sixty yards in rear of the firing line. The movement was beautifully executed and the maneuvering of the different units was splendid; but we shudder to think of the terrible losses a conscientious Fort Riley umpire would have inflicted on that brigade.

However, as no such personage was present, the line moved up to within 800 yards of the battery and opened fire, whereat the battery promptly left for the rear, and the brigade continued its march up to the ridge just vacated by the battery.

On reaching the crest of the ridge, it came under fire of another battery on its left front and a heavy infantry fire all along a ridge directly in front of the one the brigade occupied and about 900 yards away.

It was apparent that this ridge was the main position of the White Army, so we left our hill and started towards the road to get a closer view of the coming struggle, passing several Red regiments who were marching to the front to form on the left flank of the brigade which had advanced. We reached our car and soon passed through the advanced troops and halted on the crest of the ridge in the center of the White position.

There was a battery in position on each side of the road and long lines of infantry lining the ridge as far as one could see.

As the advanced brigade of the Reds had withdrawn below the crest of their ridge and their supporting troops had not yet come up, there was a lull in the firing, and we seized

the opportunity to open our lunch basket and refresh the inner man; but we had not finished a hasty lunch before the battle was raging in full force around us, the Reds making a frontal attack combined with a flanking movement towards the right flank of the White Army, which was slowly and stubbornly falling back, when the movements for the day were stopped by the chief umpire, the troops having come to actual contact.

The troops bivouacked on the field, and the next morning resumed the maneuvers from the positions they held at the close of the day. Having heard that General Dessirrier would move first against the invader's left flank, we took the road leading to Chavanges and arrived there just in time to see the opening attack.

The Whites held the town and the ridge to the west of it in force, but the Reds concentrated their artillery fire on the position and then moved their infantry forward in such numbers that the Whites were forced back on their reserves, which occupied the high ground near Margarie Hancourt. Here for twenty minutes the firing was terrific, the two forces being only about 400 yards apart, and both infantry and artillery using rapid fire. The Red force then charged all along the line, but the umpires at this point sounded "cease firing," and decided that the White force had been defeated.

Hearing that there was a cavalry fight about to come off over towards the west, we got in the car and rapidly moved towards the outer flank, but were too late to see the fight, which had resulted in the Red cavalry being driven back by the White cavalry, supported by some artillery.

We then started back towards the center of the position, where we arrived just in time to witness a dashing charge by the White cavalry in a gallant effort to save their center, which was being forced back from the heights they had held for two days. It was a magnificent sight, as squadron after squadron went by, dragoons, lancers, hussars and cuirassiers, in long lines with helmets, sabers and lances gleaming in the bright sunlight and their horses at a full gallop.

They charged in successive lines, passed their own infantry, and on right up to the guns and infantry of the Reds;

and at this point the balloon, which was the signal for the termination of the day's maneuvers rose over the battlefield, and we started towards Brienne.

The following day the Army of the South was ordered to fall back on Troyes, at the same time holding the invading army north of the Aube as long as possible without incurring heavy losses. This was a rather difficult task, as both the Voire and Aube Rivers would have to be crossed in the face of a strong and presumably victorious army. To accomplish this, General Dessirrier sent his cavalry well out on his left flank to hold the bridge over the Aube and protect his line of retreat, while he placed a strong rear guard of infantry and artillery on the high ground north of the Voire and west of Rosnay, with orders to hold the position to cover the retreat of the army and transport.

The position was a strong one, but by a clever feint and skillful handling of his troops, General Hagron was in possession of the ridge in a few hours.

The Reds were at first equally distributed along the top of the ridge, but as the enemy was seen moving in large numbers toward their right flank, it was supposed that the attack would fall on that point, and troops were detached from the center and left flank to strengthen the threatened point.

When a considerable number of troops had been thus taken away, General Hagron suddenly hurled a brigade of infantry at the weakened lines and the Reds were forced back from the ridge into the valley, while the victorious Whites poured a heavy fire into them as they retreated across the plain towards Troyes, and then started down the valley to harass the retreating troops.

As we were on our way home we met the right flank of the Red rear guard, which was falling back on the road to Brienne in good order, with a battery and a regiment of dragoons holding in check the advancing Whites, while from the west came the sound of heavy firing where General Dessirrier's cavalry was covering the crossing of the infantry over the bridges of the Aube.

The retreat had been made in good order and was well conducted throughout, but the honors of the day belonged to General Hagron, whose victorious troops marched into Brienne and were soon quartered in the buildings vacated that morning by the Army of the South, and that night we saw new faces and uniforms on the streets and in the cafés of the town.

The movements on the last day were made short and spectacular in order to enable the troops to be assembled and reviewed by the President and to afford a spectacle for the thousands of spectators who poured in from all directions by special trains.

The Army of the South continued its retreat along the Brienne-Troyes road closely pursued by General Hagron, and a running fight was kept up till the crossroads north of Piney were reached, and here the signal for the cessation of hostilities was given; the troops were drawn up on both sides of the road while the President of the Republic, M. Loubet, in his automobile, with the tricolors, the commander-in-chief General Brugere, with his staff, and accompanied by the foreign military attachés, rode along the lines. And so the grand maneuvers of 1905 were brought to an end.

We cannot lay down our pen without paying some slight tribute to one whose work throughout the maneuvers continually impressed us and filled us with admiration, and yet whose name does not appear in the official reports or newspapers, *i. e.*, the soldier in the ranks.

Those of us who have seen the French soldier around the streets of Paris, and have noticed his ill-fitting uniform and rather slight, unmilitary figure have probably wondered what sort of a field soldier he would make, and whether he would be able to stand the hard work of an active campaign.

Any doubts of this sort will be speedily settled by a few days attendance at the maneuvers, and the spectator will be filled with admiration at the wonderful marching powers of the French infantryman.

The weather during the maneuvers was quite warm, yet the troops clad in heavy woolen clothing with a long coat reaching to their knee and carrying a heavy pack and equip-

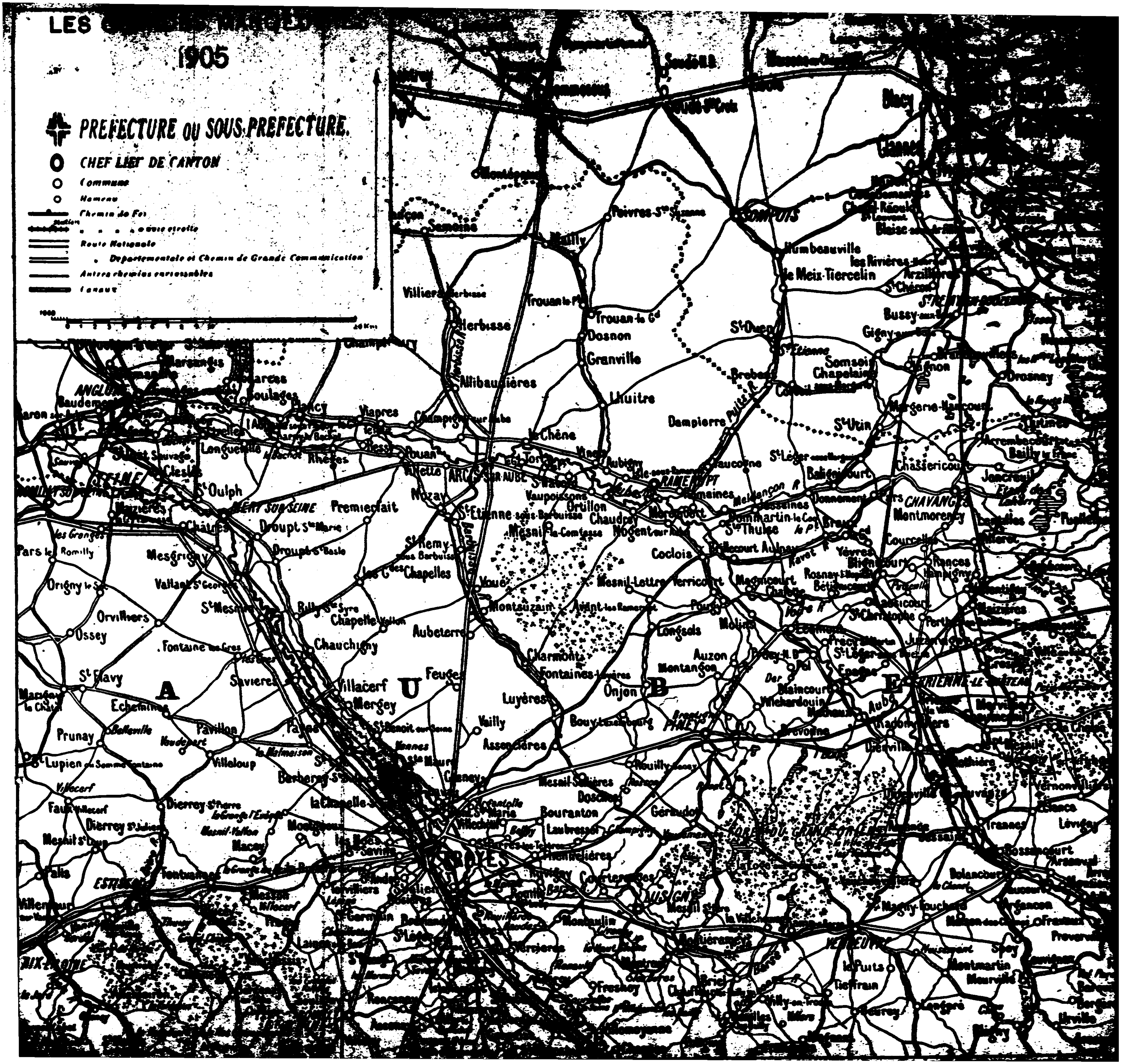
ment, would march often from 5 o'clock in the morning till 5 in the afternoon, and come back marching through the streets of the town apparently as fresh as when they marched out, with their ranks closed up and no stragglers.

The cavalry are well mounted on stock that is bred by the government for the purpose of providing cavalry mounts, and the men ride and handle their horses in a manner that shows them to be well trained horsemen.

Some new features that we noticed were the presence of an automobile and a bicycle corps, the latter being quite numerous, and equipped with a bicycle that could be taken apart and packed on the soldier's back in a few minutes.

The other branches of the service, such as engineers, medical corps, etc., are organized and equipped very much in the same manner as in our own service, and need no special mention.

The maneuvers were conducted in about the same way as our own field maneuvers, with the exception that the French use close order formations in all their movements, and did not seem to attach much importance to taking cover when under fire, which enables the movements to be made more rapidly and in a more spectacular manner, but we doubt whether either officers or men obtain as much benefit and information as they would if they used the methods which troops of the present day must necessarily adopt in actual warfare.


LES
1905
PREFECTURE OU SOUS-PREFECTURE.
CHEF LIEU DE CANTON
Commune
Hameau
Chemin de Fer
station
Route Nationale
Departementale et Chemin de Grande Communication
Antres chemins carrossables
Canaux
20 Km
A
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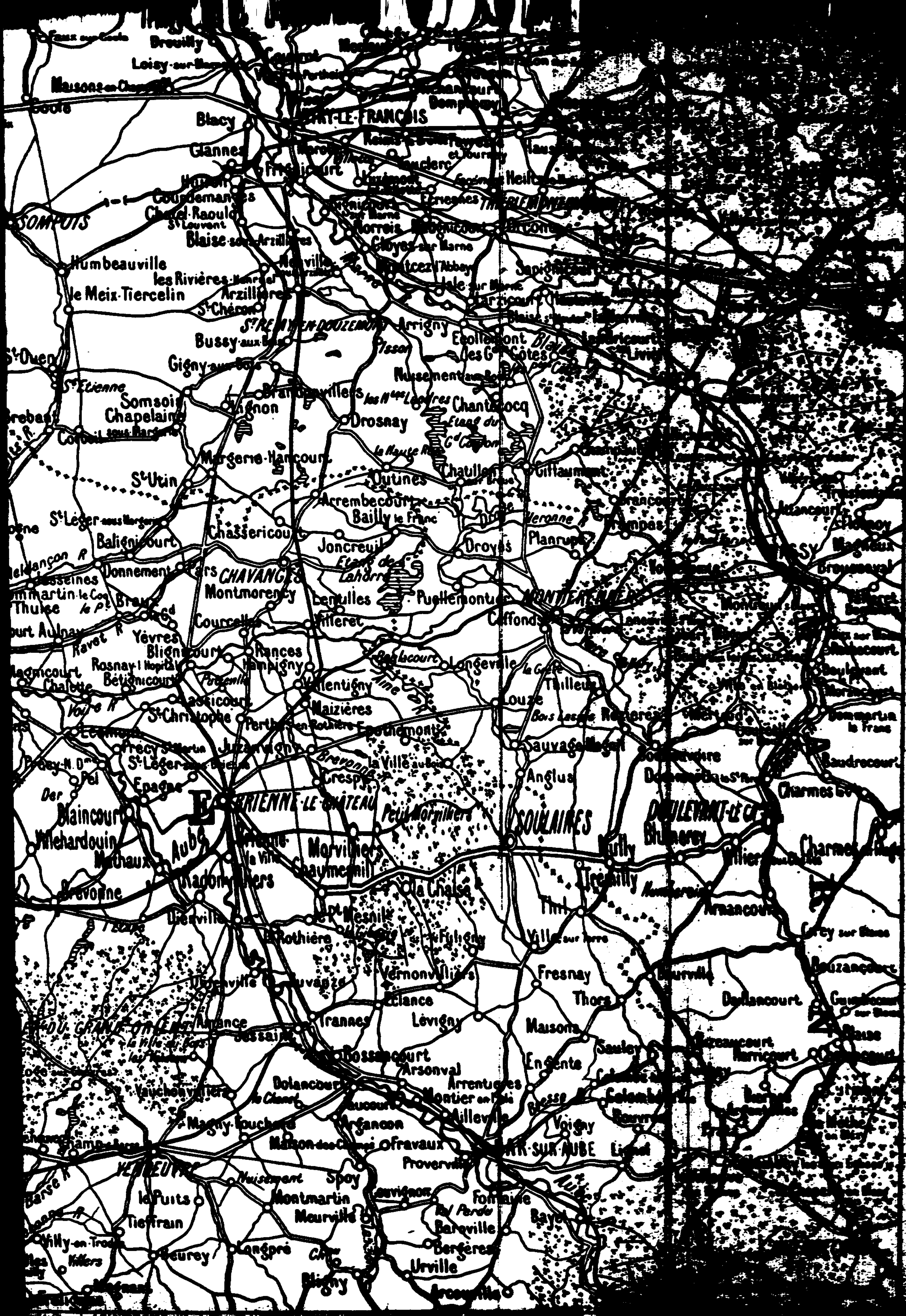
E
TROYES
ARCIS SUR AUBE
RAMERUPT
CHAVANGES
PINEY
LUSIGNY
MERY SUR SEINE
ANGLURE
ESTISSAC
AIX EN OTHE
Semoine
Mailly
Poivres-Ste Suzanne
Villiers Herbisse
Herbisse
Trouan le Pt
Trouan le Gd
Dosnon
Granville
Allibaudières
Lhuitre
Dampierre
Humbeauville
le Meix-Tiercelin
St Ouen
St Etienne
Somsois
Chapelaine
Brebans
St Utin
Margerie-Hancourt
Drosnay
St Léger
Balignicourt
Chassericourt
Joncreuil
Bailly le Franc
Donnement
Montmorency
Courcelles
Yèvres
Rances
Hampigny
Rosnay l'Hôpital
Bétignicourt
St Christophe
Juzanvigny
Précy St Martin
St Léger sous Brienne
Epagne
Précy N.D.
Pel
Der
Blaincourt
Villehardouin
Radonvilliers
Dienville
Unienville
Vendeuvre
le Puits
Tiefrain
Montmartin
Villy en Trode
Longpré
Magny Fouchard
Bossancourt
Trannes
Levigny
Proverville
Maison des Champs
Spoy
Viapres
Champigny sur Aube
le Chêne
Pouan
Villette
Torcy le Pt
Vinets
Aubigny
Isle sous Ramerupt
Romaines
St Nabord
Vaupoissons
Ortillon
Chaudrey
Mesnil la Comtesse
Nogent sur Aube
Coclois
Brillecourt
Aulnay
St Thulse
Dommartin le Coq
Morembert
Nozay
St Etienne sous Barbuisse
St Remy sous Barbuisse
Les Gdes Chapelles
Voué
Montsuzain
Avant les Ramerupt
Mesnil Lettre
Verricourt
Magnicourt
Chalette
Pougy
Molins
Longsols
Auzon
Montangon
Aubeterre
Charmont
Fontaines Luyères
Luyères
Onjon
Feuges
Vailly
Bouy Luxembourg
Assencières
Mesnil Sellières
Doches
Géraudot
Bouranton
Laubressel
Thennelières
Courteranges
Montaulin
Villechétif
Marigny
Boulages
Plancy
Longueville
Rhèges
St Oulph
Droupt Ste Marie
Droupt St Basle
Premierfait
Châtres
Mesgrigny
Vallant St Georges
St Mesmin
Les Grandes Chapelles
Chapelle Vallon
Chauchigny
Villacerf
Mergey
St Benoit sur Seine
Savières
Fontaine les Grès
les Grès
Orvilliers
Ossey
Origny le Sec
Pars les Romilly
les Granges
St Flavy
Echemines
Pavillon
Prunay
Belleville
St Lupien ou Somme Fontaine
Villeloup
Vaudepart
la Malmaison
Barberey St Sulpice
la Chapelle
Dierrey St Pierre
Dierrey St Julien
Faux Villecerf
Villecerf
Mesnil St Loup
Mesnil Vallon
Macey
Montgueux
Fontvannes
Palis
Villemaur
Prugny
Laines aux Bois
Verrières
Fresnoy
Briel
St Germain
Rouilly



Drouilly
Loisy-sur-Marne
Maisons-en-Champagne
Blacy
VITRY-LE-FRANÇOIS
Glannes
Frignicourt
Huiron
Courdemanges
Chatel-Raould
St Louvent
Blaise-sous-Arzillières
SOMPUIS
Humbeauville
les Rivières
le Meix-Tiercelin
Arzillières
St Chéron
St REMY-EN-BOUZEMONT
Arrigny
Bussy-aux-Bois
Gigny-aux-Bois
St Ouen
St Etienne
Somsois
Chapelaine
Brandonvillers
Lignon
Drosnay
Chantecocq
Margerie-Hancourt
St Utin
Outines
Chatillon
Arrembecourt
Bailly le Franc
St Léger-sous-Margerie
Balignicourt
Chassericourt
Joncreuil
Droyes
Planrupt
Donnement
CHAVANGES
Montmorency
Lentilles
Puellemontier
MONTIER-EN-DER
Courcelles
Villeret
Yèvres
Blignicourt
Rances
Hampigny
Longeville
Rosnay-l'Hôpital
Bétignicourt
Vallentigny
Louze
Lassicourt
Maizières
St Christophe
Perthes-en-Rothière
Epothémont
Précy-St-Martin
St Léger-sous-Brienne
Juzanvigny
la Ville-au-Bois
Sauvage-Magny
Anglus
Epagne
Crespy
BRIENNE-LE-CHATEAU
Petit-Morvilliers
SOULAINES
DOULEVANT-LE-CHATEAU
Blaincourt
Villehardouin
Mathaux
Aube
Radonvilliers
Morvilliers
Chaumesnil
la Chaise
Trémilly
Brévonne
Dienville
Mesnil
la Rothière
Ville-sur-Terre
Fresnay
Vernonvilliers
Unienville
Juvanzé
Eclance
Thors
Maisons
Trannes
Lévigny
Amance
Bossancourt
Arsonval
Dolancourt
Arrentières
Vauchonvilliers
Montier-en-l'Isle
Ailleville
Arconville
Magny-Fouchard
Voigny
Maison-des-Champs
Fravaux
Proverville
BAR-SUR-AUBE
VENDEUVRE
le Puits
Montmartin
Spoy
Meurville
Fontaine
Bayel
Baroville
Bergères
Tieffrain
Villy-en-Trodes
Longpré
Urville
Bligny
Arconville
Beurville
Dommartin-le-Franc
Charmes
Baudrecourt
Rouvroy

THE MODERN WOODMEN OF AMERICA.

By Captain HERBERT A. WHITE, Eleventh Cavalry.

A CERTAIN regiment on its return from the Islands a year or so ago participated in the Decoration Day ceremonies in one of our Western cities. As the line stood at rest along the sidewalk watching the various National Guard and civic organizations march by to take up their positions in rear, two squads of sixteen men each, carrying axes, passed. "What are those squads," the regular officers asked of one another, and the suggestion by one was taken as correct, that they must belong to the Chief Knockers' Club. If we think for a moment of the old line insurance companies and the knocks they are at present getting from fraternal insurance societies, we see that the above remark was not far amiss.

It is not the purpose of this article to more than hastily compare fraternal insurance with what may be called business insurance, and that only to judge whether fraternal insurance is a good enough business proposition to live long enough to be of value as a life investment. After this short review, it is intended to discuss the military features of one fraternal insurance society, viz., the Modern Woodmen of America.

Just at present an examination of life insurance is likely to be somewhat colored by the soot of the New York investigations. However we should remember that abuses do not determine the uses of anything. I should like to believe that there are some old line companies that are being run honestly. One of the lamentable features of the New York muddle is the loss of faith in public men. If we cannot trust such men as those connected with the large insurance

companies, where are we to find the men that can be depended upon while this trail of graft is encircling all business? It looks very much as if American civilization was not able to produce manhood capable of withstanding the glitter of money and power. The erection of million dollar homes, the buying and selling of stocks between two firms when the directors of the two firms are the same persons, seem to be a temptation that Americanism cannot withstand. For we have little reason to believe that any man in our body politic could withstand it when we recall the prominence and the evident trustworthiness of the men that have fallen. And I am not sure that I use the word fallen advisedly, for it is doubtful if the people particularly care for what is constructive fraud. I quote here from the last edition of Markby's "Elements of Law," where the author is speaking of the tendency of modern legislation: "I am inclined to think that the disgrace of a criminal conviction, which is an important part of punishment, has diminished, especially in certain cases, for example, as the conviction of directors of a large company for fraud." If such a deep student of the trend of affairs as Sir William Markby comes to such conclusions, it is time for all of us to wonder what the modern business drift is.

If publicity will be nothing more than an intermediate sanction there would seem to be but one solution for the difficulty: publish monthly reports of directors and officials, with penal laws compelling imprisonment for non-compliance, capable of being set in motion by any policy-holder. It may be said there are laws capable of this now, but let us have such as can be readily enforced. It would certainly seem that we are on the threshold of a considerable readjustment of the domain of life insurance companies.

Life insurance may be of two kinds, as before intimated: insurance pure and simple, which is the field of most fraternal societies, and insurance as an investment, which is the method of most of the old line companies. Now, life insurance costs a certain amount. What this amount is can be quite correctly and definitely estimated by use of mortuary tables, and so a company or society starting to-day can figure quite accurately on rates. Insurance men say that when many of

the fraternal societies were organized the cost of insurance was not scientifically determined. A guess was made at what would be a fair rate, and this was made the basis of future assessments. Moreover, many of them adopted a flat rate based upon the age of the insured when he entered the organization, and this rate was never increased. If the insured paid sixty cents a month for each thousand dollars of insurance when he entered the organization at the age of twenty-five he continued to pay that amount and only that till he died.

This was the method adopted by the Army Mutual Aid.

Now this will be all right for the first few years of an organization, especially when old men are not admitted and the consequent death rate is low. But the time must come when the original members and the admissions of the first few years become old and die, and then the cost of insurance will be greater than the revenues. Moreover, the time will come to any organization when there will be practically no increase in membership. This is true even of the Modern Woodmen of America, which organization now numbers some 740,000, and is still increasing. When that time comes the death rate will be large, so large that it will be necessary to secure more money from the policy-holders. The flat rate plan will in time swamp any organization. The weakness of the flat rate plan has been foreseen by some societies in time to change to a progressive rate system before the tornado broke. It was this change in rates that threatened to disrupt the Royal Arcanum. Their advance in rates has attracted the attention of the whole country, but some societies have changed long enough beforehand to have the adoption of the progressive rate quietly done and without danger to the society. The Modern Woodmen have not yet adopted the progressive rate, but have increased their original rates appreciably. The only safe way to conduct a fraternal insurance company is to adopt the progressive rate system, thereby charging every man what it costs to insure him.

Of course change of rate produces irritation and danger of disruption. Take the Army Mutual Aid, which did busi-

ness, and I believe does yet, on a current cost basis.* The current cost for the first twenty or twenty-five years is much less than the average cost for a whole life term. The difference between the current cost and the average cost has been left in the pockets of the members instead of in the safe of the treasurer of the society. As stated above, insurance costs a certain definite amount. If less than this amount has been paid in in years past it must now be made up. But in making this up the company finds most of its members ignorant of these simple laws, and the kick results. The draft on the pocket reserve causes trouble. The member is called upon to put up for the next fifteen to twenty years what should have been distributed evenly over his whole life expectancy. The member has been honestly dealt with in the past, and is now being honestly dealt with in the increase of rates. In the past the money that the society will soon need has been left in the pockets of the members.

While fraternal societies have generally been charging too low rates, what have the old line companies been charging? It may be somewhat more difficult to definitely determine rates in investment insurance than in straight insurance, but enough has been shown by the late investigations to lead to a conviction that the old line companies have been charging their policy-holders a great deal too much. Franklin Giddings, of Columbia College, making a special study of insurance, has this to say: "Roughly speaking, the payment of $200 a year in premiums to an insurance company by a man forty years of age, and in good health, buys an insurance of the face value of $5,000. A examination of the finances of the great New York companies, as made public in the recent disclosures, and a comparison of them

*The writer has just received a short letter from General Geo. B. Davis, Judge Advocate General of the Army, who has always taken the greatest interest in the Army Mutual Aid. He remarks as follows: "The committee which was appointed to look into the matter of rates to be adopted by the Army Mutual Aid is going into the matter pretty deeply. We find that the only basis upon which a set of rates can securely rest is one which will insure each member getting $3,000 at his death and will also insure the last man, if there ever is one, getting the same sum when he pulls out. We have never been on such a basis, and the sooner we settle on it the better."

with the finances of the life insurance systems of a country like New Zealand, where the business is honestly managed by the state, indicates that a premium of $200 ought to secure an insurance of between $10,000 and $15,000."

This has been disputed by some. But I believe it nearer the truth than the statements of Giddings' disputants. It must be dangerous to economy to have vast amounts in the hands of a few men who hold themselves practically responsible to no one, and whose integrity is so benumbed that they consider it not only a proper but a laudable act to use trust funds to purchase elections and lobby Legislatures. I consider the money paid by policy-holders as a trust fund, especially in mutual companies, and if such funds are to be used as certain directors see fit with no accounting, or false accounting, one must wonder where life insurance will end.*

Being satisfied that old line insurance has been too high and fraternal insurance too low, I believe there is a happy medium that will secure to both company and policy holder good business investments. I hope to see this medium taken up by some existing organization, and I know of none better fitted for the work than the Modern Woodmen of America. Now, while life insurance is being studied and the entire subject is attracting the attention of our whole people, let the Woodmen take up the matter, readjust their system, and start on a business as well as on a fraternal basis. While the appointing of prominent men as heads and committees of the old line companies may do much to wash them out and make them clean, I believe the people at large are so disgusted with them that they are ready to respond to a fraternal organization that offers security.

The Modern Woodmen of America, which, I believe, is to-day the largest fraternal insurance society in the world, was organized at Lyons, Iowa, January 5, 1883, with twenty-one charter members. To-day the order has more than 11,000 camps with a membership of 740,000. The growth of the order has been truly marvellous.

*The writer wishes to acknowledge his indebtedness for some of the matter above given to the *A. O. U. W. Bulletin* and the *Daily Review* of Chicago.

The society works under a charter granted by the State of Illinois May 5, 1884. The conditions of the charter make it necessary that the head office of the society be located in Illinois. Fulton was first selected as the location, but it was changed in 1897 to Rock Island, where it has since remained.

In the Modern Woodmen society the expense of management is met out of a general fund, created by a per capita tax of one dollar, collected annually from each member. From the general fund thus collected the management of the society have saved enough to erect a magnificent head office building costing $150,000. An addition to this office, doubling its floor space, costing $145,000, and like the main building, erected without any special tax on the membership, is now being completed. The buildings of the head office are, of course, at Rock Island, Illinois. Besides the ordinary expenses of management, and such extraordinary expenditures as the construction of the head office and annex, the expenses of holding the triennial State and Head Camp meetings are defrayed out of the general fund. Mileage and per diem are paid all delegates to these meetings by the society, and, as there are thirty-seven State and Territorial meetings, attended by over 4500 delegates, and a Head Camp attended by several hundred delegates from all the States, the disbursements on this account usually foot close to $75,000 annually, on the average.

The society is, in its government, truly representative. Every law made for the society's government must be approved by the delegates elected by the members. The law-making body meets once in three years. The manner of selecting delegates to the body known as the Head Camp is as follows:

The local Woodmen Camps, within each county, select delegates to a County Camp, the basis of representation being one delegate for each twenty-five members or major fraction thereof. The County Camps elect delegates to the State Camps, the basis of representation being one delegate for each 500 members residing within the county. The State Camps elect delegates to the Head Camp, or supreme law-making body, one delegate for each 1500 members residing in each State or Territory.

These Head Camp delegates, elected in the manner described, make the laws and dictate the policy of the society, subject to the instructions given them by the State Camps, which instructions the delegates must obey.

The finances of the organization are guarded by a system of checks intended to make successful fraud impossible. All moneys received by the Head Clerk are deposited *daily* to the credit of the Head Banker. The receipts of the Head Clerk are published monthly in the official paper, and these receipts must correspond with the amounts transferred to the Head Banker, of which the latter makes monthly report. The Head Banker can pay out no moneys except upon benefit and general fund orders, signed by at least three members of the Board of Directors, the Head Consul and the Head Clerk. All claims against the society are reviewed by the Board of Directors, which allows or rejects on merit. Not a cent can be drawn from the funds of the society except upon the order of the Board of Directors, made after consideration of each claim.

Such being the organic constitution of the society, let us see who can become members. To be eligible for beneficial* membership, a person must be a white male, of sound mind and body, of good moral character, not addicted to any bad habits, and over 18 years of age and under 45. If over 41 years of age a person can secure no more than $2000 insurance. There are five policies that may be taken, $500, $1000, $1500, $2000, $3000, this insurance being payable at death to the beneficiaries.

The by-laws of the Modern Woodmen society do not permit the admission to either beneficial or social membership of persons engaged in the manufacture or sale of malt, spirituous or vinous liquors to be used as a beverage, either in the capacity of proprietor, stockholder, agent or servant. Members of the society engaging in the liquor traffic in any

*A social member is required to pay an admission fee of $5.00, and thereafter small annual dues. He has all the fraternal privileges of membership and may secure sick benefits. But he does not carry insurance.

capacity, by such act forfeit all rights as members, and their contract of membership becomes absolutely null and void. Also, if members are convicted of any misdemeanor, crime or felony, the punishment for which may be imprisonment in the penitentiary, they forfeit their membership upon conviction. The morality and respectability of its membership are carefully guarded and are the pride of the society. I shall have occasion to speak of this later on under the head of the discipline of their military organizations. The society exercises a peculiar watchfulness over its members in the matter of occupations in which they may engage. Some fifty occupations are classed as hazardous, and persons engaged in these cannot become members, and if, after becoming members they engage in these employments, the society is relieved from all liability if death occurs by reason of such employment. This exclusion operates to maintain a minimum loss rate, thus reducing the cost of insurance.

By a late law members engaging in certain of the hazardous occupations may, by applying for and receiving a new certificate and paying the additional cost of the extra hazard, continue valid their insurance. Persons not now members engaged in certain of the lesser hazardous occupations are eligible to membership in the extra hazardous class at a rate adequate to cover the extra hazard of their occupation.

Persons engaged in the naval or military service are in the excluded list of occupations, but in this regard the attitude of the society is shown by the action of the Board of Directors during the Spanish War and the ratification thereof by the Head Camp afterwards. Thousands of the Woodmen volunteered for service during the Spanish War, and although the laws of the society provided, as stated above, that the benefit certificate of such a member would be invalidated during time of war, the Head Consul, acting upon the advice of the Executive Council, waived this provision of the by-laws, and the society paid more than $100,000 to the beneficiaries of the members who as soldiers laid down their lives in defense of the flag during the Spanish-American War. This action of the Executive Council was ratified

with rounding cheers when its report was made to the next Head Camp and its approval requested for the same.

Now what is the military feature of this society and why is it possible for the Head Consul to say that "should our country be menaced by a foreign foe and the President call for volunteers to defend the flag, the Modern Woodmen of America could assemble at Chicago 50,000 well drilled uniformed men ready to lay down their lives for the country?" The ritualistic work of the society provides for a uniformed team to assist in the initiatory work. The team became not only an adjunct for the proper exemplification of the work, but for its proper presentation absolutely indispensable, working together under one Chief Forester, who originally was appointed on his qualifications for ritualistic work only. In one respect this condition still continues. Every team captain (Chief Forester) even when of national reputation, is still a ritualistic officer, administering an obligation and aiding in delivering lectures in the exemplification of the work of adoption. The ritual provides for a uniformed team to assist in the initiatory work, and because the ritual was for Woodmen, one scene depicting the candidate in the forest, the team came to be called foresters. The work had progressed but little before the advantage of a uniform for the teams was discovered, and each team proceeded to adopt its own. Invariably, at first, this was that of an ordinary woodman in the forest. No attempt at military discipline or drill was made. But soon the floor work being better exemplified by the aid of concerted movements a little of the military crept in. From the first appearance in public until the present time the effort has been to make the uniforms conform more and more to the military. Many, if not the majority, have a uniform of khaki, and those teams that have the money and desire more showy uniforms have an additional one for dress functions and competitive drills.

I might pause here and state that as one of the judges at the national competitive drills last June at Milwaukee, the teams that came onto the field in khaki invariably looked worse and dirtier than any other of the competing teams. This would have been enough to convince me, had I not

already known it, that the khaki uniform cannot be made a dress uniform, and its service to us is exactly in line with the reason of its adoption, a working uniform and not one that we expect a soldier ever to appear in except for designated duty. Of course the dress uniforms now are of all colors and designs, but 2000 or 3000 men in regimental review make a very pretty, even if unusual sight, in the showy dress. It is variegated, and to see these totally different uniformed teams pass by in street parade appears queer, but to see them in division review or battalion drill is another matter.

MAJOR-GENERAL JOHN H. MITCHELL.
Commanding M. W. A. Foresters.

At first the Chief Foresters made up drills of their own, or adopted them from military or other organizations. Next came claims from different camps of the superiority of the drill of their particular team, which in time led to local drill competition. From this sprang district contests, and finally at the Head Camp arrangements were made for offering a single set of prizes for national team prize drills. Such teams as came at first, few in number, were there simply for a few hours, usually putting on a parade in the streets during the day, the competitive drill occurring in the evening. At the Head Camp in Kansas City in 1899, there were present and competing some nineteen teams. It was observed by head officers that these few hours of meeting were not greatly benefiting to the Foresters' interests or their efficiency, and so the matter was taken up by the Head Camp,

and it directed that a committee be appointed to consider the matter of drill regulations. The committee reported a drill manual which was approved and adopted. The teams soon became the public feature of the Head Camps. The first encampment of the Woodmen Foresters was held at St. Paul, Minn., in 1901. This encampment was to be in charge of General J. N. Reese, of Springfield, Ill., but serious illness preventing him attending, his Adjutant General, J. H. Mitchell, was appointed temporary commander, and on the death of General Reese, Adjutant General Mitchell was appointed Major General, commanding Foresters, a position which he has since held with the greatest credit to himself and benefit to the society.

For the St. Paul encampment General Reese had appointed as staff some Chief Foresters, a few of whom had had experience in the National Guard or Volunteers. This staff met at Rock Island prior to the encampment and made the arrangements. Some 1600 Foresters reported for encampment duty. Taken as a whole, even the team commanders were without military experience of any kind or nature, and few of them had ever seen a battalion formation. This was also true of a portion of the staff. The teams upon reporting for duty were divided into provisional battalions, and commanders appointed. This idea is still adhered to in all cases where the teams were not enabled to report in permanent battalion formation, as many teams from large cities were. At this first encampment morning inspection and other matters of camp routine were not upon military principles, and but one military idea was carried out and preserved with any marked degree of success, and that was discipline.

By the officers of the society, however, the St. Paul encampment in its results was deemed so satisfactory that the Forestry encampment idea was continued as an auxiliary to the Head Camp. So the second encampment of uniformed Foresters was at Camp Reese, Indianapolis, in 1903. At this encampment permanent battalions first made their appearance; sentry duty was begun; the battalions, both permanent and provisional, were divided into brigades; bugle calls, which at St. Paul had been a form, controlled and di-

rected as in a military encampment; morning inspection began; a stand of colors had been provided, including brigade guidons and markers, and were used. This camp was a great improvement upon the previous one.

The favorable newspaper notoriety given Camp Reese attracted the attention of the Louisiana Exposition authorities and caused them to offer inducements far beyond those presented to any other organization to secure the encampment of the M. W. A. Foresters at the World's Fair. Camp Talbot upon the Exposition grounds was the result. In at-

VIEW OF PORTION OF CAMP HAWES, MILWAUKEE, JUNE, 1905.

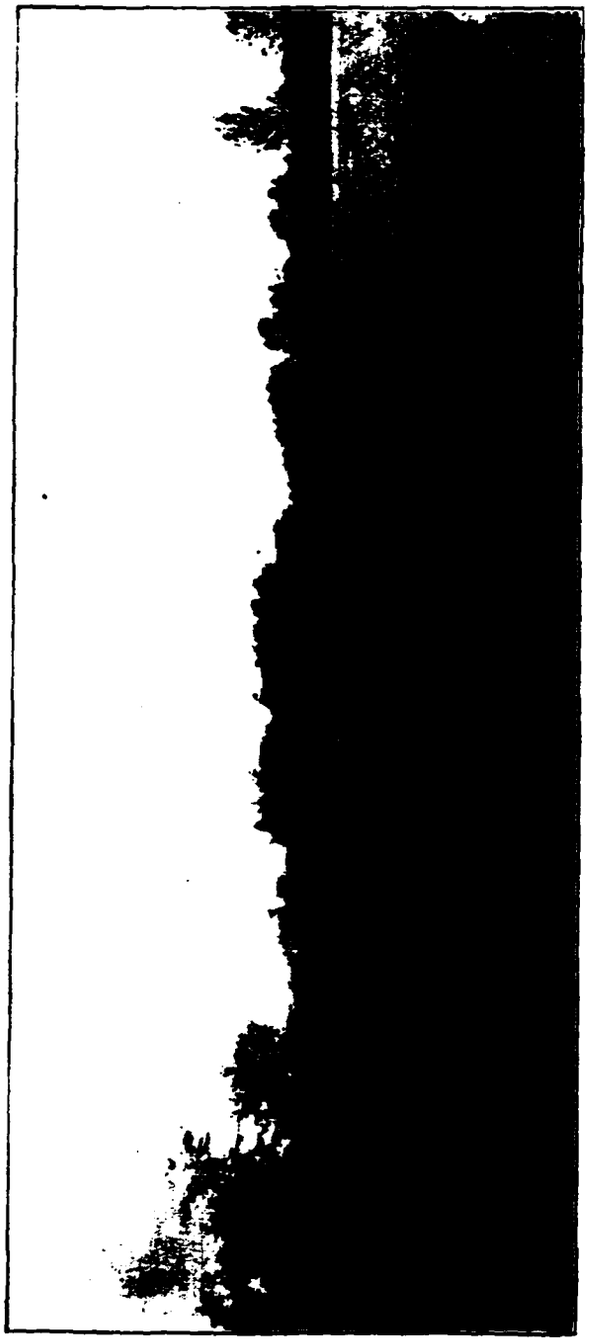
tendance and in some of its work it was a decidedly marked improvement upon the preceding encampment, but it fell far below what was still desired and hoped for by the commanding officer. In justice to the Foresters some notes as to Camp Talbot might be made. Theirs was the first and only parade during the opening of the Exposition that formed and moved on the time designated. The Chief Inspector of the Exposition placed the discipline of the Foresters as decidedly superior to that of any similar organization. When the prize drills upon the plaza drew enormous crowds, the members of the teams not drilling were used as guards to

keep the people from mingling with and interfering with the drilling teams. This was done satisfactorily and well, and without friction with the spectators.

Camp Hawes at Milwaukee in June, 1905, showed an increase in attendance and an advancement in efficiency. The instruction of former encampments was felt through the staff, brigades, battalions and teams. The engraving shows a part of the camp, but fails to show it in full, or give an adequate idea of its size, and, in spite of excessive rains, its neatness. Teams from all parts of the United States arrived

HOSPITAL DETACHMENT, M. W. A. FORESTERS.

and quietly went into camp without friction or confusion. Almost full military routine was found by the judges. Bugle calls sounded for formations and calls, morning inspection took place every day, sentry duty was well performed; there was found work by a signal corps; a trained hospital corps, with a completely equipped hospital was established, and dress parade by brigades, and division reviews took place in the evenings after the competitive drills for the day were over. The writer was very much struck by the proficiency displayed by the teams the night of the First Brigade parade and review. It took some time to get the teams into place, as



DIVISION REVIEW, M. W. A. FORESTERS, MILWAUKEE, JUNE, 1905.

there were some eighteen or twenty teams to get into line. The following night the Second Brigade, having the advantage of having watched the First the evening before, swung into place with ease and regularity. The park at Milwaukee, though large, was not large enough to accommodate a division in line, so the brigades formed one behind the other and the rear one came into review after the front one passed.

The team of Foresters consists of sixteen men. Sometimes a camp will have a team of only twelve men, but as a competing team of this number loses five points out of a total of one hundred, there are no teams of twelve men that report for competitive drill at a national encampment. Some local camps that are small have what are called pony teams, which consist of eight men.

For prize drills the teams are arranged as follows: The senior class, the junior class, the pony class and the battalion class. Any team in the organization may compete in the senior class. No team that has won a prize at a national encampment can compete in the junior class. Pony teams are unrestricted and so are the battalions, the latter being either permanent or provisional.

The judges for the drill are invariably selected from officers of the regular army. This selection at present is made by one of the Directors of the society, Mr. E. E. Murphy, of Leavenworth, who has an extensive army acquaintance. They number nine, and are divided into committees of three each, one committee taking the senior teams, another the juniors, and the third the pony and battalion teams. At Milwaukee some thirty to thirty-five teams competed in each the senior and junior classes, and a less number in the pony and battalion classes. A committee of judges would finish about ten teams a day, each team occupying at least twenty-five minutes.

The drill of the senior teams was almost perfection. The drill is modeled on the infantry drill regulations, with many fancy movements additional. In this class, teams would vary only by a small fraction of one per cent. St. Paul lost to Joliet by the stumbling of one man on slippery ground, so close was the competition. In the junior classes the competition was

not so close. The winning team carried off four hundred dollars; the second, three hundred; the third, two hundred, and other money prizes were awarded as far down as the seventh team. The money prizes in the junior class were somewhat smaller and were about the same as for the pony and battalion classes. About five thousand dollars was given in prizes.

As for the discipline of the Foresters I must say it passed my expectations. Military courtesy was marked in every particular, from the salute of the lowest private to the reports of the Adjutant General to his superior. Not the slightest grumbling was heard from a single man or team during the close competition, and when a protest was entered it was done in the most formal and military way. Of course, in speaking of the Woodmen we are speaking of the men that form the backbone of our country, the great industrious middle class, so it is almost needless to state that drunkenness and rowdyism were absolutely absent from the camp.

There is a woman's organization in connection with the Woodmen called the Royal Neighbors, that bears, I suppose, some such relation to the order that the Eastern Star does to the Masonic Lodge. So when the members come to a national encampment they come with their families. So one would expect a good state of discipline, but when one considers some fifty or sixty thousand visitors in a city as large as Milwaukee, it could easily be expected that the mayor and his force might be busy. Such, however, was not the case; and I do not recall the sight of one drunken or boisterous Forester during my stay with them at Milwaukee.

The Modern Woodmen of America, Foresters' Department, is a combination of military discipline with complete home rule. The camp elects the Venerable Consul and he appoints the Chief Forester. No Chief can retain his position except as he is satisfactory to his camp. This close connection of these teams with the home camp has always been maintained, and with this the present head of the Foresters has endeavored to accomplish certain measures of military advancement. His idea is that the Woodmen shall have a certain number of fairly well drilled men to serve as the

second line of defense when the nation is in trouble. And a second line that will be of far greater value than the ordinary undrilled, undisciplined American. This has certainly been done. The principles of discipline are familiar to these men, something of drill has been taught them, and instruction in camp work is not now new to them. A regimental commander finding some of these Foresters in his command at the time of rapid concentration will have a help that will be most acceptable and useful.

We were pleased to find a number of our old friends of the National Guard as officers in the Foresters. Their experience in the Guard and in active service in the Spanish War and in the Islands has been of great help in getting the organization in shape so rapidly. Their interest speaks well for their military inclination and patriotism.

Army officers of the regular establishment should remember that our Republic still depends, and always will, upon its citizen soldiery in time of war. Our duty is to have the small number at our command so instructed that they can form instructors for the mass of uninstructed or partially instructed, or else form the first line of defense that sustains a waiting action until the second line can be formed in its full strength. A close, familiar knowledge with civic organizations that have military features, giving them when they desire the best of our training and experience, is not only a question of personal taste or policy, but one of duty, imposed upon us by patriotism. If we are imbued with the proper spirit of love for our country, realizing that some day the armed force may be the last safeguard of our nation, we will do all that we can to foster military knowledge and virtue among our people.

THE SEA GIRT COMPETITION RESULTS.

THE low standing of the Cavalry Team (eleventh place) at the national shoot this year brings us to a realization that something must be done to place the team up among the first. What was the reason of the low standing this year? The team of 1905 made some forty points more than the team of the year before, yet occupied eleventh place, while the 1904 team was fourth. Have the State teams methods of instruction that are better than those in use in the regular army? Have they this or that, or what is the reason of the low record of the Cavalry Team?

With the idea of finding out, if possible, the reason of the drop, the JOURNAL has asked opinions of many of our best shots in the army, and publish these opinions for the benefit of the Association. We state that the articles are by men whose opinions upon the subject of shooting deserve the highest consideration, and that each article has been written by one who has contested at Sea Girt within the last two or three years. We believe a careful study of these articles will do much to raise the standard in the service and better conditions for the national match.

* * *

THE COMPETITION RESULTS.

The national match of 1905 was won by New York, with the Army Infantry Team second, and the Army Cavalry Team in eleventh place, though the total score of the latter team was some fifty points better than that of 1904, when the cavalry won fourth place.

The match was shot under trying conditions of weather and range. Under favorable range conditions, the variable weather conditions would have been equally trying for all

teams, and would have served as a good test of marksmanship. As it was, however, with insufficient targets to permit of all teams firing simultaneously at each range, there was some element of luck.

We are all interested in the army teams, and hope for their success, but it is doubtful if they can win against the best State teams unless some conditions are changed.

In the first place, the army teams are selected from men who have just finished two gruelling competitions, where each individual is under a great strain and working entirely upon his own responsibility. Some practice as a team is always necessary in order to compare the guns, so there is no period of rest between the army and national competitions. The results of this long continued strain and consequent over-training of both army teams showed, especially in their rapid fire and skirmish firing, both in 1904 and 1905. The figures are not at hand, but the team scores in the national matches of both years were much below the total scores of the same men in the army matches of the same year.

The winning team this year was selected after a competition in the national match course. Our teams are selected after a materially different course. It is entirely possible that a man could win a place on an army team who could do nothing at long range on account of faulty vision. This handicap could be removed by making the courses for division and army competitions the same as the national match course. This change seems a logical one to make, as it is hardly just to designate the army teams as the best shots in the army when they have won their places in a course that does not comprise firing at all the ranges used in the regular target practice. I believe it is a fact that one year the first place on the Army Cavalry Team was won by a man who had not up to that time been able to make sharpshooter owing to faulty vision.

The army teams are usually much more poorly equipped for range work than the State teams. This is largely due to the fact that the teams are organized at the last minute and the team captains, coaches and spotters have not time and

means to procure the necessary instruments. This year both the army teams were obliged to get along with such instruments as the members had themselves, while alongside of them was another team equipped with one large telescope and the necessary small ones furnished by the Signal Corps of the army.

To correct this defect, the team captains and coaches should be designated at least six months before the match, from officers who know the game and are intensely interested in it. They should be required to make requisition for necessary instruments, and have them at the places of holding the army competition when the competition opens. During the competition the coach should be constantly at the firing points, observing the peculiarities of the different men and obtaining from them, in confidence, all the necessary data of the individual guns. The latter measure would obviate the necessity for much team practice and permit of more rest between competitions.

The State teams show a great willingness to trust the fairness, accuracy and ability of officers of the regular service as range officers. Certainly every proper effort should be made to continue this feeling.

Range officers are now selected for various reasons. It is suggested that unsuccessful competitors among the officers at division and army competitions be used as far as they will go, as range officers for the national match. They would be probably the best posted on Firing Regulations and the most interested in the work. They would likewise be more likely to know the various little tricks that are sometimes successfully worked on range officers that know nothing of the practical part of shooting. They would, also, be better able to acquire information from the best shots of the country, with whom they would be thrown in contact, and would be the most likely to disseminate the information so gathered.

As the regular service will also be called on to furnish the details for markers and scorers, the organizations to do this work should be designated long enough beforehand to enable all noncommissioned officers and privates to be thoroughly instructed in their duties, and the officers of the organization could then be justly held responsible if a scorer was sent out who did not know the value of the marking disks. The executive officers of the match would not be obliged then to spend their time in instructing ignorant officers and men, and in deciding disputes arising from this ignorance.

In conclusion, I would recommend, in case of the detection of a willful attempt at evasion of the rules of the match by any member or members of a team, that the whole team be disqualified. It is certainly a good time to remove from the ethics of shooting those of the horse trade.

* * *

THE COMPETITION RESULTS.

The poor standing of the Cavalry Team in the last national match was due both to the excellent shooting of other teams and to the indifferent work of our own. With the former we need not concern ourselves except to learn from their good methods, but the latter deserves serious consideration.

In my opinion the following causes contributed to the low scores of the Cavalry Team:

1. The absurdly small handicap given the carbine.
2. The bad condition of the members of the team, due to too much strenuous work in competition.
3. Total lack of team work.
4. Lack of practice at long range and under varying conditions.
5. An improper method of choosing the team, which does not obtain the best material.

The first of these will be corrected when the new rifle is issued. For the others I have heard several remedies proposed, all agreeing in the main points, and will suggest one which may embody features worthy of consideration. The essential thing is not to quibble over details but to adopt some good method of selecting and coaching the team to take the place of the one now in use. For the sake of dis-

tinction I shall refer to the twelve men having the highest scores in the army competition as the Army Team, and to the team which represents the cavalry in the national match as the Trophy Team. They are now identical but should not be.

The Army Team is a team in name only. They have just passed through two gruelling, nerve-racking competitions and are "shot out." Their entire practice has been antagonistic and competitive, while that of the Trophy Team should be quite the opposite, every man's thought being the total score of the team and not his own score. Again, on the Army Team will be found brilliant and promising but inexperienced shots, men who have been lucky (for luck plays an important part in shooting), and men who are good individual shots but poor team men. Every man on the Trophy Team ought to be an excellent shot and a good coach.

I would suggest the following procedure.

1. Select the team captain now. Let him at least three months before the national match, and after consultation with every member of the Army Team for the past two years, select the coach. The coach ought to be an excellent shot, thoroughly up to date in every detail of shooting, and of full experience in competition. He ought also to be a man who would usually rub the team the way the fur lies and at the same time not hesitate to tell them what is expected of them. And above all he must be a hard worker. These qualifications are hard to find, but at least two or three men in the cavalry possess them.

2 Two months before the national match let the coach assemble from thirty to forty of the most promising candidates at some convenient place for preliminary practice. After a month's practice let the coach select four members of the team; and let these five men select the remaining members of the team, substitutes and spotter. The spotter ought to possess as far as possible the same qualifications as the coach. After this, order all the disappointed candidates to the army competition.

3. Then let the Trophy Team thus selected continue practice for a month on different ranges and under varying conditions. As a part of this practice let the team go and shoot as supernumeraries in the army competition, it being understood that they remain the Trophy Team whether other men in the competition make higher scores or not. This practice is suggested because it is observed that one competition does a man good, and by this method where a man could not lose his place on the team his nerves ought not to be racked, and at the same time the stimulus of competition and the desire to show that he is the right man for the place ought to whet him up to the keenest point. It would also be well to award members of the Trophy Team gold and silver medals when their scores are as high as the lowest scores of the gold and silver medal men of the Army Team.

The team should be given as much practice as possible on the range where the national match is held.

It is my belief that a team selected and instructed in this manner would defeat anything in the national match with the possible exception of an Infantry Team selected in some similar way. And if the latter were successful they would know that they had been to a shooting match.

* * *

THE COMPETITION RESULTS.

In thinking over the conditions necessary to make the national match a success, the primary one to my mind is the choice of grounds, and I believe that an improvement could be made on those chosen for the last three meets—Sea Girt twice, Fort Riley once. I talked quite freely on this with a number of National Guard shots, and they were not backward in airing their views. The range at Sea Girt is not a good one in many ways; for one thing, it is too small; it is a difficult range to shoot on, and those who know the range have an immense advantage over the newcomers; besides this, there have been at times ill feelings between New Jersey and some of the other States, who in consequence have strong objections to shooting on that range.

One advantage Sea Girt has—it is on the Atlantic coast,

near the large cities, and this is a great inducement for Western teams, as, when their States can afford the expense, men are glad to seize the opportunity of making the trip and seeing the country. This advantage other and better favored ranges East also have, and I should like to see one of these tried. The Fort Riley range being central, it was supposed that more Western States would be able to send teams, but almost none entered. The Eastern men were glad of the chance to see something of the West, but one visit to Riley seems to have satisfied their desire. At least many said they would not go again. It is true that the Riley range, outside of being a good range, possesses few allurements

Each team should be required to send its quartermaster to the grounds several days ahead of the team, in order that everything could be in readiness for the team. Massachusetts did this at Riley, and their team was much more comfortable and in better shape in consequence. Some other teams slept on the ground for a night or two.

It should be a strictly enforced rule that all teams should remain on the grounds—sleep and mess in camp as well as shoot there. Teams that live in hotels and on Pullman cars have a great advantage over others that have to undergo the discomforts, inconveniences and even illnesses of camp life.

The rules regarding coaching should be clear and explicit, and strictly carried out. If coaching is to be cut out, it must be cut out absolutely, as in the army competitions. This was the intention, I believe, at the last national match, but it was not carried out, coaching being done even in the skirmish runs by some teams.

Now, in regard to the army teams: Each man of these two teams has just gone through two severe competitions, in which there is no long range firing, and few do themselves justice; they are shot out and stale. After the severe strain they have been through, there is a feeling of relaxation and indifference which strongly affects their shooting, and which cannot be overcome; their nerves and eyes are worn out, and they cannot take the interest and do the shooting they would like to do. Besides this, they have little practice at long range firing, and both teams fall down badly here. Can any

cavalryman look at the carbine team scores at a thousand yards and not weep? The recommendation of Captain W. H. Wright, made two years ago, I believe is practicable, and I should like to see it adopted: the army teams of one year to shoot in the national match of the following year. The teams could be given one month's practice before the match, and would make a much better showing. It is true some of the men constituting the team would be unable to attend the shoot, but there are the substitutes, and if these should prove insufficient, why not call upon other good shots in the army? I have seen men fail to make the team who were undoubtedly better shots than some on the team; besides, there are always good men who did not try for the team.

Of course, the shoot must be in the hands of men especially fitted for the work, as it *is* work, and work requiring exceptional executive ability. When such men are found, they should be detailed successive years. It is only in this way that the mistakes of one year will be avoided in the next. I do not believe that any men, however capable, can handle for the first time a problem as complex as this and not make serious mistakes. But these men, if the right ones, will be the first to see their mistakes and profit by them the next time. As dear old Papa Michie used to say, "The successful man is not the man who never makes mistakes; that man doesn't live, but the man who never makes the same mistake twice."

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THE COMPETITION RESULTS.

The competitions held in the northern division this year developed the best shooting that has ever been done with the present arms. The season has been a record-breaker in every way, the following records having been established in the competition courses:

For the rifle, 892 by First Sergeant George Sayer, Fifteenth Infantry, at the army infantry competition, Fort Sheridan.

For the carbine, 856 by Captain H. H. Pattison, Third Cavalry, at the army cavalry competition, Fort Riley, Kansas.

For the pistol, 284 by Trumpeter Oscar G. Robinson, Ninth Cavalry, at the army pistol competition, Fort Riley, Kansas.

The following table, showing the team averages made in various competitions held in this division, 1904–5, may be taken as an index of the general improvement of the target practice of the army during the last year:

Competitions.	Team Av. 1904	Team Av. 1905
Division Infantry	735	801
Division Cavalry	729	759
Division Pistol	268	272
Army Infantry	813	862
Army Cavalry	800	817
Army Pistol	274	279

This is a most gratifying showing and forms a fitting finale for the last year of practice with the Krag.

The general improvement shown is due to the practice that has been had during the last few years, to the more general use of the peep sight for all classes of fire, and the marked improvement in the infantry averages is largely due to the almost universal use of the gun sling. In the pistol scores the gain of a few points implies a marked improvement, for the course is comparatively short and the margins are small.

It is interesting to compare the corresponding infantry and cavalry competitions, as shown by the team averages:

Competitions.	Team Av.	Difference in favor of Inf.
Division Infantry, 1904	735	6
Division Cavalry, 1904	729	
Army Infantry, 1904	813	13
Army Cavalry, 1904	800	
Division Infantry, 1905	801	42
Division Cavalry, 1905	759	
Army Infantry, 1905	862	45
Army Cavalry, 1905	817	

The last column shows that the shooting of the infantry teams has been improving much faster than that of the cavalry teams. This is due mainly to the development in the use of the gun sling, and in less degree to the general superiority of the rifle to the carbine in accuracy, which would permit a greater improvement in the scores made, assuming the same improvement in the skill of the firers.

The figures also bear out the statement, made by several experienced shots, that the gun sling is worth twenty points on the marksman's course. That would be forty points on the competition course. Adding the four per cent. allowance of the carbine for the twenty shots (disregarding skirmish) fired at 600 yards in the competition course, we have forty-four points difference between the two weapons, which agrees very closely with the results of this year's competitions.

The discussion of the relative merits of the rifle and carbine loses interest, of course, with the issue of the new Springfield, but the above remarks on the value of the gun sling are of interest in connection with any proposed restriction in its use. It is undoubtedly of great value, and as few restrictions as possible should be placed on its use. Any arrangement of it around the arms of the firer, with both ends attached to the swivels, should, I believe, be permitted.

The great number of places taken by officers on division and army teams during the last two years has been noticed by all interested in target practice. It is universally admitted that this should be corrected. The following scheme for the competitions is recommended:

For the division competitions, that officers and men be selected and ordered to competitions as now provided, except that no distinguished marksmen be sent. That officers and enlisted men fire together in the same competition. That the team be composed only of enlisted men, the strength of the team to be determined by the number of *enlisted* competitors, in the proportion now prescribed, and the gold, silver and bronze medals to be distributed to such teams in the proportions now prescribed. The officers competing to receive such medals as their scores deserve, all bettering or equaling the lowest gold to receive gold medals, and, in the same way, silver and bronze medals.

The army competitions to be open to the medal winners of the division competitions, officers and men, all twelve regular medals to go to enlisted men, the officers receiving such medals as their scores deserve, as provided for division competitions.

This brings us to the composition of the team for the national match. The practice of taking the National Team from those who weather the division and army competitions, does not, I believe, give us the best team that we can get together from the army. The courses are not the same, and we have not been able, in spite of the excellent skirmishing done in our own competitions in the last two seasons, to do sufficiently well in this class of fire at the national matches to make up for our weakness at slow fire, especially at the long ranges. Further, in spite of every effort to expedite the division and army competitions, it has not been possible to give our National Teams the necessary practice. By crowding things as closely as possible, the army competitions were finished this year on August 9th. To do this, it had been necessary to call for the designation of competitors for the division competitions before the close of the target season, July 15th, the regular season itself having been advanced two weeks from the usual date for this division. Upon the completion of the army cavalry competition at Fort Riley on August 9th, a rest was given to the members of the team until the following Monday, August 13th. This was necessary, as the members of the team had been shooting steadily for a month through two hard competitions, and most of them had been on the range with their organizations for one or two months prior to that. Practice was had from the 13th to the 17th inclusive, four days, it being necessary to leave for Sea Girt at noon on the 18th. With the national match set for the latter part of August, there is no time for the members of the Army National Match Team to participate in the division and army competitions.

Nor do these latter competitions give us the best obtainable personnel for the National Team. As stated above, the courses are different, and a winning team must be strong at every range and every class of fire. The State teams are showing great improvement and each year new ones come to the front.

The army competitions this year, both at Riley and Sheridan, were fired under almost perfect weather conditions. At Sea Girt we found rain and twenty miles of wind the order of the day, with a range facing east that played havoc with our elevations with the change between morning and afternoon light. The team that wins the national match must be one of experienced shots, accustomed to all sorts of weather, able and willing to help each other, and at home at the long ranges. Several such shots did not make the Army Teams this year, because they failed to get together four big skirmish runs in the army competitions.

I would propose that the candidates for the team or teams to represent the army in the national match be assembled for practice and elimination at some post where there is a good range, if possible in the locality where the match is to be held, at least two months prior to the match. That they be taken from the class of distinguished marksmen, together with any other shots of known experience and ability in the service, such selected competitors to give up all idea of entering the division and army competitions for that season. I believe that, with few exceptions, all the material for such team can now be found in the distinguished class, and for that reason I have recommended the above exclusion of distinguished marksmen from the division and army competitions. This will also meet the objection often raised that distinguished marksmen, usually the same individuals, monopolize the army medals year after year.

The competitors for the National Team, to the number of thirty or forty, depending on the material available, should have about a month's work under the direction of the officer who is to be team captain for the match, at the end of which time a tentative team could be selected, with several alternate pairs, and the rest sent home. Then after another month's work as a team on the match course in all sorts of weather, we should be able to turn out a team that would have no weak spots, that would be a team in fact rather than in name, and one that would only be defeated by teams composed of twelve better shots than it is possible to draw from the army.

The question has been frequently asked what was the matter with the Cavalry Team in the national match? The answer lies mainly in the above comparative figures of the

infantry and cavalry competitions. The handicap given to the carbine amounted to eight and a fraction points for each member of the team. The table shows a difference in favor of the rifle of forty-five points per man, on the army competition course, which would indicate that the handicap should be in the neighborhood of fifty points on the national match course. With something over fifty points to its credit over last year's total, the cavalry team dropped from fourth to eleventh place.

The skirmishing of both army teams has been disappointing, both this year and last, when judged by the standard of the army competitions. It is not to be expected that the skirmish scores made at an army competition will be equaled in the national match. In an army competition, at the end of slow and rapid fire, the majority of the competitors have a fair show for the team depending on their luck at skirmish. No man can say in advance that he will average the necessary points to make the team.

So the skirmish average to be expected from a team at the national match is not that the twelve top men of the army competition, but rather that of all the army competitors who might have made the team.

Furthermore, a certain discount on average scores must be made, due to the fact that it *is* a national match, notwithstanding that the individuals firing are conscious of no nervousness, nor feel in any sense rattled. But the time is past when an army team could hope to win the match by skirmish. The trophy has been won for two years by the best team of all-around shots. The army can only hope to win it by developing such a team. Steadiness, rather than brilliancy, is needed, and the above recommendation, will, I think, contribute to that end.

THE COMPETITION RESULTS.

The present Firing Regulations, while admirable in most repects, are defective in that they do not provide for any practice beyond six hundred yards for those men who fail to qualify as marksmen. All officers and enlisted men, whether poor or good shots, should be required to take a course of long range practice. This for three reasons: 1st, it would increase the man's efficiency as a soldier; 2d, it would improve his shooting at short and mid ranges, especially the latter; and, 3d, it would increase the efficiency of the troop or company in collective firing. Under the present system of target practice, thousands of men go through their entire service as soldiers without ever having had an opportunity of firing a shot at the long ranges, except such as are fired at collective fire. No one who has had much experience in teaching men to shoot will need to be told that practice at long range increases a man's general excellence in shooting.

Targets.

For all rifle firing the bull'seye target should be used, for rapid fire as well as for slow and timed fire. This will give a much better test of the relative skill of the men firing than the present method, and would eliminate those accidents which happen frequently, where a good shot placing all his shots close to the figure, yet makes a poorer score than a much poorer shot who fires all over the target and yet by good luck manages to keep in the figure.

For dismounted revolver practice, the standard American target (I am not sure of the designation) or something similar to it, should be used. The accuracy of a given number of shots should be measured, not by the sum of the number of shots striking within the 5, 4, 3 and 2 rings, as is now the case, but by the average distance of all the shots from the center. A target with ten or twelve rings and a two or three-inch bull'seye would give a much better means of comparing the accuracy of the shooting of different men than is given by the present target.

Extra Pay for Enlisted Men for Excellence in Shooting.

The extra pay granted to men who qualify as expert riflemen was a step in the right direction, but it did not go far enough. The efficiency of the army in target practice would be greatly increased if increased pay could be granted to all men who qualify as expert riflemen, sharpshooters or marksmen. This extra pay should be given for three years from date of qualification, whether followed by subsequent qualification or not. The amount of this extra pay should be as follows:

For men who qualify as expert riflemen	$3 00 per month
For men who qualify as sharpshooters	2 00 per month
For men who qualify as marksmen	1 00 per month

Troop and company commanders should also be allowed to forbid the reënlistment of men, who after three years' target practice, fail to get out of third class. Such men are of no use to the army except to fill up its ranks, and they are usually of such a low order of intelligence that they are a drag on a company.

Rifle Competitions.

With the new rifle there should be, as now, separate competition for cavalry and infantry. The competitors for both teams may be assembled at the same place and practice together, two separate teams, however, being made up, one from the cavalry and one from the infantry. The regular division teams, both cavalry and infantry, should be made up entirely of enlisted men, but officers should be allowed to compete as now, and should be given medals such as they would have received had they been competing for places on the regular team. The competitors for places on the army teams would then consist of the members of the regular division teams, such distinguished marksmen as may have qualified, and of those officers who obtained medals as above provided.

On account of the large number of officers composing division teams of late years, it has become necessary, if we are to keep up the interest of enlisted men, to make the change recommended above. The two army service teams, however, should be composed of the best shots, officers or enlisted men, in the entire army, and for that reason officers and enlisted men should compete alike for those teams.

Distinguished marksmen, who fail for three years to obtain a right to shoot for the Army Team, should be barred from further competitions.

Preliminary practice, except one skirmish run, should be eliminated from all competitions, and competitors should be allowed instead two sighting shots at each range, slow fire. Preliminary practice does a good shot very little good, and is an additional strain on his nerves.

National Competitions.

The officers who are to conduct the competitions, especially the chief executive officer and his assistants, should be chosen, first, with a view to their general ability, and second, on account of their experience in conducting competitions. The chief executive officer should be a man of high rank and should, moreover, be so familiar with the various questions that are likely to arise in a competition, that he can render a just decision on any point that may be referred to him.

The chief range officer should be a man of experience in conducting competitions, and should also be a hustler, a man who can get things done. The most annoying thing about a national competition is the slowness with which many of the matches are conducted. Delays due to bad weather, lack of a sufficient number of targets, etc., can be overlooked, but it is a great trial to the temper of the competitors to be kept waiting because range officers are late, or because the methods of running the competition are antiquated.

At the last competition the management was swamped by the large number of competitors entering the individual match. This match was shot before the team match, and the great majority of the competitors entered it with a view to getting more practice for the team match which was to follow it immediately. It would be wise to have the individual match follow the team match in future.

The Sea Girt range is, in many respects, inferior to the Fort Riley range. The range faces east, and during the greater part of the morning the targets cannot be seen clearly. This is due quite as much to the prevalence of fogs as to the direction in which the range faces.

The national team match should be arranged so as to coincide more nearly with the course of firing required of our men of the regular service. With the present course of slow fire, the army teams are at a great disadvantage.

THE MOUNTED OFFICERS' SCHOOL AT FORT RILEY.

By Captain GEORGE H. CAMERON, Fourth Cavalry.

IN a recent article in the *Journal of the Military Service Institution* on "Observations in Europe," the writer says: "The one crying need in our service that impresses itself vividly upon the American cavalry officer traveling abroad, is our lack of an officers' riding school."

Admitting that the *need of a lack* vividly impresses any officer, even if he is not traveling abroad, exception is taken to the idea conveyed. Several other officers have published eulogistic descriptions of Saumur. Praise of this institution is always deserved, but in the accounts referred to one could not escape the impression that the observer was making notes on an unfamiliar subject.

The commandant of the School of Application, in January last, made a request to the War Department that the instructor in equitation be allowed to visit foreign schools. He stated that, "the advantages and possible defects of foreign systems have never been carefully weighed by an officer, *himself an instructor and acknowledged expert.*

This is the point to be emphasized.

There exists throughout the army such a general misunderstanding, or lack of knowledge, concerning the work of officers at Fort Riley that I feel the necessity of saying a word in favor of "home industries."

Let it be understood that there will be no effort to establish the equality of our school of equitation with that of France. One is over one hundred and thirty-five years old; the other, rising three.

Much of the misunderstanding I speak of is due to the fact that older officers who were conversant with the work

accomplished in the nineties are not aware that the instruction of officers is now a separate and added feature. Therefore, before describing the school of to-day, it may be well to briefly trace its origin, object and development, and to point out the changes in policy resulting from experience.

By an act of Congress, approved January 29, 1887, the Secretary of War was "authorized and directed to establish upon the military reservation at Fort Riley a permanent school of instruction for drill and practice for the cavalry and light artillery service of the army of the United States." The reader is requested to carefully note the exact wording of this measure. This first step was brought about by Lieutenant-General Philip H. Sheridan (then in command of the army), who, as a result of long experience in campaign with both veterans and raw troops, fully appreciated the necessity of a trained mounted service. The same act of Congress appropriated funds "for such quarters, barracks and stables as may be required to carry into effect the purposes of this act," and, when the writer arrived at Fort Riley, in September, 1887, the handsome stone buildings of the present plant had not only been planned but were well under way. Confusion attending construction work and the delay in arrival of the requisite troops and batteries, prevented any progress in the establishment of the school until June, 1891, when the first commandant, Colonel James W. Forsyth, Seventh Cavalry, submitted to the War Department a proposed scheme of organization. In the regulations, published in G. O. 17 of March 1902, from headquarters of the army, we find the first conception of the work of the school, stated in very positive terms:

"6. The principal object of this school is instruction in the combined operations of cavalry and light artillery, and this object should be kept steadily in view.

"8. The second half of each school year shall be devoted to the field work and exercises of the two arms, cavalry and artillery, combined."

No mention is made of the instruction of officers. General Schofield, who had succeded General Sheridan, wrote to the commandant in the spring of 1893 that he noticed a tendency to diverge from the path which should be followed. "There should be no theoretical instruction at the school," he remarks.

In the commandant's annual report for 1893 are published the results of a most successful year's work. Here the "Blues" and "Browns" first make their appearance, and here are drawn up rules for exercises, duties of umpires, etc., which have withstood criticism for twelve years and are embodied, unchanged, in instructions for maneuvers prepared by the General Staff. As might have been expected, however, the period of six months for combined exercises was found by experience to be unnecessarily long, and we read that it is reduced to the months of October and November.

In G. O. 16, A. G. O. 1896, the regulations are republished in more voluminous form. Notice the change in wording:

"A school of instruction for *drill* and *practice* in field duties, and the combined operations for cavalry and light artillery."

In the italicized *practice*, we read anew General Schofield's opinion that Riley must not run to books, and as a further caution the regulations continue:

"Theoretical instruction will be given to officers of the school only through the Lyceum course, which will be especially adapted to the needs of the school."

When the *Maine* was blown up, the school, which consisted of the troops and batteries present, went off to the war, and, until September, 1901, no attempt could be made to do anything outside of ordinary garrison duty. During the following winter school work was resumed on former lines. The years 1894 to 1897 had set a high standard to be reached by organizations with inexperienced subalterns and green enlisted men, but satisfactory progress was made until the appearance of G. O. 102 of 1902, which established the post school for officers. Fort Riley was made no exception to the requirements of this order.

After a season of recitations, the commandant, Colonel C. C. C. Carr, Fourth Cavalry, suggested to the War Department that the course prescribed for post schools be either modified or rearranged in such a way as to interfere as little

as possible with the object for which this school was established, viz: "the practical instruction of cavalry and field artillery officers in the duties pertaining to their respective arms." Another wording! He continues: "It is believed that the studies prescribed in G. O. 102 could be equally well pursued at other posts from which officers are detailed for duty here, or at those to which they return after having served the prescribed term at this school." This letter received favorable consideration, and the Chief of Staff authorized the commandant to submit proposed new regulations, and to revise the course of instruction.

Prior to this, during the maneuvers of 1902, Colonel Carr impressed upon General Carter that "the interests of the school demanded that some officer with special ability for the training of horses and the teaching of horsemanship should be selected from the army and sent here to instruct the young cavalry and artillery officers." The conversation quoted from a letter of General Carter, resulted in the detail of Captain Walter C. Short, Thirteenth Cavalry, as instructor in equitation. This officer arrived while the post school was still in force, and, consequently, no class in equitation could be organized that winter. But Colonel Carr had other work for him. The commandant had been carrying on correspondence with the War Department concerning the establishment of a training school for farriers and horseshoers. The desired permission was received in November, 1902, and Captain Short was placed in charge. Starting with no facilities and no experienced assistants, the director gradually developed a plant and a corps of instructors that now receive universally favorable comment. First Lieutenant Guy V. Henry, Fourth Cavalry, was the first commissioned officer to seize the opportunities offered to enlisted men in the training school, and the success of his work in the shop and hospital strengthened, if it did not suggest, the idea of officers' classes.

In the first programme of instruction, the school board planned a course lasting one year. Experience showed that this amount of time was wholly inadequate, and, moreover, the scheme made no provision for the remaining two years of the customary tour of duty. Upon the recommendation of

the commandant the course for 1904–5 was, therefore, made progressive, covering three years. During that season for the first time officers of field artillery were combined with officers of cavalry in classes where the subject of instruction was of common benefit. The change for this season, 1905–6, is the dropping of recitations in certain subjects in order to adhere more closely to what is "specially adapted to the needs of the school."

Former policies have been briefly noted. The present policy is in thorough accord with the original Act of Congress. Each arm has its separate school for *drill and practice*, in which every effort is made to pass beyond proficiency. Exercises of the two arms combined are held during the last five weeks of each school year. Every commandant, from Colonel Forsyth down the list, appreciated and urged that the instructors in the two schools of drill and practice should themselves receive careful theoretical and practical training. It remained, however, for the present General Staff to realize that a school must work out its own salvation. The recommendations of the commandant during the past three years have been almost invariably accepted, and, as a result, we have to-day at Fort Riley what may very properly be called the school of the mounted officer. As previously stated, it is young. West Point had its infancy. In years to come, foreign visitors will find much to commend at this school, just as they now unite in approbation of our National Academy.

Colonel Edward L. Anderson, author of "Modern Horsemanship," etc., probably the highest authority in the United States on equitation and horse training, visited Fort Riley in 1904. This gentleman, who has a personal acquaintance with the best instructors in Europe, and who, through many years, has made a careful study of their methods on the ground, records the impressions of his visit in his latest book on equitation ("Riding and Driving," of the American Sportsman's Library, edited by Casper Whitney). He describes our instructor as a "splendid horseman," and terminates his remarks with: "On the whole, one must be a very unobservant, unappreciative visitor who would not be im-

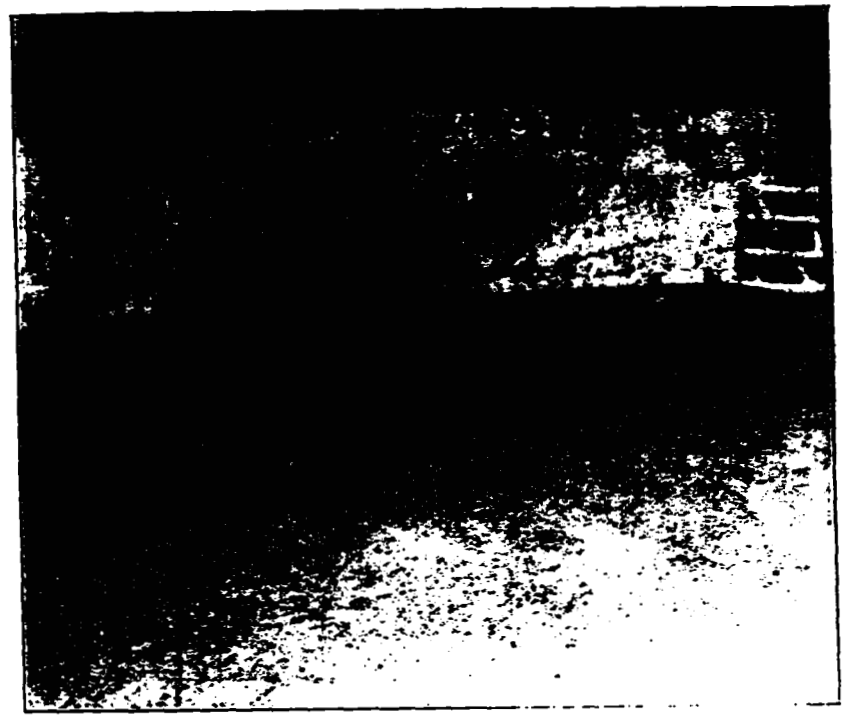
pressed with the great value of the School of Application, not only in the branch upon which I have touched (equitation) but in everything relating to the mounted service."

At Fort Riley are stationed three squadrons of cavalry, three batteries of field artillery, and two batteries of horse artillery. The tour of duty is three years, one squadron and one or two batteries being relieved yearly. The subalterns of these organizations (and captains of less than ten years service) are student officers, and field officers and senior captains are instructors. During the first year of the tour of duty (third class) officers receive no instruction except in equitation and horse training. This is because cavalry squadrons generally come to the school from the Philippines and urgently need all officers to train recruits, while field artillery subalterns, after arrival, must become familiar with their matériel and drill.

In both branches, however, since the officer must act as instructor in mounted work, his own normal school education begins at once. During this first year ninety hours are spent in the riding hall. Special attention is devoted to confirming the strong, correct seat, and to teaching the proper use of the aids. Each officer is allowed to select a green horse from the command, and starts the training work with cavesson and longe. Next follow bitting, bending and suppling, using the bit and bridoon. In this instruction the student is on foot. The first mount is made in the McClellan saddle, and the snaffle bit alone is used. When the horse goes well into his bridle at the different gaits, a return is made to the bit and bridoon, and the horse's education is resumed. After he is well balanced, the military saddle is discarded and the student learns the English saddle on a comparatively well-broken horse.

In connection with the elementary work, certain parts of Carter's "Horses, Saddles and Bridles" are used for study, recitation, and examination. First principles are thus thoroughly mastered. It may be noted in passing that in all branches at the school it is planned that theory and practice shall go hand in hand. When the education of the student and horse has progressed sufficiently, a second horse is

selected as a jumper. The selection is made from broken horses of the command, but the animal is chosen for conformation, and has had no previous training in jumping. Thereafter, the last fifteen minutes of each attendance are devoted to the development of the jumpers, beginning on the longe in the chute and gradually working up to about



LIEUT. SCOTT, A STUDENT OFFICER, RIDING ONE OF THE SCHOOL BUCKERS.

four feet, without rider. As in the case of the school horse, the jumper is first ridden with the McClellan, then with the English saddle. Beginning with a very low jump, the bar is gradually raised to about four feet, the rider maintaining the tight seat and good hands, and acquiring the easy confidence essential in bold riding. Two trained buckers are kept on hand. These animals perform at the will of the

instructor, and student officers become familiar with the safe and approved method of sitting the broncho. This class also receives instruction in correcting the ordinary vices of the cavalry horse, the animal, in each case, being handled by the students themselves.

INSTRUCTOR HIGH-SCHOOLING A FOUR-YEAR-OLD RANGE HORSE. PERFECT BALANCE ON ONE HIND LEG.

Work in the second class is a continuation of that of the third class. This winter, however, for the first time, the second class will train well-bred but absolutely unbroken colts, and will painstakingly put into practice the methods learned last year. In this manner they will qualify as capable instructors of enlisted men should the occasion arise to handle a green remount. When the colts have been thoroughly bitted and balanced (as in the first year) they will be carried to the evolutions of the high school, in which the student learns what may be accomplished with the horse mechanism by intelligent use of the aids. The jumper of the first year, provided he has shown satisfactory promise, is also further developed. If not, a trained jumper is supplied. All students have experience in clearing the bar at five feet eight inches, and in the last class of seven, three horses cleared six feet.

Equitation in the first class is confined to cross-country work. A course has been laid out at the base of the foothills along the Pawnee flats. The illustrations of this article show the character of the jumps now in place. The riders shown in the illustrations are student officers, except in the illustration of the high schooled range horse. As funds become available, the course will be extended. The height and difficulty of jumps will also be increased.

Horseshoeing is a course of two terms, each of about thirty-five hours. In the first term (second class) the student learns the preparing of the foot and the fitting of shoes in normal shoeing. There are no assistants. The officers perform all the manual labor, work the forge, trim the foot with nippers and rasp, turn and fit the shoes and nail them on, under the scrutiny of the instructors of the training school. There are many burned and bruised fingers. Occasionally a student must be extricated from among the nail barrels after his first effort with a hind leg, but the work continues with a spirit that warrants my saying that this school will progress to the first rank. In the second term the student learns how to make special shoes—those that will correct faults in gaits, and those that will aid in the treatment of diseased feet. The course in horseshoeing can be readily understood by a perusal of the training school textbook, "The Army Horseshoer," a copy of which has recently been forwarded to all mounted organizations.

Hippology likewise covers two terms—each of about thirty hours. The first term is devoted to theoretical study of anatomy, conformation and points, age of horses, defects and blemishes, diseases of the bone, and detection of lame-

ness, and to practical tests in examination of horses for age, soundness, conformation, and suitability for service. The instructors (those of the training school) are skilled in dissections. Whenever opportunity offers, a horse is hung up in the operating room and gradually dismembered in a manner that will clearly demonstrate parts and functions. For instance, a rubber hose is inserted in the trachea, and the exposed lungs are inflated to their proper position. In the

BRUSH HURDLE.

accompanying illustration (page 459), the lungs have been removed and the heart and diaphram are subjects of study.

