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## ASSOCIATION.


were trained to distrust themselyes, and bence it was no wonder if. as weapons improved and the teuching of experience became more and more remote, there were wanting men with confidence enough in their arm to lead it in such a manner as to afford it a prospect ot success. The real cause of surprise is, that under the circumstances the cavalry succeeded in going so near to success as it actually didhow near, I have endeavored to show in unarticle on a Cavalry on the Battlefield," in the first series of letters published under the same title as these. That article was written about 1833-4. and since then I have found an immense amount of evidence to confirm my views in the pages of Prince Hohenlohes; "Gespräche übel Kavallerie," and in Hoenig's "Die Kavallerie Division als Schlacteu Körper," (translated by Captain Leverson, R. E., in the Journal ar the R. V. S. I.), and his subsequent works, one of which, "Tactical Guides for the Formation and Leading of a Caralry Division." is now also appearing in the United Serice Magazine, thanks to the zeal of the same author. The qhief obstacles I have found to the acceptance of these views, are the extraordinary ignorance that pre vails as to the history of tactics betore Napolens's tithe. and the growing tendency to assume that the nature of war has so completely changed since the introduction of the breech-loader that it is mere waste of time, to study anything that went before. Of the two I consider the lather the most dangerous error. for the conditionsof armament and composition of the troops were too dissimilar and the duration of the campaign tod short to admit of the derfuction of true guiding principles for any arm.

The origin of modern tactics dates from the time when it was tirst distinctly recognized that 4 fire alone decides" as regards in fantry versus infantry, and that $\because$ cavalry must rely on their swords alone and the speed of their horses when thoroughly extemided. Both these principled were thoroughly admitted at the commencement of the Seven Years' War. The next step in the avolution ot the three arms wan the developnent of the power of artillery, whou acting in conjunction with troops othorwise not particularly reliable. and this was the chifef teaching of Napoleons hattletields. Since then the balance bet 申een the three arms has been so often upset by the progress of incention that the key to the teaching of the many wars which have occurred sinco 1815 can only befoupd by those who have followed the developquent of each arm through its succequire ntages.

I believe that the discredit into which cavalry on the battlefield hafe tallen, more particulurly during the last twenty-fire years. is
due almost entirely to the acceptance of the French dogma, that cavalry cannot charge unshaken infantry. Certainly the failure of the French cavalry against our own nquares at Waterloo may seem to confirm this view, and it would do so if the word "cavalry" always represented a tixed standarl of excellence. but that is not the case. On the contrary, probably mo word has ever been used to describe things so widely differing in merit an the men on horses of Xapoleons day and the cavalry of Freneric. I reterved above to our own squares at Waterloo. but it would be better for my line of argument to fix ones attention on the Prussian infantry unty, tor by so doing we eliminate the variable conditions of nationality and armament. for the Prussian infantry from lsi:3-15 were armed with the very same muskets that their bathers hat carried betore them under Frederic, and time had preaumably not improved them, and the men who carried them eould not in discipline and training hate been anywhere nearly on a par with the troops who fought out the seven lears War, who again were very farly matehed by their enemies, the Austrians and Rasians. It. therefore. These latter were in almost every instance ridhen over by the Prussian cavalry. it follows that the French caralry. who subsequently fathed to break Prussian. Austrian and Russian squares. musi hate been very inferiof indeed.

In an article I wrote last sammer. entiterd. . The Sapoleonic. Gavalry." I dencribed what these later were at considerable length. abd therefore need not go over the ground a secoml time. I propose now to show in detail what the Prosiants actatiy were capable ot only sixty years before and leave it to my readers to decide which of the two it would be best for us to take as a model. My authority -is Grar von Bismark, who. if not. strictly mpeaking. a (ontemporary of the events. lived near enough to the times to ohtain his intormattion at first hand from the ators in the weenes he describes. The particular work from which I quote is .. seyditz, and the Prussian C'avalry Under Frederic the (ireat." and those sufficiontly interested in the matter will find agreat deal of valaable detail about his lite in Varnhagen von Ensfis biography. which is, however. ton de. tailed tor my present purpose.

Abont Seynhiz's early life. it is sufficient to mention that he was aconsummate rider and swordxman, und trained his own squadron on the principle of doing everything he asked of his subordinates as well as, and better than. they could-an ideal prineiple not often attained. Roszbach. 5th November. 1757, was the first occa. sion on which he held an independent cavalry command. and he
used the opportunity to sudh good effect that it will forever remain as an example of what cadalry could do under the old conditions. And apaft from those dueto the infantry armament he was much hampered by existing regulations for the cavalry itself. The individual thaining of men and horses had reached already a very hith degree of perfection, and the squadrons in themselves appear to have been well in the bands of their leaders, but their collective movemedts were still slow, as all movements had to be made "to the halt." Ihe precise date when forming on the move was introduced I have been onable to ascertain, thoukh it appears to me to have been sompwhere within tha following three years.

The odds against the Prussians were overwhelming, viz: 16,1010 infantry and 5,400 cavalry in forty-five squadrons against a total of ninety battalions and eighty-four squadrons, making 64,000 men in all, who bn the 4 th of November lay in such a strong position that Frederif did not think it wise to attack it, and relired to a position some five miles away, wherio he pitcbed his camp on the top of $a$ low ridge in sight of the enemy. The morning of the 5 th was passed in skirmishing between the hussars and the light troops of both sides. Shortly after 9 A. m the French set the bulk of their forces in march in two columns, directed well clear of the Prussian left flank, apparently with the object of cutting their line of retreat. This was clearly seen und reported to the king, who, however, refised. or pretended not to believé, that the morement signified anything important. He ordered the men to have their dinners, and sat down to bis own, to which most of his generals had been infited. and having finished it, asdended a tower in the rillage of Rosqbach to sec with his own eges phat was going on. The enemy had by this time reached the prolongation of the Prussian line with their infantry, and their cavalry and artillery were some distance further t. the front, heading for a little knoll, the "Janus Hill," which lay some 4,000 yards behind the Prussian left rear, and was connected with it by a gentle undulation. Seeing that the French really meant business, he gave the order at $1: 30 \mathrm{P} .4$. to strike the camp, and sent for his generals, giring them their instructions rerbally: to Seyduitz, begave the whole of the cavalry and a free hand, and as soon as the troops were ready to march they moved off in open column of companies in two lines, left in front, and retired under cover of the above mentioned undulation of the ground. The enemy, secilis thin movement, took it to mean a refreat on Merseburg, and continued their march, hoping to reach that place first. Seyditz. whilst the infantry were preparing to move, rode down and assumed
the command of the troops just given him. who were drawn up in two lines behind the intantry. tell out his ofticers and told them what he intended to do, this was a necensity, as there were no reg. ulations or words of command applicable to larger units than regimentsi. His intention was to leare some aquadrons of hussars to wateb the enemy. and with the remainder to move round under cover of the ridge connecting the position on which the camp had been formed with the "Janu*" Hill, and making this hill a pivot. wheel round and strike the head ot the enemy's column.

Having told this to his officers, they rejoined their commands. and he gave the orders: .- The left squadron, necond line: threes about: remainder left wheel: halt. dress!" and then "march! The left squadron of the first line swung round on a morine pivot till abreast of the directing squadron of the second line. and the remainder changed direction in succession as they came to the wheeling pmint. and following on another change of direction to the right when they reached the above mentioned hill. which had meanwhile been crowned by a battery of eighteen guns (four 24 -pounderw. twelve 1 y -pounders and two howitzers), brought them right acros. the heads of the three columns in which the French cavalry were adrancing. It was just 3:31 P. m as the last squadron cleared the hill.

Seyblitz. who had been superintending the mosement from the hill. Neeing he was now almost on the right rear of the enemy. who meanwhile had begun to wheel towards the batteries on the hill. gave the order: "Halt: right wheel into line!". He had fitteen squadrons in tirst line. and eighteen in second. The hussars, who had teen covering tris march on the right. cleared the front, and torned up as a support on the left of the line. Then he sounded the trot. and the whole line came over the brow of the hill, to the complete surprise of we French. They tried in vain to wheel up to meet the coming storm. but it was too late, for the next moment the charge was sounded along the whole line, and the Prussians dashed at then at the fullest speed of their horves, swinging round and overlapping the French in rear. The leading regiments bolted and ran, but two Austrian cuirassier regiments and two., French ones, "La-Reine" and "Fitz James," managed to get thenselves clear of the broken head of the column, and to attempt a charge but this was met by the following second line of the Prussians, and completely ridden over. Then followed a sharp pursuic and melee, in which Sevplitz, having expended all hin troops at hand, took part with his sword as an individual. Meanwhile the infantry had ap-
peared on the scene. By a similar flank march ander cover, and at ; wheel into line, they, too, had been thrown across the line of marcli of the French columns, and their fire and that of the battery, which had advanced from its previous position, prevented all attempts of the French to form line to the front. It was just 4 o'clock as the infantry fire began, and in ffteen minutes the French were shaking. 'Seydlitz, who had been wbunded in the prerious melee, and had fallen out to get himiself bindaged, had forseen what was coming. and had already rallied and re-formed his cavalry, and was waiting for the opportunity, and seized it at once, charging the French on their right flank at full gallop with etery available squadron, and by half-past four all organized resistance was at an end.

Of the Prussian infantry, seven batalions only had fired a whot. and of these five had fired two rounds per mationly, the remaining two from twelve to fifteen rounds each. The Prussians lost three officers and one hundred ant sixty-two men killed. and twenty uffi cers and three hundred and fiflysix men wounded. whereas they buried of the French dead peer one chousand bodies and picked up, some three thousand wounded, besides capturing five generals, three hundred officers, sixty-sevenguns, twenty-one standards, any amount of baggage and fire thousand prisoners, and only the short day put a stop to their pursuit.

It is very difficult to arrive at a fair estimate of the quality of the French troops and their Austrian allies, but they were certainly no riffraff; but, on the contrary, long-dervice soldier: who had won under the aame leaders a fair share of glory-to judge by French accounts a very large share indeed - in the War of the Spanish \$uc. cession. It is not even clear that they were unduly careless. the Prussian Light Cavalry having prevented their seeing what actuhly was going on. \$ertainly they must have been considerably superior to the conscripts of the latter years of the Empire, who, nevertheless, proved as a rule too tough a nut for the Prussian, Austrian and Russian cavalries to crack during the 1813-14 campaigns. Besider, though the direction of Seyphitzis attack on the infantry was against the flank of the column, get locally it must have been a frontal que. for the simple order, "Right wheel into line," would bring them into a line far exceeding the tront of the Prussian cavalry, and they had ample time to execute this. They, were thus even stronger in frontal fire than a line of equares with intervals, but it availed them notbing.

In all military history there is no parallel to this astonishing defeat; for for all practical purposes the fiffantry battalions were not
brought into action, and some of the flanking squadrons may be neglected, and we have as a renult thirtyeight squadrons, eighteen guns, and seven battalions of. in round numbers, 550 muskets each, deteating in all 64,000 men in one hour trom the time the first gun was fired, with an expenditure of infantry ammunition not exceed. ing roughly 16,100 rounds. It is certainly not likely that under any conceivableocircumstances such results can be attained by caralry again: but it is undeniably an abmolute and convincing proof of the fallacy of the dogma of the Napoleonic era that - catalry cannot charge unshaken intantry." tor the conditions were identically the same as those under which thim dogma was held to be proved. I have given the word of command for the first charge of the cavalry exacty as they necur in my authority, becanse the cxtreme simplicity of the preliminary movements is thereby renNered more apparent: but. simple as ther were. Hoesto. in his "Tactical Guides the the lavalry livision." written in last, says that it is well known that no cavalary has since succeded in executing the same morement with equal precision, and for one has an yet contradicted him: and he uses this as a proot of the suptiority ot the indivilual tranims of Frederios cavalry as agame that of the pesent day. What hinstatement amount to is that it tran imposihle in last to tind thity-three squadron- which cotald be moved be one man about 4 .now gards with two changes of direction at rishtanglew noarly at a trot and then whed into line with sutionent prevision. It is rery differlt to catch this anthor (Horsig) tripping. but I canmot help thinking that thin time he hav owerdoked the fat that the wheel into line was made e to the hatt," and. however the cane may have stood in lsot, I think the hrigade of ten muadrons that I have seen in Germany during the last two year. galloping in column of troops (zugs) tor $\geq$.now sards with a change of direction and subsequent wheel intoline on the move, cond have easily ace compliane theabove movement even when torming part ot a larger buly. It wonld, however be an intereating problem for nar own caralry to try at our next maneuress

But thourl the result of the charge wa. on briltant. yet semb. t.ITz's next feat at Zormbort whes cren greater capacity in troops ath leader; and it is also of more ralue. sille we can to a certain extent measure the capacity of the Russian intamtry for fighting. by the fact that theg proved themselce fally a math for the Prussian fiwt soldiers. The battle was tought on 2ith August. 1ise. The Pruswians took into action 22.200 infnitry in thirty eight battalions, anain cavalry in eighty-three squatrons. abd 117 gans. The Rus.
sians numbered some 54,000 men, butwere weak in regular cavalry. In their first position they faced at firat due east, but as the Pruspians kept on continually outfanking them, they at last changed front, right back, till they were famnied inf an angle between two boggy streams and could move no farthor. Their front was further intersected by two other tributarf streams, also in marshy bottoms, which divided their position into a right, denter and left wing of about equal strength. It was the intention of the King to attack the Rus. sian right, and for this puppose he had united sixty guns, twenty battalions and thirty-six squadrons on his own left, and semt them in, very much as we should do now, fiz: the whole of the artillery in two big batteries of twenty and fofty guns respectively, covered by an advance guard, and the remainder in two lines ready to attack when the gunners had prepared the way to a certain extent. the separation of the batteries being necessary in this case owing ta the conformation of the ground.