In the second term are studied wounds, sprains, bruises, etc., diseases of the urinary, nervous and lymphatic systems, diseases of the eye and skin, miscellaneous diseases, medicines, and weights and measures. Practical work includes tests in diagnosis of disease, hospital work in which the officer himself makes and applies dressings, applies ban-

dages, administers medicine, and learns hand rubbing and the use of slings. This class also attends operations, the subjects of which are furnished by farmers in the neighborhood. As may be imagined, there is a dearth of material in a well-ordered command, but when the free clinic was established, our veterinarians were pursued by eager horse-owners. The first class this year will have the advantages of the recently completed veterinary hospital, a model of its kind.

LOG JUMP.

Instruction in military sanitation and hygene is in the form of a series of lectures, which amplify the subject as taught in the garrison school. Practical work consists of sanitary inspections covered by a report submitted by the students.

Lectures on forage are followed by inspection tests. Next summer, visits will be made to the Kansas Agricultural College at Manhattan, where numerous small plots show the

various kinds of cultivated grasses in different stages of growth.

Practical work with quartermaster harness and transportation includes the taking apart and assembling of harness and the different kinds of army wagons. Four-line and jerk-line driving are taught, as well as the training and detraining of stock and wagons.

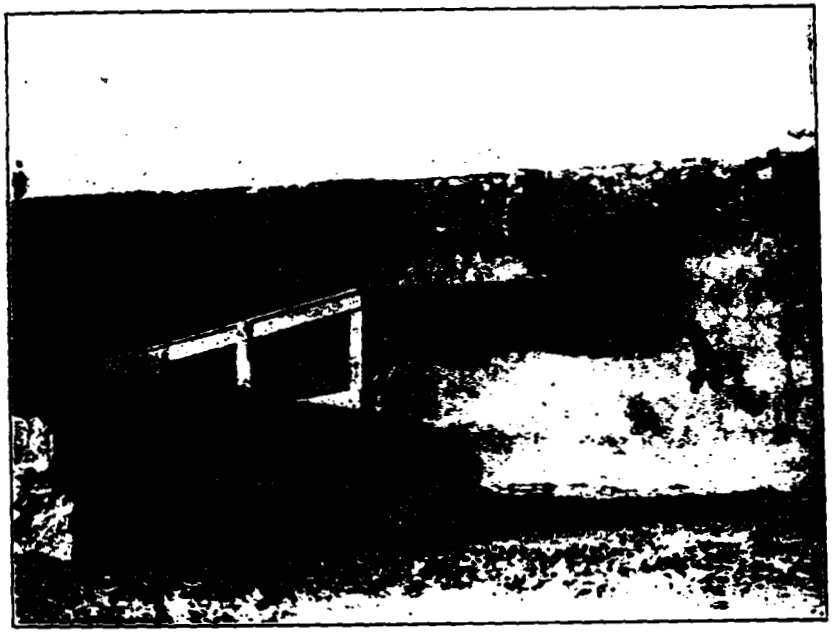
STONE WALL.

All the subjects thus far mentioned are taught to cavalry and field artillery subalterns alike.

There is extended practical topographical work, but the classes are taught in the separate schools, because this branch of instruction is so intimately connected with the reconnoissance and road work of the separate commands.

Cavalry subalterns receive further practical instruction in packing and in pioneer work and explosives.

In both schools a certain amount of theoretical professional work is carried on each winter, but this has now taken the form of certified reading. In the third class, the subject matter is selected by the director to fit the individual case. Thus, if an officer joins who has not had the advantages of garrison school, necessary subjects of that course are assigned for reading; otherwise, books are selected bearing on the work in hand, such as Anderson's books on equitation, De-

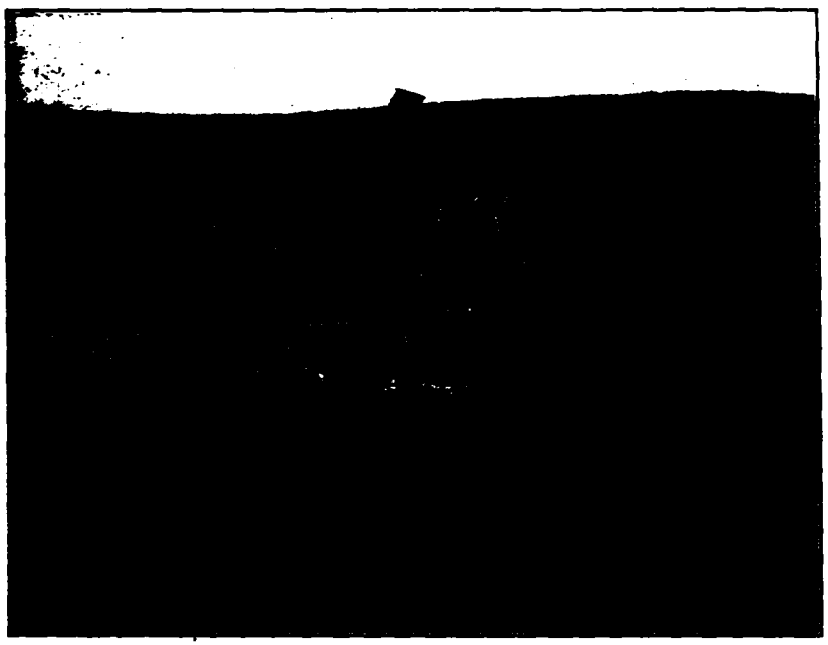


BOLTING HIS JUMP.

Brack's books on outposts, Du Vernois' "Troop Leading," "Hohenlohe's Letters," etc. In the second class, special studies are assigned to all the students of that class in each school. These include such books as Von der Goltz's "Conduct of War," Formby's "Cavalry in Action," Clery's "Minor Tactics," etc., for the school of cavalry; and Langlois' "Tactical Changes," Rohn's "Tactics of Field Artillery," Rouquerol's "Employment of Quick-firing Artillery," etc., for the school of field artillery. In the first class each

student makes a study of a campaign with special reference to the employment of his own arm. The campaigns are assigned by the instructor and are discussed by the class after the reading.

Study without recitation possesses two merits: First, student officers at Fort Riley cannot be spared away from their organizations for any more extended schedule than that now



WATER JUMP.

existing; and, second, the method establishes the reading habit, and incidentally requires the acquisition of the nucleus of a good professional library.

As may readily be seen, the course is drawn out, to employ the three winter seasons and, as previously stated, to allow subalterns to be present with their organizations as much as possible.

It is, therefore, apparent that the course could be mastered in much less time by student officers (pure and simple)

such as attend other service schools. The War Department has, therefore, as an experiment, detailed the eight senior graduates in the cavalry arm of the last class at the Military Academy, to take a seven-months' course in hippology, horseshoeing, equitation and horse training. These young officers, who have been at the school less than two months, are seen in the illustrations of this article. Their daily work in equi-

CAVESSON AND LONGE, TO SCHOOL GREEN OR UNWILLING JUMPERS.

tation requires the training of a green school horse, a cross-country ride on a trained jumper, a game of polo on a broken pony, and the training of a green pony. They average six hours in the saddle, do their own saddling and bitting, and in general have their headquarters at the school stable, where Captain Short instructs them in the most minute details of grooming, feeding, and the care of horses. Their first term in hippology will be completed before January, and they will then join the first class. Horseshoeing will

be taken up with the second class, and the second term of this work will be in special class.

It is not too early to predict that the experiment will be regarded as an unqualified success. It is greatly to be regretted that the benefits of the school are not further reaching. Many letters are received from ambitious officers, requesting information as to the best means of obtaining a detail at the school. The commandant, in his report for 1905, recommended that one subaltern from each regiment of cavalry should be selected yearly for a tour of duty. It is interesting to find that the first commandant recommended a plan that would be valuable to-day to both the school and the cavalry service.

General Forsyth, in his annual report of 1893, after remarking that:

"Under present conditions in the army, to keep three officers on duty with each of four troops of one regiment is next to an impossibility," continues: "I, therefore, have the honor to urgently recommend that, as the squadrons now here finish their tours of duty, the organization of the cavalry command be changed to accord with my original recommendation, viz: that it consist of twelve troops, all regiments being represented. My reasons are as follows:

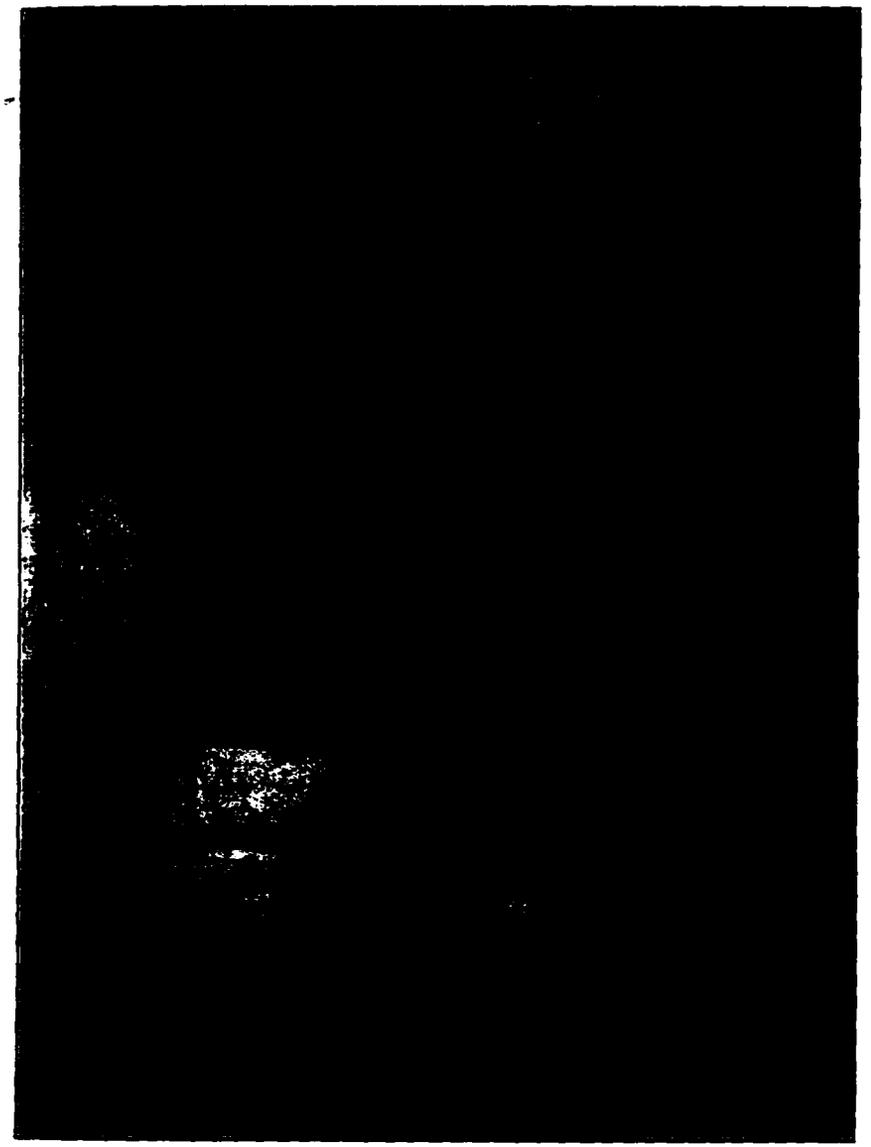
"1. Troops serving here could then be maintained at a war strength, without injustice to any regiment, since all would continuously participate in the benefits of the school.*

"2. Each regimental commander would be enabled to offer the detail as a reward for that captain of his regiment who had displayed the most interest in and succeeded best with instruction, discipline and efficiency of his troop. Selection would then be an honor, and would be worked for, thereby promoting efficiency.

"3. He could more easily spare sufficient officers to keep three on duty with the troop of his regiment here, and, being fewer in number, he would be able to select only the most suitable, who have a natural taste for the work. This is a matter of no small importance.

"4. All regiments would sooner derive some benefit than under the present organization.

*By special provision troops at Fort Riley are now 85 strong.



"5. The War Department would probably find it easier to annually arrange for the detail of one troop each from four regiments than four troops from one regiment. Probably fewer emergencies and difficulties would interfere with the ordering them here at a regular specified time. The period of instruction should, however, remain three years, four troops being relieved each year, as now."

Another matter of regret is, that graduates of the school do not receive recognition as such in the *Army Register*. They certainly work hard, and their examinations are rigid. At the completion of their course they are, without any doubt, as well advanced in their chosen profession as are the graduates of any service school.

PROBLEM.

LETTERS are being constantly received by officers on duty at the Infantry and Cavalry School asking information about the course at that institution. Many officers after arriving say that their ideas of the system at the school were very crude, and had they had some knowledge as to the nature of the work before coming to the school preparation would have been much easier. With the idea of placing some of the work done at the Infantry and Cavalry School before our readers, we publish below a problem from the Department of Military Art. The accepted solution to this problem will be given in our next issue. Similar problems will be hereafter published in each issue of the JOURNAL, and the solution in each case will follow in the next succeeding JOURNAL. We trust that these problems will also be found useful to officers in connection with noncommissioned officers schools. As will be seen from the problem there is nothing so hard that the noncommissioned personnel could not master with a little help.

* * *

DEPARTMENT OF MILITARY ART, INFANTRY AND CAVALRY SCHOOL.

Course in Security and Information, 1905–06.

MAP PROBLEM NO. I. PATROLLING, CAVALRY.

Situation:

Your army (Blue) operating in hostile country, is approaching Leavenworth from the north. You have a cavalry patrol of five men from the cavalry screen with instructions to seek information of the enemy, your nearest supporting troops being about five miles to the rear. When

you reach Fort Leavenworth one of your scouts reports enemy's sentinels visible on high ground south of and overlooking Corral Creek.

You decide to reconnoiter the enemy's position and advance with your patrol to the south edge of the woods on Pope Hill.

Required:

1. Description of the visible terrain to south, southeast and southwest.

2. Indicate on the map the disposition of your patrol while you remain in observation at Pope Hill.

A member of your patrol captures a civilian near Merritt Lake, who was riding rapidly along Grant Avenue toward Leavenworth. The prisoner states that he came from Kickapoo, six miles north of Leavenworth on the west bank of the Missouri River, that he has not been in Leavenworth in the past ten days, and knows nothing of the enemy. He also states that a troop of Blue cavalry was entering Kickapoo when he left there, about 10:30 A. M.

Required:

1. What disposition will you make of this man?

The enemy's line of sentinels appears to extend from Grant Avenue to the west toward Atchison Cross (X, Y, Z; X being a point 250 yards due west of north end of siding of electric line, southwest of Grant Hill; Y being at the northwest corner of new U. S. Pen; and Z being at Atchison Cross). No sentinels are observed near the reservoir of the Leavenworth waterworks, and you decide to move your patrol to that place.

Required:

1. Can this movement be executed under cover from the hostile sentinels at X?

(Trees shown on map to be considered thirty feet high.)

2. Indicate on the map the route of your patrol from your position at Pope Hill to the reservoir, and describe the conduct of the movement.

While concealed to the east of and behind the reservoir embankment you observe an officer in red (hostile) and an orderly riding northward from Leavenworth toward the reservoir. They apparently have not discovered your patrol.

Required:

1. The action you propose to take.

2. When do you send your first message during this reconnoissance?

Write out the message you would send (use message blank).

3. What instructions will you give the messenger?

EXERCISE.

The following is an exercise given to the Staff Class of 1906, by the Law Department of the Staff College. Each member of the class is required to submit answers thereto. The solution accepted by the Department will be published in the July JOURNAL, 1906.

* * *

DEPARTMENT OF LAW, STAFF COLLEGE, CLASS OF 1905–6.

PROBLEM NO. 1.

The following letter was recently received by the commanding officer at Fort Leavenworth:

DEPARTMENT OF JUSTICE
UNITED STATES MARSHAL'S OFFICE
WESTERN DISTRICT OF MISSOURI.

ST. JOSEPH, MO., Oct. 30, 1905.

Commandant, Fort Leavenworth:

SIR:—Would an officer be justified in shooting a deserter in order to effect his capture? I captured C. C. Crane, deserter, and took him to your post last April. He deserted last August and I almost captured him last Friday night, eight miles northeast of Easton, Mo. It would have been necessary to have shot him in order to capture him. He is sure to resist.

What are my rights, or rather, the law, in such emergencies?

Very truly,

(Signed) C. H. HASKELL,
U. S. Deputy Marshal, St. Joseph, Mo.

The word "officer" refers to civil officers.

1. The deputy marshal's request for information really involves two conditions: (*a*) forcible resistance to arrest; (*b*) when there is no forcible resistance, but merely an attempt to evade arrest by running away.

What answer would you make to the marshal's letter?

2. A detachment of soldiers is sent out to arrest Crane; what force may it lawfully employ under the two conditions mentioned above?

3. Crane, while being pursued by the detachment, takes refuge in a private house; can you as commander of the detachment forcibly enter the house and make the arrest against the will of the owner?

4. Crane is supposed to be concealed in a private house, but you are not certain; as commander of a detachment sent out to capture him, what steps would you take to have the house searched?

5. Crane is known to be a deserter; what would be the duty of the following persons should they encounter and recognize him, but have no positive orders to arrest him?

(*a*) A private soldier.

(*b*) A noncommissioned officer.

(*c*) An officer.

6. You are alone and unarmed, and learn that Crane is concealed in a certain public saloon of Easton, Mo., and being among his friends you cannot personally effect his capture; what steps would you take?

MARTIAL LAW AND THE SUSPENSION OF THE WRIT OF HABEAS CORPUS IN THE UNITED STATES.*

By First Lieutenant L. A. I. CHAPMAN, First Cavalry.

THERE sometimes arises a crisis in the life of an individual, when in the absence of legal protection he obeys nature's first and greatest law—that of self-preservation—and slays his assailant. Thus the taking of life by an individual is justified under the law on the ground of self-defense. Similarly, it not infrequently happens that the life of the nation is threatened to such an extent that the laws enacted for its preservation prove inadequate to the occasion: the civil power is unequal to the emergency, and the continued existence of the state itself becomes dependent upon the use of force. At such times the laws which have proved insufficient must be disregarded, if necessary, and the government resort to force of arms to maintain its existence. The civil power is set aside for the time being, and to the military power of the nation is assigned the task of protecting the state and restoring the conditions which will permit the resumption of the ordinary methods of government. This exercise of military authority in place of or over the civil power is called *martial law*. It is a condition based on necessity, and an exercise on the part of the state of the right of self-defense.

"The right to declare, apply and exercise martial law is one of the rights of sovereignty, and is as essential to the existence of a state as is the right to declare or carry on war."†

* Submitted to the Department of Law, Staff College, April 30, 1905, as a graduation thesis. Publication authorized.

† Halleck, International Law and Laws of War.

"The power is essential to the existence of every government, essential to the preservation of order and free institutions, and is as necessary to the States of this Union as to every government." * "We hold it to be an incontrovertible principle that the government of the United States may, by means of physical force, exercised through its official agents, execute on every foot of American soil the powers and functions that belong to it. This necessarily involves the power to compel obedience to its laws, and hence the power to keep the peace to that extent."† "If, in foreign invasion or civil war, the courts are actually closed, and it is impossible to administer justice according to law, then on the theater of active military operations, where war really prevails, there is a necessity to furnish a substitute for the civil authorities thus overthrown, to preserve the safety of the army and society; and as no power is left but the military, it is allowed to govern by martial rule until the laws can have their free course."‡

Martial law is simply military authority exercised in accordance with the great law of necessity. It means the supremacy over the civil power to the extent that necessity may require. It may be exercised to the total exclusion of all civil authority; or it may supersede the civil power only to a limited degree. Justified by necessity in time of war, invasion, insurrection or other public danger, it either wholly thrusts aside the civil power, or acts in conjunction with it, as the exigencies of the case may warrant. Martial law accompanies the army when it is called into active service. It may be exercised over home territory over citizens not enemies, or it may be exercised over hostile territory over citizens of the other belligerent.

MARTIAL LAW AT HOME.

Martial law at home may either be limited or absolute. When the emergency arises and the civil power proves inadequate to maintain order, the military may be called upon to

*Luther vs. Borden, 7 Howard, 1.
†In re Debs, 158 U. S. 564.
‡Ex parte Milligan, 4 Wallace, 2.

assist the civil authorities in quelling the disorder. Such occurrences have not been infrequent in our history. The Constitution of the United States and the Federal statutes fully provide for such emergencies. Article IV, Section 4, of the Constitution, states: "The United States shall guarantee to every State in this Union a republican form of government, and shall protect each of them against invasion; and on application of the Legislature, or of the executive (when the Legislature cannot be convened), against domestic violence." In accordance with this provision, the regular army has been frequently employed. It has been said by some authorities that the request for Federal aid on the part of the State authorities is an admission by them that they are unable to cope with the situation, and that therefore the authority of the United States troops when called in should be recognized as supreme, and the situation handled by the military without reference to the State government. The custom, however, has been otherwise. The orders directing the movement of the regular troops to the scene of the disorder have in almost every case directed the military commander to consult and act in accord with the chief executive of the State.

Article II, Section 2, of the Constitution provides: "The President shall be commander in chief of the army and navy of the United States, and of the militia of the several States, when called into the actual service of the United States." Section 3, of the same article, provides: "He (the President) shall take care that the laws be faithfully executed." Under these constitutional provisions, the Federal troops have been employed on several occasions to secure the enforcement of Federal laws, most notably to prevent interference with the transmission of the United States mails.

Ordinarily in employing the military forces of the United States to carry out these two constitutional provisions above described, the exercise of martial law is not complete. In fact, it is not martial law at all, strictly speaking. Military force supersedes the civil power to the extent necessary to secure the enforcement of *existing* law and the maintenance of order. This exercise of the military power of the state

has been designated *military posse comitatus*,* or *limited martial law* as distinguished from *absolute martial law*. In this case, only that portion of the civil authority which has proven ineffective is displaced by military force; usually the civil police power is supplanted for the time being by the armed forces of the state. Protection is furnished by the military to persons and property; force is resorted to as the necessities of the particular case may require; arrests are made and prisoners held, frequently for a considerable period of time; but the trial of the offenders is not attempted by military tribunals but reserved for the civil courts, when order shall have been restored. At such times, then, there is no exercise of complete martial law jurisdiction, the military simply assisting the executive and judicial functions of the civil power in the execution of existing law.

For this limited exercise of martial law the Federal statutes have made provision, and the instances in which the troops may be so employed are fully set forth in Article XLVIII, Army Regulations. Briefly stated, the military forces of the United States may be employed for the following purposes to *assist the civil authorities:*

1. For the protection of a state against domestic violence under Section 4, Article IV, of the Constitution.

2. For the suppression of insurrection, etc., as expressly authorized by Sections 5298 and 5299 Revised Statutes.

3. As a *posse comitatus*, expressly authorized by the Federal statutes in the following cases:

Sections 1984 and 1989, authorizing the President to employ the land forces for the execution of the laws enacted for the protection of civil rights; Sections 2118, 2147, 2150, 2151 and 2152, authorizing the President to employ the military for the removal of intruders from the Indian country, for preventing the introduction therein of unauthorized persons and things, and for suppressing hostilities between the Indian tribes, etc.; Section 4792, requiring military officers commanding on the coast to aid in the execution of the quarantine laws; Section 5275, authorizing the President to employ a military force for the custody of extradited prisoners; Sections 5287 and 5288, authorizing the President to avail himself of the army in executing the neutrality laws; Section 2460, authorizing the President to use the land and naval forces for the protection of the public lands; Section 5577, for the protection of the rights of the discoverers of guano islands; Section 67 of the Act of April 30, 1900, authorizing the use of the land and naval forces for the suppression of lawless violence, invasion, insurrection or rebellion, and to secure the enforcement of the laws of the United States in Hawaii; Section 29 of the Act of June 6, 1900, permitting the use of the military as a *posse comitatus* in the district of Alaska.

*Note issued by Major D. H. Boughton, U. S. Army, instructor Department of Law, Infantry and Cavalry School and Staff College, 1905.

Among the laws which it is the duty of the President to enforce under the constitutional injunction are the following:

Section 3995 Revised Statutes, prohibiting the obstruction or retarding the passage of the mail, and all other laws relating to the carrying of the mails; an Act of July 2, 1890, to protect trade and commerce against unlawful restraints and monopolies; and the Acts of Congress establishing post and military routes and telegraph lines.

Of the power of the President to employ the military forces of the country "to see that the laws are faithfully executed," there is no longer any question. The Supreme Court has said:* "We hold it to be an incontrovertible principle that the government of the United States may, by means of physical force, exercised through its official agents, execute on every foot of American soil the powers and functions that belong to it. * * * The entire strength of the nation may be used to enforce in any part of the land the full and free exercise of all national powers and the security of all rights entrusted by the Constitution to its care. The strong arm of the national government may be put forth to brush away all obstructions to the freedom of interstate commerce or the transportation of the mails. If the emergency arises, the army of the nation, and all its militia, are at the service of the nation to compel obedience to its laws."

*In re Debs, 158 U. S. 564.

Under Section 5297, Revised Statutes, the application on the part of a State for the aid of Federal troops must be sent to the President. It is not left to the discretion of military commanders, although it has not been infrequent that governors have applied to commanding officers of departments or military posts for the use of national troops. In all cases where the commanding officer has yielded to this request without authorization of the President, the act has been disavowed by the Federal government. But Paragraph 586, Army Regulations, provides that "in case of sudden or unexpected invasion, insurrection or riot, *endangering the property of the United States*, or in case of *attempted or threatened robbery, or interruption of the United States mails*, or other equivalent emergency so imminent as to render it dangerous to await instructions requested through the speediest means of communication, an officer of the army may take such action before the receipt of instructions as the circumstances of the case and the law under which he is acting may justify, and will promptly report his action and the circumstances requiring it to the Military Secretary of the army, by telegraph, if possible, for the information of the President."

To justify the employment of the national military forces to assist the civil authorities, one or other of the two following conditions must exist:

1. A formal application to the President for Federal aid by the Legislature of a State (or by the Governor if the Legislature be not in session).

2. A decision by the President that it is impossible to secure the enforcement of the *Federal statutes* by means of the ordinary civil agencies.

In either event it is necessary for the President to publish a proclamation setting forth a statement of the conditions which exist and the laws provided in such cases, and calling upon the insurgents to disperse and cease their lawless acts. Proper and formal instructions are also issued by the President in such cases to the commanding officers of the troops employed for their guidance and conduct during the period they are to be employed.

Necessity will dictate the amount of force to be used in each case as it arises. Paragraph 488, Army Regulations, states that this is a tactical question which must be settled by the immediate commander of the troops, in accordance with his best judgment of the situation. The commanding officer, in such an emergency, is clothed with discretionary power, and so long as his course is determined by what he believes to be necessary and right, it will be upheld by the courts. It has been said by the Supreme Court of the United States that it knew of no case in England or this country, where it was held otherwise than that a public officer, acting from a sense of duty in a matter where he is required to exercise discretion, is not liable to an action for an error of judgment.* The law is stated in the following: "From a careful examination of authorities from the case of Turner vs. Sterling, 23 Charles II, 2 Ventris 26, down to our own time, both in English and American courts, the doctrine that a ministerial officer, acting in a matter before him with discretionary powers, or acting in a matter before him judicially or as a quasi judge, is not responsible to any one receiving an injury from such action, unless the officer act maliciously and willfully wrong, is most clearly established and maintained."† "It is sometimes difficult to draw the line between ministerial and discretionary, or judicial authority. The same officer may act sometimes in one capacity and sometimes in the other. A sheriff with an execution against the property of a particular person acts in executing it only as a ministerial officer, and if he takes any property to satisfy it except that of the defendant named, he is liable to an action. But the same officer, when he is authorized by law to suppress a mob, has more or less of discretionary authority entrusted to him. A military officer, who should be directed by the President in time of war to arrest a particular individual as a spy, would act in making the arrest merely as a ministerial officer, and if by mistake he arrested the wrong man, he would be liable to an action; but if his orders were

* Kendall vs. Stokes, 3 Howard, 87.

† Reed vs. Conway, 20 Missouri, 43.

general, to go with the military forces into an insurrectionary district and quell the insurrection, he would be clothed with authority discretionary, and in its nature judicial."*

ABSOLUTE MARTIAL LAW AS A DOMESTIC FACT.

Thus far it has been considered that the government has been able to quell the disorders by means of the civil authorities assisted by the military power. But riot may be followed by insurrection, and insurrection develops into rebellion. When conditions have become so unsettled that the courts are closed, or, if open are unable to serve their processes or to transact business, it becomes apparent that the civil power has ceased. The ordinary methods of government have failed, and either military authority must prevail or else anarchy will ensue. In fact, a state of war exists. "Armed or unarmed resistance by citizens of the United States against the lawful movements of their troops, is levying war against the United States."† "War has well been defined to be, 'that state in which a nation prosecutes its right by force.'"‡ As the civil authorities have been replaced by military force, so the civil law ceases to exist for the time and the law and usages of war are administered. This exercise of supreme authority by the military forces is martial law proper. It exists "whether declared in specific terms or not. * * * Within its sphere the military is independent of the civil power, and if the latter is permitted to act, it is with the consent of the military authorities."§

"Martial law can never exist when the courts are open and in the proper and unobstructed exercise of their jurisdiction. It is also confined to the locality of actual war. It will be borne in mind that this is not a question of the power to proclaim martial law when war exists in a community and the civil authorities are overthrown. It follows from what

* Druecker vs. Saloman, 21 Wisconsin, 629.
† Par. 817, Field Service Regulations.
‡ The Prize Cases, 2 Black, 635.
§ Major D. H. Boughton, U. S. Army, Note, 1905.

has been said on this subject that there are occasions when martial rule can be properly applied. If, in foreign invasion, the courts are actually closed and it is impossible to administer criminal justice according to law, then on the theatre of active military operations, where war really prevails, there is a necessity to furnish a substitute for the civil authority thus overthrown to preserve the safety of the army and of society; and as no power is left but the military, it is allowed to govern by martial rule until the laws can have their free course."*

It is essential to the existence of martial law that the authority of the military power be supreme. This, of necessity, implies the suspension of the privilege of the writ of habeas corpus, otherwise the military is not supreme. But it has been held by the Supreme Court: "If at any time the public safety should require the suspension of the powers vested by this act in the courts of the United States, it is for the Legislature to say so."† This opinion was again stated by Chief Justice Taney in ex parte Merriman. However, in both these cases, the court referred to the suspension of the privilege as an act of expediency, or as one to be decided upon for political considerations. In cases under martial law, the privilege is suspended as a matter of fact. As a preliminary condition of the exercise of martial law, it is essential that the courts be closed, or incapable of performing their proper functions. If this condition exists, there can be no question that the privilege has been suspended, *ipso facto*. The question is not now one of political considerations, or of expediency; it is one of conditions. When the courts have again resumed their proper functions, the necessity having ceased to exist, martial law gives way and the civil authorities again assume control.‡ "It is unquestionably true that where martial law exists, the privilege of the writ of habeas corpus is suspended. Yet whether martial law shall prevail or not does not depend upon the will of the President. Martial

* Ex parte Milligan, 4 Wallace 2.
† Ex parte Bollman and Swartwout, 4 Cranch 95.
‡ Ex parte Milligan, 4 Wallace 2.

law comes with war, exists under proclamation or other act, and is limited by the necessities of war. It suspends the writ because the courts are closed."* "The doctrine seems to be that the suspension of the privilege of the writ contemplated by the Constitution has no relation to a state of martial law and can take effect only in those cases where rebellion or invasion where the power to issue and proceed under the writ is free and unobstructed."†

By the expression, "When the courts are closed," is meant not alone that condition when the court cannot sit, but that in which its legal processes cannot be enforced. The court may still be able to hold its sessions, but if, through hostility to the government or its laws, the great mass of the people defy the decrees of the court and prevent their execution, then its power has ceased to exist, and for the time being the court *is closed.* "Where it is impossible for the courts of law to sit or to enforce the execution of their judgments, then it becomes necessary to find some rude substitute for them, and to employ for that purpose the military, which is the only remaining force in the community.‡ "Courts are not open when—it mattering not whether they are really open or not if law cannot, either because of the great number of offenders or their great power, their ability to resist arrest by ordinary civil process, the difficulty of identifying or charging actors in particular outrages, and proving specific charges against them—many outrages may be committed and it may be impossible to arrest or identify one offender, and this is so where rebellion is wide spread. In such cases it would be idle to say the courts are open."§

It has been asserted repeatedly by the Supreme Court that the President must decide whether or not a state of insurrection exists as contemplated by the statutes and by the Constitution.‖ When in the discretion of the President, a state of insurrection or rebellion exists such as to warrant

*Hurd on Habeas Corpus, page 127.
†Taine, page 127.
‡Clode, Military and Martial Law.
§Finlayson, Martial Law 4.
‖Martin vs. Mott, 12 Wheaton 29; Luther vs. Borden, 7 Howard 1.

the use of troops for the establishment of law and order, then a state of martial law exists. It has frequently been stated that the presence of military force declares its own martial law. This power of the Chief Executive to determine whether or not the exigency is one warranting the use of troops, of necessity carries with it the power to *declare* martial law. Such a declaration by the President is not a political act, but simply a recognition of fact. In the case of the United States vs. Probasco, the court asserted that when the President has declared a State or a part thereof to be in insurrection, the courts must hold that this condition continues until he declares to the contrary.* The power of the President to declare martial law has been denied by some authorities, on the ground that he cannot suspend the writ of habeas corpus. But as has been shown, in times of insurrection and rebellion, the courts are closed of necessity, and the privilege of the writ is suspended as a fact. The recognition of such a state of affairs on the part of the President, coupled with the use of troops to restore order and to return to the courts the power which has been taken from them by force of circumstances, is a declaration of martial law, and carries with it all that that term implies. On the other hand it has been held by the Supreme Court that as a matter of political expediency, the Congress may declare martial law or suspend the writ of habeas corpus.† "An authority that cannot be delegated is comparatively useless; since the Executive cannot be omnipresent, it has been the uniform practice of the government from the beginning that martial law and nearly all of the war powers have been exercised through officers, acting under the Commander-in-Chief.‡ There can be no question that when the President can be informed of the state of affairs warranting the exercise of martial law powers, it would be wholly beyond the province of a military commander to act without the Executive authority. However, should the emergency be such as to compel immediate

*11 Law Reports 419.
†Ex parte Milligan, 4 Wallace 2.
‡Whiting, War Powers 307.

action, and there be no way to communicate at once with the President, *i. e.*, should a state of war exist so that the civil authority was powerless and the courts closed in a region so remote that to await action of the Chief Executive would prove fatal, it would then devolve upon the military commander to recognize the actual existence of martial law, and to take such action as circumstances might require. Again in a time of public war, with several armies actively engaged in different portions of the theater of operations, it would be proper for the President to vest in higher military commanders in the field the power to determine whether or not the circumstances would justify the exercise of martial law powers. This power was frequently so delegated during the War of the Rebellion, and was repeatedly exercised. Unless the power had been so delegated, or unless communication was impossible without fatal delay, it is not evident that a military commander would ever be justified in assuming authority to exercise the discretion which has been vested in the President.

Martial law does not mean military oppression. Its exercise includes solely such acts as may be necessary to the restoration of peaceful conditions. Military commanders are not justified in committing acts of wanton cruelty, nor in invading those personal rights guaranteed by the Constitution. For acts committed in excess of their authority, they may be held to a strict accountability, not only by their military superiors, but by the civil courts as well, when they shall have been restored to power. "If the power is exercised for the purpose of oppression or any injury willfully done to person or property, the party by whom or by whose order it is committed would undoubtedly be answerable. No more force, however, can be used than is necessary to accomplish the object."* For acts of unnecessary severity or cruelty, the civil courts will punish both civilly and criminally. This responsibility extends to the authority which declared martial law in the district affected and also to all officers acting under color of its authority for acts committed in excess.

*Luther vs. Borden, 7 Howard 1.

If the necessity was such as not to warrant the exercise of martial law powers, a military commander who declared martial law would clearly be held liable. So also where the jurisdiction had been given to the military authorities by the declaration of martial law, any act which was not justified by stern necessity would render the responsible officer liable before the civil courts. But where an officer has been invested by the law with descretionary powers, and it is evident that he has acted within that discretion, the courts will not hold him responsible for an error of judgment.* The liability of the subordinate depends upon the nature of the order under which he acts. If the order appears upon its face to be legal, the subordinate will be protected, though the order prove subsequently to be illegal.†

As martial law exists through necessity, so it ceases with the termination of the exigency warranting it. The exercise of martial law powers beyond that period when it is necessary because of the inability of the civil authorities to maintain order, would be as illegal as would the declaration of martial law in a time of perfect peace. When once order has been restored, when the courts have resumed the unobstructed exercise of their proper functions, martial law ceases, whether any proclamation be issued to that effect or not. As the presence of a hostile army proclaims its martial law, so the termination of the emergency restores to full power the civil authority and deprives the military of its unusual jurisdiction.

MARTIAL LAW IN HOSTILE TERRITORY.

Thus far martial law has been considered solely as a domestic fact, as existing through force of circumstances in time of insurrection or rebellion, or of invasion by a foreign foe. But as riots may develop into insurrection, so insurrections may grow in extent until they involve vast portions of territory, and rebellion results. At such a time it

*Kendall vs. Stokes, 3 Howard 87.

†Martin vs. Mott, 12 Wheaton 19; McCall vs. McDowell, 1 Abbott 22.

becomes necessary to accord belligerent rights to the rebellious subjects and the territory occupied by the armed force becomes, to all intents and purposes, hostile territory. When such hostile territory comes under the dominion of the military forces of the rightful government, martial law power is exercised until peace shall have been fully restored. This is the highest exercise of martial law. It has been called the law of hostile occupation. By others, it has been termed military government. But it can readily be seen that in a country like the United States, in times of rebellion, the only difference between martial law and military government would be territorial. If the two terms are to be used, then Kentucky during the Rebellion was held under martial law, while military government was exercised by the Federal military forces across the line in Tennessee. In both cases the authority of the military forces was supreme; the same powers were exercised by military commanders in both places, under the same rules—the laws and usages of war. The rights of the inhabitants of Kentucky were no greater than those of the residents of Tennessee. If there was a difference between martial law and military government, it was not known at the time, either by those in authority or those subject to the government in force. Both grow out of necessity and consist in the absolute supremacy of military authority in the total absence of civil power except as it may be exercised with the consent or by the direction of the military commander. If there be a difference, it is believed to be one of degree, and not in the nature of the power exercised.

But it is not essential that the hostile territory be that of rebellious subjects. The principle is the same if the territory be that of a foreign state which has come under the domination of the other belligerent. All hostile territory is considered foreign under the law of war. The rights of rebellious subjects, who have been recognized as belligerents, do not differ in kind from those possessed by the inhabitants of a foreign state in a time of public war. Territory of one belligerent held by the armed forces of the other is governed

by martial law until its status shall have been determined by the restoration of peace or until it shall have again passed to the original owner. "A place, district or country occupied by an enemy stands in consequence of the occupation, under the martial law of the invading or occupying army. Martial law is the immediate and direct effect and consequence of occupation and conquest. * * * Martial law in a hostile country consists in the suspension by the occupying military authority of the criminal and civil law, and of the domestic administration and government in the occupied place or territory, and in the substitution of military rule and force for the same, as well as the dictation of general laws, as military necessity requires this suspension, substitution, or dictation."*

It has been contended that under martial law, the military commander and his subordinates are liable before the civil courts for violations of civil rights of persons under their jurisdiction, but that no such liability to the civil courts exists under military government. But in Mitchel vs Harmony,† the Supreme Court held that a military officer was responsible civilly for a violation of the rights of an American citizen, although the act complained of was committed in hostile and foreign territory. If the difference between these two forms of military authority is one of liability, then Colonel Mitchel was exercising military government over citizens of Mexico and martial law over citizens of the United States at the same time and in the same place. The assumption by an officer that he is not liable before the civil courts for acts committed, not justified by necessity under the law of war, solely because the action was taken in foreign territory, is likely to be attended with some risk. It is well established, however, that members of the conquering army are not subject to trial, either civilly or criminally before the local courts of the district under martial law.‡

Under martial law in hostile territory, the military authority knows no limitation except that fixed by its national

*G. O. 100, 1863.
†13 Howard 115.
‡Coleman vs. Tennessee, 97 U. S. 509.

policy. By conquest and military occupation, the victorious army gains that firm possession which enables its commander to exercise the fullest rights of sovereignty over that place.* "In such cases, the conquering power has the right to displace the preëxisting authority and to assume to such an extent as it may deem proper the exercise by itself of all the powers and functions of government. It may appoint all the necessary officers and clothe them with designated powers, larger or smaller, according to its pleasure. It may prescribe the revenues to be paid and apply them to its own use or otherwise. It may do anything necessary to strengthen itself and weaken the enemy. There is no limit to the powers that may be exercised in such cases, save those found in the laws and usages of war."†

This exercise of martial law in hostile territory, based upon necessity, must terminate as soon as the necessity therefor ceases to exist.‡ This does not necessarily mean that martial law in the hostile territory will cease at the time that the treaty of peace is signed. The government in force, *i. e.*, the one under martial law, continues its operations until it is superseded by one established by the legislative branch of the victorious government.§

Unlimited as is the power which the conquering army possesses in the occupied territory, the manner in which it shall be exercised is determined by the policy of its government.‖ Every action of the authorities governing under martial law must be in accordance with that policy and justified by necessity. The policy of the United States government has been well outlined for its military commanders in General Orders 100, 1863, which states: "All civil and penal law shall continue to take its usual course in the enemy's places and territories under martial law unless interrupted or stopped by order of the occupying military power; but all the functions of the hostile government—legislative, executive, or administrative—whether of a general, provincial, or local character, cease under martial law, or continue only with the sanction, or if deemed necessary, the participation of the occupier or invader."*

*U. S. vs. Rice, 4 Wheaton 246.

†New Orleans vs. Steamship Company, 20 Wallace 387.

‡Ex parte Milligan, 4 Wallace 1.

§Cross vs. Harrison, 16 Howard 164.

‖Planters' Bank vs. Union Bank, 16 Wallace 483.

To this end, the military commander, acting for his government, determines the political policy of the occupied territory. He becomes the legislature, executive, and the judiciary, or he may delegate such of these powers as he sees fit to subordinates. The government thus established by the commander of the United States forces has been sustained by the Supreme Court in repeated instances in the past.† The form of government to be established will be determined by the national policy as indicated in administrative orders. The President as commander-in-chief of the army, in the exercise of his war powers, dictates the manner in which the government shall be exercised, and the degree of liberty which shall be awarded the inhabitants. "In such cases, the laws of war take the place of the Constitution and laws of the United States as applied in time of peace.‡ The agents employed in administering the government in the occupied territory are usually army officers, although civilians may be appointed if the policy of the national government so dictates.

In the territory or district under martial law, the jurisdiction of the military authorities is complete. Over members of the conquering army, there can be no question as to jurisdiction. The jurisdiction extends to the same extent to all the inhabitants of the territory under martial law. This includes not only the citizens of the two belligerent governments, but to neutrals as well.

*See Par. 673, Field Service Regulations, where the same language is used except that "military government" has been substituted for "martial law."

†Cross vs. Harrison, 16 Howard 164; Leitensdorfer vs. Webb, 20 Howard 176; Texas vs. White, 7 Wallace 700.

‡New Orleans vs. Steamship Company, 20 Wallace 394.

MARTIAL LAW COURTS.

Criminal jurisdiction is ordinarily exercised by means of the court-martial and military commission for military offenders, and the military commission and provost court for the trial of all offenses committed by inhabitants of the country under martial law. Civil jurisdiction may be exercised by the local courts, which may be retained by the military commander for the purpose, or by courts especially created for the purpose, except that these courts are not authorized to decide upon the rights of the United States, nor to exercise admiralty jurisdiction.* Nor have the local courts jurisdiction over members of the conquering army.† The jurisdiction of these martial law courts ceases in domestic territory as soon as order shall have been restored and the civil courts resumed their usual functions, and in hostile territory as soon as Congress shall have provided by law for the government of the district or place held by the conquering army. All cases not then completed must be turned over to the civil authorities for trial.

In conclusion, it must be remembered that grave responsibility rests upon him who is called upon to enforce martial law, whether limited or absolute, at home or in hostile territory. In the United States the rule is that the civil power is supreme and the military subordinate. For the military to exercise supreme control is the exception, and justified only by an emergency in meeting which the civil power has proven inadequate. So opposed is the exercise of martial rule to the popular ideas of government that military commanders will always be held strictly to account for all acts committed under it. Not only will the officer be held accountable to his military superiors, but to the civil courts if the district under martial law be in domestic territory. This same double liability exists in hostile territory if the person aggrieved be a citizen of the government the officer is endeavoring to serve. For his acts the officer can plead but one justification—that which justifies martial law itself—the law of necessity. In

*Jecker vs. Montgomery, 13 Howard 498.
†Twenty-five Hogsheads of Sugar, 100 U. S. 158.

the words of the Supreme Court in Mitchell vs. Harmony, 13 Howard 115, "he must show by proof the nature and character of the emergency, such as he had reasonable grounds to believe it to be, and it is then for the jury to say, whether it is so pressing as not to admit of delay; and the occasion such, according to the information on which he acted, that private rights must for the time give way to the common and public good."

NOTE.—In the preparation of the foregoing paper, in addition to the authorities cited above, the following works have been consulted and freely used:

Military Government and Martial Law. (Birkhimer.)
The Law of Civil Government Under Military Occupation. (Magoon.)
The Employment of the Military in the Suppression of Mobs. (Young.)
Federal Aid in Domestic Disturbances. (War Department Publication.)
Analytical Digest of the Military Laws of the United States. (Scott.)
Halleck's International Law, Vols. I and II.
Indian Treason Trials. (War Department Publication.)
Digest of Opinions of the Judge Advocates General U. S. Army.
Black's Constitutional Law.
Abridgement of Military Law. (Winthrop.)
Elements of International Law. (Davis.)

Reprints and Translations.

THE CAVALRY LESSONS OF THE WAR.

(From the Special Correspondent of "The London Times."[*])

General Nogi's Headquarters,
June 20, 1905.

An army in the field must necessarily be composed mainly of infantry. The destructiveness of rifle fire has been demonstrated in modern warfare so effectively that the infantry weapon is recognized on all hands as the arm which turns the tide of battle. All strategy aims at the throwing of an army of infantrymen at some weak spot in the enemy's defense; and all tactics resolve themselves into the effort to bring preponderating rifle fire to bear at the decisive point.

Experience has proved that to employ infantry effectively the presence of certain auxiliaries is essential. Of these the most important are artillery and cavalry. As to the degree in which the latter is valuable as an auxiliary the Russo-Japanese War has much illustrative evidence to offer.

The functions of cavalry in regard to infantry may be divided broadly into three heads, under one of which it will be found are included all the various duties required of the mounted arm. These are (*a*) to show the infantry where to

[*]This article is reprinted from *The London Times*. The special correspondent is David Fraser, who wrote the article given in our last issue, "Doings of the Japanese Cavalry." Careful attention is directed to both articles.

strike, (*b*) to protect the vital lines of supply whilst the infantry fights, and (*c*) pursuit of a beaten enemy. Unaided by the eyes of the cavalry, slow-moving infantry is impotent to perceive a weakness in the enemy, and, unprotected by a wing of cavalry, its flank may be circled by opposing cavalry and the communications broken. Briefly, cavalry scouts for an army, on the alert against attack or ready to search out a crevice in the armor of the opponent. It need hardly be added that during operations it is necessary for cavalry to hold its own against opposing cavalry by fighting.

The prime value of cavalry lies in its mobility. As an actual fighting unit in battle a body of cavalry is much inferior to an equal body of infantry. The discrepancy is less marked if the cavalryman carries a rifle, but there is always the encumbrance of the horses, which require the attention of one man in every four when the rifle is employed. It being postulated that tactics resolve themselves into the effort to obtain a preponderance of rifle fire, it is evident that the necessity of dispensing with one quarter of a body of mounted riflemen before their weapons can be brought to bear, greatly lessens the value of that body. On the other hand, the mobility of the mounted rifleman compensates for his comparative ineffectiveness, to such a degree, it is believed in the British army, that elaborate arrangements have been made in our service for the provision and training of what is known as mounted infantry.

Granted the value of mounted and mobile men as an auxiliary to infantry, the question arises, What is the weapon with which they shall be armed, and what the nature of the training to which they shall be subjected? These things depend upon whether the mobility of a mounted man is regarded as secondary to his function as a rifleman, or whether his weapon shall be merely that most adaptable to his mobility. In other words, are mounted men wanted for their riding or their shooting? The arming of our cavalry with rifles, and certain modifications in its training, together with the formation of corps of mounted infantry, show that those who held the ear of the Secretary of State for War a few years ago pinned their faith to the superior value of shoot-

ing, and regarded mobility in a mounted man only as a means to an end.

If we turn to the conflict now proceeding in Manchuria, it is found that in one respect it differs considerably from other great wars, particularly those which have been fought on level ground. Cavalry has been conspicuous not by its absence, but by its utter and astonishing ineffectiveness. From Liau-yang northwards both armies have occupied part of the level plain traversed by the Liau River. The right of the Russian army and the left of the Japanese have faced each other for nearly twelve months, in country as flat as a billiard table and as suitable for cavalry evolutions as any of the low countries in which the famous leaders of last century made their reputations. Here have been conditions ideal for the employment of shock tactics; a veritable jousting ground where the vaunted Russian cavalry might have run a-tilt at the sword-worshipping Japanese Yet no single instance has been recorded of combat between mounted men, and to the best of my belief none has occurred. Is it then, that those who advocate the substitution of mounted infantry for cavalry are in the right; that the lancer, hussar and dragoon of picturesque memory have become obsolete in these days of the breechloading rifle? Almost it would seem so.

But for two important considerations, the case for mounted infantry might well be deemed as proved. These considerations, however, are of such a nature as to lead the observer to directly opposite conclusions—to conclude actually that cavalry pure and simple is as useful to the army of to-day as it was to the army of Napoleon's day; and that it is totally erroneous to suppose that mounted infantry can be an efficient substitute for cavalry.

The cause of the ineffectiveness of Japanese cavalry is not far to seek. The men are the most intelligent of the Japanese soldiers, and their many fine patrol performances are evidence of the sound methods in which they have been trained. The weakness lies in the poor quality of the horses and the fact that the Russian cavalry outnumbers them by six to one. Marked inferiority of force, in all forms of rivalry, is a fatal disadvantage, and it is for this reason that

the Japanese have failed to shine in the rôle which experience has assigned to cavalry. The Russian cavalry, on the other hand, is estimated to number 30,000 sabers, a force of mounted men which, in the circumstances, ought to have made the lives of the Japanese commanders on the flank of the army a burden to them. Instead of which, life in the rear of the Japanese front has been a sinecure, a positive *dolce far niente*, undisturbed even by the distant flash of any of these sabers.

Is this a proof that, if the sabers had been rifles, something could have been accomplished? Very far from it. It is because the Russian cavalry, armed as it is with rifle and—shade of Seydlitz—bayonet, is trained to fight only on foot, thereby throwing away its most valuable weapon, mobility, that it has proved no more effective in the field than a flock of sheep. That the microscopic force of Japanese cavalry has held the Russian throughout the campaign, an exceedingly remarkable performance when it is remembered how indifferently the Japanese are mounted, testifies clearly enough that there must be something futile about the arming and training of the Russians.

The history of the Japanese cavalry in this war consists of one long record of laborious observation; an eternal alertness, to compensate for lack of numbers and of mobility. There have been brilliant episodes, such as the reconnoissances from Feng-hwang-chenn to the northeast of Mukden, and from the Sha-ho to the neighborhood of Kharbin. But where the tactics in which they are trained might have been employed the Japanese have been compelled to hold off. Almost invariably, when they have met the Russian cavalry they have had to face a superior force, and where numbers were equal they had still to deal with men much more heavily mounted and of considerably longer reach. It is not the policy of the Japanese to risk their slender force of irreplaceable cavalry in quixotic tilting; the men and horses are needed for indispensable scouting and reconnoitering. And so we have seen nothing of the shock tactics that the cavalryman dreams of in his sleep, and the mere thought of which makes the mounted infantryman gnash his teeth.

The Russian cavalry, however, has created so much dust on frequent occasions that it often has been impossible to see the tails of the horses. Throughout the campaign of 1904 and up to date in the present year, Rennenkampf, in command of half the force available for the flanks, has remained buried in the mountainous country east of the railway. Here the Russian cavalry, closely attended by infantry, has done yoeman service—for the Japanese. Bottled up in the hills, Rennenkampf made a feeble endeavor to threaten Kuroki's communications when the First Army was peacefully encamped at Feng-hwang-chenn. At Saimatse the Japanese infantry easily checkmated him—a ridiculous commentary on the capacity of the cavalry and the understanding of the commander who was responsible for the idea of employing cavalry in the mountainous regions between the Ya-lu and the railway.

On the other flank Mishchenko has performed some circus tricks for the edification of military critics, and to the disillusionment of those who hoped that when an opportunity really occurred the Russian cavalry would justify its existence. His raid on Niu-chwang last January was a masterly exposition of the possibilities of cavalry in general, and of the hopeless uselessness of the Russian cavalry in particular. Encumbered with horses, the Russians were ineffectual as riflemen, and, without lances, but encumbered with rifle and bayonet, they were ineffectual as cavalry. Detachments reached the railway in two places and did as much damage as occupied a repairing gang for some hours. They were within striking distance of a great supply depot, and these bold mounted infantrymen waited to see the handful of Japanese in occupation run of their own accord, instead of making them run. Immensely superior in numbers, the Russians showed themselves devoid of any initiative whatever, unless that of harrying the unfortunate Chinese villagers constitutes a legitimate *raison d'être*. They failed as cavalry and they failed as riflemen, and the reason of the failure was that they are neither flesh, fowl nor good red herring. They are organized as cavalry, but have been trained to dismount on service. In peace they are armed with lance and sword,

and in war they are asked to fight with rifle and bayonet. Truly an absurdity, worthy of one of those nebulous units evolved by our own Parliamentary military reformers. Last month Mishchenko, marching forty-five miles in four long summer days, again descended on the Japanese flank, accounted for a couple of companies and a field hospital, frightened a number of Chinese carters and stopped before a thin line of infantry guarding the approaches to Hsinmintun, where Japanese supplies are stored sky-high. Had he known it, he was within an ace of picking up a number of distinguished British officers, besides newspaper correspondents, and a famous general whom the Emperor William has specially delighted to honor. But an inferior number of riflemen checked the advance, and no use was made of the mobility of the column, except to retire by a circuitous route.

To harass an army in the field is an important function of cavalry, but its primary rôle is to assist the infantry in battle. The great struggle at Mukden affords an opportunity for examination of the manner in which cavalry was utilized in practice, or might have been utilized. In the west, Mishchenko is believed to have commanded some sixty squadrons, as against sixteen employed by the Japanese. Apart from the divisional organization, which assigns a regiment to each division, it will be noted that the Japanese massed the whole of their cavalry on their left flank, where the most important movement of the battle took place. Outnumbered by nearly four to one, the Japanese were able to cover this flank and protect their communications whilst Nogi turned the Russian right. During the maneuver they diverted a strong detachment to Hsinmintun, thus reducing the ratio of their strength to that of the Russians.

From March 4th to 10th, Nogi was hammering away at the Russian barrier west and northwest of Mukden, and in the latter stages of this period his army was considerably crippled by losses and exhaustion. Yet a comparatively trifling number of Japanese cavalry was able to save the Third Army from being harassed by the mounted men of the enemy. Meanwhile the Russians were hard pressed in their effort to preserve a front for the protection of the re-

tirement. Had Mishchenko on any one of these last four days held the Japanese cavalry in check with a portion of his own, and descended on Nogi's rear with the remainder, he would not only have completely relieved the situation, but he would have utterly disorganized Nogi's army, deprived him of supplies and ammunition, and generally ruined the Japanese plan.

Shock tactics in the days of muzzle-loading rifles were understood to mean the assault of infantry by masses of cavalry. How effective a cavalry charge could be is within the knowledge of all who dip into military history. But the magazine rifle, which permits the firing of many shots per man in a short period of time, has rendered the chances of cavalry onslaught exceedingly remote. Shock tactics in these days refer to the shock of cavalry against cavalry. Yet at Mukden it is undeniable that well-handled cavalry might have ridden over the Japanese infantry time after time. No observer of events and things in this war can doubt that the advent of a sufficient body of hard-riding lancers and swordsmen would have severely tried Japanese nerves.

So far as my information goes, the Russian cavalry west of Mukden never once took the offensive during the battle. Strapped up with rifle and bayonet, they are incapable of wielding the sword; their lances, except in the case of a small proportion of the Cossacks, have been left in Russia. So it was useless to contemplate old-fashioned cavalry work. But the Japanese communications were an easy mark, and it is one of the most singular features of Russian tactics that they did not avail themselves of so glaring an opportunity. Even as mounted infantry they should have been able to destroy Nogi's communications. Yet they never made a single attempt at interference.

The deduction is obvious; either training or arming must be at fault. When a mounted man dismounts he sacrifices his mobility to become a weak infantryman. The Russian cavalry has been trained to fight dismounted, and the result is that the Russians have divested themselves of the one arm which many keen observers believe might have availed to turn the tide in their favor. The battle of Mukden was a

great defeat, though not an overwhelming disaster. At one period the result absolutely hung in the balance, and it is no wild statement to say that if the Russian cavalry had been armed and trained in orthodox cavalry fashion, and handled in a manner consistent with cavalry tradition, Mukden would have proved a drawn battle. It is my firm belief—a belief shared with many others more competent to judge—that if French, with 10,000 British cavalry, had been given a free hand early in the war on the Russian side, there would have been no necessity for Kuropatkin to retire from his strong position at Liau-yang. And I have no less hesitation in saying that if the same able commander, with such a cavalry force as I have mentioned, had been attached to the Japanese side at Liau-yang or at Mukden, there would be no Russian army in Manchuria to-day. *En passant* it may be remarked that if the Japanese cavalry had been capable of pursuit at Mukden it would have proved a terrible thorn in the already bleeding Russian side. As it was, the Japanese were outnumbered, and hence completely ineffective.

The Japanese, inhabiting a hilly country practically devoid of wide plains, and having comparatively little use and small liking for horses, have restricted the cavalry arm in their military organization to the smallest possible dimensions. The war has brought home to them the value of cavalry, and one of the very first reforms in their army will be the augmentation of the mounted branch of service. To this end, and for the rehorsing of their artillery, they have recently imported a large number of Australian horses, ready, upon acclimatization, to be incorporated in the army now in the field, should the war continue. The Japanese are an eminently practical people. From the weakness in their own cavalry, and from the consciousness that properly handled Russian cavalry could have played havoc with their dispositions in action and in inaction, they have learnt the cavalry lesson, and they mean to profit by it. It is impossible to observe events in the war, and to discuss the question with Japanese officers and officers of many foreign armies, without being forced to the conclusion that the Japanese are sound

in their interpretation of the cavalry lesson—that genuine cavalry, and plenty of it, is essential to an army.

I have endeavored to show in what way the cavalry arm is essential to an army, how the Japanese feel the want of an adequate cavalry, and how the Russians have emasculated a branch of their service which would have been able to do much to save them from defeat. How do we ourselves stand in regard to mounted men? Are we able to put an efficient and sufficient force of cavalry in the field? We cannot. Our cavalry, and the mounted infantry which we have formed to supplement it, are in a dangerous and unhappy state of disorganization. The country has forgotten the cry for mounted men prompted by the war in South Africa.

Whilst the South African War was in progress, a scheme was formulated by which a company from each one of some eighty infantry battalions stationed at home should be trained annually as mounted infantry. A large sum of money was devoted to the establishment of three schools, wherein the selected companies should be given three months' training. The object of the scheme was to leaven our regular army with men trained to mounted work, whose place, on service, could be taken in their own battalions by reservists. There would then be available as mounted infantry, after the scheme had been in operation for some years, a large force of mobile riflemen, the class of soldier which, we assumed from our experience in the Boer War, will have preëminent value as an auxiliary in warfare.

Apart from the question of the correctness of the principle involved, and of the nature of the training given to the men in furtherance of the principle, it is startling to realize that, instead of seventy-eight companies being trained annually, only about forty go through the schools, and that among these forty are many men who have been trained again and again, thereby defeating the object of the scheme—which was to leaven our infantry with men able to ride and acquainted with mounted infantry drill.

If we keep in view the cavalry lessons of this war, it is unpleasant to learn that our scheme for the establishment of a mounted infantry force has been nullified. What is still more alarming is that out of the seventeen regiments of cavalry on the home station, numbering 10,000 men, there are not half this number available for service in the field at the present moment. It is a fact that if called upon, the military authorities could not mobilize 5000 trained cavalrymen and horses. In Napoleon's time an army contained one cavalryman to eight of the other arms. In our army the proportion has been reduced to one to fifteen on paper In reality the ratio is vastly different, and it cannot but be held by those who take an interest in the British army that our cavalry is hopelessly unequal to the task that would be imposed upon it in time of war.

There is no room for doubt in regard to either of these two points. Let the War Office publish the last reports of the Inspector-General for Cavalry and of the commanders of the mounted infantry schools, and figures approximate to those I have given will be found. The facts are well known to all cavalry officers, and to all who go out of their way to keep themselves informed. Many other interesting matters would doubtless come to light, particularly the position in regard to officers. Of these there is a deficiency representing nearly ten per cent. of the total required. It is an axiom throughout European armies that only the best and most intelligent of the year's cadets shall receive cavalry commissions. The position is such in the British army that any candidate for a commission who can scrape through Sandhurst is welcome in the cavalry, if he can show the £200 or £300 per annum necessary to keep himself.

To enter into the argument, cavalry *versus* mounted infantry, is not possible at the end of an already overlong article. But it must be apparent from what I have written that, as things have appeared to an observer on the spot, mounted infantry, imperfectly trained it is granted, has been a failure, whilst a minute body of ill-mounted but well-trained cavalry has done wonders. It would be less disquieting if one could think our mounted infantry was being well trained, but to those possessed of even the most perfunctory knowledge of what horses, horsemanship, and horsemastership mean, it must be evident that the three months' training given to our

mounted infantry is about as adequate for the purpose, as the training of a kindergarten would be adequate to fit a man for the University. Mounted infantry, particularly such as we are turning out in England, can never be expected properly to carry out the duties of reconnoissance, protection and the like, though these tasks are being required of it in South Africa to-day, and it is quite obvious that, if we are to be deficient in cavalry, the mounted infantry will be called upon to take its place in these respects, thereby depriving our army of what is deemed an important auxiliary arm, and employing it in work in which the Russian cavalry, similarly trained, has signally failed.

THE NORMAL MALAY AND THE CRIMINAL RESPONSIBILITY OF INSANE MALAYS.*

By Major CHARLES E. WOODRUFF, M. D., Surgeon U. S. Army.

THE judge of the Court of First Instance, in the Seventh Judicial District of the Philippine Islands, asked me to make a professional examination of a certain epileptic (E. H.), aged fifteen and one-half, under trial for murder, and to give expert testimony, with the view of assisting the court to determine whether or not the accused was mentally responsible for his act. This paper is an outgrowth of the facts elicited in that examination.

"About November 1, 1902, a boy of about fifteen was missing from his home in Batangas Province, and five days later his half-buried body was found about 100 yards from the house of the accused. By the side of the corpse was the sheath of a bolo (large chopping knife used in all domestic purposes like a hatchet), recognized as belonging to the accused, who was thereupon arrested. His mother testified

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at the trial that upon the day of the disappearance of the deceased, her son came home with bloody hands, and upon questioning, he told her that he had just killed the deceased. There was no witness to the act and the prosecution had to depend upon the above facts.

"The accused stated, under oath, that he had met the deceased, who had accused him of stealing fruit from the orchard of the deceased's uncle, whereupon he charged the deceased with stealing fruit from him, the accused. The deceased then struck him with a club, and he struck back with the flat of his bolo, and in the ensuing fight he found he was being overpowered, and he then struck the deceased twice on the neck with the edge of his bolo, felling him to the ground; the accused then went home, returning about an hour later to find the dead body, the victim having died in the interval. He then dug a grave, buried the body and went home. He did not seem to conceal any fact, and was perfectly open in all his statements, which did not vary on cross-examination.

"The accused had a couple of convulsions in the court room, and in one of these I was present and recognized an epileptic seizure (grand mal) of ordinary severity. The testimony showed that he had had convulsions since about eight years of age, and that about the time of a fit he would often attack those near him, but in the prison, where he had a convulsion every day, he never showed this tendency. The mother stated to me that these attacks upon bystanders always occur after a convulsion and that he then falls asleep. It was very difficult to talk through two interpreters—Tagalo to Spanish and Spanish to English—and we could not elicit exactly whether it was a real attack on people, of the nature of a postepileptic mania, or was merely the struggling of a convulsion. But it was never before the convulsion, and at the day of the murder he did not have a seizure until two hours after the murder, and a second one four hours later (2 P. M. and 6 P. M.). So the tendency to attack people can have no bearing upon the murder."

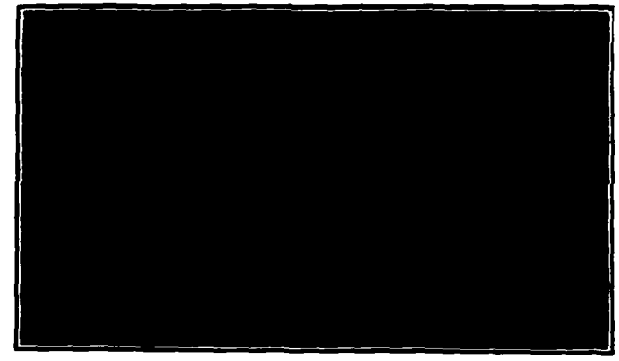
I saw in this case an illustration of the impossibility of applying medicolegal precedents found proper in dealing with higher races, and the necessity we are under in this, as in all other governmental matters in the Philippines, to strike out new paths. This paper is written with a view of calling attention to the extreme difficulty of administering legal methods according to our ideas at home.

Acts which we abhor are perfectly normal for these Malay people, on account of their savage brain. Most of them, by the way, have been in contact with civilization only about fifty years to one hundred and fifty years, about as long as our savage Indians, and some have never had civilizing influences. There is no appreciable change in the brain in several centuries, so that they are still savages, with a brain capacity of from sixty cubic inches to eighty cubic inches, or thereabouts, authorities differing very markedly in their estimates. It is safe to say that Americans on an average have twenty cubic inches or twenty five cubic inches of brain more than this. So we must look upon Malays as savages

in mind, though some of them have money, know how to speak Spanish, and wear fine clothes. One must not confuse their condition with that of our own savage ancestors, who were a very brainy race, and though we call them savages, and the Romans called them barbarians, yet they had a high civilization which archeologists believe extend back probably so far as 5000 B.C. Rome was a sudden upstart of the same people, blood relatives of Teutons. The Germans, whom the legions met, were a well organized, well armed, brainy, civilized people, who subsequently made a more rapid and much greater stride in advancing civilization than the Roman branch did. But they all had the brain to work with, a brain

which required many millenniums to develop by natural selection, but our poor Malay, as to higher mental functions, is of a very low type, has been so for many millenniums, and will remain so forever.

The savage brain functions in a way we have not yet understood, and our mistake has heretofore been to consider that it is the same as our own, but merely untrained. We seem unable to escape from our early view that men are born mentally equal, or will be made equal by education. If the Malay and the civilized man are given a series of facts upon which to base an opinion, they may come to different conclusions, wholly at variance. We call the Oriental a mystic, and we have long ceased to try to fathom the ways of



the Chinese, or understand their reasoning, though the Chinese nation contains a large number of very intelligent men.

If some Malay soldiers are each given an anting-anting, or amulet to make them bullet proof, and half of them are killed in the first battle, we conclude from the facts that there is no protection in an anting-anting. They conclude there must be something wrong with the string, or the amulet was turned wrong side forward, or it had been bewitched by an evil-minded person.

The savage cannot help introducing into each syllogism a false independent idea, and he is just as logical as an insane man with a systematized delusion based upon a false idea.

Every alienist knows that the logic of many insane, particularly the paranoiacs, is perfect, only it is based upon a preexisting false idea which is ineradicable. The logic of the paranoiac Guiteau was perfect, but it was based upon ineradicable false ideas which led him logically to commit the crime for which society said he should die, whether the alienists approved or not. Likewise, the savage does apparently illogical acts based upon false ideas which are not delusions, but are the product of a healthy though very inferior mind. For instance, when cholera appeared in the Philippines, and we fought it successfully in many places, we concluded our methods were good. Many of the Philippine physicians and priests concluded that, as so few people in the cities died, the disease was not cholera, and they logically advised that all precautions should cease. It is the commonest thing for Americans to deny the existence of contagious disease and allow it to spread, but it is a logical act, deliberately planned to avoid some inconvenience or loss, even if we do injure or kill others thereby. There are no false ideas about the matter at all, as it is the normal selfishness of human nature.

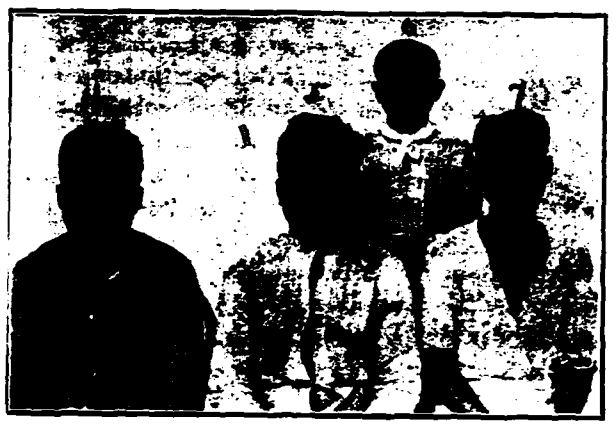
The false ideas of savage minds cannot be eradicated at present, and we cannot expect these men to do the right thing, for they are as dangerous to themselves and their fellows as the paranoiacs are among us. Yet it might be said that false ideas are very prevalent among us, and so they are. There are a million people in America with implicit faith in Christian science. There are millions who believe that if the government stamps a piece of paper or base metal, that the stamp gives it value; indeed, one could write a book on popular false ideas. The point is this, it is generally only a very small minority which holds to any one false idea, and they gradually relinquish it. The weight of the majority convinces in the end, and fads disappear. In a savage race a false idea will become universal at once, and be held in spite of evidence. They cannot release the idea any more than a child can release the idea that the stars are very near the earth, and that the world is small and flat.

The more absurd the proposition the easier it is, apparently, for the Malay to accept it. Consequently he is victimized by innumerable fraudulent schemes. Alleged holy images of the Virgin are manufactured to extort immense sums from the credulous, who believe any stories of their miraculous powers. Only recently an alleged society was discovered, which, for a fee, promised the natives exemption from all taxes and all health regulations and guaranteed an honorable mention in Washington. Men convicted of crimes, but released by amnesty, have had no difficulty in convincing other natives that they were released through bribing the courts. In Batangas we noticed a native rain dance, evidently Malay in origin and modified by Christianity by having an image of a Christian saint to dance before, instead of the old idols. There is such a dread of famine that they pray for rain after the planting, which is done at the end of the dry season in May and June. They have probably done so for ages, and they were beating a tomtom exactly as American Indians or African negroes. They have implicit faith in the prayer or dance for rain, and my servant told me that when they dipped the Saint in the water the previous day it rained within thirty minutes. Among higher races we find now and then a few people who have the same childlike faith in prayer for rain in dry seasons, but among the Malays, all believe in its efficacy.

Malays are children scientifically, for their development is about that of a child of ten, and they behave as children. In the courts, their practices, subterfuges, excuses, denials of facts, avoidance of the spirit of rules while obeying the letter of them, and inability to see the truth or know its value, are precisely what we find among white children at home, and added to this there is a wonderful ingenuity in concocting falsehoods. It is an axiom of anthropology that lower races are in a state of arrested brain evolution, and that civilized children pass through all the stages found normally in adult savage ancestors. The natural causes which stopped their evolution many thousands of years ago, are now under discussion by anthropologists, but we may say in passing that if they are to grow more brain by twenty to forty cubic

inches, by the same methods which made ours grow—natural selection of the brainiest in each generation and destruction of the stupid—it will take many thousands of years. As a matter of fact they will never be more intelligent, but the reverse, from our philanthropic methods of keeping alive the most stupid by charity—men who would naturally perish.

No educational system can increase their brain weight, but will train them to use their defective brains to more advantage. Our pedagogs at home are bewailing their utter failure to increase national intelligence, because they believed that education was to make our skulls balloon out to accommodate bigger brains. They have really been highly suc-



cessful, and have done grand work in that they have made it possible, by mental training, for Americans to use their brains to great advantage. The trained but poor horse wins the race over a better but untrained one. A college graduate has an immense advantage over a man of superior intelligence who cannot use it effectively by reason of lack of training. The same wail comes from our Indian schools, which are now pronounced to be flat failures because they did not make the red boys grow "white brains." When the teacher saw the boys go back to the reservation and take up blanket life, they were much discouraged, but it was a very natural thing for these boys to do, as they had the same "red

brains" they possessed before they went to school. It is very regrettable that educators do not recognize the fact that education will never make the brain grow larger. Our universities are forever preaching the doctrine that education is a panacea for national stupidity, and that if we will educate the negroes a sufficient number of generations, they will become white men. The false ideas following from this are very farreaching. Professor Frederic W. Atkinson,* who was Superintendent of Education in the Philippines, has written a very able article, calling attention to the tremendous difficulties of grafting an Aryan government upon the Malay, but he seems inclined to believe that in time the

Malay's brain will enlarge under the process. He mentions that our negro question is still unsolved, and he could have surmised that the negro will always be a negro with a brain many cubic inches less than the average white brain, and yet he concluded: "We have scratched a Malay, and at some future date we need not be surprised to find an American, at least in spirit, initiative and capacity." On the contrary, we should surely be surprised at such a violation of the laws of heredity. Some thousands of years hence, Malays will still be Malays, and white men will still be white men. Nevertheless, education has accomplished very much for the Indian,

*New York *Tribune*, October 30, 1904.

and will accomplish wonders for the Filipino, but it will never make either of them think like an Aryan.

The jury system is wholly unsuited to Filipinos. Even if they were friendly to American methods, a jury would occasionally bring in verdicts wholly at variance with facts. Even now, we may have gone a step too far, because we have made no provision to have white men always tried before white judges for alleged offenses—a rule we have found necessary in all other oriental countries. It is only within a few years that we have permitted the Japanese to try Europeans, and the Japs are much higher in intelligence than the Malay of the Philippines. At all other places, we have consular courts for such trials. In Batangas Province recently, a white school teacher was arrested for punishing a refractory pupil in a manner which, so far as known, would be allowed by any school board at home, and then without a hearing or trial of any description, was sentenced to fifteen days' confinement and actually submitted to confinement until released on a writ of habeas corpus. In Pampanga Province, a school teacher became an object of popular hatred and the town unanimously demanded his removal because he had expelled a boy for filling all the ink-wells one morning with human feces. In Mindanao, teachers were stoned because they were believed to have poisoned the wells and caused cholera.

We now see why these childish savages cannot possibly understand our legal methods. The laws of evidence are absolutely beyond the comprehension of their "brown brains." Our system of jurisprudence has been of very slow growth, and its rules are the survival of the fittest for intelligent Anglo-Saxon freemen, but wholly inapplicable to races of less intelligence. The English did not understand this fact when they first established courts in India, and their judges made very unjust decisions because they trusted the sworn evidence. They found eventually that false swearing was normal among the natives, and that the most solemn affidavit was more apt to be a tissue of falsehoods than to be the truth. Indeed, the presentation of manufactured evidence became a fine art—a trade even. A false deed to a property, or any other kind of document, can be obtained at

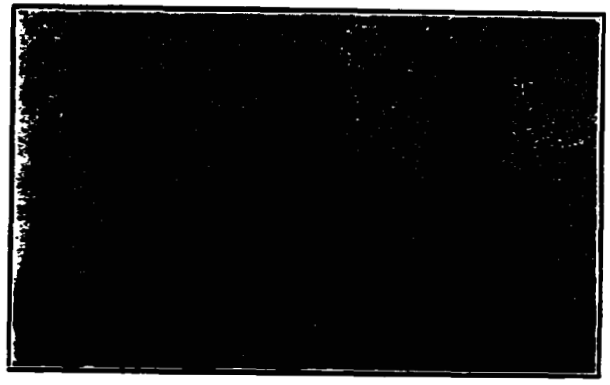
any time, and there are men who have adopted a specialty of making legal blanks with even the watermark of any required year made in the paper. Their jurisprudence now consists in roundabout methods of finding out what sworn testimony is false and what is true. As a rule, manufactured defenses destroy themselves by too much childish elaboration. For instance, a native policeman accused of murder of a man with whom he had previously had other fights, would probably have escaped if he had merely stated he had been fired at and shot back, but he introduced his hat in evidence to show the two bullet holes. These were simply two tears made by some sharp stick and connected by a black line on the outside of the hat, and the black mark on chemic tests showed no evidence of lead, as it would if it had been made by the bullet. Another policeman implicated in this murder showed his hat, too, claiming a bullet went through it, but the holes had been cut out by a knife.

Our system of jurisprudence is based upon our ability to elicit the truth by means of an oath, and it grew up because public opinion recognized the binding nature of an oath, and because he who ignored it lost caste and was otherwise severely punished. In other races, where the oath is not recognized as binding, other methods of eliciting the truth are evolved. These may be very cruel and brutal, as in China, but we cannot adopt such methods. Hence, we are without means now of getting at the exact facts in our courts, for the Malay considers perjury as a venial offense, if not praiseworthy, and it is generally recognized that it is possible to buy with a few dollars any kind of testimony we wish and to convict innocent men. In course of time, of course, perjury will cease when it becomes too dangerous, just as murders of Americans are becoming very rare because it is too dangerous to kill white men. There is an interesting account of perjury among Hindus in Lord Macaulay's essay on Warren Hastings, which exactly fits the Filipino. It is said that the State of California had to pass ingeniously contrived statutes which prevented the acceptance of the testimony of Chinese and Indians when opposed

to that of a white man, and this subterfuge was scientifically correct and necessary.

Most of us went to the islands thoroughly imbued with the idea of the truthfulness of the downtrodden native, and it is even rumored that occasionally a judge would accept a native's sworn testimony in preference to an American's when their testimony was contradictory. When these judges found they had been imposed upon and the testimony upon which they had based their decisions was a tissue of falsehoods, they were much chagrined.

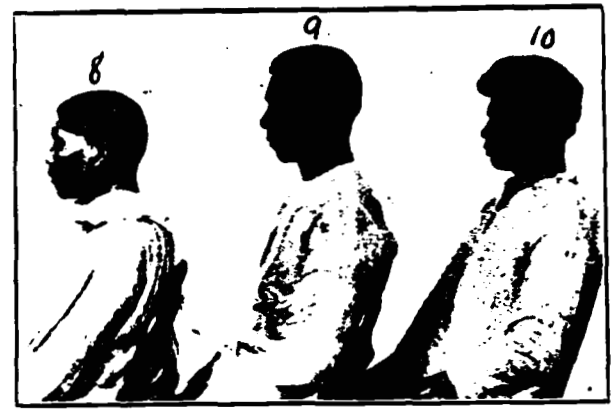
There has been an opinion expressed that for the trial of white men in the tropics there should be some kind of a jury



of white American citizens in lieu of the consular courts elsewhere, possibly in the nature of a court-martial, but though it raises interesting psychologic questions, it does not concern us here, except to emphasize the fact that a jury of Malays to decide upon evidence is forever an impossibility. The sooner we recognize the differences between races of men, the sooner will we understand the new duties thrust upon us in the Philippines. The time is long past when one kind of legal procedure will fit all kinds of men in our possessions, and no one in the United States should insist upon such an unnatural uniformity.

The Malay, then, will commit crimes which are normal and natural for any childish savage. Captured soldiers have

been roasted to death over slow fires; one is reported to have been spitted on a bamboo thrust through his body from mouth to rectum, roasted, and then fed to the pigs. Many a corpse has been found with the sexual organs cut off and thrust into the mouth. Many have been buried alive, others half buried, and something sweet smeared on the face to attract ants and flies. Suspected spies or American sympathizers have been hamstrung or have had their tongues cut out, cheeks split open or blinded by cutting the eyes open, and others have had their ears cut off. Many have been murdered for mere suspicion that they were American sym-



pathizers, and very many of these were not American sympathizers at all, but the lie was invented by a personal enemy in revenge for some past grudge. To have killed an Americanista (Malay, who sides with the Americans) is a great honor and our former native friends, in a few places, were subjected to persecution where the ex-insurgents secured local control of civil affairs.

Manduducot is the Tagalog word for professional murderers, who are sufficiently numerous to have required a special name and the demand for their services is great enough to keep the profession in existence. So far as known, they are engaged in other work, but murder is their occasional business, that is, whenever they have a call. They

simply contract to receive a fee if a man dies and they dispose of him in any manner they please. A special small class of professional murderers are the poisoners called *Maglalason* (Tagalog). They are said to use a vegetable poison which acts something like rattlesnake venom, but very little is known as to the materials used. They are said to poison wells and streams, poison the fish, bows and arrows and the stakes used in pitfalls. The Malay thinks these are legitimate means of warfare, and they were directed in general orders of the insurgent army. Malvar had to forbid poisoning the streams, because it was killing his own people. Poisoning is so well known that it must be a common procedure, a fact we should surmise from the necessity for a special word in a poverty-stricken language which has so few words that curious roundabout expressions are needed for the commonest objects. Murder is such an important matter that they have at least two other words for the crime, used according to the manner and instrumentality, and not as in English where the words indicate the relationship of the murderer to the victim, as regicide, parricide, etc.

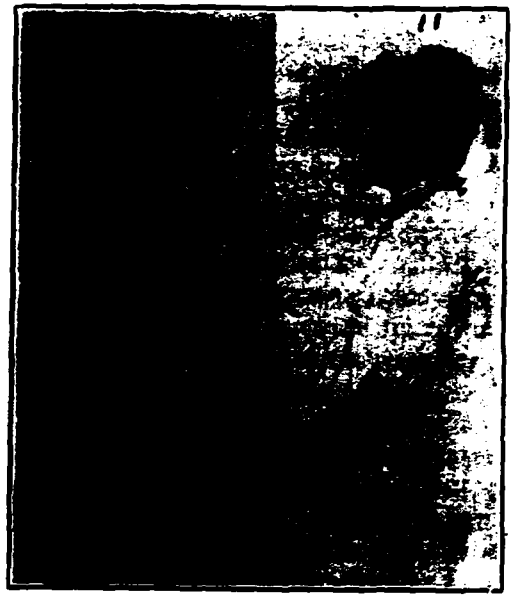
These facts illustrate the remarkable cheapness of life in all savage races. In their native state they must murder to live, for they are always encroaching on the hunting ground of others; and when they are subdued by a civilization which permits them to over-populate the country far beyond the means of existence, it is really a great advantage to have many killed off. A Moro Dato only voiced the general opinion when he replied to a white doctor's request for some volunteers to supply a little skin for grafting on a poor fellow of the tribe to save his life: "No, he is not worth it; let him die." Dramas in which murder is enacted seem to give exquisite delight to a Malay audience.