The left flank battery appears to have done particularly good work on the Russian position, owing to the density of their formation, fout deep lines, one behind the other, and about 2011 yards apart, and when the commander of the first Prussian line saw the enemy relieving and suppoting his front line by troops out of the second, he ordered bis infaptry to adyance and open fire; but the King's instructions not havi申g been ofeyed, the troops in adrancing unccrered their outer flank, and the fussians, aeizing the opportunity, made a connter attack with the two front lines of infaniry. fairly bore down the Prussiqne, the Rysian regular cavalry charged in on the retreating mob, and in a dew minutes fifteen battalions and twenty-six guns were jeither captured or in full flightit. The Russian cavalry did not, hpwever, gat out of hand, but halted and formed up, their infantry alpne continping the pursuit.

Meanthile Seydlitz, with thirt three squadrons, fifteen of which wore cuirassiers, the remaind ${ }^{\text {r }}$ husears, had been moving round the Russian right on the further side of the boggy calley of the "Zaber," on which their flank resfed, and had caused adjutants and pioneers from each regiment to recpnnoiter and improve passage'* across it proad enough for half troop font. Seeing what was happening oo the other side of the stream, he now ordered each regiment to ddvance in column of half trbops from its right and crons the streath by the above mentioned passages, two regiments (ten squadrons) of cuirussiers to attack the pursuing infantry and the remaining regiment, his own, to chalge the enemy's caralry, the huasars to follow as a second line. These orders were obeyed. As
each regiment crossed the bottom, it formed line to the front at the gallop, and went straight for its target. The shock of the first line was not everywhere successful, but the prompt support of the fol. lowing husara completed the work: and after a few minutes of hand to hand combat, the Russian caralry was drawn from the field and their advanced infantry practically destroyed. Ther were pursued up to the line of their own position in rear. which in the meanwhile had been completed by great reserves. and there the rally wan sounded, and Seyditz withdrew out of range of the musketry and recorded his command. whith had meanwhile been reinforced ly the remaining squadrons of the right wing. which had stond originally behind the infantry which had been defeated and bad come back on then in complete rout; but wheeling up their squadrons to let the tugitives throush. they had again wheeled into line and charged the pursuing the at the gallop in their front at the same moment that Seyditz: cuirassiers and hussars attacked them in flank. The Rumitun. however. had defended themselves with unusual desperation ; trained in the Turkish wars neither to ask or expect quarter. they had halled themselves into clumps and the cavalry had bad to hew them to pieces.

But seyplitz having rallied his squadrons, now determined to attack the remainder of the Russian right which still stood in batte order before him. Though they had brought up fresh reserves, the retcont of their cavalry had lef their outer flank exponed. and be decided to avail himself of the opportunity. Taking with him three wirassier regiments, which stood in three lines at about 150 yards distance, he wheeled them into column of squadrons, left in tront. and trotted right pant the Russian right, and then wheeled them into line to the right and delivered his charge. The Russian were trying to close up the gaps between their lines by wheling back the auter companies, but they were caught in the act, and the whole masse all who stood on the platean between the two streams. and who formed the right wing of the army. were ridden down and exterminated.

The Russian center lay thus uncovered, its right resting on a similar marshy hollow to that acrose which the first attack had beell made; but for the moment the risk of a third charge with his. blown and disordered squadrons seemed to Seyblitz too great to be undertaken. - He themefore withdrew them behind Zorndorf, at a walk, in open column of squadrons. Meapwhile, the King had eet his "enter's right in motion. the former refused. and to prepare the attack the artillery was sent on ill front to case shot range. In
executing this movement, the gans on the right advanced too fiar. and were immediately assailed by a porm of Cossacks, who cap. tured the pieces, rode down their immiediate escort, and then boldly attacked the following battalions; bat these, notwithatanding the confusion caused by the bolting teades with the limbers, reserred their fire till the enemy were within fifty paces, and then delivered a steady volley, and before they had recovered from its effect twenty tofo squadrons of Prussian capalry charged them, defeaterl them and retook the guns.

The Prussian infantry continued their adrance, and had just opened fire, when the Russian regular cavalry rode at them, and no less than thirteen battahions, seized by panie, in terror broke and fled. For the moment it seemed thate victory must remain with the Russiens. It was again Seyditz who turned the scale; he hat meanwhile collected and reqrdered the sixty-one aquadrons-oner seven thousand sabers-and had farmed them in three lines. eigheen. squadrons of cuirassicrs in the first, fifteen of dragoons in the second, and twenty-eight of hussars in the third, at 250 pates distance, one behind the other. The horses were much done up. having been twelve hours under their riders, to say whing of their previous charges.

He had been following the movement of the infantry in eclielon on their left flank, and op seeing their flight he sounded the "gallop," and then "shonldered" then round till they overlappent the Russiap right. Knowing that the Russians were in the babit of throwing themselves down to let the cafalry pass over them and tisen rising to pour a fire into thgir backs, be had determined to charge with one I ne covering the quther, and to lead the tirst line hillwelf. Owing to he fatigue of the fiorses the pace was at first little more than a canter. For a moment all firbng ceased and nothing was heard but the ever.growing thunder of the horses hoots. The Ruw. sians had quickly closed thegaps between their lines and brought up every doailable gun, 100 in all, to pear on the adrancing mas. and almozt simultaneously the whole opened tire with case, tearing wide gaps in the opposing ranks. Eortunately for the Prussiantheir outen flank, to avoid the marshy ground beyond them, hail been crowding on the center; and this ferowding, usually so dangerous, was here adrantageous, as it caused the gaps to close quicker. and the charge was thus delipered almont in a wall and swept right over the infantry, notwithstanding their fire, delivered at the shortest range, from twelve quccessivelranks. There was no panic in the Rusian ranks; the men stood their ground to the last, andino
quarter was given or asked. and the rest of the day was simply a combat of man ayainst man. till sheer weariness put a stop to the tighting, and the intact troops of the Russian lefl managed to effect a retreat because no fresh forces were at hand to receive them.

Altogether the Ruwian loss on this day. killed. wounded and missing amounted to 21.530 officers and men. 103 guns and t 中 antyseven stand of colors, or forty per esent. approximately, of their strength: the Prussians 11.3 sit out of 30.010 , the bulk of whith fell on the infantry: and our own losses at Inkermann are the only one I know to compare to the above, i. é, an borne by the victors lat our numbers on that occasion were too small wake the (nmpmerison tair. as a whole.

But to appreciate sevoletz exploit fairly and to judge from hi example what may reasonably be expected from tirstrate catralry. one or two points deserve to be apecially woticed. Infantrstemis to improse under the conditions of war as then waged by the Ras. sians, viz: sufficient fighting and not too much marehing and theoc intantry had further been trained in war against the Turks to stand shoulder to shoulder and fight to the last. as quarter was nerergiven oll either side. This method of war brought out the very hestqualities of the Rassian soldier. viz: the power of stubborn resiftate The Prussian cavalry on the other hand was far from having rathed its zenith. for they had suffered much from the previous campaigns. and owing to these and the large angmentations the war enfailed. it- ranks were tilled with a disproportionate number of rebruits. whose training as horsemen had had to be conducted under the diff. cultiet of dispersal in small bodics over large areas during tinter quarters: and this final and greatest charge was made under conditions which suhsequently the Frellch laid down as impossible viz atter being malled from two previouk charges. It will be rdmemhered that it was andiom in the French orthol. and one largely alopted subsequemtly in our own, that cavalry once sent in to the attack could not be agath retied on for action a second time during the day: get this was their thind charge. That ouch a feat was possible can only be explained by the excellent wom of inditidual training in the control of the horse. which hat become traditional in the army from previous campaigns uind which was rapilly fanght to the recruits by the example and precept of the older veturans with whom they served.

The true culminating point of cavary efficiency was only rached some years after the conclusion of the seven lears War. when the country had had time to recover from its terrible losses and the

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ranks were again filled with horses in the prime of their strength and men who had been adequately trained to ride them. By that time, too, some ten years after the Hupertsburg peace, seydiatz had not only perfected his system but had trained an adequate number of suborcinates togunderstand it, and all ranks had been quickened by actual experience, und taught only that which was usefinl in the field. * U fortunat申ly the ddtaile of the system as practiced have to a greaf ektent been forgothen. The best general account of them wil! be fohnd in Prince Hofenconés Gesprache ïber Kavallerie. above alladed to, a book which would, it translated. prove ecen of greater value to the British cavalry than the well known instruc. tions of General $v$. Scimidt; but incomplete as the evidence admit. tedly is, i has been sufficient to completely transfiom the German cavalry, , hich in capacity for maneuqers, endurance of its horfes and in a general confidence in its ow power pervading all rallis. is pow, perhaps, four times as efficient hes in 1xनo.

Of conse, the relation between cafalry and infantry can netrer be absolute, but will varjion edery pattlefield, and indeed, with every hour, but because at the conclusion of a long campaign, when the materfal on which much of its sudcess depends. viz: its horses have sunf to the lowest ebib, it fails, as at Waterloo. to ride dinwn first-rate fatiantry. To trai'h it in peßce time to distrust its own power is the greatest error that possiblf can be made. amd it in 1 atiti and 1870 qavalry failed to effect all tha might justly have been ex. pected of them, the armies which ehost to adopt such views cannot blame the cavalry. Had the Germandat Vionville possessed the npirit and leaders they now can clam, the Sixth Caralry Division would not have arrived too late. BREDOW s charge, it neressary at all, would have been made with at lyhat thirty squadrons instdal of six, and the final charge of the day on the plateat north fof Mam-la.Taur by some sevanty-two, fith results proportionately greater than they actually were.

The Germans are still behind the ideal of Seydeitz's dayWhether they can ever attain to it with three rearss service in the ranks is open to doubt. Of all nations in the world, it seems to me that we ase the only one that has both time and inaterial for the task. Undoubtedly wo hade serious hifficulties to contend wilh. chief amongst which is the dispersion of our squadrons in small garrisons. This, however, is no worse than the winter quarters in which Seyplitz's recruits; were trained and next to this comes the necessity of putting young horses balf trained in the ranks. Bath of these are primarily a matter of monfey and the second would in
a very short time prove a sompe of exomoty for for wath month: additional traninur under six years of age we should get two dusethat work at the other end of their nervie. But the prineipal chatge on which the ultmate efficiency of the whole depend- amd whout
 a farthine and coold be intiated le an order trom the cominaquer in chief to-murrow. It is -imply the afoption of the ofuadred as tem. i. e. every aquatron leader to be repmosthe tor the drill etticiency of his equalron and tor the cononel to command fout
 For uolow each captan ran be relied on thate his -quadret ex. actly in the pesition required all mosement of larper hodies becomes impowible but to ho this be mot not onty have experfene if headine it as a whole but man ame hate the incentive which baty personal re-pmabilty can rive to take the trouble to lean This was the weak point in our organzation. which last skar's Berkshire cavalry matheneendiecloed but to whinh as yet ter obl has called attention. Yet this alone can remedy the objects therein
 -quadmon there asemblent. for to beqin with thirty per cent wold hate been down with som hath- hefore they met the enemy fow "owe backs" ate a comequence of detective stable manaterment and
 if coutrol.

With few exceptions our preent reqimental $\because$-tem amount- to this: Alf executive power is centered in the orderly romm and the spadron officers are robbed of all incentive to exartion. The foon. sequence is that they meot the spirit of things half way and take as much leave as they cath get. This in very much pleasanter than hanging about barracks with litte or mothing to do. Meandhile the adjutant drills the regiment. and now and again the colonel takes it, and then, and only then, the squadron officers take their plate in front of their commande. Then the trouble begins for however well the adjutant may have prepared the regiment, hinown personal power of command cannot be handed over to another dan, nor can the suadrons follow their officers as they may have learnt 1.) follow their substitutes on adjutant's parades. Thus the colonel is deprised of the aid of the sery men who alone render his task possible. This is meant tor an extreme case and one that is daily becoming less common. bat the difference is one of degree. adt of principte. The system of squadron training is an immense advance. but it is to be feared that its true serpe is an yet hardly craped.


THE TROOP MOCNTED AND IN GARRLSON


MrF subject is the troop mounted, so I shall take my trooy in the saddle outside the stable. I lon't care whether the call that brought them there was . Bowts and suddes" of . . To horse" - id call which very few officers or men in the service would recognize if it thould soumd. I dont care whether the men stragled down to stables long before the first call and saddled their horses. or wited for the first call. then husted intoranksund were marched to stable. or whether theg waited as the drill book directs; till asembly sounded. then till into ranks amd were marehed to the stables like whtiers. I don tave whether the men saddled their horses ifi the stable, then tramped out through the snow and slash and stood in mad up to their abkles until the captain arave all the eommandpreliminary and of execution. necesmary to get them into the sud. Hes, or the troop tormed mounted and in column of fours, as para praph 4il proviles for. some other paragraph ought io provide. of ceurse. that wheh the eaptain directs, the tronere will mount their horses and ridu into line

I helieve that I ratiset at my subject best lis first tatines athe seluol of the tronp. a laid down in the drill regulations and referring to certain subjecta therein. in the order in which they come

Paragraph $\mathbf{F i}^{5}$ says that "during drill movements troopers habit. ually align themselves without pasaging." I wish this mizht he insisted upon. It would sareall that shuffling and sideling in ranks we see at regimental and aquadron drill, erery time the line forms It would enable the squadron adjutants to estimate within fifty yaris or so where to station their guides, and it would enable tronpomm manders to have nome notion as to what part of the line their re spective troops were poing to occupy, when they all finally got done drewing. It would wave a sreat deal of unnecessary delay. and,


The turn at a sallop in aretid in traininer horeen to lead with the thot their riders wish them w. provided the men can be made to in rariably chase the left lege and spurit necesary. When the turn is to the right, and the right leg when it is to the lelt. By this means the hore will, atter a white, kearn to lead with the right tow when the riders left leg or heel is rlosed on him. and cher ersa. And when a trooper has taught hi- horse to lead with either foon, or to "hange the lead from one foot to the other at his the tromerts will, at a canter on a straght road, he has accomplished a pretty and useful feat of horsemanship.

Paragraph 485 refers to movements by fours When 1 see a troop wheel from line at a hate to columo of fours a a walk, and do it properly. I am ready to say. . That troop in well drilled." It I -e the troop expcute the movement twice, and avery tompors exactly right, I will say. . The troup is pertectly drilled." The two points in which the tronpers almont incariably fail, ate: They wake their horses up with a jump and start them off at a trot: and the pivot files do not turn their horses on the torehand and wat till the Hanks have completed the are of ninety degrees betore they take up the march. The first faule arises from the faet that the men do not collect their horses at the preparatory command. And I donot fear contradiction, when I say that there is not one whlier out of erery twenty in our cuvalry to day who honitually gathers bis borse at preparatory commands: and further, that there is not one trocip horse out of every twentefthat would kow what was expected of him, if his rider should ghther bimas the drill hook requires and explains for every preparatory command. In order to have simul. taneous movement throuphout the troop or the squadron. this puint cannot be two muth insisted upon at all times

The failure of pisot troopers to atand fast and turn on the fore. hand, and the lack of uniformity in the gait of the marching fanks. can be overcome by giving one minute at every troop drill to circling by tours at the different gaits (that is, by the command. "Fours in circle." "Right" or "Left wheel". When the fours come into the line at precisely the aame instant. so that they can be wheeled in the opposite direction witfiout balting them, you may be sure that the picot horses turn on the foreband and the corresponding numbers in all the fours more at uniform gaits.

Marching in column of fourn. enpecially al quick gaits, the tendency is to close up too much. This comes from inattention, and a sure remedy is a whirl or two to the right or left about at a trot or gallop. Mell don't enjoy having their knees scraped.

Another proof of a well drilled troop is a proper execution of the cbange of direction in column of fours at a walk. Watchalmont any troop, and you will siee that in tead of each set of fours marching at the walk squarely up to the wheeling point, the moment the marchipgimank of the fipst four tajes the trot, the next four begins to trot also, and then tho next. anf the next, until the whole rear of the troop is trotting long befor it reaches the turning point.' I have found that a good way to ins ruct men in this movement in 10 ( have the guidon balt exactly where the first four begins the turn. and to insist that no ma shall tro until he arrives abreant of him.

The rest of the "school of the roop" is for the cbiefo of platoon only. When the troopers wheel by fours, and change direation in column of fours, and march in line, and execute the obliques all exactly right, they will do the rest whont any great amount of drilling. The oblique I should like to ace expunged from the book. It is entitely unnecessary, and I have never once seen it properly donce. I may say it is unnecessary, because the same end can be attained in any formation by whebling halffright or left by fours with the advantage of being smooth and even in appearance, and of keeping each set of fours intact.

The last inspector herie reported one of our best troops and beat officers-we are all best, of course - for rallying while marching to the rear and forming facing to the fear, and the inspector had the authority of the drill regplations for his criticism. Paragraph +23 says " the rally will habiqually be of the front. but may be to either flank." I cannot see ant sense 1 this restriction. It ishould be enough to say the troop will alway rally in rear of its captain, athd face the same way he docs. It see as to me that if a troop is driver to the rear, it ought to re-form as foon as it can wately do so: and it ought not to be hampered as to thy direction it must race Oue of the most useful exercises, I think, pra troop. in view of its emphoyment in battle, is to cbarge to the font, suppose it clashek with the enemy's cavalry, disperse for the infele (as provided in Paragraph 423), then follow its capdain to the rear, rally and count fours without quitting the gallop, wheel aboid by fours and move the front again, or off to one flank.

Troops should be drilled more on following their captains-enpecially in line and at fast gaits. Ffery man's eyes should be upon him, and the troop should turn to fight or left as he leads, and with. out any command of mouth or tru hpet.

For fighting on foot the book povides that the preliminary com-
bush in time of war. when celerity without confusion is ut the ut. most importance. troops would be thoroughly drilled in this quick method. especially at the trot and the gallop. Ind the led borwe whould be well trained to march in line and in column. and to wheel ly fours at the three gaits. Horse exercise on the road cato be utilized
 (1) s.

In view of the necessity for the pivot trooper to hatt in wheed ing hy fours troops in line ought to he hated from the trot once or twice at each drill. Paragraph 31- says " this should the frequently practiced." Many cavalrymen will say this is hard on the horse. atod I suppose it is. $A$ nd it is mill harder an him to hatt and turn "Il his forehand from the sallop. but the book says the piont horev must du it in wheeling by fours. The trath i-. the fixed pivot is another imposible thing. except from the walk or at the halt. atad wught to be left out of the requations. A rirthe with at radius ot one yard would atmwer just an well and is what we actually take in practice At the anme time if our horses were proprerly supbed, as they ought to be and their ridere prepared them by gathering them at the preparatory commaniland asoisted them with their legs, halting trom tast gatew wold bot be neariy so hatid upon them. But most of the horses in our ranks stop just like a freight car. and their riders stop them precisely as the hakeman tophe the carby a had twint on the rein without any eloning of the leng at all.

Feery drill should begin ar end with the beodine lessons. It only takes a conple of minutes and it is not necessary for the men todismount for it. Indeed. if the herses are once properly suppled they can be bent to right and lett and kept supple while moving at a walk in eolamos of fours. The bembing exercies dencribed in Paragraphs $+36,43 \%$ and +3 , that is. raising and lowernge the bead. arching the neck and suppling the jaw and the thootle; can be ac(omplinhed without any drill or latore on the part of the troopers. by simply putting the feed boxes in the stall- high enoush to make the horse reach up to fet his oatw. and to remore him nozzle from the box to chew them. I'his also prevent, the hore from burying hiv nose in his feed and bolting it.

A great aid in suppling borses in their hind quarters is wareh the troop in line backwards and forwards. without halting it. And a little drill daily at turning on the forehand and on the haunclies, and at pasmaging is essential to keep curalry horses in trainiok. Ater a man has once ridden and uotten accustomed to a properly

a ditch the same length six to eight feet wide: and ho troop should be regarded as ready to appear before the inspector until its captain can lead it in grood form orer them - bor horme rushing and none 4esitating.

And I would have a steeple chase couree with otie or two low fences. hurdes, hedges. and sereral ditches. The last obstache should be a tence that only the hest jumpers in the troop could take. And I would have the captain lead his troop over this course. every person being instructed to keep in rear of bim until he struck an obstacle that stopped him. Then let the tirst licutenant lead. if he is fortunate enough to bave crosed all the olstacles: then the second lieutenant, if the tirst falls by the wayside, and so on. down through the non-commissioned officers. I would have a ride orer the course about one a week. and I warrant the men would take an interest in it. and it would wate riders of them.

But there should be wo horse-racing allowed The test of horse and rider shouli be in getting over the obstacles. not in getting wrer clear ground at high seed. I have yet to see the caralry horse that has been ridden on the race track and does not ran away at every charge. In other words. I believe racines troup horsea ruins them.

Every cavalry drill around ousht to be at least three miles from the stables. in orber that the horses may be steadied in their graits before they are put to the daily ecolutions. that they may be sure to get the proper amount of daily exercise, ten to fitteen miles. and in order that they may be marehed at a walk lons enough ather the drill, which should habitually be at the trot and gallop. to cool them off betiore returning them the statles. Failing this three milea troop ought to be taken out on the read two mike at a trot hefore teginning the drill.

Cavalry horses and cavalieg men ought all to be tanght to nwim. and there are few poste in the errvice where the way in hacking it the will exists.

The order for a practice march once a week is the best order 1 have ever seen come from a department headquarters. and the onty amendment I should like to see in it, would be to make it read - whenever trompe are in garrimon," intead of " for six monthe of the year." I don't heliere any days drill would do as much to teady and gait the borses axa quick march on the road of from twelve to forty miles erery Monday. Monday drill in always more or less unsatisfactory, on actount of the two days of rest the herses. not to say the men, have hat.

But to accomplish good resulte, method, interest and friendy rivalry must prevail. 1 believe the commanding officer should announce at the end of each mont what drills should take place during the next month - that is. Whether school of the soldier, trooper, troop, squadron, reginent ete., and precisely what paragraphs of the bopk should be covefed. And there should be m." departure from the progrdmme.

And the inspection on the last dafy of the month, instead of being the nere perfunctory compliance wifh army regulations it now is in our service, should include a thorongh examination of every tronp upon what it bas dono during the mpnth, and the commanding ofticer's criticism should be pubhished in orders. And as further induce. ment to hard work, the Post Exchange might give a prize every month to the troop that passed best. The commanding officer might invite the other field officers present to assist him in his decision ami award. But over-energetic young captains, and lieutenants temporarily in conmand of their troops, should not be allowed to drill their troops to death, either for glotery or lucre. This ought to led regulated by the commanding officer. Recalls ought to terminate all drills, and to keep a troop ont anfer recall whould be regarded a worse offense than to bring it in belore recull. Where no recall is sounded at a post, it may be laid dofvo as an axion that the trow which habitually comes in last is the worst drilled troop in the garrison. You cannot makei men drill their test unless they want in and have interest, and they never want to drill after all the reot have quit; and I don't blame them.

Another thing necessaty to give phen heart for work, is tor the.m to be able to see an end thit. In drill season we ouglit to begill work at 7 in the morning and quit for the day at 12 or 1 oclock. This would give us six hours' steady work, and it would give weery man an appetite tor his dianer thał wouldn't be particular alout variety of dietary. Plenty would bf all it craved.

Aud the horses should be groomed, and gronmed properly, ay somt as they come in from drill. All authoritiey recommend grooming while the sweat is still upan the borke. There may once have been a reason for putting off the grooming of our horses till four or five oclock in the erening, but what it of has history and tradition fail tw say. The men could keep their stable frocks, which should be long enough to protect their trdusers also, at the stables with their sall dles. and save the delay of going back to the quarters atter them.

Now, I am quite aware dhat most ${ }^{2}$ ptains will say, "Your scheme is all bosh. You can't get your mfn; they are all on guard and
titizue." less butguard and tatigue could also be managed ingar rison, if we could but cut loose from ancient traditions and bring some modern business method to bear on them. Three drillsa week with a full troop fetch better reoults than seven with but half a troop. If a single troop could do the ganat and fatigue wach day. or one tromp the guard and another the tatigue. if necemary. instead of taking a half dozen or more men from eath troop every day: and if these two tronp be excused from every other duty axcept caring for their horses, I believe the guard the fatigue and the drills...-yes. and the contentment of officers and men-would improve.

But the objection arises. we could not set out all the troopsat one time for parades and rugimental drills If this objection is serious, the plan might obtain only during the monthe given to tromp drill. Full trops are not so co.enential at squadrou and regimental drill. which are onlely tior the purpore of intructing the officers. and teaching the guidew how to set in their own places and keep ont of eversthody elses the men in ranks learn mothing at squadron and regimental drill. Of couree and as every authority pointe out. the largest part of the drill seamon shonld te develed to troop drill: thenationight or two the ongatrons, and a week or two to the reviment.

 about two bundred and wenty pouth and though our horses wete exposed to the corms abd blizarits of a Dakota winter. aloolutely without stabling of any kind and inten with reduced tomage. my horse actually sained seconteen promis in weight from the hegin. ning to the end of the campaign.

Let me mot weaken my position by dormationg or owerate. ment. . I helieve we gromm war calry horser too much in winter. was my opening remark. Let me further tath that my experience has been contined the Northwent. where the winters are gener. ally severe and where the greater part of the garrisons have open -heds or ballom framed apolocies fior stables. The horses are worked in winter very little: an occanionaldritl. when the weather permit. is the only routine work. but they are liathe to be semt out at any time and frequently are. to evort a paymaster. protect ciril officers. t1) scout, and oometimes to regubarly ampaign. . Ill this duty neces - tates exponare night and day alike to the weather. without the protection of stables or sheds of any description. Now. it is to nacalry horses thus stuated and then expened that my remarks are intended to apply

To consider the subject onomewhat more in tetail. Set un enquire into the object and effect, of erooming A tair analoys may he daimed betweengrooming for the horse and bathing for a man. In each cave the objee is to remove dirt. the accumalated excretions of the skin. effects of perspiration, etc.. which, dryiug upot the surfate, would tend to obstruct and impede the acton of the weat and ril slands which open upon it. To prepare a horve for a great effort. or to keep him in condition for continued atod extreme exertion. grooming in necessary and imperative since then we strive to get every function of the system in a state of extrome artivity. Here trooming. like the bath and "rubdown" of the gymast or pusilist. muat be freguent and thorough

Fitawyeam says: .. The ereater the action of the skin. the preater must be the attention paid to it. As long as the horse re. mains in a state of nature taking only the exercise required fir getting his food. * * grooming is not needed. * * The cart horse, whose work is stow, can get on with rery little grooming. The hanter and the race horse, on the other hand, * * raquire much more grooming than is necessary for carriage and ordinary riding horses. And various other authors make similar statements.

The necessity for careful grooming of horses "in combition." as it is called. for fast and severe mork. beiner fulty admitted. it is to
the conditions surrounding the cavally horse in winter, that we call attention, as making an edtirely diffelent rule proper for him. Little or no regular work; little protection from the weather; no artificial heat supplied bim, and always the fability of service, entirely exposed to the rigors of a severe and oariable climate.