Like all savages, they delight in cruel deeds and seem to take pleasure in the sufferings of others. There are shrieks of laughter in an audience whenever a performing acrobat meets with a painful accident. If several men are carrying a heavy box and it slips from their grasp and crushes the foot of one of them, the others laugh inordinately at it as a fine joke. Cruelty to animals is also a normal trait. A carriage driver will try to run over dogs lying in the road and then laugh gleefully at the howls of the injured beasts. A Japanese driver or jinrickisha man will avoid a puppy in the road, even at the greatest exertion. A friend mentioned to me that he once heard prolonged agonizing groans, evidently from an injured cow, and upon investigation, he found one was being butchered. It is necessary to save the blood, as this country is suffering at all times from partial starvation, from lack of nitrogenous foods, and all animal foods are utilized to their utmost drop, and they even dig up the dead horses we bury. So they had broken the legs of the animal to quiet its struggles, and had partly skinned it alive from the neck down, to form a pocket to hold the blood. The Igorrotes beat their animals (dogs and hogs) to death, claiming the meat is much improved thereby. All the details of savage cruelty in Malays have been long familiar to us as a normal trait of North American Indians. There is indeed a wonderful resemblance between some of these Malays and some of our Indians. I have seen Malay tribes which could not be distinguished from Apaches. They are branches of one main stock.

Now, in the arrested development of the white criminals who are degenerate, Lombroso and others have pointed out the numerous resemblances to savages. Hence, we see that acts denoting criminality at home are perfectly normal in the Malay, and this brings us to the point of the case at hand. There was no escaping the conclusion that the act committed by the accused showed no evidence of insanity, as it was one which is quite common among normal Malays. According to our home standards, we would conclude that such a cold-blooded manner after the offense was committed surely indicated abnormality of some kind, and so it would in a white boy, but not in a Malay. The story of self-defense is very shrewd, but it overreaches itself, for it fails to explain fully why the fatal wounds were in the back of the head and neck, though it was possible for them to have been thus inflicted in the fight. Fights are usually to death, even in an altercation which at home would merely result in a few black eyes. So that it is really normal for a man to kill his antag-

onist as soon as he can. Murders for trivial matters are so common among white criminals as to have elicited a great deal of literature in criminal anthropology.

To show the normal character of Malay criminals, I had a few photographs taken in the prison yard. No. 1 is a Manduducot, and he seemed to be the best looking and most normal man in the prison. I could find nothing abnormal about him. The same may be said of the two other murderers, Nos. 2 and 3, who also claim that their acts were defensive.



This group of three are as good looking as average Malays, if not superior to the Malay workingman. It is to be noted that certain savage facial characters, high cheek bones, voluminous jaws, etc., mentioned by Lombroso as characteristic of his type of the born criminal, are seen here, but they are normal racial characters. Lombroso called them atavistic when found in whites, but in this he may have been mistaken, for we have but little or no evidence that our ancestors were ever exactly like existing savages, who have been

changed by natural selection very much since they separated from the parent genealogic stem. Indeed, no pure-blooded normal savages look exactly like his type of the white "born criminal."

Nos. 4, 5, 6 and 7 are ordinary thieves, who are charged with cattle stealing and such crimes. Here we have some evidence of abnormality, and it is likely that we have more or less difference from type and of the nature of degeneration. This is to be expected when we consider that their acts are antisocial and so harmful as to be looked upon as wrong by the mass of the people.

But in Nos. 8, 9 and 10 we have clear-cut evidence of degeneration in the evident stigmata, misshapen ears, etc. Curiously enough, there are no deformities of the teeth and jaws among the full bloods; their teeth are generally perfect in form and in the contour of the arches, and generally well preserved, though the half-breeds, or mestizos, particularly the Spanish types, have excessively degenerate teeth and jaws. One of the group is believed to have white blood (No. 8), and a more villainous looking wretch can scarcely be imagined. His face can be duplicated in Lombroso's pictures of the "born criminal." These men are all professional ladrones, real parasites upon their kind. As soon as I had discovered the fact of degeneration in two ladrones, I was able to pick a third one of the crowd by his very evident stigmata, and found on investigation that such was his calling. Not all ladrones are degenerates by any means. Robbing neighboring tribes is a normal act among all savages, and this can easily be stretched to robbing as a profession, so there is no more disgrace attached to it as a business than there was in England a century or two ago, when highwaymen

were often aristocrats. Ladronism has always been organized, supported and led by the better classes of the people, the rich and cultivated, the mestizo, and it was precisely the same as the organized robbery which existed in London up to 1815. Yet it is curious that nearly all the degenerates in the prison were ladrones, and the murderers normal—a fact pointed out by Lombroso in Europe, also, as to the normality of many assassins. It is a remarkable fact that many, if not most of the Malay ladrones were guerillas in the insurrection, exactly like Jesse and Frank James, and the Younger brothers (Robert, Coleman and James), who were members of Quantrell's band of guerillas in our insurrection of 1861. They took to ladronism after peace was declared just as these Malays. No. 12 is another view of No. 6. He is afflicted with a form of insanity which is probably chronic mania in which there are peculiar cataleptic states, in one of which he was photographed.

The accused (No. 11) shows the typic placid *facies epileptica*, but no marked stigmata of degeneration; nor could I find any account of nervous disease in his seven brothers and sisters, of whom five had died. Such high mortality of children is not unusual in Malays. His mother was a well-marked degenerate, with goiter, arrested jaws, bad teeth and distorted dental arches, subject to headaches for two years, and all her life had had what was translated as "dizzy spells," but which were probably *petit mal*, as her mother and two cousins were epileptics. She was not pure blooded, there being a Spanish ancestor somewhere, which I understood was a grandfather. She was a tiny, frail, subdued thing, suffering greatly from dyspnea after climbing the steps, and with a serious cough and some evidence of tuberculous invasion of the lungs.

It is generally recognized that epilepsy is a symptom of an unknown cortical disease which may or may not cause an insanity, though sooner or later it always causes more or less dementia, according to the severity of the process. The disease attacks only those with some peculiar hereditary defect, which in the immediate ancestor may not necessarily have resulted in epilepsy. In this case the evidence and the

examinations showed nothing which might be called insanity—that is, he possessed reason. He showed he knew the difference between right and wrong—the old standard of responsibility. He knew it was illegal and wrong to kill, though it was a natural act. When we come to the newer and best, and only test, for Anglo-Saxon responsibility—"free will or power of doing or abstaining," we have an entirely different problem in the Malay. I seriously doubt whether two normal Malays in a serious personal quarrel can resist their normal tendency to kill. They are normally in the condition to which an Anglo-Saxon's volition may be lowered by a mental disease which does not affect his intellectual faculties to an appreciable degree. When the Malay is similarly afflicted with a mental disease, whether acute or chronic, which weakens his savage and therefore feeble volition or inhibition, his normal bloodthirstiness flashes out, and he runs amuck. His only desire is to kill as many as he can before he is cut down, and he therefore attacks mostly old men, women and children. The only case I know personally was in Pampanga, and the murderer was known to have had dengue fever for several days, and a temperature of 104° to 105°. In the delirium of this he boloed about eight people, half of whom died. The Moros practice the amuck also, but it is an entirely different matter with them, being a curious combination of religious and erotic exaltation in which they desire to be killed while in the act of killing Christians. It is reported that the priest causes an erection, then ties a string around the base of the penis to retain the blood, and after certain ceremonies the man is decked out in special costume, shaved in a certain way, and sent forth to kill. Perpetual sexual pleasures in heaven are to be his reward as taught in the Koran.

The insurrection was a grand opportunity for the Malay bad-men, who joined the army *en masse*. The better class of Filipinos, who organized the forces, did not know that they were creating a terrible Frankenstein which would destroy itself. The Spaniards, by force and by religion, had kept the Malay element in fair control, and the prisons were always crowded with men awaiting trial. Pangasinan is said

to have had 200 to 500, whereas at this writing it had but fifteen or so. We may question their method, but it certainly was effective in keeping the worst men locked up, and to this extent it protected the community. The mestizo rulers did not really understand the extent of this bad element, so carefully shut up by the Spaniards. When they found out what an awful savage machine this army really was, many of them stood aghast at the results of their own work, and tried to undo it by bringing about subjection to American sovereignty, to obtain that security of life and property unattainable by reason of their own army. The same thing happened in France, when during the revolution and also the commune, common criminals and even the insane were released only to rob and murder their friends. Hence, innumerable crimes were committed by Malay officers and soldiers, and as many of these had to be released under amnesty, they returned immediately to ladronism. At Naujan, some who had been sentenced to death returned, and the first thing they did was to capture and kill the town officials, including the justice of the peace, after torturing and mutilating them.

It is evident that inability to control themselves in the desire to do murder is a normal savage characteristic, and cannot possibly be urged as a basis for acquittal. With Anglo-Saxons, we do not consider why we abstain from criminal acts; it may be natural desire or deterrent effects of future punishment; the only thing the law considers is the fact that we have the power if we are in health, and that we must use it.

In the case at hand, we had this sure ground: "In true epileptic mania, the criminal act is usually unpremeditated, motiveless, and accompanied by impairment of consciousness and temporary loss of memory; conscious anger in an epileptic should, therefore, be distinguished from true epileptic mania." There was nothing left, then, but to report that there was no evidence of insanity at the time of the deed. If he had been in a psychic equivalent of the convulsion, his memory of the events would not have been as clear cut as his evidence shows, unless his statement was mostly fiction.

Under the intricacies of the Spanish law, which takes the age of the accused into consideration, and makes many fine distinctions in cases having few facts for the prosecution, but relying in large part upon a confession, the whole of which had to be taken or not at all, and which provides that the plea of self-defense, though imperfect, mitigates the penalty, he was sentenced to confinement for four years, and the court ordered his further detention as an epileptic, also a matter possible under Spanish law.

After the case was well under way, the *Medical Record* of November 15, 1902, came to hand, containing the article of Punton on "The Criminal Responsibility of the Epileptic." It was used as far as practicable, but it was an intense satisfaction to know that away out there in the tropics, on the other side of the world from home, our courts in cutting out paths for these new problems, should instinctively take the pathway advocated by our best thinkers, but not always possible at home, because it necessitates moving the weighty courts out of the old ruts of precedent. The medical expert was called as an impartial agent of special knowledge to assist the court in coming to a just conclusion. It is also a satisfaction to know that in all such cases in which insanity enters as an excuse for murder, it is already possible to hold such persons "under rigid medical surveillance for the rest of their lives as too dangerous to themselves and society to be at large."

As an ethical matter, one might assert that it is wrong to punish savages for acts which to them are normal. Indeed, Manila native newspapers, on this ground, actually advocated leniency to criminals, and even liberating some of them. So long as the act is merely immoral according to our standard, it may be possible to ignore it and overcome the tendency gradually, though it must be confessed that two centuries of precept and example have not lessened to a marked degree the sexual or other immoral acts of our negroes. It can be answered that the welfare of civilized people demands that savagery must cease throughout the world. It must be safe to travel or do business wherever our needs compel us to go, and all people must abide by civilized rules, whether they like it or not. We, ourselves, are still immoral naturally, and would commit some crimes normally were it not for the

restraint of civilization, as seen in mob actions when the restraints are removed for a little while. Only a few crimes are unnatural, and only a few degenerates commit them, but the great mass of moral white men are restrained from committing natural misdemeanors and crimes by fear of punishment, not by abhorrence of the act. Civilization is a complex system of checks upon our tendency to do evil, therefore, the savage merely exaggerates to a large degree what we have in a minor degree, and he must abide by the same laws. Civilization has been thrust on us too quickly for us to be adjusted to it perfectly, for it takes many centuries to change the brain, and we naturally like to act like our savage Teutonic ancestors, but we restrict our personal freedom and submit to law, and remove those who will not submit to it voluntarily. We apply these rules to American Indians and to savage Malays, who will also be removed unless they submit to civilized law. They must be punished when they commit acts such as they normally committed before civilization reached them, but which are called crimes by us.

We must recognize the difference between a Malay and Anglo-Saxon brain, and must give full credit to the wonderful work being accomplished by the civil and military officers, both of whom have been confronted by conditions formerly undreamed of, and both of whom are hewing out new paths so different from the ones used at home for two centuries. The home people should be patient, and should not criticise until they learn what they are criticising. In the larger Philippine cities, where we can control the natives, life is already safer than in the larger cities of the United States, if we can judge by the proportion of murders to population. In the rural districts, where there is less American control, of course the conditions are worse, and the percentage of murders is quite high, but the American, nearly everywhere in the Philippines, is safer than he is in the slums of our cities.

As a side thought, we can well see that the time is not so far off when the civilized world shall demand that life and property be made safe in tropic America, and if we, by our Monroe doctrine, will prevent Europeans from doing this

work, and yet brutally refuse to do it ourselves, there is sure to be trouble. Our Philippine work, therefore, is the kind we sought when we migrated to America, and recent Panama history is a direct result of the spread of our northern civilization.

All that has been said here of the Malays refers to the full-bloods, whether educated or not. The half-breeds, quarter-breeds, etc., may be of any grade of intelligence, according to that of their white parents. Among them are some of the gentlest and most lovable people I have ever met; some are highly intelligent, cultivated and refined; some are great artists, and others are prominent jurists, yet many are very low in morals and intelligence. The better element among them, who compare favorably with Anglo-Saxons, are such a small percentage of the population—much less than a tenth of one per cent.—as to be negligible in such matters as we have discussed. The commission of natives which visited the St. Louis Fair and toured the United States was composed mostly of these mestizos of high character and intelligence. In the insurgent government the mestizos constituted, under the name of a democratic republic, an aristocracy, which attempted to establish an oligarchy, with pure-blood Malays as peasants and slaves.

The Malay characters come out strongly now and then, even in this upper better class, just as negro characters flash out in strong relief in our mulattos. Occasionally the mestizo shows the same inability to know or realize the truth as the Malay. For instance, some of the thin upper crust of educated people raised a great outcry against sending to the St. Louis Exposition any representatives of the 6,000,000 lower Malays, because they would give to the Americans a false idea of the real people of the Islands. They were perfectly honest in their belief that the Americans will know the Islands best by concealing from them the most, and really believe also that representatives of the small educated mestizo class will give the Americans a correct idea of the Philippine people. Gilbert H. Grosvenor's article upon the Filipinos* in this respect is very misleading, as it deals to a large

* Nat. Geog. Mag., April, 1905.

extent with the characteristics of the thin upper crust, which is not Malay at all. He pictures mestizos, but our photographs are of Malays.

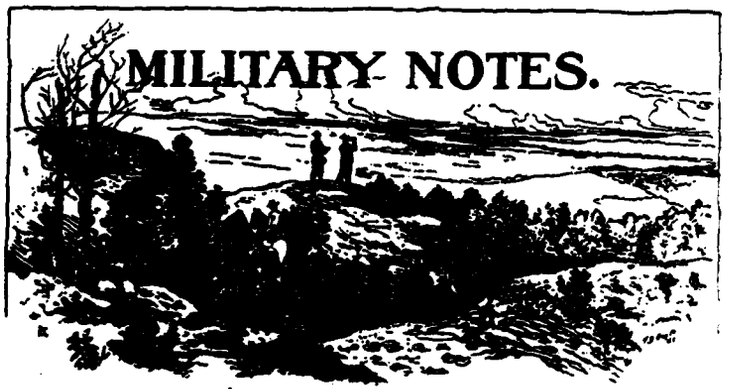
The Chinese mestizos are the most vigorous both mentally and physically of all the half-castes in the Islands, as they are descended from two allied types, and are the most nearly adjusted to the climate. They constitute the mass of the leaders. One of the most curious and amusing incidents of my residence in the Philippines occurred at a debate of some high-school boys at their graduating exercises. They were all mestizos, and it was in a part of the Islands where nearly all the half-castes are of Chinese extraction. Some of them had Chinese facial characters, and I was informed that two had Chinese fathers. They were much superior to the Malay because of that Chinese blood, for the latter race is, on the average, at a much higher intellectual level than the Malay who had originated a very poor and primitive civilization with borrowed alphabet prior to Spanish times, while that of the Chinese is very high and very old. Yet each of these Chinese mestizo boys had something mean and ungenerous to say of the Chinese, calling them barbarians, even savages without history or civilization, and intimating that they were mere animals. It was a reflection of the general trend of public opinion, or an intense racial hatred, somewhat similar to that fraternal hatred formerly existing between Americans and the English, in spite of the fact that nearly all of our early great men were of English blood.

From what has been said, it is evident that the mestizo insurgent government was correct in attempting to form an aristocracy, for it would have been more terrible to allow the Malay to control by rule of the majority, than it was to allow the negro to control in the West Indies. Nevertheless, what would have happened when this aristocracy, if successful, began to quarrel among themselves is really too terrible to contemplate. General Luna's death was a foretaste of the reign of terror which was to come. These medicolegal cases illustrate the tremendous difficulty of grafting upon a lower race forms of government evolved by Anglo-Saxons for themselves and shown to be good in our villages, where every

man is able to take part in the town meeting, the modern descendant of the old folk-moot. Our Pilgrim fathers established an aristocracy as in Greece, and dared not admit the Indian to a share in the sovereignty, and the descendants of the first settlers cannot admit the Malay, who in so many respects resembles the Indian. The exclusion of most of the negroes from politics in our South, and Chinese in our West, and the exclusion of most of the Malays from Filipino politics, are as natural as the exclusion of the Indians from a share of the government of the New England colonies.

There is a curious similarity in the opinions which certain white men entertain as to negroes, American Indians and Malays. The man who understands these lower races the best expects the least from them, treats them gently but firmly, as children, though never as equals, is never disgusted with them when they act like cruel children, and, in their proper sphere, invariably loves them for their good traits—and they have good traits and plenty of them, too. But he who knows the least about them expects them to act like the highest races, and when he finds the poor things fail to live up to such a standard, he develops a hatred for them which is as unreasonable as his first attitude. The men who injured our negro the most were those who, through sheer ignorance of his abilities, forced upon him the civil powers he could not use, and who now hate him for his failure; and the greatest enemies of the Malay at the present time are these same men, who, through ignorance of his abilities, are clamoring as in 1860 to 1865 to give him full civil powers which he cannot understand nor use. We deprived both negro and Malay of his protector; and let us not neglect the Malay as we did the poor emancipated negro. We must silence that foolish clamor to give to the Malay an independence which he can never sustain, and above all else, we must resist the clamor to give him a government fit only for a New England village.

Facts mentioned in this paper are matters of personal observation or have been certified to me as facts by those who have observed them.



NOTES ON CAVALRY.

By Brigadier-General HENRY T. ALLEN, Philippine Constabulary.

PERIODICALLY appear expressions on the part of army officers recommending government stud farms where horses may be bred for cavalry purposes. From many points of view this measure commends itself, and I do not doubt that good mounts could be secured by it. The attempt on the part of the government to breed its own horses would, however, be opposed to our traditions, and not in harmony with the decentralized policy of a government where all possible is left to the initiative of individuals. The measure would be not only unpopular with horse breeders, but would be bitterly opposed by them. Under present conditions and considering the opposition that would be engendered, it is not deemed wise to push this method.

The following is the outline of a system partially under government supervision that, it is believed, would be satisfactory and one that should commend itself to horse breeders and mounted officers. By this, contracts would be given to

breeders for horses conforming to required specifications, from sires and dams approved by quartermasters or other officers detailed for the work.

Presenting this in a concrete form, it would be necessary to find certain horse breeders in favored parts of the Middle States or Middle Western States, in any event in localities near large cavalry garrisons, who would agree to furnish sound four-year-olds, solid colors, broken to saddle, and not less than fifteen hands high, from sires and dams to be selected by the officers designated. For properly bred horses delivered at garrisons the government could well afford to pay twenty to thirty per cent. above prevailing contract prices, which do not include delivery.

Admitting that the ideal cavalry horses are hunters which can carry weight at stiff paces over rough country for long periods, every effort should be made to produce such animals in numbers for our service. The sooner we get away from the so-called "typical cavalry horse," with his short coupling and big barrel—in most cases an overgrown pony that will strain itself in a five-mile gallop at a pace that would be at the normal stride of a real charger—the better it will be for the mounted service. In fact, if a horse has good broad loins his length of body will never be too great.

It is not believed that proper types can be obtained from thoroughbreds alone, for the simple reason that they are not strong enough. It will be necessary therefore to cross standard bred stock with the thoroughbred, special attention being given to size, strength and temperament. It would be unfortunate to start with stock of vicious temperament, because this would entail double work and time in the training.

There is a difference of opinion as to whether the thoroughbred strains should come from the dams or sires. In my opinion, both ways should be practiced until something definite be ascertained. It does not follow from what is stated here that only thoroughbreds or standard bred sires and dams should be used; but it is important that the strains be known and that enough good blood be in them to produce at least half thoroughbred offspring.

While stationed at Fort Riley I took up this matter of breeding cavalry horses with two local stockmen, who readily assented to the proposition, provided a contract could be made with the Quartermaster Department to be effective about four years beyond the fiscal year appropriation. Perhaps that would require special legislation. The breeders in question agreed to be responsible for everything connected with the purchase, care and maintenance of the farms, to permit any army officer to select within reasonable limits the sires and dams, and in general to supervise the breeding and selection of strain on condition that they receive twenty-five dollars above the then existing contract price for their four-year-olds, delivered at the post and conforming to specifications.

Under these conditions the breeder would have a sure market for his stock and the government, without any risk whatever, would be encouraging the breeding of good horses, and would be securing at a most reasonable price what it needs in order to maintain a high grade mounted service.

Following this still further, it would be advisable that the mounts furnished by the various contract farms be turned into a horse recruit school at the nearest large cavalry post, where they should receive at least three months' systematic progressive training.

Provided the breeders, who should be bonded, get lawful assurances that their mounts will be received when duly delivered, there should be no difficulty in making a beginning in this important matter.

GALLOPING TRUE AND GALLOPING FALSE.

By Captain H. La T. CAVENAUGH, Tenth Cavalry.

IN our present Drill Regulations there is a strange inaccuracy, which has been repeated word for word in all the Cavalry Drill Regulations since 1891, and possibly before that. This inaccuracy is in the description of the manner in which a horse gallops true, in the analysis of that gait, and in the instructions for taking it; and arises from the vagueness and ambiguity of terms used, conveying to the reader an entirely false idea of that gait. As a matter of fact, the analysis of the gait is diametrically opposite to that made by other good authorities, and one of the two must be wrong. This same confusion and ambiguity of terms appears in Carter's "Horses, Saddles and Bridles," though his discussion of galloping true and of the galloping stride may be correct.

Cavalry Drill Regulations, page 139, says: "A horse gallops on the *right* foot when the right fore and hind legs *move in advance* of the left fore and hind legs. He gallops true when he gallops *on* the right foot in marching to the right, etc." What do these mean? The right legs *pass* the left legs, and vice versa, so that in the same stride, first one leg of a pair and then the other is in advance. Does the text mean in advance at the beginning of a stride or at the end of it? What does galloping on the right foot mean? He uses *both* feet. The terms may mean something to a horseman, but what does it mean to a recruit, a noncommissioned officer, or to many officers? I must confess it doesn't mean a thing to me personally.

On page 140, in instructing how to take the gallop, the text says: "Carry the bridle hand to the left, and press the left leg with vigor; these actions throw the weight on the near hind foot, and allow the off fore and hind feet to lead." *Is* this correct? *Will* pressing in the left foot throw the weight on the near hind foot? Decidedly not; it will throw

the weight on the *off* hind foot, and the horse will step off with the near hind foot.

Again, on page 200, in the analysis of gaits, the text says: "The gallop has four beats, the regular order of succession being right hind foot, left hind foot, right fore foot, left fore foot, and so on. When galloping to the *right* hand, the horse goes into the air from the *left* fore foot." Compare this with what the well known authority, E. L. Anderson, in his "Curb, Snaffle and Spur," says on pages 84 and 85: "In galloping right the horse plants the left hind leg after going into the air; it then plants the right hind leg, then the left fore leg, and lastly the *right* fore leg, *from which it goes into the air for a new stride.*" In this paragraph the italics are mine, and, either Drill Regulations or Anderson is wrong. Anderson has the support of other writers, but I have yet to see any support the Drill Regulations. Carter, in his "Horses, Saddles and Bridles," discusses the gallop, and illustrates a complete stride. If only he had said whether, in the illustration, the horse was galloping right or left, his discussion would have been clear, but unfortunately he does not. On pages 124 and 125 he says: "When the course is curvilinear * * * he must steady his equilibrium on that side by the foothold of the corresponding propelling member; the right if the course turn to the right, the left if it turn to the left." Which is perfectly correct, but does not explain clearly how it is done. Again, on page 125, he says: "The gallop is called true when it is effected upon the right foot when the horse turns to the right. It is called false under contrary conditions, that is, when the horse gallops to the right on a curve while leading with the left fore foot." On page 126 he says: "In the riding hall or on a curved track the horse leads with the fore foot which is nearest the center." Now what is meant by saying that the gallop is "effected" upon a certain foot, or that a horse "leads" with a certain foot? If in the illustration on page 123, the horse is galloping to the right hand, then Carter agrees with the Drill Regulations, for Figure 2 shows his horse going into the air from the *left* fore foot, and is therefore, according to the Drill Regulations, traveling true to the right. If, however, the horse is galloping left, the Drill Regulations do not agree with him. In Figures 4, 5, 6 and 7 the right foot is leading; in 8, 9, 10 and 11 the left foot is leading; to which does the term apply? It would seem very simple and clear to say that the horse gallops right when the right fore foot strikes the ground last at the end of the stride.

I would instruct the recruit, in order to make the horse gallop right: Carry the bridle rein *gently* to the left and lift it slightly, press the left foot with vigor, and *throw his balance* slightly to the right. If this is done, and the aids and balance are changed at the proper moment, any horse, even an old troop plough horse, will gallop true on a figure eight.

It is not difficult to watch the fore feet, and only a few lessons are necessary to teach the soldier that, galloping on a curve, the inside fore foot strikes the ground last, and to show him how to accomplish it.

RIFLE PRACTICE AT WEST POINT.

WE give below two articles from *Shooting and Fishing* relative to rifle practice at West Point. We must say that we agree with the remarks of the superintendent. It has of course been some years since our own West Point experience, but we understand that the summer months at the Academy are more fully occupied than formerly. This being so, we see no chance for detailed instruction of rifle teams, due to lack of time. The editor of the valuable paper whose articles we give below thinks the superintendent's report open to argument, and gives two points in support of the wish to have Academy teams still compete. We think his first argument answered by the suggestion given in the *Infantry Journal.* As for the second, it is not so easily answered, for the idea there expressed compels the attendance of an Academy team.

As we recall our summers at the Point, we remember but one summer, the one when we were first class men, when we

could have found any time for the practice necessary for a competing team. We had during first class camp about one month when our afternoons from 2 o'clock to 4 were not used. It might be possible, if those hours are still available (which we doubt) to so interest certain cadets that they would be willing to forego their only resting spell from four years' hard work, excepting of course furlough, to try to maintain the enviable record that West Point holds in other competitive events. People who are not West Pointers do not understand the terrible strain that is put upon the cadets, and when we say cadets, we mean every one of them, for the strain is universal. If the conditions at the Academy were like those of the ordinary academy or university, time might be found for rifle practice, but we hardly see any chance for a gain of the time that would be necessary to train a team that would reflect credit upon the greatest military school, not only in our own country, but we believe in the world at large. It does seem that our leading military school should be ready to compete with other schools in matters military, but the conditions at the Point happen to be such that time is not available for everything under the sun. The cadet does as much in his four years as we can *unreasonably* expect of him, and we believe the medical department would promptly call a halt on any addition to the curriculum.

As for his subsequently becoming an instructor, there are many things that a cadet does not learn at the Academy, and that the service has to teach him after his graduation. We believe that under present conditions finished instruction under the best coaches in firing will have to remain as one of the service lessons.

The taking of a month from his graduation leave is rather a hardship, but one well calculated to influence the service for great good. The growing interest in target shooting is something that all officers hail with delight, and everything should be done by the army to foster and keep up this interest. Careful instruction of every appointee to the army in target practice for the first month of his service will affect his subsequent career, and raise the standard of firing throughout the army.

* * *

The rapid and satisfactory instruction of enlisted men in target practice depends on their officers, and it is scarcely necessary to say that the latter should thoroughly understand both theory and practice. The *Journal of the United States Infantry Association* comments as follows on the lack of instruction in rifle practice under the present West Point system, and suggests:

"All who are acquainted with the curriculum of the United States Military Academy know that the limit of work that can properly be required of cadets has been reached. And it must be admitted that at graduation the cadet is far from being able to act as an instructor in target practice. If all companies had their complement of officers always present this fact would be unimportant, since the newly-arrived graduate could quickly receive the proper instruction after joining his company. Unfortunately it often happens that the newly-arrived graduate is in command of his company during the entire practice season. The instruction of the company then suffers, and the company commander occupies in the instruction a position inferior to that of the noncommissioned officers.

"It seems that this condition could be remedied very easily by establishing a school of musketry, through which the graduate goes before joining his company. This would not require any great expenditure of either money or personnel; neither would it be absolutely necessary to delay joining his company by the graduate. The necessary personnel could be found at Fort Leavenworth, and the school of musketry could consist of a six weeks' course at the Infantry and Cavalry School, the time being taken from the last six weeks of the period now passed on graduation leave."—*October 19th.*

* * *

General A. L. Mills, the head of the United States Military Academy at West Point, has issued his annual report. After complimenting the members of the rifle team upon the excellent showing made in the Sea Girt competitions, he states that a representation of cadets in these contests in the

future is not deemed advisable. The full text of this portion of the report is as follows:

"A cadet rifle team, composed of twelve principals and three alternates, represented the Military Academy at the competition for the national trophy for excellence in marksmanship at Sea Girt, N. J., from August 18th to 31st. The question as to the practicability of cadets engaging in this contest had previously been referred to me by the Secretary of War and had received my cordial approval. The team sent acquitted itself with credit and took a good standing among the other teams engaged, considering the character of the latter and the opportunities and time the members of the cadet team had for preparation.

"I regret to report, however, after experiencing the difficulties encountered in sending the team, that a future representation of cadets in this contest will not be advisable. To fairly prepare a cadet team, time and opportunity for much practice are required, and this necessarily interferes with the other work of cadets, which the gain in marksmanship to the individual cadets participating does not offset. The preparation also seriously interfered with the general instruction of other cadets in target practice, and the team missed the valuable experience of the practice march which the remainder of the battalion participated in. The time of cadets is so limited and so fully occupied that the very best that can be done is to give general instruction in target practice to all, making them conversant with its procedure, methods, and principles, and not expecting to produce expert shots, which takes great time and is really post-graduate work.

"I regret to take a step which may in the slightest detract from or fail to stimulate the increasing interest throughout the country in the important subject of marksmanship."

General Mills' statement that, "To fairly prepare a cadet team, time and opportunity for much practice are required, and this necessarily interferes with the other work of the cadets, which the gain in marksmanship to the individual cadets participating does not offset," is at least open to argument.

To consider that the attainment of skill in rifle shooting is merely for the benefit of the individual who receives special instruction is certainly a narrow view to take of the subject. The object of developing a team at West Point should be with the idea that the members, after graduation, will be in a position to instruct their various commands in rifle shooting to the best possible advantage. Furthermore, the interest in rifle practice which is certain to be aroused by annual competitions between teams from West Point, Annapolis, and our leading universities, and the spirit of rivalry which would be engendered, should certainly be worthy of consideration by those who would relegate the development of skill in shooting to a post-graduate course. —*November 9th.*

A NEW FORMATION ON THE MARCH.

By OSCAR PREUSS, Troop F, Seventh Cavalry.

THE present formation of our cavalry on the march, that is, the sets of fours or twos following in the tracks of the preceding set, with a distance of four feet from head to croup, possesses many disadvantages.

Theoretically assuming a troop was to keep perfect distance between its sets of twos, there would yet be always a disadvantage in the length of the troop and great difficulty to preserve a steady gait throughout the column, more especially so by changing the same.

In the practice we find that the distance between sets of twos is, as a rule, more or less than four feet, caused partly through carelessness on the part of the troopers, but more especially because the horses walk better when they are close behind each other. In consequence of this last fact a horse is unable to see the road immediately in front of him

and will stumble over the same stone or step into the same rut or hole as the preceding animal. Another great disadvantage also appears by increasing the gait in losing distance, which is immediately followed by hurrying up and exciting the horses unnecessarily; while a decrease of the gait is always followed by closing up too much and jerking of the horses by their riders; but the greatest injury is inflicted by the horses stepping on the heels of those preceding them, which is clearly proved by the many scars that the heels of almost every troop-horse show.

In a formation where the sets of fours or twos do not follow in the tracks but in the intervals of the preceding sets of fours or twos, all this would be prevented.

No. 1 of the second set of fours would ride in rear of the interval between Nos. 1 and 2 of the first set of fours, No. 2 in rear of the interval between 2 and 3, No. 3 in rear between 3 and 4, and No. 4 to the left rear of No. 4 of the first set of fours, thus bringing the heads of their horses on the line of croups of the preceding horses. The third set of fours would then follow in the tracks of the first, and the fourth again in the tracks of the second, etc., etc., as the accompanying figure shows.

The advantages of this formation are as follows:

1. The column is much shorter and the gait will be therefore more steady.

2. By increasing the gait there will be little or no loss of distance and the horses will take up the next gait without undue excitement.

3. By decreasing the gait, the horses may, perhaps, run a little between the preceding horses, but will not step onto their heels, while the jerking of the horses will be avoided altogether on that occasion.

4. The horses are able to see the ground immediately in front of them, they are better able to avoid obstacles, and in consequence their gait is surer.

5. The horses will keep their places better, as well as walk steadier, especially when once trained to this formation.

It is assumed, of course, that the road be wide enough to enable five horses to walk abreast.

The one and only disadvantage would be a possible increased raising of dust.

To form line by fours right or left, would necessitate resuming of the original distance; but it is understood that this proposed formation be used only on the march; and it could be arranged that at the command "Route Order" the men take the formation indicated, and at "Attention" resume the original order.

Several of the foreign armies are using this formation on the march, and I think it would be worth trying.

COLUMN OF TWOS

COLUMN OF FOURS

DESERTIONS.

By Lieutenant C. A. SEOANE, Third Cavalry.

St. Paul, August 16.—A wholesale desertion of privates from the post at Fort Snelling was reported at army headquarters here to-day, when it was announced that about fifty privates had left the post without permission. The cause of the desertion is said to have been a disinclination of the men to do manual labor. The desertion occurred about August 1st, when the men were paid. The government recently purchased a large tract of land to extend the rifle ranges at the post, and instead of hiring common laborers to do the work, impressed the privates to do the leveling and grading. The strenuous job placed before the men and the hot weather, it is said, caused the men's patriotic spirit to wilt and they deserted. None have been apprehended.—*Washington Post, August 17, 1905.*

The merits of this particular case do not concern us, but we may ask why as a general rule do men desert in greater numbers when assigned to large fatigue tasks? All who

have seen work as described above assigned to troops know that desertions in considerable numbers result, and most officers generally dismiss the subject by being of opinion that the average soldier comes into the service with the idea formed that no manual labor will be required of him, and that when he is assigned to a continuous task he becomes discouraged, dissatisfied, and deserts in order to escape hard work. The question of desertion and its causes is an interesting psychological study yet awaiting intelligent treatment. The limited knowledge of the writer and the short space of this paper preclude any attempt at discussing it here. But I am firmly of the opinion that it can be shown that tasks of manual labor in themselves do not cause desertion. On the contrary, the actual work has very little to do with fostering the spirit of discontent which underlies all desertions. It is the manner and methods applied in carrying on the work which breed grievances. Implicit obedience to the arbitrary enforcement of orders sounds well enough from a disciplinary point of view, but a discontented command seeks escape by deserting, a crime difficult to prevent by the issuing of orders. From my own experience I will cite some typical fatigue works in which no desertion occurred.

This last spring, the undersigned, as range officer, was allotted the task of preparing firing points on the target range. Owing to irregularities in the profile of the range, the various firing points required raising. The 600-yard firing point had to be elevated twenty-three feet. Lumber was on hand for the construction of platforms. To secure proper stability at a firing point for three troops against crowding and the high winds which here prevail, any system of platform construction, with unskilled labor, appeared a difficult problem. Therefore, I recommended to the post commander that the platform idea be rejected, and instead that parapets of earth having a width of fourteen feet on top be constructed. This involved moving 3000 cubic yards of earth from barrow pits. As the average dirt wagon holds one yard, the size of the task is readily perceived as being about three thousand wagonfuls of dirt. Two weeks were available for the work, but not one dollar. All available men in the post were to be detailed for fatigue. This proved to be between twenty-three and twenty-five privates. Only two noncommissioned officers were detailed. Mules, plows and scrapers were to be had in sufficient quantities. It was announced beforehand that the working day would consist of seven hours actual work. Guard duty was cut down by the post commander to one post, mounted at retreat. There were to be no drills nor afternoon stables. The horses were to be groomed and cared for by the stable gangs. The men engaged at work answered reveille, morning stables and retreat. They were hauled to and from the work, about half a mile, in wagons. The work was not easy, for in each barrow pit huge boulders, weighing as high as half a ton, sometimes were encountered, which had to be worked around. This retarded progress and caused extra work in digging and plowing around these stones, and getting them out of the way.

Every man worked willingly, the task was completed, and not one desertion occurred. It would have been an easy matter, indeed, to have caused a desertion of fifty per cent. of the working force. It would only have been necessary to have required them to attend drill in the morning, afternoon stables, and a drill at retreat, thus involving the changing of clothes three or four times, and resulting in two or three hours actual fatigue work. Drill is paramount, but some day it will be written as an axiom: "You cannot make the soldier drill half the day and work with a shovel the other half unless it be your intention that he shall desert." As soon as this precept is violated all foot-loose men pull out. According to the general law of economics, one cannot expect to receive something without returning an equivalent value. As soldiers enlist to perform military duty and not manual labor, the equivalent to be returned to them must consist in a certain amount of relaxation of their military duty, which, by reason of daily repetitions becomes monotonous, and they are only too glad to secure a brief respite by being assigned to something else. But add something on to the daily routine of drill, such as hard work, and nothing but poor results need be expected.

Another case: Last fall the undersigned was detailed to construct a telephone line thirty-eight miles in length. The further end was ninety-five miles away from the post and the command was in camp during the entire time. After working during the day they slept on the ground at night. Camp was moved every ten miles. Men were not allowed to ride their horses to work but were hauled in wagons, the mules from the wagons being used during the day in snaking poles from the woods. The noon meal was carried to the site of work in a light spring wagon. An ordinary and ideal way to have produced a dissatisfied command and consequent desertions would have been as follows: After the men returned from work to have had stables; this followed by retreat under arms with fifteen minutes drill in the manual, and finally a guard detailed over the picket line from the men who had worked all day; no Sunday; shifting details, so that the man who dug holes yesterday would chop trees to-day, irregular distribution of work, etc. But instead, the scheme adopted was as follows: The command consisted of two depleted troops making a total of sixty-five men, or one full troop, but a double force of cooks and stable men were on hand. Owing to the great distance from the post, there were besides the horses some twenty-eight mules. There was one month of fall weather, and the problem demanding solution was to get the line built over the continental divide, and get back to the post before the snow set in; but the problem had nothing to do with maintaining proficiency in the manual of arms, so the arms were left in barracks. Digging holes for telephone poles three and a half feet deep, along a stretch of thirty-eight miles, is not the easiest of tasks. Neither is it an easy task to straddle a green pole full of sticky pine sap all day and peel off the bark. The first thing done was to relieve all working men from any duty whatever, except line work. The horses were groomed and cared for by the double stable gang; during the day they herded them while grazing, and at night they furnished the guard detail. Four cooks made kitchen police unnecessary. Before work commenced it was announced that a mile and two-thirds, or fifty poles of completed line would constitute a day's work. Men were assigned by permanent details so that those who dug holes the first day continued to do so until the last hole was dug. Two officers and two first sergeants distributed along the work maintained the standard of construction adopted. Reveille was the only military duty required.

It would, indeed, have been pleasing to the most pessimistic believer that soldiers will not perform manual labor, to have observed the spirit which entered upon this work. A friendly rivalry sprung up among the different gangs. The surveyors finishing their day's work first, laughed at the axmen; the axmen finishing would laugh at the peelers still at work, the peelers at the erecting gangs, they at the wire stretchers, and so on. The hospital corps man in camp was ridiculed to such an extent that he volunteered for work. The day's work was generally finished by 3 o'clock; some details would finish a half an hour earlier. In long drags I saw the snaking details give up part of their noon hour in order to catch up with the choppers. Other details that had fishermen among them would do the same in order to get an hour's fishing in the afternoon. The line was completed on schedule time and the command got back to the post one day before the first snow storm. And not a man deserted from either troop.

Under a system where a stable formation and possibly other military duties awaited the termination of the day's work, the men, instead of hurrying to get through, would have systematically delayed progress in hopes of avoiding what was to come after. The writer has seen men prolong a small fatigue task with the hopes of escaping afternoon stables. When soldiers desert on account of being detailed for long periods of fatigue, the work itself is only a pretext for deserting; beyond the pretext there is an underlying cause. And in studying the question of desertions we must observe that the pretext is to be brushed aside and the cause searched for. We must also be careful not to confound the pretext with the cause. When we look for the cause in desertions connected with extra work, it will in almost every case lead up to the conclusion that the axiom cited above has

been violated. It would be very nice if we could eat our pudding and have it too, but, unfortunately, no one has as yet shown how it can be done. Soldiers will not work and drill too. I cannot aspire to discuss theory with elders who have years in the service for my every month, but I have found it an easy task to present facts.

CHIEFS OF CAVALRY AND INFANTRY.

Extract from the Report of the Inspector General, U. S. Army, 1905.

THERE is a strong and growing sentiment in the infantry and cavalry arms of the service for a representative in the War Department in the form of a chief

The infantry in our service, as it is in all others, comprises the bulk of the army. The artillery and cavalry are necessary auxiliaries thereto, but the infantry, from its magnitude, plays the principle rôle in war, and its efficiency determines the character of the army as a whole. In our country, especially, an overwhelming proportion of the organized militia in time of peace, and volunteers in time of war, are, and always will be, infantry, because of the prohibitory cost to the States of organizing and maintaining cavalry and field artillery. And this force, which will be our main dependence in time of war, is constantly striving to attain the standard of efficiency established by the infantry of our regular establishment. Whatever, therefore, promotes the efficiency of the infantry of the army promotes the efficiency of the soldiers who are in a large measure to fight the battles of our country.

With reference to the cavalry, the increasing complexity of questions affecting that arm of the service, such as tactics and training, arms and equipments, horses and forage supplies, veterinary service, cavalry pioneers, etc.; the relief from the consideration of petty details which the creation of

a representative at the War Department will afford the Chief of Staff and the General Staff officers, leaving the former more time to devote to broad supervisory duties and the latter freedom to work out General Staff problems, and the quickened *esprit de corps* which will result therefrom, together with the increased confidence which this arm will feel in having a representative at the seat of government, tend to make it highly desirable and advantageous to have for this, as well as for the infantry, representation in the War Department.

These officers should be appointed upon the recommendation of boards of general officers, from the list of colonels of each arm concerned, to be detailed for a term of four years, and to have the rank, pay and allowances, while so serving, of a brigadier general. They should be made under the same conditions as now govern in the case of officers detailed to the special staff corps under the act of February 2, 1901. Both officers should be limited in assistants to one officer, to be taken from their respective corps, thus effectually checking any tendency toward making them bureaus of the War Department.

A great step forward has been made and the efficiency of the artillery increased by having a representative in the War Department in the person of the Chief of Artillery. It is fair to presume that similar action taken by the government for the infantry and cavalry would meet with like results. It is therefore urgently recommended that the Secretary of War and Chief of Staff consider this subject with a view to early action.

Editor's Table.

BITS—A LESSON IN PICTURE.

As we have heretofore had occasion to remark, we never had an idea other than that the bit and bridoon was the best bit made. In this issue we have sought to impress this idea upon the readers of the JOURNAL by means as near as possible to an object lesson. We are indebted to Captain W. C. Short, Thirteenth Cavalry, instructor in equitation at the Fort Riley school, and First Lieutenant S. B. Pearson, Ninth Cavalry, also at Fort Riley, for the photographs from which our half-tones were made.

As we have frequently seen the bit and bridoon improperly adjusted, we thought it well to give a plain print of this bit when properly fitted to a horse's mouth. This we follow with the prints of what may be termed, for want of better phraseology and the possibility that it may be adopted by the cavalry, the military hand. We direct the careful attention of our readers to the next seven prints and ask that the hand there described be given a fair trial. The pages of the JOURNAL are always open to discussion upon such timely topics, and we would most gladly welcome letters upon this subject, whether the ideas agree with ours or not. If we are to have the double-rein bridle the hand is a most important subject and one not to be adopted hastily. Figure 9 is the trainer's hand.

While upon this subject we will mention that we have lately received letters from some officers asking if the Sievert bit was upon the market, and where one could be obtained. As Captain Sievert is stationed at Fort Leavenworth, we saw

him personally and requested information as to the above. He stated that he had considered it advisable to make a slight change in his bit, and that as soon as made the bit would be upon the market, which should be in some three or four months. While we believe only in the one original four-rein bridle, we are not so prejudiced but that we are perfectly willing to try any bit whatever and enter into a fair discussion of the same. The ideas of one who has spent the time and money upon the subject of a proper cavalry bit that Captain Sievert has deserves respectful consideration. We hope to be able to give our readers a print of the Sievert bit as modified in our next issue, and a description of the same by the Captain himself.

FADS.

We have, at odd times during the last three or four years, been hearing from the kickers, or rather knockers, as their growls are not backed by any action, that the army has gone school mad and a new fad has sprung up. We always ask the growlers if they ever knew of a fad that did anything but good, and they are forced to admit they did not. When we look back over the records of our army we see nothing but a large amount of good following the inception of each fad.

Some years ago the "army went mad" over target shooting. Officers would employ spare moments in their back yards practicing aiming and trigger pull, while the men in the barracks, with mouths and fingers full of cartridges were trying to find the way to carry the largest number for the rapid work of skirmishing. Did this hurt anyone or did it hurt the army? No. Only the greatest good flowed from all this craze, and much of the interest in firing to-day results from the lessons learned and unlearned during the time of inception of the fad.

Then came the athletic fad. The army went mad over the physical training of the enlisted man and drilled him in this and that. Various were the manuals adopted. Did this do any harm? Can anyone say that West Point has not ben-

efited by the football spirit developed there in the last fifteen years? Does anyone believe the post field days and department competitions are not of great value to our enlisted force, and hence to the army? We believe that the officer that would claim that athletics had no good in them for our men is nowhere to be found, certainly not if he has any brain power to note improvement. It is true some of our officers decry the fact that at times individuals get more training than organizations, but we have yet to see the officer who wishes to eliminate the athletic fad. If organization training is not universal it is the fault of the officers that are in charge of events and not of the system. A proper assignment of points to company events leads easily to an elimination of the individual training evil, and we would suggest this idea be constantly in mind of program committees. Two writers in the last issue of the *Military Service Institution*, Major Bullard (infantry) and Captain H. S. Hawkins (cavalry) have, we think, taken rather a narrow view of the subject of army athletics. Their great objection to the system is that it rewards one or two stars in an organization, while the rest of the men do not train at all. As stated above, this can be eliminated by a little common sense, and is eliminated when officers possessing that valuable attribute have charge of events. But even could this not be done, the *esprit de corps* engendered by athletics and the contentment rising from keeping the minds of the men occupied, are factors that amply repay the importance given the subject. Some officers go so far as to say these are the main ends of athletic competition, and though we do not agree with them, we recognize them as valuable assets of the fad.

Then there was another fad—that of the canteen. The originator of this fad met with much opposition at the start from non-progressive officers. Just the same old knocking that we hear to-day from some upon the present school system. It was this and that; the government had no business to start in the liquor traffic; it would cause drunkenness and loss by desertion, etc. But long before a misguided Union, aided by saloon keepers' leagues and liquor dealers generally, had succeeded by Congressional action in destroying this powerful factor for good, the kickers had all become converts. Now every officer in our army, we believe, except those that have some personal reason like the love of notoriety, that comes from stubbornness in holding out against universal opinion, would most joyfully welcome the return to the army of the old post exchange. The fad is as strong as it ever was, more so for that matter, now that its value is recognized by its loss, and we trust it is strong enough to overcome, in our Congressmen, the misguided ideas of certain classes and the personal interests of others.

There is this to remember about fads, army fads at least, and that is, they never die. The army never yet has dropped a fad. The rank and file to-day are as carefully instructed in target work as they were years ago, when the fad was supposed to be at its height, and the interest in competition is continually growing more and more keen. It is said that at the national shoot this year, arrangements were made for some expected 125 competitors. The number actually reporting was over 800. There is as much interest in shooting now as there ever was, and the fad has remained with us, developing our practice by careful supervision, trying new methods and rejecting old ones, but constantly and continually working through the years. The man that thinks the target fad has died out in our army must be a fool.

The above is equally true of other fads. As great interest is manifested to-day in the physical development of the soldier as ever, and one has but to look at the Presidio program of the last athletic department competition at San Francisco to see that it was as large as any competition ever held. Many officers objected in the Philippine Islands to the detail of their men in Manila, ostensibly for clerks, but as every one knew for baseball in the league. This may have inconvenienced some organizations, but the clerks must be taken from the troops, and it makes little difference from what organization they come. And if they reflected credit upon the army (which they certainly did) by their cleverness at the great American game, and by their gentlemanly demeanor on the field, the idea was commendable.

It has been our experience with enlisted men, that the

baseball players and athletes, excepting of course the old noncommissioned personnel, are the best soldiers. A young, virile man must have some recreation, and its control by the officers is what was accomplished by the athletic fad. And it still exists to-day as strong as ever, in all its good influence for contentment, sobriety and discipline.

And now as to the school fad, the latest one of all:

It would certainly seem to an impartial observer that there could be no growls about improvement by study. We recall the top line in our old copy book—Knowledge is Power—with capital K and P, but nevertheless we do hear the remarks, old as time, about the new fad and how long it will last, etc. It has been our observation that much of the knocking of the present school system comes from officers that stand most in need of the system for themselves. But our innate desire not to wound feelings prevents our making this remark to them personally. Such, however, has been our observation, fairly keen, as we have taken great interest in the matter, and we are satisfied that such has been the observation of the majority. Of course there are many officers that can point out defects and suggest remedies, but they are not as numerous as the plain complainers who have no remedies to suggest.

Nothing can stop the tread of progress, and certainly the school fad makes as much, probably more, for advancement than any of the previous fads. We can inform the young men of the service that it will be much better for them to get on the band wagon than to stand on the ground listening to the carpings of some disgruntled officer while the wagon rolls by. Our advice to the younger officers is to get busy in their post schools, and get to the service schools if they can. To do their very best with the present system, becoming its earnest advocates, and preparing themselves for instructors when the time comes. Certainly this fad is also here to stay, and in a few years we are going to have an army. In that army the man whose time has been spent other than in self-improvement will be relegated to the rear to mark time while the faddist will be running the machine. By this I do not mean that an officer necessarily has to run the gauntlet

of the service schools. The idea of these schools is to learn who are the capable, so they can be picked up and used when needed. But reputations may be made by work in garrison, though the process is longer and more tedious. All officers cannot attend Fort Leavenworth, Fortress Monroe, or Fort Riley. There will always be a large percentage of non-graduates of these institutions, but there will not be any that have not been connected with the post schools, and there will not be any whose work and interest in the post schools will not be carefully reviewed by the generals commanding. It stands to reason that education along professional lines will help the worker in that profession. Mr. Schwab's derogatory remarks about collegiate education was not that it was not a good thing, but its particular usefulness in business was not apparent to him. But what Mr. Schwab did believe in was business training for business men, and that is really what the school fad in the army is doing, giving military training to military men. That there can be any criticism seems preposterous, and can only be understood as remarked above.

One of our returning attachés from the Russo-Japanese War remarks that the Japanese have fought a book war—the book pure and simple. Not a movement was made, not an action engaged in, but that the book rules were followed implicitly. The result speaks for itself.

Our army has entered a new phase. The spare time of years ago is no longer here, and it should always be remembered that the one who lies down in the race, no matter what his natural abilities may be, will surely be passed by the student of his profession.

FAKES.

Occasionally, quite occasionally, we are reminded of the fact that army officers, American at least, are easy. Not long ago a stereopticon affair advertised extensively in a certain post that it would show on a particular night views of the siege of Port Arthur and the battle of the Yalu.

The flaring headlines caught the eyes of many officers, and some fifty or sixty attended, ourselves among the number.

After some considerable fixing and fussing with the machine, the war was on. White coated men, supposedly Russians, were valorously contending with men of smaller stature clothed in dark material of some kind. The battle of the Yalu was being enacted before our eyes, eager with brightness in anticipation of gaining valuable information. A line of the small, dark colored men was supposed to be seen in the distance at the foot of a hill. The hill looked more like one in Central Park than we had any idea that a Korean or Manchurian hill could look, but we quietly swallowed the hill. A battery of two guns with white-coated cannoneers came rapidly into the very foreground of the picture, so close in fact that the battery must have made its stand not twenty paces from the machine photographing it. The guns were unlimbered and swung around and commenced firing at the distant line of Japs, at least three hundred yards away. The Jap line approached slowly; the guns redoubled their fury. As the dark line came nearer, with few if any casualties, some white-coated infantry came into view, running up apparently from behind the machine. Some ten or twelve of the infantrymen piled pell mell into the small interval between the guns, an interval of about six paces, and one calculated to make a good picture. The black line approached closer, and as it stopped to fix bayonets about seventy-five yards from the guns, terrible destruction came upon the white coats. Why this destruction we could not understand. Very few had apparently been hit up to this time, but now, while the Jap line was fixing bayonets, the white-coated men fell by the wholesale. It was as if the Angel of Death that breathed in the face of Old Sennacherib's army had passed over them. When bayonets had been properly fixed the black line moved forward. Then the white, what was left of it, turned and ran out of view of the machine. The Jap forces advanced, growing rapidly huge in the changing focus, and right between the two captured guns was planted the Japanese flag, fluttering away in a sixty-mile breeze, larger than the rest of the field of view. Here it fluttered

and flapped until with a flash the scene was out and the battle of the Yalu was over.

Next came a naval scene at Port Arthur. A bewhiskered officer stepped onto the bridge of a man-of-war and seizing a glass from a private struck a tragic attitude, one foot well in advance of the other, shoulders well thrown back and body bent forward, and carefully scanned the horizon. In a moment we judged he had seen something. We might say had seen things, for we should expect one in the last stages of the jim-jams to act as did this pictured form before us. He steps to the ladder, he steps back, he throws off his hat, he tears his hair, he throws his hands above his head like the French Count in Fantana, he disappears and reappears. Some officers rush onto the deck below, he shouts to them, they shout back (at least we suppose they are shouting), they all run to a port, a flash, darkness, smoke and water in confusion dire confounded. The explosion of a torpedo under the ship, so we are informed in the nasal twang of the operator of the machine who has been giving us a great lecture on strategy, as the pictures flickered before us. Then we see large strong men swimming in the ocean, and wonder of wonders, all in Long Branch bathing suits. We had not supposed the Russians had taken the precaution to have their sailors clad in bathing suits for underwear. Such foresight was not to be expected on the part of the Russians, though we must say, in the light of the events of the war, it was most timely. The faces of the men as they swam, were the smiling faces of happy-go-lucky vacation Americans, and not those of frenzied, drowning Russians.

The show was a gigantic fake. So much so that the officers slipped out quietly and said not a word, like the man sold at a side-show that kept his mouth shut in hopes he could see some one else get bit. We walked slowly home and wondered how any man could have the nerve to come into an army post with a fake army show and proceed with such a brazen face. Then we began to recall some former experiences, and remembered that there is much of such nerve in the world, some of which we had seen.

In the winter of 1900 two officers of the Peking American

garrison made a trip to Tientsin and there made the acquaintance of a person who posed as the reporter of some London daily. Shortly after the return of these officers to Peking this person made his appearance, was asked to dinner, and as the hour was late was fitted out with a bed in the tent of one of the officers. It was a month before that mess got rid of him, due to the extreme courtesy of the officers and their innate dislike of hurting anyone's feelings.

Such experiences have been quite common with our officers. We recollect having heard of a couple of fake German counts (we think they were German) that worked all the officers from Arizona to Denver a few years ago. This would only be a laughable matter did it extend only to such affairs as given above. But when we stop for serious consideration we find this matter of gouging us extends to most of the affairs of life. We pay exorbitant prices for everything. The price of any salable article in the Orient has doubled, then trebled, and then gone on by leaps and bounds since the advent of the Americans in that region of heretofore low prices. And in our own country we are safe only in the hands of our most reputable dealers. The majority of people put prices to us like those of an oriental rug merchant. He prices his rugs, not on what they are worth, but on what he thinks he can get for them.

Why is all this? We think the answer easy. It is because we ourselves have allowed it. We are principally the cause. Most officers rather than haggle over a few cents will pay the added amount rather than have any trouble and bother about the matter. Could we one and all come to concerted action, determining no longer to be made food for fakers, we could easily control the situation. But this of course will never happen. Such concerted action could not be obtained a few years ago in trying to kill the tipping fad, and concert of action is not to be expected of military men in matters other than professional.

We can recall some individual instances of the proper action, and only wish we could say they are more frequent than they are. One instance in particular was the action of an officer on the wharf at Malta. Four of us got to the dock

about midnight on a rainy, disagreeable night, and the boats wanted a six pence per passenger to take us to our transport. Rather than stand and haggle with the miserable boatmen in the rain three of us (we regretfully state that we were one of the three) paid the six pence in order to get to our comfortable staterooms. The other officer called a policeman, and came over only a moment or two later at the regular fare of three pence. And moreover he had the satisfaction of feeling that he had not been worked. We wish we could recall more instances of such common sense, but most of our recollections are of the opposite. But we will take our hat off to that officer hereafter, and we realize in him certain qualities that are most valuable, and that will be of use to him hereafter in high positions. The higher up the line of promotion we go the more fakers we will surely encounter. If we have not learned the proper method of handling them when in the lower positions, our later years will be neither easy nor pleasant.

FIELD TRAINING.

We take it that the aim of all our training of the soldier is to make him a good field man. Garrison life of course has its duties which must be performed. But the most important duty of garrison life is training for the field. That regiment best answers the reason of its being that can do the best work when it comes to real action. We have a standing army, so that in time of peace we may prepare for war. And the proper preparation is work, not by perfection of battalion or company drills on the drill field, but by simulating real conditions on varied ground.

It is true that since the Spanish War our army has largely been filled with recruits. To get any work out of them, company drill was necessary, so that they could be moved about with some semblance of order and not act like a mob. But now some five or six years have passed since the grand change in our army, and we are beginning to have a few non-commissioned officers for each organization with some pre-

vious experience. These men occupy a position for usefulness in our army to-day that is not excelled by any other, even if it be the position of an officer. A company commander can get along better with poor lieutenants than he can with poor noncommissioned officers, that is, if he is disposed to do any work himself.

We believe the time has now come when much of the drill that has been so necessary during the last five or six years can be dispensed with and more instruction given in field training. Officers will remember that in 1901 we had five new regiments to organize in each the cavalry and infantry, let alone the increase in the artillery. We recall the work that was done in one of the organizing regiments in the fall of 1901 by three captains and a first lieutenant, commanding troops in one of the squadrons. Every afternoon that squadron was taken to wooded country, one troop detailed for ambush work, the other three for advance and rear guard drill, patrolling, etc., on the lookout for the opposite Brown men. Conditions as near real as possible were adopted. Strange to say, this was done with only the grudging approval of the commanding officer of the post, who was more impatient over a few horses galloping over the parade ground when some of the men were pursued into the post, than he was over the ignorance of his command in field work. After six weeks of this afternoon work (done in addition to the two hours' forenoon drill), this squadron was ordered with the rest of the regiment to the Islands. Inside of three weeks after landing it was under fire. The result of the six weeks' work in the States was more than was expected. Every man knew what to do; he simply transferred his training from the woods of Vermont to the real conditions of the Philippine jungle, and adding his little instruction to his natural ability as a hunter, was a satisfactory soldier.

Now, how shall instruction in field training in our army be imparted? Like it has heretofore, according to the ideas, and oftentimes whims, of post commanders? Or shall we have a recognized system of training, so that when a new officer assumes command of an organization he can, by a glance at the drill record book, see how far the organization has advanced, and can himself know what to expect of his command? The new field service regulations have laid down a system to be followed in general. But when the officer starts instruction along the lines of these directions he finds much that must be supplied by his own initiative and his own intelligence. The practical exercises must be worked out by himself, and many lectures or lessons of instruction must be imparted to his command that are not to be found in the print of our regulations. Now, most of our officers could do this, but we are satisfied they will not do it until some more definite help is given them in the way of what can be done each day in a progressive system of instruction. In this connection we wish to call attention to an English work, the third edition of which has just appeared.* It is "Catechism on Field Training." With this as a guide, no company commander can longer excuse himself for not having a thoroughly trained organization in field work. Of course there is really no excuse at the present time, but we all know how meager the drill in maneuvers or simulated conditions is.

The aim and object, as stated by the author of this work, is to present in one volume (a very handy one with soft leatherette binding and of convenient size) the substance of the many and varied subjects comprised in "Company Training." This information would otherwise necessitate the perusal of the various official publications and the many text books in order to obtain the information required. The catechism is, however, not merely a reprint of these books, but a handy compendium.

The book is divided into sections, which, instead of being called chapters, are headed Working Days, the idea being that the instruction imparted under the section should occupy one working day. To our idea the instruction under the separate working days will take more of the company's time

* "Catechism on Field Training." By Captain Lascelles Davidson, Royal Scotch Fusiliers. Revised and edited by Major S. T. Banning, Royal Munster Fusiliers. From the press of Gale & Polden, Lmtd., 2 Amen Corner, Paternoster Row, London, England. Price, two and six, post free to any part of the world.

than one day, but that will not require any change in the book, as the subjects are carefully graduated, and no better division could be made. Let a company take as many days as it sees fit for each subject and then, when ready, go on to the next. There are twenty-one working days comprised in the book. The first working day comprises the infantry in attack (general ideas), the company in attack, the battalion in attack, and skirmishing. After the catechismal exercises there are some two pages of what the author terms practical work and headed "Exercises." This gives anyone ideas from which to get up many and varied field problems and exercises to illustrate the subject covered in that working day.

The second working day gives the field calls, signals and whistle sounds; fire discipline; supply of ammunition to troops engaged, and infantry in defense. This is an important part of the book and one that is well handled. Many and many ideas that our space does not allow us to mention are given, and officers will derive valuable information from these twelve pages alone. The other working days are given up to the various subjects of field training, as follows: "Attack and Defense of Positions, Defiles, Woods, etc.;" "Cavalry and Artillery, with Attack and Defense of Convoys;" "Advance and Rear Guards," two working days; "Outposts," two working days; "Hasty Intrenchments;" "Defense of Posts;" "Searching Small Woods and Groves;" "Reconnoitering;" "Operations by Night;" "Camping;" "Water Supply and Bivouac." This completes fifteen of the twenty-one working days, and the other six are given to field engineering, not a bad idea when we remember that in the past the cavalry and infantry have invariably built their own bridges. In the back part of the book are twenty-eight plates illustrating the various subjects, particularly engineering. From the practical work at the end of the second working day, we quote one of the exercises as follows:

"*Nineteenth Exercise.*—When ranges are available, practice training (fire) against targets and dummies. If dummies, to make the exercise more interesting, have as many dummies as there are officers, noncommissioned officers and men in the company, and previously writes the names of each on a dummy. After the exercise advance straight up to the target, each man to his own target, if possible, and see the result of whom he has wounded or killed."

This system of instruction can be followed. And something of the kind must soon be adopted and followed if we are to have an army worth anything. And it will have its rewards in peace as well as in war. The profession of a soldier is a pretty one But to master it requires time. Not so much brain power as simple application. After a noncommissioned officer has spent three years in the service he should have become a trained man with a profession, and with a pride in his knowledge of his profession. He should feel that his three years have been spent to some advantage, and that he is now a professional man and his services valuable. If he feels this we need have no fear of losing him at the end of the first enlistment. But if we simply drive him fours right and fours left, give him fatigue work and charge of quarters with no technical knowledge, who can expect to retain him after his first trial or get him back in after years?

Many officers do not believe in the lecture system. It is because they are misled by the word lecture. It is our firm conviction that not enough instruction is given the enlisted men. Take any company out for field exercises and we have found the greater part of them enter it with enthusiasm if they are given to understand the problem and made to comprehend that much of the success or failure of their particular organization is due to their own interest and carefulness and watchfulness. Frequently fights in the back stables follow maneuvers, and these fights are surely good things.

Now how can we give the enlisted men any idea of the exercises, the work to be accomplished and its results, if we do not tell them? And telling them is simply the lecture system. Some men are so gifted that they can explain things with more clearness than others. But we have yet to see the officer that cannot do something in this line, and after his explanation he will find his advanced men riding with far more watchfulness than if they are simply riding along trying to kill time till recall. We should remember

that if we are in charge of an advance guard or patrol in war times, we would certainly let our men know our object. It is a duty to the men who are voluntarily going into danger and it is a duty to our commander, so that the death of the officer might not frustrate the idea of the order.

It is not necessary for the men of a division to know the ideas of the commanding general. On the contrary, it is desirous that they should not. But when we strike the company, where the captain knows his men, it is necessary that they understand their particular sphere, and what is expected of them. As long as maneuvers are conducted without the idea of instruction for the enlisted man, just so long will the maneuvers be failures. And if an officer cannot impart the instruction necessary to teach the enlisted man and awaken his interest, that officer should be relegated to the rear and mark time till his promotion, and then fired from the service, if we cannot rid the service of him in any other way.

It is surely necessary that more time be spent away from the barracks and quarters, and out in the field. The commanding officer at the last post at which we served in the Islands, had days set apart when particular troops should start early in the morning for exercises, and such distances had to be covered that it was dark before the troops returned to the post. This is soldiering, and this is the instruction that will make us proficient. We may remain in the post and become beautifully drilled in manual execution or riding hall work, but we shall be worthless as soldiers unless we can take our troops and in one week have them prepared to take the field against a well trained enemy, one that is as well trained as we *should* be. And this can be done and lessen the desertions and guard-house punishments that at present are troubling us. Men that enlist in the army have no objection to military work. Let them have it intelligently explained, and we will have an army that will be better than the one Shafter took to Santiago, and that will be perfection enough to be attained at once.

BOOK ON THE RUSSO-JAPANESE WAR.

As we stated in our July number of last year, of the making of books there is no end. We see little reason to change what we there said as to the fact that no transcendant genius in the shape of a historian has so far made an appearance in connection with the late war.

It is our intention to read the various books on the war as they appear, and give our readers our own unbiased opinion as to their value. Of course this will be only an opinion, but it will be one that is impartial and influenced by no desire except to give our subscribers our ideas of what books one should read to be well posted, and what books are only for the general reader and of little value to a military student who wishes to get much knowledge out of the time he has for the study of the late conflict. But the books have been appearing so rapidly that we could not get the time to read each one with the care that is necessary from one who is actuated by motives such as indicated above. But, in cases where we could not cover the ground ourselves, we have given the volumes to some officer in whose judgment we repose confidence and whose name will always appear in the review, so that the personal element will not be lacking in judging what the review is worth. One book we have so turned over is, "The Truth About the War," which review is by Major D. H. Boughton, Eleventh Cavalry, and appears in the column of book reviews, and to which we direct attention.

We are glad to inform our readers that during the last few weeks we have closely read a book upon the war that is the best we have seen so far. We refer to Colonel Wood's book, "From the Yalu to Port Arthur." We briefly referred to this in our last issue, and stated that we reserved it for further notice. We are glad to give it such notice at the present time.

As army officers know, Lieutenant Colonel Oliver E. Wood, of the United States Artillery Corps, was lately military attaché at Tokio, and hence possessed great advantages in compiling a work on the war. This is also evident from his work.

Only one in such a position could have done the work so well. From the preface we quote the following: "This brief summary of the first period of the Russo-Japanese War covers only the operations of the Japanese armies, no reference being made to naval operations except when land and sea forces coöperated. The basis of the work is the Japanese official reports daily received from the Imperial headquarters before being given to the press, supplemented by important information from other reliable sources."

As indicated from the above, the work is brief, and is mostly a compilation. It covers the period of the war, from the beginning up to the end of the year 1904. It consists mostly of reports arranged in chronological order, and is the most complete of any work yet out. It is possible that being nothing but a description of campaign details, of value to the military student, it may be somewhat arid reading for the general reader, as is stated by the review in the *Literary Digest* of October 28th, last year. But we are glad the author has not encumbered the book with personal opinions or narratives that have no military value. As military men we care nothing for a historian's personal experiences, and only want detailed descriptions of what was done by one division at the time another division was doing so and so. That is, what we care for is simply a panoramic description of the different units of a command, and that is what we get in Wood's book, and nowhere else.

It is a book that, to the military reader, is of the greatest value, and will be always used by him for reference long after he has read it, and we believe long after more elaborate histories have been written of the terrific struggle. We do not expect to see this work supplanted at any time in the near future by any work of greater value to the military student.

The maps are as good as can be obtained at this time, and are nine in number, and the titles are given here, as it may be of interest to know just what actions are so completely given as to call for separate maps. In many of these maps the changing positions of the forces are given as the action progressed:

The theatre of war.
The battle of the Yalu.
The battle of Nanshan.
The battle of Tehlisz.
The battle of Fenshuiling.
The battle of Tashihkiao.
The field of operations of the battle of Liaoyang and of the Sha-ho.
The Kwantung Peninsula.
The city and harbor of Port Arthur.

The labor that was spent upon these maps is forcibly shown from the following, which is an extract from a personal letter of Colonel Wood's to a friend:

"It may possibly interest you to know that the maps are the handiwork, under my direction, of an expert Japanese cartographer of the topographical bureau of the Imperial Geological Survey of Japan, who did not understand a single word of English, and the names of places, originally in Chinese, Korean, Japanese or Russian, were translated into English, then into Japanese for his benefit, and again printed by him in English."

No military man can afford to be without a copy of Wood's book. And it is one of the few that we recommend spending money for, unless one has money to burn, and if one tries to purchase all the works upon the war that are appearing, he will have to have a large amount to burn if it is expected to last even a short time.

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Closely connected in style, clearness and brevity with Wood's work, is a work that has just appeared on the war of ten years previous to the one we are considering. We refer to Vladimir's work, "The China-Japan War."

To students of the Russian-Japanese conflict this book comes like the remembrance of a dream. Or we might better say, like one of those elusive, evanescent flashes over our intelligence that gives us the inklings of former existence. For here we see the same field of action as the one we are familiar with from our study of the Russian War. We see

the same soldiers, and the names of the generals are like those of old friends, such as Oyama, Yamagata, Nodzu, Togo, and of course in the study of Port Arthur one is not surprised to find that Nogi in 1894 commanded the advance guard that led the way to and into that stronghold.

We follow these strangely familiar forces from Chemulpo and Fusan to Ping Yang and on to the Yalu, across the historical river into Manchuria to such places as Feng Huang Cheng and Mo-tein-ling Pass. We start with another one of the Japanese armies at the mouth of the Hua-Yaun River and follow it to Nanshan Hill and on into Port Arthur. We see the concentration of the Feng-Huang-Cheng and Port Arthur forces and remember the battle of Mukden when Nogi, no longer held by Port Arthur, swept around the Russian right, bringing disaster to those forces.

It seems strange at first to see the same strategy used by the same commanders over the same terrain that they used in a previous war. The keynote of successful military operations is to deceive the enemy in regard to your ideas, plans and movements. That Japan should follow the same ideas, carry out the same plans, and make the identical movements against the Russians that she did ten years before against the Chinese seems incredible. It was hardly to be expected—was not expected by the Russians. Possibly the very fact that she did this may have constituted a greater surprise than any newly conceived scheme. Her marvelous success in the Russian War would seem to indicate that such was a fact. In reading this book we cannot help being struck with the tremendous advantage enjoyed by the Japanese forces in the Russian struggle. If anything is calculated to make one familiar with the topographical situation and condition of a country, it is fighting over that country. It is not at all strange that the Japanese forces were familiar with the roads and terrain when we see the trouble experienced by them in 1894, when they found it necessary to repair and build the very roads that they would use to such effect another time.

The book we are now considering is divided into three parts as follows: "The History of the Korean Question;"

"The Korean Campaign;" "The Campaign in Manchuria." It is written by a person whose pseudonym, which may or may not be his real name as far as we know, is Vladimir. Whoever he was, he was lately a Russian official at the Korean court, and he certainly knows what he is telling about in his book. In his preface he states his information was obtained from all available sources—from Chinese and Japanese accounts, and from the reports of foreigners, whenever any were present, either on men-of-war or on land. But he further states that his acknowledgments are chiefly due to Japanese war publications. In this regard his book resembles Colonel Wood's very much, and there is really quite a striking similarity in the two works, as stated above.

The first part is given, as indicated, to a short history of the Korean question, and we see from reading it that there is nothing new under the sun, for China and Japan have been wrangling over this Korean problem for centuries, and one becomes very much interested in the success or failure of Old Hideyoshi and others of the old Japanese regime.

The causes leading directly to the conflict with China in 1894 are given in full, and the declaration of war is given verbatim, and also the diplomatic correspondence previous to the outbreak. One thing that to us was alone well worth the study and time spent on the book, was the expression used by Komura in the last letter just previous to the declaration of war against China, and we recall a similar, if not identical expression, in the note to Russia, and which the Russian government professed not to understand as the final word between the governments. This expression is as follows and is from the letter to the Ministers of the Tsung-li-Yamen, dated July 14th: "The only conclusion deducible from these circumstances is that the Chinese government are disposed to precipitate complications, and in this juncture the Imperial Japanese government find themselves relieved of all responsibility for any eventuality that may, in future, arise out of the situation."

Now that two wars have followed on this plain language, we doubt very much if any nation hereafter will misunderstand such a combination of words, when directed to them

from Japan. It will be well not to misunderstand, for in each of the two instances, events of reaching importance have immediately followed, in one case the defeat of the Chinese on land and sea, on the 25th and 29th of July, though the formal declaration was not issued until the 1st of August, and then simultaneously by the two governments. In the other case, events are too fresh to need recall the capture of the *Variag* and the *Koriets* in the harbor at Chemulpo, following the use of the above expression, which Japan took pains to insure had reached the authorities at St. Petersburg.

The details of the campaigns are full, and to help the student a fair map accompanies the book. This might be better, but it is as useful as the best of the maps that accompany treatises, all of them being more or less deficient in not giving all names mentioned in the text, and those given not always being spelled alike on the map and in the text. There is also a map of the naval engagement of Hai-Yang Island, the important event that assured Japan absolute control of the sea, and hence all military events that followed.

To the student of international law there is an appendix that gives a fairly complete account of the Kowshing affair; affidavits and personal accounts of survivors, both Chinese and European, the latter from the ship captain and mate, and Mr. Von Hanneken, the German engineer employed by the Chinese government.

All in all, this is a most interesting account of the war between China and Japan. The student of the late war should possess this volume, and also Colonel Wood's book on the struggle ten years later. Both are small, handy books that cost $1.50 each. He will then have as full an account of the two conflicts as he can get from any other and more numerous sources. Put the two side by side in the library, and feel confident that you are as well supplied as you can be at the present time, without an unusual outlay of time and expense.

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"Port Arthur, A Monster Heroism," by Richard Barry, is admirable as a Carlyleian effort, but it is of little value as a military work. Mr. Barry is, presumably, a young man. He has learned much of military matters and talks of them entertainingly and intelligently. His similes are striking and original and remind us a little of Stephen Crane. But while the general reader may be much impressed, the military one will remember the book only as one that breathes the spirit of Japan. The book is but a narrative of certain little episodes of the siege, and is not, nor does it profess to be, a work of valuable history. There is not a *map* in the book. It is word painting of a fair kind, but only once or twice does it cause any unusual heart-beating. The chapter on "Who Pays for the War," is very pretty and quite touching, but that is all an old story to men whose business it is to leave family ties for the dangerous sphere of action. It will give one a few hours of interesting reading, but is not to be seriously considered as an addition to valuable works upon the war.

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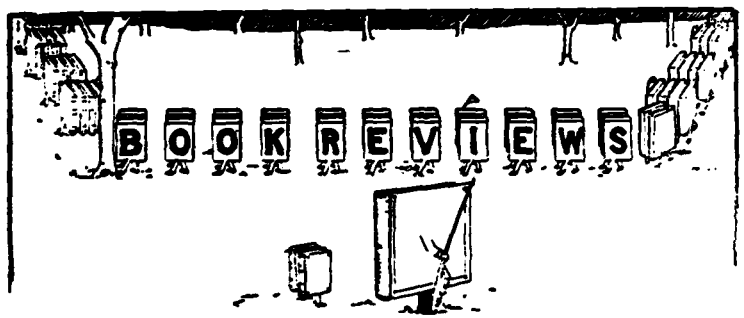
All in all, in possessing the following books on the struggle, we shall at the present time consider ourselves as having done our duty in studying the war:

On the Causes: "The Russo-Japanese Conflict." (Asakawa.)

On the War: "From the Yalu to Port Arthur." (Wood.)
"The Russo-Japanese War." (Cowen.)
Articles in the *Outlook*. (Kennan.)

For Comparison: "The China-Japan War." (Vladimir.)

We hope to see Kennan's work put into book form soon. All the above have been reviewed in this and the July 1905 numbers of the JOURNAL. Cowen's book can be purchased for $3.50, from the Baker & Taylor Co., New York City; Asakawa's book from Houghton, Mifflin & Co., $2.00: and Wood's and Vladimir's from the Hudson Press, Kansas City, Mo., for $1.50 each.



Cavalry in Action.*

Instruction in the use of cavalry in the presence of the enemy is a branch of military training that has been somewhat neglected in our service. During the Civil War modern cavalry received a new direction, due perhaps to the influence of our experiences in Indian campaigns, but there was no particular rule or system about its use. There was an indiscriminate use of mounted and dismounted action, with a tendency to neglect the former as was natural with a volunteer army, untrained in theoretical methods. Merritt and Forrest charged field intrenchments, and Morgan captured steamboats with cavalry, but such could not be said to be typical uses for the arm. Since the war, cavalry ideas have continued to be somewhat mixed, and abroad the arm continues to be ruled by the traditions of the days of chivalry.

The cavalryman with his three weapons and his horse is a complicated bit of machinery; first, as a mounted trooper he is supposed to charge like a knight of the middle ages; second, as a dismounted trooper he is taught to use his carbine, but at the same time to look out for his horse; third, as a combination of the two he is expected to recognize the proper moment to change from one to the other. Without systematic training it

*"CAVALRY IN ACTION." Studies in Applied Tactics, by P. S. Hugh Rees, Ltd., London, 1905.

is easy to see how one man's temperament would lead him entirely to mounted action, and another to dismounted action, while the well balanced officer, who is prepared for either, would be rare.

Proper tactical instruction can be obtained first, by deciding upon principles, and second, by learning them in a practical way. For instance, suppose that the following principles are selected for demonstration in a practical way:

1. Cavalry should not charge unbroken infantry at a greater distance than 450 yards.

2. The mounted action of cavalry should generally be limited to the offensive, and its dismounted action to the defensive.

3. Dismounted cavalry should employ as many carbines as possible from the first.

4. Dismounted cavalry, which is unable to hold the enemy at a distance, should break off the action before the enemy gets as close as 450 yards.

5. Cavalry may be used for offensive action when the ground does not favor mounted action, but in such cases the cavalry should be moved forward as far as possible before dismounting.

6. Cavalry should combine its mounted and dismounted action whenever quick results can be obtained thereby. Thus dismounted cavalry may be used to occupy the enemy, while a mounted force is held ready to take advantage of any weakness or confusion on the part of the enemy.

7. Cavalry should be prepared to change its role quickly from dismounted action to mounted action. Decisive results are often lost on account of the exhaustion of dismounted troops, which are unable to follow up their advantages. Similarly the role should be changed promptly from mounted to dismounted action when the conditions require it.

To fix one of these or any other collection of principles on the mind we select a concrete case in which the principle has a direct application. The example is then worked out, and studied from every point of view in as practical a manner as possible. This gives us the "applicatory" system of training which is now accepted by the military world and

which forms the basis of the peace training of soldiers of all great armies.

The applicatory system of training had always labored under the disadvantage that its most brilliant professors have begun at the wrong end. It is quite easy to study the conduct of a force of the three arms combined into the highest units of command, but it is difficult to find text books in elementary practical work. This lack is particularly noticeable in the cavalry, which has been in a transition stage due to the changes wrought by modern improvements in firearms.

The author of "Cavalry in Action" is apparently a French officer, who, like many a good writer, preserves his incognito, and gives us an excellent work. In his book he gives about twenty-eight studies, which have very much the appearance of so many kriegsspiel exercises which the author has worked out on the map of the country around Metz. The application is first made to commands as small as one of our troops of cavalry, and increases to the larger operations of a cavalry division.

Such tactical instruction should be a part of the daily work of every cavalry command. To make it practical I can only recommend you to read the book, then make an enlargement of one of the simple maps to a scale of twelve inches to the mile, which can be done roughly in an hour at least. Then with small blocks of wood or leather to represent the troops, work out the tactical situation after the manner of an exercise at kriegsspiel. After working through a number of exercises in this way the various tactical principles will be well fixed in the mind, an officer will have his mind well stored with well settled convictions as to the best way of acting in numerous possible emergencies which he never thought of before. Of course this involves plenty of hard work, but there is no other way of acquiring knowledge and skill than by work.

Several months of such work would then prepare the officer for field work in the spring. Let each officer of the command ride out in the country about his post and get up a problem of the same character as those which he has been studying. Let the assembled officers of the squadron discuss and criticise the problem and solution of each of the individual officers of that squadron. Then let the commanding officer select a number of the problems to be actually worked out by the troops with all accompaniments of actual war except the ball cartridges. By this systematic instruction maneuvers will be removed from the disheartening, unreal character that is so often given to them.

Much of the value of the book is nullified by poor maps in the English translation. The large map is a cheap reproduction of the staff map, and the small maps are indistinct, and there are not enough of them. E. S.

The Provisioning of the Modern Army in the Field,*

Published by the Franklin Hudson Publishing Company, Kansas City, Mo., is the title of the latest literary production of the present Commissary General, Henry G. Sharpe, U. S. Army. This excellent work would be a most valuable addition to any military library. It is well written, instructive and highly interesting.

The text is rich in historical narrations pertaining to the supply of armies in recent wars and in well selected quotations from the most eminent foreign writers on kindred subjects.

The field duties of all commissary officers, from the chief commissary of an army down to the regimental commissary, are given in detail. The service performed in the rear of the army, service of the line of communications, the utilization of the local resources, and gathering of statistical data, billeting, contributions, requisitions, foraging and expeditions beyond the sea (contrasting in a striking manner our predicament in 1898 at Daiquiri with the systematic debarkation of the Japanese at Chemulpo six years later) are among the many subjects handled in a masterly manner.

L. R. H.

*"THE PROVISIONING OF THE MODERN ARMY IN THE FIELD." By Henry G. Sharpe, Commissary General, U. S. Army. Published by the Franklin Hudson Publishing Co., Kansas City, Mo. Price $1.50.

The Development of Strategical Science.*

Commencing with a general introduction of the whole subject of strategy, General Von Caemmerer gives a concise review of the authors since Napoleon's time. He gives the principles and important truths brought out by Von Bulow, Jomini, Archduke Charles, Clausewitz, the "school master of the Prussian army;" Willisen, Moltke, Blume, Scherff, Lewal, Von der Goltz, Boguslawski, Verdy du Vernois and Schlichting. He shows how succeeding authors have exposed the fallacies of earlier writers and how the close study of numerous wars has evolved a number of principles which are fixed.

Considerable space is given to a comparison of the strategy of Von Moltke and Napoleon, and an inclination is shown, in common with Von der Goltz and many other recent German authors, to class Von Moltke a little above Napoleon on account of Von Moltke's principle of concentrating on the battlefield itself. Many military students will not agree with this.

Military students are indebted to the author for a text which, in a broad minded and judicial manner compares the works of all the prominent writers on strategical science, selecting and emphasizing in a clear and concise manner those truths and principles of strategy which have stood the test of time.

This work would make an excellent text for post or service schools.

H. E. E.

History of the Thirteenth U. S. Infantry.†

A regimental history is likely to be dry and uninteresting, principally because of the long uneventful period spent by a regiment in routine post duties—especially was this true for the period just preceding the Spanish-American War—and also from the fact that the recital of the names of the officers of a regiment is properly a matter of reference.

This has been happily overcome in the "History of the Thirteenth Regiment United States Infantry," which is now presented to the public. Briefly it treats of the organization of the regiment; the Vicksburg campaign; frontier campaigns, and life broken only in its monotony by the competition among the companies for perfection in drill; the taking of San Juan Hill; the varied service in the Philippine Islands, viewing the regiment first as a *fighting regiment* in the swamp and jungle, then as a *working regiment* in the suppression of disorder, the establishment of peace and the reconstruction of civil government; and finally, at home again as a *training regiment*.

The names of all officers who have served in the regiment at any time are shown in the appendix.

These important events are clearly and accurately brought out, and the scenes of activity and the principal actors are presented to the eye by a great number of maps, sketches and photographs. A cut at the beginning of each chapter shows the successive uniforms worn by the United States soldier. The excellent pictures of the Thirteenth Infantry officers who have especially distinguished themselves or who are well known, give additional freshness to the well printed pages. Thus this regimental history has been made not only attractive but also extremely fascinating.

Remembrances of the Thirteenth Infantry's many honorable engagements, among them, "first at Vicksburg," Missionary Ridge, and Santiago de Cuba, bring to the old officers and men of the regiment a feeling of security in its honor, and rouse in the young and active ones a pride in its past and an eagerness of purpose steadfast to emulate its record in the future. Hence the history well answers its purpose by so vividly commemorating the deeds of the past and engendering in the young soldier the truest *esprit de corps*. Consequently it may be frankly said it is one of the best histories which has yet been published by a regiment. A copy of it should be in every military library in the United States.

W. N. H.

*"THE DEVELOPMENT OF STRATEGICAL SCIENCE." By Lieutenant General von Caemmerer, German Army. Published by Hugh Rees, Ltd., 124 Pall Mall, SW. London.

†"HISTORY OF THE THIRTEENTH REGIMENT UNITED STATES INFANTRY." By Captain U. G. McAlexander, adjutant Thirteenth Infantry. Cloth and leather, 328 pages. Printed and illustrated on the Thirteenth Infantry regimental press.

New Infantry Drill Regulations.* This is a reference book, of pocket size, designed to assist in the study of the Infantry Drill Regulations. Its explanations and interpretations have been made, evidently, after very careful thought and study by the authors, Captains Stewart and Davis, Department of Tactics, U. S. Military Academy, and are clear and reasonable. It takes up the drill regulations paragraph by paragraph, and explains everything which might be obscure, citing other paragraphs for authority and using legal rules of interpretation.

It will be a valuable help to all officers concerned with the new infantry drill regulations, and especially helpful to officers of the National Guard. The plates clear up at a glance passages whose meaning it would otherwise take a considerable time to study out. The treatment of extended order and ceremonies is especially thorough. The problems for practical field work for a small command are excellent; if similar ones should be practiced by companies, either of regulars or of the National Guard, their showing at maneuvers would be greatly bettered and their gain in knowledge increased 100 per cent. over organizations which had not had such practice.

H. E. ELY,
Captain Twenty-sixth Infantry.

The Truth About the War. This is a new book about the Japanese War, or a part of it at least, but told this time by the other side—the Russian. The author is Mr. J. Taburno, a special correspondent of the *Novoe Vremia* and an author of considerable prominence, who went to Manchuria for the purpose, as he says, of becoming acquainted with the true situation of the Russian army and of presenting it in its true light.

Mr. Taburno was with the army from December, 1904, to April, 1905, and was, of course, present at the battle of Mukden, which he describes in a very lucid manner for so extended an engagement. He then gives pen pictures of what

*"NOTES AND SUGGESTIONS ON THE INFANTRY DRILL REGULATIONS." Stewart-Davis. By The Hudson Publishing Company, Kansas City, Mo,

he observed, pointing out the weaknesses in the Russian armor, sparing no one. These glimpses, as it were, behind the scenes, make the book very interesting. He describes the panic in the trains retreating from Mukden caused by disobedience of orders, and the presence of an officer's young wife; General Kuropatkin reporting to General Linevich when the latter was made commander-in-chief: the sanitary service; scenes attending the evacuation of Mukden; military censorship; rear of the army, etc.

Mr. Taburno attributes the Russian failure in Manchuria to several causes, chief among which was the inadequate means of communication furnished by a single line of railway; second the impedimenta, much being officers' baggage, which clogged the army's movements, and the luxuriousness of the higher officers who sacrificed military mobility and the welfare of the troops to their own personal comfort. The Russian cavalry has been criticised, and apparently with justice, for not accomplishing more during the present war, but according to Mr. Taburno this arm was greatly weakened by useless details on orderly and kindred duties. Lack of information of the enemy and his movements is severely commented upon and contrasted with the efficiency of the Japanese in this respect.

Two sketch maps are provided, one showing the operations in January—battle of Sandepoo, and the other the operations in February—battle of Mukden.

The author is unsparing of his criticism of General Grippenberg, who left the army after the former battle and against the will of the commander-in chief. The book is published by the Franklin Hudson Publishing Company of Kansas City, Mo.

D. H. B.

1815: Waterloo.* A new work on this much-discussed decisive battle in the world's history would appear at first sight to be superfluous, but a glance at the literature on the subject will show that a

*"1815: WATERLOO." By Henry Houssaye, of the French Academy. Translated by S. R. Willis, Kansas City, Mo. Franklin Hudson Publishing Co., 1905. A short review of this book was given in the last issue of the JOURNAL.

work of this kind from a French pen was needed to close the subject and present the final view, and no one was better fitted to do this than the author of the present volume.

For some years after the battle of Waterloo, the only accounts of the battle available to English readers were those from English pens, which were naturally prejudiced in favor of the great Duke, and, moreover, largely neglected the important part played by Blücher; gradually, however, the German accounts (giving Blücher proper credit for his action) became known to English readers, and views were modified accordingly.

The early French accounts, on the other hand, were intensely enthusiastic in Napoleon's favor, attributing the cause of defeat entirely to fate; but little attention was paid to them in England, consequently they had but slight effect in influencing English views. It remained for Ropes, the American historian, to present the first clear, unbiased view in English, a view which was promptly accepted by the world at large, even by the military students of England. Lord Wolseley, in his work on *The Decline and Fall of Napoleon*, evidently accepted Ropes' view, but it must be admitted with surprise and regret that so great a general and military student as Lord Roberts, in his work on *The Rise of Wellington*, still adheres to the old view.

The fact that this latter view is still held by some English writers, after all that has been done to clear up the matter by Ropes and his followers, is sufficient to warrant the publication of another account of the battle, especially one from a French pen.

Henry Houssaye, the author of the present work, is a prominent French historian and critic. He distinguished himself in the Franco-Prussian War, and is therefore practically familiar with military matters. He has also high literary ability, and has been editor of the great French literary and critical journals, the *Revue des Deux Mondes* and the *Journal des Débats*. In 1875 he received for his work on the *Athenian Republic* the Thiers prize of the French Academy, and in 1894 he was elected a member of that august body.

He has written several other important historical works, and of late years he has made a careful study from the original documents of the fall of Napoleon, which he has embodied in three volumes, viz: *1814*, *1815* (to include the return from Elba and the Hundred Days), and the volume before us entitled *1815: Waterloo*.

These books are among the most readable that have been published upon the latter part of Napoleon's career, and at the same time present the most accurate and reliable views obtainable on the subject.

The latest volume is of special interest, and treats the subject in great detail, particularly as regards the points usually in dispute, such as the *exact times* of all events which bear on the correct interpretation of the operations, from the morning of June 16th to the evening of June 18th. The subject matter is conveniently arranged and subdivided, the style is interesting and attractive, and the conclusions and criticisms are clear and convincing.

A few extracts will illustrate these points:

First, as regards Wellington's dispositions to meet Napoleon's advance:

"According to these orders, despatched only on June 15th, between 6 and 7 o'clock in the evening, the troops were simply to assemble by divisions at Ninove, Ath, Grammont, Brussels, Braine-le-Conte, and Nivelles, and to be ready to march next day at dawn. Thus, at the time when the French left wing had passed Gosselies and the right wing had arrived within sight of Fleurus, Wellington, in place of directing his troops upon the threatened point, contented himself with uniting them in isolated divisions within a parallelogram of ten leagues by nine. In truth, he must have been deluded and paralyzed by the vision of Napoleon attacking in person upon all points at the same time.

* * * * * *

"After having given these orders, which, by reason of the advanced hour and the extent of the cantonments, could not be put in execution before dawn, Wellington said to Muffling, 'My troops are about to put themselves on the

march. But here the partisans of Napoleon begin to raise their heads. We must reassure our friends. Let us go to the ball of the Duchess of Richmond, and we will mount on horseback at 5 in the morning.'

* * * * * *

"Muffling says that during the ball Wellington was very gay. There certainly was no reason for this gaiety. During the entire day he had persisted in leaving his troops dispersed in their cantonments at four, eight, ten and fifteen leagues from one another; and the orders of the evening, by which he flattered himself to repair victoriously his great error, were pitiful. His last dispositions tended to nothing less than to uncover the route leading from Charleroi to Brussels in order to protect that of Mons, which was not threatened. If the orders of Wellington had been executed, a gap four leagues wide would have been opened between Nivelles and the Lower Dyle; a gap through which Ney would have been able to advance half way to Brussels without firing a shot, or better still, as Gneisenau has said, 'to turn back on the rear of the Prussian army and cause its utter destruction.'

"Fortunately for the allies, many of Wellington's subordinates had taken it on themselves to act without awaiting his orders, and others had intelligently disobeyed those which, after so much time lost, he had decided to give.

* * * * * *

"But in war, as in play, nothing can prevail against Fortune. When Wellington, who had left Brussels at 6 in the morning, arrived about 10 at Quatre-Bras, he found there the division of Perponcher, when he should have found the advance guard of Marshal Ney. His Grace, appearing to forget the fact that he had acted contrary to his orders, deigned to congratulate General Perponcher and also the Prince of Orange—who had had nothing to do with it—upon the position taken."

Secondly, we find the following interesting and instructive remarks on the action at Ligny:

"Clausewitz, after having argued long and confusedly, concludes that '10,000 men in the rear of the Prussian army

would have only rendered the battle more doubtful by obliging Blücher to withdraw sooner.' The proof of the weakness of his case is that he wittingly gives us false figures. Clausewitz knew very well that it would not have been 10,000, but 20,000, horse and foot, that would have attacked the Prussians in reverse. * * * Charras has a wholly personal way of looking at things. 'The generals,' he cries, 'were admirable. They did not fail the General-in-Chief: the General-in-Chief failed them.' He extols the conduct of Ney, 'who accomplished the impossible in arresting Wellington with 20,000 men.' Charras seems to ignore the fact that Wellington, until the arrival of the divisions of Cooke and Cruse (at half-past six) had scarcely 26,000 men to oppose the French, who numbered more than 23,000. And he voluntarily forgets to say that if Ney had but one army corps to oppose the English, it was because he had neglected in the morning to concentrate the Second and First Corps between Gosselies and Frasnes. This was—we cannot too often repeat it—the initial fault from which all the others proceeded—those of Ney, those of Reille, those of d' Erlon, and those of the Emperor.

"The facts and written orders, the hours and figures, contradict the conclusions of Clausewitz and Charras. There is also the testimony of Kellermann: 'Napoleon did not attain his object through the fault of Marshal Ney.' Of Reille: 'A far greater success would have been obtained by taking in reverse the right of the Prussian army. Of General Delort: 'Ney could have, with 44,000 men, contained the English and turned the army of Blücher.' Here is the judgment of Ropes: 'If Ney had executed the orders of the Emperor, the issues of the campaign would have been modified.' There is the judgment of Marshal Wolseley: 'If everything had passed as Napoleon had planned, we are justified in saying that the corps of Ziethen and Pirch would have been annihilated, and that, according to all probabilities, Blücher and Gneisenau would have been made prisoners.' There is, finally—and it is worth all the rest—the admission of Gneisenau, chief of staff of the Prussian army, who wrote June 12, 1817, to to the King of Prussia: 'If General Perponcher had not made so vigorous a resistance, Marshal Ney, arriving at

Quatre-Bras, would have been able to turn to the right and fall upon the rear of the army that was fighting at Ligny, and cause its total destruction.'"

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Thirdly, with reference to the retreat of the Prussians after Ligny:

"Napoleon, Soult, Grouchy, and all the staff thought the Prussians were retreating toward the Meuse; it was in the direction of the Dyle that they were falling back. On the day before, at night, whilst their troops were rallying between the route of Namur and the Roman road, Ziethen, Pirch I., and other generals, no longer receiving any orders, hastened to Byre, where they expected to find Blücher. At this moment the dragoons, who had picked up Blücher from the battlefield, bore him all bruised from his fall and in a half-swoon into a cottage of Mellery. His staff was without news of him; it was ignorant if he were a prisoner or free, dead or living. Consternation reigned supreme; every eye was fixed with expectancy on Gneisenau, to whom in Blücher's absence belonged the command by reason of his seniority of rank. What course would he take? Would he abandon his lines of communication with Namur to try once more to unite with the English by a parallel march, or, in order to fall back on his base of operations, would he leave Wellington alone against the French army and overturn the plan of campaign decided upon for two months? Gneisenau sat his horse in the middle of the road which joins to the north of Brye the route of Namur; by the light of the moon he consulted with difficulty his map. After a short examination, he cried: 'Retreat on Tilly and Wavre.'

"Some days later Wellington wrote emphatically to the King of the Low Countries: 'It was the decisive moment of the century.' Likewise the German military historians have exalted the retreat on Wavre as the equal of the finest strategical conceptions. We think this is putting it a little extravagantly, to say the least. This determination marks in Gneisenau firmness in reverses and an understanding of the necessities of war; but when he ordered this movement, he certainly did not foresee the immense consequences that were to result from it. At that time he had no intention of rejoining the English army in order to cover Brussels."

Finally, as regards Napoleon's physical and mental condition at the time, a few words will suffice:

"In 1815 Napoleon's health was still such as to support the fatigues of war, and his brain had lost nothing of its puissance. But in him his moral nature no longer equaled his genius. While in his dictations at Saint Helena he attempts to demonstrate that he had committed no fault in the course of his last campaign, in his familiar conversations he permits the secret of these faults to escape him: 'I no longer had in me the sentiment of final success. It was no longer my first confidence. * * * I felt fortune abandoning me. I no longer obtained an advantage that was not followed by a reverse. * * * None of these blows surprised me, for I had a presentiment that the result would be unfavorable.' This state of mind explains the hours lost by the Emperor during the campaign, his sometimes troubled views, the respite left the enemy. He no longer believes in success; and his boldness declines with his confidence. He no longer dares to seize, to seek the occasion. While his faith in his destiny lasted he had always been an audacious player. Now that he feels fortune deserting him, he becomes a timid one. He hesitates to begin the game, no longer yields to inspiration, temporizes, weighs the chances, sees the *pros* and *cons*, and wishes to take no risks.

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"Never did Napoleon exercise more effectively the command, and never was his action more direct. But, obliged precisely to play that rôle of *sergeant de bataille* which is condemned by Maurice de Saxe, he employed himself entirely in repairing the mistakes, the forgetfulness, and the faults of his lieutenants. And, seeing all his combinations miscarrying, all the attacks proving unsuccessful, his generals wasting his finest troops, his last army melting away in their hands, and the enemy laying down the law to him, he lost resolution with confidence, hesitated, confined himself to

providing for the most imminent perils, awaited the hour, allowed it to pass, and dared not risk all in time to save all."

The absorbing interest of the work is evident from these few quotations; the descriptions of actual engagements, however, are far more absorbing.

The translator has performed his part remarkably well, faithfully reproducing the original in English idiom entirely free from any Gallicisms. The fascinating character of the style of the author is well preserved, and his graphic pen pictures are vividly presented to the English reader.

The volume is well bound and neatly printed. It constitutes a prime study for military students, involving as it does both tactical and strategical principles to so great a degree, and historically it is the epitome of all the best essays and publications on the subject, and one of the great works of the past decade. The author is a soldier of note, a historian who has won high honors, and a literary writer and critic of acknowledged ability. The work is a most important addition to general as well as military history, and, while particularly valuable to the military student, is also a noteworthy volume for the general reader, who cannot dispense with the information it contains, based as it is on original documents, nor with its literary qualities, which place it far above the average accounts in beauty of style and diction.

JOHN P. WISSER,
Major Artillery Corps.

The Army Horseshoer. A manual prepared for the use of students of the Training School for Farriers and Horseshoers, by the training school instructors, is a neat, cloth-bound volume from the press of the School of Application for Cavalry and Field Artillery. The book is not on the market. A copy has been sent to each organization commander of cavalry and field artillery, and to regimental, squadron and battalion commanders.

The subject matter is presented in progressive form, the first chapter dealing with the anatomy and physiology of the horse's foot. In the preface we read that "Experience has shown, however, that the enlisted man learns the technical terms of anatomy as readily as the common terms, and these latter vary in different localities." It can be readily understood that the farrier, who is the veterinarian's trained nurse, requires a knowledge of the technical terms, in order to intelligently follow the instructions of his superior; but we cannot see a similar necessity in the case of the horseshoer. The familiar terms, "coffin bone" and "shuttle bone" seem to be more at home in the shoeing shop than their Latin equivalents, and the words "upper," "lower," "inner," and "outer," would appear to be easily grasped and unmistakable. Their technical equivalents always remind us of the old story of the gentleman riding in his carriage, which runs something like this: "The superior, seated in the interior, can see nothing but the posterior of his inferior riding on the exterior." With this exception, the book will appeal to every mounted officer. It certainly fills a long-felt want.

Tools, the forge and the anvil, are described in simple and clear language. The treatment of the foot axis is superior to anything we have seen. All the minute details of the preparation of the foot, and of turning, fitting and securing the shoe are presented concisely. The chapters explaining how to correct faulty action and gaits, and how to treat the simple ailments of the foot, are excellent.

One of the merits of the manual, it appears to us, is that it informs the organization commander just how much he can expect from the graduate of the training school. By referring to its pages he can keep close track of his horseshoer's methods. It is to be regretted that mounted subalterns have not been furnished a copy, for the manual contains, in condensed form, information which the student without it can acquire only by plodding through many books. The illustrations, twenty-two in number, are full-page half-tone engravings of excellent quality. The subjects of illustration have been selected with good judgment, with the result that the text is thoroughly elucidated. The training school at Fort Riley is an unqualified success, and the manual is worthy of the school.

The Horse.*

The Macmillan Company has just published a book on the horse. We are very glad to get it, and derived much pleasure and much valuable information from it. It reminds us very much of the old book by Herbert, and contains a great deal that we are glad to have in print so that we can refer to it when questions about the horse arise. Even the best of horsemen in the cavalry will be much benefited by reading this book.

The author, Mr. Isaac Phillips Roberts, Emeritus Professor of Agriculture, late dean of the College of Agriculture of Cornell University, author of "The Fertility of Land," "The Farmstead," "The Farmer's Business Handbook," is, as one can easily see, a great lover of the horse, and a master of his subject. He handles his subject in an easy way and yet imparts more information by his method than he would by tabular statistics or scientific demonstrations.

He divides horses into four groups, and intelligently discusses each, with its various characteristics. He gives a brief history of the domesticated horse, and then devotes one chapter to the horses of America. He then takes up the subjects of breeds, subbreeds, families, varieties, cross-breeds and grades. Here we get ideas that have been imperfectly forming in our minds for some years. Occasionally a young lieutenant in the service will get under a captain that is a horse shark, and that lieutenant has a great advantage over one who serves with a captain to whom "all horses look alike to him." If a young man wants to know about horses, and feels somewhat at sea when local horsemen begin to talk about the Rex McDonalds, The Ikes, and a lot of other families, he will be able, after reading this book, to know what people are talking about and need feel no uneasiness in any discussion of horses. We cannot say that we have ever heard of many of the Missouri breeds that are now somewhat familiar until we came into the State. But we had some ideas about breeds and families, and realized that it was local habitation alone that seemed to give the glib dealers such superiority

*"The Horse." By Isaac Phillips Roberts. From the press of The Macmillan Company, New York. Price, $1.25.

of information. But unless one possessess the information to be found in Roberts' book he will be at considerable disadvantage, and often chagrin, when meeting men who make their living handling horses.

The author discusses the thoroughbred, giving credit to a well known horseman for the information contained in the chapter on this breed. He then tells us much about the coach, the hackney, the hunter, ponies, and then on to the heavy types, such as the Suffolk Punch, the Shire, the Percheron, and the Clydesdale. He also contrasts the trotter and the pacer, and then devotes a chapter to the American saddler. He then goes into the principles of breeding, following that with a plan of breeding that will be of great assistance to one about to engage in this business. In fact, common sense is one of the great features of the book.

Chapter XV is devoted to judging horses. Most of our readers, if they buy the book, will remember many of the pictures in General Carter's book. One of the valuable parts of the book is the chapter on "Hands" in driving, and, though we may not agree with the particular hand recommended for driving, yet the statements made meet our views exactly. For instance, the author can hardly say enough to condemn the cruel over-check, and explains its proper use and shows that it should never be used except in trotting races. We recommend a careful reading and re-reading of this chapter on hands, for all that he has to say as to the hands in driving applies equally well in riding as far as the hard or easy hand is concerned.

In the appendix we find first a short article on breeding horses in Canada for army use, furnished the author by the kindness of J. G. Rutherford, chief veterinary inspector. About a page is devoted to each of the subjects, The Artillery Horse, The Cavalry Horse, and The Mounted Infantry Horse. Appendix 2 is a discussion of the ration for animals, somewhat scientific and yet of importance. Appendix 3 gives the live-stock registry associations, with the names of the secretaries or editors, and the appendix closes with a compilation from the twelfth census as to the number and value of horses and colts in the United States in 1900.

There is much valuable knowledge to be gained from the reading of this book, and we recommend its purchase by those wishing to keep informed as to what the horse world is doing outside the army.

The author's devotion to the horse is shown all through his work, and to show this we quote from a part of his chapter on ponies: "The pony can be made very useful, under proper supervision, in educating children to be self-reliant, courageous, kind to and thoughtful to brute creation. The American farm boy is usually an expert horseman, due without doubt to his early familiarity with colts and horses on the farm. The city lad may acquire much of the same expertness by handling ponies. This four legged associate is often a safer companion for a hot-headed youth than a two-legged one. The question as to whether there is profit in raising ponies sinks into insignificance beside the larger one. Is there profit to the country in rearing self-reliant, strong, humanized citizens?"

In the chapter on the saddle we find the following: "These saddle horses can be taught to go the Eastern high school gaits of the walk, trot and canter type, if such perversion of taste is desired. They are also fine roadsters and do not show their saddle gaits in harness. Contrary to general impression, such use does not lessen their value as saddlers or make them forget their gaits." The question of the advisability of training horses in the high-school has its advocates for and against in the army, and we do not intend to enter a discussion of this subject at this time; we only quote to show the author's opinions.

And now that mechanical contrivances are becoming so common, is the horse to be supplanted? This is what Roberts has to say in part upon this question: "It is said that the horse is to be supplanted by mechanical contrivances, which will take his place in the street, the field, and for recreation. It is also contended that horses are too expensive in that they require feed and care when not at work; while the bicycle, the automobile and street car require no care when not in use. The last argument may be met with the fact that nearly all classes of machinery and appliances rust

out and depreciate when not in use faster than when they are constantly employed." Horses are higher to-day we believe than they ever have been, and we see no reason to expect lower prices in the future. So the idea that the horse is an animal whose use is growing smaller is quite as erroneous as the idea that cavalry as a war branch is losing its use and reason of being. We anticipate a greater demand for horses hereafter than at any time in our short history, and we believe likewise that the cavalry arm of the service will retain its peculiar and indispensable efficiency.

The Horse in America.*

Our readers are already more or less familiar with John Gilmer Speed, and they will be quite glad to know that he has published a book giving us much of his valuable information upon the horse. In the last issue of the JOURNAL we gave our readers Mr. Speed's letter to Colonel Edwards, relative to the purchase of horses for the Philippine civil government. We are sure all that read that article will be glad to purchase a book by Mr. Speed on the subject of the horse.

There is considerable similarity between Mr. Speed's book and the one by Mr. Roberts, above reviewed. Both are by sincere lovers of our dumb friend, and both men are masters of the subject. Mr. Speed enters more deeply into the subject of the horse in America, as one would readily infer from the title of his work. When we have finished the first part of his book we feel that we are quite well instructed upon the subject of the different breeds of importance in this country. About three-fourths of the book is given up to the following subjects, one chapter being given to each subject:

Prehistoric and Early Horses, Arab and Barb Horses, The Thoroughbred in America, The Morgan Horse, Messenger and the Early Trotters, Rysdyk's Hambletonian and the Standard Bred Trotters, The Clay and Clay-Arabian, The Denmark or Kentucky Saddle Horse.

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*"THE HORSE IN AMERICA." By John Gilmer Speed. Published by McClure, Phillips & Co., New York. Price, $2.00.

One would naturally expect a person of such experience with horses as has the author to have prejudices, and so we find Mr. Speed has, but we must say his prejudices are as well founded in reason and sense as we could wish anything to be. It is probably true that this book will be the result of much discussion and much hard feeling, but we are convinced that the author is entirely right in his views on the superiority of the Morgan and the Denmark over the Hambletonian, and we have little fear that in the end his views will be adopted by the majority of horsemen in our country.

His fairness is unquestioned, for he has the black and white to prove most of his views. And of course for us who are interested particularly in getting the most valuable cavalry animal, we hardly see how any officer can help but agree with Mr. Speed's views relative to the valuable breeds in America.

We are not insensible to the rumor that Mr. Speed's book is simply an advertisement of Randolph Huntington's Clay-Arabians, and that it was written with the purpose of aiding the sale of that stock to the Federal government. We do not believe it. The last issue of the JOURNAL gave Mr. Speed's views as to purchase of horses for the Philippine government, and of course his views would be the same for the Federal government. As the government already knows his views we do not see that any book he may now write will have any more influence than his first recommendations. But had it been written with that intention we do not see that it would have lessened the value of the book to horsemen, as truth is truth, whether told in advertisements or in other matter.

The latter part of the book is devoted to the following subjects: The Government as a Breeder; Foreign Horses of Various Kinds; The Breeding of Mules; How to Buy a Horse; The Stable and its Management; Riding and Driving; Training vs. Breaking; Conformation and Action.

Here is displayed good horse sense, and by this we mean good common sense, as Mr. Speed thinks that the horse being rather a stupid animal, it is no compliment to a person to say he has horse sense. After finishing the book we laid

it down with a renewed feeling of pride in our Cavalry Drill Regulations, for once more we again find the best horsemen talking along lines carefully laid down in those regulations. And we again are led to remember that the temper of the rider is reflected in the horse under him with almost the accuracy that a form is reflected in a perfect French plate mirror. We are glad to see that one of Mr. Speed's experience in handling horses at horse shows and competitive exhibitions can still say what we have always maintained, that the combination horse is the valuable one for this country. Of course, as the author states, if a man has money enough to own a stable that is a credit to a millionaire, it is well to have saddlers and roadsters, but for the great majority of our people who are not in affluent circumstances, the combination horse is the sensible one to possess. And as Mr. Roberts states in his work, the value of the horse for one purpose is not harmed in the least by his being able to do the other.

In his remarks about riding, the author pays a compliment to West Point as a riding school that we are not sure it quite deserves, but on the other hand, we think him rather severe and even unjust when he states that the greater number of American cavalry officers do not look smart in the saddle. It seems to us he should remember that the majority of officers ride a McClellan saddle, and that alone has much to do with a man's appearance when astride. Moreover our uniforms are made with the idea of being serviceable rather than smart. Take the most of our officers and dress them up in white stocks, with Jacob colored vests and handsome riding trousers, put them on saddle horses of finished gaits, clothed with neat dress in the shape of English saddles with white pipe-clay trimmings, and we dare say they would, as a majority, look as smart as any class of riders, and we venture to state, compare favorably with the Kentuckians, whom the author calls the best riders in the world.

But we are not going to enter into a long discussion with the author over so relatively small a matter. The book is too full of information to specifically dwell upon one point,

or many points. The truth is that mounted army officers cannot afford to be without this book, and we recommend its purchase to one who wishes to have an intelligent understanding of the different breeds in this country, and who also wishes to get the views of one who is a recognized horse expert the land over.

Mr. Speed thinks the value of the large draft horse likely to decline, due to the hauling of large loads hereafter in our cities by auto trucks. But as for any other style of horse, any one will be convinced, after reading the book, that the days of cheap horses have passed. Breeding is becoming more scientific than at any previous time, with the result that better horses will be raised with corresponding higher prices. As to the high school horse, he refers to it with some more consideration than does Mr Roberts, but as we shall probably have more to say upon this subject another time, we will say nothing further at this time upon the worth or worthlessness of high school training.

We congratulate the publishers upon the neat style in which the book is gotten up, but more upon the fact that they have secured an author who has decided views of his own and is not afraid to express them.

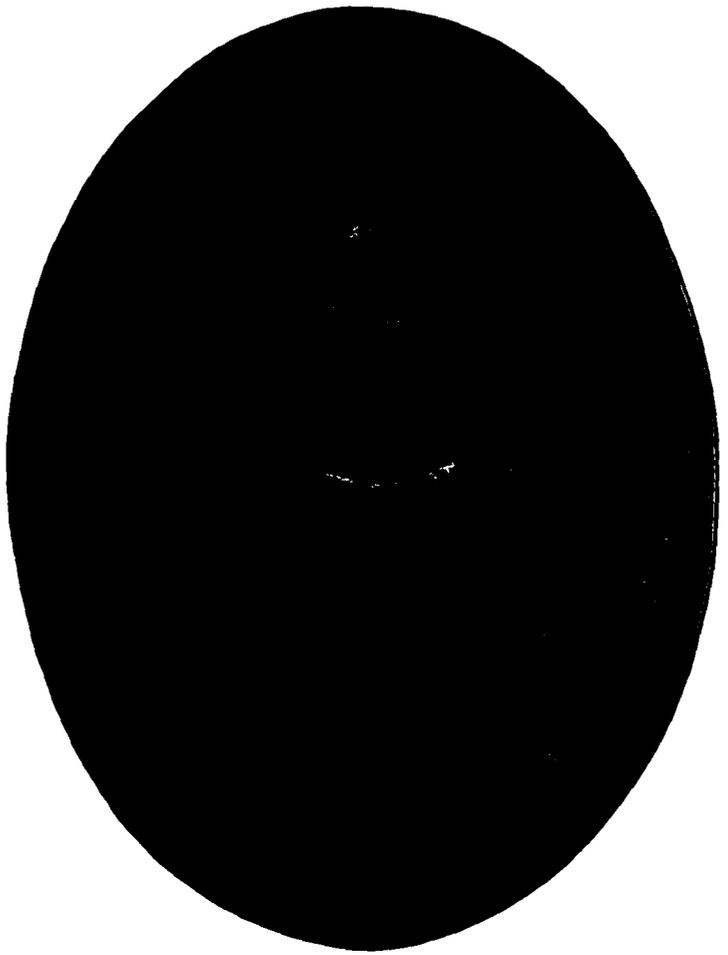
Our officers should possess both the above books on the horse, and considering the modest price at which they can be obtained, may think themselves fortunate in being able to acquire so much valuable information at so low a price.

For a review of the following books, see Editor's Table, under "Books on the Russo-Japanese War," page 551.

"From the Yalu to Port Arthur." By Lieutenant Colonel Oliver E. Wood, U. S. Artillery Corps, late military attaché at Tokio. From the press of the Franklin Hudson Publishing Company, Kansas City, Mo. Price, $1.50.

"The China-Japan War." By Vladimir, late of the * * * Mission to Korea. By the Franklin Hudson Publishing Co., Kansas City, Mo. Price, $1.50.

"Port Arthur: a Monster Heroism." By Richard Barry. From the press of Moffat, Yard & Co., New York. Price, $2.00.



BRIGADIER GENERAL WM. H. CARTER,
U. S. ARMY.

JOURNAL

United States Cavalry Association.

BRIGADIER GENERAL WM. [illegible]
U. S. ARMY.

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REPORT OF THE CAVALRY BOARD ON VARIOUS BITS SUBMITTED FOR TRIAL AND REPORT.

IT has been the aim of the Cavalry Board to compare, side by side, the various bits submitted to it, and to obtain for the cavalry a much needed change for the better. As a consequence, the following report will cover three bits submitted and recommendations embracing the opinion of the board as to the best equipment for adoption for cavalry only.

GREBLE BIT.

In compliance with the fifteenth endorsement on letter from the office of The Military Secretary, Washington, D. C., dated October 21, 1904, in reference to a bit submitted by Captain E. St. J. Greble, Artillery Corps, the board offers the following objections to the adoption of the bit for the cavalry service:

1. The flanges on the inner side of the cheek-strap attachment work into the inside of the horse's lips and irritate the animal.

2. The cheek-strap attachments are too weak, and are easily bent out of shape.

3. The movable cheek-strap attachment would be easily clogged with rust and dirt so that it would not revolve.

4. The results of the action of four reins on a single mouth-piece do not compensate for the additional trouble incident to their use.

5. The great expense attached to the manufacture of the bit would put it out of reach, however valuable it might be.

POWER BIT.

In compliance with the tenth endorsement on a letter from the office of The Military Secretary, Washington, D. C., dated July 14, 1905, in reference to a combination halter, bridle and bit, invented by Veterinarian Richard H. Power, Artillery Corps, the board submits the following objections to the adoption of the combination for the cavalry service:

1. No combination halter and bridle is satisfactory because horses in the field continually break their halters at the picket line. Plain halters can be easily improvised, but if the improvised halter must also carry the bit it would be a difficult matter.

2. In garrison it would be impossible to present a clean appearance when the bridle is used also as a halter.

3. The close fit and constant wearing incident to a halter-bridle, causes sores, often serious, about the horse's head.

4. The objection in the Greble bit, applies also to the Power bit, that the results of the action of the four reins on a single mouth-piece do not compensate for their use.

SIEVERT BIT.

In compliance with the fourth endorsement on letter from the office of The Military Secretary, Washington, D. C., dated January 17, 1905, in reference to a bit submitted by Captain H. A. Sievert, Ninth Cavalry, the board finds the following objections to the adoption of his bit for the cavalry service:

1. Although the snaffle action is fairly good, the curb action is a failure, because the mouth-piece is broken and the bit "falls through" if the curb chain is properly adjusted in the chin-groove. If the curb-chain is shortened sufficiently

to give curb action, the chain *must* ride up out of the chin-groove upon the sensitive parts of the jaw, and the upper branches are pinched with force into the cheeks of the horse, causing abrasions when the sensitive parts are forced against the sharp edges of the upper teeth.

2. The bit is not strong enough, and would not stand rough usage.

3 The single curb-rein attachment causes a horse to bore to one side.

4. It is not possible to get any curb-and-snaffle action together.

5. The bit is injurious to the horse; either the joint of the snaffle is forced into the roof of the mouth, or the curb-chain rides upon the sensitive jaws. One of these two evils must result from its use.

* * *

In connection with the above reports on the various bits mentioned, the board wishes to state that tests of many bits have been made at this post within the last two years, with a view to finding the best for the purpose desired, and the subject has been thoroughly covered. All models of modern bits now on the market have been purchased and tried. All modern authors on the subject have been consulted, and the board deems this an opportune time to submit the results of its observations.

The course in equitation for officers at this school was the first in our service. At its inception, no authorized system of training was prescribed, and it was therefore necessary to consult recognized authorities. No system could be found in which the bit and bridoon was not the key. As a consequence, the bit and bridoon was adopted and has been used in the school with surprising results. The combination has stood three years' test, and the troops of this command are now using improvised double bridles with very satisfactory results.

All manner of bits have been experimented with in the school, but only the double bridle has given the desired re-

sults. All of the new-fangled bits that have been recently invented have four reins, but the inventors seem, in each case, to have lost sight of their logical use. In the bit and bridoon, the snaffle is intended to elevate the head and pull it around laterally, while the curb in intended only to depress the head and restrain the horse. The snaffle acts on the tongue and sides of the bars, while the curb acts on the tops of the bare sensitive bars, their two actions entirely distinct,

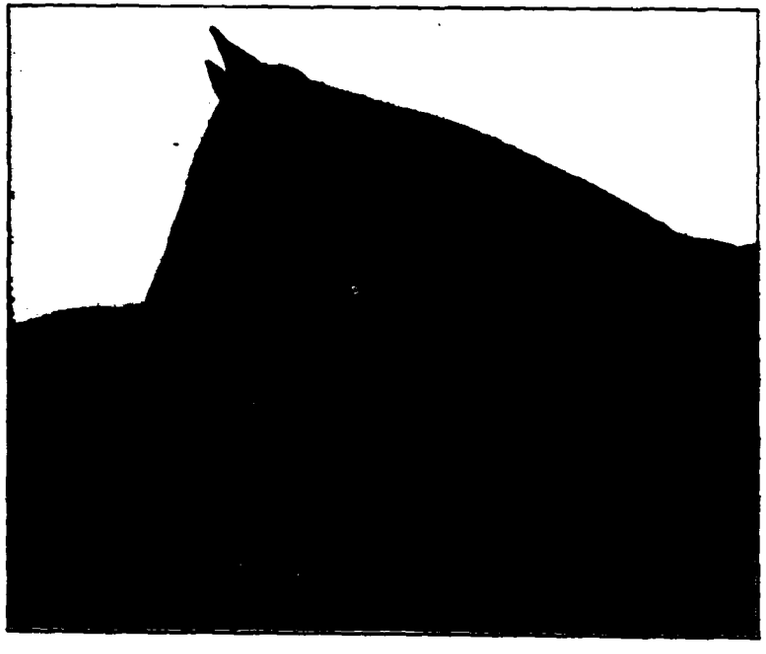


PLATE A.

and it must be apparent how unreasonable it is to expect to obtain these two separate but necessary actions from one mouth-piece.

It is immediately apparent that the harder the pull on the curb reins attached to a lever of the second order, the lower a horse's head must go. This accounts for the bolting horse setting his chin into his chest; having no snaffle, the soldier is unable to pull the chin out from the chest, although he is

frequently blamed for not controlling his horse. It must also be apparent why our horses either carry the nose stuck out straight ahead or bent into the chest (both incorrect positions), simply because they must either put the bit out of position for right angled pull on the lever of the second order, or else they must give to it as far as their conformation will permit.

It is also apparent that, if the bit and bridoon is used, the

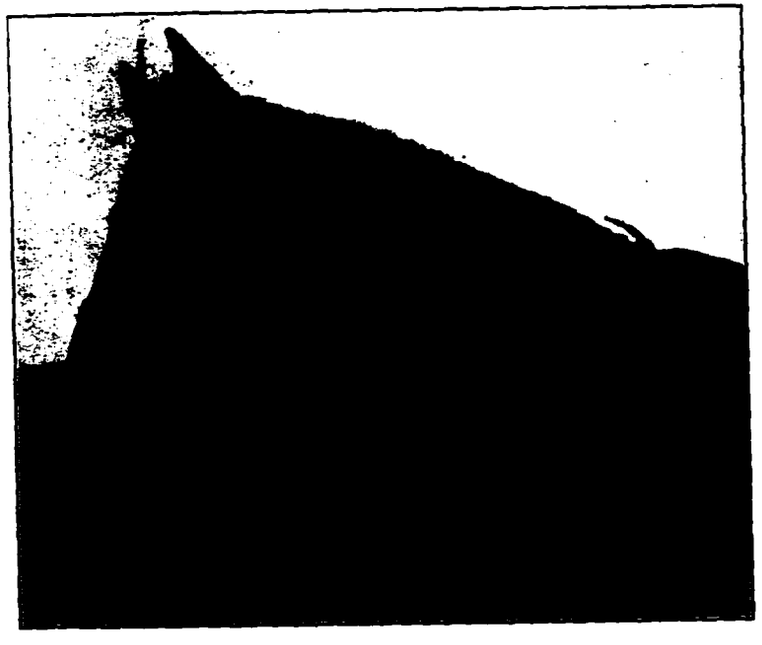


PLATE B.

head can be elevated by the use of the snaffle, and the chin pulled in by the use of the curb, thus bending the neck just back of the poll and placing the horse in perfect balance and under perfect control. The case is best illustrated when a man stands erect and pressure is put against his chin; only a few pounds will be necessary to push him backwards. But if he lowers his head, it requires great weight on the chin to keep him from going forward. The principle applies exactly

with the horse. With the bit and bridoon it is impossible to encounter the very common evil of pinched lips. The bridoon, properly adjusted in the corners of the mouth, is above the curb-chain and acts as a guard.

When this combination is used by every other military nation, as well as by every civilian horseman, trainer, cross-country rider, polo player, in short every horseman but the United States cavalryman, it must be self-evident that there are virtues in its use.

Troop commanders are handicapped if they attempt to apply any of the systems advocated by the authorities on the subject of training, because the double bridle is the key to all of them. The argument may be advanced that the men cannot be taught to use four reins. This, however, has been tested and found to be incorrect. There are a few men that could not be taught to use even one pair of reins in a hundred years; but the improvement in the training of the horses that will result from the use of the double bridle will enable the troop commander to mount such men on horses that will need practically no rein work.

The present watering bridle is an unsatisfactory arrangement, on account of inability to adjust it. It is either falling out of the horse's mouth or else the halter is choking the horse in the soldier's effort to draw it up tight enough to set the bit in place. The board is of the opinion that the bridoon of the double bridle could be used to much greater advantage. This will do away with the extra equipment and will avoid the necessity of having leather straps for head stalls attached to the present watering bridle

Drawings of the bit and bridoon, properly adjusted, and of the Boucher bridoon used as a watering bridle, are hereto attached, marked respectively "A" and "B." This bridoon is particularly adapted for use as a watering bridle, as it has an upper branch to which the head strap is attached, thus preventing slipping through the mouth—a fault with all other kinds of bridoons and snaffles.

Such a combination as proposed is ideal for a cavalryman. He has the bit and bridoon for training; an excellent snaffle to be used alone; a curb bridle for use alone, after the horse

is thoroughly trained; and no additional equipment more than at present (in fact, the weight is much reduced).

It is a well known fact that most of our cavalry horses become worthless as a military machine from the criminal abuse of their mouths; and the improvement sought in that direction is of vital importance. Every effort should be made, both by improvement in equipment and by systematic instruction in training, to place our troops on a war footing with the cavalry of European powers, which is mounted on superbly trained horses. Applications to this school come in daily from the mounted service at large, asking our methods of horse training. When the information is furnished, the methods can not be used because the equipment is not on hand. This is so discouraging that the old *no*-method is continued.

The board is also of the opinion that the present curb bit is unscientific and not in the line of advancement, for the following reasons:

The sizes are ridiculously large. No. 1 is 4½ inches wide; No. 2, 4¾ inches; No. 3, 5 inches. It is safe to say that there are not five horses in the cavalry command at this post* that would require a five-inch bit, and the majority would require not over 4¼-inch mouth pieces. No such bit is made by the Ordnance Department. The sizes furnished should be—

No. 1:	4	inch;	port,	1¾	inches	wide,	1	inch	high.
" 2:	4¼	"	"	1¾	"	"	1	"	"
" 3:	4½	"	"	1¾	"	"	1¾	"	"
" 4:	4¾	"	"	2	"	"	1½	"	"
" 5:	5	"	"	2	"	"	1½	"	"

These sizes would fit anything from the Philippine pony to the heavy artillery horse. Each troop commander should measure and make a record of the size needed for each horse in his troop; should make requisition for the exact size, and should see that the horse wears this bit at all times.

The upper branch of our present bit is too long. It is now two inches from the mouth-piece to the curb-hook and should never be more than one and three-fourths inches

*Fort Riley, Kansas.

The upper branches should bend out on a gradual curve from the mouth-piece to the top of the upper ring at least three-quarters of an inch, to insure plenty of room for horses with prominent upper molars.

In the opinion of the board a powerful but not a severe bit is desired.

The power of the bit increases as the lower branch is lengthened; the present bit has the minimum length of three and one-half inches, and is not considered sufficiently powerful; the addition of one inch in length is recommended, making a total length of lower branch of four and one-half inches.

A straight lower branch is also recommended. It is more easily cleaned and presents a neater appearance. The lower branch should have a small ring for the attachment of the lip-strap (see any commercial pattern).

The curved lower branch of the present bit is not curved enough to prevent the horse lipping the lower branch. The lip-strap is the best arrangement to prevent this vice, and absolutely prevents a horse turning over the bit by throwing the head. It also retains the curb chain in the chin-groove. The present very satisfactory curb chain should have a lip-strap ring at its center.

The board also recommends that half buckles with leather keepers be used. Long ends of straps will then be confined, and the bridle will present a much neater appearance.

The snaffle reins should be a trifle wider than the curb reins, and both must be of thin, soft leather. Two pairs of the present issue reins make too much of a handful.

Hereto attached is a very concise discussion of bits and bitting from "Horses, Saddles and Bridles," of General W. H. Carter. These principles are recognized as correct by all authorities on the subject, and the board submits them, inviting attention to the fact that they are studied by all young officers in garrison schools. These theoretical principles, however, can never receive practical application with the sizes of bits now furnished.

Attached are also a few extracts on the subject of bitting, taken from prominent writers on horsemanship, most of whom have devoted their life work to the subject.*

The board, in conclusion, is of the opinion that the bit and bridoon is the most satisfactory solution of the bit problem, and, further, that the particular bit and bridoon best adapted for the cavalry service is of the *exact* pattern forwarded herewith, with this *one* exception: the bridoon mouth piece should be five inches instead of four and one-half inches. There should be but one size of bridoon issued to go with any sized bit.

*Attached extracts not given as they are practically covered by the article in the October, 1905, JOURNAL, "Bits," page 331.

COUNTY FAIR CAVALRY.

By AN UNKNOWN CONTRIBUTOR.

COOGAN was a remnant left over from "the old army." He had seen his ups and downs, had known the privileges of chevrons and the humiliation of reduction; but, through all his alternating successes and failures, bore himself constantly like the natural philosopher that he was. Nature had endowed him with a power of observation that searched every passing fact with pitiless accuracy, and separated sham and show from the plain, sweet truth with ruthless decision. Could the comments of this Irish soldier-philosopher have been completely preserved, the General Staff would have had at its disposal a mass of army criticism well worth consideration by the most capable of its "divisions."

I remember when I joined my regiment and troop as a second lieutenant, how the sharp eyes of Corporal Coogan seemed to search through the thin disguise of such military attainments as I possessed. But I learned to appreciate the old fellow's strength and allow for his weaknesses through the years which led up to my promotion to first lieutenant and finally to captain of the same troop. Then came several years of detached service, at the termination of which I rejoined and, by a fortunate transfer of captains, was again assigned to my old troop, finding Coogan the solitary "old trooper" among many first-enlistment men and a few of two and three enlistments. Coogan—now First Sergeant Coogan—on a quiet afternoon in the orderly-room, encouraged by my many references to the troop in the old days, launched forth on a review of what he called "county fair cavalry." It seems that the troop had been sent during the preceding summer to several county fairs, as a sort of attraction to help out the fair managers. In fact the whole regiment appeared to have shared in this "duty," and the soldierly Coogan seemed to have jotted down all the distressing circumstances of the summer's campaign.

"Dy'e see, sor, it's like this. Things ain't at all like they used to be in the army, whin the Captain was wid us befoor. The Captain remimbers thim days whin cavalry was thrained to ride hard and shoot straight wid the idea of beatin' the inimy—ayther by smashin' him wid a charge or cuttin' him to pieces by our carbine fire And now, faith, sor, and its humiliatin' to tell the Captain what we've been doin'."

"Go on, Coogan, tell me all about it," I said, "your years of service and your ability to tell the truth entitle you to be heard."

"Well, sor, dy'e see, sor, it was like this: Last summer was the worst of all. The troop was new—'tis always new these days—and we had just bin filled up wid a boonch of new recroots—a choice lot of juvenile crooks—shweepins from the Bowery, togither wid some physical wricks of Frinch Canadians carefully culled by the painstakin' recrootin' officers from the blue bloods of dear old New England. 'Twill take all the foine days of this whole summer, and thin some,' says I to meself, 'to make soldiers of this boonch.' The Captain will remimber the ould days whin we spint days and days, and wakes and months hammerin' such material into shape, and niver troostin' thim wid spurs and a curb bit till they knew somethin' about stickin' on the top of a horse Faith, sor, but last summer we had thim rookies ridin' foine and dandy in parades, yankin' and jabbin' with bit and spur, and rooinin' the poor horses before they had bin in the service two wakes. 'The people demand it,' says the post commander to our captain, 'and we must get the soldiers out, whether they are trained or not, to please the people—the real rulers of the country,' says he. 'Divil take the people,' says I to meself, 'tis damned little they have to do wid rulin' this country, though they may rule this rigimint.'

"But, sor, 'twas the county fairs that killed the spirit of manny a soldier like meself, and—beggin' pardon for speakin' this way—'twas manny a foine officer I saw last summer swallowin' the bitter medicine and looking black at the humiliation business. D'ye see sor, 'twas like this: We'd go off on a practice march wid some county fair fur our distination. Loike as not we'd go on a railroad train—the county

fair a payin' our expinses, and all the railroads makin' money by runnin' excursions to the fair. They had us advertised around the counthry loike any ould Woild Wist Buffalo Bill show. In one town a street car company, usin' the admirable and patriotic impulses of the local Congrissman, workin' on the War Department, secured our troop as an attraction fur their park. And there we were, sor, a troop of United States cavalry workin' for that damned street car company in their dirthy ould park, loike anny other 'attraction,' Our camp was jammed up in a dusty corner of the grounds, wid dusty roads and a line of saloons on two sides and a Woild Wist show on another. Not fur away were the 'Merry-go-round,' 'The Great Egyptian Fortune Teller,' 'The Sword Swallyer—the Human Ostrich,' 'Jim—the Candy Man,' 'The Loop the Loop,' 'The Wonderful Three Headed Calf,' 'Do Do, the Dog-faced Boy,' and cheap fakirs till ye couldn't rest, sor. All around the town ye'd see bills stickin' around, callin' on the good people to come out to the street car company's park to see these wonderful attractions, the greatest of which was, in the biggest toipe on the bill: 'Special Attraction—Troop of United States Cavalry—Two performances daily.'

"'Tis loike a horrible dhream, sor, to think of all that now. 'Twas a scheme to 'popularize the army' I'm told. Faith, and about two more summers loike last and the army will become the laffin' stock of all th' roober nicks in the country—and small wonder, sor, small wonder; shure and the world has always laffed at mounte banks and travelin' performers. And the great cryin' pity is, sor, that half the people won't believe we're reglars. Think of it, sor, the ould Twintieth Cavalry losin' caste, after all its fitin' on the plains, in Cubia and in the Phillypines. But these rubes say 'Shure, ye ain't regulars, are ye? Why ain't ye at yure post, drillin' and shootin'. We're glad to t'see you, boys, but we didn't know Uncle Sam hired ye and trained ye to go gallyvantin round to the county fairs. They ain't nothin' ye can do on these here gounds that'll help ye lick the Japs.'

"'Tis very well, sor, to talk about 'popularizin' the army' but 'twill be well to remimber also that 'familiarity breeds contimpt.' I'm allowin' two more summers of 'county fair cavalry' to change popularity into contimpt, and that'll be our finish—and the army niver will git a dacint appropriation after that. At the fairs last summer the roober-nicks gave us a divil a bit of rist or privacy wid their pryin' curiosity and familiarity. Like bees they swarmed around and even inside our very tints. We ate our meals near the kitchen shack, sittin' around on the grass. Save us, if the haythen jays didn't crowd around us as if we were that many strange animals bein' fed. They even sthepped upon our plates and meat cans in their polite American curiosity. Maybe experiences and treatment like that is calculated to make a dacint, self-respectin' soldier re-enlist—and maybe it ain't. Wanst, thinkin' to ate in peace, I took me chow into me tint and let down the front flaps, but no sooner was I started eatin', when me tint flaps was pulled open by a female. 'He's eatin', girls, come quick,' she yelled, and soon the front of me tint was filled wid female creetures. Under loike circumstances, Private Flannigan was takin' a bit of a bath the same day, sor, in his tint, wid niver a rag on him, sor, whin his tint flap was pulled open by wan of thim female roober-nicks. 'Hivens, what's he doin',' she gasped, droppin' the tint flap and scamperin' away widout callin' the other girls. 'Popularizin' the army' says Flannigan, scrubbin' and scrubbin' away.

"And quite frequently, sor, our officers was thrown socially among a foine class of citizens. I remember one afternoon at Blundertown, we were makin' camp in the fair grounds and I was standin' near the lieutenant who was in charge, the captain bein' away. A great big, red-faced booze-wreck of a hobo comes up to the lieutenant: 'Loot.,' says he, 'come across the street to the Red Lite Saloon,' says he, 'I want ye to meet Mistress Annie Mick, proprietress of the saloon; she's a perfect lady.' 'Wid pleasure,' says the lieutenant, thinkin' a bit, 'I'll be pleased to mention to this saloon-keeper something about treating our soldiers properly; perhaps I'd better meet her.' And so the lieutenant wint across the street, very dignified like, and was ceremoniously introjuced to the lady proprietress of the Red Lite Saloon, two barkeeps and one whisky drummer.

I was follerin' the lieutenant meself, thinkin' to be near if needed, and, comin' up, I heard a patron of the place, leanin' against the bar, say to the lieutenant, 'I knowed ye was a lieutenant, for I am myself a member of the Uniform Rank,' says he. 'Very fine, very fine,' says the lieutenant, bowin' himself out of the place wid a smile. At this same town whin we was unloadin' from the cars, wan rube says to the captain, 'Hey, Cap,' says he, 'does one man command this here mob?' 'I'll have you understand this is no mob,' says the captain, 'this is a troop of cavalry.' 'Be you boys Kansas cavalry?' says the rube. 'No, damn it,' says the captain, 'this is United States cavalry.' 'Now, young fellow,' says the rube, 'ye can't fool me, ye ain't regulars, for they don't send regulars round to show off monkey bizness. Regulars can't spare the time from their target practice and real military work. Regulars is expensive to maintain and now-a-days they hev to tend to bizness strictly and seriously like other folks. The summers is none too long for them to get in all their work without wastin' time travelin' to fairs. You can't fool me, young feller, ye ain't regulars; leastwise if ye was we all would feel like speakin' to the authorities about you runnin' around this way wastin' time that belongs to bizness.' 'Oh, hell,' says the captain to himself, 'I wish I could resign and quit this farce.'

"Another time, an old rube sez to me, 'Where do ye hev yer winter quarters?' he says, 'or do ye travel all the summer and go south in the winter? Ye won't make much money to-day, for they ain't many of the folks a comin'. But to-morrow ye'll hev a big crowd, and I reckon that'll make ye all feel good. Reckon you fellers is fond of big gate receipts same ez all show men. And where do you show next? Ye ought to go tew Bundy Creek, shure. My boy Bill used to be with "The Kickapoo Indian Medicine Company" run by Doctor Delooloo. Bill had charge of drivin' the pegs fer the tent. He said the Doc made lots of money sellin' medicine tew the people. I reckon you all hez things tew sell after yer get the people worked up with yer show, hey? Bill said the people liked their show because they did lots of ridin' and shootin'. I reckon you all hev plenty of blank catridges, ain't ye? This is the first show I ever see,' he sez, 'with all the men dressed up like soldiers. A new idea with show men, I reckon. Me and my wife went to visit the big army post in this State last summer, and you fellers can be glad you ain't real soldiers, for I tell you them fellers hez to do real work. They certainly was busy firin' on the rifle range, drillin' and maneuverin', trainin' horses and gettin' ready fer long marches. Some of them said their colonel only had one idea in his head, and that was to make his regiment the best in the army. Looked to me as if he had the right idea, fer a soldier. You fellers is more like our home boys—all ye do is to show off.'

"'Twas agonizin', sor, to listen to that ould whiskers, but it was the truth he was givin' me, and ivery man, sor, should listen to the truth whiniver he hears it, and furthermore, he should think long and ponder over it."

"Well, Coogan," said I, "you certainly feel deeply on that subject. Perhaps the War Department will put a stop to this county fair business, now that they have tried it."

"Sure and that would be a blessing to the service," said Coogan. "But 'twill be hard to stop, now, for all the county fairs in fourteen States is quarrelin' over gainin' possession of cavalry troops for cheap attractions. 'Tis looked upon as legitimate graft, the government bein' the only loser, and only the officers and min bein' imposed upon, and the divil knows they don't count. Even the Congressmen is fitin' over this new graft. Says Congressman Skin to the post commander, 'Don't ye dare sind wan of yer troops to anny county fair outside of me own district. Me constituents is entitled to all the amusements which I control,' he says. 'Me own county fairs object to yer troops furnishin' amusement to rival fairs. I'll have no more of it,' says he, wid all the authority of a commanding general. 'It is me dooty to insure me own renomination,' says he, 'and you and your troops can help by keepin' me constituents laffin' and in a good humor,' he says."

And then, just as the disgusted Coogan started on another long period, we heard the call for afternoon stables, and the observations on "County Fair Cavalry" were closed.

ORGANIZATION OF PHILIPPINE SCOUTS.

CAPTAIN R. D. WALSH, NINTH CAVALRY.

IN approaching this subject it will be to our advantage to glance at the history of the Philippines, in order to correct the general impression that the Filipinos are a rebellious people, and that they will rebel against any government. Their history may be divided into three periods: before the discovery by Magellan, from that time until 1868 (the opening of the Suez Canal), and to the present time. Of the first, little is known except that the natives, under petty chiefs, lived along the coast line and were not civilized. During the second period they were generally contented and happy, and advanced rapidly in civilization. The third period was marked by the Cavite insurrection, the rebellion against Spain and that against the United States. The first was of no moment and localized, the second was extensive and the third general.

In speaking of the second period as one of contentment and progress, I do so with a full knowledge of the many so-called rebellions. When these are studied, it will be found that they were generally incidental to the occupation of a new territory peopled by an uncivilized race, and in many instances were similar to our Indian wars. When not of this character, they owed their origin to religious fanatics, but the two were often combined. They were invariably suppressed by native troops. The largest of these rebellions occurred during the English occupation of Manila, and was fomented by Diego Silan, who claimed to have had personal interviews with the Savior, and called himself Cabo de Jesus Nazareno.

The Oriental character differs from ours; but men of all creeds and nationalities respect justice and its prompt administration. The Caucasian is the only one who fully appreciates mercy. Other races seldom protest against a sentence

greater than that merited by the crime. To have its full effect the trial and punishment must follow swiftly the commission of the crime. The Asiatic is an adept in the fabrication of false charges and testimony, and in the production of false witnesses. The Arabian Nights contain examples of this, and the Just Cadi is the one who exposes the unjust accuser. This trait is absent in the character of the American Indian, and seldom appears in that of the Ethiopian or Caucasian.

The contentment and progress which, until 1868, prevailed under Spanish rule, was due to the government of the towns by the priests of a religion, which religion was well suited to govern a people of that faith, and who possessed little knowledge of the outside world. It is useless to enter into a discussion of the government by the fr ars, but all acquainted with the subject will admit that through their religion and their presence in each town, the fact that crimes were committed came to their knowledge, and that they possessed the power of bringing the criminal to justice.

During the past seven years the Philippines have been controlled first by the military government, and then by the present civil government. During the military government active hostilities existed, and the army was handicapped in its government, as the country was alien to it in customs, manners and mode of living. Its language was a foreign one. Could the native troops in the Spanish service have been incorporated with our army in 1898, the insurgent forces would have been deprived of their best troops, and we would have had a force upon which we could have relied, and the conduct of the war would have been different. The small American force at first operating in the Islands necessitated frequent movement of troops from one station to another. This was unfortunate. The employment of a large secret service fund would have improved the feeling between the troops and the natives, and the war would have been brought to a timely end. After 1899 the problem was not to conquer the enemy, but to identify him.

The establishment of the civil government when the country was not completely pacified was premature. Per-

haps this was due to a supposed political necessity or movement. We manifested no such haste in restoring civil government throughout the Southern States in 1865. The general mass of the Filipino people was adverse to the removal of troops from their towns. One reason was that the troops spent their pay among the small merchants; but the principal one was that it left the people at the mercy of native officials. The Americanista was abandoned, and former insurgents generally filled all places in the local governments. Up to the latter part of 1899, with few exceptions, the wealthy class had not affiliated with the insurgent movement; all the criminal class had. The wealthy class would have remained loyal to the Americans had they not raised the price of labor, and had they carefully distinguished between friends and foes. All except the active insurgents dreaded the local governments being placed in native hands. While the insurgents were supreme the towns had experienced such a government, and a study of the government of the various towns by the insurgents in 1898–9 will convince anyone that as examples of overbearing tyranny and arbitrary misrule they are not excelled in history. Their records are those of robbery, sequestration, rapine, assassination and murder.

Not often does a conqueror at once institute civil government in conquered territory; even when, according to the rules of war, he permits local officials to continue the exercise of their functions, it is under the supervision of military authority. Under military supervision we installed local governments in the pueblos, but when the control passed from the military, these local or town governments were, with the exception of an occasional visit from the provincial governor, left to themselves. That their authority was invariably used for the benefit of the people, and not to further the private interests or gratify the private vengeance of the presidentes, few will contend.

The history in all uprisings in the Philippines is similar. The discontented, at first few in numbers, were invariably joined by the criminal class en masse. Then through terror the peacefully inclined were forced to join their ranks.

Or some fanatic, representing that he was acting for the Lord, prevailed on many to join through religious enthusiasm. The higher classes had few representatives among the rebellious ones; but these, partaking of the enthusiasm, often willingly sacrificed life and property. The attitude of the common people to any policy is one of indifference. In all matters they are ruled by the principales or by the criminal class. Each of these rules by terror. The common citizen amounts to nothing, and will continue so until he is assured of permanent protection from these two classes.

When a savage, aided by a civilized race, progresses through various stages towards civilization, there comes a time when the controlling or uplifting force must transfer part of its authority to the other race or there will be no further advancement. This may be said to be the beginning by that race of self-government, and this government to be successful must be inaugurated in the municipalities and townships. If, before the citizens of these municipalities and townships are thoroughly founded in the principles of citizenship, the controlling force is removed, progress will cease. Until 1898 the government of the Philippines was patriarchal, and at least 200 years behind that of a modern civilized state. In a patriarchal government the members of the community have no say in forming its rules, no vote in determining what shall or shall not be done. Though the Philippines had local town governments, they were so only in name. The friar was the local government. Not one man in fifty understood or cared about his rights as a citizen. This is still true. We removed the controlling force and in its place the principales reign. Roughly speaking, the Filipinos may be divided into principales and common men. The former do not believe they are made of the same clay as the latter, and regard them as inferior, not entitled to any consideration. The principales are vain, haughty, often with a superficial education, personally ambitious, and anxious to shine in the glare of lime-lights. There are exceptions to this classification, as some few are men of ability, deep thinkers, and in every way worthy men. The common hombres are hard working, kind to their families, hospitable,

generally law abiding, and possessed of many good traits. They are ignorant, and thousands of years of caciqueship have thoroughly grounded them in implicit obedience to the principales. It is against such a people, alien in customs and manners, that we have suddenly hurled all the blessings of the most enlightened citizenship, founded upon the perfect equality of all men. Will they be able promptly to digest this, or must they first pass through an intermediate stage, and if so, what steps must we take to instill our principle of equality, and what should be our first form of government?

Among an alien people, as far advanced as is the Filipino in civilization, a military-civil government is the best, and this should slowly and slowly, and gradually and gradually, be superseded by one entirely civil. Such a people respect force; a military government is prompt and just. The officers have had previous experience with the people, and seldom form business ties. A military government should not supersede the town local governments, but it should work alongside of and in cooperation with such governments. Its function should be to elevate the tao, and keep him from being a pawn in the hands of the principales. In other words it should work to make life and property secure. When this is done, we will have no further trouble in the Islands and they will advance rapidly both in commerce and industries.

To secure the safety of life and property it is necessary that the knowledge of crimes committed should come to the authorities, that the criminal should be identified, and that the authorities should not shield the criminal. American troops cannot do this, and they must be aided by natives, employed either as police or as scouts. The former will always be under the control of the presidente, while the latter can be controlled by their officers.

The native troops now serving in the Islands are organized as constabulary and scouts. It is hard to understand why there should be a distinction and two separate armies maintained. The constabulary can not be classed as militia. They are constantly moved from province to province and from island to island. They are permanently maintained and armed, fed, clothed and paid by the civil government

while side by side is another colonial army (the scouts) maintained by the United States. There should be no separate armies or separate governments. The United States should be the government and the Governor-General should be a vice-president in the true meaning of that word. He should be at the head of the military as well as at the head of the civil power, as the President is in the United States. Many of the powers of the latter should be delegated to him, for it is hard to govern, and govern well, at the end of a string 9,000 miles long. All talk of independence in the Islands is nonsense for at least fifty years. It is fomented by the young shoe hombres and a few of the wealthy men of the upper class to forward their personal interests. These are aided in the United States by people who are ignorant of the principle they so readily support. Some of them may have visited the Philippines, but they know nothing of the lives of the common people. They are ignorant of conditions which existed in the provinces under the insurgent government. The chances are one to ten that they have never had five minutes conversation with a bare-footed hombre; and if so, it was through an interpreter. Let them live months or years in some town, let them learn something of the language of the people, and their views will change.

If the Philippines were rich and had large revenues, enabling them to maintain many and good officers, the constabulary might be retained; but these conditions do not exist. The scouts should be retained and, in addition to their present duties, they should be auxiliary to and aid the local town governments. It is among the lowly that the United States must work if it desires to raise the people. The rich and criminal must be taught that the people are not their slaves, whom they may move at will; and that the common people cannot be forced to deliver their property to them, or pay the penalty for disobedience with their lives.

A regiment of native troops should consist of one colonel, one lieutenant colonel, three majors, fifteen captains, one chaplain, sixteen first lieutenants, sixteen second lieutenants, one sergeant-major, one quartermaster sergeant, one commissary sergeant, three battalion sergeant-majors, two color ser-

geants, one band and twelve companies, organized into three battalions of four companies each. The organization of the regiment and the duties of its officers should be the same as in a regiment of infantry of the United States army, and the officers should receive the pay and allowances of the corresponding grade in that service. No extra pay for foreign service should be paid to any officer of a Philippine regiment while serving in the Philippine Islands.

Each band should consist of one chief musician, one principal musician, one chief trumpeter, one first sergeant, one quartermaster sergeant, six sergeants, eight corporals, and eighty-one privates. It should be equipped and drilled for field service. Each company should consist of one captain, one first lieutenant, one second lieutenant, one first sergeant, one quartermaster sergeant, six sergeants, eight corporals, two musicians, and eighty-four privates.

Of the officers herein provided for, the field officers should be detailed from officers of the regular army above the rank of first lieutenant, and the captains from the lieutenants of the regular army. The detail of officers for such service should ordinarily be limited to a period of two years. The lieutenants should be selected from the enlisted men of the army, officers or soldiers honorably discharged from the regular or volunteer service, and from natives of the Philippine Islands of honorable record. Lieutenants should be commissioned for a period of three years unless sooner discharged.

The enlisted strength should be composed of natives of the Philippine Islands, but no regiment should be composed exclusively of natives of a particular section or tribe. The term of enlistment should be for three years.

Enlisted men of Philippine regiments should be paid as follows:

Regiment.	
Sergeant-major	$34 00
Quartermaster sergeant	34 00
Commissary sergeant	34 00
Squadron sergeant-major	25 00
Color sergeant	25 00

Band.	
Chief musician	$60 00
Drum-major	25 00
Principal musician	22 00
Chief trumpeter	22 00
Sergeant	18 00
Corporal	7 50
Private	6 50
Troop.	
First sergeant	$25 00
Quartermaster sergeant	18 00
Sergeant	18 00
Corporal	7 50
Trumpeter	6 50
Private	6 50

While serving in the Philippine Islands there should be no extra pay for foreign service paid to enlisted men of Philippine regiments. In addition to their regular pay, one dollar per month should be paid for each five years' previous service. When an enlisted man had served for thirty years he might apply for retirement, but service in the Philippine Islands should not count double towards such retirement.

The allowance of clothing to each enlisted man should be $96.00 for each enlistment of three years, distributed as follows: Four dollars per month during the first year. $2.00 per month during the second and third years.

At some suitable military post there should be organized a military school for the instruction of native cadets, with a view to their appointment as commissioned officers to scout regiments. At date of appointment as cadets they should not be over sixteen years of age, and should serve from four to six years as cadets. While under instruction they should receive sufficient pay to meet their expenses. The number of cadets should not at first be large, but should be increased gradually.

There should be attached to each native regiment seventy selected enlisted men of the army, who should have the rank of sergeants. Of these, five should be attached to each company and band, and five to regimental and battalion headquarters. While serving with native regiments they should receive the pay of their grade, and in addition $15 per

month. They should be considered as a casual detachment of the Philippine Division.

The pay of the corporal of the army, including the ten per cent. increase for foreign service, is $16.40, and a private $14.30. In a regiment of native troops there would be 104 corporals and 1089 privates. The pay of a native corporal would be $7.50 and of a private $6.50. Therefore the annual pay of a native regiment would be $113,000 less than a regular regiment of equal strength. The additional pay for the American noncommissioned officers would be about equal to the difference between the annual clothing allowance of the scout regiment and a regular regiment. There would also be a saving in rations and transportation, and we may assume that a native regiment would cost about $150,000 annually less than a regular regiment of equal strength.

This proposed organization differs from the present one in the following respects:

1. Providing a regimental organization with a full complement of field officers. No matter what his nationality or race, the soldier regards his regiment with pride. Field officers can be spared from regular regiments, but they are all needed with native troops. The Filipino respects high rank, and a colonel will have more influence than a major. A regimental formation gives an air of permanency to the organization; and constant supervision of young and untrained officers is necessary in a country like the Philippine Islands.

2. The founding of a cadet school for the education of native officers. Graduates of this school should hold their commissions during good behavior. On graduation they should be appointed to a regiment as second lieutenants, and after serving a number of years should be promoted to first lieutenants and then captains. Promotion to the grade of field officer should be by selection, or all promotions may be by selection.

3. The creation of bands numbering a hundred pieces. The number of first and second lieutenants is placed at sixteen, and the two extra lieutenants are for service with the band. *It should be drilled as a company*, and at any time available for field service as a company. These large bands would react favorably on the people. They are all musicians, and troops with such bands would be looked on with favor. In the Orient the spectacular is everything to the populace. At first glance the establishment of these bands may appear trivial, but the subject is one of importance.

4. Sergeants are paid the same as those of like grade in the regular service, which may be considered as double pay. The object of this is to fill these positions with natives who are above the ordinary in intelligence and standing. This makes their position a desirable one; so much so, that the occupant will use every endeavor to retain it.

5. Attaching American noncommissioned officers to each regiment. When used as a military force they will improve a regiment, but when scouts are sent out in small detachments or when the force is scattered for police purposes, these men will be invaluable. The number is placed at seventy, so that detachments may always be accompanied by an American. The Filipino is a born extortioner. He firmly believes that an office is created to make out of it the most possible. When crossed he is cruel and vindictive, and has a long memory.

Some objection may be made to paying enlisted men of the United States army the extra pay of $15 a month. These men will at times be required to mess by themselves, and they should always be neatly dressed. The amount suggested is believed necessary to cover the extra expense. Promotions to commissioned officers should generally be made from among these men.

I believe that with a number of American soldiers attached to these regiments the bad features connected with the use of native troops would disappear, and that the service obtained from them will fully meet present conditions. The Filipinos are a conquered people, and have suffered so much from war and pestilence that all they ask is security and protection for their lives and property.

The disadvantage of such a regiment is the frequent change of officers. An American serving in the tropics should, at the end of every three years, leave them for a year. Continued residence in the tropics dulls the moral sense and enervates the physical. There is no reason why

good officers should not serve again after a year's absence; and their service as scout officers should count in computing their service towards retirement should they elect to reënter the regular army.

In the administration of justice, criminal cases of importance are now brought before courts of the First Instance, which courts have sixteen American and seven Filipino judges. Capital cases are tried before these courts, but before a death sentence is carried out the *proceedings* are reviewed by the Supreme Court. I am not prepared to make any statement in regard to the workings of these courts, but have often wondered what were the sensations of a middle aged American lawyer when he first assumes his duties as judge (and also jury) in a court of the First Instance. Does he render his decisions according to the testimony, or does he soon realize his position, and are his decisions influenced by representations from interpreters and other native court officials? A military commission is a better tribunal than a judge of this class for the trial of criminal cases. It has three members, all of whom are more or less familiar with the native character; and three, in the case of false testimony, are more apt to detect its flaws than one. Generally the members of a commission have some knowledge of Spanish; and often one or more a knowledge of the native dialect. This acts as a restraint on the interpreters. Perhaps a commission of five members, two of them native officers, would be still better.

We must regard the great mass of the Filipinos at the present day as possessing many of the attributes of civilization, with a small upper class as civilized. Among the majority the proportion of hard working, industrious men and women is large; but they are entirely controlled, through fear, by the upper and by the criminal classes. I was present at an election for municipal officers, in a town of 6,000 people. Seventeen votes were cast, all alike. In 1901 when the *partido federal* was formed, I questioned several natives among the hundreds who had just signed the rolls and taken the oath of allegiance, and only two knew what the object of the meeting was, and that in an indistinct

manner. The others had signed and sworn because they had been told to do so. It would be impossible to find out the true standing of the populace on any question. The chances are the majority would not care and would not understand it; or the prominent citizens would tell them that by voting a certain way they would be personally benefited. Any proposition to which was attached a mule and 160 acres of land would, if favored by the principales, carry the Islands by a majority of at least a million.

During at least the last half of the late insurrection the problem presented to the American troops was not to conquer the enemy, but to identify him. The same problem exists to-day, to exterminate the so called ladrones. The word ladrone means a thief, but is now applied to any small or large band of men organized for any unlawful purpose.

The native is the only one who suffers at the hands of these outlaws, and ordinarily, if afforded permanent protection, he is willing to identify them. The ladrones are persistent in their revenge, and so far only temporary protection has been given those who informed against them. In Spanish times the native troops remained loyal, and there is no doubt of their loyalty when it is to their personal interest to remain so. These troops can go amongst their countrymen without exciting suspicion, but the ladrone is always watchful in the presence of Americans.

To say that ladrones have always existed and always will exist is nonsense. They can be cleaned up. Thieves will always exist, but that they shall be able to form large bands and terrorize whole communities is contrary to common sense.

In conclusion, I would again state that in the use of these native troops as a police force it is not advocated that they should supplant the local or town governments. With a presidente honest in the discharge of his duties and willing to treat the rich and poor as alike before the law, they will be invaluable as an aid and auxiliary in suppressing lawlessness and bringing criminals to justice. Where the presidente is unjust or when he is leagued with criminals, the fact will soon become known and brought to the attention of his superiors.

CAVALRY EQUIPMENT.

By Captain CHARLES D. RHODES, General Staff.

OUR cavalry regiments are soon to be furnished with a rifle weighing 1.09 pounds more than the present carbine, and having 2.53 inches greater length. These considerations have led the writer to make considerable study of the weight and arrangement of the future cavalry saddle equipment, and he presents his notes to the service, hoping that free discussion and practical trial may bring about some improvement in the saddle-pack, if found practicable.

As a basis for any investigation of the subject, must be determined—

THE GROSS WEIGHT ON THE HORSE.

During the past few years a number of articles of equipment have been slightly increased in weight, so that with the advent of the new Springfield rifle the cavalry horse will probably carry ten or eleven pounds more than he did five years ago, disregarding the weight of the rider. This increased weight is principally represented by the new rifle, rifle-scabbard, olive-drab overcoat, and shelter tent.

The following weights in pounds are believed to be reasonably accurate:

Clothing on Trooper.—Campaign hat, .31; undershirt, cotton, .5; flannel shirt, 1; blouse, olive-drab, 2.56; drawers, cotton, .5; riding trousers, olive-drab, 1.5; canvas leggings, .81; shoes, russet, 2.06; socks, .25; gloves, .2; first aid package, .2; total, 9.89.

Equipments on Trooper.—Latest model ammunition clips and belt with suspenders, 7.625; revolver, caliber .38, 2.06; holster, .5; spurs and straps, .35; total, 10.535.

Packed Saddle.—Saddle complete, 17.3; saddle-bags, 4.2; saddle-blanket, 4.3; rifle, model 1903, 9.09; rifle-boot, model 1903, 2.81; saber and scabbard, 3.75; saber-knot, .2; surcingle, .75; overcoat, olive-drab, 8; bed blanket, 5; change of cotton underclothing, 1.25; shelter-half, model 1904, 3.125; one shelter tent pole, hinged, three-jointed, 1; nose bag, 1.375; lariat and picket-pin, 3.3; canteen (empty) and strap, model 1904, 1; tin-cup, .56; meat can, .95; knife, fork and spoon, .38; currycomb, .65; horse-brush, .625; watering bridle, 1.1; total, 70.715.

Equipments on Horse.—Bridle and bit, 2.6; halter and strap, 2.6; total, 5.2.

Emergency Articles.—Two extra horseshoes, front and rear, 1.5; horseshoe nails, .25; side lines, 1.72; two extra bandoliers of ammunition, 8.50; one emergency ration, 1.26; one-half ration of oats, 6; total emergency, 19.23.

The gross weight on the horse, exclusive of weight of rider, will, therefore, be 115.57 pounds; or minus the emergency articles (19.23) not ordinarily carried, it will aggregate 96.34 pounds.

Comparing this with the weight of the ordinary equipment carried by foreign cavalry horses:

British	120 pounds
German	100 pounds
Russian	120 pounds
Belgian	111 pounds
Austrian	137 pounds

we find that, even with the increased weight of our equipment, we are well within the safety limit as to weight.

This fact proven to our satisfaction, the next point of interest is whether arrangement of our equipments on the horse is such as to bring out his maximum efficiency as a weight carrier.

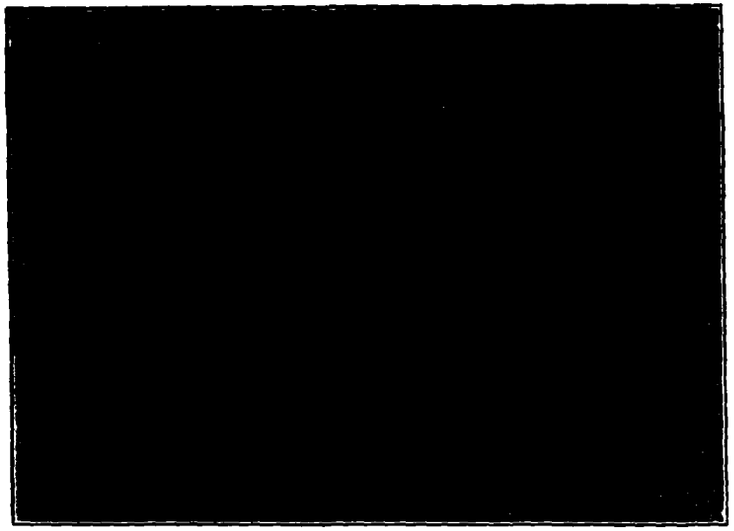
THE PACKED SADDLE.

The range, accuracy, and flat trajectory of the new rifle will certainly give our cavalry an immense superiority over antagonists armed with an inferior weapon. But its weight and length and their effect on the stability of the saddle-

pack, are factors which will have to be considered in future cavalry operations requiring mobility.

For some years the carbine has caused a decided preponderance of weight on the side of the saddle from which it is suspended.

This pull on the saddle has been more or less increased by the packing of the saddle required by Paragraph 289,



THE NEW U.S. RIFLE AND RIFLE SCABBARD SLUNG FROM THE NEAR POMMEL OF SADDLE.

Cavalry Drill Regulations, and will be increased to a greater degree by the new rifle and the new russet leather scabbard.

I have always believed this preponderance of weight to have been responsible for many cases of sore withers, and I believe cavalry officers who care to investigate the present authorized method of packing the saddle, will be surprised to learn that, whether the Krag carbine be carried on the near or off sides, an alarming discrepancy in weight exists which cannot fail to work harm on a fatiguing march. It goes without saying that a pull of seven or eight pounds on either the near or off side of the withers, will develop a see-

saw motion, almost certain to injure some portion of the horse's back.

In the following tentative arrangements of arms and equipments on the saddle, I have tried every reasonable combination which would insure stability and balance, and obviate any tendency to twist. The weight of overcoat, saddle, saddle bags, and rear pack are temporarily neglected, as being symmetrically arranged with respect to the center of gravity. The rifle and rifle scabbard considered are the latest models.

First Arrangement.

NEAR SIDE OF HORSE.	Weight.	OFF SIDE OF HORSE.	Weight.
Lariat and picket pin	3 3	Canteen and strap	1
Meat can	95	Tin cup	56
Knife, fork and spoon	.38	Currycomb	65
Rifle, model 1903	9 09	Brush	625
Rifle scabbard, 1903	2 81	Watering bridle	1 1
		Saber and scabbard	3 75
		Saber knot	2
		Surcingle	75
Total	16 53	Total	8 635

Preponderance of weight on near side, 7.895 pounds. (With the Krag carbine and its scabbard the preponderance would be about 6 pounds.)

Second Arrangement.

Same as first arrangement, except that the rifle and scabbard change places with the saber, saber knot and scabbard, the latter going to the near side.

Preponderance of weight on off side, 8.005 pounds.

Third Arrangement.

Same as the first arrangement, except that the lariat and picket-pin exchange places with the canteen and tin cup, the latter going to the near side.