For, unfortunately, grgoming, besides the cleaning effects referred to, and which we bave compared to bathing in the humian subject. has a powerful and injuriфus effect apon the coat of the animal. It not only thins it, but it really shortent it, or, rather, prevents it from growing so long as it otherwise would This I have proved by careful measurement of the hairs from grdomed and ungroomed borses. Why it does so is mysterions to me. Fitzwygras says: "It (groom. ing) is essential to the glossiness, and also to the shortness. of the coat," and "short coats are due paftly to the warmth produced in the skin by the frequent friction of rooming." And again: . In. crease in length of the coat is inded a protection of nature against cold." Yocatt says of grooming: "The horse that in altogether turned out needs no groomiug. Regular grooming, by rendering his skin more sensible to the alteralions of temperature, would be prejudicial. The dandruff, or scurf, which accumulates at the roots of the hair, is a provision of nature to defend him from the with and the cold."

And here, then, is the damage. Grooming not only shortens and mechanically thins out a horse's coak, but it also renders him extremely sensitive to the alteration of the temperature. A horse taken into the field in wiuter runs down rapidly in fiesh, gets stiff and rheumatic, and loses quickly his strength and spirits. I com. manded a troop for several successivepwinters at-a station in Montana. where the mercury showed once as ow as filty-two degrees below zero, and when from twe申ty to fort below whs average weather. Here, one neason, after lorg consideriation, the commanding officer allowed me to select ten horses of the troop, for experimente upon the effects of grooming. Ten horsew benides my own privato horst. were chosen by lot, and were goomed onls so far as to smooth the mane and tail, or to remose adherpat mud and ice. The other horses of the troop were groomed in the usual way, for awhile twice daily, but later only in the afternopn. After some two or three monthe of this treatment the differance in the coats of these $t w o$ groups of horses was astopishing; the greater thickness and lengtli of the hair of the ungrooned horses was really surprising. At this samo station the post trader had a bapd of horses, to which my attention was first called by the peculifrity of its breeding, it being
the product of Indian ponies and broncho mares by a thoroughbred grandson of $\cdot$ Lexington." The animals ran out the whole winter without shelter. and subsisted entirely upon grass. I made two or three inspections of this berd that winter. mainly to observe their resistance to the climate. the thoroughbred being popularly considered to hare lese fortitude in this respect. Ather an almost unprecedented bizzard during which catte in Montana perished bs thousands. I sam this band corralled for inspection. So much was I impressed by ite appearance. that. by the kind assistance of the owner, I secured photographs of several of the herd, ponies. bronchow. and half and three-fourth thoroughereds, with a view to preparing an article on the subject of the winter care of horses. Then photugraphs were unfortunately hater destroved by fire but in deseribing the coats if these animats I can do no better than to compare them to the coat of a bear. or of a buffalo. The hair long immensely thick, and reintoreed by a secondary enat of very long hair-enpecially on the flanks. Belly and inside of the legs was on Hutfy that it stond up all wer them as if electritiod and seemed able. as inded it was, wresist any amount of cold or wet.

We now know, as was bong suspected, that the horse originated in a cold dimate, and the race ha not yet hast the puatities induced ley it early enviromment. Proviled with a reasonable amount of food. and its coat lett as hature supplies it, nome of the non fur bearing animals can resint coht hetier than he. The ox is much his inferior in thi- rempect, and the buffalo by no means hi- superior

But grooming. as we do it. works ereat changes. The sourf and dandruff are removed. the hair is thinned and ahsolutely shortened. and the sensibility of the sin grealy increased. The long bair. which I have called the seoondary coat heing very cavily detached. are naturally the first shed in the spring and are prett nearly all remosed byeven moderate grooming fs a reoult. the horse suffers ath becomes emaciated when taken into the fold. A few days ago. a troop of cavalry pased through thi- post on a practice march. They had only been out ahout ten day. and had made an average of only about ten miles per day and had received full forage all the time. The troop commander sail to me, "My horsen were as fat as gours when I started on the march." They were then much thinner. ami since they had received the same ration, had done no more work than mine had, it was obrious that the exposure had hurt them. And the exposure had hurt them, not because the weather had, been unusually cold. for it had not. but because twice daily, with comb and brunh, he was by grooming depriving the horse of
his natural clothing, while giving ham nothing to take the place of it. Had these horses not beell grooned for some months beforehand, they would bave thrived und r the name conditions.

This I have demonstrated orer apd over again with my private horses, which are never groomed in winter except "to smooth the mane and tail, and to r申move mud and ice." The native Indian pony is claimed to be moch superipr in endurance of scabty fare. long marches and exposure to the weather to our American horscIf this be true, and it is widely assefted, it must be due to the way in which he is kept. Soque years ago General Mies mountued upin Indian ponies one or two regiments of infantry. These potives were thereafter stabled; fed and groomed exactly as the caralry bor-in of the same garrison. I berved with some companies thus mounted. and while their officers fanally adm|ted that their ponies were inferior to my troop horses for the fatigue of the campaign, they at the same time asserted that Indian fonies, in the hands of Indians. could outdo and outlast my caralet horses day in and day out. This paradox can be explained only upon the theory that stabling and grooming impair, to some exthnt, a horse's resistance to the fatigue and exposure of a campaign in winter. This I believe.

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I'Sthe haty romparivon which have heco ahle to make between the army regulations of lan! and hat sarce and rare editon. the regulations of 189.5. the paragraph in the new book relating to the recruiting service show the many important changes of the lant few yeare ergstallized into about sis pages. The clauses relating to the duties of field officers-other than resimental commanders are dropped out of the new regulations, as the recruting service is mow controlled directly from the dijutant Gemeralss office in Wash. ington. This is in the line of simplitication-also of centralization. The word depot no longer appears in connection with the recruiting arrice and what were formerly called rendezons are now known astations.

The paragrapha relating to the kind of men who can be enlisted indicate that the standard bas been raised in many important respecta since 1ss?. Under present regulations applicants for original enlifment and men whotply to renter the army. after an interval of more than three months from date of discharges are required to furnish evidence of good character. The eulistment of tormer soldiers whose enlistment during their last term of service was not homest and fisithful is prohibited. Whereas formerly persons who had been convicted of felony were precluded from enlisting, now, in addition any one who has been imprinoned under sentence of a court. in a reformatory. jail, or penitentiary, is barred out. Only citizens of the Conited States (or those who hare declared their intention to become such) may be enlisted for the tirst time and then it under thirty and able to read, write and speak the English language. Cnder the new regulations. applications to recoler the army from former soldiers must, in the following cases. be referred to the Ad-jutant-lieneral's otfice: list. Where men were discharged before expiration of term of services. (except those discharged under Para-
graphs 144-45, which refers to disfoharges by purchase): こd. Mt'n discharged with characher other an good or its full equivalent 3d. Men discbarged as prisates who present themselses nore than three monthe after discharge if not thirty-fise years old; thb. Mell having wives or minor children; 化. Men who cannot pass the required examination in all respects.

It is believed that the adoption pr the majority of the rerulation. mentioned are for the b\&st interest of the service. In my opinion the standard would not be set tod high if no men were reentisted whodid not have the character of excellent, or its full equivalent. instead of good, on their last discharges. As some officers interpret the word good, it means a man who has just escaped getting a $\cdot$ both tail" discharge.

It has been suggested that recreiting be, as far as possible. car ried on in one month of the year only, so as to do away with the annoyance of getting an intermiftent streans of raw and unin. structed men all through therear as is now done. Some one haw remarked, "Any aystem must be a mintake which must be largely abandoned at the firing of the firsi hoatile gun." and this remark appears to me to apply to the system of sending perfectly raw, uninstructed men to their regiments, h h $^{\text {is now the case. If war should }}$ be declared to-morrow it is probabil that much valuable time would be consumed in reëstablashing the depots of assembly and instruction, which, owing to a penny wise and pound foolish policy, hate recently been abandoned These dapots are a necessary buffer be tween the recruiting offige and the recruit s ultimate destination. and one peculiarly neceufary in theresco the monnted man. In place of one school of ingtruction. Heh as was in rery successful operation at Jefferson Barracks, Mp., until August 1 s! 4 . Where are now as many different places and methods of instruction as there are troops of cavalry, and where des the mounted recruit receiv. that systematic and regular instrudtion. at the hands of competeut drillmasters, which after many yeat of experiment and experience. it had berome possible to give him at Jeffêrson Barracks? The service in no way benefits bf the abolkhing of the depots as placer of ansembly and instruction for in evely organization in the line of the army non-commissioned officers afe now taken from itst efficient strength in order to drifl the consfant influx of new recruits, and these instructors cannot be as cotppetent to train the recruits as were the picked men who were on duty as drillmasters at Jefferson Barracks. It is belieced that the calralry service never had a better trained, better-\&ppearing class of ecruits than were sent to the

 - ffieienerg. realting from the abandonment ot the shool. would som berome apparent if the service had henerited from it a while loneme












 Jonsotos. Fighth (avalry He devied as sheme of drill in the artoob of the troper which oromatioaly and gradually transformed



 all that was to be learmed in obe dan he hav paseed into the mext
 ald could then ride tailly well. beside having learne the name of
 perma of the howe from ane two hours daly were given to - Wematic instruction in the exmantam for all rerrats In the
 atal themselve of it. It was alway well patmoized at this time.

The cavalry vervice was junt berimning to teel the fond effectfrom getting a chass ot thoroughy instructed reoruits when the deper was dishanded. for until quite recently Jefferson Barracli-
 them. It shombl be the ation of every cavalry officer to have the re cratibe depot for mounted instruction reatablished. Jefferson Barracks is a eood central proint for the location of such a dejot. and the reacration is laree and adrantageonsly located. Where formerly fevers abounded it in now a comparatively heathtul phace. and it is withon ten miles of one of the largest and best horse mar. kets in the world-st. Louis. Mo. For these reasons it should be a


FAIR IEATHER HORSE EQLIPMENTS.

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Hy CaitaiN F. K. Ward. Firgtcavalmy
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FOR several years I have been of the opinion that fair or russet leather would, for several reasons, be better than black leather for our service horse equipments. I bave discussed the matter with many caralry officers, some of them men of long experience, and have never found one who was not of the same opinion. Since coming to this post I have learned that some time ago there was went up from here a recommendation for a change to fair leather. This recommendation has not been heard from, but doubtless the change would be made if it were known that cavalry officens were unanimous in desiring it, for fair leather equipments would not be any more expensive than those we now bave, and I believe they would prove more durable and better in other respects.

I therefore venture to suggest a discussion of the subject through the Jocranal, with a view to ascertaining and making known the opinions of cavalry offlcers throughout the service concerning it. In proposing it for discussion it will be proper for me to make a statement of my reasons for adrocating the change; and as there is in the market fair leather which would be very unsuitable, it will be well to say tirst, that the kind which it is believed would be tound not only suitable but in every respect better than the black leather now used, is that used in the good grade of California or cow boy saddles and equipments.

The principal objections to black leather are that it is difficult to keep black, is difficult to clean, in fact, cannot be made perfectly clean, and therefore cannot be kept from soiling trousers, glowes, and whaterer else comes in contact with it. There has been a long search for a black dressing that would not rub off or soil clotbing, and which at the same time would not injure the leather, but apparently such a dressing cannot be made. The Frank Miller dressing
looks well on new leather and doen pretty well under ordinary circumstances, but it will soil wet or damp trousers and gloves. as many have fond from experiencl, and a continued use of it will spoil the appearance of leather unless extraordinary care is exercised to wash off all of the old before a new coat is applied. The really water-proof dressings, such as the Acme. look well on first application, bat a contipued ase of them noon seriously damages the leather and spoils its appearance also. The dressing furnished by the Ordnance Department will nake leather bluck and keep it in good condition, but no pmount of are in applying can keep it from being ruinous to clothipg, and for hat reason no one ever thinks of using it a second time.

Fair leather, of the kind mentfoned, is no more expensive than black leather. It is haddsome in uppearance, can be quickly cleaned and easily kept in such condition that nothing will be soiled by it By continued use it becomes gradually darker, and is then hard. somer in appearance than when now. To clean it and put it in perfect condition for usf or for inspection, nothing more than a rag and a little soap and pater would be necessary-things that are always on hand everswhere. Thefeare no ohjectione to such leather that I know of.

The light artillery have in use $h$ saddle with the seat and sweat leathers of fair leather, the remainder of the equipments being black. That is good so far as it goes, but it does not go far enough. There are still the black reins of the bridle to soil gloves, and the black parts of the saddle to soil clothing packed of it. Besides the mixture does not look well, and there is to decrease in the amount of tima and labor required to keep the eqpipments if proper condition; alko the objectionable black dressipg is atill indispensable. I would prefer such equipments to those we now hare. because they must makle a consid. crable saving in trousers, but I belf ere it would be still better. very much better, to have fair leather for every leather part of our cat. alry service horse equipments.

With fair leather, all buckles, fings, staples, etc., sloduld be of iron, nickel plated. Byass is hard) strong enough for staples and rings, and it leaves a brassy mark pn anything long in contact with it. Iron rusts too easily, but iron nickel plated is easior to keep clean than brass, is much stronger and probably no more expensive.

In proposing this qubject for discussion I at first thought of mentioning in connection with it some few other changes which might be considered dedirable, but after further consideration have decided not to do so, for the reason that it will probabls be better
to limit the discussion to such changes as it seems likely would be unanimously approved of by cavalry officers. We bave had black leather so long throughout the military service that possibly some may at first think fair leather would be interior or unmilitary in appearance. But looks should not weigh against utility service. ability and cleanliness, and besides the great majority. if not all. of those accustomed to both would undoubtedly agree that fair leather is the more handsome of the two kinds. It is generally used in torwisn services, and while we do not care to adopt anything on that ground alone, we certainly outght not to let ourselses remain behind in matters of utility and sorviceability.


CAVALKYIN MODERN WARFARE.
been done before, but in war, more than in any other science, it is necessary to refer to the past to determine the needs of the future; and for the American soldier to be prepared for what is to come, most particularly shonld be atudy the great War of the Rebellion in his own country. The conditions existing then will, to a large extent, exist in ans great disturbance that may hereafer occur, because, it being considered incompatible with the institutions of this country to maintain a large standing army, military matters are but little attended to, and the old adage, "In time of peace prepare for war," is complied with to a very limited extent.

From a atudy of the bistory of the War of the Rebellion one cannot fail to see that at its beginning there were defects, which, though repaired at a later day, should never bave existed, and would not, if before the war. even a casual care had been given to the matter of military necessities. On account of the indifference on the part of the great mass of the people, it becomea incumbent upon military men in this country to ascertain to the fullest extent the defects which existed at the beginning and through a portion of the Rebellion, so that if called upon in the future they may know them, and if possible be able to prerent their recurrence.

How often do we see plans of campaign and battle, which. while in themselves of fine conception, are rendered futile or ansuccessful through lack of proper execution of details. This I think is one of the most striking lessons of the war. Ignorance of the country, ignorance of the position of the enems. ignorance even of the exact position of their own troops. often rendered abortive well conceived plans. This is especially noticcable in the earlier stages of the war; and this fatal ignorance was undoubtedly due to a lack of a proper proportion of mounted troops, for it is abore all else the function of mounted troops to scout, to reconnoiter. to obtain knowledge of the country, the position and location of the enemy, to find roads and positions for their own army.

Witness the hopeless ignorance of the country displayed by the Federal troops after the eracuation of Yorktown and during the march upon Williamsburg, where a whole division of Hookra's corps took the wrong road. General Suiru, who commanded this division, either had no mounted troops under his orders, or if he had he did not make use of them, otherwise he might hare aent them a few miles ahead, and saved valuable time and prevented useless marching. The presumption is atrongly in favor of his not haring them, because the proportion of mounted troops was ridicu
loasly low, only 2,000 in an independent body, in an army that numbered 102,896 present for activg service.

It must appear to the atuden of history that had General McClrilan a sufficient body of cavpliry under good leaders, he could have followed the enemy so closely pas not only to harass him in his retreat, but also to bave prevented hestand made at Williamshurg. On this point the Comte de Paris (申hile referring to the attempt of the Federal cavalry to overtake the pnemy in retreat) says "Whatever might bave been Stoneman's diligence in other respects he could not seriously have embarrased Longstreet's march, for unforseen accidents (one of which of as the straying of a dirision referred to above) supervenex to lelay still further the infantry deatined to sustain him, and thus deprived him of the last chance of overtaking him in time."

It is certaialy a just conclusion that had Stoneman a sufficiently strong force at his disposal, he woul not have been obligell to wait for the infantry to sustain him, but ould have followed up the advantage obtained by part of bis com hand. This conclusion appears the more just, from the fact that Lodastreet did not intend making a stand at Williamsburg, bat, finding that his rear guard had made a successful resistance to the Feder advance, ho countermarched and took position there. This would have been impossible for him, if the advance of the Federals had bqen sufficiently strong to drise bis rear guard out of that position.

The raid by the Confederate Gener IStuart, shortly after the above events. during which be made a cpmplete circuit of the Federal army, laying bare to the eyes of Gedforal Ler the position and weak points of McClbllan's line, sbows that the Confederates at least had already realized what aid they could obtain by daring but proper bandling of mounted men.

From the beginning of the war until after the fight at Brandy Station, the importance of the dutie that could be performed by cavalry and its proper employ ment spem not to have been fully ap. preciated by the Federal anthoritio. This fight showed to the people of the North that their monntod soldiers, if properly led and given the opportunity, could cope successfully with those of the South.

The Confederates, from the first, psed their cavalry with effect. We find them ander their adqirab leader, Stuart, evef on the alert, appearing unexpectedly on th fianks or in the rear of the Federal army. In the raid previousgy referred to Stuart fiand but
two squadrons of Federal caralry guarding the flanks of their im. mense army.

In describing the maneuvers preceding and during the battle of Chancellorsville, the Comte de Paris, repeatedly deplores the abrence of the Federal cavalry, which instead of being employed in the performance of their more legitimate dutics of alvance guard. and as a screen to conceal the morements of Hookers army, were sent off on a raid to annoy the enemy's rear and to threaten his communications. This evidently was not the time to send them away, while the main body was marching to take position and tisht a batte on unknown ground. Had General Stoneman. with his cavalry been in the advance to learn the topography of the country and innure the possession of the most adrantageous positions. he could have done so thoroughly, thus preventing the contusion that followed, and which was undoubtedly due to General Hooker's $i_{z}$ norance of the importance of the positions his troops first oceupied, and an exaggerated idea of the resistance of the enemy. By sending away his cavalry be rendered possible the flank march of General Jackson, which it is plain could not have been successfully made had the Eleventh Corps been shielded by eren the smallest number of caralry any careful commander would hare deemed necessary. Instead of this reasonable precaution, history states that there were but thirty five cavalrymen to clear this entire corps. In this case the fault lay not in the number of mounted troops, but in their improper handling by failing to use them, to clear the adrance, screen the movements and guard the flanks of the main body.

The small body of caralry that General Hooker did retain with him on this occasion made itself feltaduring the battle, when, under General Pleasanton, it charged an advancing line of Jackson's troops, delaying them long enough to permit dieposition to be made to meet them on a more equal footing than existed previous to the charge. From this time on, and more particularly after the fight at Brandy Station, the cavalry of the Army of the Potomac appeara to have been handled with skill and success.

It would be impossible in an article of this kind to detail even a reasonable portion of their maneurers; suffice it to say, that we find them everywhere employed as they should be, clearing the way and gaarding the flanks until the time of Gettysbarg, where their serrices were such as to deserve a more extended notice. The immense service here effected by the cavalry rendered certain the successful issue of that battle. The gallant General Buford, by holding the Confederate advance at bay notil the arrival of the infantry, en-
abled the Army of the Potome to seemble in the strong positions around Gettysburg. Had reliance been placed upon the infantry alone, the Confederates would probably have secured the advantage of position, and when we consider the struggle that followed, it must be admitted that the result fould hype been in farpr of the Confederates.

In this campaign is seen the san e fault that occurred at Chancellorsvi道e, but this time on the part of the Confederates. General Stcart had separated himself from feneral Lee, thus depriving the Southern leader of the same adrantges that Gencral Hooker was deprived of at Chancellorsville. General Lee disclaimed responsibility for this action on the part fof his subordinate. This can readily be believed when we consid $r$ the judgment always shown by that distinguished leader. Gengral Stuart returned, however. when the battle was still in progr ss, and attempted a maneurer which was brilliant in its conceptiod and would have been attended with disastrous results to tho Feder al army had it been successiul; but this time the Northern cavalryfus in its proper place, and in one of the most thorough caralry fights of the war prevented Stcart from attaining his object.

After the battle Federal cartiry vigorously pushed the pur': suit, and were as vigorogicy resist d by that of the Confederates, who could not, howeyef prevent th former from destroying transportation and captufug prisoners i large numbers.

The interesting details of the operations of cavalry during and afler the battle of Getcoshurg are of more than passing interest to the cavalryman. Thof bhow the caralry of the Army of the Poto mac performing the faportant du es of scouting, reconnbitering, gaarding the fanks andeolearing he advance; they show them fighting on foot and in the saddle, with pistol, saber and carbine. I will quote one short extract from the "Records of the Rebellion," becanse it refers to my own regime $t$, and this is by no means the ooly time its designation appears these records or in bistory. General Mereitr, in his report of the operations of the Reserve, Brigade after the battle of Gettysbup, states: "During these combats there were some dashing, telling charges made. I mention one made by the Sixth U. S. Cavalry, fillowed by the First U, S. Cavalry, on the Booneaborougb and Haderstown road. In both of these the enemy was severely punished, a d captures were made in band-to-hand conflicts."

In justice to our critics, one circumatance in connection with the battle of Gettysburg should be mentioned, namely: The charge
made by the Federal caralry against the right of the Confederate line. Although desperate and bold, it inflicted but little damage upon the Southern army, while it deprired the Federals of the services of a gallant officer and mang brare men. This may be referred to as an argument that caralry will not again charge infantry, but it is by no means conclusive, nor are the many other instancen of failure under similar circumstances that nay be cited. As far back as the battle of Waterloo we find the British squadrons successfully resisting the repeated charges of the bravest troops of France; yet charges of this kind have since been made, and probably will be again, for there is a certain spirit of reckloss daring that perrades a body of cavalry that time and example seem unable to displace, and which impels them to deeds, without regard to consequences.

I do not wish to be understood as adrocating charges of the kind made at Gettysburg, but because that was a failure it does not follow that charges by cavalry may not yet be effected with success againat infantry under proper conditions. There are circumatances under which they would still be justifiable, as against a warering, retreating or disorganized line, or against a confused mass. but againat a firm and organized body of infantry, if made at all. it should be under the most favorable circumstances, and to accomplish some object that could not be accomplished in any other way, as in the charge made by the German caralry before Metz, to which I will refer later.

There can be no doubt that as the firearm improves the chances of success in these charges diminish, but the same may be said in the case of infantry agsinst infantry. In both cases the opportunity should be awaited and the conditions sach as to justify hopes of success or the sacrifice of a number of men.

From after the battle of Gettysburg until the close of the war the cavalry in the Army of the Potomac played a conspicuous part in all operations, and the full importance of thia branch of the service seems to have been thoroughly realized. A brief reference to some of the most noted of their exploits will show the correctness of this statement.

The first of General Seraidan's raids is pitbily described in the "Memoirs of General Grant" as follows: "Shbridan, in this mem. orable raid, passed entirely around Lex's army, encountering his caralry in four engagements, and defeated them in all; recaptured 400 Union prisoners, and killed and captured many of the enemy; destroyed miles of railroad and telegraph, and freed us from annoyance by the cavalry of the enemy for more than two weeks."

Again, in the Shenandoah Valley, in all the operations of General Shileidan, the importance of the wrk done by the Federal cacalry cannot be overestimated. At the bittle of Winchester, besides dis. puting their ground bravely after their retreat began, they were in the afternoon, when order had been restored, sent by both flanks and reached the enemy's rear, add ing greatly to the conflasion of General Early's retreat, and captufing many pieces of artillery

In the operations before Peter burg, it may be said without exaggeration that the Federal cara ry was never idle. They were constantly menacing or attacking the flanks and rear of the enemy, and in the final straggle that led to Lee's surrender the bold and successful parsuit effected by the curalry put the finishing touches to the great war.

I have not referred to the operatoons of caralry in the West and Sonthwest; not on account of their unimportance, but because it is impossible to enter into them ans $I$,hould wish in an article of this kind, yet to palss them over without a brief mention would be inex. cusable.

Would any reference to cavalry be complete without the names of Fokrest, Morgan, Grierson, W/lbon, Streight and Garter? The two first mentioned as chiefs of ndependent bodios of Sputhern cavalry performed exploits a description of which read more like the romances of $k$ nights of old thy the deeds of matter-of-fact men. Appearing in the most unexpected places, with the sudden. ness of a thander-clap, they captire prisoners and outlying posts, destroyed roads, trains and supplie and kept the Northern armis in a constant atate of suspense. fll the efforts of the Northern cavalry were without avait against these men, until, like their brethren in the East, they had to submit to overwhelming numbers.

The raid made by General Mordan in Kentucky, Indiana and Obio, will go down in history as one of the boldest enterprises ever conceired and attempted in watfare.

The Federal eavalry, too, although overshadowed for a time,was not without its examples of bravery and endurance. The nemorable raid conducted by General Car mer against the Virginia \& East Tennesee Railroad, in which te marched four handred and sixtyfive miles in nine days, in the meant me destroying the railroad for a distance of nineteemis miles, is a gopd example of what the Northern cavalry accomplished.

General Gersmon also conducted a raid that was prolitio of resulte favorable to the Northern cause A fitting climax to the great
and daring cavalry operations in the West was the invasion rather than raid of Gencral Wilson with a magnificent body of mounted troops twelve thousand strong. Besides accomplinhing other great results he succected in putting an end to annoyance by the Wouthern partisans.

In both the East and West the one fact is apparent: that the number and importance of the duties performed hy cavalry were constantly on the increase, and its numbers were augmented to keep pace with the demands made upon it, untilat the end of the war we find it a body of eighty thousand. while at the beginning three thousand is probably an exaggeration of its strengeth.

This war has furnished useful lessonsto military studenterall over the word. The practice of fighting on font here attainedits greatest development, and may be said to have completely changed the tactics of caralry in batte. It is hard to foresee to what extent this practice may be carried, if there can be united to the speed of the cavalrymen the alvantage also of a foo noldier.

In commencing this article I had atended to make extended refierence to the operations of the French and German cavalry during the Franco-Prussian War, but as the lessons of that war are in a great measure similar to those of the War of the Rebellion. I will note only a few that, in my opinion, are the most striking and the best adapted to show what can be done bey a well organized and well commanded body of cavalr:

After the batte of Woerth the German caralry was pushed for. ward, and by forced marches forestalled the French in the possession of the crossings of the Moselle, thus saving the German army the task of forcing these crossiugs or rebuilding the bridges which the French would probably have destroyed bad they been aware of the movements of the German army towards them, but they were prerented from gaining any information as to these morements by the German cavalry, which successfully sereened all the movementw of its army from the French.

In the battle before Metz eight hundred of the German cavalry charged a corps of Frencb infantry, broke through their line, disabled their artillery and delayed them long enough to permit disposition to meet them to be made by the German infantry.

At Mars-La-Tour the French and German caralry were engaged and some gallant charges were made. Many useful lessons as to the proper employment of cavalry against caralry have been drawn from this buttle.

With the exception of the charge of cavalry against infantry referred to above, although several tilhes attempted in different battles, very little success was obtained; thit in all the cases that failed the charge was made against firm, organized infantry, armed with repeating riffes, circumstances whic should have precluded the attempt, and probably will do so in future.

This war, while teaching that hen infantry is armed with repeating riffen, the effectiveness of cavalry in battle is reduced, it shows sthat it has a more extenfled field of operations in otber respects, especially in the perforannce of outpost duty, reconnoitering, screening the movements of the main body, and sectring for them eafety in advancing.