Preponderance of weight on near side, 4.415 pounds.

Further juggling with equipments will fail to obtain any satisfactory rearrangement better than the third arrangement above, with a preponderance of nearly four and one-half pounds on the near side. Moreover, this admits of the rifle

being carried on the near side, where it should be. I believe the rifle, which is our cavalryman's chief weapon, should be where he can most readily draw it from the scabbard, whether mounted or dismounted. The position of the saber on the horse is of secondary importance, and is not inconvenient on the off side.

THE LAING-HIBBERT RIFLE CARRIER.

To my mind the above preponderance of weight is a grave question, not so much perhaps in ordinary peace marches with regular troops, but with volunteer cavalry under inexperienced officers. It may be recalled that while the maximum number of cavalrymen in the field during the first two years of the Civil War was about 60,000, 284,000 horses were furnished this force. In Pope's Army of Virginia 3,000 horses out of 8,738 were reported as unserviceable in July, 1862; and preceding the second Bull Run, Pope had 4,000 cavalrymen on paper, with but 500 horses fit for service.

The more recent Anglo-Boer War furnishes similar examples of the serious impairment of the mounted arm from sore backed horses, and accentuates the importance of the question of a properly packed saddle.

Harking back to our own saddle equipment, it is manifest that the whole question of weight preponderance hinges on where the rifle is carried; and without being an advocate of carrying this arm on the trooper, the matter is well worthy of consideration.

The question of carrying the carbine on the trooper is not a new one. It was quite exhaustively discussed by that splendid cavalry officer, First Lieutenant W. H. Smith, Tenth Cavalry, in the CAVALRY JOURNAL for September, 1890. Such an arrangement relieves the horse and ordinarily tires the trooper. But its greatest advantages are that, mounted or dismounted, the trooper and his rifle are never separated, and the dismounting of the trooper in no way affects the stability of the saddle, as is the case when a nine-pound rifle is withdrawn from its scabbard.

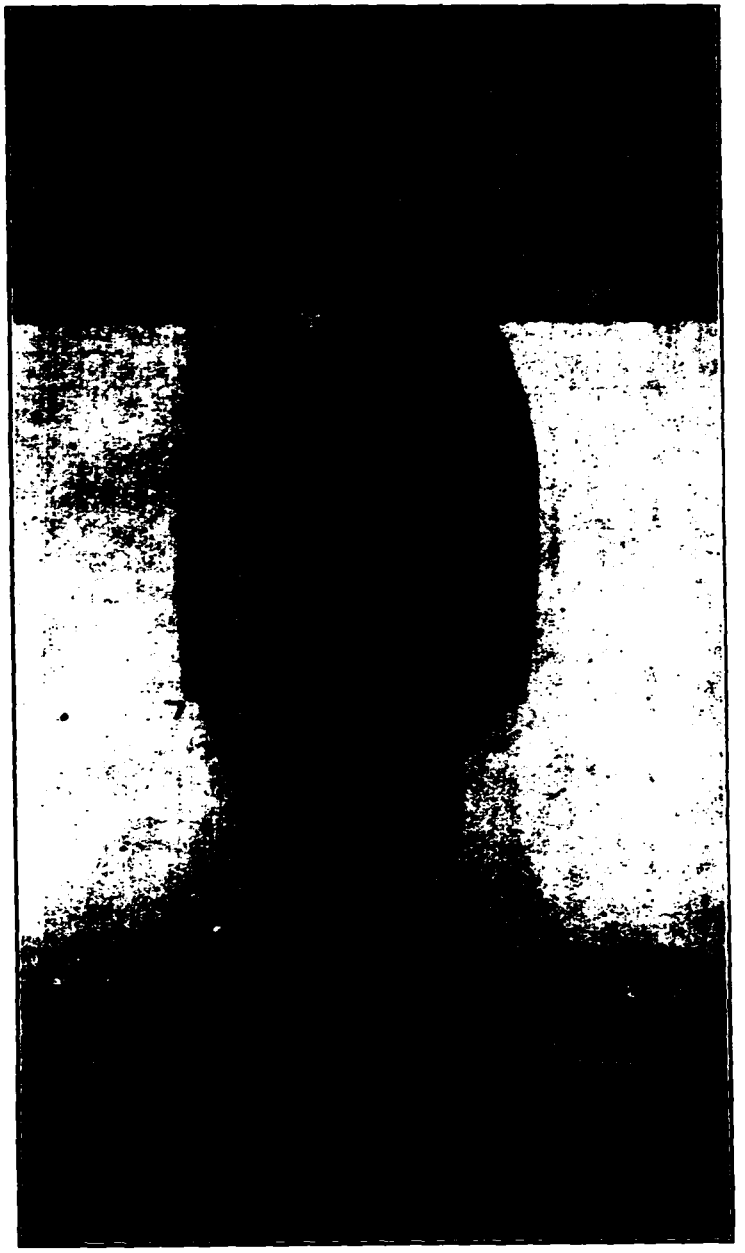
The German trooper carries his carbine on the saddle, but his weapon weighs but 6.83 pounds. The British trooper who normally carried his comparatively light carbine in a bucket or boot suspended from the right side of the cantle, has, since the Boer War, quite extensively experimented with the Patterson rifle carrier, by which the trooper bears a portion of the weight of the rifle. The Russian, Austrian, and Belgian cavalry carry the carbine on the trooper.

Let us see what the effect of removing rifle and rifle-scabbard from the saddle would have on the stability of the packed saddle.

Fourth Arrangement.

Same as second arrangement (saber and saber-scabbard on near side), except that the rifle is carried on the trooper, and the rifle-scabbard is discarded.

Preponderance of weight on the near side, 3.895 pounds.



THE PATTERSON RIFLE CARRIER.
(Front view, dismounted.)

Fifth Arrangement.

Same as fourth arrangement, but saber, scabbard and knot on the off side.

Preponderance of weight on the off side, 4.005 pounds.

Evidently these two preceding arrangements of equipments furnish no better solution of the question. But, suspending saber and scabbard from the near side, and exchanging lariat and picket-pin with the canteen and tin cup, we obtain better results.

Sixth Arrangement.

NEAR SIDE.	Weight.	OFF SIDE.	Weight.
Canteen and strap	1	Lariat and picket pin	3 3
Tin cup	56	Currycomb	65
Knife, fork and spoon	38	Brush	625
Meat can	95	Watering bridle	1 1
Saber and scabbard	3 75	Surcingle	75
Saber knot	2		
Total	6 84	Total	6 425

Preponderance on near side, .415 pounds,=7.68 ounces.

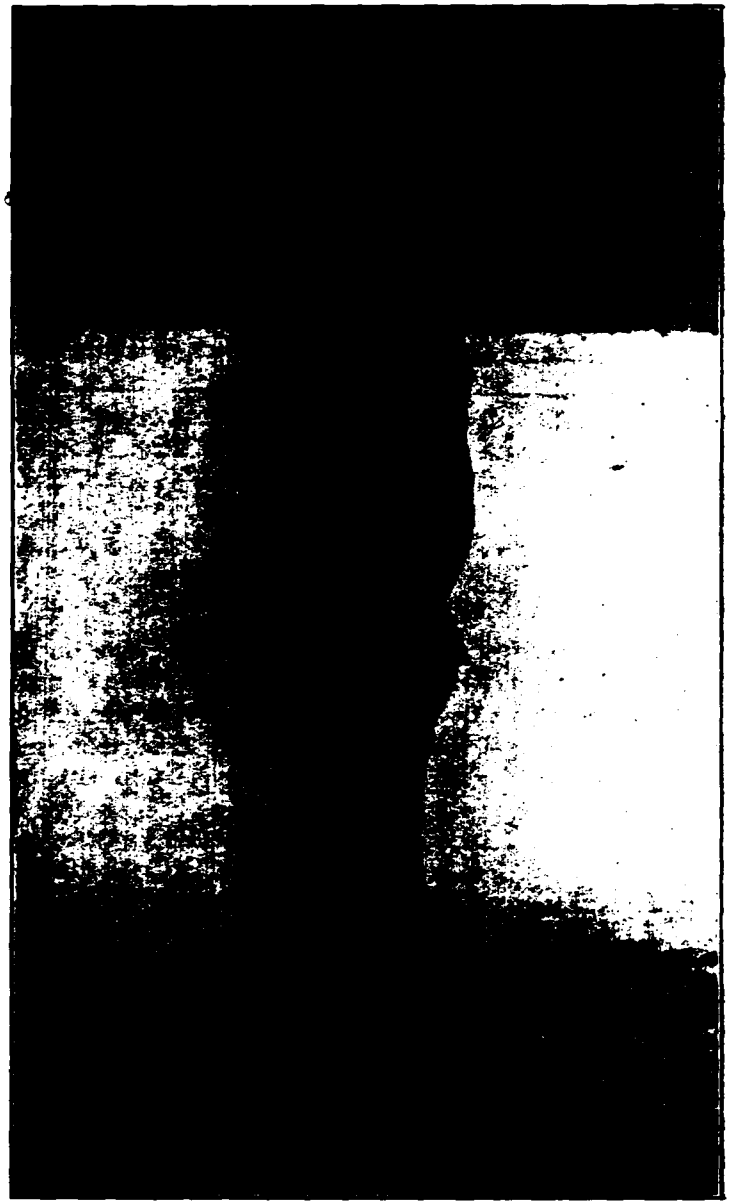
One of the foreign methods of carrying the rifle on the trooper, which is described because it is typical of the usual equipment of this character, is that known as the Laing-Hibbert equipment of British manufacture. The rifle passes from the left shoulder through a loop on the leather shoulder belt to a point in rear of the right hip, where it is secured to the belt by a small strap passing around the small of the stock.

The great disadvantage of the above method to American cavalry officers, is of course the discomfort and fatigue to the trooper. As a compromise between carrying the rifle on the horse and on the trooper, Lieutenant-Colonel Patterson of the British army has devised the Patterson rifle carrier.*

This device consists of (1) a belt frog, (2) a saddle frog.

The belt frog consists of a loop and short sling strap with hook, located on the waist belt behind the left hip. The saddle frog consists of a steel grip, riveted to a flat piece of

*Described briefly in the "Bulletin of Military Notes" (M. I. D. No. 3, June 30, 1904) and in "Translations Pertaining to the Boer War" (M. I. D. No. 4, April 1, 1905.)



THE PATTERSON RIFLE CARRIER.
(Side view, dismounted.)

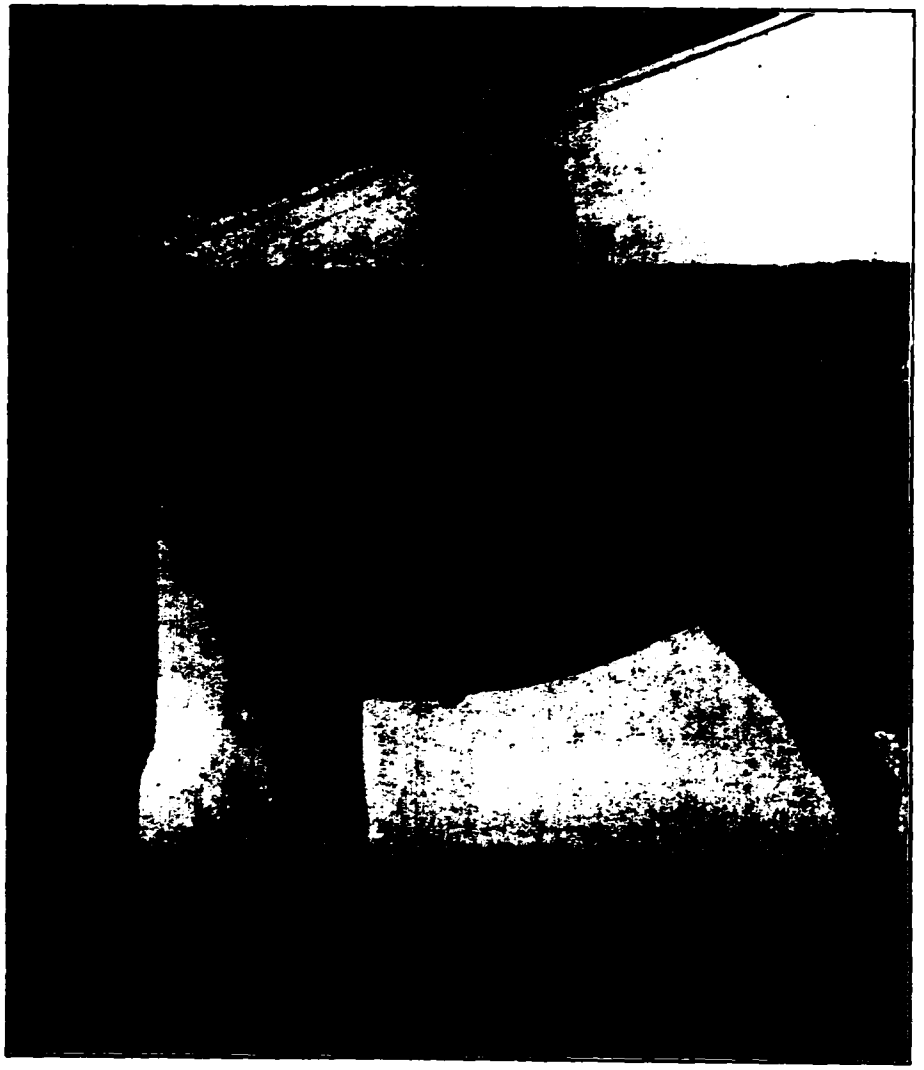
leather fastened below the near cantle of the saddle. The rifle is passed through the loop attached to the shoulder-belt and the small hook attached to the trigger guard before mounting. This holds the rifle in a slanting position behind the back, the stock falling below the left hip. Upon mounting, the small of the stock rests naturally opposite the near cantle, where it is grasped with the left hand and pressed firmly into the steel grip or frog. In dismounting, there is no necessity for disengaging the rifle from the saddle-grip, as the motion of the body releases it. Similarly if the trooper falls or is thrown, the rifle goes with the man. This is said to have been tested repeatedly by the inventor and others, without resulting in "hanging" the trooper to the saddle.

The inventor claims among other thing, the following advantages for his carrier:

The rifle is always attached to the man, so that if suddenly separated from his horse he is not left defenseless; the trooper can mount or dismount without handling the rifle; the position of the rifle is said to be very comfortable to man and horse; the saber or pistol can be used as freely as if no rifle were carried; the rifle protects the back from possible saber-cuts in the mêlée.

Lord Kitchener has recommended the carrier for all British mounted troops in India; Major-General Baden-Powell has ordered a number of sets for the South African Constabulary; and the British Inspector General of Cavalry has recommended its adoption for the Canadian mounted troops. So that it is apparent the device is beyond the experimental stage.

In November, 1904, the Patterson equipment was tested at the Rock Island Arsenal, and report made as follows: The device was comfortable, the weight of the rifle being principally carried by the saddle-frog; in dismounting forward or on the near side, the rifle was released by the motion of the rider, but it was claimed that in dismounting on the off side the rifle hung, and required the trooper's hand to aid its release from the saddle-frog. Adverse report was also made as to the delay in changing the reins from the left to the right hand after mounting, in order to press the



THE PATTERSON RIFLE CARRIER
(Mounted.)

rifle stock into the frog. It was also claimed that the device would require a leather waist and shoulder belt, and hence entirely change our present belt.

Some of these objections appear negligible except the claim that the rifle "hangs" in dismounting to the off side, and the inventor claims that with proper equipment this cannot take place. Press reports state that the 25,000 Patterson rifle carriers furnished the British Indian army have not given complete satisfaction, but that they have developed no fault that cannot be remedied.* The British cavalry serving at home is to be furnished with a rifle-boot or scabbard very similar to our own, but weighing two and a half pounds.

It appears to the writer that unless it works injury to the horse and affects our mobility, it is quite desirable that we should retain our present method of carrying the carbine mounted. Practical test under actual conditions of field service will alone demonstrate whether the old method will be entirely practicable with the new rifle; and the purpose of these notes is to call attention to the importance of this question, so that all cavalry officers may give the matter special study, after receiving the new firearm.

THE REAR SADDLE PACK.

Whether the rifle be carried in a boot or scabbard passing under the trooper's left leg, or whether experience during the next two or three years shall force us to carry it in some other way, there appears to the writer some changes in the rear pack which might be beneficial.

The present rear pack with equipments attached to cantle rings (Cavalry Drill Regulations, Paragraph 289) have the following disadvantages:

*On February 22, 1905, Mr. Arnold-Forster stated in the House of Commons: "I understand that the Patterson equipment is used by a portion of the Indian cavalry. I believe that recent reports show that there is some doubt as to whether the pattern adopted is satisfactory from the point of view of durability. As regards cavalry of the British establishment, it has been decided not to adopt this equipment at present, as the advantages derived from its use are considered to be more than balanced by its disadvantages."

1. Center of gravity of the pack is, on account of its form, so high that there is a constant tendency to turn the saddle.

2. The high pack is an obstacle to easy mounting and dismounting.

3. There is no way provided by Paragraph 289 Cavalry Drill Regulations for carrying the shelter-tent poles. When ordinarily carried outside the roll and inside the rear coat straps, they often become lost. If carried within the shelter

EXPERIMENTAL CURVED REAR PACK.
(Right rear view.)

half, they wear holes and cause undesirable rigidity of the pack.

4. The canteen, tin cup and lariat pitch about and rattle unnecessarily, and the tin cup and picket pin reflect the sun's rays so as to be visible at great distances. These drawbacks have been much in evidence at maneuvers, and our Manchurian attachés have also drawn invidious comparisons between our rattling horse equipments (which they carried) and the silent equipments of foreign packs.

Some years ago with the old-fashioned knapsack, the infantry soldier rolled his blanket into some such shape as our rear pack, and perched it high on his shoulders. He soon found it an inconvenient and fatiguing position, because from its height his center of gravity (his balance) was easily disturbed. He also found that a blanket roll about the body lowered the center of gravity and distributed the weight more uniformly.

With some modification it appears to me that this same improvement is applicable to our rear pack. Decreased in

EXPERIMENTAL CURVED REAR PACK.
(Side view.)

diameter to six inches and lengthened to forty-four inches, the rear pack may be made to curve gracefully over the horse's back, held to the saddle by the three rear coat straps, and bound near each extremity by the canvas roll straps attached to the shelter half (model of 1904).*

*It was not until the writer had completed these notes that he came across the excellent article in the CAVALRY JOURNAL for January, 1904, by Captain George Vidmer, Eleventh Cavalry, on cavalry equipment. While Captain Vidmer does not advocate the curved pack, he demonstrates some of the disadvantages of the present high pack, and his long pack, broken in the middle, appears very practical and advantageous.

If the diameter of the roll be decreased to six inches, the nose-bag will not fit the end of the roll closely as before, but this seeming drawback is in reality an advantage, for the reason that if the nose-bag be placed over the off end of the roll, there is room in the nose-bag for the tin cup (at the end of the roll), for the shelter-tent poles and for the lariat (suspended from the off cantle ring). This arrangement keeps the shining tin cup out of sight and protects it by the thick nose bag, while the lariat can no longer swing about, and is also more or less hidden from view. On the near side, the curved pack keeps the suspended canteen from swinging about unduly.

To roll the rear pack, spread the shelter half (model 1904) roll straps underneath, turn in the triangular end flap, making the tent rectangular. Turn under the roll strap edge of the shelter half eight inches. Lay the entire blanket flat on the shelter half, shorter edge parallel to roll straps of tent, and one inch from its edge. Fold the two sides of both tent and blanket inward for eleven inches, or to points opposite the two inner roll straps. As a precaution against ends pulling out, pass the two exposed roll straps across and fasten to opposite buckles. Extra underclothing will be spread smoothly in the center of the roll. Roll tightly, using hands and knees, from the bottom of the roll towards the roll straps, and bring over the entire roll the part of the tent which was turned under, thus binding the roll. Buckle the two available roll straps about the roll, passing them around twice. The roll will then be about forty-four inches in length and six inches in diameter.

While the method of packing here suggested has quite likely many defects, and has not yet been given a test under service conditions, it will lower considerably the center of gravity of the saddle, and thus give increased stability, resulting in less disturbance of the position of the blanket on the animal's back. It will give a preponderance on the off side of about two pounds, the equipments being carried as in the sixth arrangement, before mentioned.

As with the present rigid pack, it will be almost equally necessary to keep the curved pack off the horse's spine, but

as the center of the roll is of slightly smaller diameter than the ends, the center coat-strap of saddle may be drawn quite tight, and thus hold the roll clear of the spine. It is rare that an experienced plainsman rolls his slicker or overcoat as a short, stiff pack. It is usually tied to cantle or pommel, the long ends swinging over the horse's back.

In conclusion, I desire to say that these suggestions are only intended as tentative. The question of saddle equip-

EXPERIMENTAL CURVED REAR PACK.
(Rear view.)

ment is always an important one for cavalry, and the sooner we begin studying the question as affected by the new gun, the better. My opportunities for practical trial have of late been limited, and I hope that officers with troops will take these matters up and report results.

In attempting to increase our fire action, we should not lose sight of the fact that *mobility* is our most valuable characteristic, else we lose our value as cavalry, and become indifferent infantry.

If there is one thing taught by the Russo-Japanese War, it is the utter ineffectiveness of the Russian cavalry, due in

a great measure to lack of mobility and initiative. To quote from the *London Times:*

"Encumbered with horses, the Russians were ineffectual as riflemen; and without lances, but encumbered with rifle and bayonet, they were ineffectual as cavalry. * * * They failed as cavalry and they failed as riflemen, and the reason of the failure was that they are neither flesh, fowl nor good red herring. They are organized as cavalry, but have been trained to dismount on service. In peace they are armed with lance and sword, and in war they are asked to fight with rifle and bayonet. * * * The Russian cavalry west of Mukden never once took the offensive during the battle. Strapped up with rifle and bayonet, they are incapable of wielding the sword; their lances, except in the case of a small proportion of the Cossacks, have been left in Russia. * * * It is no wild statement to say that if Russian cavalry had been armed and trained in orthodox cavalry fashion, and handled in a manner consistent with cavalry tradition, Mukden would have proved a drawn battle."*

I believe that we have the best regular infantry in the world, and the National Guard will provide a large infantry reserve. It is absurd, therefore, with our comparatively small cavalry force, to attempt to make it equal in fire action to our infantry, if we are to sacrifice any of its mobility.

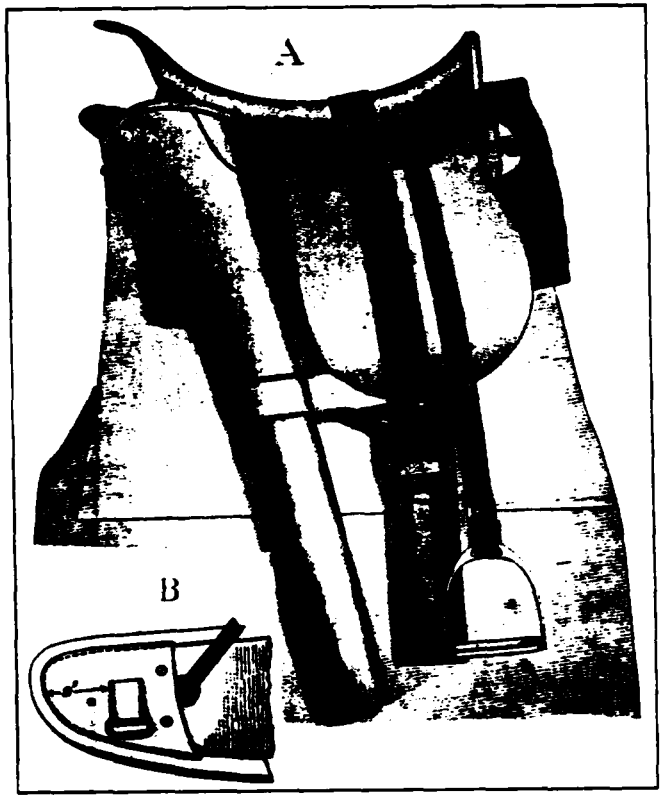
* * *

POSTSCRIPT.

Cavalry officers may be interested in learning that since the foregoing notes on "Cavalry Equipment" were written the British government has continued careful investigation of the question of the best method of carrying the rifle, and its deductions are of peculiar interest to us because the British cavalry, like ourselves, has just received a new short rifle. Final solution of the question does not appear to have been made, and furthermore, the type of saddle and bit is also receiving consideration by a special committee of British officers.

*See last issue of THE JOURNAL where the article upon the "Cavalry Lessons of the War," from the *London Times* is given in full.

The Patterson rifle carrier, which was supposed to have solved the question of rifle carrying mounted, has with other types been found somewhat unsatisfactory by the British War Office. The government has finally reverted to a form of bucket or scabbard, somewhat similar to that formerly in



THE BRITISH SCABBARD.

use, but longer and larger, to accommodate the new short rifle. It weighs two pounds eight ounces, and is made of stout bridle leather.

In Figure A, the front of the mouth of the bucket and the arm by which it is held in position, are stiffened by steel plates. It is suspended from steel saddle arches by passing

the bucket strap around the hind arch strut and then through the brass link on the side bar cap (see Fig. B). The arm is set on obliquely, placing the bucket after attachment in such a position that the butt of the rifle is in rear of the rider's elbow. The surcingle passes through the loop of the arm, as shown in the drawing.

The bucket may be attached to either side of the saddle, but as a rule it is worn on the off side. The complete equipment is said to be quite expensive, so that the fact that several British cavalry regiments have been equipped with it seems to indicate that no change will be made in the near future.

PROPOSED DRILL REGULATIONS FOR COLT'S AUTOMATIC MACHINE GUN, CAL. 30.

By Second Lieutenant GEORGE E. PRICE, Tenth Cavalry.

INTRODUCTION.

1. As discussed in the following pages the organization of the machine gun detachment, platoon and battery, refers to its use with cavalry only. The gun to be carried on pack mules.

2. The object of the drill is to train and prepare officers and men for war. All exercises must therefore be designed for war. The most important demands which war makes on the men are strictest discipline and order, paired with the utmost exertion of every power. To inculcate these qualities in such a manner as to make them, so to speak, a part of their very nature is one of the chief objects of all exercises. In war only the simple promises success; simple forms, then, must be learned and applied, and must be practiced with exactness, under full tension, and be completely mastered.

3. Machine gun batteries are to aid in obtaining the victory by means of their fire. They must, therefore, be able to shoot well, at the right time, from the right position, and at the right object. These requirements demand complete mastery of the mechanical construction of the weapon, high mobility on the part of the detachments, and tactical knowledge on the part of the officers. Commanding officers of posts and regiments should exercise supervision of the drill and instruction.

4. Continuous practice of one and the same exercise tires mind and body. Variation in the exercise is, therefore, necessary.

5. Alertness in grasping the advantages of the terrain, correct choice of position, correct estimation and measurement of distances, quick grasping of the object, are accomplishments which must be cultivated unceasingly; for without them the machine gun can be used with as little success as can other weapons without a thorough knowledge of tactical conditions.

6. The commands consist of preparatory commands and commands of execution. They are enunciated distinctly, but no louder than necessary. Commands given indifferently lead to laxity of execution; unnecessarily loud commands tend to make the men inattentive.

7. DEFINITIONS.

Section: One machine gun and three ammunition packs, manned, horsed and equipped.

Platoon: Not less than two nor more than three sections.

Battery: Not less than two nor more than three platoons.

Formation: The order in which the platoon or battery is formed. Formations are arranged so as to take up the least possible space, and to require the least ground practicable in passing from one to the other.

Order in Column: When the mules of each section are in column, the gun mule is in front.

Order in Line: When the sections are in line; each section in the order in column.

Order in Battery: When the pieces are placed on the tripod ready for firing.

INTERVALS.

8. Between sections in the order in line, fifteen yards. Between sections in the order in battery, fifteen yards.

DISTANCES.

9. Between sections in the order in column, four yards. Between mules of the same section in the order in column, four feet.

GENERAL REMARKS.

Composition of the Section.

10. A section should be detailed from each squadron as follows: One officer, chief of section; two noncommissioned officers, gunners; one noncommissioned officer, chief of ammunition mules; one noncommissioned officer, cannoneer; four privates, drivers; two privates, belt loaders; and two privates, horseholders.

The section, therefore, consists of one officer, four noncommissioned officers and eight privates.

When more than one squadron is stationed at a post the machine guns are organized into a platoon or battery, and an officer is detailed as instructor.

Only those officers and men who have taste and aptitude for such work should be selected for service with the machine gun, as it involves intelligent interest to insure the highest efficiency.

As soon as possible after the details have been made the men should be assigned to their duties. After being so assigned their duties should not be changed.

As this system of instruction presumes the use of the machine gun with cavalry only, the details will habitually report mounted.

DUTIES AT THE PICKET LINE, SADDLING, UNSADDLING, ETC.

To Put On the Pack Saddle.

11. The pack saddle with its accessories is placed near the picket line, resting on ends of pad. Blanket, folded in four even folds, rests on top of pack saddle.

In saddling, the two gunners saddle the gun mule; cannoneer and chief of ammunition mules saddle ammunition mule No. 1; the belt loaders saddle ammunition mule No. 2, and the two horseholders ammunition mule No. 3.

12. The corona, and then the blanket are carefully placed on the mule's back; care should be taken that the hair lies smoothly underneath, and that there are no wrinkles in the blanket or corona.

The men, working together as explained in Paragraph 11, lift the saddle and place it on the mule's back, a little in rear of the proper place; the crupper is placed under the dock, the saddle moved forward to position and the saddle cinch tightened.

The cargo cincha and lash ropes are placed over the saddle and secured. The driver then removes the blind and halter and puts on the bridle.

To Remove the Pack Saddle.

13. The driver removes the bridle, puts on the halter and secures the mule.

The men, working together as in saddling, loosen and fold over the top of the saddle, cargo cinchas, saddle cinchas and lash ropes. The saddle is slipped to the rear, crupper turned over the saddle, and saddle then removed and placed on the ground in rear of the picket line, blanket and corona on top.

Treatment of Mules.

14. The men are early impressed with the necessity of careful treatment of the mules. Rough treatment soon develops in mules habits which are most objectionable, and which greatly retard the proper service of the guns; while by quiet and careful handling they readily become accustomed to their duties, and perform them with little urging.

Mules move best with a loose rein. The drivers should keep abreast of the mules; should avoid threatening the mules or looking back at them. Mules are best halted by gentle pressure of the leading rein.

Packing.

15. The men, working together as explained in Paragraph 11, pack the saddles. The tripod is carried on the off and the gun on the near side of the gun mule. Four boxes of ammunition are also carried on the gun mule.

The attachments for carrying tripod, gun and ammunition boxes need no explanation.

When some of the ammunition boxes are empty care should be taken that the load is evenly distributed.

16. Before proceeding to further instruction, the men should be familiarized with the mechanical construction of the gun. A complete and thorough study of the description of the machine gun published by the Ordnance Department is recommended.

SCHOOL OF THE SECTION.

To Form and Section.

17. The details of each troop having reported at the place designated, they secure their horses to the picket line and are formed in single rank by the senior noncommissioned officer (noncommissioned officers on the right according to rank); he reports to the chief of section: "*Sir, the section is present,*" and takes his post on the right of the section.

18. The section having been reported, the chief of section commands: DRIVERS, FALL OUT.

At this command each driver takes a blind from the pack saddle and unties his mule and leads it to his pack saddle and faces to the front one yard in front of the saddle; he then blinds his mule, raising the mule's head to the height of the shoulder, and making him stand squarely on all four feet.

19. When the mules have all been led to their places and blinded, the chief of section commands: SADDLE.

At this command the men, working together as explained in Paragraph 11, saddle the mules. When all of the mules are saddled the chief of section directs that they be packed. The men, working together as explained in Paragraphs 11 and 15, pack the mules.

20. When the mules are all packed the chief of section commands: LEAD OUT.

The driver's horses are brought to them. The drivers then remove the blinds and place them over the left shoulder, remove the halter and put on the bridles. All the men then mount their horses and move out to the designated place and form in the order in column.

Posts.

21. Senior gunner to the right and abreast of the gun mule. Junior gunner to the left of and abreast of the driver of the gun mule. Cannoneer to the left of and abreast of the junior gunner. Horse holder No. 2 immediately in rear of the junior gunner and cannoneer. Horse holder No. 1 in rear of the senior gunner. Chief of ammunition mules to the right of and abreast of the first ammunition mules. Belt loaders to the right of and abreast of the second and third ammunition mules.

When it is necessary for the passing of obstacles, etc., for the men to take other positions, they may do so without command; the posts as given above must, however, be resumed as soon as the obstacle is passed.

The post of the chief of section is usually three yards to the right of and abreast of the gun mule. He may, however, go where he can best superintend his section.

22. In all movements the men on the right of the column and the drivers keep the mules up. The marching gait is a walk. The maneuver gaits are trot and gallop.

Marchings, Etc.

23. To move forward:

1. *Forward*, 2. MARCH.

The driver moves off steadily and promptly, starting the mule by the gentle pressure of the leading rein.

24. To halt:

HALT.

Drivers halt promptly; mules are halted by a firm gentle pressure of the leading rein.

25. To march by the flank:

1. *By the right* (or *left*) *flank*, 2. MARCH.

At the command *march* each driver marches by the flank, turning his horse over the arc of a circle, the mules and men on the marching flank taking up an increased gait.

26. To change direction:

1. *Column right* (or *left*), 2. MARCH.

At the command *march* the driver of the gun mule turns ninety degrees to the right or left on the arc of a circle; the mules and men on the marching flank take up the increased gait.

Each of the other drivers moves forward and turns on the same ground as the gun mule.

27. To march to the rear:

1. *To the rear*, 2. MARCH.

At the command *march* each driver turns to the left about and marches to the rear.

This movement will not be used except for short distances.

28. To march the section to the rear in the order of column:

1. *Column left about*, 2. MARCH.

At the command *march* the driver of the gun mule marches to the rear as explained in Paragraph 27.

The ammunition mules halt and execute *to the rear, march* in time to follow at their proper distance from the gun mule.

29. To oblique:

1. *Right* (or *left*) *oblique*, 2. MARCH.

Each driver obliques forty-five degrees to the right or left.

To resume the forward march, the command *forward, march* is given.

SCHOOL OF THE PLATOON.

30 The sections having been formed and mounted, as explained in Paragraph 20, each chief of section commands: REST. On the approach of the chief of platoon, each chief of section brings his section to attention, and beginning at the right each chief of section reports: *Sir, —— section is formed.*

The platoon or battery is habitually formed in the order in line.

31. To march in order of column to the right or left:

1. *Sections forward*, 2. *Column right* (or *left*), 3. MARCH.

At the second command the chief of the right or left section commands: *Forward, column right* (or *left*) and repeats

the command *march*. The other chiefs of sections command: 1. *Forward, column right* (or *left*), 2. MARCH, in time to follow the leading section at the proper distance.

32. Being in order of line, to march to the front in the order in column:

1. *Right* (or *left*) *by sections*, 2. MARCH.

The chief of the right or left section commands: 1. *Forward*, 2. MARCH. The other chiefs of sections command: 1. *Right* (or *left*) *oblique*, 2. MARCH, and follow the preceding section.

33. Being in the order in column to form order in line to the right or left:

1. *Sections column right* (or *left*), 2. MARCH.

Each section executes *column right* or *left* and marches in the new direction.

34. Being in the order in column to form order in line to the front:

1. *Right* (or *left*) *front into line*, 2. MARCH.

The leading section moves straight to the front. The chiefs of the other sections command, *right oblique*, *trot*, and repeat the command, *march*. When opposite their place in line they command, *forward*, *march*, and take the walk when they arrive abreast of the leading section.

If the platoon is marching at the gallop, the leading section takes the trot at the command *march*.

If marching at the trot, the chiefs of sections other than the leading one command, 1. *Right* (or *left*) *oblique*, *gallop*, 2. MARCH, and take the trot when they arrive abreast of the leading section.

SCHOOL OF THE BATTERY.

35. The movement as explained for the platoon are those used in the battery, the necessary substitution of commands being made.

Loading, Unloading, Aiming, and Pointing.

36. To load: Loading must be practiced often and in detail, so that every man is able to load correctly and with the utmost rapidity.

37. At the command *load*, a box of ammunition is placed in the slot on the gun, the top withdrawn, the brass tip of the feed belt pushed through the cartridge-shaped opening on the left of the gun and drawn out on the other side of the gun as far as it will go. This brings the first cartridge on top of the feed wheel. Let go of the belt and swing the gas lever downward and to the rear and until it strikes the bottom plate of the receiver. When released the force of the retracting spring will cause it to resume it normal position.

The gun is now loaded, and if the trigger be pulled the fired cartridge will be automatically ejected and the gun again loaded.

38. To unload: The belt may be removed by pushing forward the knurled head on the right side of the receiver near the left exit, and drawing the belt out to the left. After withdrawing the belt operate the lever once by hand to eject the loaded cartridge that remains in the chamber.

39. Position drills: Aside from loading the gun under diverse conditions, practice must be given in various ways of taking aim.

40. To aim: Particular value is to be attached to instruction in correct and quick aiming. The instructor must always satisfy himself as to the correctness of the execution.

The improvement of the eyesight and the training of the eye are the permanent objects of instruction, which are attained by means of targets placed at long ranges, as also by targets which appear and disappear suddenly.

41. To put the pieces into action:

HALT. ACTION FRONT.

At this command the chiefs of sections, gunners and cannoneers dismount as quickly as possible. The junior gunner and cannoneer hand their reins to horse holder No. 2.

The chief of section and senior gunner hand their reins to horse holder No. 1; the horse holders then join the ammunition mules.

The driver of the gun mule turns his mule to the left about and halts. The chief of the ammunition mules commands: 1. *Ammunition mules to the rear*, 2. *Gallop*, 3. MARCH, and moves about 200 yards to the rear, or when practicable, under cover.

The senior gunner loosens the cargo cincha, throws it forward on the mule's neck and takes off the tripod. He then removes the leather covering from the mount and drops it in rear of the mule.

The tripod is then set up facing the enemy or the target.

As soon as the cargo cincha is loosened the junior gunner takes off the gun, removes the case, drops it near the mount cover. He then places the gun on the mount and fastens it with the gun pin.

The cannoneer in the meantime has unfastened the cincha that holds the ammunition boxes and placed the ammunition on the ground. He then fastens up all straps, and the gun mule is led, at the gallop, back to the ammunition mules.

While the junior gunner is fastening the gun on the mount the senior gunner adjusts the saddle.

When the gun is fastened to the mount the junior gunner takes an ammunition box and places it in the slot on the side of the mount, opens the top and takes the brass tip of the feed belt and faces to the right. The gunner meanwhile has given a general direction to the gun.

After the cannoneer has fastened all straps he places the gun case and mount cover in the most convenient place.

The tripod legs are spread as far apart as is possible, in order that a small target may be presented to the enemy.

The chief of section then commands: LOAD. The junior loads the piece as explained in Paragraph 37, and kneels or lies down where he can observe the effect of the fire.

The chief of platoon then designates the kind of fire, object and range, and commands: COMMENCE FIRING.

When the senior gunner has adjusted his sights, and carefully aimed the gun, he commences to fire.

The chief of section kneels on the right side of the gun and observes the effect of the fire.

The cannoneer, when not engaged in bringing up ammunition, lies down to the left of and in rear of the gun.

The two gunners and cannoneers should alternate in aiming and firing the gun, the chief of section designating the one to do the firing.

The three men serving the gun should be provided with asbestos covered gloves.

42. To dismount the gun and move to the front or rear:

LIMBER FRONT (or REAR).

At this command, or at a signal from the chief of section, the driver of the gun mule comes up at the gallop and halts about one yard in rear of the gun and faces to the rear.

If the command is *limber rear*, the ammunition mules are not brought up, but join the gun mule as it passes them.

If the command is *limber front*, the chief of ammunition mules commands: 1. *Forward*, 2. *Trot*, 3. MARCH.

43. The men should be exercised in putting the gun into action and dismounting it to move to the front or rear until it can be done with the utmost rapidity.

44. It will probably often happen in actual warfare that a section, or even a battery, will be so hard pressed that it will not have time to dismount and pack the gun.

In this case the gun should be disabled by taking out the handle. This is done in the following manner:

45. To take out the handle:

Operate the lever once by hand as in case of loading. Remove the handle lock by turning the lever backwards as far as possible and drawing the pin out to the right. The handle may then be drawn out to the rear. (If the sear and

trigger be released, the hammer will be forced out of the handle by the mainspring.)

46. If in danger of capture the gunner on the left of the gun should always remove the gun pin; this leaves the gun and tripod in shape to be picked up separately and carried away by the men on horseback.

47. As soon as the gunners and cannoneer and chief of section have mounted, they should charge, using their revolvers, and attempt to recover the gun.

TARGET PRACTICE, FIRING, DELIVERY OF THE COMMAND, ETC.

Firings.

48. The firings depend upon the objects of the engagement, the targets, and the available ammunition.

49. Aside from firing single shots there are two kinds of firings, intermittent and continuous.

Intermittent fire is a succession of about twenty five shots followed by a pause for the purpose of noticing the effect and correcting the sight and aim It is employed to properly set the sights in exceptional cases, also when shooting at difficult targets, particularly in rolling territory and at great distances.

In all other cases continuous fire will be employed, which is only interrupted when circumstances demand it.

50. The fire of the machine gun is either directed at a certain point with a given elevation and a side direction, or it is strewn, *i. e.*, the object is fired at in its entire extension, or at only a part. This is termed fan fire.

If the fire is to be strewn the command must indicate it.

When fan fire is employed in a horizontal or oblique direction the clamp screws must be loosened.

When the fan fire is in a horizontal direction the gun is moved sideways, slowly and evenly, by the right shoulder.

When it is in a vertical direction, the left hand gives the elevation by means of the hand wheel.

If it is in a vertical and horizontal direction, a combination of the above is necessary.

When firing at objects that move rapidly or that are in a very uneven territory the gun may be loosened entirely.

The rapidity of the fan fire depends on the distance and kind of targets.

Generally the gun is moved slowly and evenly.

A too rapid moving of the gun is detrimental to the effect of the fire.

51. In exceptional cases, when the observation is very good, it may be of advantage, in firing at fixed as well as at moving targets, to point the gun with the head raised and without aiming, by changing the elevation and side direction. This, however, is the exception.

Delivery of the Command.

52. The command must be as short as possible, and must designate, first the direction, then the object, then the elevation and the kind of fire.

The designation must exclude every misunderstanding.

The detachments of the enemy must be designated as soon as they are plainly seen; *e. g., the guns toward the right* and not *left flank battery*.

When shooting at a difficult target it may be advisable to let the gunner use the field glass in order that he may be the better able to apprehend the target.

The commands of the chief of platoon should always be repeated by the chiefs of sections.

53. Examples:

At cavalry, left oblique, 700 yards, continuous fan fire.

To the front at the green hillock, to the left of the single tree, artillery, continuous fan fire, or *intermittent fire.*

The gun farthest toward the left, 1,200 yards, intermittent fire.

At skirmishers coming out of woods, to the right oblique, 1,000 yards, continuous fan fire.

54. The firing ceases at the command *cease firing.*

The men serving the gun keep the positions which they have at the time.

55. Sights are changed when the command indicates a new target.

When the guns fire at different ranges the command is, *e. g.*, *change from 800 to 1,000*, or *all sights 900*.

To Fire.

56. The gun must be firmly supported at all times; the pressure on the trigger must be unintermittent, and the aim must be true.

FIRE CONTROL, FIRE DISCIPLINE, OBSERVATION OF THE EFFECT OF FIRE.

Fire Control.

57. The fire must be controlled as long as possible by the officer in command.

When this is no longer possible the fire should be controlled by the chiefs of sections.

58. It may be advisable under favorable circumstances, to distribute the fire upon the entire object. The range must first be found by intermittent fire.

59. As a general principle every gun fires at that part of the object which is directly in its front, or which corresponds to its own place in the formation, so that every part of the entire object is fired at.

If a cases arises in which this method is not applicable, the guns fire crosswise. This may be done without command from the officer in command.

60. When the object moves sidewise, proper account of the distance and rapidity of the movement is taken, and a target is commanded or selected, as the case may be, in such a manner that the object will move into the line of fire.

61. In general, the sights of all guns are adjusted uniformly. When the depths of the object justifies it, or if observation is impossible, two, or even three different sights may be used, ranging from 50 to 100 yards.

When firing with two sights the guns to the right use the finer sight. When three different sights are used the guns

to the right use the fine, those to the left the full, those in the center the half sight.

62. It may be of advantage under certain circumstances, particularly when the object is of great depth or width, and proper observation is impossible, to extend the territory taken under fire by strewing the fire slightly in a vertical direction.

Fire Discipline.

63. Fire discipline embraces the conscientious execution of the commands given in the engagement.

It demands, furthermore, care in firing and in using the advantages of the territory to increase the effectiveness of the fire, constant attention to the officer in command and to the enemy, immediate cessation of the fire as soon as the target disappears or the command to cease firing is given.

If control of the fire ceases the men must act independently.

To this end they must be properly instructed and trained in time of peace.

Observing the Effect of the Fire.

64. A constant observation of the fire effect by means of field glasses is necessary in order to ascertain from the hits and the behavior of the enemy whether the sight and the target aimed at are correct, and what corrections are needed to promote the effect of the fire. The observation devolves principally on the chiefs of platoons and sections.

In case immediate observation from the firing line is impossible, it is advisable, if possible, to post pickets to the right or left and under cover, to observe the effect of the fire and to communicate the results of their observations by signals, calls, or intermediate pickets, to the firing line.

Pauses in the Fire.

65. Intermissions in the fire are employed with due consideration of the engagement to put the gun in proper condition by oiling, etc.

COURSE OF INSTRUCTION WITH BALL CARTRIDGES.

66. Before proceeding to the following, instruction exercises should be had by firing single shots at rectangular targets in order that the men may be instructed in the positions, aiming and firing.

67. The instruction with ball cartridges is divided into instruction and record practice.

A detailed report should be made of the record practice.

68. The targets used are those described in the Small Arms Firing Regulations.

69. In all this work the guns are brought to the range packed, and are unpacked and moved from one range to the other by the commands as explained in Paragraphs 41 and 42.

In the practice by sections, the chiefs of sections direct the firing under the supervision of the chief of platoon.

Instruction Practice.

70. (*a*) Intermittent fire by section; target "G;" ranges 300, 600, 800 and 1,000 yards.

Twenty targets to be placed in line with one yard interval between groups. At least 240 shots to be fired at each range.

(*b*) Intermittent fan fire by section; target "G;" ranges 600, 800 and 1,000 yards.

Targets are placed same as in (*a*). At least 240 shots to be fired at each range.

The gun is placed where it can best command the line of targets, and the line is swept from left to right and back again.

(*c*) Continuous fan fire by section; target "G;" ranges 600, 800 and 1,000 yards.

Same as (*b*), except that the fire is continuous.

(*d*) Continuous fan fire by platoon or battery; target "G;" ranges 600, 800 and 1,000 yards.

Same as (*c*), twenty targets being added for each section.

Platoon or battery takes position where it can best command the line of targets in the order in battery.

(*e*) Continuous fan fire by section combined with maneuvering; targets "G;" ranges 600, 800 and 1,000 yards.

The section approaches the line of targets in the order in column, and when about 1,200 yards from the line of targets it advances rapidly to the 1,000 yard firing point, where the gun is put into action as explained in Paragraph 41.

When 240 shots have been fired the gun is dismounted as explained in Paragraph 42, and the section is moved rapidly to 800 yards, where the gun is again put into action and 240 shots fired. The detachment then moves rapidly to 600 yards where 240 shots are fired.

In this practice everything should be done as rapidly as possible.

(*f*) Continuous fan fire by platoon or battery combined with maneuvering; ranges 600, 800 and 1,000 yards; target "G."

Same as (*e*), twenty targets being added for each section.

The platoon or battery approaches the line of targets in the order in column, and when at a distance of 1,200 yards from the target, the order in line is formed to the front.

The guns are put into action dismounted and moved to the front by means of the commands prescribed in Paragraphs 41 and 42.

Record Practice.

71. (*a*) Intermittent fan fire by section; target "G;" ranges 300, 600, 800 and 1,000 yards.

Same as (*b*) in instruction practice; 240 shots are fired at each range. A record is kept of the number of hits in kneeling and lying figure at each range.

(*b*) Continuous fan fire by section combined with maneuvering; target "G;" ranges 600, 800 and 1,000 yards.

Same as (*e*) in instruction practice, except that 480 shots are fired at 600 yards, and the section retires, first to 800 and then to 1,000 yards. In the advance 240 shots are fired at 800 and 1,000, and 480 at 600 yards, and in the retreat 240 shots are fired at 800 and 1,000 yards. A record should be kept of the time required to make the advance and retreat at each range and the total number of hits made.

(*c*) Continuous fan fire by platoon or battery combined with maneuvering; target "G;" ranges 600, 800 and 1,000 yards.

Same as (*f*) in instruction practice, except that after firing 480 shots at 600 yards the platoon or battery retreats and fires at 800 and 1,000 yards, as in the preceding paragraph.

Record is kept of the time and number of hits, as in (*b*).

72. In computing the percentage, a hit in each figure will count one.

73. After the foregoing course is completed if sufficient ammunition is left, practice should be had at extreme ranges at lines of figure targets representing troops in close order in line and in line of columns, and at silhouettes of mounted men.

74. If the supply of ammunition will allow it practice should also be had at unknown ranges.

Figure targets representing different divisions of the outposts or detachments of troops should be placed along certain roads, ravines, etc., and the section or platoon required to locate them, put the pieces into action, obtain the range, and fire as many shots as would probably be possible in actual warfare, and then advance or retire as the conditions might warrant.

In this practice some officers, other than those on duty with the machine guns, should accompany the section or platoon as umpires, and decide whether the machine gun should advance or retire.

If the conditions warrant, the umpire should occasionally rule out a few men, and the section or platoon be required to work short handed. Occasionally an entire section should be ruled out of action.

The umpire should also rule, if the conditions warrant, that the machine gun is in immediate danger of being captured. This would give the men and officers, under conditions approaching as nearly as possible actual warfare, exercise in disabling the gun to prevent its use by the enemy, and in attempting to recapture the gun.

THE USE OF THE MACHINE GUN WITH ADVANCE AND REAR GUARD.

75. In the case of the squadron acting alone the machine gun section should be with the support and under the orders of the commander of the advance guard, unless that officer is junior to the chief of section. In that case the chief of section will exercise general supervision over the advance guard, but should retain immediate command of his gun.

76. In the case of the regiment acting alone, one section should be with the support and the other two sections with the reserve.

The chief of platoon will habitually be with the two sections with the reserve. He may, however, go where his presence is required.

77. In larger bodies all the machine guns should be united and placed under the command of one officer, and subject to the orders of the commanding general only. They will be assigned to different divisions of advance guards, as will be best suited to their use and to the plans of the commanding general.

Encountering the Enemy.

78. As soon as the enemy is seen the machine guns that are with the support should take their place on the firing line where their fire can best compel the enemy to delay his advance.

79. As the battle develops, their tactical place will depend upon the plans of the commanding general.

The machine guns will probably be of the greatest use in preparing for a charge or in repelling a charge, therefore their place will be where the heaviest fire is to be concentrated.

80. In the retreat, on account of their mobility, the machine guns will be very useful in delaying the pursuit and in protecting bridges or passes.

81. When a squadron or more forms the advance or rear guard, at least one machine gun should be with the support. In larger bodies this should be increased proportionately.

The Engagement.

82. The utility of the machine gun in the engagement depends upon the perfect mastery of the mechanical construction of the weapon, a careful training in target practice, its mobility and the careful training of both men and animals.

General Principles.

83. Machine guns enable the general to bring into action at certain points all the effectiveness of infantry fire on the smallest space.

The guns can be employed in all territory suitable to infantry or cavalry. In battle the object which they offer to the enemy is no larger than that offered by infantry under similar conditions; and with reference to their fighting ability they are much less liable to losses than infantry.

84. Cover that is scarcely large enough for a platoon of cavalry will protect an entire machine gun battery.

85. The carrying power and effect of the machine gun is that of the infantry rifle. The rapid succession of shots and the bunched hits, the small angle of cross fire, the possibility of assembling a number of guns in a limited space enable the machine gun battery to obtain a complete success and to deliver a disastrous fire even at long ranges at large and crowded objects.

86. Machine guns generally avoid a conflict with an enemy whose firing line is protected by good cover. Such a conflict requires an expenditure of ammunition out of all proportion to the number of hits made. In such cases the guns may be withdrawn temporarily and reserved for the decisive moments.

87. The machine gun battery can at all times meet a cavalry attack with repose. Any formation will be found serviceable to repulse it provided it enables the battery to direct a steady fan fire into the cavalry. Particular attention must be given to the enemy's following lines, their own flanks and the protection of the horses and mules.

In open territory machine gun batteries can safely advance without regard to hostile cavalry so long as the latter is not present in such a superior number that it can attack simultaneously from different sides.

88. As to a fight with artillery, it is to be noted that the fire superiority is with that weapon at a long range. If the machine guns are used to fight artillery they must be brought as near the artillery as possible. A fan fire distributed over the entire firing line of a battery is not practicable.

89. Machine guns can never take the place of artillery. They will be employed mainly on occasions where the rapidity of their fire, their mobility and their ability to disappear quickly can be fully utilized.

90. A careful knowledge of the conditions in general, of the intentions of the general, and of the status of the engagement, are necessary requirements for a correct employment of the machine guns.

The disposition of the machine guns, therefore, rests immediately with the highest officer in command.

Reconnoissance and Choice of Position.

91. The attainment of the greatest fire effect governs the choice of position for the gun; considerations as to cover are of secondary importance.

92. Every position must be reconnoitered previous to its selection. A timely and well directed reconnoissance is a condition of success. It embraces ascertainments of targets, knowledge of the territory which is to be occupied by the troops, knowledge of the roads of approach and their conditions, also the means of securing troops against surprise.

93. When marching forward or in a defensive position the battery commander himself reconnoiters. When moving to the rear the battery commander remains with his battery as long as it is in the zone of fire, but directs another officer to reconnoiter. Before taking up the position, the battery commander if possible must have examined it.

94 The enemy's attention must not be drawn to the chosen position.

95. The following qualifications are desirable in a good position: An extended clear field of fire, on which a good

fire effect is possible up to within the shortest range; a firing line at right angles with the line of fire; sufficient space; cover obstructing the enemy's view; fair conditions of the ground at and to the rear of the firing line.

96. Positions close to or in the same height of objects, the range of which is known to the enemy, are to be avoided; nor is it advisable to choose a position in front of them, because they aid the enemy in finding the range; but a position in front of a dark background or on territory covered with suitable growth, will make it difficult for the enemy to find the range.

Every kind of mask, even that of artificial construction, hinders the enemy's observation.

Taking Position for Firing.

97. When moving forward and when taking position the security of the battery must never be lost sight of. If the flanks are threatened, particularly in difficult territory, the officer commanding the rear troops sends out scouts. The scouts are not to advance as far as possible, but must keep in touch with their troops.

98. Directions concerning the taking of the position must be given in time to avoid delay in opening fire. Particular effort must be made to take position under cover and to surprise the enemy by sudden opening of fire. This, however, is possible only if particular attention is given to cover while marching to the position, and the enemy is in doubt as to the contemplated position. If cover is wanting, or if the battery is to go into action without delay, the commander must endeavor to surprise the enemy by the rapidity with which he takes the position and opens fire.

99. The position of each gun is chosen with respect to its fire effect and cover. The interval between separate machine guns, is, as a rule, fifteen yards, but it is not necessary to maintain alignment and intervals. It must be borne in mind, however, that the losses caused by the enemy's fire will be greater if the guns are placed in close proximity. The guns must not hide one another in firing. It may be of

advantage if the flanks are threatened, to form the guns in echelon.

Opening and Conducting the Fire.

100. The resolve to open fire must not be made hastily. It must be remembered that the fire of machine guns is of decisive effect only if poured on an enemy who is clearly within the zone of fire.

It is immaterial what kind of weapons the enemy employs.

The choice of the target is dependent on its tactical importance at the time. The fire will next be directed against objects, which because of their height, depth, breadth and density promise a high percentage of hits.

101. Machine guns should not be permitted to fire over the heads of friendly troops unless the nature of the territory permits the formation of several firing lines, one above the other.

102. Firing at night will be successful only if the guns have been pointed during day time at places where the enemy is expected, or if the objects fired at are illuminated, as for instance, bivouac with fires, etc.

103. It must be remembered also that the ammunition supply is limited and that the expenditure of a certain amount of ammunition represents an expenditure of power, which must be made only when justifiable.

If, however, it has once been resolved to take a certain object under fire, then the ammunition necessary for the attainment of the object of the engagement must be expended without stint.

Fire of insufficient effect weakens the moral element of one's own troops while strengthening that of the enemy.

104. The enemy will feel his losses all the more if they are sustained in a brief period. In most cases it will, therefore, be advisable, even if engaged with a weak enemy, to open fire, not from one to two sections, but from the entire battery.

In both cases the expenditure of ammunition would probably be equal, but the losses of the battery will be less heavy in the latter case.

105. A change of targets is made when the guns have been completely successful in their firing at the former object. Frequent changes of target weakens the fire effect and are therefore to be avoided.

106. It will not always be possible to avoid a distribution of the fire over several objects; but the distribution of the fire must not degenerate into a useless, ineffective division of the fire.

107. Presence of mind, readiness for action, perfect fire discipline, are required to assure the attainment of a complete fire effect. The fire discipline must be maintained even though many officers and men are disabled in the course of the fight. If the men are well instructed the presence of mind of the individual and the example of the particularly cautious and courageous men guarantee a successful continuation of the fight against an enemy whose situation is equally difficult.

The Defense.

108. When employing machine guns for purpose of defense, it must be borne in mind that the guns are not suited for long drawn out engagements, and that in such engagements their great mobility cannot be utilized if they are directed to defend only a certain portion of territory.

It will, as a rule, be advisable also in defense to keep the machine guns with the reserve from the first, and to use them as necessity demands, for strengthening the line of defense at threatened points, preventing flank movements, resisting the charge, or executing offensive movements.

This does not preclude their employment at the beginning of the battle, for instance, in obtaining and keeping control of roads of approach.

It is also possible in case a withdrawal of the guns under cover is assured, to place the machine gun batteries in front of or on the flank of the main line of defense in such a manner that they can take that part of the territory in which the enemy will probably place his artillery, in a surprising manner under fire.

Sometimes machine guns can be employed from the flank to take dead angles under fire.

109. Cover should be provided for all positions which have been previously assigned to machine guns. If time is lacking, efforts must at least be made to construct masks, to improve the field of fire, and to obtain the distances.

The Pursuit.

110. After successful combat the machine gun batteries must be used (in the freest manner) for following up the victory. For this employment they are eminently qualified, combining as they do firing ability with high mobility. The enemy must be pursued until the pursuers are completely exhausted. The machine guns advance to within the most effective firing distance and break down all attempts of the enemy at rallying or entrenching.

A fire delivered from the flank is particularly effective. A plentiful supply of ammunition is necessary for an energetic pursuit.

The Retreat.

111. In case an engagement is broken off, or when it has been unsuccessful, the machine guns can be of great service by confronting the enemy without regard to the probable loss of the guns, and pouring a deadly fire into his ranks.

Great attention must be given to the flank, for flank attacks are disastrous to the retreating army.

Suitable flank positions, if they are possible, will greatly relieve the retreat.

Problems.

112. During the forty days' field exercises the machine guns should frequently be assigned to squadrons and exercised in advance and rear guard work, attack and defense and with raiding parties.

It will probably not be advisable to use the machine guns with smaller bodies than a squadron of four troops.

Report.

113. An intelligent and detailed report of the work with the machine guns will be made as soon as possible at the end of the instruction period.

ARMY COÖPERATIVE FIRE ASSOCIATION.

By Captain M. F. DAVIS, Tenth Cavalry.

THE sum of $43,682.00 represents the amount paid to officers of the army by the Army Coöperative Fire Association on account of losses sustained by fire from date of its organization in 1887. This sum has cost its members $1.86 on every one thousand dollars of insurance for each of the years covered by the Association's existence.

To the uninformed this statement must lead to the question: "What sort of an organization is the Army Co-operative Fire Association?"

Prior to its existence our officers were frequently subject to total losses from fire. Buildings of a temporary character occupied as quarters, usually constructed of inflammable material, and lack of ample fire protection at frontier stations, made it difficult to secure insurance from old line companies at other than very high rates, usually prohibitive to a majority of army men.

To meet this peculiar and most unfortunate situation a coöperative plan of insurance was proposed and first discussed at Fort Leavenworth, Kansas, in 1886. The argument was advanced that if life insurance could be conducted along lines of coöperation, there was no good reason why the same principle could not be applied to fire insurance. This view proved to be the inspiration for a movement leading to the birth of the Association in 1887, whose plan of protection it is proposed to describe in this paper.

In framing a constitution the following ideas were constantly kept to the front: less difficulty for army officers to protect themselves against loss by fire; giving this protection at actual cost to the members; and avoiding the many re-

strictions contained in policies of old line companies. Mutuality was the watchword, and along these lines the framers of the constitution directed their work in drafting and adopting the constitution. It has undergone but few changes during the period of its nineteen years of existence, and these changes have been in the direction of improvements which experience taught.

With a view to providing a reserve fund to enable the Association to promptly meet all approved claims, benefit certificates, divided into five classes, are issued. These range from $400.00 to $2,000.00. A member of any one of these classes must, after being a member three years, have at all times to his credit an amount equal to four assessments of such class. For example: One assessment in the $400.00 class is $1.50; in the $800.00 class it is $3 00; in the $1,200.00 class, $4 50; in the $1,600.00 class $6.00; and in the maximum or $2,000.00 class, it is five times that of the lowest class, or $7.50. Multiplying the assessment of any one of these classes by four, the required credit of that class is obtained. In order that no hardship may work upon those who join, one assessment only is required upon submitting application, three years from date of joining being allowed in which to reach the full credit. One assessment must be paid each year on the anniversary of joining. When the required credit is reached by the member he makes annual payment of actual annual fire loss in January of each year thereafter.

Losses are charged against the credit of each member. To illustrate: During 1905 the fire losses reached $1,658.00. Members were assessed as follows: In the $400 class, 35 cents; in the $800 class 70 cents; in the $1,200 class, $1.05; in the $1,600 class, $1.40 cents; in the $2,000 class, $1.75. Taking the amount assessed against a member of each class and multiplying same by the number in the respective classes, the total sum to meet losses will be obtained.

On December 31st of each year the member's credit is balanced and the amount lacking to meet the required credit represents the cost of protection for the year. If a member in the maximum or $2,000 class is charged with $1.75, as was the case last year, he is called on to make a remittance of

that amount (plus 60 cents for annual expenses) and when received his credit is again $30.00, or four full assessments of the class. The cost of this protection varies, of course. It may be higher or lower, as the years go on, but its members have the satisfaction of knowing that brother officers have been aided.

A member wishing to withdraw from the Association has returned to him the entire balance to his credit. This makes it plain that the reserve fund constitutes merely a loan (without interest) to the Association, with the privilege of charging against it all losses as they occur, in order that prompt payment may follow adjusted losses. Since the organization of the Association it has returned to withdrawing members $15,000. Upon the death of a member the balance due him is remitted to his widow or other heirs.

The adjustments of claims for fire losses is conducted in a simple method. In case of loss, the member concerned notifies the secretary. The executive committee selects an officer to represent the Association, and the member sustaining the loss selects two others, all members if practicable, and these three form the board of adjustment. When the board has finished its labors, their report is forwarded to the secretary for approval by the executive committee. This committee goes over every item, and if approved an order issues for the payment of the claim. Where it happens that the claim submitted is considered as excessive the report is returned to the board for further information. The attitude of the executive committee in its examination of claims for fire losses is best illustrated by a decision recently handed down on the subject. In this the committee says:

MARKET VALUE MUST GOVERN.

"Claims are adjusted on basis of actual market value of property at the time of loss. Original purchase cost should be taken simply as evidence of value at a certain time, and if appreciation since purchase is claimed, amount thereof shall be added to the original cost; but beneficiary must show by satisfactory evidence that market value of property has increased and how much."—*Decision June 25, 1889.*

"The executive committee desires in all cases to approve

the action of the adjusting board, but in justice to the Association it feels in duty bound to scrutinize and consider each claim carefully, and it cannot approve claims or allowances which, on the face, appear too high. Where articles are shown as having been in use from two to five years, and the estimated loss is placed at the original cost, and where the adjusting board allows the full amount of estimated loss, the executive committee cannot do otherwise than return the proceedings for re-consideration or further explanation.

"The executive committee endeavors to be somewhat more liberal than regular adjusters of civilian companies, and desires to return a fair allowance for actual losses sustained, but where bed linen, civilian clothing, uniforms, etc., have been in use several years, and claim for original cost is made and allowed by the board, (or where only slight reduction from original cost is made) the executive committee will have to disapprove the allowance. Losses must be itemized; such items as '48 professional books, $48.00,' or 'stockings, $7.00,' or 'laundry, unopened, $20.00,' will be returned for specific information."

The following extract from the constitution shows what and where property is protected:

"ART. IV, SEC. 1. *Protection of Property.*—Effects and personal property of every kind whatsoever belonging to members or their families shall be protected by the Association, and benefits paid thereon for damage or loss by fire sustained while the property is on a military reservation, is within fire limits of a city or town which has a paid fire department, is presumably under the protection of United States troops, or is in transit between protected stations; *Provided*, That the executive committee may, upon the recommendation of a board of three or more members, declare any building, whether on a military reservation or not, as unsafe and outside of the fire limits and property stored therein non protected; *Provided further*, That the Association shall never pay on damages or losses due to any one fire a sum aggregating more than ten thousand dollars ($10,000), and it is hereby understood and declared that every policy now in force or hereafter issued shall be subject to the condition that when losses sustained in any one fire exceed ten thousand dollars, this sum only shall be distributed pro rata on the said losses.

"SEC. 2. Storage shall be considered equivalent to residence, and property left on a military reservation or with a

command of troops elsewhere, shall be protected as though the beneficiary himself were present."

The finances of the Association are divided into two funds—"The Fire Indemnity Fund" and "The Expense Fund." The indemnity or reserve fund is created, as already shown, from the payment of assessments, and cannot be used for purposes other than for which created, viz: the payment of fire losses. It is a sacred fund to that extent. At this writing the reserve fund enjoys the comfortable figures of $20,000. Under the provisions of the by-laws this fund, with the exception of a sufficient sum to meet promptly the claims presented, must be invested in government securities. The Association at present writing has $17,500 in U. S. registered two per cent. bonds of 1930. The interest accruing from these securities and from deposits held in banks is placed in the general expense fund, used for office management. This fund is further stimulated from annual dues of members amounting to sixty cents each. This is paid at the time assessments are remitted. The total income of this fund last year reached $1,245.40. This includes the accrued interests on securities and deposits. Since 1887 the total received for the expense fund amounts to $16,588.30.

The officers of the Association consist of a president, vice-president, secretary and treasurer. The two last named offices are combined in one individual. The executive committee is composed of the officers named and two additional members selected by the Association at each biennial meeting. The secretary-treasurer is appointed by the committee. To these officers is intrusted the entire management of the business of the Association, and how well these duties have been discharged during the years of its life is attested by its success. The headquarters of the Association is at Fort Leavenworth, where the constitution says it shall be established. The officers must submit each year an accounting of their stewardship.

In setting forth the objects of the Army Coöperative Fire Association, only the main features of its plan of operations have been given. An examination of the records shows

that the business of the Association has been conducted with but a single aim — to furnish sure and safe protection to officers of the army, including a very low cost for same.

In conclusion, it is only proper to make here of record the fact that the Army Coöperative Fire Association owes its existence to Captain, now Major General, Arthur MacArthur. It was he who first suggested such an organization, and in this he was strongly supported by the late Colonel A. K. Arnold, First Cavalry. The late Lieutenant Rowland G. Hill, Twentieth Infantry, the Association's first secretary, did much in placing it on a sound business basis. He was the author of a number of the important provisions which govern it.

INDIRECT FIRE.

By Captain JOHN E. McMAHON, Artillery Corps.

THE history of the introduction and use of indirect fire for field artillery forms an interesting chapter in the story of the progress made in the great game of war during the past ten years. As early as 1893 the French began the construction of a new rapid fire field gun, which was destined to bring about great changes in the tactical handling of field artillery. The publication of their provisional drill regulations in 1897 first revealed to the military world that a revolution had been effected in field artillery by the successful building of the new gun and the development of the methods of fire adapted to its use. For the Germans it was a clap out of a clear sky. The year previous they had completely re-equipped their field artillery with what is known as an accelerated fire gun, in which the recoil is partially checked by means of a rope-brake, but which requires to be relaid after each discharge. There was no money available for the construction of a new system, and to ask for it was to confess to the country that they had been caught napping by the French. To save their face there was but one thing to do, and so the edict went forth from the inner circles of the military hierarchy to begin a campaign of depreciation of the French system. From Von Röhne and Von Alten down, the German military writers united to declare that a rapid-fire field gun was an impracticable weapon, and that the methods of indirect fire, while they might do for coast artillery, had no place in the tactics of field artillery.

Matters were at this stage when the successful completion of a rapid fire field gun by the Ordnance Department of our army called for the adoption of drill regulations suited

to the new materiel. The board of field artillery officers, convened for this purpose, found themselves called upon to decide at once the important question whether indirect fire was suitable for field artillery and, if so, to what extent should it be used. On the one hand the French held that it was always to be used when the tactical situation or the configuration of the ground offered no objection thereto; and while it was found impossible to discover whether all they claimed for the new system was true, so carefully had they guarded the experimental firings from curious eyes, still it might safely be taken for granted that they had not staked their security as a nation on a revolutionary change in their field artillery materiel and tactics without first having most rigidly tested the system from every conceivable point of view. Arrayed against the French methods, on the other hand, was all the force of German expert opinion, expressed in no doubtful terms, yet the sincerity of which was open to the suspicion that, if the $13,000,000 spent on the equipment of their field artillery with the model 1896 gun was safely back in the treasury, the Kaiser's army would soon be furnished with a modern rapid-fire gun.

The question at issue, however, was speedily settled by the experiences of actual war. The Japanese, although equipped with a field piece of low ballistic power modeled after the German accelerated fire gun, and with a system of field artillery tactics based upon German methods and ideas, had been quick to realize the advantages of the French system, and, as the result soon proved, had learned their lesson well. The Russians, on the other hand, although possessing a powerful modern quick-firing gun, began the war in seemingly total ignorance of the new methods of fire; but they had not long to wait for their first lesson. At the battle of the Yalu their artillery was overwhelmed by the fire of the Japanese guns hidden behind a covering crest. A loss of fifteen field guns and eight maxims in the first fight revealed to the Russian artillery officer the urgent necessity of learning and putting into practice the methods of indirect fire; but it took time and further severe losses to impress on the officers of the other branches of the service the true value of

methods which to them seemed timid, not to say cowardly. According to Lieutenant Colonel Patchenko, of the Russian artillery, division commanders were prone to insist that the artillery should go into position in the open and directly behind the infantry. A battery commander was openly called a coward because he represented to the commanding general that the artillery position chosen for him was impossible. With the battle of Tashihkiao, July 26, 1904, in which five Russian batteries, by the skillful use of indirect fire, more than held their own against thirteen Japanese batteries, the Russian artillery began to make it clear that they had really learned the game. From that time on the struggle between the artillery of the contending armies became much more equal.

From this it must be plain to everyone that, if we wish to be successful in our next war, it is necessary not only that our artillery should be so organized and trained as to develop to the highest point the advantages of the new gun, but also that officers of the other arms should have a general knowledge of the principles governing the tactical use of artillery on the battlefield. They should know just what help to expect from their own artillery, as well as what dispositions to make and what precautions to observe when directing the attack under the fire of the enemy's guns. It is with the sole object of helping in a small way to bring about this much desired "comradeship of battle," that this article has been written.

While it is neither necessary nor desirable to give here the details of our system of indirect fire, any explanation of the general principles governing its employment requires a brief description of the methods of indirect laying now generally used. The guns are placed in position behind a crest, which prevents their being seen by the enemy, and at the same time conceals the target from the view of the gunners. The battery commander, from a position on the flank or in rear of his guns, selects some prominent object as an auxiliary aiming point, which object must be visible from the position of the battery. With the battery telescope provided for the purpose, he measures the angle between the aiming point

and target, and after correcting this angle for the distance between his observing station and the flank gun, he transmits this corrected angle, together with the other firing data, to the gunner of the indicated flank piece. This gunner sets his panoramic sight at the indicated reading and lays it on the aiming point, which causes the gun to be pointed at the target. Having laid the flank gun on the target, the battery commander can concentrate the fire of all four guns on it, can deliver parallel fire, or can close or open the sheaf at will, by making the proper changes in the data, which he obtains by a rapid and extremely simple mathematical calculation. He is also able to swing the fire of his guns from one target to another by measuring the angular distance between them, and sending the new reading to the gunners. The same principles apply in the conduct of the fire of a battalion of three batteries by its battalion commander, or that of a six-battery regiment by its regimental commander.

It now remains to describe briefly just what an infantry or cavalry commander has to expect from the enemy's artillery using indirect fire, and this, it seems to me, can best be learned by following the procedure of the captain of a hostile battery, who is getting ready to use his guns in this method of fire.

The position selected will preferably be at the base of a long and gentle slope, so that the guns will be far enough away from the covering crest to give immunity from the enemy's shrapnel, when he begins to search the reverse slope, as he surely will. A suitable aiming point having been selected, the battery commander will then proceed to "register" the field, that is, he will measure the angular distance from the aiming point to all prominent objects in the front assigned to him and calculate all the elements of fire for these points. He will especially look out for all buildings capable of being fortified, all debouches from the enemy's rear, all roads and villages visible and in range from his position, and more particularly any natural features that would go to make up a key-point. If a stationary or slowly-moving target presents itself in the vicinity of any of these points, he verifies the firing data already obtained in advance by a

deliberate ranging fire, to be followed by fire for effect, when this verification is complete. If troops in mass or artillery limbered up appear, he will endeavor to crush them by a rapid and overwhelming fire covering the zone in which they are moving—the French "rafale"—without waiting to verify accurately the elements of fire.

Inasmuch as the modern rapid-fire field gun has a motion in azimuth on its carriage, such that a front of 430 yards can be covered at a range of 3,000 yards without changing the position of the trail, and also that the fire can be directed from one target to another by merely making the necessary change in the reading of the panoramic sight, it will not take long for artillery to pick up troops exposing themselves in close formation at ranges up to 4,000 yards. It should be remembered, also, that once the target is found, fire from guns capable of discharging fifteen projectiles a minute is bound to cause destructive losses in a very short space of time; and while the changes in the tactical handling of infantry and cavalry on the field of battle, brought about by the improvements in modern artillery, do not come under the range of this article, it is only proper to call attention to the significant fact that, coincident with the introduction of new field artillery materiel and methods of fire, we note the reappearance of the night attack, which, up to the beginning of the Russo-Japanese War, was generally regarded as a risky and rarely successful tactical operation.

It must not be concluded from what proceeds that indirect fire will be the only method employed by the artillery in action In purely cavalry engagements it will have no place at all, for its slow methods of preparation render it unfit for the rapid action of cavalry against cavalry, and it is comparatively useless against rapidly moving targets. Its rôle is confined to occasions on which there is ample time for the careful selection and reconnoissance of the artillery positions and the deliberate preparation of the firing data. Such occasions will arise in the preparatory combat by which all great battles will be opened and in the artillery preparation for the main infantry attack. In cases like this it would be criminally foolish to sacrifice the enormous advantages of

concealment and protection which go with this method of fire, in order to display a silly bravado in exposing the guns in position for direct fire in the open, or to offset hostile criticism as to timid conduct on the part of artillery; but once the infantry begins to advance, a certain proportion of the batteries will be detailed to go forward with the attack and take their share in the butcher's bill, without the payment of which no great battle will ever be won. In their forward movement the artillery is bound to suffer severely in both men and horses; but once in position, there should be no great difficulty in holding it under artillery and infantry fire, with the cannoneers sheltered as they are behind shields which stop a bullet fired from the new Springfield rifle at 100 yards.

It is a matter for congratulation to the army at large that the Ordnance Department has supplied us with a gun and pointing instruments which, to say the very least, are not surpassed by those in use in any army in the world. It only remains now for the three fighting arms of the service to learn by actual practice how best to render that mutual assistance and coöperation on the field of battle, without which disaster is sure to follow when we are called upon to render an account of our stewardship in the game of war.

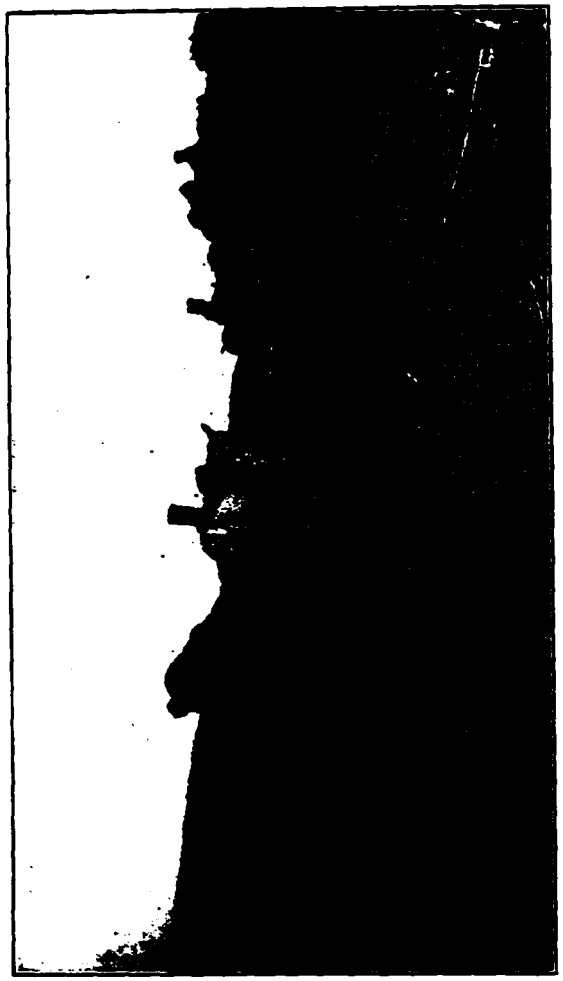
THE SIGNAL CORPS WITH DIVISIONAL CAVALRY; AND NOTES ON WIRELESS TELEGRAPHY, SEARCHLIGHTS, AND MILITARY BALLOONING.

By Captain WM. MITCHELL, Signal Corps.

IN the past, when the cavalry of the United States army was split up into small detachments, patrolling the Western plains, and later, when housed in snug posts, the subject of the rapid transmission of information during active operations, although considered at times, received only passing attention. In 1898, when of a sudden we were awakened from our period of inactivity, the necessity for the rapid transmission of information at once made itself felt. First, in the United States, then to the points of disembarkation of the armies on foreign soil, and then within the armies themselves in their campaigns. What was done along these lines by the army of the United States is now history, but in this as in many other ways the army was woefully lacking in preparation, and the showing made by the Signal Corps during the Spanish War was remarkable under the conditions. The whole subject had been allowed to sleep, as it were, since the Civil War, and although studied by a very few, the army at large knew nothing as to what could be expected from the Signal Corps. Not so with the European armies. These had devoted their thoughts, not only to theorizing upon what might be done, but to actually putting their doctrines into practice.

The subject of permanent lines of information (permanent or semi-permanent telegraph lines) in the rear of an army and the organization for keeping them up with the main body was well worked out, especially by the Germans. In fact

during the Franco-Prussian War, the semi-permanent and permanent telegraph lines were such a help that General Von Moltke said: "Without the telegraph we would not have



JAPANESE SIGNAL TRANSPORTATION.

taken Paris." Since the Russo-Japanese conflict the necessity for the rapid transmission of information has become more apparent, not only along the lines of communication,

but between the various parts of an army during active operations, and especially with cavalry acting in front or on the flanks of the army to which it is attached. The methods by which these things may be done and the extent to which they may be depended upon by those most concerned is the province of this article.

First, in order to accomplish our purpose, namely, to carry back the information which the cavalry gains to the commanding general of the force with which it is acting, we must consider the organization of this force, how the cavalry is organized, how rapidly it moves, how far it is to act in front of the army to which it is attached, and along what avenue of advance the slender thread of steel and copper upon which the whole problem hangs will be the best protected from interference of the enemy. Next, we must consider the signal apparatus best qualified to obtain the results desired, and lastly, the means of transporting it so that it may be conveyed there quickly enough to be of use when desired. This transportation must also be able to follow any road or trail which the cavalry of necessity must make use of.

We are led to believe at present that the principal functions of the cavalry itself are to obtain all the information possible about the enemy and the terrain; to screen and to keep the enemy from obtaining information about the force with which it is acting; during an action to be used offensively either on a flank or rear of the enemy; and acting alone, for raids, attacking convoys or cutting lines of communication. The greatest benefit derived from cavalry is what it finds out about the enemy. If this information is not transmitted rapidly to the officers for whose use it is intended, the object of the whole matter is to a great extent lost. To get this information in quickly and with the greatest economy in men and animals is one of the most important things. In former wars nearly one quarter, and in some cases more, of the cavalry forces was used for conveying dispatches and acting as couriers, which now seems preposterous. In fact, every mile of buzzer line means more cavalrymen available for their proper work, and the duty of the Signal Corps is to transmit

this information to the proper parties by whatever means may be available. When an army first leaves its point of mobilization for the purpose of marching into the enemy's country and attacking him, if it is definitely known that he is at a great distance and that none of his cavalry is near, the cavalry will keep to some good road and march probably not to exceed four to five miles per hour. Considering that we are acting with a division (as prescribed in our field service regulations) it would probably be necessary to keep only the commander of this cavalry regiment in communication with the division commander at this time. When it becomes necessary to begin screening operations and for the cavalry to cover a much greater front, it would probably be found necessary to keep the commander of this regiment not only in communication with the division commander, but also with each of his squadrons.

In other words, four stations would be necessary with the cavalry alone, and in this case the lines of information must have a maximum mobility of from eight to ten miles per hour, and enough equipment with the parties operating them so that the supply of wire will not run short until resupplied from the signal companies in rear of the cavalry or from the reserve signal train of the division. At present we know of no instrument or appliance which in itself is able to surmount all accidents of terrain and weather. Nor do we know anything which will instantly transfer the thought of one individual to another. Consequently we of necessity have to use various appliances to meet different conditions; and all signals take time. These appliances are generally divided into two classes: visual signalling instruments and electrical signalling instruments. Every officer should bear in mind in a general way the limitations of each means of communication, so that in case one or more are available he may be able to decide instantly how the message should be sent in order to reach its destination in the shortest time.