Much of the success obtained by the Germans must be attributed to the effective manner in which these duties were performed by their davalry, and the ill success of the French to the imperfect manner in which their cavalry performed them. This was shown when the Fronch army, under McMaho Bazalfe, a movement in which toncealment was a necessity, and for which purpose the French cavalry should have been employed. So totally unaware were the French pf the presence of the Germans that the first intimation they had of it was the bursting of Prussian shells in their camp. This, a certin author says, was the prelude to the disaster at Sedan.
. In the war between Russia apd Turkey the Russian cavalry played an important part. Their duties were mostly corifined to reconqoitering, pursuing, and actig as advance guard. As a pursaing force they probably achieved the greatest success. From the passage of the Balkans, after the fil of Plerna, they gave no rest to the Tyrkish army. ${ }^{\text {a }}$ Seconded by the infantry, they captured many prison fre, outlying posts, and such a quantity of supplies as not only to fully sapply their own army but to seriously cripple that of the enemy.

Tho kreater part of this war wo consumed in the siego and defense of Plevna, so that mounted trpops did not have a very extended field in which to display their usethlness. After the siege a series of disapters occurred to the Turkis army, which was almost constantly on the ran, thas giving the Rassian cavalry a spbere of action in whiph it shown most brilliantly, and by its energy and vigor added greatly to the speedy termingation of the struggle.

From a stady of the operation of cavalry during thene tbree wars I am convinced that a strong and well organized body of cavalry is as essential to the successf/ 1 conduct of a campaign to-day
as ever before. Aswar has been conducted in recent years, large masses of troops have been employed, and all the resources of strategy brought into play to a greater extent than in former times.

For a strategical combination to be successful there are three requisites that can be secured only by a mounted force. Thes aro as follows: 1 st. The movementy of the masses must be concealed; 2d. Their march must be uninterrupted and their prompt arrirabat their destination insured; 3d. The position, location and probade strength of the enemy must be known.

Unless a general is certain that he can secure these essentials through his caralry chief. he cannot hope for the complete success of his plans.

they have just learned. This often adrocated principle of mine should be carried out.
H. Could not this " forgetting" be obriated by recitation in the regulations, limited in reope according to the several grades?
S. So: not at all. The memorizing of the regulations puld not do it. After individual riders are able to ride independently and tirmly. the precise drill depends on a number of aids and expedients learned by practice alone and easily forgoten in the absence of practice, as General von Schmidt rery correctly says in his "Instructions for Cavalry." Now. as I argued the last time, we must be ready to take the field at any time. For that reason we must insist that drill nerer cease. If the squadron cannot be formed in four platoons. you may drill in two platoons, or in four single-rank platoons, which we discussed the last time, or with apen files with intervals between the riders, or in skeleton - not every day, but an often as necessary to keep the men of all grades and ranks well posted in drill.
H. The last time you dissipated the doubta set forth by me, , whether the horses would be able to stand constant physical training. To-day, it occurs to me. that conatant drill might ruin the horses; for it is not to be denied that every drill season runs the horses down.
S. Yes. That is due to our present method, and is generaily considered a matter of course. The horwes are ridden to exhaustion in order to make them quiet. That certainly reduces them, but without rendering them obedient. As soon as they hare been rested and fed, they are no more obedient than before. As soon as you fix a certain season for drill, evergthing is crowded into it and the horses are overworked. In that short period the men must not only learn everything they would otherwise learn in the course of the whole year, but also everything they have forgotten during the lons suspension of drill.
H. It is plain to me that if drill is kept up the whole year round, there is no necessity for learning mucb in a brief space of time.
S. Let us call the child by the right name, "cramming much." Cramming will invariably produce ennui, and, for bearen's aske, no ennui on service! If the men bave simply learned riding, indiridual riding, controlling their horses, they will easily learn the drill evolutions; the drill will, so to speak, go off by itself. It is in this way alone that the men can keep their minds on their business, and cramming becomes as unnecessary as overworking.
H. It would be worth while to make the experiment of baving
one or more squadrons drill throughout the year now and then in order that they may be spared mofe during the so-called drill season fixed by the authorities.
S. It is not necessary to nake the experiment. With the squadrons under my command, and afterward with the regiment, I bave drilled in all seasons and th申y stood it splendidly. They remained in hand, I did not have to overwork them, they did not fall off in any season, did not need to be spared or specially fed in any season, drilled steadily and confid ntly, moré particularly in broken ground. The assembly and tally f have never seen better performed by any troops. I beg that fon fill not misunderstand me or believe hat I.am bragging. f dis/ke to speak of my own achieve. mente. I mention this matter mprely because it is the experiment you propose.
H. Do fou think it would be easy to have such an innovation generally adopted?
S. It is no innovation at all. It is not a method of my invention. It is, as I have stated befor, the method pursued in the train. ing of the cavairy cf Fredegice the Great, and it may be asserted that it is a tried method, which has never been surpassed. It has proven its worth by its results. Fhave simply rescued iy from the rubbish heap of oblivion.
H. Yet it will appear an innopation to all who havo bedn trained under our method, and who faithfally believing themselves working within a most excellent scheme, have not tronbled themselves about improvements. Bat, besides, certinin regimental drill seagons have to be fixed for all regimente not:quartered in one garrison, not to mention larger exercises. The fogiment will, of course, want a squadron drill season preceding the regimental drill.
S. Even if the regimental commander should fix certain/ squadron drill seasons, contrary to my ideas just explained, the squadron compander would come out bette by keeping up the drill through. ont the year because bis equadray would then not run down during the drill geagon. I can guarante that from my own experience.
: H. It will relieve all those timid minds diseused with inspection fever. I have a warm heart for shech sufferers, since the disease roots in too much seal and in blind obddience.
S. However pardonable and buman the origin of this disease may be, it is no less injurious to the proper rider spirit, producing as it does that soul-killing cramming for inspection, in squadron drill as well as in ball riding.
H. I cannot contradict you on this point, for you are probalily
aware from my letters on infantry, how I am opposed to all cramming for inspection in all military exercises.
S. Likewise, every kufferer from inspection fever may, as regards riding inspections, console himself with the assurance that even in the mere riding inspection within the riding square he will come out better by following my principles, than by cramming.

H . That point we settled to our satisfaction the lant time.
S. True; bat I constantly revert to it, not alone because I coll. sider individual training through the medium of individual riding the main foundation, but also because in the time of summer drills and exercises I deem it of first importance that this foundation of all cavalry training, this individual riding, be practiced constantly, dails.
H. In accordance with the dictum of Frederick the Great cited by you the last time: "Soignez les details, ils sont le premier pas pour la victoire.
S. Not that alone, for the dictum holds good for all arms. In the cavalry the training in riding is more particularly the prerequisite of all proficiency, in the hall at on the drill ground, in the peace maneuvers as in battle with the enemy. If caralry would claim reliability, it is a prerequisite that every rider be firm in the sadule and master of his horse, above all the leaders, the officers.
H. I have an idea that at some other place the king spoke more in detail on this indiridual training of the horsemen.
S. He says (Oeurres de Frederic le Grand): "Lexercice de linfanterie roule sur ses armes et aur ses jambes. L'exercice de la cavalerie à dresser l'homme pour monter en écuger et le cheval ed lobéissance. Cette école demande des peines infinies; pour que chaque honme monte comme un écuyer il faut qu'un escadron soit dressé homme par homme checal par cheval, et cela pour ainsi dire, toute l'armée. Cela est d'autant plus necessaire que si l'on reãt que cette machine joue ensemble, il faut que chaque ressort soit travaille avec le mème soin." (Comp. Karbler.)
H. I beliece we agreed on the soundness of that principle the last time, and may limit ourselves to day to the question of how you would like to have the drill managed.
S. The last time we discussed in detail the "how" of individual trainiog only. If I am to develop my idea of the drill of the troop. I must afain start from the trained rider, individual, and explain how I mean to weld the individuals into an unit.
H. Do not the regalations explain that sufficiently?
S. No. The regulations are the rule, bow the movements are
to be made, not how they are to He tanght. The brief hints in paragraphs 50 and 59 of how wo pass from the easy to the difficult, aro not sufficient, and, for the most part, do not receive sufficient atten: tion.
H. It is true, if we follow tho sequence in which the regulations take up squadron drill, and were to begin the training with paragraph 63, we would begin with the most difficult.
S. Let me, therefore, bedgin with the atom, the mounted caralryman. The training of the horse ${ }^{3}$ the first thing. All work deroted to the training of the man id thrown away, if the horse is deficient. It is, therofore, as repeatedy eqphäsized by me, not shfficient to train the horse with a view to what it must accomplish at the inspections on the riding and drill grounds, but the animal must also be practically trained for war serffice; its intelligence must be roused and developed. In the ranks thigh and rein should keep the horse in prosition and balance; elsewhgre it should be ridden with slight support, in order that it may look out for itself, step freely, and plant its feet as its safety demands. It follows that the short rein will have a detrimental effect of good, steady drill, as on all practical riding. It will lead the horfeman into hanging on by the reins, into holding back in the loag gallop, deprive the horse's mouth of feeling, and result in a completef cessation of the rider's control orer the horse. Too short, a rein whl prevent the horse fram stepping out, from properly extending haself; he will lose the regulation step and be unable to go uhe lodg gallop otherwise than by forcibly palling and dragging the rider long.
H. Do you find that the mptake of riding with too ahort a rein is intentionally committed in many regiments?
S. It is quite frequent and the result of the granting of other systems of riding on military fiding. from "kniebeln" in the hall, as ultimate object, up to racify, which seeks the fift leg in the horse's month. It is necessary to check this irregularity, for this being dragged along by the reils has become quite common in military riding and impairs the cupacity of the horses. Just imagive to yourself how the loss of control over the horses will influence their obedience, and how profision of drill will suffer from it. If the horses become recalcitrant ht the gallop, where is the guaranteo for the compact charge and th quick rally? The troop is no longer in the leader's hand.
H. Too short a rein and hanging on by the rein lies in the nature of the rider who does not feel at home on borseback, and becomes nervous when he rusles through the air at bigh speed. It
is human that he should want to prevent a motion more rapid than contemplated by bimself, and thin he accomplishes by a sharp pull of the rein.
S. This remark of yours leads me back to my previous aseertion, that the fault lies in the precipitation of the training of the recruit in the first elements of riding. because frequently the chief consideration, the confrmation of the seat is slurred over. Who. erer cannot ride a long hunting gallop without bolding on by the reine, is untit for cavalry service. He qudangers order in ranks. not is he fit for horse trainings. becallechertas not sufficient seat to guide a horse lighty. Iet many sugh men are employed for training. Where it is done the horses are of course, badly broken. As sonn as anything is demanded of them outside the exerctae ground and outside of the daily routine they get more or leserout of hand and position, and become refractory. That produces a dislike so frequently met with in the squadrons toward individual riding and riding in dispersed order.
H. It is not surprising it such squadrons are afraid, lest lirely paces make the borses refractory, and lest much riding in dispersed order endanger steadiness and order in close drill and the compact - harge.
S. This fear is wholly without justification. With properly trained horses and riders the very opposite is the case. The fact that the horses are not up to the bit. Which you may observe in io many squadrons, and which finds expression in holding back and in a forcible bracing agatnst the bit, resulta from this, that neither man nor borse has been tagght how to ride forward correctly. Lating the horses to sleep when riding on the riding square with distances, the indolent and sleepy gait, had been mistaken for steadiness, the kissons exhibited had been mistaken for the result of the men's fiding. For the most part the horses bad done everything by themkelres; they had executed the commands by themselves in order to escape the aids and to remain behind, hand and thigh. You beliere you have before you a squad which is in obedience. That illusion will disappear as soon as you ask them to show their individual riding, be it on the riding square or in dispersed order. In the former jou will become aware of draggling, creeping paces, the men cannot ride a straight course, you see at once how unwilling the horses are to leave the square in which they had settled down so comfortably with their riders. .In the diapersed order you will see the contrary. The borses bolt like mad and show a refractorinese to which the riders are quite anequal.
H. I am not surprised that quadrons in which riding stands on that level should have a prefidice againat:all exercists which might interfere with their sockall d steadiness. ,
S. To be lalled to sleep is aldost as comfortable and pleasant as sloeping. If it has come to khis that those lulled to sleep are admired and highly commended, if is natural that they should shun and fear the awakening. But thi awakening will be brought about by the chargè by the combat in ofspersed order, and by the demand for a quick rally. The end and pim of all cavalry training is the close charge, and the quick wally from the dispersed order. How can fou expect with certainty cil se charges and quick rallying on the plart of horsemen who, even fien riding by themselses, cannot keep their horses on a straight fourse with both reins ut a lively pace?
H. Now I understand phy you bave reverted with so much prolixity to individaal training, though we meant to discuss drill as a whole. You mean to pass syst fanatically from individual traininc to the movements in dispersed ofder, from the latter through the mediam of rallying to close formations.

S Yon bave guessed it. It stould be done in the first place by smal squads before teaching fnd practicing it by platoon or squadron. I must remind yod, however, that the movements in dispersod order, and the rally from 作, form no part of the drill and can only be accomplished by inditddal riding. We then use individual riding not only as a means to fn bend, but also as an end in drilling. For that reason it is neither fu申cient nor well to give the men scanty instruction in it duritg the drill season. On the contrary, it should be the end and aim of fayalry training to make the men independent from the moment of his entry in the service. For on the independence of every indirdual, on his ability to control his borad and to obey in unison with the horse, depends the assembly. combat discipline, the close charge, the quick rally, the control by the feaders in critical moments if the face of the enemy, the use of arme, the succese and efficioncy of cavalry.
H. But you stated just no that the vehement closed charge -was the chiof aim of the trailing. On it rests the fate of the cavalry.