The field visual signalling apparatus of the U. S. Signal Corps consists of three principal instruments and some others used as adjuncts. These are the flag, the heliograph, and acetylene night lamp; smoke rockets, sequence rockets,

and bombs are also used. The flags are made of light durable cloth and are issued in three sizes, 2 x 2 feet, 4 x 4 feet, and 6 x 6 feet; the last is seldom used at present. These flags are attached to staffs from eight to twelve feet long, depending on the distance to be signalled over. In general, the greater the distance the longer the staff should be, so as to give a greater arc when swinging the flag. The flags are of three colors: white with a red center, red with a white center, and black with a white center. The colors to be used depend upon the background of the signaller, the greatest contrast between flag and background being necessary. A four-foot flag on a twelve-foot staff can be read clearly with field glasses up to seven miles on a good day. Its rate of operation in the hands of experts will range between three and four words per minute. Fog, darkness, rain and other adverse conditions of weather reduce its working distance and rate of operation. The flag is the simplest, oldest and slowest method of signalling employed at present. Its principal use is for working across impassable objects, broad rivers, with vessels of the navy, or where wires for various reasons cannot be strung.

The heliograph is an excellent signalling instrument when proper conditions for its use prevail. The heliograph consists of a mirror with which the sun's rays are reflected from the signaller to the distant station, and so arranged that this light may be flashed, thereby making it possible to send messages in any code desired. Heliographs are so arranged that the mirror which is to reflect the sun's rays can be sighted at the distant station and then moved so that the rays of the sun will be reflected to it. It only requires a minute to make this adjustment, as it is called, for distances up to fifteen or twenty miles, if the location of the station to be called can be identified. Its rate of operation is from five to twelve words per minute, according to the code used, and its ordinary range on a clear day is as far as the line of vision extends. Heliographs have been used over distances greater than one hundred and eighty miles. For successful working, both heliograph stations must have the use of the rays of the sun; clouds, fog, rain, etc., impair its usefulness. When proper conditions for heliograph work prevail, this in-

strument is especially useful to the cavalry, as it occupies little space and can be put into action quickly when required. In countries such as South Africa and India great use has been made of the heliograph by the English.

The field acetylene lamp, the latest addition to visual signaling apparatus, can be read up to fifteen miles with the naked eye. Fog and rain and bright moon interfere more or less with it. But, as conditions are more uniform at night than in the day time, this is a very reliable instrument. It can be worked by experts from five to ten words per minute.

Three kinds of rockets (the sequence, light and sound, and smoke) and one kind of bomb are used by the Signal Corps. The sequence rocket is so arranged that it can be loaded with different colors, and four lights in sequence may be displayed. By using the Meyer code any letter or number may be signalled with one rocket. The lights used are red, white and blue, corresponding to the colors of the national emblem. Red signifies one, white two, and blue three. A good sequence rocket attains an altitude of 1000 feet. The light and sound rocket is used for the purpose of attracting attention or indicating a prearranged signal. It attains about the same altitude as a sequence rocket, discharges with a loud report, and displays a white light. The smoke rocket is used in the daytime, and is arranged so that upon exploding a deep yellow smoke is displayed for several seconds. It attains about the same altitude as the others. Rockets are used for signalling across impassable places to indicate movements that apply to a whole organization, and can be used by a party that is in thick timber or a declivity when no elevation can be attained for direct signalling. Rockets can be read at a distance of about six miles, weather permitting. Care has to be used in rocket signalling when near an enemy, as the positions of the troops might be indicated to him. On the other hand, by judicious use he may be deceived. Bombs attain an altitude of about 500 feet, give a considerable report and send out a cluster of red or white lights. They make a greater display

than rockets and are used for calling attention or indicating a prearranged signal.

The field electrical instruments of the Signal Corps consist of the Morse relay, the telephone and the buzzer.

The buzzer is the best field instrument for all around service; it is very light and easily carried; it can be used for

PACK REEL U. S. SIGNAL CORPS.

many miles over barb-wire fences, over bare wire lying on the ground and even through breaks in the wire itself. The Morse code is used with it, and its rate of working is about twenty words a minute. It is also supplied with a telephone transmitter, and when the wire is good enough it can be used as a telephone.

The field telephone is very much like the commercial instrument used at present, except that it is lighter and more compact. It is used for short field lines, with artillery for fire control purposes, and in camp telephone systems.

The Morse relay is used on the semi permanent lines which follow the division, along the line of communications. It is of the same type as those used by the large telegraph companies in the United States. It is worked at about thirty words per minute, and with a good line is the fastest means of transmitting information.

Three general kinds of wire are used: bare iron wire, weighing about one hundred pounds per mile, is used for lance lines. Twisted core heavily insulated wire, weighing about one hundred pounds per mile, called "field wire," is used for rapid movements or deployments. "Buzzer wire" weighs eight pounds per mile, and is used for small rapidly moving columns off main lines of advance or wherever a few men only are available for carrying out the line. It can be reeled out very rapidly, but is easily broken by moving troops.

In the organization of signal troops acting with the cavalry, each party or squad has visual signalling instruments, "field wire" and buzzers, or "buzzer wire" and buzzers, so that it may be able to signal visually or electrically at all times. It has been found that four men are required for the efficient handling of both visual signalling stations and electrical stations. These squads, as they are called, are mounted and armed the same as cavalry except that in place of the saber a machete (for clearing away brush, etc.) is carried. The transportation consists of two-wheeled reel carts provided with winding up gears, each of which holds from ten to fifteen miles of strong insulated wire. These carts are used along roads. Pack transport carries the material and in addition pack reels (as shown in cut) and squad boxes (as shown in cut). The pack reels hold one and one-half miles of wire and are replenished from the other pack animals. Each squad box holds two buzzers, six miles of buzzer wire, one heliograph, one night lamp and one flag kit, besides the necessary line tools, stationery, etc.

A mounted company of the Signal Corps which would accompany the cavalry force of a division (this is not authorized by law nor provided for in the field service regulations) should consist of three officers and fifty-five men. This organization permits of the use of twelve squads, besides the first sergeant, quartermaster sergeant, blacksmith, cooks, etc. This number of squads is divided in half, and each of these six squads is called a buzzer section and is under the command of a lieutenant (it has been found that in practice this number of mounted signal men is about the maximum which can be handled efficiently by a captain). These companies

SQUAD BOX, U. S. SIGNAL CORPS.

should be furnished with four reel-carts and one pack train of twelve packers and sixty-four mules. The complete wire capacity of this company is sixty miles of field wire and two hundred miles of buzzer wire, besides the visual apparatus.

As the advance of the cavalry takes place in its screening movement, a road of some kind would probably be its central point of reference, on or near which the commanding officer of this force would probably travel. The main line of

information, consisting of field wire, would follow this thoroughfare, the wire being carefully placed where it would be interfered with least, generally in the ditches at the sides of the road or across fences near it. All wire is handled by the mounted signal men, by means of sticks with hooks on their ends. To insure its working a squad of four signal men should be placed every five or six miles to keep

LAYING A BUZZER LINE, U. S. SIGNAL CORPS.

a constant patrol over it. The connections for the parties acting off the main road would be by field wire, buzzer wire, or visual signals, as circumstances demanded. These lines would radiate from some common point on the main road to the subdivisions which they were connecting. As these subdivisions gained headway, and the signal squads accompanying them began to run out of wire, which would be the case after forty or fifty miles had been covered, a new radiating point would be selected on the main road and the operation

spoken of above repeated, the wire already laid either being reeled up or abandoned. As each squad is placed along the main line, advantage should be taken of prominent points in the terrain which command good fields of view, and each signal squad operating with detached parties of cavalry should know the location of these and be ready to pick them up by visual means when necessary. These points could also be used as a rendezvous for the cavalry who are nearest them, and should it become necessary to send couriers back, due to repeated cutting of the main line by the enemy, the signal squads could themselves act as couriers, and relay from squad to squad until the break was passed or the line repaired. This in general in the system necessary for a rapidly advancing cavalry force. It is a comparatively easy matter to keep the line along the road in good working condition, but more difficult to keep up the lines with the flank elements. The wire can easily be laid in good shape as rapidly as the cavalry would march. The hard problem is to keep the supply of wire up with the squad laying it, quickly mend breaks made by the enemy and those by one's own troops. The degree of efficiency of a signal system depends almost entirely on the training of the enlisted men composing the companies and their ability to work together in squads. For this reason it probably takes a longer time to make a soldier an A1 field communication man than to make him an efficient man in most branches of the service.

In addition to the signal company spoken of, which should act directly with the cavalry force itself, another signal company of the same size and equipment would follow directly behind it and reel up the flank lines which the company ahead had laid and used, until a new distributing point was decided on. This company should also relieve the squads of the leading company on the main road or line of advance. As it is necessary for the leading company to place a squad every five or six miles along the wire when close to the cavalry screen, it can readily be seen that either the distance between these squads must be vastly increased, thereby rendering communication more apt to be interrupted, or other squads must take their places and allow them to go ahead,

and also feed them, as it were, with more wire. This is the function of the second mounted company of the Signal Corps with a division during screening operations.

In general the communicating system must consist of wires and electrical signal instruments, as electrical apparatus is now much more efficient than visual. With the number of men organized as noted above it is an easy matter to run the wire rapidly, and an easy matter to handle

BUZZER STATION, U. S. SIGNAL CORPS.

the instruments fast enough to do all the work required and more; the difficult part of the programme is to keep the enemy from cutting these wires too frequently. If they are only cut once or twice per day and only short stretches taken out, communication would be interfered with very little, but if cut several times per day and long stretches of wire removed, it would of course be harder to keep it up. I have often heard it said that if an enemy had an efficient

cavalry, lines of information in the front of an army hostile to it would be literally "put out of business." Undoubtedly this would be so were its adversary very weak in cavalry. But in answer to this it may be said that if the enemy's cavalry is allowed to rove unmolested between the main body of a division and its cavalry screen, then the cavalry screen is not efficient in its role of screening, and, furthermore, if the commander of the cavalry knows how many lines of information he can properly maintain with the force of signal corps given him, he will seldom, if ever, be out of touch with the division commander. The frequent fault is that too many channels of information are attempted, and the men and materials so scattered that none of the lines are entirely successful, whereas if a sufficient number had been concentrated on one, good service would have been the result. The important thing for the commander of the cavalry is to keep in communication with the division commander at all times, and communication to other points should be sacrificed if necessary to accomplish this.

We have now seen in a general way how the lines would be run with cavalry acting immediately in front of the organization to which it is attached. In case cavalry were acting separately for a raid or something of the same nature, the line would be run behind the force in the same manner as before, and probably all efforts would be put forth to keep one line with a column of this kind. As in this case no material except that taken could be expected, unless captured from the enemy, sufficient wire, etc., should be taken when the start is made.

Now let us look at the manner in which the infantry brigades are connected with each other, with the division commander, and with the base, while on the march. For the purpose of maintaining signal communication along a main road of advance, the lance line, or air line as it is called in Europe, is the best. This line is built of bare wire or insulated wire and elevated on field poles, or lances, as they are called in the American Signal Corps. These lances are fourteen feet high and carry an insulator on their top. The holes for the lances are dug with a crowbar. A well constructed

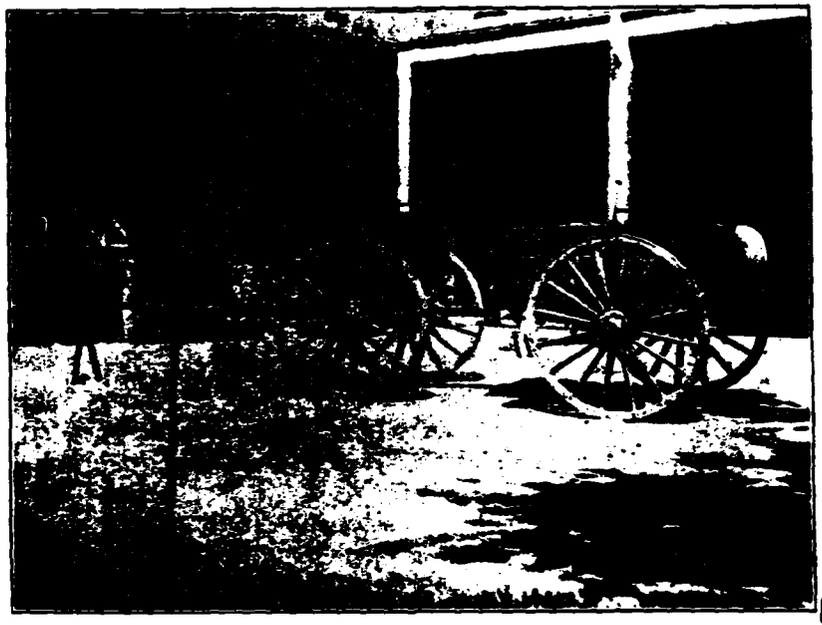
lance line will last for months at a time with very little attention, and, due to its fine insulation, closed circuit Morse telegraph instruments can be used on it. Lance lines can be built at the rate of three miles per hour by fifty men and the proper amount of transportation. These fifty men can keep this up for about seven or eight miles, and must then be relieved by an equal number of others to keep up the pace. So the main line of communication companies of the Signal Corps (as distinguished from the mounted companies) will

FIELD TELEPHONE CENTRAL STATION.
(Several lines radiating therefrom.)

have to consist of about one hundred men, with a sufficient number of mounted men attached to deliver dispatches, and afford means for the division and brigade commanders to cut in on this line and communicate with each other. Stated times should be agreed upon, and at such times all would cut in and converse. While on the march a station would also be maintained continually, somewhere near the head

of the column, to get messages from the base or from the cavalry in front. The signal company building the lance line should be marched well up to the front of the column, about the reserve of the advance guard, so as to have the line up when the rest of the troops pass.

Permanent stations would probably be established at every camping place for the supply trains which follow the division and supply it from its base. These stations would



BATTERY AND WIRE WAGON, U. S. SIGNAL CORPS.
(Capacity thirty miles of wire.)

not be to exceed fifteen miles apart if wagon transportation were used. At each of these route signal stations, a squad (four men) of the Signal Corps would be left. If the army were to occupy the hostile territory for a considerable length of time it would become necessary to build a permanent telegraph line (that is, a line such as railroads or commercial telegraph companies use), where the lance line had formerly stood. Working parties of civilians or other details, under the

noncommissioned officer in charge of these stations, could then do this work rapidly. In case the division with which we are supposed to be acting were a part of an army corps it would be necessary to have what are termed interior lines of information, that is, a lateral connection between the divisions would be made every thirty or forty miles or possibly less, so that if lines were cut in one place they could be reached by another wire. If any passes on the flanks had to be held or strong parties placed permanently at some distance from the line of advance in order to guard the line of communications, lance lines would have to be built to connect them. This would require another dismounted company, so that for the whole division of nearly 20,000 men we will require two mounted companies and two dismounted companies of the Signal Corps. The number of men, wagons, animals, and the capacity of the whole battalion is as follows:

One major, one adjutant, one quartermaster and commissary, one quartermaster sergeant, one commissary sergeant.

Two mounted companies, each to consist of three officers, fifty-five men armed and mounted same as cavalry, machete in place of saber. Transportation: Four reel-carts, one complete pack train of sixty-four mules, twelve packers. Wire capacity of company, sixty miles field wire, one hundred and fifty miles buzzer wire.

Two dismounted companies, each to consist of three officers, one hundred and ten men, twenty-five men of the above number being mounted, armed same as mounted companies. Transportation: Four combination battery and wire wagons, four lance trucks, four escort wagons. Wire capacity of company, one hundred and twenty miles lance line, fifty miles buzzer line.

Battalion total, fifteen officers, three hundred and thirty-three enlisted men.

Battalion line capacity, two hundred and forty miles lance line, one hundred and ten miles field line, four hundred miles buzzer line.

Total animals, one hundred and seventy horses, two hundred and fifty-six mules.

It will be noticed that the per cent. of signal troops is about two, the smallest that possibly can be used for efficiently handling the electrical and visual signalling of a division, not taking into consideration balloon work, searchlight work or wireless telegraphy. It will be noticed that although the personnel of the whole battalion is scarcely greater than some of the European companies, its range of action, or its wire and line capacity, is about twenty times as great as most of them.

This is due to the fact that more weight is pulled by the animals (the greatest is one thousand pounds per horse with the lance train) and the materials and wire are somewhat lighter than others. It might be well to say at this point that the above organization is not authorized by law, but it will have to be, or something similar to it, if a war of any magnitude comes upon us.

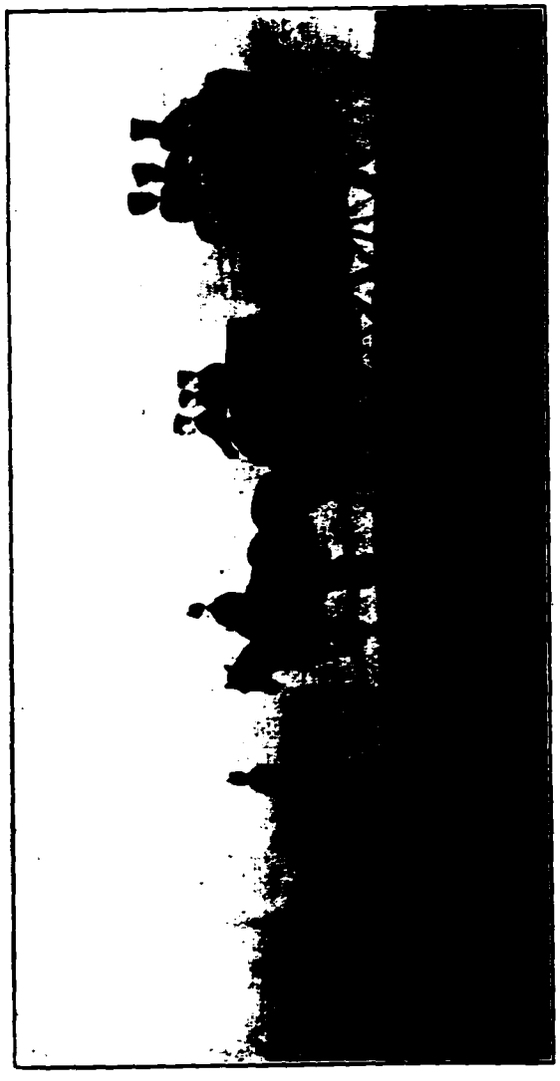
A discussion of present methods of military signalling would be wholly incomplete without some allusion to wireless telegraphy, of which so much is expected, and which so far has done so much toward the solving of some of our hard problems. A brief allusion will also be made to field searchlights and balloons, as these will be used to a very great extent in future wars, and although not so intimately associated with the cavalry as the information part of signal corps work, it is thought that they will be of interest.

Wireless telegraphy was talked of and attempted more than one hundred years ago, but not until 1896–7 were any good results at long distance obtained.

Beyond the fact that the most successful systems use Hertzian waves, which are closely allied to light in the nature of their speed and vibration, and are supposed to be transmitted through the ether, little as to the exact action of these waves under different conditions is known. The general effect is well understood, but the exact manner of their gliding around the earth, their reflection from substances, their finding some paths easier than others to travel along over the earth, etc., are not exactly understood.

To generate these waves a charge and discharge of a conductor, such as a spark from a Leyden jar, is necessary, and

it is pretty definitely established that in general the higher the antennæ for aerial wire the longer the range of the ap-



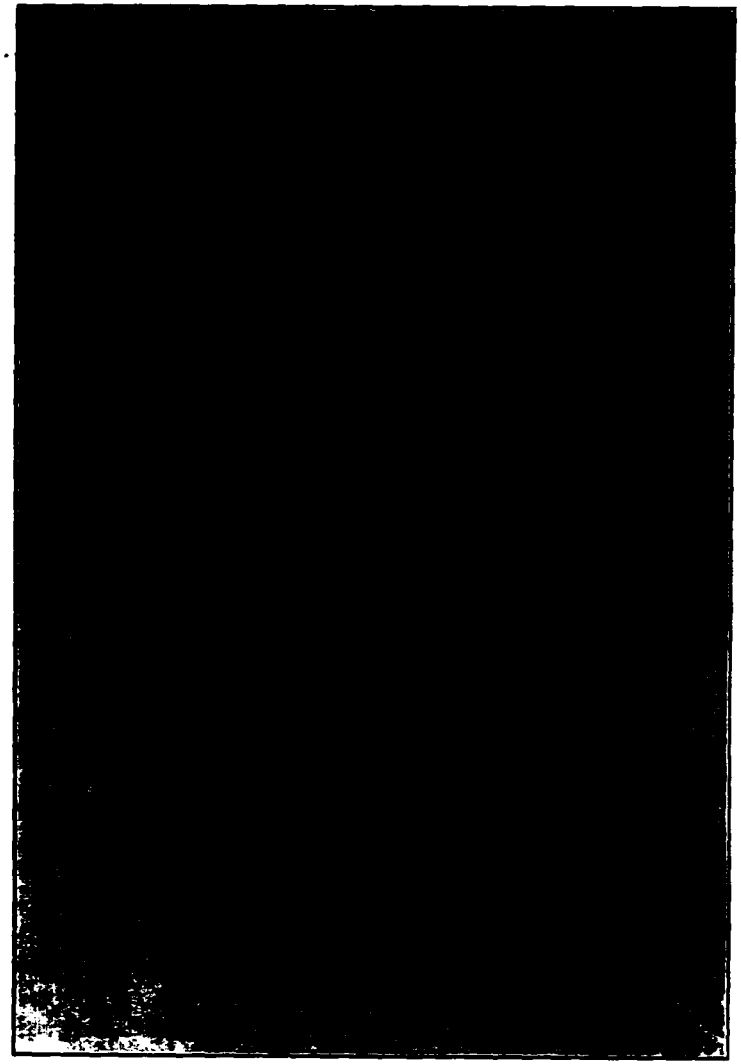
GERMAN WIRELESS TELEGRAPH EQUIPMENT.

paratus. So the sending apparatus consists of an induction coil or a transformer which, when the proper kind of an elec-

tric current is sent through it, causes sparks to be produced between the aerial antennæ and the other spark terminal, which is generally grounded. The apparatus for receiving also utilizes an aerial wire, and a coherer, or an electrolytic cell which is affected by the Hertzian vibrations, and these are reproduced in a telephone receiver or a telegraph relay.

The Siemens-Braun field wireless apparatus used by the Germans and others is shown in the cut. It utilizes kites or small balloons for raising its antennæ, and its range is about thirty miles.

It seems evident that the great benefit to be derived from wireless telegraphy, in a military way, lies in the fact that no wires have to be strung behind the force using it, and that no time has to be taken up in establishing a line or maintaining it in a hostile country. It is comparatively easy to keep up a line with the main body of a division and along its line of communication, for if these cannot be guarded the division cannot be supplied. With the rapidly moving cavalry far in front and on the flanks, however, it is harder to keep the wire up. The cavalry is the arm most to be benefited by an efficient wireless service. With these objects in view, an attempt was made last autumn, at Fort Leavenworth, Kansas, to obtain a wireless telegraph equipment which would pack on one mule and be capable of working fifteen miles. As the weight has to be limited to about 250 pounds in this case, a little difficulty was encountered at first, but nearly every experiment was a success, until the instruments shown in the cut, and called the Squier-Mitchell field wireless outfit, was the result. The antennæ are composed of wire weighing about ten pounds per mile, and are raised by kites or small balloons. These are elevated very rapidly when a station is opened. The receiver and synchronizer, or tuner, are so arranged that when not sending they can be switched on to the antennæ. This apparatus has received whole messages from the Gulf of Mexico, and has transmitted to Kansas City, a distance of about twenty eight miles. The receiver is extremely sensitive, and with the tuner admits of cutting certain stations out, or selecting one when several are sending at once. Due to the weight of electric generating apparatus



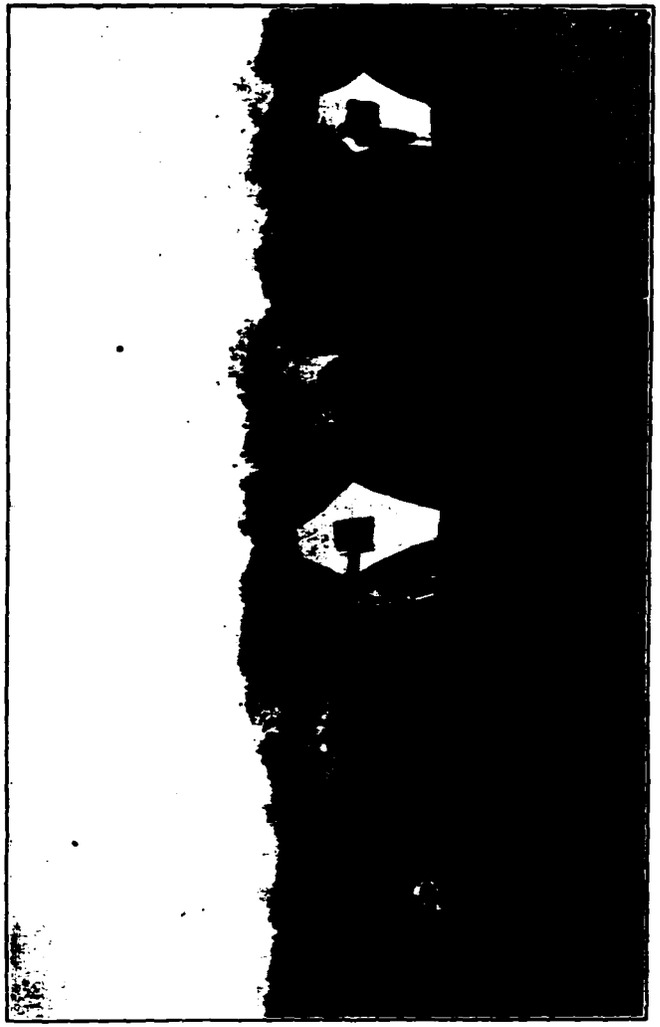
PACK EQUIPMENT, FIELD WIRELESS STATION, U.S. SIGNAL CORPS.

the supply in this regard has to be limited with a pack outfit; consequently reducing its sending ability. Although not tested as fully as it will be in the near future, it is pretty safe to say that this apparatus will give good results with rapidly moving columns not over thirty miles away from another station. As a matter of fact few parties will be much farther than that in a direct air line. A great deal is expected from wireless telegraphy, in connection with rapidly moving cavalry columns.

The use of searchlights with field armies is comparatively recent, and more is constantly being learned as to their usefulness as experimenting and use continues, and as their weight is decreased and consequent mobility is increased. The single light is run by a steam engine driving a dynamo, both of which are mounted on one wagon. From a dynamo the power is transmitted to the light by a cable some hundreds of yards in length. The light itself is mounted on a wheel base with a bullet proof steel shield surrounding it. An appliance is placed over the face of the light or near the carbons so that the light may be flashed for signalling. The power of these lights is such under favorable conditions that they can illuminate objects at distances varying from seven to ten miles. For practical purposes objects can be brought out clearly for minute observation at about the same distances that they are shown by daylight, namely, from two to five miles. At a distance of two miles, with most field searchlights, the diameter of the illuminated space is about 200 yards.

In observations with the searchlight, considerable experience is necessary, as objects which by day are illuminated from above present a different appearance when illuminated by rays parallel to the earth from the searchlight. The principal difference between daylight and the beams of a searchlight is the character of the shadows cast by the objects illuminated. In searchlight work the shadows are very large and black. If an object is illuminated from the rear it is nearly as difficult to distinguish what it is as one lying between the sun and an observer. In the case of artillery and infantry firing upon a searchlight when it is in operation, it

has been established that at their mid or long ranges the searchlight has little to fear, as it is extremely difficult to get the range. Should an enemy have a searchlight, it would



FIELD WIRELESS APPARATUS, U. S. SIGNAL CORPS.
(Ready to begin work.)

therefore be necessary to approximate its probable position during the day, and estimate the ranges accordingly, if it should become necessary to fire on it at night.

In order to obtain the best results from searchlights in the field, they should be capable of covering the whole front of the organization employing them with a continuous circle of light. The searchlights on ships of the navy are arranged to do this.

This would hardly be practicable in the field, as too many lights would be required, and the cost probably would not be commensurate with the result. One or two field searchlights will probably be found necessary with each division of troops, and will be used for observation beyond the outposts, keeping watch of roads, lines of communication, signalling, and of the positions of the enemy or his disposition preparatory to a night or morning attack. What is of considerable advantage in searchlight work is the fact that troops at night move scarcely half as fast as they do in the day time, thereby making it possible to observe them twice as long while marching a given distance at night as would be the case in the day time. Another mode of applying the beams of the searchlight is to place two of the lights at some distance from each other and cross their beams near the earth some distance to the front. The triangle formed by the line between the lights and the point of intersection of the rays is practically invisible to a person in front of it, even if the beams of another searchlight be directed against it. By this means entrenchments may be constructed within the perimeter of this triangle during the night which the enemy will be unable to see. This method has been applied successfully by the Japanese in their campaign against the Russians. Photography can also be used in conjunction with the light, and when not in use with a searchlight the dynamo could be employed to furnish light for various works or for charging wireless storage cells. The personnel of a field searchlight plant should consist of two officers used to observing with it, and who should do all the observing, three noncommissioned officers and nine privates, three of whom should be mounted for delivering messages. The enlisted men would act as electricians, machinists, light operators, firemen, and tend to the signal telephone or other signal

communications placed with the light. There should also be two teamsters.

The application of balloons to warfare has been of long standing, but due to the former weight of the appliances necessary for their operation and maintenance, they have not been used in the past to the extent that they will be in the future. The spherical and the German, or "sausage" type, as it is sometimes called, have been thoroughly tested, and their usefulness and limitations have been definitely established. So far no organization for balloon work has been authorized by law in the United States army. The Germans have a very efficient organization, and practice with the balloons continually. They use the spherical balloon for free ascensions, and the sausage balloon for captive work.

The organizations for handling the balloons are called companies, and have the following number of officers, men and wagons: Five officers, twenty noncommissioned officers, one hundred and thirty men. They are divided into seven groups:

The balloon group: Two noncommissioned officers, thirty-eighty men.

The gas group: One noncommissioned officer, twelve men.

The car group: One noncommissioned officer, four men.

The cable group: One noncommissioned officer, four men.

The telephone group: One noncommissioned officer, four men.

The advance guard group: Eight noncommissioned officers, thirty men.

The reserve group: Four noncommissioned officers, sixteen men.

The drivers group: Two noncommissioned officers, twenty-two men.

Twenty-two wagons, nine for materiel, generating and compressing apparatus, twelve for gas, one, windlass.

The balloon group unfolds, inflates, and gets the balloon ready for the ascension. The gas group attends to the application of the gas. The other groups are employed as their designation indicates. The advance guard prepares the

ground where the balloon is to be inflated and then deploys as skirmishers to the front, to keep away small parties of the enemy, marauders, etc.

The men in the reserve group are detailed as sentinels, orderlies and patrols. In addition to the wagons mentioned above, other wagons known as the reserve train are also attached. While acting with a large body of troops, the balloon company should be marched near the head of the column and be ready to begin filling at a moment's notice. The discovery of the enemy in force would, under ordinary circumstances, be the proper moment for beginning to fill. It must be remembered that the balloon upon rising will indicate to the enemy the approach of the advance guard, but as it takes about thirty minutes to fill the balloon, the organization with which it has been marching will have gained about one mile distance to the front, and presumably will continue advancing. The principal things to be learned by the observer are the roads over which the enemy is advancing, the strength of his troops, the length of his columns, the length of his lines, the position he occupies, and details of a like nature. These things should be immediately reported clearly and briefly. On the basis of these reports instructions will be given by the commander for further dispositions.

A balloon may be used as a means of reconnoissance during the entire engagement when other means are impossible. Regarding the effect of hostile artillery fire against a balloon, it may be stated that if the distance is less than three miles the safety of the balloon is at stake; if at greater distance and one thousand feet in the air, it is practically immune from effects of hostile field artillery. Frequent changes of position render it more difficult to hit. The ordinary maximum distance at which reconnoitering can be carried on is about five miles, although it has been stated that with a thirty power telescope the different branches of the service have been distinguished at a distance of nine miles. Under ordinary conditions of atmosphere, however, the maximum distance is about five miles. It may be noted here that a balloon sent up in the center of a division in line would be able to cover its whole front in its field of observa-

tion. Theoretically a balloon company should be attached to each division. As can be seen by the foregoing the principal uses of the balloon are in the attack, but it may also be used with effectiveness on the defensive providing the enemy's artillery can be kept at a distance of something more than three miles. In retreat the balloon would also be useful if towed along the line of retreat with sufficient speed to keep it away from the enemy. This maneuver would probably result in the loss of the balloon, but might be compensated for by the results obtained.

Photography plays an important part in the balloon reconnoissance. The exposure must be instantaneous, as there is always more or less vibration to a balloon. As it is difficult to see the image of the object to be photographed in the finder of the camera at the distance usually met with, a good many devices have been tried. Probably the most successful is an arrangement resembling the stock and sights of a rifle. The camera is attached to one side of this, with its focal axis parallel to the line of sight; the trigger is so arranged that by pulling it an instantaneous photograph will be made. This apparatus is then set, the object aimed at and the trigger pulled. These photographs serve as good maps of the locality taken. An approximate scale can be made if the photographs are taken vertically downward, which can be assured by the spirit levels on the camera. Then taking the balloon's altitude, if captive by the cable, if free by the barometer, for the base of the right angle triangle, the angle formed by the hypotenuse with the base would be one-half the angle of the camera's lens; the perpendicular would be the distance from the center of the picture to its edge. It is said that with a telephoto lens the outline of a fortress, number of guns and their position can be taken at a distance of six miles. To one unaccustomed to the perspective from a balloon, some difficulty is experienced, as the image resembles a bowl when looking down at it. In other words, the edges of the picture appear as if they were raised, and the part around the center looks as if it were sunken. This also applies to the image produced on the eye by looking down from a balloon. Balloons are

used to signal from by flags, lights and along a cable by telephone, and recently for raising the antenna of a wireless telegraph equipment. Nearly everything said concerning the observations which can be made from the captive balloon can also be said about the free balloon, the great drawback being the fact that generally no communication can be had until the landing of the free balloon, unless carrier pigeons are used. The principal use of a free balloon is in sending it out of a beleaguered city to convey information to its own country beyond the lines of the attackers, or by the attackers in sending balloons over a besieged city for observation or to drop explosives.

As the direction of flight of free balloons depends on the direction and strength of the wind, they can only be used with good results at favorable times.

Dirigible ballooning has not been practically applied up to the present by any army during active operations, and I make brief mention of it here merely to convey an idea of what has been done in this field, and what will undoubtedly prove to be a fact in the future. At present there are two distinct schools of aerostation; one holds that the navigation of the air should be made in the same way that birds sail, namely, the aeroplane principle, of which school the late Professor Langley of the Smithsonian Institute in Washington was one of the foremost exponents. The other school holds that the airship should be made on the same principles as one on water, namely, that it should have an instrument for holding it up, and an impelling force to drive it on, analogously to the hull and propeller of a steamer. Of this school, Santos Dumont, a Brazilian, is the foremost exponent, and as he has accomplished more in a practical way than any other person, the following notes on his performances are given. With his "No. —" ship, Santos Dumont has traveled twenty-seven miles per hour over a measured course in still atmosphere. His "No. 7," known as the racing airship, is built to go more than twice this speed, and can probably be relied on to go fifty miles per hour, although I have no data showing that it has been done. This means that an airship can rise, maneuver and alight in any atmospheric condition

short of a hurricane. As to its application in war, all that has been said of the captive balloon would apply to the dirigible balloon, except that communication with the earth would be more difficult. It could course at will over a battlefield, carry messages out of a besieged fortress, or sail above a beleaguered place, immune from the action of men on the earth's surface. By towing another balloon loaded with explosive, several hundreds of pounds of guncotton could be dropped from the balloon which it is towing in the midst of the enemy's fortifications. It may be said at this point, that dropping a pound or two would probably disrupt any balloon envelope as made to-day, due to the tremendous speed with which the balloon would instantly rise. Ballast has to be handled carefully, generally not more than a pinch of sand or a teaspoonful of water ballast is to let go at one time. As no concrete organization has been adopted for dirigible ballooning, it is not mentioned. The French military authorities are especially busy on this subject, and so far are probably the leaders. One interesting fact connected with dirigible balloons is, that when cruising over a body of water at a height of some one hundred or two hundred feet, objects in the water can be perceived at a great depth; some day, therefore, we may see dirigible airships acting as scouts for the navy to detect the presence of submarine vessels. Conflicts no doubt will be carried on in the future in the air, on the surface of the earth and water, and under the earth and water.

PROBLEMS.

AS stated in the last number of the JOURNAL (No. 59), we have concluded to publish in each issue a problem that has been given, during the present course, by the Department of Military Art to the student officers at the Infantry and Cavalry School. The solution to each problem will be given in the following issue of the JOURNAL. Solution to Problem No. 1 appears in this issue, page 699.

* * *

DEPARTMENT OF MILITARY ART, INFANTRY AND CAVALRY SCHOOL.

Course in Security and Information, 1905–6.

MAP PROBLEM NO. 2. OUTPOSTS.

Situation:

A Blue force at Spencer, fifteen miles northwest of Swanton, throws out a detachment under command of Lieutenant Colonel A——, of six companies of infantry and twelve cavalrymen, to Swanton, to observe and delay the advance of the enemy, who is supposed to be several days' march to the southeast of Vinton.

On reaching Swanton, about 12 M. 1st September, 1905, a messenger passes en route to Spencer, coming from a point twenty miles southeast of Vinton, and reports that a squadron of Blue cavalry has been engaged with a force of the enemy's cavalry all of the day before, and has been forced back four miles to the point from which the messenger started and partly off to the east of the main Vinton-Swanton road. Lieutenant Colonel A—— decides to camp in Swanton woods,

two hundred and fifty yards west of Bellevue Hill, and details Company A and the first platoon of Company B, also the twelve cavalrymen, all under command of Major X——, as an outpost.

Required:

1. A brief statement of what military features of the country in the direction of the enemy can be seen by Lieutenant Colonel A—— from the top of Bellevue Hill.

2. The substance of Lieutenant Colonel A——'s outpost orders.

3. Briefly, the substance of the first orders of Major X—— to his subordinates.

4. Indicate on the map the day position of the different elements of the outpost. In colors indicate what changes you would make, if any, at night.

5. Make schedule showing the number and rank of the men in each element (sentinels to be included in the group from which they are posted).

6. How would you use your cavalry?

(NOTE: Orange and Onion Rivers are the same stream, flowing just off the map, having low banks. It is three feet deep. The organization of these troops is that prescribed in Drill and Field Service Regulations.)

APPROVED SOLUTION TO PROBLEM IN JANUARY (1906) JOURNAL.

(SEE MAP IN LAST ISSUE.)

DEPARTMENT OF MILITARY ART, INFANTRY AND CAVALRY SCHOOL.

Course in Security and Information, 1905–6.

MAP PROBLEM NO. 1. PATROLLING. CAVALRY.

First Requirement.

1. *The country to the south* is open ground, sloping gradually to Corral Creek, distant about eight hundred yards, and eighty feet lower than the top of Pope Hill. Corral Creek flows east and empties into the Missouri River. There are sparse woods on the south bank of the creek, where the ground rises for three hundred yards to the top of Grant Hill, twenty feet lower than the top of Pope Hill.

Metropolitan Avenue, running east and west on a ridge, is on the north side of Leavenworth, seventeen hundred yards distant. The houses of Leavenworth cut off further view to the south.

To the southwest, open ground slopes gradually to Corral Creek, nine hundred yards distant, where a branch joins the creek from the north; beyond the creek the ground slopes upward for about four hundred yards, and is wooded. The rise continues to the new United States Penitentiary, a distance of about eighteen hundred yards, where the elevation is the same as the top of Pope Hill.

A good, broad road (Grant Avenue) running north and south a hundred yards west of the top of Pope Hill, connects Fort Leavenworth and Leavenworth; this road has good grades and is bridged over Corral Creek and the Union Pacific Railroad.

An electric street railway line just west of and parallel to Grant Avenue, crosses Corral Creek and the Union Pacific Railroad by a trestle. Deep cuts appear along the electric line.

To the southeast the ground slopes gradually to Corral Creek and to the Missouri River.

The Union Pacific Railroad runs parallel to and north of Corral Creek at an average distance from it of a hundred yards.

The Missouri Pacific Railroad, double track, runs along the west bank of the Missouri River, which is twelve hundred yards distant, and flows south.

The slope from the junction of the Missouri River and Corral Creek to the reservoir of the Leavenworth waterworks is steep, distance to the reservoir being about fourteen hundred yards.

A road runs north and south to the town, crossing Corral Creek nine hundred yards distant.

The face of the country is much cut up by gullies and washouts, especially east of Grant Avenue.

2. See map* for positions of members of the patrol. The soldier near the officer would hold the officer's and his own horse under cover.

Second Requirement.

1. Thoroughly question and search the man, taking his answers down in writing. I would hold him until it became necessary for other reasons to send a messenger, when I would send him back to the cavalry screen.

Third Requirement.

1. Yes.

2. See dotted line on map* for route.

I would draw in all members of the patrol, except the man at Rabbit Point, who would join the patrol as it passed,

*Due to cost of printing, the position of the members of the patrol and the route from Pope Hill to the reservoir are not given in the JOURNAL. The position of the patrol (Question 2, Requirement 1), is approximately as follows: Two members on the north side of the crest of Pope Hill; one just to the southwest of Rabbit Point; one on the Grant Avenue road, about 150 yards south of Merritt Lake; one west of South Merritt Hill under cover of the ridge (Contour 880). Question 2, Requirement 3: The route of patrol from Pope Hill to reservoir is as follows: Due east from Pope Hill under cover of the woods to Farragut Avenue, thence south on Farragut Avenue to a point 100 yards beyond the bridge over Corral Creek, thence direct to northeast corner of reservoir.

taking position as a rear guard man. I would then proceed by the route indicated on the map. The formation of the patrol would be as indicated, distances in the woods about fifty yards and in the open about one hundred and twenty-five yards.

One man would be sent up the bluff to the north of the reservoir to reconnoiter that place, and one would be sent to reconnoiter the woods south of Corral Creek west of the road after crossing the bridge over Corral Creek.

Fourth Requirement.

1. Remain in concealment and capture the officer and orderly without firing, if possible. Take them at once to Pope Hill. The two prisoners would not be allowed to communicate with each other, and on arriving at Pope Hill, I would question each prisoner, out of the hearing of the other. Take down their answers and send the two back to the cavalry screen under charge of two guards, who will also take the written answers to the questions asked the prisoners, with a message. The guards would be instructed to not allow the prisoners to communicate in any manner whatever. The prisoners would be bound and the best man of the patrol put in charge.

2. See message:

Sending Detachment.	Location.	Date.	Time.
Officers' Patrol, Troop X, 3d Cav'y.	Pope Hill.	8 Sept., 1905.	11:30 A. M.

Received, _____

No. 1.

To Commanding Officer, Troop X, Third Cavalry, on Kickapoo-Fort Leavenworth Road:

I have seen enemy's sentinels about six hundred yards south of Corral Creek, on high ground west of Grant Avenue. Line apparently extends from Grant Avenue to the west beyond the new U. S. Penitentiary towards south end of southwest hill. Prisoner herewith was captured by messenger. Prisoner was riding rapidly towards Leavenworth. He says he came from Kickapoo, has not been in Leavenworth for ten days, and knows nothing of enemy; also that he saw Blue troop of cavalry entering Kickapoo when he left there at about 10:30 A. M.

Will remain in observation.

X——,
Lieutenant.

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I would draw in all members of the patrol, except the man at Rabbit Point, who would join the patrol as it passed,

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taking position as a rear guard man. I would then proceed by the route indicated on the map. The formation of the patrol would be as indicated, distances in the woods about fifty yards and in the open about one hundred and twenty-five yards.

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Will remain in observation.

X——,
Lieutenant.

The above message would be sent after the capture of the civilian and after I had reconnoitered the enemy's position from Pope Hill. It would be the first message sent.

3. "This man is your prisoner; take him and this message; go back over the road by which we came and turn the man and message over to the troop commander. Do not stop until you have reached the troop. Move at a trot, keep prisoner in front of you, and don't let him escape; shoot him if necessary."

PRIZE PROBLEM.

THE Journal has concluded to adopt the idea of a prize problem, to stimulate work along the line of minor tactics. One problem will be given each issue, and will be called the Prize Problem to distinguish it from the problem published each issue that is taken from the work of the Infantry and Cavalry School. The idea of publishing one problem, taken from the work at the Infantry and Cavalry School, was principally to acquaint officers with the work at the school, as great interest is being manifested in this work at present by officers throughout the army. But the Prize Problem is a matter distinct from the Infantry and Cavalry School problem. Solutions will be received from any officer or soldier in the army or National Guard, and the submitted solutions will be given to the publication committee for the award of the prize. The prize will be ten dollars, which will be forwarded the person sending the best solution immediately on notification to the editor of the committee's action. The JOURNAL is issued the first day of each quarter, and the answer to a prize problem must be in the hands of the editor within six months thereafter; *i. e.*, if the problem appears in the April issue the answer must be received before the first day of October.

The solution will be signed by nom de plume, and accompanying the solution must be a letter to the editor stating the name adopted, which letter must be signed by the party's real name. The editor is not one of the publication committee. That committee at present is composed of Major D. H. Boughton, Eleventh Cavalry, and Captain M. F. Steele, Sixth Cavalry.

It is a part of the instruction of officers to require the deduction of sound conclusions and the adoption of suitable measures for a military situation *exactly as it is given*, notwithstanding apparent inconsistencies, discrepancies, and lack of information. All such difficulties occur in actual practice in war, and may sometimes be designedly introduced into problems.

Officers cannot be given credit for solutions based on *illogical* or *unfounded* assumptions or conclusions *not justified* by the military situation, *as given in the problem*. They are not authorized to *assume* hypotheses of their own. The practice of conjuring up difficulties or possibilities outside of the situation immediately at hand, is a military fault which has brought trouble to some of our best officers in actual war.

The following is the first prize problem:

* * *

MAP PROBLEM.

Attack of a Convoy.

General Situation:

A Red army corps is in camp about ten miles northeast of Addison.* A Blue army corps is advancing from the southeast and has reached a point fifteen miles southwest of Colchester. The Red army is operating in hostile territory. Onion River unfordable. Bridges below Fay's Corners destroyed.

*See map opposite page 697.

Special Situation:

At 6 P. M. June 1, 1905, the mayor of Swanton wires the Blue corps commander that about three hundred Red cavalrymen, escorting a convoy of provisions obtained by foraging west of Swanton, have camped for the night, after a hard day's march, on the Fay's Corners-Swanton road, about three miles northwest of the latter place, and will proceed in the morning via Fay's bridge.

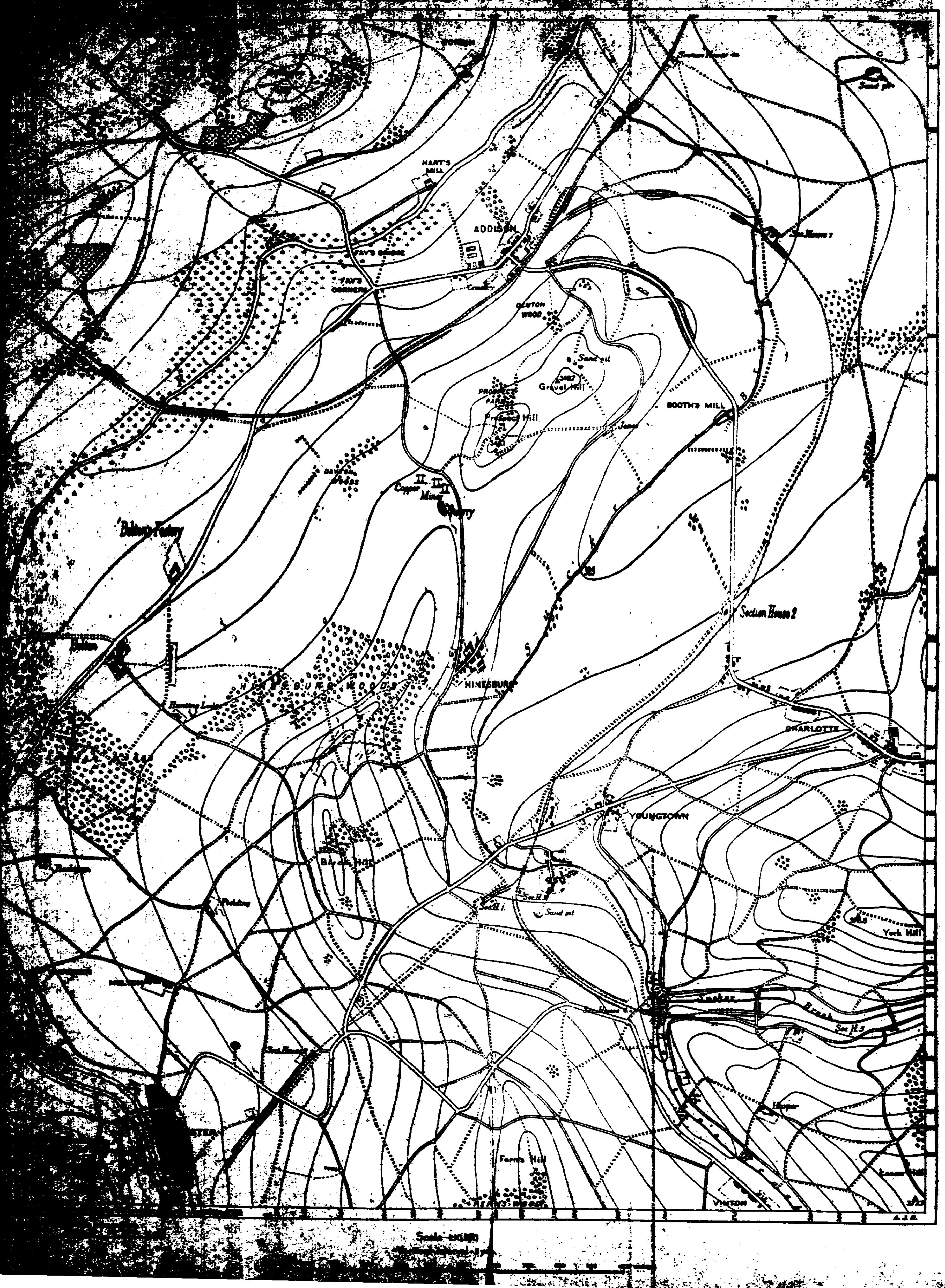
A Blue detachment, consisting of one squadron with one rifle caliber machine gun, under Major A——, reached Colchester at 8 P. M. the same day. An hour later he received a dispatch from the corps commander to capture or destroy the convoy the next day. The dispatch contains all the information given above.

Required:

1. Major A——'s estimate of the situation.*
2. His orders for attacking the convoy.

The strength of the squadron is that prescribed in the Field Service Regulations.

*By "estimate of the situation" is meant Major A——'s view or opinion of the situation after he has studied the map and all the information at hand. It would include (1) a consideration of the strength, position, and probable intentions of the enemy, and (2) a consideration of his own situation and of what he proposes to do in order to carry out the order he has received.



Sand pit
HART'S MILL
ADDISON
FAY'S BRIDGE
FAY'S CORNERS
DENTON WOOD
Sand pit
Gravel Hill
PROSPECT PARK
Prospect Hill
BOOTH'S MILL
Copper Mines
Quarry
Section House 2
HINESBURG
HINESBURG WOODS
CHARLOTTE
YOUNGTOWN
Birch Hill
Sand pit
York Hill
Ferris Hill
VINTON

SPECIAL CLASS AT FORT RILEY.

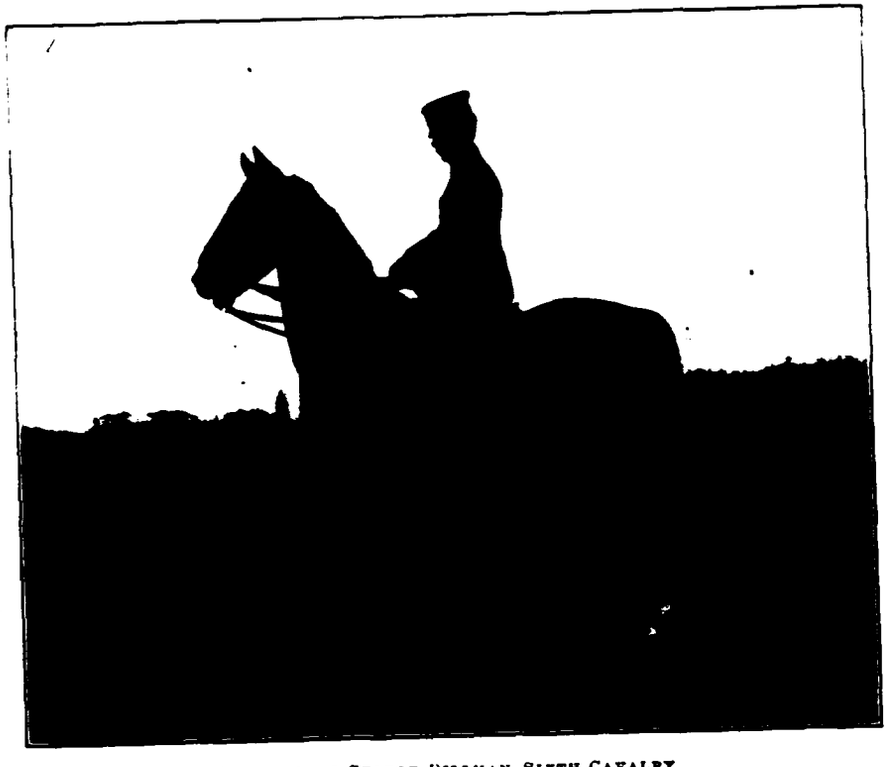
IN ordering eight of the recent West Point graduates to Fort Riley, Kansas, for a special course in equitation, the War Department could have done nothing fraught with more good for the cavalry service. Of the one hundred and fourteen graduates in the last class at the Military Academy, nineteen were assigned to the cavalry. Of these nineteen eight were ordered, as above mentioned, to Fort Riley, where they compose a special class in hippology, horse training, equitation and horseshoeing. They finish this course in April and then join their regiments.

For the work in equitation and horse training these student officers provide themselves with, or are provided by the government with an unbroken colt. The plates in this issue show these officers on their young mounts. These colts are three-year-olds, and were first backed November 1st of last year. Attention is directed to their set up and head carriage after four months' work. It is to be regretted that the facilities at Riley are not greater, so that every mounted lieutenant in the army could take advantage of the exceptionally valuable course that has lately been started there. But as with all things with small beginnings we hope to see the school grow until it is as well known as any riding school in the world. It is our belief that young men can receive as much good from the short course there as at any other school in any foreign country for the same length of time. And while we believe in sending officers to Saumur, yet we think this should only apply to those of our officers that hereafter will be detailed as instructors at the practical school at Riley. The sporadic cases in which officers have heretofore been

ordered to Saumur have done the service little good and we hope the above idea will be carried out if ever any more details are made to foreign riding schools. –

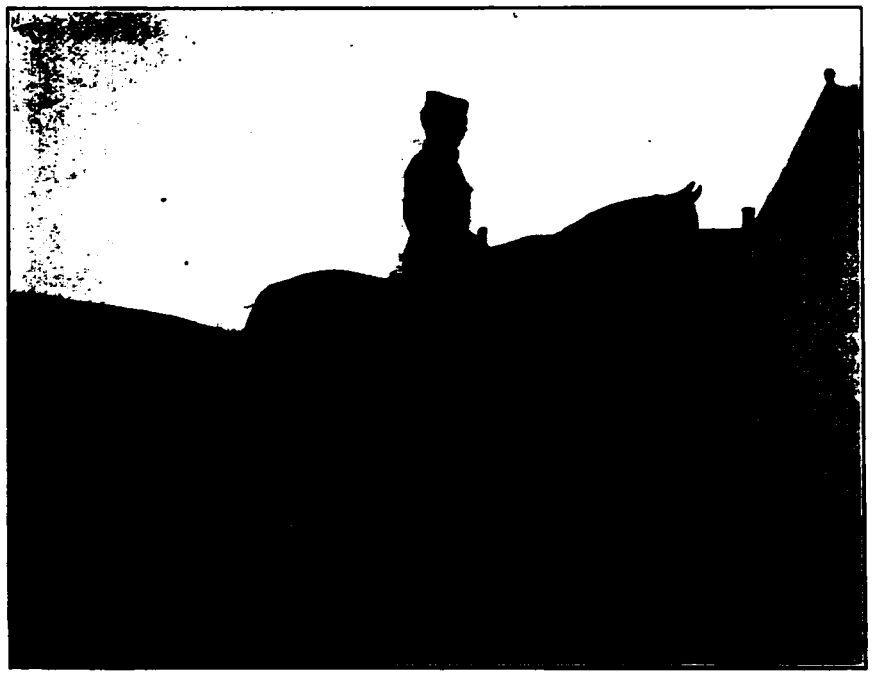
We became very familiar with the work at Riley last summer through a personal knowledge of the riding instructor, Captain W. C. Short, Thirteenth Cavalry, and were so favorably impressed with what was being done that we have taken every opportunity since to give the army some idea of what is being done in the line of practical instruction in handling and taking care of horses. With this idea in view we secured a valuable article for the last JOURNAL from one peculiarly fitted to know about the work—the secretary of the school. And we print the following plates largely to arouse interest in our one real riding school in the army. We acknowledge our debt to First Lieutenant S. B. Pearson, Ninth Cavalry, for the fine camera photos from which our half-tones were made.

LIEUTENANT J. DE B. W. GARDINER, ELEVENTH CAVALRY.

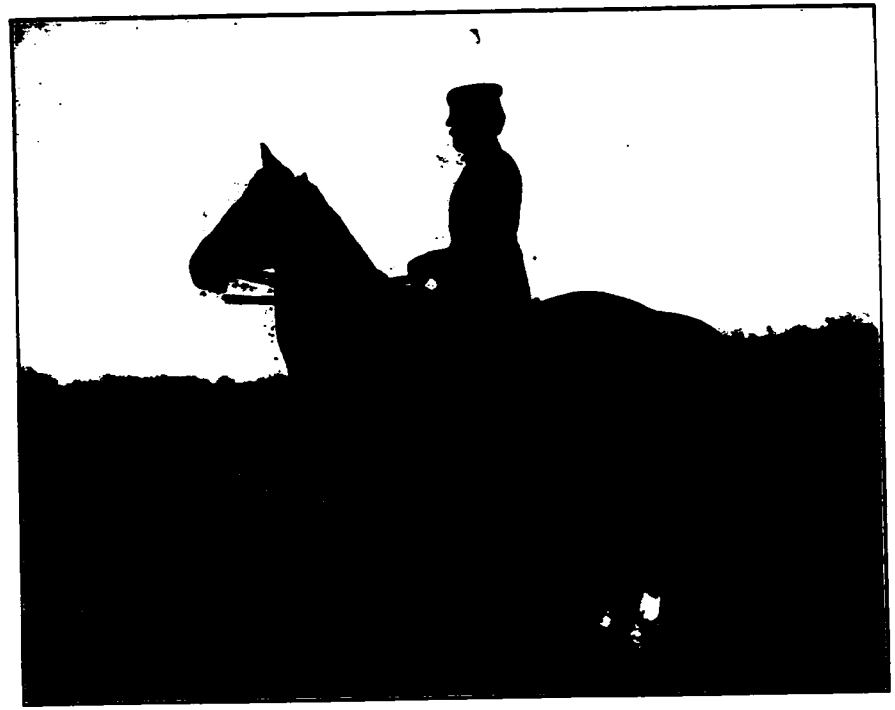


LIEUTENANT GEORGE DILLMAN, SIXTH CAVALRY

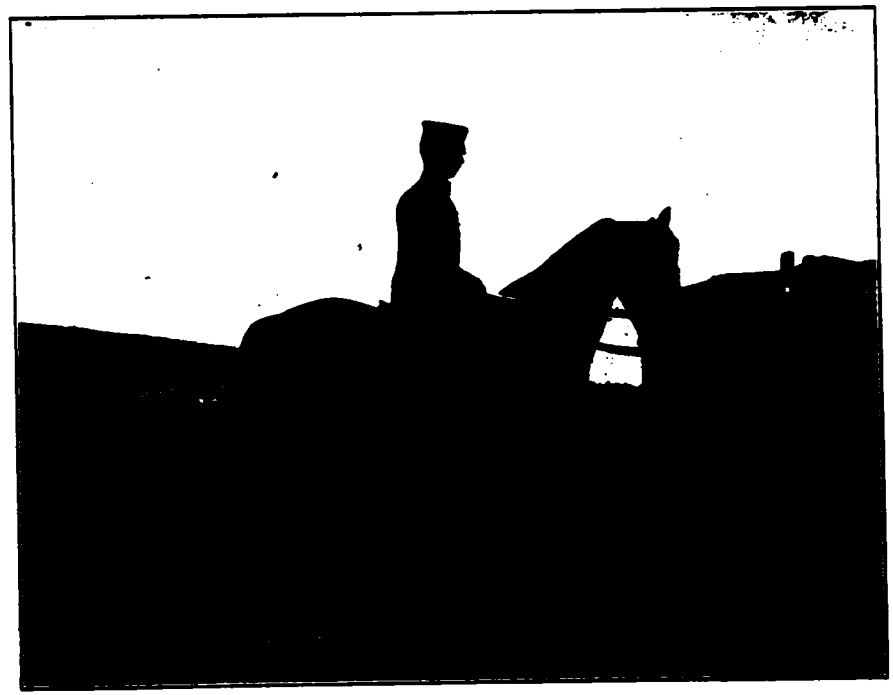
LIEUTENANT CLARENCE K. LYMAN, FOURTH CAVALRY.
(On his three-year-old, "Missouri Girl.")



LIEUTENANT CHARLES L. SCOTT, TWELFTH CAVALRY.



LIEUTENANT WM. A. DALLAM, TWELFTH CAVALRY.



LIEUTENANT JAMES H. DICKEY, FOURTH CAVALRY.

LIEUTENANT RALPH TALBOT, JR., TWELFTH CAVALRY.

LIEUTENANT WM. N. HENSLEY, JR., THIRTEENTH CAVALRY.
(On his three-year-old, "Forrest King.")

BLACKBIRD BELLE

Registry No. 2939

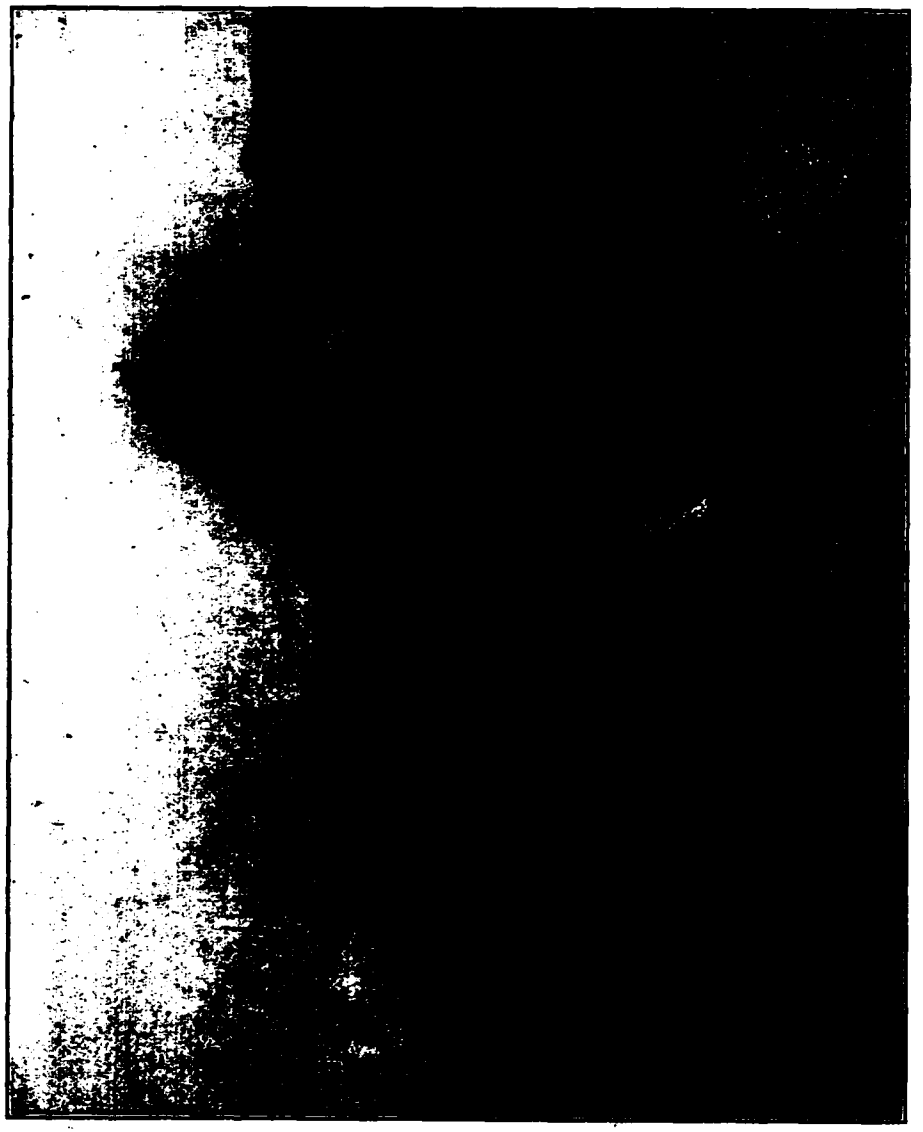
PEDIGREE:

Sire—Forrest King 1462.
Grand Sire—Squirrel King 973.
Dam—Bell M. 2592, by Black Squirrel 58.
2d Dam—Fannie Buckner, 669 by Sidi Hammet.

World's Fair Prize Winner.
Age 3 years.

Owner, Captain W. C. SHORT, Thirteenth Cavalry.

(One print similar to the one here given, of a horse owned by some member of the Cavalry Association, will hereafter appear in each issue of the JOURNAL.)



BLACKBIRD BELLE.

Reprints and Translations.

THE CHINESE ARMY.*

By Major EDM. VON WITZLEBEN.

THE present war in Eastern Asia, and the contingencies which may complicate its further course, cannot very well be discussed without some reference to the armed forces of China; and Chinese troops, in this connection, have repeatedly been pronounced utterly worthless from a military standpoint. This opinion is decidedly erroneous. Against it stands the fact that German military instructors have for many years industriously and laboriously taught the art of war in China, and that from the year 1902 until the outbreak of the Russo-Japanese struggle, nearly two hundred Japanese officers were employed in the Chinese service to train a serviceable army for their neighbors. Moreover, that army itself has developed men who have inaugurated a system of reforms deserving careful attention.

In order to obtain a correct notion of the rather complicated military system of China, and of the forces available for the defense of the country, we must distinguish strictly between the old and the new armies, and subject each one to an independent criticism. If we leave out of consideration the Mongolian levies (Landsturm) and the Thibetan militia, the old army comprises the Manchu or Banner Troops and the "troops of the green flag," also styled "Provincial Troops." The Banner Troops, originally descendants of the former

*Translated for the General Staff, U. S. A., (from the German) by Colonel J. B. Girard, Assistant Surgeon General, U. S. A.

Manchu invaders of the early part of the seventeenth century, have remained a warrior caste, and stand under the immediate authority of the imperial governors, but in the course of time the integrity of the race has been impaired by the admission of Mongols and Chinese, and they have lost much of their old war-like spirit.

The process of breaking up these Banner Troops has already commenced, and will eventually be completely carried out, but this will take considerable time. For the present, therefore, they cannot be absolutely ignored, and a short description of them may be appropriate in this place.

The Banner Troops are divided into eight corps, of which the first three (yellow, red and yellow, white banners) are exclusively made up of Mongols and Tartars, and constitute the Imperial Guard. Theoretically they are placed under the direct orders of the Emperor, while the other five corps (white and red, red, red and white, blue, blue and red) differ from them in being assigned to the princes of the Imperial family.

The eight banners are organized in twenty-five divisions of very unequal strength. The first division, the Imperial Guard, numbers 3,000 men (infantry and cavalry) and is commanded by twenty-five Mandarins of the first and second class, and three princes, assisted by 1,000 subaltern officers, charged with the execution of their orders. The Guard Division, among its other privileges, enjoys that of a special penal code. The mildest punishment consists in 100 blows from a stick, the heaviest is "slow death," meted out for treason or the crime of "lese majesty" towards the Emperor.

The next nine divisions form part of the garrison of the Province of Pechili. Their exact strength cannot be ascertained. The returns furnished on the occasion of the reviews held every third year, give their number as 150,000 men. In reality the number actually present can hardly exceed 80,000, for individual divisions are greatly reduced through deserters, sick and other absentees.

Divisions 11 to 25 also vary greatly in effective strength. For instance, the Twelfth Division in Shantung numbers

altogether 3,000 men, while the Twenty-fourth which, before the coming of the Russians, was located in Manchuria, had reached a maximum of 30,000 men. The Twenty-fifth Division is charged with guarding the Imperial tombs in the provinces. Altogether these fifteen divisions should muster 100,000 men.

The composition of the several divisions of the Banner Troops with regard to special arms, varies as widely as their numerical strength. The Second Division is wholly infantry; the Third half infantry, half cavalry; the Fourth likewise infantry and cavalry with some twenty batteries; the Sixth is wholly made up of foot artillery; the Seventh is charged with the execution of punishment.

Far worse than the conditions of the Banner Troops of the old army, is that of the Provincial Troops which may be considered as the remnant of a standing army created about the middle of the seventeenth century. They are distributed over the eighteen central provinces of the Chinese Empire as well as over Chinese Turkestan and the District of Peking, and are placed under the authority and the free disposal of the respective governors. Trustworthy returns of the numerical strength of these troops cannot be obtained; they are supposed to number 400,000 men, but as a matter of fact the provincial authorities report these high figures in order to claim from the government in Peking the highest possible compensation for their maintenance, which in great part finds it way to their pockets. Collectively these troops never possessed any military value, nor did they ever fulfill the object for which they were designed, that of preserving peace and order in the land, so that their gradual suppression is already decided.

It is evident, without further argument, that the majority of these armed forces cannot be considered available for war purposes in the modern sense, and that it was necessary to create an entirely new army on a modern foundation if the Empire of the middle was ever to acquire military standing and importance. To solve this arduous question an appeal was directed to old Li-hung-chang, who had already proved himself a friend in need, and to whose influence was due the

introduction of the first German instructors to train the Chinese army. Under his guidance, two armies were gradually formed out of the better elements of the Banner and Provincial troops, the so-called Peiyang army, in the Province of Pechili and the Hupei army, in the Province of Hupei, about the middle course of the Yang-tse. These constitute the elite of the Chinese army and are intended to raise the defensive strength of the country to a high level of excellency. Li-hung-chang did not live to see the completion of his work, for he died just as it began to bear fruit, and when order and discipline were being introduced in the ranks of the newly organized forces.

Among the successors of this great statesman, Yuan-shi-kai, the commander in chief of the Chinese troops in the Province of Pechili, has with great zeal and intelligence continued the work of Li-hung-chang, and obtained the most satisfactory results.

This able general's first attention was directed to the work of recruiting among the inhabitants of the lowlands; with that object in view and under the approval of his Imperial master, he issued a proclamation which is not devoid of general interest, and reads as follows:

"1. Soldiers are raised in a country to defend its frontiers and protect its inhabitants. The duty placed upon them is great and important. Consequently slothful men are not permitted to acquire military rank. For the purpose of raising recruits for the army which the government has commissioned me to organize, I consider it wise to adopt the method usually followed in foreign countries; accordingly all prefects and chiefs of districts in the Province of Pechili have been ordered to ascertain how many towns are contained in their administrative territories and the population of each town; furthermore, the elders of each locality are called upon to designate to the authorities a certain number of the inhabitants as suitable recruits. All persons so designated by the elders, must bear an honorable character and possess relatives. Should it come to light that the elders have proposed slothful men or dismissed soldiers, they shall be severely punished.

"2. All persons who have been designated by the elders to the local authorities as suitable recruits, will remain in their dwelling places until said authorities have sent their representatives to examine and enroll them.

"3. A levy of new recruits will in every case be preceded by a special proclamation of the local authorities This proclamation must explain the military ordinances in such a manner that the people will clearly understand their meaning. The day shall also be announced on which the elders will communicate to the local authorities the names of the individuals whom they desire to designate. It is the duty of these authorities to make it impossible for their representatives or for the elders to accept gifts under any pretext: a violation of this provision will be severely punished.

"4. As soon as the number of recruits obtained under the above method is sufficient for the formation of a "shao" (half battalion), each recruit will receive 100 cash per day for his maintenance: they will be quartered in a designated locality until the battalion is complete, whereupon the regular military service will commence. From this time on their daily pay will be 150 cash.

"5. As soon as the battalion is associated with another, every sub-officer will receive a monthly salary of five taels and every private 4.5 taels in addition to the subsistence money above mentioned. The general will deliver to the family or the nearest relative of each soldier a certificate intended to be used as follows: Beginning with the fourth month of the soldier's enlistment, a deduction is made of 1.5 taels from the pay of a sub-officer, and 1.00 tael from that of a private. These deductions are deposited with the commissariat (intendantur) and forwarded every six months through an authorized agent to the magistrate of the district of which the soldier in question is a native, who, in the agent's presence, delivers the money to the family or the nearest relative of the soldier, on presentation of the mentioned certificate, on a stated day designated to the public by a joint notice of the agent and the magistrate. The amount and the date of payment will in every case be entered on the certificate in the presence of the owner. In case a certificate is lost, the local authorities must be notified one or two days before the payment is due when a new one will be issued and the first one cancelled. Should the authorities or the agent have committed some peculation in the distribution of the funds, the family or relative of the soldier defrauded by said peculation will notify him of the fact by letter and the soldier will show this letter to his battalion commander. The guilty party or parties will then be called to a strict account.

"6. It is expected that every soldier who has been enrolled in the service shall devote his entire time and attention to the performance of his military duties. This he can do only when he is relieved of all family cares. The families or nearest relatives must therefore be protected in every way by the local authorities against the slanders of evil minded parties in their town, and in case of litigation, they are entitled to the privileges usually granted to "literats" of the first grade, so that they possess the right of presenting their side of the case to the court of justice through an advocate or counsel on the day of the trial. This privilege is denied to dismissed soldiers, who will be treated in every respect as ordinary people.

"7. He who has held military rank three months and demonstrated his worthiness, will be exempted from the tax which is usually laid upon the population of Pechili by the government. If, however, he is proved to have used his position as soldier to assist others in litigious matters, he has rendered himself liable to serious punishment.

"8. At the end of every month, each battalion commander will report to the colonel in command how many men have been furloughed, how many have absented themselves without leave, and how many have been dismissed during the month. The general will from time to time furnish to the district magistrate the names of all dismissed soldiers, in order to prevent their being enrolled a second time.

"9. If a soldier deserts from his battalion and returns to his home, the prefect of the respective district will be duly notified, and the latter will cause both the soldier and his relatives to be imprisoned. Should the elders protect him or refuse to surrender him, they shall be severely punished. In case the deserter's whereabouts are not discovered after a month's search, the local mandarin will institute legal proceedings against the relatives, according to circumstances.

"10. If the local mandarin shows negligence in his efforts to arrest a deserter, he will be punished according to law.

"11. Whenever a soldier is advanced to the rank of officer, an official notification of the fact must be sent to the local mandarin.

"12. The following qualifications are required of a recruit to permit his enlistment:

"(*a*) He must not be under twenty nor over twenty-five years of age.

"(*b*) He must be strong enough to lift with both hands a weight of 100 pounds up to a level with his breast.

"(*c*) His height must not be less than four feet eight inches.

"(*d*) He must be able to march twenty li in one hour.

"(*e*) He must bear an honorable character and never have been punished by incarceration.

"(*f*) He must be free from physical defects."

Thus far, the results obtained by Yuan-shi-kai with this system of raising troops in the Province of Pechili have not been absolutely satisfactory; the greater portion of his recruits must rather be drawn, as heretofore, from neighboring provinces, chief among which are Honan, Shantung and Anhui. The conscripts, for whose good conduct, according to Yuan-shi-kai's proclamation, the town elders are held responsible, are to serve three years with the colors, three years in the Reserve, and the same length of time in the Militia. The Reserve and Militia men are called upon every year to undergo a month's training, but the Russo-Japanese War has thus far prevented the carrying out of this regulation.

With regard to the recruiting of officers, which likewise has been the object of Yuan-shi-kai's deepest attention, the old method has of late undergone important modifications which, when gradually accomplished, will produce good results and influence in the best manner the army's efficiency.

Heretofore and as late as the year 1900, the supply of line officers was extremely defective. "Commissions" were preferably conferred upon Chi-yen Banner men who had served a number of years in the army, whose record was reasonably clean and who had saved a sum of money sufficient to obtain a "position."

A knowledge of reading and writing was not considered essential with them; they were required simply to give evidence of a certain dexterity in practical military exercises dating back to ancient times. The tests formerly applied in Peking or in the provincial capitals consisted in:

1st. Drawing the bow.

2d. Saber exercise without adversary.
3d. Lifting and throwing stones.
4th. Shooting with the bow on horseback.
5th. Shooting with the bow on foot.

In all this, the sole requisites were physical strength acquired by exercise, and some degree of manual dexterity; the applicant was never called upon to discuss theoretical questions.

After the examination was passed and the necessary sum of money had reached the proper hands, the candidate became an officer, but in order to obtain further promotion, he had to submit to additional tests or distinguish himself on the battlefield.

Under the last published edicts of the Emperor and the new regulations of the War Office, which pursues the work of reorganization with great zeal and vigorous Japanese assistance, the qualifications demanded of the applicant for an officer's commission are altogether different. The candidate must come from a good family, be physically well proportioned, and possess the necessary strength for strenuous exertion. His education must have developed his self command so that he shall be able to endure the privations inseparable from war, and become a pattern of excellency to his subordinates.

Former service in the ranks of the army is not indispensable, but evidence must be given of the above qualifications before the candidate is permitted to enter a military school. In the military schools, of which there are at present one in each of the fifteen provinces, with an aggregate of 3,344 pupils, a scientific education is the main object in view, but practical training is by no means neglected; they correspond in many respects to our Cadet Corps, without giving, however, the same satisfactory results. The candidate officer enters the school about his twentieth year, and nothing more is required of him at first than a moderate ability in reading and writing. Theoretical and practical instruction are carried on simultaneously. The first year a beginning is made with the simplest principles of tactics and firing, with demonstrations of modern weapons accompanied by practical firing exercises with the infantry rifle. The student is, furthermore, initiated in the first principles of field sketching which, in the higher classes, develops into land surveying. He also receives instruction in reading, writing and arithmetic.

The regulations specially prescribe that students shall acquire a comprehensive knowledge of history and geography, not only of their own country, but likewise of those European states which take a prominent part in the affairs of the world by virtue of their accomplishments in war, politics, commerce and industry. The study of foreign languages has, very strangely, been left out of the curriculum, and we must assume that the individual student is expected to possess enough ambition and energy to study at least one foreign idiom. Finally the practical exercises consist in daily drills with and without arms, in field service, athletics, gymnastics and target shooting. All these are based upon the Japanese drill regulations which, as is well known, have been largely borrowed from the German. At the end of each year the student passes a certain examination, and if successful is promoted to a higher class. If he has distinguished himself by very superior attainments in knowledge, he receives in addition a money prize which, however, does not exceed eight or ten taels.

After the student has passed through all the classes and stood with success the final examination, he has acquired a claim to an officer's commission, becomes an officer, and after a three months' furlough, takes his place at the front.

This system has been in operation but a short time, and hopes are entertained that it will gradually expand and take root so as eventually to produce a good supply of officers.

Only three provinces, namely, Kiangsi, Kansu and Honan, are still unprovided with military schools. Kiangsi has for a long time been the seat of insurrections, while Kansu is poor and very remote. It is harder to understand why a prosperous province like Honan, which furnishes excellent fighting material, should be so backward. This may, perhaps, be explained by the fact that all the recent governors

of that province have been reactionary men who did not believe in innovations.

Outside of China proper there is another military school in Chinese Turkestan.

The further instruction of officers graduated from the military schools will be entrusted to a Military Academy which is to be established in Peking. It will be modelled after the academy founded in 1902 at Pao-ting-fu by Yuan-shi-kai, which makes it probable that the new institution, like its older sister, will be managed chiefly by Japanese. By the side of this academy, it has been decided to open in the capital a special school of strategy and tactics, in which Japanese instructors also will inaugurate their courses in May of the present year.

Besides the Military Academy and the School of Strategy, the Army Reorganization Board contemplate the foundation in Peking of another military school for the exclusive accommodation of the nobility. The Empress Regent has contributed to that object, out of her privy purse, the sum of 50,000 taels, and the school will be patterned upon the School for Nobles at Tokio. The immediate provisions have been adopted, and at the present time await the scrutiny of the vice-president of the War Office, Hsu-chi-chang. After these three institutions have been organized on Japanese lines and within a moderate space of time, there is talk among Chinese military circles, of establishing further, and before long, Central and District Preparatory Military Schools, Schools for Artillery and Engineers, and a Military Marine School, such as exist already in Japan.

We cannot drop the subject of the recruiting of officers, the present status of military education and training in China, and above all, that of the instruction of the rank and file, without calling attention to the active part taken in that work, under great difficulties, by German officers, not only in former times but still at present, though in very limited degree.

The first German instructors were appointed about the "middle seventies" of the past century; they increased rapidly in numbers, and their activity extended before long to North, South and West China.

The war in Tonquin, with its disastrous results, put an end to the efforts of the southern provinces to reform their military methods; a special treaty with France prohibited the employment of other than French instructors. Later on, Russia secured for herself the same privilege in the Province of Pechili.

The largest number of German instructing officers were at work in the nineties, and we cannot emphasize too much the fact that it was with their coöperation that the foundations for an efficient army were laid. They went so far in that direction that a corps of troops was organized at Woosung in which nearly all the officers were German.

Since last year the German military instructor has altogether disappeared in the north of China, and everywhere else in the Empire he carries on a hopeless struggle against the serried ranks of Japanese competitors. To-day Germans are employed in three military schools only, three of them in Woochang, one in Nanking and two (one of them an Austrian) in Tsinan-fu; a few are still on duty in the arsenals and powder mills. Most of them have occupied their places several years; for instance Messrs. Hoffmann, Fuchs and Töpfer do duty in Wuchang since 1895, and Mr. Von Tettenbom has taught the military art in Nanking almost as long. Among recent appointees are Messrs L. Bauer and Baron von Seckendorf, both former Prussian officers who now reside permanently in Tsinan fu the capital of Shantung.

The services of these instructors are secured by contracts with the provincial administrations, which run usually for three years. At the end of the period the relation ceases unless the contract is renewed. As to salaries, they have reached in Wuchang and Nanking the sum of 1000 marks ($238.00) per month; in the north, however, and in Tsinan-fu, they have come down to 700 marks. In addition to the money, the instructor receives certain allowances, such as free quarters and in some places servants and riding horses.

This teaching personnel is almost exclusively attached to

military schools, not to camps, and the course of instruction includes practical duties and the military sciences. The instructor has to begin with the simplest subjects, for there is usually a total lack of preliminary knowledge and a radical correction of views is indispensable. It is often the case that serious obstacles are placed in the pupil's way by their officers themselves The worst happens when high officials who never have filled military positions in their lives think themselves called upon to issue orders and regulations contrary to all the principles of the art of war and of military discipline. It frequently happens also that the highest civil functionaries, such as supreme judges, "saltztaotai," and others hold parades and reviews, or even, in addition to their legitimate office, are made commanders in chief of military forces.

Under a decree of the central government, the course of studies at a military school extends over a term of four years, but this limit is not strictly enforced, for there are pupils who attend a school eight or nine years, while others, through influence, are permitted to enter shortly before the discharge of their class. No age limit has been prescribed for entrance in the school, and it happens that boys of sixteen and men of forty-six receive instruction together.

While the reorganization has improved the method of teaching very materially, it is still the fact, that after completion of the course of studies, only a small proportion, ten to twelve per cent. of the graduates, may count upon an officer's position or assignment in the provincial army. This detracts considerably from the importance of the military schools, and the labor and efforts of the teachers have been thrown away, if the majority of the students designed and trained for the military calling cannot, after completing their studies, be provided with places in the army. But this defect may also be corrected when the reformation of the military schools, which we have described above, shall have been fully carried out and become permanent.

From the theoretical standpoint, the method of instruction is no easy work; for instance, the subjects to be taught must at first be translated word for word into Chinese and

then be written out on the blackboard, from which the pupils transfer them to their copy books and then commit them to memory. Another difficulty renders teaching laborious: Chinese text books are either wanting or insufficient in quantity, so that every word of the lesson has to be written on the blackboard. This, of course, consumes a good deal of time and makes progress very slow.

The results of practical instruction are more satisfactory and obtained with less difficulty than is the case with the classroom course. An interesting report of an inspection lately made in the military school of Tsinan-fu, which has been placed at our disposal, gives evidence of this fact and demonstrates at the same time the harmony which prevails in the training methods of the schools and those of the camps, of which we shall treat in detail later on. The report states:

"The inspections formerly held once a month have been replaced by a more reasonable institution, that of quarterly inspection. The exercises lasted three days, and began with a display of practical work, drill, athletics, passing on to field service, under the scrutiny of the director of the school. Then came infantry drill by three companies, each one hundred men strong, formed in column of companies. The impression produced by these soldiers, dressed in comfortable and substantial uniforms, was anything but unfavorable, specially so with regard to the first company, whose Chinese commander made an excellent impression.

"Upon the appearance of Chang, the director of the school, Military Instructor Baron von Seckendorff, acting as battalion commander, gave the proper commands and the men executed the movements of carry and present arms. The director paced up and down the front of the line, after which the first and third companies moved to the left (their right) in order to make room for the evolutions of the second. The second company practiced handling the rifle and aiming at the target; then went through various movements in company column, in step and out of step, finally closed with the "present arms," customary on such occasions in this country. It was followed by the third company (recruits) with the school of the soldier standing and marching, and movements in column of sections, the latter not absolutely correct.

"The crowning display was the work of the first company, which began with the manual of arms, followed by loading and firing; the latter was performed both in the standing and the knee position.

"After these exercises the companies marched toward the eastern part of the drill ground and prepared to pass in review. They failed, it is true, to show the vigor and steadiness which we demand of our men, but on the whole they produced an extremely favorable impression.

"The infantry exercises were followed by a drill with mountain guns drawn by horses, limbering and unlimbering, battery evolutions, finally firing at a target. After the mountain battery had demonstrated its capacities, came a short drill with a battery of old German field guns, without horses. This did not amount to very much, for the heavy pieces had to be moved by main force, and on that account the movements were omitted.

"The inspection closed with a series of gymnastic performances without apparatus, after the Japanese method; the noisy counting of the men and the rather unmilitary attitudes and forced motions gave the display a somewhat theatrical appearance and it failed to meet with the same applause as the other exercises."

On the whole, we can truly say that the Military School at Tsinan fu is in a fair way to develop a useful body of troops for the Chinese army.

After this digression, if we turn again to the subject of reforms in the corps of officers, we discover that said reforms not only involve higher scientific requirements and a sounder military training than heretofore, but their aim is to thoroughly regulate the system of seniority according to modern views. In this connection we quote an official report of the War Office to the Emperor, concerning the officers of the new military organizations:

"We, ministers of the state, humbly submit to Your Majesty the following suggestions, relative to the ignorance that prevails in the corps of officers, and the difficulty of increasing the warlike spirit and improving the military abilities of that class.

"In obedience to the express and repeated commands of Your Majesty, that we should make readiness for war the sole object of our attention, we, ministers of the state, have elaborated an offensive and defensive scheme for the army; we have framed regulations for military schools, and made arrangements for sending military students to foreign countries; all these measures have met with the highest approbation and have received legal sanction in all the provinces. It is now our duty to devote our entire attention to other pending questions and solve them gradually in a satisfactory manner.

"If we intend to elevate the army, we must in the first place render the soldier's calling popular and attractive; to make it so it is essential to radically improve the condition of the officers. We therefore take the liberty to quote the following edict of His Majesty, of blessed memory, your august ancestor and great Emperor, Kao-tsung Shun-huang ti, dated in the fifty-first year of the administrative period styled "perpetual highness." (Chien-lung 1736–1796):

"'The state appoints officers in order to be prepared for offensive operations, and armed against all attacks. An officer's responsibility is not in the slightest degree smaller than that of a civil functionary. Towards the end of the Ming Dynasty, civil officials had monopolized all the business of the state; as a natural result, preparation for war was neglected, the frontiers of the Empire were weakened and the government lost all power. The fact that military functions were entrusted to civil functionaries was the sole cause of this deplorable condition, and must inevitably have brought about the fall of the dynasty.'

"These are truly impressive words of the deceased monarch, and they show clearly to the whole world where are to be found the supports of a throne. If the reigning family cares for its servants under tents and in encampments, and rewards military merit, talents will surely rise to the surface, brave men will come to the front. To all men alike, the desire to reach the highest places is an honorable ambition; rewards must be measured by merit. Great results have occasionally followed moderate encouragement. Among foreigners both in the east and in the west the soldier is highly considered; this renders the military profession universally popular. The officer is greatly respected, but the rank and file are also considered an estimable class of the population. The nation's self-respect grows from day to day, and the land enjoys great prosperity.

"We ministers of the state know full well the meritorious efforts of our august Imperial family to elevate the army from times long past to the present. About the beginning of the Dynasty, the brave members of the eight banners kept watch at the Imperial court, while troops of the green standard guarded the outside provinces; their organization was fixed and became a standard for other troops. The detachments patrolling the highways suppressed brigandage,

and every man, from the common soldier to the highest commander, performed more glorious deeds than we can enumerate. But they were all raw soldiers without culture, children of their epoch, when personal bravery was a sufficient claim to the highest places. Under present conditions, such men can no longer serve as officers; they must be satisfied with their modest rank or put up with minor employments; in fact, where there is no prospect of advancement for them they should preferably be discharged altogether. Not only the highest dignities of general or lieutenant general should be universally honored as heretofore; the lower grades just as well, down to that of lieutenant, deserve full consideration and respect; if, however, they lose their own self-respect, the world will look upon them with contempt.

"Nothing is worse than ignorance and lack of culture in the case of officers To bring about a gradual improvement in this respect is our self evident duty.

"Of late years, in order to stimulate the people and secure proper support for the throne, Your Majesty has in many edicts laid great stress on the importance of the study of military sciences, so as to excite a lively interest in the subject throughout the whole Empire. Since the opening of our military schools and the return of military students to their homes a vigorous competition has set in. Gray haired generals have become absorbed in their studies, former civil officials have begun all over again in the army, and everyone is industriously pursuing his military education.

"From among the best scholars formed under the new system and commissioned as officers, the professors and instructors for the military schools will be appointed. With the advancement of our army, a new spirit will arise and the profession of arms will flourish. The rude, ignorant man of old times will make way, and be replaced by cultured and zealous officers. The difficult nature of the studies, and promotion by discriminative selection, are a guarantee that mediocre men will not rise above the inferior grades, that of lieutenant at best, a position of no great importance. He who accomplishes nothing will bring about his own fall.

"Tung-Chung-Su (celebrated man of letters, and minister in the second century before Christ) says somewhere: 'If your lute is out of tune, tighten the strings, draw the bow vigorously.' We, ministers of the state, while carefully studying the various army organizations of the several dynasties, have met with such radical differences between them, and so great a variety of titles and offices, that we cannot remember the greater part of them. Accordingly, we deem it unwise to retain the old designations and consider it absolutely necessary in these modern days to introduce new names for the various service grades, so that both the eye and the ear may realize that we are dealing with something entirely new, something drawing general attention. In so doing, we naturally must not lose sight of the historical evolution of institutions.

"Your Majesty has, within the past few years, made certain promotions out of the regular line, and in several cases, as a matter of special distinction, conferred Manchurian offices upon Chinese functionaries. This practice breaks with traditional usage, and may be considered a concession to modern conditions and necessities. Surely this is the most efficient way to exercise a quiet supervision over officials. At any rate no distinctions exist any longer between the various subjects of Your Majesty, and in the course of time every vestige of difference between Manchu and Chinese shall have vanished. The impartial conferring of positions respected by every one, will keep an odious sycophancy within bounds, and open the way for a system of honorable competition.

"After mature deliberation, we, ministers of the state, have decided upon the following new arrangement which corresponds both to the organization of the eight banner corps and to our foreign models.

"The officers of the new army are divided in three classes and nine grades, viz:

"First class: Shang-teng-chün-kuan. (Generals.)

"1. General, Cheng-tu-tung, formerly, Ti-tu. Lower grade of the first rank.

"2. Lieutenant General, Fu-tu-tung, formerly Tsung-ping. Upper grade of the second rank.

"3. Major General, Hsieh-tu-tung, formerly Fu-Chiang. Lower grade of the second rank.

"Second class: Chung teng-chün-kuan. (Field officers.)

"4. Colonel, Cheng-tsian ling, formerly Ts'an-chiang. Upper grade of the third rank.

"5. Lieutenant Colonel, Fu-ts'an-ling, formerly Yu-chi. Lower grade of the third rank.

"6. Major, Hsieh-ts'an-ling, formerly Tu-sse. Upper grade of the fourth rank.

"Third class: Hsia-teng-chün-kuan. (Subaltern officers.)

"7. Captain, Cheng-chun-hsiao, formerly Shou-pei. Upper grade of the fifth rank.

"8. First Lieutenant, Fu-chün-hsiao, formerly Ch'ien-tsung. Upper grade of the sixth rank.

"9. Second Lieutenant Hsieh-chün-hsiao, formerly Pa-tsung. Upper grade of the seventh rank.

"All officers of the new organization, educated in the military schools or abroad, or serving as instructors are placed in the ninth service grade of the third class, and when otherwise employed receive the civil rank corresponding to their grade.

"As soon as our propositions have received the approbation of Your Majesty, we shall carefully elaborate the necessary provisions for their execution and submit them to the supreme authority of the Crown for examination."

In the meanwhile, and until the new organization is completed the troops of the green standard still remaining in the service are authorized to retain their ancient titles.

Before we take up the description of the Peiyang and Hupei armies, spoken of in the fore part of this essay, it will be advisable, in order to clear up certain points, to describe briefly the general arrangements of the Chinese army.

The several troops of both armies are quartered in so-called "camps," which form quadrangular aggregations surrounded by mud walls. As a rule, a camp of this kind accommodates a battalion of infantry of 500 men, a squadron of cavalry of 200 to 250 men, or a division of artillery of 300 to 400 men; there are few exceptions to this rule. The officers live together with the men; their families must be provided with lodgings outside, for women and girls are not allowed to reside in the camps. Contrasting with the general uncleanliness so prevalent in China, the military camps are kept clean and tidy, and on festive occasions when gaily decorated with numerous flags, of which the Chinese are lavish, they produce a very favorable impression.

The sanitary branch of the Chinese army is still in its infancy; surgeons trained in European schools are found only in the first division, in Yungping-fu and in Paoting-fu where a large military hospital has been constructed. A

school for the education of surgeons has been founded in Tientsin and is at present conducted by French teachers.

There is in the Chinese army no such thing as a General Staff in our sense of the term, yet steps in that direction have been taken by General Yuan-shi-kai, and the military academy which will be established in Peking, is intended to serve as a kind of preparatory training school for the General Staff.

Referring now to the Peiyang army commanded by General Yuan-shi-kai, the latter, on being transferred from Shantung to his new post, brought with him a portion of his troops, "the so-called Wu-wei-yo-dsün," meaning "the warlike army which defends the right wing."

The strength of this army is as follows:

Five battalions of infantry, 1,000 men each	5,000 men
Three squadrons of cavalry	1,000 men
Three sections of artillery with twenty-four guns	1,100 men
One battalion of pioneers	400 men
	7,500 men

The infantry are stationed in Peking, part of the cavalry there also and part in Tientsin as body guard. The artillery and pioneers are located in Hsiautshan, 30 kms. south of Tientsin. In addition, Yuan-shi-kai disposes of an unmounted body guard of 500 men, taken likewise from that command. The foot troops are armed with Mannlicher rifles, the cavalry with Mannlicher carbines, the artillery with old style Krupp guns.

In former times, before the late troubles, this army was taught and exercised in Hsiautshan by German instructors exclusively, and counted among the best troops then in the Chinese service. During the troubles of 1900 they suppressed the Boxer insurrection in Shantung where Yuan-shi-kai had been transferred from Hsiautshan.

Yuan-shi-kai has created the following bodies of new troops:

Three divisions, "Tchang-bei-dsün." This expression literally means "the ever ready army," and may be translated as the "standing army," for the men, after serving

three years with the colors, are transferred to the Reserve, and three years later become members of the Landwehr. Each division contains:

Twelve battalions of infantry, 500 men to the battalion, (four regiments of three battalions each, two regiments forming a brigade)	6,000 men
One regiment of cavalry of four squadrons	700 men
One regiment of artillery in three sections, of which two sections of field artillery, thirty-two guns and one section of mountain artillery, sixteen guns	1,100 men
One battalion of pioneers	500 men
One train battalion	500 men
One sanitary detachment	100 men
About	10,000 men

with thirty-two field and sixteen mountain guns. The section of artillery is made up of four batteries of four guns each.

These divisions are stationed as follows: The first division at Yungping-fu near Shan-haikuan; the second division at Matshang on the Imperial Canal, 70 kms. south of Tientsin; the third division at Pao-ting fu.

The first division is armed with the Japanese Arisaka carbine, 7.5 cm. field and mountain guns. The second division carries carbines 88, of Chinese manufacture. The third division has likewise carbines 88, Krupp field and mountain guns.

Foreign instructors have not been employed with these troops. Their training is effected on Japanese and German lines, and the tactical composition of the division is patterned very closely on the Japanese system. The Japanese officers engaged by Yuan-shi-kai either serve personally as military advisers or occupy teachers' positions in the Paoting fu military school.

The organization of a fourth division has been temporarily suspended on grounds of economy.

The Peiyang army in its entirety comprises also the troops which were organized under Yuan-shi-kai's predecessors, particularly Li-hung-chang, and which he found in the Province of Pechili when he assumed authority therein, as

well as those which were placed at his disposal from other provinces.

To the first belongs the old garrison of Port-Arthur, now called "Wu wei tso-dsün," the "warlike army that defends the left wing." They are commanded by General Ma, and their proper station is Tung tshou near Peking, but since the breaking out of the Russo-Japanese War, they are on duty in the region of Tshauyang, to maintain the neutrality of China.

The strength of this army is nearly as follows:

Sixteen battalions of infantry	7,500 men
Five squadrons of cavalry	700 men
Three sections of artillery	1,100 men
	9,300 men

There are still 2,000 additional men at Tung tshou. Armament: Carbines 88, some of them constructed on the seventy-one model; the artillery work some fifty Krupp guns of various construction.

General Ma has the reputation of being the ablest general of China; his troops have fought against foreigners at Tientsin and in the Shansi Passes, and they may be said to have acquitted themselves in a very creditable manner.

The Huai army still remains to be considered. The Huai is a river in the Province of Anhui, Li-hung-chang's native country. This army is used at present exclusively for police purposes and the guarding of the highways; it is variously armed and militarily worthless; along with other similar aggregations, it makes up a force of about 7,000 men.

The political situation and more especially the protection of the Imperial capital, Peking, have naturally made it necessary to concentrate there a considerable body of troops, and additional assistance has been gradually drawn from other less exposed provinces. These supplementary troops are at present under the orders of the Governor-General of Pechili, but receive their pay from their native province.

Thus, in Peking, we meet with the Honan troops designated "Idsün," "the warlike army," with the following strength:

Eight battalions of infantry	4,000 men
One squadron of cavalry	210 men
One section of artillery	400 men
	4,610 men

Armament: Mannlicher carbines. The artillery is supposed to be outfitted with Krupp field guns; further information is wanting. At Tung tshou, near Peking, are stationed some Hupei troops, two battalions of infantry, war strength (2,000 men) armed with rifle 88 of Chinese make. These troops produce a very good impression.

In Pao-ting-fu are located eight battalions (2,000 men) of Shantung infantry armed with rifles of the $\frac{71}{84}$ pattern.

South of Tientsin, in the military camp of Hsiautshan, are the troops from Kiang-su, the "Tse-tshiang-dsün," the "independently brave army." German instructors have taken part in their training, and their military bearing indicates that the old lessons are not yet entirely forgotten. This corps numbers:

Nine companies of infantry (war strength)	2,250 men
One mounted pony company	500 men
	2,750 men

The military camp at Hsiautshan is commanded by General Yu-pei-tien. A number of German officers belonging to the East Asiatic Brigade of Occupation having been invited by him to inspect the troops under his command, recently visited his camp, and described their impressions in the following interesting report, which has been placed at our disposal:

"The village of Hsiautshan has many crooked streets crossed by numerous ditches and canals well adapted to the defense of the place. The four camps which constitute the aggregate military establishment are rectangular in shape and surrounded by walls nearly two meters high. Each angle is surmounted by a small sentry box for the sentinels who patrol the walls. These walls are built of mud mixed with Kauliang straw; no stones are used in their construction except for the arches of the gates, of which there is one in the middle of each side.

"As we approached the camp, the cannons fired a salute,

the sentries on the walls remained standing by their boxes and presented arms. The guard was drawn up at the entrance gate under the command of an officer, and paid military honors. Soon after our introduction in the camp, General Yu-pai-tien gave a signal for the inspection to begin. The latter embraced: 1st. Drilling of a company of infantry; 2d. Drilling a mounted company; 3d. Examining the interior arrangement of the camp; 4th. Witnessing the instruction of a school for reënlisted men.

"The company to be inspected was formed in twenty-four squads and drawn up in line. The formation, alignment and bearing of the men, more particularly their standing perfectly still, could not have been excelled anywhere. Pacing up and down the line was immediately succeeded by several exercises, among which the school of the soldier, manual of arms, loading and firing, facings, etc., deserve the chief mention. The manual of arms specially was characterized by great vigor of execution; no one was out of time, nobody stirred, all eyes were concentrated on the commanding officer. The other exercises which followed the manual were likewise thoroughly well executed and gave evidence of great attention to details in the training of the individual soldier. The school of the soldier was followed by that of the company.

"The passage of the company from formation in line to one suitable for marching in review was executed by a maneuver entirely new to us, namely, turning squads into company column. As far as direction and carrying of the rifle were concerned, the march was perfect, but the swing forward, the firm step that we are familiar with, seemed to suffer from a habit of raising the leg too high. The subsequent exercises were performed at a walk; they comprised the leading out of various columns, changes of direction and deployments. The step never wavered; it was vigorous and abrupt. It was characterized after each change of formation by a peculiar stamping of the men in the front rank.

"The marching evolutions terminated with a turn of squads from company column into line and the command, *halt, load kneeling*. The execution was perfect, save that the men in the middle squad, after the turn, knelt a little too close together.

"The manner of changing formations appeared to have been borrowed from other than German drill regulations; for instance, we noticed differences in passing from line into

column of sections which was not effected by turning the sections as it is done by us.

"Next came the evolutions of sharpshooters; skirmishing in various directions; changes of front of the lines of skirmishers, opening fire, in which firing by file was clearly perceptible, then the charge. Everything was done with order and composure, and created a very good general impression. The German drill regulations had been pretty closely followed in this part of the maneuvers.

"Then followed the exercises of the mounted Pony Company armed with lances. We must state in advance that here also the movements were executed with a degree of precision which could hardly be excelled. The external appearance of the company, the sorting out of the ponies according to color, the streamers on the lances, etc., were very pleasing to the eye. Here also the German drill regulations have been made generally the basis of the system.

"The squadron was repeatedly formed in half column, passing therefrom into column of squads, after which the command would be given, 'Squadron, by squad, left about, turn,' which would bring them into line, then 'charge, lower lances, march.' All these movements were governed by signal calls blown by trumpeters riding immediately behind the commanding officer.

"We were also shown some exercises with the lance Everything was executed with precision and composure; the impression was produced that the cavalry leader, as well as the infantry commander, had his men well in hand.

"Unfortunately we saw nothing of the artillery, which had been sent out to the district of Pao-ting-fu for target practice. We were able, however, from a lecture delivered lately in Paris by the French Captain Ollone, to add, with reference to the development of this arm, that a great deal of attention is devoted to it. Mr. Ollone relates how he witnessed a drill with fifty-seven mm. quick firing guns, which were drawn by horses as well as by cannoneers. Each piece was served by four men, and in the course of the drill it was assumed that the enemy's fire gradually disabled three of the men, when the sole survivor would be called upon to continue alone the service of the piece. It appears that the gunners displayed extraordinary dexterity.

"The drills in Hsiautshan were followed by an inspection of the camp. All apartments were scrupulously clean; the men's beds (kangs) covered with neat blankets, the head cushions properly rolled up. Of course preparations had been made for the inspection, still there is no doubt that the men were impressed with the necessity of cleanliness in the soldier's life, this in a country where Europeans are so often shocked by the lack of it. This should be put to their credit. The living rooms were not so satisfactory. Here, likewise, everything was in good order, but a glance at the few rifles, side arms and belts and their condition showed that these things did not correspond to modern requirements.

"In conclusion, we witnessed a session of the school, which was attended by the best men of the companies. They were being educated and trained to become sub-officers and officers. The instruction was given in a clean school room. Each pupil had his books in front of him, with pencils, ink bottles and brushes neatly stuck in little cases. They were taught the English language, how to read and write in Chinese, arithmetic and geography. They were all thoroughly bright faces that looked at us. Some of us asked questions, many of which were quite correctly answered.

"Here a Chinese officer displayed a map of the surroundings of Hsiautshan and of the camps, which had been drawn with the help of the lineal perspective rule (Kippregel). This ended the official part of the inspection, of which we cannot speak without full acknowledgment of its merits."

After this brief digression which seemed necessary for a proper appreciation of the Kiang-su troops, and a comparative exposition of the work done in the military schools and in the camps, we will conclude the enumeration of the Pei-yang army with a mention of the Manchu troops in Pao-ting-fu trained in European methods. At present they number 4,000 men and are being developed into a division according to Yuan-shi-kai's proposed scheme. They are armed with carbines of Chinese make, model m. 88, the artillery with Krupp mountain guns.

Consolidating all the preceding data relative to troops directly controlled at the present time by Governor-General Yuan-shi-kai in the Province of Pechili, we obtain the following summary:

The Wu-wei-yo-dsün army	7,500 men
The Tshang-bei-dsün army	28,700 men
The Wu-wei-tso-dsün army (including the garrison of Tangtshon)	11,500 men
Contributed by other provinces	11,360 men
Manchu troops in Pao-ting-fu	4,000 men
	63,060 men

The progress made by the Pei-yang army under Yuan-shi-kai's new regime was demonstrated at the grand maneuvers held last year for the first time on the European plan in the district of Ho-kien-fu. The troops, aggregating some 13,100 men with sixty-four guns, were, as is the custom in other large armies, divided in two parts and the exercises based on general and special problems, for the solution of which the respective leaders were expected to regulate the necessary dispositions.* The favorable results obtained on this occasion were presumably induced by the understanding that the maneuvers will be repeated this year. The orders are already issued and promulgated to the effect that by the middle of May some 30,000 men shall be concentrated in the plain of Pao-ting-fu. The Emperor has already agreed to permit all foreign officers living in China to witness the exercises; it is also the intention of the Emperor and of the Empress mother to attend the maneuvers in person. As a preparation for these maneuvers the troops, maintained in the neighborhood of the Imperial Palace in Peking and of the Eho Park, were, early in April, to have been assembled for a little practical training in the South Hunting Park, twenty leagues south of Peking.

As we stated in the beginning of this essay, besides the Pei-yang army, the Hupei army constitutes the modern portion of the Chinese military force. This army is distributed over the Province of Hupei, which, with the Province of Hunan, forms an administrative district named Liang-hu. The capital is Wu-tshang on the Yang-tse, wherein resides the viceroy of both provinces, who is, at the same time, governor of the Province of Hupei, while Hunan has also a governor of its own.

For nearly seventeen years and with few interruptions,

*See the following article for a description of these maneuvers.

Hupei has been administered by one and the same viceroy, who may be counted among the ablest statesmen of China. This circumstance, as well as the great military knowledge of Tshang tshi-tung, and the additional fact that the province has not suffered great disturbances, rendered possible the creation of an army under the most favorable and peaceful conditions, an army which is scarcely inferior in value to that organized in Pechili under the auspices of Yuan-shi-kai.

In the way of numerical strength, Tshang tshi-tung's troops do not indeed bear comparison with those of the Pei-yang army, for the Hupei army, up to the present, includes only eight companies of war strength and two squadrons. In comparison with the size of the province (185,000 sq. kms.) and a population of thirty millions, the military levy is rather small. But Tshang-tshi-tung has been careful to avoid the mistake, often committed formerly in other provinces, of calling into existence numerous military aggregations for which a sufficient training personnel of capable officers could not be obtained. So far the supply of officers has always been the weak spot of the Chinese military system, as we have exhaustively demonstrated in this essay. And before attempting anything more extensive in this direction, Tshang-tshi-tung decided to content himself with just that number of troops for which he could provide suitable training with the personal facilities at his disposal.

It is surprising to see such a small force of cavalry in the Hupei army with a total deficiency of artillery. These defects are explained by the fact that the mountainous character of the province and the wretched condition of the roads, render the employment of artillery very difficult, besides which, the tea and rice fields are impassable to anything but infantry. Furthermore the ponies of Hupei are smaller than those from Mongolia, and from our standpoint make very poor cavalry horses.

With regard to the recruiting of the Hupei army, the former practice of drawing the men exclusively from other provinces has been stopped and only natives of Hupei, or rather of Honan, are now enlisted, for the population of that province has the reputation of furnishing excellent fighting

material. There is here no system of conscription, as exists in the Province of Pechili, to keep up the Peiyang army. The requirements for the acceptance of a recruit are: Age from twenty to twenty-five years, three years of school attendance, evidence of good character furnished by the local authorities and their assumption of responsibility for the applicant.

The recruit, if qualified, engages to serve four years with the colors, and the same length of time in the reserve. The pay of a private soldier has heretofore been 4.8 taels per month. The salary is paid every fortnight in advance and without any deduction whatever. This is a great improvement over the old custom, when the soldier supplied his own food and clothing and the money value thereof was deducted from his pay by the commanding officer, a practice which naturally led to gross abuses. In the Peiyang army the soldier receives but 4.2 taels per month, yet 1.1 tael thereof is stopped against him for his maintenance.

We have heretofore alluded but briefly and in general terms to the armament of the Chinese army, and have avoided entering into details. The reason for this lies in the fact that the central government in Peking has very recently decreed that the armament for the entire army shall be unified. Rifles of seven mm. calibre and field and mountain guns of 7.5 cms. have been selected for introduction. A beginning has already been made with the artillery; after several single purchases and repeated firing tests, the central government has placed with Krupp in Essen, an order for thirty-six field and thirty-six mountain self-recoiling guns of 7.5 calibre, with their outfit of ammunition and other accessories. The guns are provided with all the modern fittings, and stand on a par with the very best in use. The preference shown for the Krupp system is remarkable, considering that Japan had made great efforts to secure that order, and in spite of the war, at the very time of the closing of the contract with Krupp, had herself just filled a former contract for field and mountain guns of 7.5 cms. calibre which, however, were not mounted on self-recoiling carriages.

The central government seems accordingly to have taken the important step of gradually rearming all the artillery with guns of the self-recoiling style. Possibly the new scheme, like so many of its predecessors, may break down with the first attempt. At any rate it is a significant indication of the trend towards military reform which is now conspicuous in China.

In order to illustrate further the progress made by China in the line of military improvements, we must state that notwithstanding the order for guns placed with Krupp, the government pursues without intermission the work of developing and perfecting its own arsenals, presumably to secure with time absolute independence from foreign nations in that respect.

At the present time China possesses large arsenals in the following localities:

1. Hanyang, in the Province of Hupei.
2. Nanking, in the Province of Kiangsu.
3. Kiangnan, near Shanghai, in the Province of Kiangsi.
4. Futschu, in the Province of Fukien.
5. Canton, in the Province of Kwangtung.

Of these several armories, Hanyang is the most important, for it is furnished with the best personnel and machinery, and its productions indicate steady progress. Besides a large steam hammer, two blast furnaces, Bessemer & Martin Steel Works, it includes a gun lathe, a rifle factory and a metallic cartridge factory: one hundred operatives are constantly employed in filling the numerous requisitions sent in for war material.

In the line of small guns, the German rifle m. 98 without barrel case is manufactured here. But while in former years the daily output never exceeded fifteen pieces, since the plant was enlarged and completed by the purchase of additional machinery in Germany last year, twenty-five have been delivered every day. The production could be increased to fifty, but has been limited to thirty-five. The cartridge factory turns out daily 20,000 cartridges. The gun factory is also extremely active, and since the beginning of the present year has been considerably improved. The pieces manufactured are chiefly 3.7 and 5.7 cms. quick firing

guns, of which about fifteen are ready for delivery every month.

The arsenals in Canton and Shanghai likewise enjoy a good reputation. It seems, however, pretty well decided that these technical establishments will, before very long, be transferred elsewhere, namely, the Canton arsenal up the western river to Wuchou and the one at Shanghai to Ping-hsiang in the Province of Kiang-si. The motive alleged for this undoubtedly very expensive undertaking is that greater safety and better protection can be secured for these factories in the interior of the country than near the coast, where they are exposed to hostile aggressions, and where, in the event of war, they would possibly have to be closed altogether.

The proposition to move the Kiangnan arsenal near Shanghai seems to have met with very serious difficulties. Chang-tshi-tung, the viceroy, had originally planned to start a new establishment on a grand scale at Wanchihe, some twenty leagues from the harbor of Wochu in the Province of Anhiu. However, a careful examination of the locality made by the viceroy, assisted by his neighbor colleague the viceroy of Wai-Kuang-tao, convinced him of the unfavorable prospects of his scheme, and led at the same time to the selection of Ping hsiang in the Province of Kiang-si. The decision was made final by the consideration that Ping hsiang is not only so situated as to be easily defensible, but according to Chinese engineers may, with the help of a few artificial constructions, be transformed into an impregnable stronghold. It is also located near the valuable coal mines of Sheng-kung-pao, which are worked under European direction; and furthermore, a railway leads from this point to the Province of Hunan and connects directly with the river basin of the Yangtse.

Besides the two proposed new establishments at Wochu and Ping-hsiang, to take the places of those at Canton and Kianghan, several other large arsenals are in process of construction and in a more or less advanced stage of completion.

The largest of these is located in Tetshou on the Imperial Canal in the Province of Shantung. Its inception is due to Viceroy Yuan-shi-kai, who intends to create in this place a large establishment for the manufacture of rifles and guns, with the corresponding ammunition. The situation at Tetshou is peculiarly favorable to this object, for by means of the Imperial Canal excellent connections are secured both with the north and with the south, and it is also intended to run the Tientsin Tsinan-fu Railroad directly through Tetshou. The buildings designed for the Tetshou Arsenal, which were nearly completed last winter, have since been made ready for occupation. Consequently, work may be commenced as soon as the machinery is put up, and a portion of the latter has already been obtained from the old arsenal at Tientsin.

In addition to Tetshou the following arsenals now being constructed deserve a brief mention: the arsenal at Nan-tshang-fu in the Province of Kiang-su, that of Tshang sha-fu in the Province of Hunan, and that of Tsheng-tu-fu in the Province of Szetchuan. Of these establishments the last is the most advanced, and some of its machinery is already mounted.

To complete the enumeration of the Chinese armories we must, in addition to the arsenals of the first rank, mention also the more important among those of lesser scope, in which, from reliable accounts, much activity prevails at times. These are the arsenals of Kai-feng-fu in the Province of Hunan, of Hsian-fu in Shensi and Kweichau in the province of the same name, of Lokou near Tsi-nan-fu in the Province of Shantung, and of Tay-yuen-fu in the Province of Shansi.

The arsenals of Mukden, Kirin and Tsi-tsi-kar, all situated in Manchuria, are no longer in operation since the year 1900.

THE NEW CHINESE ARMY.

(*Broad Arrow*, February 24, 1906.)

RECENT events in China hardly seem to have attracted sufficient attention in this country, though much has been happening which only too clearly points to confirmation of the prophecies that the Chinese army will, in the near future, be a serious factor, the most important indeed to be reckoned with in far Eastern politics. Perhaps the Yellow Peril may be a bogey, but there are abundant signs that the Chinese are beginning to "feel their feet," and may soon cease to be the negligible quantity they have so long formed in the operations of other nations in the Celestial Empire. The occurrences at Shanghai may be made light of as mere periodical or occasional riots, but they, and particularly the action of the Chinese authorities, are the straws which show how the wind blows, and the attitude which Chinese statesmen are taking with regard to Thibet, points in the same direction. When it is remembered that a Chinese army, properly so-called, has never existed, that the military caste has been despised and a soldier regarded as a pariah or at best a coolie, and that so recently as the Chinese Japanese War the "soldiers" turned out for active service with umbrellas and bird-cages and other unwarlike domestic belongings hung round their persons, while their armament for the most part was of the most primitive description, including bows and arrows, with powder—when they had any for their miscellaneous collection of fire-arms—composed of coal-dust, and so on, when all this is remembered the advance that has lately been made in military organization within the Empire is remarkable and deserves careful watching by those whose interests it promises to affect very materially, perhaps sooner than is at present anticipated.

The material, as our own Gordon so clearly proved to us, as well as the present day Wei-hai-Wei regiment, is good, and the rest is only a question of training and a little time, combined with the precautions which experience, not only in China, has shown to be necessary to prevent corruption and

dishonesty in connection with the stores and munitions of war.

It is probably news to many that China has an army at all, yet not only is this the case, but in the process of its development that army has even arrived at the modern stage of holding maneuvers on the most up to date lines followed by European nations, with of course the same unreal situations and the same waste of powder. But that is merely the beginning. A correspondent of *The Times of India* was present at these maneuvers, held about three months ago at Hochienfu, about 120 miles from Tientsin, and his experiences and descriptions of what he saw make interesting and instructive reading. The difficulties of traveling in China are well known, and when 120 miles had to be done in two days, the last sixty of them, from Paotingfu to Hochienfu, on the outside of a woolly Mongolian pony twelve hands high and nine feet round the stomach, it may well be imagined that the journey was rich in incidents, though the pony comes out of it most satisfactorily.

Paotingfu is the headquarters of China's new Imperial army, the center of its military life and newly awakened energy, and it sounds very western and very modern to be greeted on approaching its outskirts by the plaintive notes of the reveille from a bugle out of the shadows ahead, and while the resonant melody of one bugle still hangs in the air, by another and yet another in the old way that one knows so well. On the plain outside the town have been constructed immense barracks consisting of a score of long single-storied buildings forming an enormous rectangular pattern on a huge parade ground. Here the manufacture of soldiers on the latest European lines, and with the usual monotonous repetition of *one, two, three*, by the drill sergeant, is going on from morning till night, and before long the numbers of well drilled troops that China can put in the field may astonish the world. What they may do in the field cannot of course be yet safely predicted, but it will be more than they have done as yet.

On the way from Paotingfu to Hochienfu bodies of troops were constantly being met, small convoys under escort halted

here and there on the road, and sections of cavalry passed at the trot, all being dressed in modern and serviceable uniform, and apparently well disciplined and commanded. It was evident that the Chinaman in uniform looked as like a soldier as the man of any other nation, and one has only to look at the pictures of Chinese troops which have appeared in some of the illustrated papers during the last week or two to be fully convinced of the fact. The road passed through a big camp wherein were counted many hundreds of tents, guns were parked and arms piled, as one sees with any other army. Camp kitchens were busy, fatigue parties passed here and there, sentries were posted, orderlies rode in and out, and the bulk of the men strolled about just as they might in any of the Japanese camps seen in Manchuria. A second camp was pitched just inside a small town, which was congested with men in infantry, artillery, cavalry and engineer uniforms, and the shopkeepers were doing a roaring trade. The men, however, behaved with the utmost civility; rowdyism was totally absent; a more orderly or respectable lot of men it would be hardly possible to conceive; they paid for everything they bought, and the men billeted in inns paid for their accommodations; in short, their conduct, including their punctiliousness in saluting superiors, left nothing to be desired.

Of course this was the first time maneuvers had ever been held in China, and much excitement and interest were manifested both in court and political circles, the Empress expressing much concern as to their success, and appointing certain royal personages to witness them. About forty foreigners received permission to be present, including thirty officers—Great Britian, the United States, Japan, France, Germany, Russia, Italy, Holland, Austria, and Belgium, each sending three attachés. The "General Idea" was that a Blue army had landed near the Yangtze River and was marching northwards through Shantung Province to Peking. On receipt of the news, the forces in Chihli Province were mobilized, and ordered to proceed by rail and road to meet the invaders. Headquarters of the Blue army were at Chinanfu, in Shantung, that of the Northern or Khaki army at

Paotingfu, on the Peking-Hankow Railway, sixty miles northwest of Hochienfu, upon the plain surrounding which the operations were to take place.

The Blue army consisted of twenty-four battalions of infantry, twelve batteries of artillery, three brigades of cavalry, two regiments of engineers, representing one complete and two half-divisions, totaling 17,000 men and seventy-two guns. The Khaki army was composed of eighteen battalions of infantry, eighteen batteries of artillery, a brigade and a half of cavalry, two regiments of engineers, or nearly two divisions, numbering 15,000 men and ninety guns.* In all about 35,000 men were thus being drawn from various points of Chihli and the adjacent provinces and concentrated at a point not less than fifty miles from the nearest barracks, and in some instances several hundreds of miles distant from the military centers to which they belonged. The scheme thus necessitated the employment of a great deal of transport to provide tents, bedding and food for the troops, and involved a completeness of organization which will be readily understood by those who know what it means to provide for an army leaving its quarters. It is in this respect that maneuvers frequently result in fiasco, many being the instances on record where the troops have been marched all day and been forced to bivouac at night without food or shelter. Efficiency in transport and commissariat departments is generally accepted as indicating efficiency in other branches.

The Chinese arrangements on the occasion of these maneuvers were so complete, and worked out so perfectly, as to regularly confound those who anticipated a breakdown in the commissariat, and the consequent looting of villages by starving soldiers. The proceedings lasted about five days. The "Special Idea" recorded that the intelligence received on the

*It will be seen that the above divisional organization is not quite on European lines. In number of men it resembles a British division and also in the number of guns in the case of the Blue army. The number of battalions rather follows Continental ideas, but there is a considerable excess of cavalry and engineers, which may be founded on the experience of the Russo-Japanese War. The number of battalions in a British division is eight, with thirty-six guns, whereas in an Italian, Austrian, French or German division there are twelve battalions, with from twenty-four to seventy-two guns.

day prior to the opening day was that the cavalry scouts of both armies were in touch and skirmishes were frequent. Both sides were pushing forward, and spectators watching the movements in the neighborhood of Hochienfu were able to trace the final advance and massing of the cavalry preparatory to a cavalry charge. The second day was occupied by a general action between the two forces. Days three and four were devoted to operations of the victorious force against the other, which had fallen back and taken up a strong position after its defeat. The culminating maneuver was the advance, after reinforcement, of the army hitherto on the defensive, and a fierce encounter in the open between the two armies after the usual approved fashion. The last day was devoted to a full dress parade and march-past before the Viceroy of Chihli, Yuan-shi-kai, and his staff.

When one thinks of the military traditions of Japan, her Samurai, and the patriotism which is the religion of the people and a lesson to us as well as other European nations, it is not so surprising that Japan should have produced such an army as she put in the field against Russia, and which has placed her in the front rank of nations. But in China the conditions are totally different, in fact the absolute antithesis of those existing in Japan. There were no Samurai, no military traditions; the soldier was despised and treated with contumely, and patriotism did not exist. China, in fact, is not one country, and it may take long to weld its heterogeneous elements into one patriotic whole. But the work has begun, and the army, small as it is at present, is the nucleus round which the process of development will form, until in the course of a generation or two the political importance of the Empire will be very different from what it is now. It is to be hoped therefore that the facts are fully appreciated in our Foreign Office, and they should equally be appreciated by the country at large.

THE HORSEMANSHIP SOCIETY OF BELGIUM.*

INTERNATIONAL CHAMPIONSHIP OF MILITARY HORSES, TO BE HELD AT BRUSSELS AT THE HORSE SHOW, MAY 1906.

THE War Department has received from the Belgian Minister to the United States, through the Secretary of State, an invitation to the army of the United States to participate in the program of the Société Hippique, which takes place at Brussels next May.

Similar invitations have been extended, the Minister states, to the armies of Germany, England, Austria, Spain, France, Italy, Norway, Netherlands, and Sweden; and he expresses the hope that the American army officers will take part in this exhibition of horsemanship.

Owing to the limited time ensuing before the competition takes place, it is hardly likely that our army officers will be able to make proper preparation, especially as the expense of the undertaking would have to be borne by the officers themselves. But a copy of the program has been transmitted to the School of Equitation at Fort Riley, Kansas, for possible participation by officers in some future contest.

* * *

PROGRAMME REGULATIONS.

The object of this competition is to encourage the rational training of the cavalry horse, as well as the true principles of equitation, without requiring, on the part of the horses entered, any exceptional qualities which should be of such a nature as to exclude horses furnished by governmental remount services, or to diminish their chances of success.

To this end the competition will consist of a series of tests of various kinds, intended to show that the horse has been placed in condition, its willingness and the perfection of its training.

* Translated from the French February 18, 1906, by Captain Raymond Sheldon, Eighteenth Infantry. Original received in the office of the Chief of Staff, February 6, 1906.

GENERAL CONDITIONS.

The horses must belong to regiments of the various armies or to officers; in the latter case the entry-form will bear the signature of the colonel, certifying that the horse is regularly ridden in instruction practice or at drill, and that it is the bona fide property of the officer who registers it.

All the events of the military are taken cognizance of by an international board of judges, composed of delegates from the powers represented. This board will decide all unforseen questions of dispute, and its decisions will be without appeal.

Each horseman will be allowed to ride but one horse, and must guide it in all the events.

Only officers of the active army will have the right to enter or ride in any events of the military.

Officers are invited to enter themselves for various tests, subject to the stipulated conditions. With regard to the marching order, that must be absolutely regulation, *including packs.*

Officers using the cuirass will be excused from wearing it.

Horses of foreign officers taking part in the International Military will be stabled and fed gratuitously in the stables of the "Hall du Cinquantenaire."

Notice.—A reduction of fifty per cent. will be asked for the transportation of horses on the principal railways.

FIRST DAY.

Undress uniform; English saddle and bridle; minimum weight, 85 kilos.

A. Test of Endurance (in the morning).

A course of fifty kilometers to be covered by each competitor within four hours' time. No record will be kept of the fastest time; the judges will penalize, after consultation, the competitors who have taken too much time.

After this test, the horses will be examined at a trot, in hand, by the reunited judges who will confine themselves

to eliminating the lame horses or those which they shall have found incapable of taking part in the—

B. Steeplechase (4,000 meters).

Same uniform; same weight.

This event will be held on a race course near Brussels. The terminal point of the fifty kilometers test will coincide with the race-course. Competitors will be allowed two hours for rest between the completion of their test and their steeplechase.

The steeplechase will be individual: the minimum speed must correspond with a gallop of 350 meters a minute: no record will be kept of the fastest time, but a rate not reaching 350 meters will entail a penalty.

This test is intended to show that the horsemen are practiced in daring and vigorous out-of-door riding.

The judges will penalize grave errors only; falls, refusals, shying. The order of merit will therefore result mathematically from the penalties awarded for excess of time and faults committed.

SECOND DAY.

Undress uniform with arms and packs; minimum weight, 85 kilos.

Course of 32 Kilometers to be Covered in One Hour Forty Minutes.

No record will be kept of rates faster than those corresponding with the time above mentioned; on the contrary, competitors having taken too much time will lose a certain number of points, as determined by the judges.

Each competitor will individually cover the course: at mid-distance he will be required to go through a *field course in the "Hall Du Cinquantenaire."*

The course must be completed within a maximum time to be indicated at the hour of the competition, and corresponding with a speed of 400 meters a minute.

For this test the obstacles will be as similar as possible to the obstacles (usually) encountered in the field, they will

be nearly solid and will have a height of forty-three inches or thereabout; only knocking with the forehand, refusals, shying and falls will be counted as errors.

THIRD DAY.

Undress uniform; English saddle and bridle; minimum weight, 85 kilos.

Obstacle Jumping Event.

This test is intended to show that the horses entered maintain the facility of management indispensable to a cavalry horse. To this end, the course will contain certain difficulties; the requirement to jump between two flags placed very close together, or to different points, according as the obstacle is passed for the first, second or third time, abrupt stops, half-turns, obligatory dismounting at certain points, etc., etc.

A minimum time will be announced for the completion of the course. Celerity will be taken into account, as determined by the judges.

The obstacle will have a maximum height of forty-five inches.

"Ticking"* will not be counted; the only faults that will be noted are errors of course, excess of time, knocking with the forehand or hindquarters, shying and falling.

Outside of these three days, the judges will set aside certain forenoons to judge the

Training, Strictly Speaking.

Undress uniform; English saddle; any weight.

Each horseman personally regulates his own individual work, being apprised that less account will be taken of the diversity or difficulty of the movements than of the perfection of training for them. A complete understanding between the rider and his mount, the delicacy of his "aids," and his equestrian tact should result in an easy action, one agreeable to watch. No notice will be taken of artificial gaits, such as the "passage," executing the "piaffer," the "pas espagnol," etc., but changing the lead *at a gallop* will be required.

*Grazing the obstacle in jumping.

VALUES OF THE VARIOUS EVENTS OF THE MILITARY.

First Day	30 per cent
Second Day	25 per cent
Third Day	30 per cent
Training, strictly speaking	15 per cent
Total	100 per cent

15,000 FRANCS IN PRIZES.

First Prize.—An object of art valued at 5,000 francs, and a gold medal offered by His Majesty, the King of the Belgians.

Second Prize.—An object of art valued at 3,000 francs.

Third Prize.—An object of art valued at 1,500 francs.

Fourth Prize.—An object of art valued at 1,250 francs.

Fifth Prize.—An object of art valued at 700 francs.

Sixth Prize.—An object of art valued at 600 francs.

Seventh Prize.—An object of art valued at 500 francs.

Ten prizes, each of the value of 250 francs, will be divided among (the owners of) the horses classed immediately after the first seven by the judges.

For full information address, M. A. Dupuich, Secretaire de la Societe Royale Hippique de Belgique, No. 33 Rue des Deux-Eglises, Brussels, Belgium.

The general programme of the Horse Show of 1906 will appear towards the end of March.

UNITED STATES ARMY PISTOLS.

By F. CARTER.

[From *Shooting and Fishing*.]

IN connection with recent articles on United States army pistols, in *Shooting and Fishing*, it has occurred to me that a series of pictures of these pistols might be of interest to its readers.

No. 1 is the first pistol regularly made by the United States government, and corresponds in pattern with the first

United States rifle. The pistol is caliber .54, taking the half ounce round ball, and was made at Harper's Ferry armory in 1807 and 1808, and again in 1814 to 1817.

No. 2 is the North's Berlin (not Burlington) pattern. A contract was given him in 1815 for 500 of them. They were caliber .69, taking the ounce round ball. These had the first brass pan used on any United States arm.

NOS. 1, 2, 3 AND 4.

No. 3 is the pistol made at the Springfield armory in 1818. Only 1,000 were made. They were caliber .69, taking the ounce round ball, and corresponded in pattern to the early pattern musket.

No. 4 is the model 1822, and corresponds in pattern to the musket of that model. The caliber was .54, half-ounce ball. No. 5 is the model 1836, of the same caliber, but lighter, neater, and having a swivel ramrod.

No. 6 is the model 1842, the first percussion pistol used,

and corresponding in pattern to musket of model 1842, caliber still .54.

No. 7 is the heavy Colt revolver mentioned by Captain Vidmer, introduced in 1847, caliber .44, the Dragoon pattern.

No. 8 is the same revolver fitted with detachable stock and elevating leaf rear sight, and called the Mounted Rifle pattern.

NOS. 5, 6 AND 7.

No. 9 is the pistol carbine, model 1855, with detachable stock, caliber .58, Minie bullet, elevating leaf rear sight.

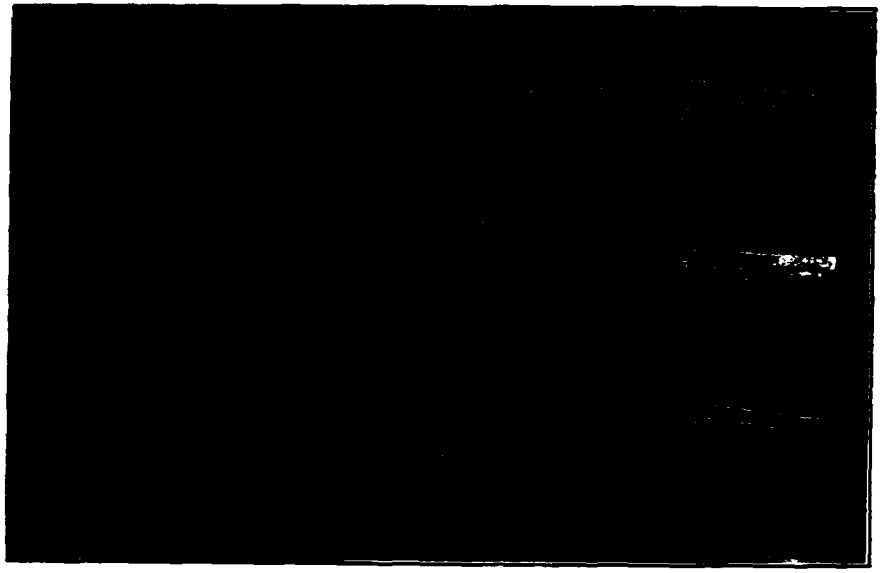
No. 10 is the caliber .44 Colt revolver, Civil War pattern, with detachable stock, but without elevating rear sight. These stocks, which contained a canteen, were practically never used, and very few were ever issued.

No. 11 is the caliber .45 Colt, model 1873, artillery pattern; the cavalry pattern had a longer barrel.

No. 12 is the caliber .45 Smith & Wesson, Schofield pattern, issued for trial against the Colt, but discarded as less serviceable.

No. 13 is the present caliber .38 double action Colt, that proved such a failure in the Philippines from lack of stopping power.

In studying this series, it is interesting to see how the United States Ordnance Department has three times gone through the process of trying to combine a pistol and carbine in one weapon, regardless of certain fundamental difficulties. Some of these are as follows:



Nos. 8, 9 and 10.

1. No pistol fit to be carried and used as such can handle a load powerful enough to be effective at rifle ranges.

2. The barrel is so short that, even supposing the aiming to be perfect, good accuracy cannot be expected.

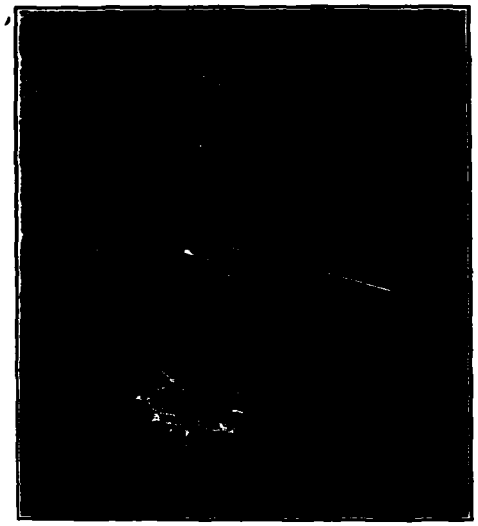
3. The sights are so close together that aiming will be far from perfect.

4. The rear sight is brought so close to the eye that only an abnormal eye can focus upon it, if of the open pattern. An aperture sight might be used for the carbine, but would be impracticable for the pistol.

Also, though this is of less importance, the elevations when held in the hand and when firmly backed up by the detachable stock will be found to differ greatly.

I recommend the Ordnance Department to study its own past productions, and the reasons for its success or failure.

Lately in the Philippines many line officers and enlisted men have demonstrated the viciousness of the regulation method of carrying the pistol. But this is nothing new, for in our own West many a soldier has lost his life through it.



Nos. 11, 12 and 13.

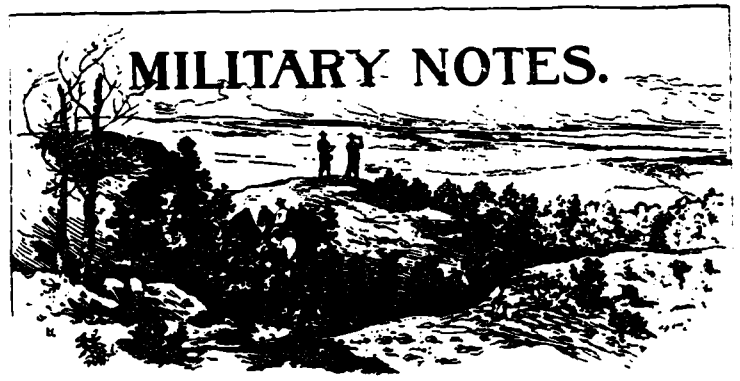
A soldier on leave was apt to visit the nearest town. After a few drinks of frontier whisky he often got into a row with some local "bad man;" and the latter, who carried his pistol where he could get at it, usually killed the soldier before he could draw his weapon.

Another objection was that at every step of the man or jolt of the horse the heavy pistol drew the belt with a jerk across the abdomen. This made carrying the pistol a constant punishment, sometimes causing rupture, often stomachache, and always fatigue. When the pistol is properly carried, that is on a loose belt, and low down, opposite the

upper part of the thigh, this does not happen, for the whole weight and jolt are supported by the solid bones of the pelvis. Also the pistol can be got at when wanted, a matter of even more importance to the wearer than the danger of stomach-ache.

Another position in which the pistol can be carried is in front of the left groin, with the butt toward the center of the body, and the barrel pointing downward and outward at an angle of forty-five degrees. While not quite so comfortable as the cowboy position, this is far better than the United States army regulation; and the pistol can be drawn very quickly. In Mexico I noticed that the police carried their pistols in this way.*

*The JOURNAL has just received the following information from the office of the Chief of Ordnance: "The Chief of Ordnance has adopted experimental revolver and automatic pistol cartridges, caliber .45, and has invited all revolver and automatic pistol manufacturers to enter a competitive test to be conducted in September next by a board of officers to be convened for the purpose. The bullet weighs 230 grains, and a proper charge of smokeless powder is used to give a muzzle velocity of 800 feet per second in both kinds of arms. The experimental cartridges for the two arms differ only in that those for the automatic pistol have a cannelured shell, and those for the revolver a rimmed shell."



"A LESSON IN PICTURE."

BY CAPTAIN M. F. STEELE, SIXTH CAVALRY.

IS there not a slight mistake in the excellent cuts shown under the above heading in the January JOURNAL? Ought not the bridoon reins to be on the outside and the curb reins in the center? The pictures have certainly reversed the order in which the reins are usually held in the hand. In the usual way, which I believe is the English method and therefore, of course, the method generally affected by American horsemen, the curb reins are separated by the fourth finger (the finger next the little finger), and the snaffle reins are held, one in the palm of the hand, the other between the second and third fingers, exactly the reverse of the order shown in the pictures.

Now, in horsemanship the Englishman usually has a reason for a thing; the American adopts it simply because it is English and asks not the reason; and the American, if possible, exaggerates the English thing, sometimes even to ex-

travagance. For instance, the Englishman wears wide riding breeches because they are cooler, do not bind, are more comfortable every way; the American wears his in folds all over the saddle and horse because they are English. The Englishman posts in his saddle because it is easier on horse and rider; because it makes riding at the trot a delightful, invigorating exercise, instead of a punishment. The American *pumps* in his and shows a foot of "atmosphere" between himself and the saddle at each stride, because it is English.

Theoretically the horse should be thoroughly rein-wise before he is ridden on the curb; hence there is no occasion for drawing or pulling one curb rein at a time. Slightly moving the hand to right or left, so as to bear the curb rein on the animal's neck, should make him respond. But if he is not rein-wise and does not respond, he should be made to obey by drawing one bridoon rein, and not one curb rein, provided he be ridden with bit and bridoon, as he should be. This explains why the Englishman places his snaffle reins as far apart as practicable in his hand, and separates his curb reins with only one finger. Having the back of his hand up, by simply turning the hand on the wrist—without moving the forearm at all—he can draw one snaffle rein and loosen up on the other enough to make any ordinary turn with his mount, even though the animal be not perfectly rein-wise. Perhaps there may be some better reason for holding the reins as they appear in the pictures referred to, an explanation of which would help to an understanding.

After all, is either of these methods the best for us to adopt, now that the CAVALRY JOURNAL has at last succeeded in persuading the powers that be that the bit-and-bridoon is the right sort of bridle? A most excellent horsemaster, Mr. Quinton, of Trenton, New Jersey, well known to many horsemen in the army, does not hold his reins in that fashion, and especially does not instruct others to do so, because, he says, carrying the bridle hand with the back up, tends to throw the elbow out from the side in an ungainly position. So it does. For ordinary riding Mr. Quinton carries his bridle hand in the exact position shown in our drill book—knuckles vertical and thumb pointing to the front; he separates his curb reins with the little fingers, as in our drill book, and his snaffle reins with the middle finger. This, also, is the method Anderson uses.

This method affords none of the theoretical advantage of drawing one snaffle rein at a time, without the assistance of the other hand, like the English method; but it is a simple and easy way to hold the reins, far more easily acquired by the trooper who has always ridden with a single rein, and by the recruit, than the English method or the similar method shown in "A Lesson in Picture."

The simplest method of them all, however, is the one shown in the last cut, with the notation, "Best grasp of four reins in left hand for school riding." This is the method used by the great Russian horsemaster, Fillis. It enables one to ride habitually on the curb rein, which is right, after the horse and hand are both properly trained. It also enables one easily to take either or both snaffle reins in the right hand, for the purpose of managing a horse not rein-wise; to loosen up on the curb rein and ride with the snaffle at a ditch or hurdle, or on route marches, when the horse need not be kept collected, but may be allowed to slouch along at his ease. And it makes it easy to pass the reins from one to both hands, or the reverse.

Without having given the matter a thorough trial, I am of the opinion that this method will fulfill all our purposes. I hope other cavalry officers will send their views on the subject to the JOURNAL, and that the right and simplest method, whatever it may be, will be adopted for our service.

I do not believe the English method or the method illustrated in "A Lesson in Picture" is the simplest.

* * *

FT. HUACHUCA, A. T., Feb. 18, 1906.

To the Secretary U. S. Cavalry Association:

SIR:—In the series of pictures entitled "A Lesson in Picture," there is one that has been much discussed at this post, and some further enlightenment would be acceptable.

Exception is taken to the proper adjustment of the bit and bridoon in the first picture.

1. Is the bit properly adjusted?

2. Is not the curb too long and the mouth-piece too high?

3. Is not the throat-latch too tight?

In regard to the other pictures these questions came up:

4. Why not use the bridoon reins on the outside?

5. Is not the outside grip the strongest, and has it not the most leverage?

6. Does it not equalize the hand better to have the most powerful rein on the inside where the grip is weakest?

7. Does not the seventh picture seem to prove this, as the bridoon reins are taken up with an outside grip?

8. In the last picture, would it not be better to separate the bridoon reins with the forefinger?

9. Is it not a weak and uncertain grip to have both reins come through one grip?

Respectfully,

R. VANS AGNEW,
Veterinarian Fifth Cavalry.

THE OBJECT OF "A LESSON IN PICTURE."

THE JOURNAL is happy to state that the object of its publication in the last issue, of how to hold four reins, is being accomplished. Being certain that the four-rein bridle was soon to be the bridle of the service, the JOURNAL considered it wise to stimulate ideas among our horsemen as to the proper hand to be used. Being convinced that the hand represented in "A Lesson in Picture" was the best for the service, we printed it. That all should agree with us we did not for a moment believe; indeed, had we believed that we would not have printed it, for what is the use of wasting space over something about which all agree. The picture has called forth more comment than any one thing that has appeared in the JOURNAL for years. It is quite probably true that the majority of riders that have not tried

the hand represented are in favor of some other hand, something on the order of the school hand, represented in the last plate of "A Lesson in Picture."

The pictures were published with the main idea of getting our officers interested, and then those that are interested and feel that the hand represented is not the best will send their ideas to us, and they will be given as much notoriety as the "Lesson in Picture." By this means, and better than by any other, we shall reach the proper conclusion as to what hand to use and what we want to adopt when the four-rein bridle is furnished to the army.

In this connection we wish to state that we have been informed by the Ordnance Department, that it is now manufacturing a number of cavalry bridles with the bit and bridoon, for issue to the service for trial. And we are informed by the Secretary of the School of Application for Cavalry and Field Artillery at Riley, that these models will be issued to one squadron each of the Eleventh, Twelfth, and Fifteenth Regiments for trial. Whether the bit being made is the common bit and bridoon, or whether the bridoon is the Boucher model, as recommended by the board, we are unable at this moment to state. But as soon as issued for trial a large plate will be given in the JOURNAL of the bridle that the Department has furnished us.

Returning again to the subject of the hand to be adopted, as suggested above, we are not at all obstinate in our view of the hand to be used by our soldiers. If we have sufficient reason for changing our present idea, which is to use the one represented in "A Lesson in Picture" we shall change soon enough. So far we have seen no reason for change, even after reading the articles above given, which Captain Steele and Veterinarian Vans Agnew have sent us.

As for the Veterinarian's questions, given above, we give below answers that we consider still leave the "Lesson in Picture" at the front. We will take them up in order, having numbered them in our print of the original, and answer them as we understand them, and we believe the answers cover the questions fully.

Question 1. Yes.

Question 2. *Not* for a horse with a perfectly supple jaw. The mouth-piece can be lowered to position exactly opposite the chin groove and curb chain so shortened as to make a minimum angle for the branches with the bars of thirty-two degrees for an extremely hard mouth horse.

Question 3. No.

Question 4. You can; and some people prefer it. But it is believed the other method will be the easiest for enlisted men and just as good results are obtained. This is one of the great objections that Captain Steele urges against the hand represented.

Question 5. It is believed the inside grip is the strongest, and therefore a good place for the strong pull on the snaffle. We may not be in accordance with many people in believing the third finger grip the strongest, but it certainly is in our hand, and hence the reason for placing the snaffle there.

Question 6. Answered by the last question, as we do not accept the idea that the inside grip is the weakest. However, we think this idea of equalization, as the Veterinarian calls it, a matter of small moment.

Question 7. The reins are taken up temporarily to give an upward lift to the head to allow the curb bit to work, and are immediately dropped. If mere restraining action was desired the snaffle would be allowed to slip until a strong pull was felt on the curb reins.

Question 8. If anyone cared to take the trouble in arrangement.

Question 9. The hand represented is not intended for a puller, but for the delicate work of the trainer, who should use his reins like silk threads.

We are informed that at Riley, where considerable instruction is being given in four-rein work, the opinion is that the hand represented by the cuts is the easiest to teach enlisted men. And all results desired have been gained by it. Since last summer we have been using this hand exclusively and like it better than our old, which was much like the hand described by Captain Steele. But we

have also tried at times the trainer's hand, and found that the hand was tiresome if kept too long.

Captain Steele's idea of theory may be right, but there are so many beautiful theories in the world that cannot stand the test of experience that we prefer one that has been satisfactory where it has been tried. Of course officers having become accustomed to a special way of holding four reins will find that way the best, and they are welcome to their opinion and method; but an easy way must be found for the enlisted men. In teaching them there should be little theory and no intricacies. The horse should be ridden with two reins in each hand until thoroughly broken, and then, after all, where the snaffle and curb reins lay is a small matter. For that reason we suggest the hand that occasions least fatigue.

We shall wait reports from those troop commanders that are fortunate enough to be in the squadrons that draw the four rein models. We trust they will recognize the opportunity to do the army valuable service, and we sincerely hope they will not be backward in expressing their opinions about the hand to be used, whether it agrees with our recommendations, or whether they find one to be best that is entirely different from any that we have ever heard of. What we want is the best.

At the request of the Secretary of the School of Application of Cavalry and Field Artillery, the JOURNAL has printed a card with the hands placed side by side, and has sent one of these cards to each cavalry and artillery organization in the service. These cards were sent to the post adjutants at posts where mounted organizations were serving. Should it happen that any organization has failed to receive the card, the JOURNAL would be pleased to send one on application.

MORE ABOUT CURB CHAINS.

CAPTAIN W. M. WHITMAN, THIRTEENTH CAVALRY.

I HAVE read with interest every article on bits in the CAVALRY JOURNAL. With the hope that continued comment may bring about improved conditions in this part of our cavalry equipment, I add my brief contribution upon the subject of the ordnance curb chain.

Having fallen in command of a troop of old horses, I noticed at drill that a number of them were dancing in ranks with noses high in the air, and that these became unmanageable at the fast gait. A few days later, drill being in the riding hall with watering bridles, I looked for the star-gazers and found them plodding along quietly with the rest. The obvious conclusion was that the trouble lay with the curb. Upon examination I found what probably every other troop commander has noticed, that the hook of the ordnance chain was attached to the bit in such a manner that the tender skin of the horse's lip was caught between the lower half of the hook and the mouthpiece of the bit; this action, which was apparent only when the reins were gathered, was in effect like a pair of pincers, and caused intense pain to the horse, who tossed his head in a mute appeal for relief.

I made it a practice thereafter to take notice of every horse that I passed, and found a large number of cavalry and artillery horses undergoing the same torture.

Some troopers had discarded the chain for a strap, but the pinching action was still apparent with most of them. Moreover the ordnance hook is an exasperating affair to adjust, especially if one attempts to shorten it while the bridle is on the horse.

My remedy has been to run a stout wire across the diameter of the upper ring, and attach the curb hook to this; the upper ring then acts as a shoulder to prevent the hook from pinching the lip.

In conclusion, I would say that, inasmuch as I would object to having my own horse ridden on a curb by a recruit, or by a poor horseman, or by a man of uncertain temper, I likewise object to having my troop horses so ridden. They should be equipped with bridoon and curb attached to one headstall so that either could be removed, and should have a curb chain that could be quickly adjusted. After the trooper has once learned to handle four reins, which is a matter of a very few lessons, he has the means of applying a variety of pressures to suit the varying conditions of gait: he can quiet the horse with the snaffle and bring him to attention with the curb. A heavy-handed recruit can torture a horse with a curb, especially if the chain has any fault of adjustment. A light snaffle will meet many of the requirements of our drill, and while relieving the horse of much discomfort, will serve as a stepping stone toward teaching the recruit the occasional use of the curb, until such time as his lightness of hand will admit of his using both bits in harmony as occasion requires.

I am interested to know if other troop commanders have had trouble with the ordnance chain, and if so what remedy they have applied.

THE HIGH SCHOOL OF HORSEMANSHIP.*

EDWARD L. ANDERSON, AUTHOR "MODERN HORSEMANSHIP."

LA HAUTE ÉCOLE is a silly phrase that embraces about everything that is taught to a horse beyond being "quiet to ride." There are the circus tricks, such as the absurd *Spanish walk, the step and leap, kneeling*, etc.; then there are the accepted airs of the *manége*, such as the *curvet*, the *pesade*, the *balotade* and the *capriole*, and finally the useful *halt in the gallop, gallop-change* and *pirouette wheel* of scientific horsemanship. Neither the circus tricks nor the manége airs can be of any service to the cavalryman, for all the dis-

*TERRITET, SWITZERLAND, February 8, 1906.

Secretary U. S. Cavalry Association.

SIR:—The interest I have in our cavalry has induced me to offer the few lines sent herewith.

cipline that these would procure would follow the training of the horse in the three essential things mentioned. In the European cavalry schools nothing is demanded of the pupil beyond what is absolutely necessary for a mounted officer to know. It is true that the instructors practice what we call the high school movements, but that is only for exhibition purposes. While watching a splendidly fought game of *le jeu de barre* in the Viennese Military Riding School the director, Major General von Rothenberg, said to me: "Every cavalryman should be able to pirouette and change in the gallop;" and it seems to me that should be the opinion of all soldiers. A man mounted on a well trained charger could kill with a penknife a well armed adversary whose horse could not be readily handled.

There should be no question as to how a horse should be put into gallop right or gallop left. Let it be borne in mind that the horse should turn to the right in gallop right, to the left in gallop left. The indications for teaching these gallops must be the same as those which demand the turns, or the horse will be confused and take false strides. Any horse will take gallop right if it be collected, the head bent slightly to the right, the impulses demanded by the rider's left heel; and these would be the indications for turning to the right. Gallop left may be made in the same manner, right and left aids being interchanged.

CAVALRY IDEAS.

By First Lieutenant A. L. HOPKINS, South Dakota Cavalry.

WATERTOWN, So. Dak., February 5, 1906.

I FEEL confident that covering the underside of the regulation saddle with sheepskin would be very unsatisfactory because of the general plan of the saddle. After a considerable experience with ordinary range saddles, and five years National Guard service with regulation saddles, I consider the

regulation saddle fully as good for military purposes as any saddle I have ever used. The objection I have to a range saddle is its great weight and the heat which comes from a sheepskin lining. It strikes me that the combination we are in search of is lightness, and yet be able to protect the back of the mount. I am quite fully convinced that nine people out of ten put too much blanket under the saddle.

The captain of this troop rode three different horses through three different encampments, and on two practice marches of approximately 100 hundred miles, without any blanket except a saddle cloth made of cauvas and some kind of woolen material, and these different horses came through without any injury to their backs in any way, shape or manner, and this man weighs approximately 220 pounds; and I might state further that the horses ridden by Captain Munger were horses that had not been used for saddle purposes to any extent prior to their use for the encampment and practice marches above referred to.

As to myself, aside from the last encampment, I generally rode a different horse each day, because of the fact that the members of the troop were always glad to turn over to me their green horses and let me ride them for a day, and then take another. This last encampment I took our private driving horse that had not been saddled more than three or four times for some months past, and rode him every day in drill, parades, etc., and also rode him an average of ten miles additional each day, and his back was as sound and smooth as a piece of silk when I got through, and all I had under the saddle were two burlap sacks and one army blanket, folded according to my own ideas.

During the five years that I have been connected with the cavalry squadron here in South Dakota, in our troop I have known of but two sore backs, and we never had a saddle horse or horses. We are obliged to use in the National Guard service here any horses that the members of the troop happen to have or happen to hire. They are always good animals, but absolutely ignorant when we start drilling in the spring or go to camp.

The one thing as to saddle blankets that I paid particular

attention to was that the boys should not put too much under the saddle, as I consider that sore backs are usually the result of scalding, which is produced by too much blanket.

The one thing which I consider to be the greatest abomination on earth in connection with the cavalry service is the bit, and it strikes me as exceedingly strange that we, who are boasting of twentieth century civilization, have not something to put into the mouth of a horse besides the relic of old Spanish cruelty, which is now prescribed. The members of our troop, while nearly all of them are born horsemen, have had more trouble with the regulation bit than from any other source. It might be possible to accustom the horse to the use of the bit now prescribed, but I doubt it. In a good many cases where members of my troop brought into camp a fine, high-spirited, high-bred, beautiful animal that would not stand for a curb bit, I let them take it off and put on the ordinary straight bar bit which is used for workhorses, and then the trouble disappeared. A man might have use for a curb now and then, but under all ordinary circumstances, it is merely a nuisance.

THE WOODEN BROADSWORD.

By Captain C. C. SMITH, Fourteenth Cavalry.

ON the 15th of last November a field day was held at this post (Jefferson Barracks, Mo.), and among other events was a mounted broadsword contest between troops of the Ninth Cavalry.

Being one of the judges of this event I was astonished at the number of swords that were broken and rendered useless, and recalled at once that at the government fencing school in Kyoto, Japan, the two-handed swords used by the Jap fencers were made of bamboo; also that Captain S. P. Adams, Fourteenth Cavalry, instructed his troop at Camp Overton, Mindanao, with broadswords that he had made of bamboo, and which would not break.

Why not supply us with bamboo broadswords for fencing practice? They could be made in Manila by the Ordnance Department at a very small cost.

For the benefit of officers interested in polo, it is well to know that good polo mallets can be gotten at the Bilibid penitentiary in Manila at an extremely low cost as compared with what is paid for them at sporting establishments in this country.

BRITISH STRENGTH.

A BRIEF perusal of the current army estimates shows that we had on the 31st of March last, 217,000 regular troops, not including 75,600 European troops in India. If we deduct 61,000 men, the garrisons of the colonies, we find that we have in the United Kingdom 156,000 regular troops, besides which the army reserve was set down in the estimates at 104,000 men. That neglected force, the militia, however, only figures at 140,000, including 7,500 reservists. The yeomanry establishment was 28,000, while that of the volunteers figured at 344,000, the "effectives" of the last named being 245,000. Counting, therefore, only effective volunteers, and including the army reserve, we had actually within the United Kingdom 673,000 trained men. Our contention is, however, that the militia must be raised to a strength of 300,000 men in the ranks, with a reserve of another 100,000. In other words, we must raise, if necessary by ballot, 260,000 more militia men. Consequently, even if the strength of the volunteers is to be limited to 230,000, as recently officially stated, we have shown conclusively that Lord Robert's million standard can soon be in being if steps are taken to make the militia what it always was recognized, our constitutional force on which we can rely for active service abroad in a war of any magnitude. Turning to India, we have 75,600 European troops in that country and a splendid native army, 157,000 strong with 25,000 reservists. Of Im-

perial service troops there are 15,000 men, and India also musters 31,000 efficient volunteers. Our total of fighting men in India is therefore 303,600. Altogether then we have, including 61,000 regular troops in colonial garrisons, a total in India and our oversea possessions of 364,600 men. Dealing, therefore, with the figures already mentioned, we could muster 1,297,600 men, provided the militia had an establishment of 300,000 men and a reserve of 100,000. So far, however, we have not taken credit for the local forces of the British colonies and protectorates, which, according to a return lately published by the General Staff, War Office, amount to no less than 235,000 of all ranks. We have, therefore, a grand total of 1,532,600 trained men available for the defense of the Empire, of which there are 300,000 European regular troops with 100,000 reservists, and 157,000 men of the native army in India with 25,000 reservists. In fact, out of the total of 1,532,600 men we can count on 582,000 regular troops, European and native. Yet the "active" army of France or Germany is only about 600,000 strong. Unfortunately for us, however, our vast empire necessitates our military forces being scattered over the globe, from which obligation our continental neighbors are free owing to their limited foreign possessions. In a future issue we will give the strength of the local forces in each of our forty-one colonies and protectorates. We may mention, however, that the Canadian forces muster 105,235 of all ranks, of which there are 86,000 infantry, 8,000 cavalry, and seventeen full batteries with 3,500 men, 4,000 garrison artillery, and nearly 1,000 engineers. Speaking of rifle clubs, of which there is so much talk and little done in the mother country, the Australian rifle clubs muster 31,204 members, nearly the whole of whom are "effective."—*Broad Arrow, February 10, 1906.*

THE SERVICE PISTOL.

By Major S. D. ROCKENBACH, Philippine Scouts.

IN considering a service pistol, it is necessary at the outset to agree to the proper uses of the arm. That a pistol will shoot accurately at one hundred yards and over is nothing in its favor; better use a rifle.

A good service pistol is assumed to be one that is accurate up to fifty yards for bull's-eye target practice, is a deadly (stopping) close quarter fighting weapon, a quick firer, and substantially and simply made so as to keep in order with the usage of the cavalry service. The .38 service Colt appears to be the only pistol which a majority of cavalry officers agree possesses all the requirements, except the most important, a deadly close quarter fighting weapon. It has not the necessary shock or stopping effect. This defect is attributed generally to caliber. It is not questioned that a .45 bullet moving with the same velocity as a .38 has more shock effect than the .38, but the assertion, frequently made, that the wound made by the .38 which failed to stop a man, would have stopped him if made in the same place by the .45, has not been demonstrated. It is not believed that the so-called "New Service .45 Colt" with its long heavy powder charged cartridge with cylindrical bullet would do much better. The old .45 Cowboy Colt with its short light powder charged cartridge and short hollowed bullet has a national reputation for stopping power.

The stopping effect of a bullet depends upon something more than caliber: 1st, the sensitiveness to shock of the man shot; 2d, the locus of the wound; and 3d, the velocity, shape and size of the bullet.

To illustrate: Sensitiveness to shock and the consequent incapacitating or deterring effect generally increases with the culture of the man shot. A wound that may stop and incapacitate for further aggressive action a civilized man, may only increase the fury and efforts of a savage to destroy his enemy; especially is this true if the savage is imbued

with the idea that, if killed while killing his enemies, his future bliss is assured.

A shot in the brain will stop any man. A horse drops instantly from a .38 bullet striking the brain. A deer shot through the heart with a .45 Winchester will run fifty yards. In the case of a man shot with a .32 revolver, the bullet penetrated the left cheek and entered the brain; death was instantaneous, so that the man fell backwards; his cigarette remained in his mouth and smoked up. In another case, a man was shot through the belly with a .45 carbine so that his intestines protruded. He walked over a mile, and his wound was only discovered by his death two hours after the shot.

The bullet from a .30 Krag ball cartridge can be fired through a pane of glass without shattering the pane. Decrease the velocity of the bullet by reducing the powder charge and the pane will be shattered. The bullet from the gallery cartridge will shatter the pane. A spent bullet may knock a man down insensible or stop him, yet inflict a slight wound. Velocity appears to control the shock effect.

It is not to be expected that the influence of civilization will perceptibly affect the sensitiveness of the savage to shock in the near future; nor can we hope to attain the skill in pistol shooting necessary to hit a man in the head with every shot, but it is believed the shock effect of the pistol can be increased without decreasing its accuracy up to fifty yards.

The trooper must be instilled with confidence in his pistol; otherwise it is of little use in his hands; this can be instilled only by target practice. For accurate bull's-eye target shooting a well-made long barrel pistol, using a cartridge with cylindrical bullet and large powder charge is advantageous. Such a cartridge is not essential or even desirable for close quarter fighting. A multi-ball cartridge, two balls and a small powder charge, it is believed, has greater shock effect than either the service .38 or .45 cartridge.

The old .45 Springfield carbine, worn till it is practically a smooth bore, with multi ball cartridges is the best short range brush fighting gun in the service. Fifteen men shot with it in the present year stopped, three recovered, one with his right arm amputated. Self-preservation is the first

law of nature. Against the savage with kris, head knife, spear or arrow, the so-called humanitarian should either come and practice his theories, or keep quiet; should he come without police protection (a cool protector with a stopping weapon) the theorist will succumb to the fittest.

Before the .38 is discarded it should be demonstrated that a .38 cartridge suitable for target practice and having the necessary shock effect cannot be made. It seems practicable to furnish pistol target ammunition (the present cartridge) and pistol service ammunition that will stop a man; at least this seems worthy of trial.

The writer is not acquainted with the reasons which led to the change from the .45 to the .38, but he is reluctant to believe that the change was made without recommendations and cogent reasons;* nor does he think it reasonable to again incur great expense, and change back to the .45 till it is demonstrated that the .45 will do all that is claimed for it, and the .38 cannot be made to do just as well. The case seems somewhat similar to that of the shotgun. Very few men possess more than one shotgun, yet their shooting is very much varied by varying the powder charge and size of the shot.

The undisputed claim for the "New Service .45" is that it is a better club than the .38; this value has an offset in weight.

The writer carries in the field a .45 Colt, 3½-inch barrel, police model (as that fits his hand) using short cartridges. He believes this pistol, due to the shape and small velocity of the bullet, has greater stopping power at close quarters than the "New Service .45," with a six-inch barrel and powerful cartridges. He once saw a cowboy filing two inches off the barrel of a beautiful six-inch barrel Colts for which he had just paid a month's salary. The reasons given for his act were that he could draw the short barrel quicker, and when he hit a man he stopped. The short barrel Colt is not as accurate for bull's-eye target practice as the service .38. Accuracy must be retained, but careful experiments should be made

*That the JOURNAL did not favor this change, see articles in No. 20 and No. 22, April and October, 1893, by First Lieutenant (now Major) Eben Swift, and an article in No. 23, December, 1893, by Major Alfred A. Woodhull, Medical Department, (now Brigadier-General, retired.)

with varied ammunition to ascertain if the shock effect of the .38 cannot be increased without loss of accuracy.

With the present ammunition the .38 reminds one of the remark made by a grizzly bad man of the far West, when a pink and white tenderfoot from the East drew a .32 on him: "Don't pop that thing, you might make me mad."

TANAY, RIZAL, P. I., December 12, 1905.

STOLEN OR EMBEZZLED GOVERNMENT MILITARY PROPERTY.

INFANTRY AND CAVALRY SCHOOL AND STAFF COLLEGE.
FORT LEAVENWORTH, KANSAS, January 16, 1906.

Colonel C. B. Hall, U. S. Army, Fort Leavenworth, Kansas.

MY DEAR COLONEL:—I have the honor to acknowledge the receipt of your favor of the 18th ult. concerning the right of the military to search for and seize government property in the hands of persons who have no right to the same, and the proper procedure to be taken in such cases.

The question of what procedure to take when government property, particularly the clothing of soldiers, has been unlawfully disposed of, is an old and much mooted one, and it is therefore, with considerable diffidence that I undertake to answer it, notwithstanding the fact that the law, if properly executed, seems ample to cover the case.

I shall attempt to answer your questions in full, and therefore as a preliminary quote your letter in full.

FORT LEAVENWORTH, KANSAS, December 18, 1905.

My Dear Major Boughton:

Will you please give me legal information on the following? I would suggest also that the point raised might be valuable as questions to be given the student officers as you did in the last case I sent you, and which seems to have excited a great deal of interest and favorable comment.

Information has been received at post headquarters that government property, consisting mainly of clothing, has been sold to or pawned with civilians in the city of Leavenworth, Kansas, and that the property is now concealed in residences, stores, or on the premises of these citizens.

Has the military any legal right to enter and search the premises of a civilian for government property, and to use force if necessary? If not, what legal steps must be taken by the military to secure such a right? As an officer of the army, how would you proceed in such a case?