Sf Both cover each othdr a hd are identical, for without this independence of the individual n der the closed, vebement charge is
not aesured. I concede that if we not enlarged sufficiently on the
fult sallop and its developmot. The terrain permitting; the men shoald practice their horses in the full gallop every day. It is part
of the "tummeln." Full gallop is a gait like erers other. The riders should not think that they are undertaking something extraordinary by giving their horses their heads, otherwise they would never be free from excitement before the charge. This excitement has an injurious effect on the "compactness" and on the obedience of the horses. The men should, therefore, feel at home on horseback as much at a full gallop as at a walk. He should also hase that self-confidence when mounted which is indispensable to the caralryman, and which flows from the consciousness of control over the horse. Without this consciousness and without this self-confdence there can be no enterprising caralry. Delight in risk and danger is its element; without it, success is impossible.
H. Have you formulated any special scheme of bow in pass from individual riding to the movements in dispersed order, and $\Rightarrow$ from the latter to the close combat formations?
S. Formulated? No; I have borrowed and accepted it from the tried method in which Fbederick the Great trained his caralry. Thirty-fire years ago I rescued it from the cavalry rubbish heap where it had been thrown when riding ball and drill ground were made altimate objects; from the same heap of rubbish from which I rescued individual riding. In this manner I trained the two squad. rons which I have commanded in the course of my service, and I found that the method still holds good.
H. Does not your method differ from the one prescribed in paragrapb 59. of the drill regulations, dated July 5. 1876?
S. No; I don't want to differ from the regulations. The regulations are our gospel. But we find that the exercises of paragraph 59 are, as a rule, treated in much too atepmotherly a manner. Too little time and labor are deroted to them. I make them my special i object, especially those forms which the men use when riding by themselves and not in close formation. Just as the recruit is not instructed in the bandling of the reins until he has a firm seat, so we should not pass on to drill in close formation until the move. ments in dispersed order have been sufficiently practiced.
H. For practicing the tronp in the gaits the regulations recommend riding with open files with an interval of a horse's length: afterwards in two open ranks, with a distance bf one or two borses lengths.
S. It is a very excellent exercise, which is not sufficiently practiced. The regalations expressly lay down these formations for une in training the horees to gallop. Tbey furnish an excellent preparation for a good, ateady drill, and have the advantage that tho man is
constantly compelled to ride, to hfluence his horse himself; and cannot allow bimself to be taken in tow by the mass. In galloping in ranks it is of first importance to do it so that much ground is gained and the horses do not become efcited. In contradistinction to the gallop employed for training arposes on the riding square, the gallop for practical purposes spould be ridden long and flat, and with but slight gathering. It fhould never be forgotten that the drilf gallop should gain more ground than the trot, otherwise the latter would suffice. The most practical manner of training horses to gallop before we make them go in one or two open ranks, with morp or less regard for direction is, according to my experience, in swafms, small at first and greaur aftorwards. In this manner we meet most effectively the faults bf bolding back, of being dragged alodg by the rein, which so inj riously affects the ability to turn, the obedience and wind of the horse, and at any rate, render steadines of drill impossible. In this manner we do not excite the ambition of the horses, which, much to the detriment of good order, like to convert any rapid morpment in company into a race. In the swarm due regard can be had to every kind of temper. The horke can go as it likes. It receives no rude aids to keep up the gail and direction in ranks, and it is these rude aids that produce the horse's excitement and fear of the gallop. That is done away with in the swarm. From the conter of the circle the instructor can bet and correct faults of riding moteraickly. Afterwards I had the awems gallop on cut up grounf aird over obstacles, and after the gaik had been established under hese various conditions I passed on to porements with open ranka. In the swarm the men may also be practiced in following in dispersed order the movements of their offers. The chief consideratign never to lose an opportunity for practicing the rally from dispersed order.

HI. I should think that this coarse of drill would require much mofe time than the method pouf in vogue.
S. It only seems so at the beginning; it is the same, bowerer, as with a thorough treatment fof the first preparatory aids to remopnte, and with the cultivatio of a good seat of the recruit. The time so spent is fally compensa fod for later. I assure you, that in thi manner I reached the result that the obedience of manand horse was implicit, that the squadronefrode mobile, confident and adroit in the terrain, and charged well cl sed.
H. Whep and how was the time devoted to drill by swarm and in fispersed order compensated for?
S. The rider who takes delight and has skill in exercising bis horse, manages it with greater akill in dispersed order, and learns the latter more quickly. Riding in close formations is then child's play for him, for he knows and feels that be masters his horse, and that he can ride where and how he pleases. Rapid and confident riding in ranks requires, above all, obedience. Any further drill will then present no difficulties at all, if the men are firm in indiridual riding, in the dispersed order, in the swarm, and in rallying. If we adbere to the following three points: (1) Uniform gaits and paces, ( $\because$ ) ample distance between ranks. (3) habituating the men to look straight to the front and not to look at the direction, the training in the drill formations of the regulations will be mere play. The touch during drill should always be loose, to permit the horses to step out without hindrance. In the charge alone must the ranks be clowed. What I am demanding can easily be done by caralry which has learned to control its horses. Here. likewise, as in indi. ridual riding and in riding on the square, I can comfort those suffering trom inspection fever. The method proposed by me, and in vogue under Frenebick the Great. leads to the end more certainly and quickly, resulto in greater precision of drille, and gives a better result at inspection than the lulling to sleep. the cramming.
H. It is all the more surprising to me that, as you say, the drill is not invariably begun with the forms of the dispersed order, foll.owed by rallying.
S. The reason, in part. is that in the training not sufficieft importance is attached to individual riding. without which this method is impracticable. It also lien in the sweet torce of habit, this "wetnurse of man," as Schiller makes Wallenstein dall it, from the times when ball and drill ground were ultimate objects. That practice io the movemente of dispersed order has receired too stepmotherly a treatment, has largely been brought about by the circumstance that they appear far back in the regulations, in the fifth ehapter. For that reason many believe themselves authorized to consider them as secondary matters that may be slurred oper. if time happens to be short. Very rarely is the dispersed order con. sidered as means to the end of putting the troop is the leader's band, as splendid preparation for confirming obedience, the drill, and combat discipline; and yet dispersed order is all of that. With horses whicl simply follow one in the rear of the other and, as a body, have been put to sleep, on the square, or in the drill movements, there will be hesitation to go tbrough exercises in dispersed order on the drill ground. With such borses the troop is bound to get
ont of hand in exercises in dispersed order. Where is the independence and-adf-activity of the individual man to come from if he is constantly held by bil coat-tails? This limited obedience. this consequence of following in rear of each other in squads, and this'going to sleep in the dfill forms, is no more suitable for the milifary monnt and the campaigo rider than the lax discipline of a municipal guard is for the soldier

1. Individual riding and ral ying from dispersed order to close formations is, then, a proper qriterion of good mounted troops.
\&. So it is. How should gbed ence and initiative of obedience be poasible on the part of the rider it be is unable to control his horse, if hd is dependent on the borse, if bowerer willifg, he is not always ablefto obey? I tell son the best fouchstone of battle discipline and of the trusty, adroit riding of a rall, not on the babitual drill grpund, but in strange terrain.

車. For thin reason Fredzeic the Great prencribes that after each charge a charge of foragers ahould be ridden, aiding: "But the follows most be instructed that $I$ don't want it done that wis before the enemy, but that it a dque this way in peace time to teach thead how to rally quickly, becauke in war a charge will invariably throw the rascals in disorder. 'his we cited belore.
. Good, quick rallying s dificult under war conditions, very difigult, and should, therefore, befunceasingly practiced in peace.

1. It is asking a good daal of discipline, if, for instance, victorious cavalry is to cease the purfit of the enemy the moment the trunpet calls.
S. And the history of all wat furnishes many instances where the incipient victory of the cavaly was converted into totil defeat thropgh defective rallying.
2. Still greater is the demat on discipline if the troop is to rally while retreating after defeat