The above is not a supposititious case, and I will be very glad if you will let me know *your* opinion as soon as possible, as I desire to take legal steps.

Very respectfully,

(Signed) CHAS. B. HALL.
Colonel Eighteenth Infantry,
Commanding.

First as to the criminal nature of the above acts and the laws thereon.

Act March 3, 1875, 18 Stat. L., 479. An act to punish certain larcenies and the receivers of stolen goods:

"*Be it enacted, etc.*, That any person who shall embezzle, steal, or purloin any money, property, record, voucher, or valuable thing, whatever, of the moneys, goods, chattels, records, or property of the United States, shall be deemed guilty of felony, and on conviction thereof before the district or circuit court of the United States in the district wherein said offense may have been committed, or into which he shall carry or have in possession of said property so embezzled, stolen or purloined, shall be punished therefor by imprisonment at hard labor in the penitentiary not exceeding five years, or by fine not exceeding five thousand dollars, or both, at the discretion of the court before which he shall be convicted.

"SEC. 2. That if any person shall receive, conceal, or aid in concealing, or have or retain in his possession with intent to convert to his own use or gain, any money, property, record, voucher, or valuable thing whatever, of the moneys, goods, chattels, records, or property of the United States, which has theretofore been embezzled, stolen, or purloined from the United States by any other person, knowing the same to have been so embezzled, stolen, or purloined, such person shall, on conviction before the circuit or district court of the United States in the district wherein he may have

such property, be punished by a fine not exceeding five thousand dollars, or imprisonment at hard labor in the penitentiary not exceeding five years, one or both, at the discretion of the court before which he shall be convicted.

"And such receiver may be tried either before or after the conviction of the principal felon, but if the party has been convicted, then the judgment against him shall be conclusive evidence in the prosecution against such receiver that the property of the United States therein described has been embezzled, stolen, or purloined."

This statute is directly applicable to the case in question, and makes the embezzling or stealing of public property, and the receiving of such property so embezzled or stolen, felonies punishable by the Federal courts.

Of course, if the person committing the felony is in the military service he may be tried for violation of the 60th Article of War.

Civilians in Leavenworth receiving embezzled or stolen government property are liable under Sec. 2 of the above Act, and their conviction, when the property embezzled or stolen is military in character, should not be difficult, for its mere possession by a non-military person would be a strong presumption, ordinarily, of guilty knowledge.

But the property usually disposed of by soldiers is clothing that has been issued to them, and in this case the question immediately arises, Is such clothing government property, or has the complete title vested in the soldier? Putting aside this question for the present, attention is called to the following statute which makes the purchaser or pledgee of soldiers' clothing punishable in the Federal courts (Sec. 5438, Rev. Stat. U. S.):

"* * * and every person who knowingly purchases or receives in pledge for any obligation or indebtedness from any soldier, officer, sailor, or other persons called into or employed in the military or naval service any arms, equipments, ammunition, clothes, military stores, or other public property, such soldier, sailor, officer, or other person not having the lawful right to pledge or sell the same, every person so offending in any of the matters set forth in this section shall

be imprisoned at hard labor for not less than one nor more than five years, or fined not less than one thousand nor more than five thousand dollars."

THE RIGHT OF SEARCH.

"Has the military any legal right to enter and search the premises of a civilian for government property, and to use force if necessary?"

The answer to the above question or questions is "yes," but this is hedged about with many qualifications as will be seen below. The statute law on this subject is as follows (Sec. 1242, Rev. Stat. U. S.):

"The clothing, arms, military outfits and accoutrements furnished by the United States to any soldier shall not be sold, bartered, exchanged, pledged, loaned, or given away; and the possession of any such property by any person not a soldier or officer of the United States shall be prima facie evidence of such sale, barter, exchange, pledge, loan, or gift. Such property may be seized and taken from any person not a soldier or officer of the United States, by any officer, civil or military, of the United States, and shall, thereupon, be delivered to any quartermaster or other officer authorized to receive the same."

Sec. 3748, R. S., is almost identical in meaning with Sec. 1242, and is therefore not quoted. It declares that the property which may have been sold, etc., may be seized wherever found

From these statutes it is seen that the right of seizure by the military is limited to *property that has been issued to a soldier*, and does not apply to government property in general, and that the seizure, if made, must be by an officer.

These statutes were originally enacted during the Civil War, and were evidently intended to furnish the military a summary means of recovering government property that had been issued to soldiers, and which they had unlawfully disposed of, the stress of circumstances rendering recovery by the slower legal processes impossible.

When the necessity for such seizure actually exists it may be resorted to, but unless the necessity is *real* this summary

procedure, in my opinion, should be avoided. Such procedure would ordinarily involve the invasion of the premises and privacy of citizens, and would be in derogation of their constitutional rights of being secure in their persons, houses, papers, and effects, against unreasonable searches and seizures (4th Amendment).

If the necessity for such search and seizure is real, they would not be unreasonable.

It may often happen that troops on the march, or in other situations, may not be within reach of the necessary legal agencies that would enable them to recover property unlawfully disposed of by soldiers, and that delay would result in the total loss of the same. In such cases it would be the duty of the officers interested to seize the property wherever it could be found.

As originally enacted these statutes contained a provision making punishable with fine and imprisonment persons purchasing from soldiers their arms, clothing, etc., but this provision was not incorporated in the Revised Statutes, an omission which has been remedied, so far as government property is concerned, by the Act of March 3, 1875 (statute first quoted in this paper).

But in making seizures as authorized in Sec. 1242, to what extent are officers authorized to search for property? This section is not a general search warrant, and therefore an officer would not be justified in making a general search. Should he proceed in this manner he would probably be held liable in damages. He should search only those places where he has *probable cause* for believing that the property is concealed or stored; and probable cause sufficient to justify the officer in making the search will exist whenever, from the information in his possession, he would be willing to go before a magistrate and swear out a search warrant.

In regard to the use of force in making seizures of government property under Sec. 1242, see below, under "Procedure."

PROCEDURE.

"Has the military any legal right to enter and search the premises of a civilian for government property, and to use force if necessary? If not, what legal steps must be taken by the military to secure such a right? As an officer of the army, how would you proceed in such a case?"

The above questions have been answered in part only. To give an outline of the procedure that would ordinarily be taken, let us assume that government property has been purloined from the post and disposed of in Leavenworth.

1. The interested officer would make a preliminary investigation sufficient, if possible, to determine who are the guilty parties, and where the property is concealed or stored. He should remember that to secure conviction evidence is necessary.

2. He would then take the necessary steps to secure the arrest of the suspected parties, and to recover the stolen property. To recover the property he would secure a search warrant from the proper official, and in company with the civil officer charged with its execution, would search the premises in question, identifying the property if found.

Generally the same persons who can issue warrants for the arrest of suspected offenders, can also issue warrants for searching premises for the recovery of stolen or embezzled goods, or for procuring evidence of a crime.

If the person who has stolen the property is a soldier, he may, of course, be arrested by the military authorities. If he is a civilian, the following law governs:

ARREST OF OFFENDERS AGAINST THE UNITED STATES.

Sec. 1014, Rev. Stat., U. S.:

"For any crime or offense against the United States, the offender may, by any justice or judge of the United States, or by any commissioner of a circuit court to take bail (*infra*), or by any chancellor, judge of a supreme or superior court, chief or first judge of common pleas, mayor of a city, justice of the peace, or other magistrate, of any State, where he may be found, and agreeably to the usual mode of process against

offenders in such State, and at the expense of the United States, be arrested and imprisoned, or bailed, as the case may be, for trial before such court of the United States as by law has cognizance of the offense."

By the Act of March 28, 1896, the office of the United States Commissioner (superseding that of the Circuit Court Commissioner, *supra*) was created. This official has various powers prescribed by law, similar on the civil side to those of a notary public, and on the criminal side to those of a magistrate or justice of the peace. He is authorized to take oaths and acknowledgments; to issue warrants for offenses against the United States; to cause offenders to be arrested, or bailed, for trial, etc.

If it is desired to secure the arrest and trial of some offender for violation of a Federal law, the U. S. Commissioner is the proper person before whom to make the complaint, though it may be laid before any of the officials enumerated in Sec. 1014, R. S.

As to the nature of a complaint that would justify the issuing of a warrant, it has been held that it must be on oath of personal knowledge, and not merely on an oath of affirmation of mere belief (U. S. v. Burr, Fed. Cas. No. 14692). Something more than mere suspicion is required.

THE USE OF FORCE WHEN ACTING UNDER SECTION 1242 R. S.

Should the property embezzled or stolen come within the terms of Sec. 1242 (property issued to soldiers), the officer interested must elect whether he will proceed summarily under the statute and seize the property himself, or in the usual way, by means of a search warrant. As stated above, if the interests of the government will permit, it is generally advisable to follow the customary legal procedure.

Should the officer elect to act summarily he should proceed with due caution and regard for the rights of others. Before invading private premises he should make known his purpose, demand the surrender of the property in question, and have *probable cause*, supported by the personal knowledge of some reliable witness, for believing the property to be located therein. Should he be refused or opposed he may use force, and if the property is found he incurs no liability, provided he used no more force than was necessary. But let us suppose the property is not found, then the question immediately arises, Was the search unreasonable? Did the officer have probable cause? Juries are very apt to think that he did not. Then, too, if within the limits of a State, an officer proceeding summarily is liable to commit some act that may lead to a criminal prosecution in the State courts. What protection has he in such cases, and how should he proceed?

The following is quoted from the decision *in re Fair:*

"An officer or agent of the United States who does an act which is within the scope of his authority as such officer or agent cannot be held to answer therefor under the criminal laws of another and different government.

"The care, judgment, and discretion which should be exercised by an officer of the United States in the performance of his duties as such officer are not to be measured by the criminal laws of a State.

"When an officer, in the performance of his duty under the laws of the United States, exceeds his authority, he may be sued in the State courts by any person injured by reason thereof, but when the act was done in good faith, and without malice, he is not liable to a criminal prosecution in such courts."—*In re Fair et al., Circuit Court D. Nebr., March 23, 1900; 100 Fed. Rep. 149.*

But when an officer acts under the supposed authority of the United States, by what criterion are his acts measured? Who is to determine whether he was properly performing his duties under the laws of the United States, or that he acted in good faith and without malice?

Let us suppose that an officer or soldier, in the performance of his duties, has committed some act which he supposed was authorized or required by Federal laws, and that he is arrested therefor by State authorities on a criminal charge and held for trial.

As soon as possible he should apply for a writ of habeas corpus to a United States court or judge. The writ must issue as a matter of right, but the petitioner is not neces-

sarily entitled to his discharge, and may be remanded to the State authorities for trial.

This question was fully decided on January 2d (this month) by the United States Supreme Court (*Army and Navy Journal*, January 13, 1906) in the cases of Lieutenant Drury and Private Dowd, Ninth Infantry, indicted for murder in Alleghany County, Pa., for having shot a civilian suspected of having stolen government property from the Alleghany Arsenal at Pittsburg. At the time of the shooting all parties were outside of the military reservation. Drury and Dowd petitioned for a writ of habeas corpus to the United States Circuit Court, but the court, after the hearing, refused to order their release.

The question presented to the court was whether it should "interfere to prevent the trial of the petitioners upon the indictment in the State court, take the petitioners out of the custody of the authorities of the State, and discharge them finally without trial by any civil court in the regular administration of justice." The judge refused to do so, and his action was sustained by the Supreme Court. The reason for this decision will become apparent when we consider that if the judge had taken the prisoners out of the hands of the State authorities, there would have been no court before which they could have been tried, for jurisdiction over such cases has not been conferred by Congress upon the Federal courts.

From all this it follows that a military person, claiming to act under the authority of the United States, is liable both civilly and criminally to prosecution in the State courts, for acts done within their jurisdiction; but the law provides, with few exceptions, for the ultimate decision of such cases in the Federal courts. If he is sued in the State courts for an act done under color of authority of the United States, he can generally if he so desires, have the cause transferred to the proper Federal court. If he is prosecuted criminally for such an act, he can apply for a writ of habeas corpus to the proper Federal court or judge. The court or judge may or may not order his discharge. If discharged, he is no longer liable in the State courts for that act. If he is remanded to the State court for trial and convicted, he can still appeal to the highest court of the State having jurisdiction of the case, and if the decision of the lower court is there affirmed, he can then carry the case to the Supreme Court of the United States.

In making summary seizure of government property under Sections 1242 or 3748, officers should remember that the government sometimes disposes of its property itself, and that therefore it is possible for civilians to have acquired legal title therein.

When an officer has instituted criminal proceedings as outlined above, he should assist the civil authorities as far as possible by acquainting them with all the sources of evidence of which he may have knowledge.

IS CLOTHING ISSUED TO A SOLDIER HIS PERSONAL PROPERTY, OR DOES THE TITLE THERETO STILL REMAIN IN THE GOVERNMENT?

If it is still government property then the Act of March 3, 1875 (the one first quoted in this paper), relating to the larceny or embezzlement of government property, would be ample to protect the interests of the government, and it is probable that when passed the Act was supposed to include clothing issued to soldiers.

The difficulty seems to have arisen from the inconsistent attitude of the War Department itself in regard to this matter. At one time such clothing was regarded as government property. Then came the ruling of the Judge Advocate General in April, 1893 (Digest, 1901, Par. 11), as follows:

"Clothing issued and charged to a soldier is not now (as it was formerly) regarded as remaining the property of the United States. It is considered as becoming, upon issue, the property of the soldier, although his use of it is, for purpose of discipline, qualified and restricted. Thus he commits a military offense by disposing of it as specified in this article (17), though the United States suffers no loss."

Subsequent to this ruling, however, there has been a tendency to return to the original idea. Thus in 1898 it was held (Digest, 1901, Par. 2276) as follows:

"A soldier's title to clothing issued him is a qualified one, requiring that he use it in the service while it is serviceable and he is yet a soldier. But on his discharge his title to such clothing becomes absolute, and he may then sell, etc., the same to a civilian and give a valid title to it."

The following is a recent ruling of Judge Advocate General Davis (*Army and Navy Journal*, December 9, 1905):

"It is true that upon the discharge of a soldier he may carry away with him the clothing and blankets he receives while in the service, the title then vesting in him without question. So, also, on his death the clothing becomes a part of his estate. Until such discharge or death, however, the soldier has but a qualified title to his clothing and blankets, and sufficient title remains in the United States to warrant a prosecution under Section 5438 of the Revised Statutes, this statute being broad enough to cover the case, whether blankets be considered 'clothing' or 'public property.'"

It is difficult to see how clothing issued to soldiers can be considered his property when the government retains absolute control over the same. The soldier has only the use, the same as he has in the case of his arms and accoutrements, and the manner in which this use shall be exercised is controlled absolutely by the military authorities.

The President by law prescribes the uniform of the army and the quantity and kind of clothing which shall be issued annually to the troops of the United States, and the annual appropriation acts set aside so much money for the purchase of clothing, camp and garrison equipage, fuel, etc., for the army. Why should clothing occupy a different status from that of other military supplies? The conception that clothing issued to soldiers becomes their personal property has sprung from the manner in which accounts in regard to the same are kept, and the fact that balances of what is called the soldier's clothing allowance are given them on their discharge; but this latter is merely a reward given by the government to secure care and economy on the part of the soldier.

Clothing becomes the soldier's property on his discharge simply because the government chooses to give it to him at

that time. It could unquestionably take it from him and give him civilian garments instead.

In closing, attention is invited to the following letter:

DEPARTMENT OF JUSTICE
OFFICE OF UNITED STATES ATTORNEY,
Eastern District of Kentucky.

COVINGTON, January 9, 1906.

Captain Milton F. Davis, Fort Leavenworth, Kansas:

SIR:—I am requested by the adjutant of the Fourth Infantry at Fort Thomas, Kentucky, to furnish you with copy of opinion handed down by the judge in the cases against Durrah and Dixon, convicted at last term of the Covington court, for purchasing clothing, etc., from soldiers, and for having in their possession stolen property of the United States knowing it to have been stolen.

They were indicted under two counts. The first, for purchasing and receiving in pledge clothing, etc., from soldiers in violation of Section 5438, Revised Statutes, and in the second count, for having in their possession stolen property of the United States, knowing the same to have been stolen, in violation of Sec. 2, Act of March 3, 1875, 1st Supplement, page 88.

Durrah was tried first. Before the trial was concluded he withdrew his plea of not guilty, and pleaded guilty to the second count, and was sentenced to be confined in the penitentiary at Atlanta, Georgia, for a year and a day. Dixon was also put on trial under a plea of not guilty, and was found guilty by the jury on both counts, and was also given one year and one day in the penitentiary at Atlanta. There was no written opinion handed down by the judge. He simply charged the jury orally, following the indictment and statute.

Respectfully, J. H. TINSLEY,
U. S. Attorney.

The act of March 3, 1865, referred to in this letter, is the one first quoted in this paper.

It would be very desirable to secure a decision in a Federal court in regard to the title to clothing that has been issued to soldiers.

Very respectfully,
D. H. BOUGHTON,
Major, Eleventh Cavalry.

Editor's Table.

ELIMINATION.

A reasonable flow of promotion is necessary for life in any business. This movement should be doubly sure in the army, where the standard of individual intelligence required of the officer should be higher than the standard elsewhere. For it is to be remembered that the army is the last safeguard of the nation when all others have been swept away. Other businesses and other departments may fail, but once let the army fail the failure is irretrievable. The standard for proficiency of the army official must be so sure that not only does it insure against failure but absolutely guarantees safety.

How can we secure this standard in our officers, a standard composed as it is of intelligence, probity and patriotism? By giving men a commission, which, when young is quite commensurate with their value, but afterward letting later conditions swallow them in a pernicious system that will eventually crush out all their desirable characteristics? Shall we keep them down to small positions during their active and energetic years, appointing mediocre material alongside and then shoving *all* along the road that leads to innocuous desuetude? This question needs no answer, for it answers itself. The question that does arise is, What is the remedy whereby we can secure a reasonable flow of promotion so as to open up a life of usefulness and so hold out to young Americans an attractive career in the army?

The question is an all important one. We have an example of what the present conditions will result in if we will

turn to the army of England. The new Secretary of State for War, Mr. Haldane, is of the opinion that the British army is short of officers of the right sort, the thinking men, and that there are too few of them in the cavalry and the line, though lately he indicates a change of opinion. Slowness of promotion, discouragement of enthusiasm in the lower ranks of the service, and the poor prospects of the officer generally are the real causes of the unpopularity of the army amongst the promising youth of to-day. And the same causes are present with us, except we have not at present reached the stage that England has, though we are rapidly nearing the time when able young men will no longer care to enter the army. The thinking and working men in our army could most of them to-day command salaries two or three times as large as the ones they are drawing from the government, had they as young men embarked in a business career. So unless we solve the question of offering attractive careers, our army about the time of the next war will be composed of mediocre men of little ambition and enthusiasm.

It strikes us that the solution has been given, but all have not, as yet, appreciated the fact. The remedies for the present condition with its destroying tendency we have with us, and sufficient, we believe, at present, to accomplish the purpose for which intended, which purpose is to secure such promotion in the army that the officers will not deteriorate through dry rot.

We are provided with a purgative in the shape of the general court martial, whereby we may rid ourselves of the criminal element. And not long since Congress provided an emetic of examinations whereby we can cast out the worthless. And the size of the doses in both these remedies has been left to ourselves to determine from the exigencies of the case. That these doses have been properly given in the past no one for a moment believes. Most frequently they have been too small, and at times the medicine has practically been thrown out the window, leaving the sickened body to recover as best it may without any remedy whatever. The result has been that we naturally continue in the same

diseased state as before simply because we have not the moral courage to properly administer the remedies sitting at our very elbows.

Noticing no improvement some unthinking persons, or possibly self-thinking, have suggested new remedies, forgetting that the old ones have not yet failed because they have not yet been properly tried. The most popular of the new remedies is the panacea, "selection," warranted to kill or cure. Every reasoning man in the army knows the result will be kill and not cure if such a violent poison is administered. Yet we must expect some new remedy from Doctor Congress if we continue to disregard his present prescriptions and still howl for relief. We must attend to our own case, administering sufficient doses of our present remedies to destroy the germs that have already resulted in deadly stagnation. Means must be taken to secure nurses that will measure out the large doses and then see that these doses are taken in accordance with need.

To accomplish this, nothing more is needed than a permanent examining board. The artillery practically has this at present. The board may consist of any number of officers, though there is no reason why we should depart from the number we have now. But the officers must be ones that are sure to perform the rather disagreeable task of sitting at the bedside until a cure is effected. They must be carefully selected from the officers of the army with a view that they shall possess that valuable attribute, absolute justice, and must also be men well known to have none of the milk of human kindness in their makeup. They should be like the perfect judge, justice personified with no tinge of mercy. We have such men in the army, indeed, if we believe the civilian, we have few of any other kind. Such, however, we know is not the case, but we have a sufficient number to warrant carrying out the treatment at present prescribed.

This permanent board may meet this month at this department headquarters and there administer the remedy of examination to all afflicted in that department; then next month it may move on to the next department, the afflicted ones in that territory being sent in to department headquarters for treatment. All artillery officers to be examined may be sent to Monroe,* and all cavalry and infantry officers may be sent to Fort Leavenworth for examination. Before the Spanish War nearly all the cavalry and infantry officers were sent to Leavenworth. This method may entail a little added expense in the way of mileage, but what is expense to a very sick person, such as we must admit we are at the present time.

Everyone knows that our examinations should be strict, uniform, and impartial. That they are all or any of these, at present is doubtful, unless we admit that they are impartial. As to uniformity, there is only one way to secure it, and that is that the same board shall examine all officers. A correspondent, writing to an English military paper, has the following to say about the examination in the British army: "It must be known to most officers that at some military stations the examinations are extremely difficult, whereas at others it is quite the reverse." This might just as well have been written for our own army. We have heard officers within the last three weeks say they hoped they would be ordered to *this* board and not to *that* one. That our examinations would be strict under the above outlined scheme is axiomatic. They are so by construction.

We believe that we have in our hands the means of curing ourselves. How foolish then that we should fail to effect the cure. Nothing so asinine can be imagined as a sick person that will not get well because he will not take advantage of a sure and speedy cure. Yet here we are in the very condition of said asininity.

No new legislation is needed to carry the above recommendation into immediate effect. And it cannot be too quickly done. We have in mind some officers that are soon to come up for examination for their promotion. Under the present system are they going to pass? Certainly they are, and yet they are about as little fitted for the command of troops, companies, or batteries, as six weeks old babies are fitted for riding thoroughbreds. And when we think of the

*The artillery examinations are now held at Fort Monroe and San Francisco.

able, energetic, and industrious officers, but slightly below them in rank, that will always be held below these incompetents, our indignation is not capable of being expressed in readable language. The more so, as we hold the means to right such glaring foolishness.

There is another feature in this connection that is well worth thinking of. It is said that in a government such as ours no method can ever be adopted that will do away with political pull. We quite agree with that, but instead of accepting it in full and lying supinely on our backs, we believe that a sort of high license regulation will follow the above scheme. When political pull is exerted for preferment or favor, it is usually the case that the one to be benefited has some little ground upon which to base his asking in the first place. But what ground has an officer to base a request upon who has failed in an examination upon his professional attainments? Of course the request may be made, probably will, but we have in our mind a picture of the Pull of a deficient officer asking for favors at the hands of the War Department or at the Executive Office. It is a sorry picture, and one in which we believe only the most shamefaced Pull would care to figure. We rather imagine this Pull would slip in at the back door of the War Building or the White House, asking contritely for favors, in place of stalking in at the front, boldly demanding that this be done.

Have we, then, any need of House Bill No. 13377, which is to increase the efficiency of the army by selections for retirement? We certainly have. For should the above recommendation be carried out to its fullest a time would come when we had gotten rid of all incompetents and yet have our army full, and the stagnation would be the same as now. To provide against such a state the present bill is an absolute necessity. Moreover there is one drawback in the examinations that cannot be amended except by legislation, and that is, the year of preparation allowed one for a second examination after having failed upon the first. That this should ever have been granted can only be explained in the mercifulness of the hearts of our Congressmen. That an officer should always be prepared for his work is one of the

first requisites of military service. Should war break out, is the enemy going to sit down and allow us a year in which to prepare our officers so that they may know their duties? The idea is absurd, but no more absurd than allowing a year's preparation to a man who should be kicked out of the service if he does not come up to requirements at any time, no matter when you take him. It is an absurdity only to be granted by a Congress actuated by too much kindness of heart. However, it may not be of quite so much importance as it appears, for once a person has failed, the chances of his passing our itinerant board are much smaller than with the present boards, scattered all over the Union.

Then at present the examinations stop when a man has become a major. Why this should be we cannot imagine, unless it was expected that the present system of examinations would be carried out as above indicted. We suppose an officer who had successfully passed through our soulless board for three separate examinations, would need no further test of his ability. But we are not sure that we are satisfied that, under the present conditions, examinations should cease with the promotion to a majority. At least the higher grades should be subject to a physical examination, and that is accomplished by House Bill No. 13377.

For the above reasons there is necessity for the passage of the bill. We have not been able to spend time upon a thorough study of the present bill, and perhaps the fears of some may be well grounded. The only objection that we have so far seen worthy of consideration is that perhaps retirements will come too rapidly, whereby the service will be deprived of men whose value is far above the average. That we should lose valuable officers of years experience merely to shove young men in at the bottom should not be the object of any bill. The real object is to eliminate those that have ceased to possess ambition or desire for hard work. But possibly (we are by no means sure), the present bill may be the means of shoving out some of our most valuable men before their sphere of usefulness has been rounded out and completed.

A proviso, leaving the question of necessity of the proportionate retirements to the board, might be a safeguard

against forced retirement of men that no one wishes to see leave the army. Should some such saving clause be added, we anticipate there could be little objection to the bill, unless possibly from some who fear any kind of elimination. The objection of these should count for naught.

As for the graded retirement feature of the bill, it is, in the main, a correct idea. We have in mind in speaking thus, the killing of appointments of men over sixty years old as captains in the quartermaster or other departments to serve for one or two or three years, and then retire on three-fourths pay for the rest of their lives. We suppose the government in throwing its insurance around its faithful officers of life service never dreamed of such gross abuse. But in the present stage of our national life it seems that too many checks cannot be made upon graft. However, there must be some means of regulating a graded retirement measure. That a young officer of one or two years' service, dangerously wounded and incapacitated for the rest of his life, should be retired on two and one half to five per cent. of his salary, is an injustice that should not be permitted. And any officer, whose health is undermined by service in the tropics, should not be made to feel that his retirement will leave him in a condition where he will be unable to meet his most meager expenses.

If the present bill can be so amended to meet the two above conditions it should receive the unhesitating support of the army. And we believe if so amended the only carping critics will be those that fear retirement under any bill or any measure. And these are the ones we want to rid the service of, so their criticisms count for little.

The bill is attracting so much attention we give it in full below and direct careful attention to it and recommend a study of it in all its provisions.

SELECTIONS FOR ARMY RETIREMENTS.

H. R. 13377, Mr. Hull:—

A bill to increase the efficiency of the army of the United States.

Be it enacted, etc., That the President be and he is hereby authorized to prescribe a physical examination of all officers of the army of the grades of major and of lieutenant-colonel to determine their fitness for promotion: *Provided*, That should any such officer fail in his physical examination and be found incapacitated for service, by reason of physical disability contracted in line of duty, he shall be retired with the rank to which his seniority entitled him to be promoted; but should the incapacity be found to have resulted from his own misconduct he shall be honorably discharged from the army, with one year's pay.

SEC. 2. That when at the end of any fiscal year the average number of vacancies for the fiscal years subsequent to the passage of this act in the grade of colonel in the cavalry, artillery or infantry of the army, has been less than twenty-five per cent. of the authorized number of lieutenant-colonels in each arm respectively; or, in like manner, when the average number of vacancies in the grade of lieutenant-colonel has been less than eighteen per cent. of the authorized number of majors; or, in like manner, when the average number of vacancies in the grade of major has been less than nine per cent. of the authorized number of captains; or, in like manner, when the average number of vacancies in the grade of captain has been less than fourteen per cent. of the authorized number of first lieutenants; or, in like manner, when the average number of vacancies in the grade of first lieutenant has been less than eighteen per cent. of the authorized number of second lieutenants, the necessary additional vacancies to bring the average in each grade in each arm up to the percentages above named, shall be created as hereinafter provided.

SEC. 3. That upon the occurrence of a deficiency of vacancies as set forth in Section 2 of this act, the Secretary of of War shall convene as soon after the first of July as prac-

ticable, a board of five general officers of the line of the army, preferably seniors, for the purpose of selecting, from the active list of the several arms, the necessary number to be retired. The board shall have placed at its disposal the complete efficiency and medical records of all officers, as the list stood June 30th preceding, in those arms and grades wherein less than the required average of vacancies exists. Each member of said board shall swear or affirm that he will without partiality, favor or affection, and having in view solely the special fitness of officers and the efficiency of the army, perform the duties imposed upon him by this act.

The board shall then proceed to select for retirement from the several grades the requisite number from among those officers found to be, from any cause, least qualified for further active service; the number taken from each grade being such as to cause the average number of vacancies therein to conform to the percentages set forth in the preceding sections: *Provided*, That no colonel shall be retired under the provisions of this section when the effect thereof would be to promote a lieutenant-colonel of less than three years' service as such unless the total commissioned service of said lieutenant-colonel exceeds twenty-eight years; nor shall any lieutenant-colonel be retired under the provisions of this section when the effect thereof would be to promote a major of less than five years' service as such unless the total commissioned service of said major exceeds twenty-five years; nor shall any major be retired under the provision of this section when the effect thereof would be to promote a captain of less than ten years' service as such unless the total commissioned service of said captain exceeds eighteen years; nor shall any captain be retired under the provisions of this section when the effect thereof would be to promote any first lieutenant whose total length of commissioned service is less than ten years; nor shall any first lieutenant be retired under the provisions of this section when the effect thereof would be to promote any second lieutenant of less than four years commissioned service; *And provided further*, That in computing the total length of commissioned service there shall be included therein any commissioned service in the

U. S. Volunteers. The proceedings and recommendation of the board shall be in writing; shall be signed by all the members, a majority governing, and shall be transmitted to the President, who shall thereupon by order transfer to the unlimited retired list the officers who have been selected as provided in this act.

SEC. 4. That each officer retired pursuant to the provisions of this act, except as provided in Section 1 hereof, shall be entitled to retired pay at the rate of two and one-half per cent. of the pay he was receiving at the date of his retirement for each completed year of service or major fraction thereof: *Provided*, That retired pay shall never exceed seventy-five per centum of the maximum pay of the grade.

SEC. 5. In computing the authorized commissioned strength in any grade, as required in Section 2 hereof, the officers detailed in accordance with existing law for stated tours of duty in the various staff departments, shall be included in that arm wherein they hold permanent commissions.

SEC. 6. All laws or parts of laws in conflict with the provisions of this act are hereby repealed, and nothing in this act shall be construed as changing the method of promotion now provided by law.

ETHIOPIANISM.

"Natal is having some trouble with the natives over a hut tax lately imposed. Her relations heretofore with the natives have been very happy, there having been only one small outbreak, and that several years ago, namely, in 1873. It may be that the present trouble is a mere local disturbance, but again it may mean that the Kaffir uprising is a sign of a general fermentation in the native mind throughout Africa. An English paper states that this is, perhaps, a natural consequence of the Boer War which has been intensified by what it calls Ethiopianism, which is a curious mixture of religion and race prejudice imported from America. The

demon of unrest is further stirred in the emotional negro by the failure of Germany to crush the comparatively insignificant Hereros and Hottentots."—*The Broad Arrow.*

If our trouble in this country with the negro proposition finds an echo in Africa, who could blame the nations there interested should they call us to account for our action as a civilized nation in handling the inferior race? It might easily happen that a nation, by its actions indirectly influencing the welfare of another, would violate one of the imperfect rights of nations And should Germany and England, the nations most interested in Africa, under this right request a modification of our policy toward the negro, are we in a position to give them a satisfactory answer? The race question in this country is, by many of our people, considered the most important problem that confronts us as a nation, but we very much doubt if the above quite probable consequence has ever attracted any attention heretofore. We believe it well worth serious thought and study.

THE BRITISH CAVALRY JOURNAL.

In the early part of January last we received the following letter:

"*The Journal of the United States Cavalry Association:*

"I beg to forward for you acceptance a copy of the first number of the *Cavalry Journal* for Great Britain and the Colonies.

"I trust you will overlook the many shortcomings incidental to a newly started publication, and will give it your favorable consideration.

"I beg to ask permission to quote from time to time some of your articles bearing on cavalry, as they would be of great value and interest to our readers. I should of course acknowledge their source.

"With kind regards, believe me,

"Yours truly,

S. BADEN-POWELL."

We were very glad to acknowledge the receipt of the letter from the distinguished cavalryman, and on receipt of the *Cavalry Journal*, which followed shortly after, carefully went over the same. We are glad to welcome into the field of cavalry publications so lusty a youngster. We saw little of the shortcomings of which the General spoke in his letter. The *Journal* is artistically gotten up, good paper, large print, and with a characteristic khaki-colored cover. The articles are good and quite likely to successfully carry out the purposes of the publication, which are to circulate information concerning cavalry matters in the British and foreign armies, and to bring the various branches of their mounted troops, regular and auxiliary, both at home and in the colonies, into closer touch with each other, by encouraging the development and interchange of ideas.

The price of the *Journal* will be $2.50 per year, and all communications should be addressed to the Editor *Cavalry Journal*, Royal United Service Institution, Whitehall, London, S. W.

We trust many of our officers will be subscribers to the British *Cavalry Journal* and incidentally thus return the compliment that has been paid us by the numerous subscriptions on our lists from British officers.

FIVE YEARS A DRAGOON.

"Five Years a Dragoon ('49 to '54), and Other Adventures on the Great Plains." The last issue of the JOURNAL saw the conclusion of the intensely interesting articles under the above heading, from the pen of Mr. Percival G. Lowe, of Leavenworth, Kansas. Due to continued calls for these articles to be put into book form, Mr. Lowe has decided to issue a book containing the articles, with additions such as he thinks will be of interest to the students of that period of American history. Readers of the JOURNAL will remember that the series in the JOURNAL lasted for two years, and there can be little doubt that every reader of the JOURNAL will be glad to possess Mr. Lowe's book.

The book is to be brought out by the Hudson Press, of Kansas City, Missouri. We have not as yet seen any of the advance sheets, and so we reserve further notice, so that we can thoroughly go into this remarkable history and give it the credit that it deserves. Of course the articles in the JOURNAL form a large part of the book, but there has been an enlarging of the JOURNAL'S text and an addition of much that is interesting to military and general readers.

BOOKS ON THE RUSSO-JAPANESE WAR.

We are happy to state for the benefit of our readers that, unexpectedly, we have found a really great book dealing with the subject of the late war. Judging from all the matter heretofore published, good though some little of it was, we had not anticipated that any really creditable work, other than compilation of official reports, such as was Wood's book, would appear for some length of time. Probably not till the newness of the conflict had worn off and reliable information could be gathered and viewed in the proper perspective. It is true the book we have just finished reading is partisan, and that must be taken into consideration when studying it, but the author poses as nothing else than as an Englishman, whose country is an ally of Japan.

The book is entitled "The War In The Far East," and is written by the military correspondent of the *London Times*. As the JOURNAL has had occasion to give as reprints, two articles by one of the correspondents of *The Times*, David Fraser (see the October, 1905, and the January, 1906 issues), we had an idea when we first saw the notice of this publication that we were familiar with the author. But we could get no information from the American publishers, for they stated they did not know the name of the author, neither were they sure that the author was the same as the one that wrote a similar work on the Boer War. However, on reading the book, we are convinced that the work is not that of one person, but really the work of several correspondents, all situated in positions advantageous for reliable information.

When the reports from these various correspondents reached London, they were taken in hand by an unusually well informed military person, thoroughly digested, and under his careful supervision allowed to appear in the columns of *The Times*. We had an idea that possibly this marvellous person was none other than Lord Roberts himself, so powerful are the articles and so gifted with what might be termed almost divine prophecy. But from what we have since learned we believe that the mind in the London office is not that of any English general officer, but one not unfamiliar to accurate readers in the British Empire. This however is only a hazard of ours, and one can only take it as opinion.

"The War In The Far East" is a book composed of articles taken from the *London Times*, published from time to time during the terrific struggle. Occasionally the hand of the historian, writing with the knowledge of after events, sweeps into a chapter, but not often.

So we find the pages of this work, having been written during the heat of conflict as it raged day by day, possess warmth, color, and partisanship, but withal a clear and careful statement of what is so indubitably the truth that we hardly question it. We never have read a work where we had so little mental strain in transporting ourselves to the scene of actual conflict. We seem to move with each unit of the Japanese armies, and can see the separate retreats of the Russians almost as though we were present on the field, and we found ourselves many times in the intensest strain while reading of the great battles of Liao Yang and The Shaho.

We quote the following from the preface:

"The writer has thought that an account of the campaign, written, as these pages have been written, from day to day, might serve as a useful reminder that those who direct armies and fleets have to deal with a number of factors of which history sometimes takes insufficient account, and that, in relation to the intentions and proceedings of the enemy, these leaders have to rely largely upon intuition and judgment, and have rarely before them all those nicely tabulated facts and certainties which are at the disposal of the ultimate historian when the latter distributes praise and blame. These pages, therefore, the writer hopes, may enable the reader to

picture himself more nearly in the position of the leader in the field, than he can contrive to do when studying an historian, who surprises the secrets of the future by writing after it has passed, and knows beforehand the direction in whichhe is going and the catastrophe of the tale. By recognition, in this manner, of the dense fog which surrounds all war before the air is cleared by some terrific encounter, the public may be encouraged to realize the gravity of the problems confronting the higher command, and to extend to those who have, hereafter, to direct our armies and the fleets in war, a large share of that inflexible confidence, loyalty, and sympathy which are such an inestimable support in the day of trial to a leader of men when hard beset.

"So far as circumstances and early publication permit, these articles have been revised and such new matter has been introduced as we have hitherto been favored with by the respective combatants. The chapters dealing with the battles of Liao Yang and Mukden have been completely rewritten, and free use has been made of articles contributed to *The Times* by correspondents in various parts of the world, notably those by the representative of the journal in Tokio, whose long experience of Japan has been of such profit to the readers of *The Times* throughout the course of the war.

"Most of these articles have been translated into Japanese by Mr. Mori and republished in book form by the leading Japanese paper, the *Jiji Shimpo*. The much too favorable reception they met with on the part of eminent officers of the Japanese army and navy has not been without influence in causing the publication of this book. The writer was fortunate in securing the services of Mr. Percy Fisher, for the preparation of the maps and plans to accompany the text. The work they have entailed, owing to our scanty knowledge of the topography of the theater of war, will appeal to all cartographers. Mr. Fisher returned from Japan last year, and has been engaged for many months upon the compilation of these plans from all available sources, and the writer hopes and believes that the result of his labors may be of serious service to those who have hitherto been without proper means for forming a balanced and impartial judgment upon the strategy and tactics of the campaign."

We can give no quotations from the text that follows for we found, after going into the work for a few pages, that we had marked so much for quotation that we should, had we kept on, been compelled to reprint the entire book. We are able to state that the work is from the hand of a master—a master in style, in clearness, and in strategy. What more does one want in a historian? While the work may not possess the sledge hammer sarcasm of Carlyle, it is full of such keen, incisive advise to the Russians that the rapier thrusts must still be smarting far more than would have heavy blows.

The book contains 656 pages, type quite large and clear and legible. There are thirty-eight maps of the hachure style, but they are far the best we have seen. The names in the print are carefully made to correspond with the names on the maps, which is something that has saved us much temper lost in other works on this war. The important engagements are illustrated by maps showing the different phases of the battle from time to time. For instance, the battle of Liao Yang has ten maps to illustrate the changing phases of that terrific struggle. Four maps are given to battle of The Shaho, three to the battle of Heikautai, and two each to the following battles: Yalu, Kinchou, Telissu, Fenshuiling, Moteinling, Tashihchiao, Yangtzuling and Yushulintz. The naval battle of Tsushima is illustrated by four different phases.

But the maps and the clear, vivid description of grand tactics is not to our mind the greatest value of the work. We were continually impressed with the lesson that the principles of strategy are immutable and as unchanging as the laws of the Medes and Persians, though the application of these principles vary with each campaign. Here we are studying not the varying phases of a battle, but WAR. Studying war, not only as an art, but even as a science, though we know we may be in the minority in saying war is a science. The influence of the combination of the land and naval forces was never so clearly demonstrated, and when we finish a particular chapter we remark: "How simple! How easy?" Anything is easy to a master, and when that master has the happy faculty of clear exposition, to hearers and readers anything he handles becomes easy.

Here is a book for the close military student of detailed campaigns. Do you want to follow the varying phases of a single battle? Here you will find yourself able to do so with

greater ease and clearness than by the use of anything published so far upon this war. Do you want to illustrate a principle in strategy? Here you will find the principle pointed out so clearly that you will probably be forced to accept the very words of the text. Do you want to point a moral and adorn a point by the necessity of combination of army and navy? Never will you find that illustrated to a better advantage than here. Do you want to teach a lesson on organization, organization in all its details, that descends to the absolute necessity of each separate detachment commander being in closest connection with the all-directing head? Here you will find it to such an extent, in the Japanese armies at least, that you marvel and wonder if ever we will reach that point in our own army.

We have carefully read every word in this book and given it the attention that we could devote to the subject, and we unhesitatingly state that this is the book upon the war that army officers must have.

In this review of books upon this war publishers are given to understand in sending us copies for review, that the review will be unflinchingly given; that no book will be recommended for purchase to the readers of the JOURNAL unless it is deserving. We have been compelled to say harsh things about many books that some persons like, but their value to the military student has not been clear to us, and so we recommend no expending of money for them. In order to keep the amount of books to be purchased down to a reasonable limit, the JOURNAL finds it necessary at this point to cut out one that heretofore it has carried as being a good work on the subject, and that is Cowen's "The Russo-Japanese War." We are still as favorably impressed with this book as ever, but we must cut now somewhere to put in the *Times* publication, and so Cowen must go from our list of recommended purchases.

* * *

We give in our book reviews notices of "The campaign with Kuropatkin" by Douglas Story. This review is by Captain Heintzleman, Sixth Cavalry, who receives all books upon the late war as they appear.

Due to a most favorable impression of Sir Ian Hamilton's book, "A Staff Officer's Scrap Book," among many of our officers and the favorable comments made to us regarding it by General Bell, soon to be chief of staff, we reserve notice of this publication for our next issue.

All in all, in possessing the following books on the struggle, we shall at the present time consider ourselves as having done our duty in studying the war:

On the causes:

"The Russo-Japanese Conflict." (Asakawa.)

On the war:

"From the Yalu to Port Arthur." (Wood.)

"The War in the Far East." (The military correspondent of *The Times*.)

Articles in *The Outlook*. (Kennan.)

For Comparison:

"The China Japan War." (Vladimir.)

We hope that the *Outlook* will publish Kennan's articles in book form soon. All the above have been reviewed in this and the three previous issues of the JOURNAL. Asakawa's book can be purchased from Houghton, Mifflin & Co., for $2.00; Wood's and Vladimir's from The Hudson Press, Kansas City, Mo., for $1.50 each; and "The War in the Far East," from E. P. Dutton & Co., New York, for $5 00.

THE DISCONTINUANCE OF THE PRIZE ESSAY.

The Executive Council of the Cavalry Association has decided to discontinue the undertaking of producing a history of the American cavalry in the form of a series of historical essays. The abandonment of the prize essay is made after careful consideration and with the idea that better results can be obtained through other work in the JOURNAL.

The money heretofore set aside for the payment of prize essays will hereafter be distributed among the contributors to the JOURNAL, under the following conditions:

The yearly volume of the JOURNAL, consisting of the July, October, January and April numbers, will be carefully

read by the members of the Executive Council, and they will decide upon the value to be given each article. The amounts will be forwarded to the writers at the end of each JOURNAL year, that is, the first of July. The names of writers receiving pay for articles will not be published in the JOURNAL at any time, so that no one failing to receive an award need fear chagrin through having it known that his article was not considered as meritorious as those to which awards have been allotted.

It is believed that this will encourage more officers to contribute, and that the result will be more satisfactory to the readers of the JOURNAL than spending all extra money on prize essays, few of which are extensively read, while some short article may attract much attention. The Council in granting payments for particular articles will be guided principally by timeliness of topic, good common sense displayed, and then by literary merit. The size of the article will have no effect upon the decision.

It is hoped that the Editor's Table will be full of articles on timely topics from our officers, for only by such means can a successful JOURNAL be issued which will be of use to our officers.

SECRETARY'S ANNUAL REPORT, U. S. CAVALRY ASSOCIATION, 1905.

FORT LEAVENWORTH, KAN., Jan. 15, 1906.

The United States Cavalry Association:

GENTLEMEN:—In accordance with the second clause of Article XI of the constitution of the Association, I herewith submit to you, at this regular annual meeting, a report showing the financial condition of the Association.

I relieved Captain M. F. Steele, Sixth Cavalry, as Secretary and Treasurer of the Association and took over the management of the business on April 16, 1905. I will first give you a report of my management, and then I will combine the two reports, that of Captain Steele from January 1, 1905,

to April 16, 1905, and that of myself from April 15, 1905, to the end of the year, so that you can have an idea of the work of the Association during the entire year.

The immediately following report is a detailed statement of receipts and expenditures since I took charge, April 16, 1905.

RECEIPTS.

From Captain Steele, cash on hand, April 16th	$ 32 07	
From subscriptions and sale of Journals	1,562 21	
From advertisements	1,287 82	
Total		$ 2,882 10

EXPENDITURES.

Ketcheson Printing Co.	$ 1,737 75	
Teachenor, Bartberger & Co., engravers	52 64	
Editor and assistant	672 50	
Postage	105 36	
Typewriters	54 85	
Book bindery	21 30	
Printing calendar, etc.	15 50	
Copyright	3 00	
Rubber stamps	3 55	
Express and freight	13 49	
Lumber for shelves	5 60	
Postoffice box rent	1 00	
Checks returned	4 10	
Commission advertising	15 13	
Dues returned	1 50	
Miscellaneous, paper, etc.	20 45	
Total		$ 2,753 75
Cash on hand December 31, 1905		$ 98 35

ASSETS.

Cash on hand Dec. 31, 1905	$ 98 35	
Due on back advertising	125 75	
Subscriptions	946 00	
Total		$ 1,170 10

LIABILITIES.

Teachenor, Bartberger & Co.	$ 50 25	
Commissions on advertising	34 38	
Editor and Assistant	20 98	
Total		$ 135 61
Assets exceed liabilities		$ 1,034 49

Combining the report of my predecessor from January 1, 1905, to April 16, 1905, with the above report we have the following for the entire year:

RECEIPTS.

Cash on hand January 1, 1905	$ 4 19	
Receipts to April 16, 1905	1,448 75	
Receipts from April 15th to December 31st	2,850 03	
Total		$ 4,302 97

EXPENDITURES.

To April 16, 1905	$ 1,420 87	
From April 15th to December 31st	2,783 75	
Total		$ 4,204 62
Cash on hand December 31st		$ 98 35

A statement for the entire year showing the growth of the business during that time is as follows:

Cash on hand January 1, 1905		$ 4 19
Bills receivable:		
Dues one year in arrears		342 00
Dues two years in arrears		208 00
Dues for 1905		268 13
Due for subscriptions		215 00
Due on advertising		530 94
Total possible income		$ 1,568 13
Liabilities at that time		1,303 94
Business assets over liabilities		$ 264 19

As can readily be seen a part of the assets is always lost to the Association. Some subscriptions are never paid, and some are paid through agencies whereby a percentage is lost. Some unpaid advertising is too small to pay for cost of collection.

At the end of the year 1905, the business assets exceeded the liabilities by $1,034.49, giving an actual gain during the year of $770.30, the difference between $1,034.49 and $264.19.

There is also this to remember, that the January JOURNAL for 1906 was issued in December, 1905, and the heavy expense of this unusually expensive edition completely paid except the engraver's bill, and enough money was in the treasury to pay that. Consequently all the advertising due

on the January, 1906, issue is velvet to the Association. This amount, all of which will probably be collected during the quarter, is $523.13.

This amount added to the December 31, 1905, assets, given above, makes the assets on January 1, 1906, $1,693.23. Taking from this sum the liabilities on January 1, 1906, $135.61, we have the following on January 1, 1906: business assets exceed all liabilities, $1,557.62.

Of this, perhaps twenty-five ($25.00) dollars on back advertising may be lost. Of delinquent dues, $216.00 are two year dues, and $126.00 are three year dues. The remainder of dues, $604.00, are current dues, and the fact that this amount has not been paid in is, I suppose, that many do not know that the dues are payable in advance. I think it a conservative estimate to say that of the two and three year delinquent dues one-half will be collected during the year and all the one year dues. So I expect the following amount will be collected from the January 1st assets: $1,497.23.

Of the years' good work much, if not most, of the credit is due to Captain M. F. Steele, Sixth Cavalry, my predecessor, who was secretary and treasurer until the 16th of April, 1905. He took charge of the affairs in October, 1904, with liabilities or debts amounting to $1,311.88. He found $7.13 in the treasury, and the assets of all classes, good, bad, and indifferent, exceeded the liabilities by only $62.29. In April, when he turned over to me, he had paid all debts due at that time except $476.15, and the assets exceeded the liabilities by $508.20. I have in the main followed the business lines that he did. The Association is under great obligations to him.

During the past year the Association has paid off a debt of some $1,300.00, and as the prospects of the year 1906 are as good as those of the previous year, there is reason to believe that the end of this year will find us with somewhere near $1,000.00 in the bank.

As for the work of the editor of the JOURNAL of the Association, no officer on duty at the school has time to properly perform his duties to the school and also to the

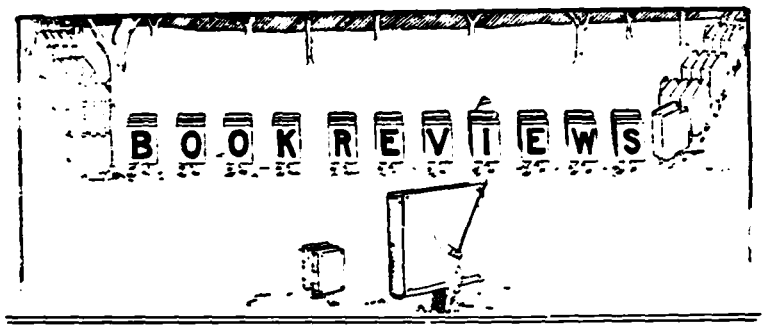
JOURNAL. The work of editing the JOURNAL and running the business is daily becoming more arduous, the business alone requiring most of my forenoons. I would suggest that some cavalry officer of known ability in practice and theory be sought as instructor at the school in equitation, and that he be given the JOURNAL as additional work. No officer can do the service more good than can the editor of the JOURNAL if it be properly edited. If it were possible to find some retired officer of ability and the requisite energy, he might be given the JOURNAL, the Fire Association, and the Library. But you will have to scan the retired list more closely than I have to find one suitable.

My predecessor wrote letters to the headquarters of the several cavalry regiments, asking that they get from their officers an expression as to what power the Association had to voice the sentiments of the cavalry upon any needed questions. Answers received were but few. Some came from the Second, Fifth and Fourteenth Cavalry regiments. It will always be impossible to accomplish anything by this method.

As for the JOURNAL, it still, I believe, maintains its high standard among military publications. It is becoming well known to other publications and has a large and growing exchange list. Book publishers are becoming quite familiar with its department of book reviews, and many of our largest houses request reviews of any works they bring out that might interest military readers. Good articles might be more in number to select from, but at present I have quite a list of readable ones to select from for publication. It may be possible in another year to pay for articles contributed, and then there will be no lack of good material.

Very respectfully,

HERBERT A. WHITE,
Captain Eleventh Cavalry,
Secretary and Treasurer.



The Campaign with Kuropatkin.*

"The Campaign with Kuropatkin," by Douglas Story. Mr. Story was a correspondent with the Russian army in Manchuria, but apparently the Russians were as careful as the Japanese to keep the front clear of correspondents.

One chapter recounts the fighting about Motienling Defile; another describes the battle of Wafangho or Telissu; a third gives the battle of Tashihchiao. Poor sketch maps accompany these three accounts. Then there is a brief account of Liaoyang. With the exception of the above mentioned four chapters, the book is a collection of sketches of Manchuria during Russian occupation that might readily have been written prior to the outbreak of war. Moreover, the chapters on the four battles leave you with a very hazy notion as to what each side attempted to do, in fact you receive the impression that the battles just happened.

Those who desire to read an account of the military operation in Manchuria from the Russian point of view had better pass the book on or prepare to be disappointed.

STUART HEINTZLEMAN,
Captain Sixth Cavalry.

*"THE CAMPAIGN WITH KUROPATIN." By Douglas Story. Philadelphia. G. B. Lippincott Company. 1905.

Problems in Maneuver Tactics.*

The book has been rather well received in Germany, but does not seem to deal with tactical details with sufficient exactness. About eighty pages are given to the statement of two hundred and seventeen problems and about the same number of pages deals with solutions. It is plain from this statement that the amount of space given to each problem is too small to be of value to a beginner in the study of the art of war.

A number of problems, which have been used at the examination for admission to the War Academy, is given with partial solutions. Most students will prefer to study the complete solutions, which can be found in other works.

Some of the maps are poorly made and not sufficient for a complete study of the problems proposed.

As the book appears to be a translation of the German work of Major Hoppenstedt it seems odd that the publishers have left his name off the cover and back, while the name of Major Crowe appears there as if he were the author.

E. S.

Riding and Driving.†

Another book on riding and training, with many valuable hints on driving, as well as horses in general, by Edward L. Anderson and Price Collier. In the breeding of the saddle horse, the value of the thoroughbred, the finest type of horse, is here recognized for ennobling the baser strains. Its history is briefly told in an interesting way, tracing its ancestry in the direct male to the Byerly Turk, Darley Arabian, or Godolphin Barb. These paragraphs on breeding are specially worthy of note, showing how the different types of horses, such as the thoroughbred race horse, the American saddle horse, and the hunter—the ideal type for officer's mount, are produced by careful "selection and exclusion."

*"Problems in Maneuver Tactics." Translated from the German of Major Hoppenstedt, by Major J. H. V. Crowe, R. A. New York. MacMillan Co. 1905. Price $1.60.

†"Riding and Driving." By Anderson & Collier. The MacMillan Co., New York. Price $2.00.

In handling the young horse, prior to his higher training, the author lays much stress on its being done in a quiet and progressive manner, so as to give it confidence, and to avoid those faults and vices which usually arise from the efforts of the nervous animal to avoid restraint before it has been taught by easy steps to yield instinctively to the demands of the trainer. The value of cavesson, the simple bending of the head, neck and jaw with the snaffle, and the habit of freely going forward against a light tension of the reins, is also noted.

The chapter on the purchase, care and sale of horses is full of "horse sense," and gives the author's type of ideal saddle horse. This is followed by a description of the saddle horse stock farms of General Castleman, Gay Brothers, Colonel Woodford, and Ball Brothers, all within a radius of thirty miles of Lexington, Kentucky.

The next three chapters are devoted to the saddle, the bridle, mounting, the seat, and horsemanship in general the world over, making special note of our own school at Fort Riley and to "that master of the art, H. L. DeBusigny," probably the best living exponent of scientific horse training.

Mr. Anderson devotes the balance of the book to training, giving those simple exercises known as the flexions, with the snaffle and the double bridle for gaining control of the muscular system of the horse, and making him absolutely obedient, safe, and pleasant to ride. He commences with the flexion of the muscles of the jaw, which open and close the mouth, then those which bend the head upon the neck, and finally, those which raise the head and neck. The combination of these simple flexions of the head, neck, and jaw, gives us that desirable high-head carriage, with the head bent in on the neck making the face vertical or nearly so, and the jaw playing freely. He then obtains control, by means of the heel, of the muscles which move the haunches, by revolving the hind legs around the fore legs, and vice versa, as well as moving the hind legs under the body. The combination of these flexions, obtained by placing the horse in the position we so desire by means of the hand and heel, gives the rider

a pleasant feeling of lightness and stability impossible to obtain in any other way.

It must be remembered that a horse has a muscular system like our own, with muscles capable of producing flexion and extension of the different parts of the body. That its body as well as that of the rider has weight, with a center of gravity. That there are one to four points of support depending upon the gait or the position. That the relative position, with the points of support, of the vertical line passing through the center of gravity of the horse and rider varies with the height of the head and the extent to which the hind legs are carried under the body. The position of the center of gravity in the body of the horse alone is of no importance, but the relation of the vertical line passing through it with the points of support is everything. Raising the head will move this point nearer the hind legs. Carrying the hind legs under the body will produce the same effect. By a combination of the two we can place this point as far back as we wish. By making the horse lean its body to the right or left by means of the aids, we place this point nearer the side towards which we lean. So in suppling the muscles, which control the position of these parts, the rider is enabled by means of the hands and heels to place the center of gravity exactly where he wishes it to perform the movement desired and preserve proper equilibrium. This is the great principle of equitation.

The flexions are the simple exercises which supple the muscles of the horse and make it cease all opposition and resistance with the antagonistic muscles, just as the setting up exercises supple the muscles of the recruit. In the case of the horse, however, the will of the rider is communicated to it by means of the aids. As with the recruit it is necessary that these exercises be continued daily for some time until perfect control is obtained; and like men the muscles of some horses will become supple in much less time than others. This process of suppling is carried on at the walk, trot, canter, while moving backwards, sidewards, and when changing direction, as well as when standing in place. The rider can then place the horse in a well balanced or collected position while doing all these movements, and he will be able to bring his mount from any extended pace to the collected gait instantly.

Having suppled the horse, it is necessary that its rider understands the use of the aids, and is drilled in their harmonious application. It is through the seat that the rider feels the balance and position of his mount, what it is doing and purposes to do, and by means of the hand and heel he alters this to suit his demands. The rider's heels produce the impulses, which are met and directed by the hands. To properly execute any movement it is first necessary to cause to be produced the muscular impulse, then to meet, regulate and direct it with the hands. Therefore, "the spur must always precede the hand." This, as Mr. Anderson states on page 89, is the secret of success in horsemanship. Hence the rider's heels as well as his hands must be educated by carefully conducted practice.

The second part of the book is on driving, by Price Collier, containing sixteen chapters, covering the natural history of the horse, its early days in America, the points of a horse, the different types of horses, shoeing, feeding, stable management, housing, harnessing, and first aid to the injured, also driving single, a pair, four and tandem.

The book is beautifully bound in cloth, and well illustrated by over one hundred photographic reproductions, and since the bit and bridoon is soon to be authorized in our service, this book should be in the hands of our officers to serve them as a guide for its proper use in training and riding.

ENGLE.

Personal Hygiene.

One of the recent publications by John Wiley & Sons is "Personal Hygiene," by Brigadier General Alfred A. Woodhull, U. S. army retired, now on duty at Princeton University.

The contents of the book originally appeared as a series of lectures delivered by General Woodhull to the classes of the above named university. Abstract physiology has been

kept at the lowest point, and as far as possible technical phrases have been avoided, which greatly enhances the value of the book and makes it most instructive, as well as interesting reading.

After proceeding with a discussion of the structure and composition of the various systems of the human body the author discusses the development and care of the same, laying great stress on the proper kind and amount of exercise with that end in view. The physical culture exercises explained are excellent and capable of being carried out with a little attention to details and a few minutes' time expended each day. The subjects of clothing, food, tobacco and alcohol are well discussed. W. H. WALDRON.

The Scout's Alphabet.*

We quote the following from the "Military Mail:" "'The Scout's Alphabet' is a little book intended for the use of scouts. Any man of average intelligence after reading 'The Scout's Alphabet' ought to be able to use his eyes and general powers of observation to good purpose. With the utmost brevity the author imparts a maximum of information in a minimum of space. In the formal notes and queries, instruction is rendered extremely interesting, and whatever a man may see during a reconnoissance if he consults 'The Scout's Alphabet' he will be a duffer indeed if he fails to make proper report upon it. The work, which is thoroughly up to date, should prove of great value to every practical soldier, but especially to cyclers, mounted infantry, and imperial yeomanry, and it ought to be widely read in the army."

The little book, not half so large as a deck of cards, strikes us as quite ingenious and useful. Suppose a subaltern is sent out to report upon the country. He takes this little book and beginning with "A" he sees in the book on the page marked "A," on the right hand page, that he should first report on Accommodation. If he does not know exactly

*"THE SCOUT'S ALPHABET OF NOTES AND QUERIES." From the press of Gale & Polden, London, England. Price, one shilling.

what this means he looks to the left hand page where the note on Accommodation tells him to refer to House and Village.

To show the working of this book device we give a page as example. Turning over four pages given to the letter "A," the first word we strike under "B" is bivouac.

NOTES.	QUERIES.
Bivouac.	Bivouac.
1. Refer W.	1. Water.
	2. How sheltered or concealed.
3. Refer C. Site should be dry, and on a gentle slope. Clay is damp.	3. Country.
	4. Approaches and ways out.
	5. Defensibility.
6. Refer C, Camp Areas.	6. Area.
	7. Facilities for obtaining fuel forage and straw.
Bridge.	Bridge.
1. A bridge that will carry infantry in fours crowded at a check, will carry any of the field guns, and most of the ordinary wagons that accompany an army in the field.	1. Material and number and form of arches and available for what arms.
	2. Length, breadth and height, and breadth and depth of stream.
	3. Height of roadway above water.
	4. Defensibility: (a) parapet. (b) banks. (c) cover. (d) approaches.
5. Refer F.	5. Ford near.
6. Materials usually available for construction of bridges in the field are hemp or wire rope, railway plant, spikes, dogs, light iron forgings, such as nuts, bolts and straps.	6. Timber and material for blocking and for reconstruction.
	7. Whether capable of bearing heavy traffic such as motor transport.

It will be noticed that the queries under bivouac are seven in number. The written report upon bivouac should state something about the most important element to be considered, water. Yet this subject would probably be covered in the report under the head "Water," and so the report at this place would read, "Refer to Water." The same as to the third query on bivouac, "Refer to Camp," etc., etc.

The pages of the book are numbered at the bottom, the top being marked with a big black letter, initial of the

subject considered. A little page on conventional signs is appended. We believe that a soldier of ordinary intelligence can make a first-class report by using this little volume; and to test its value in the hands of the ordinary enlisted man we sent the book to a troop commander and asked him to try a report or two from some of his troopers, and then give us his ideas of the usefulness of such a scheme. We give his ideas as follows:

"I have found after a practical test, that "The Scout's Alphabet" is of the greatest assistance in aiding scouting parties and patrols in transmitting intelligence quickly, accurately and concisely.

"I explained the use of the book to one of my men. I then gave it to him and ordered him to ride over a certain road, well known to myself, and to report to me on his return. He covered the selected territory, a distance of ten miles, in two hours and a half. His report was thoroughly comprehensive. His description of the road, bridges, streams, farms, crops, telegraph lines and defensible positions was just the information a commander would want.

"The Scout's Alphabet" is of such a size that it can be carried conveniently in the pocket of the service blouse, flannel shirt, or even in one of the pockets of the field belt.

This book should be supplied to every troop and company at the rate of one for each noncommissioned officer, and drills such as that described above should be a part of the practical instruction at every garrison."

FRANK TOMPKINS.
Captain Eleventh Cavalry.

Tactics for the Rank and File* Is the title of a little pamphlet from the press of Gale & Polden. These English publishers certainly have the faculty of getting small volumes that are of good use. In this little book they have added something to the general information of soldiers on field duties. As stated in the title, this book is really "What to do and how to do it." It is a short collection of rules for the infantry soldier when acting independently.

*"TACTICS FOR THE RANK AND FILE." By J. C. O. Mack. From the press of Gale & Polden, Aldershot, or 2 Amen Corner, Paternoster Row, London. Sent post free to any part of the world for a sixpence.

The author, J. C. O. Mack, makes no claim to originality, but has endeavored to compile in simple language all that a corporal or private may reasonably be expected to know of operations in the field. It certainly is necessary that all ranks should be able to carry out orders *intelligently*, and especially when removed from the *immediate supervision* of superiors.

The work treats of the following subjects in a clear manner and one easy to be understood by privates reading it: Reconnoitering, Outposts, Advance, Rear and Flank Guards, Instructions to Section Commanders in the First Line, and Instructions to Men in the First Line. After each subject there are questions upon that subject that may or may not be used, according as the officer in charge of instruction sees fit.

Some simple work like this, somewhat larger we think would be preferable, should be adopted for our men, for we must secure some means to give our soldiers in the ranks more instruction about field work. We believe our men about well enough instructed in drill, but certainly they are far from that position in regard to field work. And as we have occasionally remarked, instruction in field work that does not take into consideration the teaching of the enlisted man, is doomed to failure. We cannot have too much drill in work covering the above subjects.

Aids to Maneuver Duties.* This is the title of another of the little sixpence books of Gale & Polden. We do not consider it of much importance, for every officer should know what is in the book as a part of his working duties. We do not see how even the laziest officer would not know as much as the book contains. However, there are little expressions here and there scattered throughout the book that make it well worth reading.

*"AIDS TO MANEUVER DUTIES." From the press of Gale & Polden, Ltd., London. Price, sixpence, post free to any part of the world.

Having been corrected up to date, and embodying the instructions from the "Infantry and Combined Training, 1905," it is, we suppose, indicative of what are the customs and regulations of the British army. And so we take it that careful instruction to subordinates is one of the harped on things of the army, for the first sentence in the book is as follows: "The commanding officer will, before assuming formation for attack, carefully explain to his subordinates what their particular task is." And we find, on through the text, the same idea as to the subordinate commanders and their subordinates.

The main idea of the book is that the most important and useful regulations are compiled in convenient pocket form. It should be especially useful to militia and volunteer officers at maneuvers.

And that reminds us, that the field is open to some enterprising officer of our army to get up a work on maneuvers that will be good enough to be adopted as authoritative, and then we shall not have to depend upon printed orders, inconvenient in form, every time we have a maneuver. A thorough book on the subject would induce to uniformity, and certainly uniformity in maneuvers is what is to be desired. And something in the nature of an umpire's manual is most needed.

On Outpost Duty.*

"On Outpost Duty: What To Do and How To Do It; with Hints on Reports, Reconnoissance and Scouting." This is the title of another pocket size book from Gale & Polden. There is much that is commendable in the publication of these little books. They reach some readers that otherwise would not be reached at all, and they certainly stimulate work among those preparing them as well as the immediate comrades of the officers that write them.

They are of the most convenient size, and can be carried in the pocket, and hence they are readily available in maneuver duties for the use of enlisted men. The present book on outpost duty, while it gives nothing new and is but an epitome of the work of outposts, is valuable on account of the excellence of its arrangement and its brevity.

It explains the objects and duties of the outpost and then gives general rules for outposts; tells how to command one and where to place the outpost, its strength and composition, and in fact all the little matters that require a working knowledge of the subject.

We hope some time to see some unusually gifted person forge to the front with a valuable work on the subject of outposts alone, one that will command respect and make itself be adopted as a method to be used under all general conditions. And until that time we must content ourselves with getting our knowledge from several sources, not a bad idea as far as a student is concerned, but not good for those not given to hard work. The military student has good ideas of outpost work, culled and gleaned from all sorts of origins, when not familiar with them through experience. But for the general run of officers and men, some regular arrangement, in attractive form and not too cumbersome or tiresome, is needed on this important subject.

We are not in the least crying down Wagner's work on such topics. We are firmly convinced that General Wagner has done more for the good of the American army than any other man that ever was in it. But to say that his work cannot be supplanted by something better, is to say that the world does not move. And it is by such little attempts as this book we are considering that the first start is made. From a small beginning a book may grow and develop, and such growth and development is quite sure to mean careful tests and work with the subject, which means that the accomplished work will be best.

*On Outpost Duty: What To Do and How To Do It." From the press of Gale & Polden, London. Sent to any address for a sixpence.

Hints on Stable Management.*

Another of Gale & Polden's pocket volumes is "Hints on Stable Management," by Brigadier General M. F. Rimington, C. B. The author has certainly accomplished what he started out to do, that is, he has written out in simple terms as possible short instructions for the care of horses in the stable and in the field. This book should be in the hands of every noncommissioned officer in the cavalry.

The contents of the seven short chapters are as follows:

Forage.—Where he gives the ration, relative value of hay and grain, and tells of the characteristics of each, and how to tell good from bad.

Conditioning Horses.—Here he speaks of the effect of carrots, linseed, etc. Cause of and cure for bolting oats, lampas, cooked foods, maize, as he calls Indian corn, peas, beans, turnips, potatoes, green forage, etc. These little hints, all of them printed on two small pages, are valuable, as the experience of the author makes him a good man to follow.

Grooming.—Instruction of recruits is given, the method of removing scurf, clipping and singeing; the latter he recommends quite strongly, something we have never seen done in our service.

Shoeing.—A short and good chapter, but if we can only have our own manual in the hands of our noncommissioned officers, to say nothing of our officers, we need have nothing more.

Care of Horses in the Stable.—Here he speaks of remounts in general, of the watchfulness necessary by any person who is responsible for the condition of the stable, of the cure of kicking horses, putting on a twitch, ventilation, and care of saddlery, the last being copied from the regulations.

Bitting and Leaving the Ranks—Bits.—Well of course there being only one bit in the world, all the rest being makeshifts, he never supposes for a moment that anything but the bit and bridoon will be used, as can be seen from his language in one place, where he states that when the men dismount on the march they should lead with the bridoon reins. He speaks

*From the press of Gale & Polden. Post free to any part of the world. One shilling.

of our old friend, the Mohawk, tells how it may be simply made by the farrier, and explains how useful it is at times when other methods fail. One expression we liked very well, in this subject of bitting, and that was in speaking of a puller, he states, "It takes two to make a puller." He tells of the Carrago noseband, the American running rein, and the fixed martingale. The last chapter is "On the March and in Camp." It is largely given to sore backs and their prevention. In speaking of the care of horses when exposed to severe weather, he states as follows: "A writer in *The American Cavalry Magazine* (THE JOURNAL) was the first to point out that in very cold winter weather in camp it was the greatest mistake to remove the scurf or dandruff with a brush, and that horses so treated deteriorated greatly, while those not brushed maintained their condition. It has recently been shown by physiologists that dandruff contains a considerable amount of oily matter which is of the utmost importance when horses are kept in the open. Wisping should be resorted to, and the brush used only to take off the rough mud stains and for the mane.

We quote his conclusion in full:

"That the foregoing notes are by no means 'a complete guide' I am well aware. Recourse must be had by those who wish to be really well up in the subject to works such as those of Sir F. Fitzwygram and Mayhew; whilst 'Von Schmidt' will give them an idea of what can be done with horses which are fit, and will at the same time do much to create the interest and keenness as to horses which should characterize all cavalry soldiers. The example afforded to those under one by one's taking a keen interest in the horses will alone carry one a long way. Bear in mind that though the cavalry soldier is often heard to grumble about the trouble 'the long-faced' one gives him, he really all the time loves his horse, and enters most thoroughly into any scheme or proposal for improving his condition and appearance. Constant supervision and visits at unexpected hours at stables will check irregularities and carelessness amongst stable guards. Much can be noticed amongst horses when they are standing still in the stable without the bustle of stable duties going on around them, which will lead one to a closer understanding of their peculiarities, and to the successful treatment of any ailments they may suffer from.

"Remember that 'what is not inspected is neglected, and if you neglect your horses, and do not keep those in charge of them up to their duties, no credit for their good appearance and fitness will ever accrue to you.

"Endeavor to make every man under you feel an ownership in the horse assigned to him, and hold him responsible for its good training and condition.

"On service where a man by a little extra care and trouble can often obtain a little more forage or some titbit for his horse, this is especially needful.

"With cavalry, who frequently must detach small parties, this is ten times more necessary than with artillery; the latter are always under the eye of an officer.

"It should be impressed on all soldiers, especially on young ones, that every bump or lump the horses get in stables, or slight strain which may follow on their getting loose in the barrack yard may, indeed, very often does, tell against the horse later on, when the rider's life or liberty depends on the soundness of his mount."

The little book is accompanied by a small plate, giving the horse, both external and the skeleton. The various parts are numbered and the names corresponding to the numbers put just beneath. It would be a very wise thing to have this plate framed and hung in the recreation room of the barracks, for then when the men get into discussions over the various parts of the horse they could settle it by a glance at the plate. Moreover, there are many men in the troop that would be studying the plate until they had learned the names of the different parts of the horse, and we believe it would stimulate interest.

Rifle Exercises Made Easy.

This is an excellent little pamphlet—one of a series published by the Gale & Polden Co., London, to meet the needs of the enlisted contingent of the British service—price sixpence. It contains the manual of arms, sword manual, bayonet exercises, instructions for the care of the rifle, description of the rifle, instructions for judging distances, observation of rifle fire and bayonet fighting, and

is quite profusely illustrated. The information contained in it could only be otherwise acquired by a careful study of several manuals, so it is especially valuable to the enlisted man who has not, as a rule, ready access to all the manuals or the time and capacity for the required study. Its price is a distinct element in its favor. The almost prohibitive price placed upon military text-books published in this country cannot but be a discouragement to the enlisted men who desire to improve themselves. C. E. McCULLOUGH.

The Musketry Course Made Easy.

In their booklet of this name our English friends, Gale & Polden, have turned out a very satisfactory, simple and instructive work. This course is designed to specially train officers and men in musketry in order that graduates may leaven the whole army and thus mould it to one shape, and is divided into the "Ordinary Course" and "Advanced Course." With the latter the booklet does not deal. Examinations in each course are partly written and partly oral.

The Ordinary Course is divided into: Care, mechanism and inspection of arms; the causes of and remedying minor faults; methods of instruction in firing exercises and aiming; quick observation and estimation of range: control and employment of fire; the mekometer. The text-books used are the various British Service Manuals.

In the Advanced Course a certain proportion of the graduates of the Ordinary Course study: The Maxim gun; further instruction in training recruits; viewing and repair of small arms; making diagrams for testing rifles, and the preparation of returns.

The keynote of all instruction in the course seems to be practicality. There is an italicized warning against parrot-like knowledge, and students are advised that they are being fitted for "instructors, not talking machines."

In two particulars, the Ordinary Course as outlined is superior to anything in the hands of our infantry and cav-

alry troops. These are: The quick observation and estimation of ranges and the mekometer.

The British appear to make their range estimating an interesting as well as instructive course. We must do the same before it ever becomes of any actual use as a part of our training. In the Hythe Course service conditions are introduced as far as possible and the instruction is progressive, as is shown by the following outline:

1. Develop the mental powers of the recruit by requiring him to give a brief description of anything he may have observed while marching to or from his drills.

2. Place the recruit in a position he would occupy on service, and require him to count figures placed in the open at gradually increasing distances and in varying positions; and subsequently figures which appear at brief intervals, their appearance being announced by the discharge of a round of blank ammunition.

3. As progress is made, carry out the procedure as outlined in (2), with figures placed behind natural features.

4. Explain the features of any section of country in reference to its possibilities for fire, effect and cover. The squads to be then individually required to give a brief description of anything they may have observed in connection with the same.

The principal advantage of the English system over ours is that these exercises are made obligatory. With us they are advisory in effect, since time is hardly ever allotted especially to them, and their execution is thus left to company or battalion commanders.

This book is well worth the price (one shilling) to any officer who is seeking a definite system for training his men. The ideas are not particularly new, but they are joined connectedly and progressively. The phraseology is simple and within the scope of the average noncommissioned officer's understanding. There is, of course, much that is not applicable to our own weapon and much that is covered, in a different way, by our own firing regulations, but even so, there is enough meat left to supply food for considerable thought.

P. W. BECK.

Physical Drill with Arms Made Easy.

History again repeats itself; if not in the same set phrase, yet in spirit. It remained for the Germans to see the superiority of our frontier system of double or triple outpost sentinels and return it to us under the name of "Cossack post." This time Gale & Polden, the prolific Aldershot publishers, have sent us a copy of Butts' Manual, under the name of "Physical Drill With Arms Made Easy," etc. The book is briefer than is our own publication and, on a tangent, contains a few bayonet exercises which follow closely the United States bayonet drill. There is little if anything new in the work.

However, the publishers make no claim to originalty for their work; it is simply labelled: "In accordance with the appendix to training manuals, and corrected up to date." Like almost any foreign drill book its chief value (price one shilling) to us is simply as a means for comparing our system with another.

P. W. BECK.

Elements of Hippology.*

A new book of some 150 pages has reached us from the U. S Military Press at West Point, N. Y. It is another book on the horse, and is called "Elements of Hippology." It is written by Captain F. C. Marshall, Fifteenth Cavalry.

The book is a tentative edition of a text that the author has in mind for use by the cadets. A part of the month of February in first class year, is now devoted to the study of the horse. To illustrate his remarks to the cadets, Captain Marshall has evidently written a number of short articles upon the horse, and has finally concluded to bind these remarks into a book. It was impossible to get out of any book available, eleven lectures that were exactly suitable for the purpose of instruction of the cadets, and so this preparation naturally arose.

*"ELEMENTS OF HIPPOLOGY." From the U. S. Military Academy Press. By Captain F. C. Marshall, Fifteenth Cavalry. Commercial edition to appear later.

It is to be borne in mind that the instruction at the Academy is elementary, and so this book is not a treatise on the horse. It is the author's intention if the book is well received, to get out a commercial edition later, enlarging the latter part of the present text, and amplifying the whole work with copious notes.

From a perusal of the book, we should say the work is most admirably adapted to its purpose. The author has evidently tried to tell the cadets just as much about the horse as can be learned in eleven lessons. He has made the terms as simple as possible, has avoided technicalities, and has illustrated freely. It is to be remembered that the cadets should not be given a long course in the study of the horse. Their time is so taken up now, we hardly see where the time ever came from to give as much as eleven lessons to hippology. But we are glad to see that some time is given to a subject that will be of such importance to the great part of them after they graduate, no matter what branch of the service they select.

Captain Mashall has divided his work into nineteen chapters, as follows: 1. General Definitions; 2. Age, as Determined by the Teeth; 3. Inflammation; 4. The Head and Neck; 5. Bits, Their Action, Influence and Proper Use; 6. The Front Leg; 7. The Position of the Saddle; 8. The Trunk; 9. The Hind Leg; 10. The Aids in Horsemanship; 11. The Foot; 12. Diseases of the Foot; 13. Theory of Proper Horseshoeing; 14. The Lungs and Air Passages; 15. The Digestive Apparatus; 16. Stable Management; 17. Preventable Disease; 18. Irregularities of Action; 19. Judging and the Examination for Soundness.

The book is somewhat unique in the arrangement of chapters. The idea has been followed of treating the anatomy, conformation and common diseases of the horse by regions instead of requiring the student to learn each subject separately for the whole horse. The author acknowledges his consultation of such authors as Carter, Fitzwygram, Law, Hayes, Fillis, Goboux and Barrier, Seaton, and of the work of the Department of Agriculture. But we are rather inclined to believe that most of the work of the author is based upon his own experience.

This is what we like in the book, for we can make our own compilations from authors, but are particularly glad to welcome any original addition to the works upon the horse. We shall await with interest the amplification of the present book.

History of the Third Pennsylvania Cavalry.

The "History of the Third Pennsylvania Cavalry in the American Civil War" is a large, beautiful volume with some 650 pages, and about thirty plates and two maps. This work was compiled in accordance with a resolution of the Third Pennsylvania Cavalry Association by a committee under the chairmanship of Colonel William Brooke Rawle. It appears that the history committee is composed of men that were officers or soldiers in this regiment during the war, and from various sources material has been brought together and put in accessible and intelligent form.

The idea of regimental history is one of the best ideas that historians have adopted for writing the history of our Civil War. Had we such a history for each regiment in the war as this of the Third Pennsylvania Regiment, military students could find authentic history with comparative ease. For instance, take this very work we are reviewing. Does the student wish information upon the history of the Army of the Potomac during the first three years of the war; does he wish to know some point of the personal movements of Grant and Meade and their headquarters, here he will find much that will be found nowhere else. What an advantage it would be had we every regiment in the war historically recorded as is this one. And it should be done.

We have not had the time to compare this history with the War Rebellion Records but our high regard for the chairman of the historical committee leads us to believe that only the most authentic statements are given in the book.

Moreover, in writing a regimental history, there are, fortunately, enough of the old regiments left to make the compiler very sure of his ground before he commits irrevocably to print something not well founded in fact.

History, Tom Reed has said, consists of the lies that men have agreed upon. But certainly no set of men can agree upon anything in a regimental history unless it has actually occurred, for many of the participants are still living, and to accuse all men engaged in the Civil War of swelling accounts of that terrific struggle would be contrary to all common sense, as well as to all belief in the honesty of mankind. History is of little use to us if not accurate, and we believe accuracy one of the great features of this compilation, for, as stated above, its method of construction leads to that belief.

As for the work during the war accomplished by this exceptionally busy regiment, we have not space to give more than the briefest mention. The history covers the movements and doings of the regiment from just before the beginning of real earnest campaign work, March 1, 1862, to the end of the war.

This is a celebrated regiment, known first as "Averill's Cavalry," and was the first volunteer cavalry regiment organized for the three years' service and was the first to take the field. At first its troops were scattered about among the infantry, doing escort and orderly duty, scouting and picketing for corps and division commanders, but finally it was brought together and reorganized as the Third Pennsylvania under Colonel Averill.

It led the advance of the Army of the Potomac upon the Confederate works at Manassas. Transferred with that army to the Virginia Peninsula it again led the advance to Big Bethel. It was actively engaged throughout this campaign and helped to cover the falling back of the army from Malvern Hill to Harrison's Landing. Present at Antietam, and gained a brilliant record fighting upon the Blue Ridge, and spent the winter of 1862–63 with the army in front of Fredericksburg, and was engaged in the first real cavalry fight of the war, Kelly's Ford, March 17, 1863. From Brandy Station it fought along the plains and hills of Virginia, Maryland,

and Pennsylvania, and was on the right flank at Gettysburg. It hovered over Lee's retrograde movement, and next year was ordered to duty at headquarters of the Army of the Potomac, and with the headquarters of General Grant campaigned around Richmond.

This indicates that there is much material in this work for the military student. We congratulate the history committee and Colonel Brooke Rawle on the success of their work. The volume is priced at four dollars to those not members of the Third Pennsylvania Cavalry Association, and is well worth the price. Any one wishing the book should send the above amount to Mr. John C. Hunterson, treasurer Third Pennsylvania Cavalry Association, 311 Wharton Street, Philadelphia.

RESERVED FOR REVIEW LATER.

"Gustav Adolf, the Father of Modern War." Lieutenant Colonel Honorable E. Noel, late Rifle Brigade. London. John Bale, Sons & Danielson, Lmtd.

"Notes on the Evolution of Infantry Tactics." Colonel F. N. Maude, C. B. London. Wm. Cowles & Sons, Lmtd.

"Scrap Book of a Staff Officer." General Ian Hamilton. London. Arnold.