A cavalry troop which ch do that, is thereby safequarded from panic. And no troop may so easily be seized by panic as cavalry, whnse horaes are not in ofedience, and whose riders are not profcient in rallying. No troops when weized by panic are so ottetly uselese as cavalry. On proficiency in quick and prompt rallying depends the confidenee cofosiry should have in iteself.
4. The bravest cavalry thic has not learnt how to ralls, may comipromist its honor, for if it - ponesible for a whole ditisiogn to bolt to the rear in peace maneure s, as you told me,when there was neither enemy nor danger, no brafery will safegaard from such accidents.
S. Quick rallying also facilitates the passage of difficult terrain and sabsequent rapid assumption of close formations. Water courses (Strigau Water, and the creek in the battle of Chotusitz), toods. steep elopes, are passed "en debandade." Beyond them a quick rally is made. A leader knowing that his troop is able to do this, will lead more boldy than if he is timid and bas toreflect whether he might not, while in disorder, come upon the enems and be routed. Confidence in his troops makes the leader bold. Oals in this way can he perform great things. Where they failed to materialize, the cause lay in lack of understanding and confideace in the arm.
H. Seyduitz's greatest admírer, Varmbaien vos Ense, ayys of him, "that during the last campaign of the Seven Years War under Prinoe Hesar he did not fulfill the expectations of great deeds entertained of him:
S. In this case it was not a lack of anderstanding, but certainly of confidence in the arm. The caralry of 176 was one totally ruined by six years of war. Seydlitz understood his business ton well not to see that he could not risk rith this cavalry what be had riaked with that of 175i. It was. therefore, the king's care after the war to again train the caralry in rallying in order that the caralry leaders might be enabled to risk great things. For this reason when he made his inspections he selected close country for the charges. The squadrons were necessaridy disordered in overcoming the diffculties of the terrain, and were required to rally with the atmont rapidity, in order that the shock might be delivered in close formations.
H. You certainly have some practical rules for training in prompt and correct rallying.
S. A few, yes. But I want to say that the troop must not only be practiced in passing quickly from disperved order to close formation, that it must be able not ouly to disperse quickly at the command: "Disperse," "March!" ". March!" but also to continae the movement in dispersed order for some time.
H. Eren in riding through a deep foreat?
S. Not only that, bat on many occasions not eapecially enumerated in this connection in the regulations. For instance, soma squade are required to leave the line for pursuit at full apeed. This is verg proper on the drill ground for teating the riding effciency of the men, bat is impracticable before the enemy. It is. of course, perfectly proper to pursue in dispereed order, because this formation admite of more efficient use of arms, because ground is covered more
easily, and because it is not so bafd on the horses as the close order. But if in war the enemy is to be pursued at full speed with "March! " "March!" from a balt, the borseg' wind would soon be gone. On such occasions you have to ride for miles at a drill gallop, and sometimes under some circumstances at the trot, and to retait control of your men in spite of the disonder, darect them, and, when necessary, close them together for the blarge. A horse can gallop a long time, but at full speed it will go but a brief while. Cavalty which, in parsait, overtaxes its horses premature full speed, runs the risk of being overthrown by the mallest reserve of the enemy.
H. For the cbarge on an artillery position the dispersed order is expressly prescribed by the refalations.
S. It is the best formation fo the purpose, for the enemy's tire cannot have the same intensity of effect on troops in dispersed as in closed order; the terrain can be better utilized and otercome; the very great distances now trafersed under fire are passed over with greater ease and rapidity, pecause no regard is paid to the slower horses, and, lastly, falling pr wounded horsen do not produce disorder. Let ns now examine abch a charge when the riders bave not been instructed in individua riding or in making sustained movements in dispersed ordar. I assume that 2,000 meters onls are to be traversed. If you at once opmmand: "Disperse!" "March!" "March !" the charge will never succeed. Not being practiced in this formation the horses cling to ether in knots, and offer the most desirable kind of a target for thif shells. The whole troop should therefore bet able to make sustained movements with change of direction in dispersed order and at all gaits.
H. The most difficult rallyi g in presence of the enemy is certainly rallying to the rear in rptreat.
S. That, also, is set forth in the regulations; these difficulties become apparent even in peace. Unless we simply keep the sense and purport of the regulations if view we are apt to deduce from them direct contradictions. Pary graph 105, 2, says that in rallying to the rear the squadron sho ld retire in dispersed order on a straight line. This, boweger, to be understood as referring merely to the first elementary fercises in rallying on the drill ground. It is contradicted, as reards combat, by the requirements of paragraphs 101 and 109 , tha those retreating are not to mask the fronts of the reserven. W/en, in addition, the cavalry has maneuvered during the advance, $o$ order to gain the enemy's flank, ae required by regalations, it w/Il, when defeated, not be able to retire in the direction from whioh it came. Paragraph 322 says:
"A defeated detachment rallies under the protection of the nearest iutact echelon." This ecticton will probably be on the line of the retreating body, which must, therefore. clear away from the front to enable the reserve to adrance to the countercharge. In thia sease the regulations demand expresily that the bodies which more in dispersed order remain capable of direction. Hence, it should be the tirst effort in drill to direct bodies in dispersed order.
II. I understand. You begin with riding by swarm?
S. Yes. From it I pass. at the same pace, by signal or conmand, to riding with open ranks and thence to closed ranks, and the reverse as soon as the gait of the drill gallop and trot is confirmed. Next. I pass directly from the swarm to close formation. and the reverse.
H. That will not ensure prompt rallying from the melee. for in the swarm the men still preserse some kind of order.
S. True. With what I have explained. I gain a quick closing in of the riders in ewarm formation. for instance in pursuit, afler the passage of forests or other difficult terrain. etc. It in, at any rate, a good transition from the melee to the rally. When the whole troop is dispersed, the leader should not omit to practice rallying in various directione and in all possible formations. at first at a walk or trot, with increasing efficiency in riding at full speed. at a halt, or in motion, by command or signal. The call or signal of the instructor must be obeyed at once. For instance, if some of the squads happen to be on the squares part engaged in exercises on the riding ground, and the squadron commander has the assembly sounded, every instructor must at once dismiss bis men and let them ride by the shortest way in the direction from which the call sounded. It will much improve the drill and combat discipline. As the indiridual, when called by name, bas to turn his horse at once and approach his superior at the most rapid gait, so the men of the platoons, squadrons, regiments, have to obey at once the trumpet call of assembly. They must ride in the direction from which the call came. That holds good for all circumstances, particularly for the combat. Senseless rushing up is not to be tolerated. The horses are to be parried in time from the sharp gaits and ridden quietly into ranks. The men will soon understand that the formation will be completed much more rapidly in tbis way. It sbould be strictly insisted upon that erery man move into the ranks straight from the rear. Coming up sideways is not to be tolerated; it delays the formation, causes closing up, jostling, bad alignment and faulty formation.
H. Then you want the recr it, likewise, practiced in rallying, at first at a walk?
S. Of course, as soon as they can gaide their horsea a little in come way, they are taught the elementary principles of rallying. When the men have absorbed hem by daily practice; when they have learned to move in the swam, and with open files and ranks; when every one is practiced in ipdividual riding, the instruction in dispersed order, as prescribed by the regulations, will present no difficulties, and still less the drill in close formations.
H. Unless the troop has bogn prepared in this way, there is danger leat it get ont of the leader's band when in dispersed order?
S. Certainly. That also be eomes plain from the general principlos laid down in Part II, Se tion 1, Chapter V, paragraph 100. Hence dispersed order and moyements in it must be practiced in the manner indicated, and becones second nature to the men. It should bespecially insisted upor that in all movements by swarm, forward of to the rear, the offices (platoon leaders) be held responsible for the gait. They are to ide in advance of the men's beads. During retreat it is the leader alohe (inclading down to the squadron leader) who remains behind to keep the enemy in sight. Each platoon follows its leader and obforves him. The platoon leaders observe the equadron leader. Signals are to be respected at once. The direction is taken toward the place whence the signal was sounded. In rallying in retreat the fronts of the reserves are to be untasked. This riding in swarh order must be practiced daily at every drill. The men disperse pr close in by signal or caation of the leader. Formation of line ot squadron column should take place quickly. When each squadron ${ }^{\prime}$ firm, it is practiced with several squadrons, finally with the whold regiment.
H. I think we have uow expansted the movements in swarm order and the passing frow it the close formations, and might not discuss the drill proper in chpe formation.
S. Nothing further remains do discass, and bardly anything to practice. For if what we have oscossed bas become second nature to, the men, the execation of all lementary evolutions by squadron or tegiment becomes child'h play as previously stated, especially if drifl is never suspended, so that the fittle tricks required for "smooth" drill do not escape the squadron eader's mind. Then we would not hafe to hant our horses to death and weaken them during any drill seapon. Where this foundation bas not been laid by individual ridng, riding by swarm, and by fallying, the most exhausting overwofk and cramming will field leceptive results at best. May be
that the squadron commander comes out well in the inspection for once; but be is never sure of it. An old sergeaut-major in my early lieutenant days maid of a new chief. who was very confident before the inspection: "He does not know the danger yet."
S. That is characteristic of the "crammed" troop; for a welldrilled squadron has to fear no danger of any kind.
H. Generally a great deal is demanded of cavalry. When I consider what the rider must learn. expecially since he has a long. range carbine and has to learn how to fight on foot. I can sometimes hardly understand how it is possible, with our present system of service, to accomplish it all. Don't you think that three years of service is rather a short time for it?
S. On the contrary. It is only necessary not to spend the whole drill-day in dead drill. Many things can be done on the same day. It the principles of drill are kept fresh in the troop, you do not hare to pound them in again by fatiguins drill, and have the whole sum. mer (regimental and brigade drill and maneuver daysexcepted) for other warlike exercises, as swimming. fording, field service, outpost exercises, distance rides, with recomaiswance. I have already ex pressed mykelf on the riding on smooth surfaces, which should be practiced in winter.
H. You likewise explained, in the course of one of our first conversations, your principles for sirimming and fording.
S. If there is any opportunity at all, it should be practiced so much that it makes no difference to the horses whether they are walking on sand or in the water. Did not Eeidititz drill in the Ohle River?
H. I need not ask wether you place any value on field werrice?
$S$. The proper performance of field service is one of the chief aims of caralry, for the service of reconnoitering and screening forms one of ita foremost tasks. If we take the training in hand according to my principles, we shall have practiced field service in winter quite frequently, and shall therefore not have to desote so much time and work to this branch during the farorable season in order to come up to requirements.
H. I suppose sou don't think much of dismounted fighting.
S. I do. We should be able to use our splendid carbines; but it should not be made the first consideration. Speed is the element of cavalry. The arme blanche, saber and lance. and the vehement closed charge are and remain for cavalry the manner of combating the enemy. The dismounted fight is an expedient if infantry cannot come up just yet. It may be practiced here and there ill field
exprcises after turning out a cople of times dismounted to teach the simplest forms. Then you cat teach in the terrain how to oecupy defies and other ground that cannot easils be turned. More you do not need. Target practice epould be carried on most conscien. tiously in accordance with the refulations.
H. I can imagine that you paro opposed to non commissioned officers' races, since you have already expressed yourself most decidedly against baving the pqinciples of race riding grafted on campaign riding.
S. The non-commissioned offers' races were forbidden by the authorities some years ago. Pr bably they were generally treated tod much as sport, to the detrim nt of the riding, and the material of man and horse. Properly ha dled they might benefit campaign riding. Their direction would have to be entrusted to a firm and experienced hand, otherwise the would be injurious to military riding. These races would have o demonstrate how the care of the horse, its military training as want it handled throughout the year, and complete control over it, increase the efficiency for warlike purposes. The "starting" end racing would have to be omitted in the beginning. An experiended leader guides the starters wh, approach in the "swarm" over pe first obstacle, at first at a walk. thon at the so-called dog trot. When they take the other obstacles at a steady dill gallop, without ashing or racing. The race itself shonld take place only over the without obstacles, at a comman Thus the racing fever, senseless and accidents, would be avoided. how to race on soft and other d prom the military point of riew. Its pur. pone should be to increase the defight in this exercise by the award of a prize. Such non commissionef officers only should be admitted as are thoroughly proficient in riding; and the admission in itself should be in the nature of a reward. Hyd these races alwaysibeen haodled in this manner no accident would bave happened, nar would they hape been forbidden.
H. We read much of distapce rifes mowadays. They bave become fashionable. I thought you would be opposed to such fads. S. I am opposed to nofbing, hot evon a fad, if it is useful. Tbe cbaso, if properly conducted, is the best instruction for trained riders in correct campaign riding. In place of the real chase we may substitnte the paper chase. In bot we ride distance rides in a eertain sense. But the distance yides froper show in addition bow great
distances may be traversed by means of a proper distribution of the gaits over a whole day or several days. The officer learns at the atme time bow be will have to ride io war to fultill a certain tank T., make preparation for war complete. the distance ride should always be combined with a recomanasance. In this task, in which the distance is fixed. the proper treatment and care of the horse -hould be kept in view and its condition considered. For the horse should be hardened and prepared before the ride takes place. It will lose some flesh. but the lege should not suffer, nor the appetite; wherwise. the demands will be tow great for the hores. If the leges or the appetite have suffered, too much has been demanded of the horse. or the gaits hare not beet divided up properly. or the horse has not been properly cared tor. Competitive distance rides should be strictly prohibited. They simply ruin the horse.
H. I still have aquextion regarding the details of drill. In my letter on cavalry (fourteenth letter) 1 have pronounced againat practicing the so called "minor squadron school." to which many a quadrons often decote the greater part of the drill day. Friends among professional cavalrymen have adrised the that this minor squadron school could not be dispensed with. I was told that unlens it were practiced there would be no guarantee that the troop wonld trot on the march in a manner easy on the horse, and without calling or laming it. What do you think of it?
S. It is absolutely necessary to practice long continued trot in all formations prescribed by resulations. It is also necessary to be able to come to a halt and again trot off in thene formations without the rear rank riding on top of the tront rank in halting, or rushing after it in starting. For during the marching trot of larger units temporary checks will occur which the cavalry must be able to stand without injury. That is what I want practiced in winter. when nothing can be done but borse exercise. If the recruite drill with the squadron it may be practied in going to and returning from the drill ground, once by twos. once by threes, once with a right tirn. Nor can the squadron commander, if unable to observe the whole squadron on the road dispense with this exercise in order to prove the example. The squadron should alsu be practiced in coming quickly into fighting formation from any narrow or deep column. It is necessary in order to be able to deliver a charge immediately after emerging from a defile. But the practice of trequent passage from one marching column into the other, from right face to the formation in threes and twos and the reverse, an way so frequently be seen. and where one formation is barely com
pleted before another is commadded, is not only a udeless expendi. ture of họrseflesh and time, but lumes horses uselessly. To many a cavalryman in whose youth thdo tricks were industriously practiced and considered as the cropa of training, it may seem hard to admit that he has wasted so muph good time and energy.
H. I rejoico over the coffirmation of my opinion by the authority of the expert. For I remind you that toward the end of my fourteunth letter I exprense myself to this effec: . It would be much more important to praqtice long trots in these long columns with narrow fronfs than the frequent change from one to the other."
S. But I go much farther here than you. I consider the long march, with passage of defild before arriving on the fighting ground, and the taking of the fynting formation one of the movt essential things to be pradticed py caralry in larger nits than the squadron up to the division. Fpr, on account of the present range of fire arms, the distance of the opposing lines, and the masses of modern armies, the large bodids of cavalry are held fiar back in battle before the time for the charge appears to the commander to have arrived.
H. It is for this reason that the cavalry must practice the long and sustained gallop.
S. I mean another kind of novement. The long|and sustained gullop is taken on the field of action. To this field the cavalry mast be brought, and arrive wilhout fatigue, otherwise it will have no strength for this gallop and the charge. Of what uke are general staff journeys, tableaux on the drill ground, trainitg in riding, courage and energy, if the cavaly spends its strength before reach. ing the enemy?
H. Like that brave horseman at Auerstaedt with his war ser. vice decorations, whom Ledebup suspected of cowardice, and whose horse was unable to move.
S. It has to be learned. The troop must learn how to ride the sustained trot without ofertirifg the horses; the leadern of large bodies must learn what to look out for when leading the manses to the front. You see in five greaf battles I have been with the mass of the cavalry. In each one of them a long advance, and the passage of a defile was, or wodid bape been, necessary before taking the drill gallop for action. In the fifst place, at Koniggretz we (Second Brigade) were attachod to the six regiments and three batteries under Eidelameim, which had to pass over the circuitous route from Problus to Techlowitz at a trot In the-battle of St. Privat the Heavy Brigade had to hasten it approach from Puxienx to the Bois
de Ponty on roads which had been rendered impassable. In the battle of Beaumont the attempt to turn the French left, led the Saxon caralry disision into a similar movement through the forest of Pouilly. In the battles of Sedan and St. Quentin we rtood close to the Chiers and Somme respectively, and would have had to pass a defle in order to take part in the action. What I maw during these adrances conrinced me that much peace practice is necessary to make one feel confident of coming out with honors in war, when large bodies have $\mathbf{t} 0$ make long adrances or pass defiles.
H. It was one of the reasons that caused me to propose in my letters on caralry that the divisions should make forced marchea up to fify kilometers on a single day.
S. It is not that alone. They munt alno learn how to pass orer short distances, one or one and a half miles, rapidly without arriving exhausted, and how t" pasis rapidy from the marching column to the combat formation. The succese and skill of the leader lie in the skillful, rapid. and yet not unduly fatiguing advance of great masses of cavalry. In the divisional exercises the chief weight , hould be laid on this point.
II. I might nome you a much quoted cavalryman, who called the long adrances and passages of defiles secondary maters, and relegated their practice to the peace garrisons.
S. I know. but I do not at all approve of it. The Prussian caralry owes its victories of Hobenfriedberg and Zorndurf chiefly to the skill and the experience in passing difficult defiles in large bodies in good order and calmly. The Hungarian revolution would have been suppressed at once in 1848 , had the Imperial cavairy been able to take a timely part at the Schwechat. But it was nable to arrive in time because the horses broke down at the decinive moment in consequence of taking an inappropriate and too sharp a gait from the start. It is not at all a necondary matter, but of prime importance, for what is exhausted caralry good for on the battefield? Where and when are the leaders to learn how to bring it up in shape for action. if not during the time when the division is united?
H. It is less interesting or pleasant to observe a cavalry division at a marching trot and to ride an hour of short trot ourself, or to halt and wait a long time until the division deploys and adrances to the charge, than to watch from one and the same height for some hours rapidly changing pictures, charges quickly succeeding one anotber, and everchanging phases of combat.
S. I admit that. But in the end it is not the purpose of cavalry to amuse spectators. Those bent on amusement should go to the
ballet or the circus. The object of the cavalry is to prepare itself for war by means of the peace exefcises. To form a division on known ground in three lines, and atar them against an enemy adcancing discreetly and under instructiods from ourselves, requirea no special talent on the part of the leader
H. It is, of course, quite a ifferent matter if the dirision has to make a long adpance, as is almprt invariably the case in war.
S. Factors appear here whfch have great weight. 1. Marching discipline; 2. The gait of the sustained trot; 3. The condition of the horses; 4. The overcomilhg of obstacles which is somewhat different in the marching column from what it is in the jumping ground; 5. The deplogment of twenty-four squadrons from the defile. This is to be carried out calmly and orderly, and is one of the most important problems of cavalry. On it depende the rapidity of deployment in line and the compactness of the charge. Much can be done in garrison by way of preparation for the exercises of large masses.
H. Through long moyements in marching columis of squadrons. especially in horse exerciee, when the weather limits the activity of the borses?
S. On other occasions also, when sufficient ground is at the disposal of the garrison. Bat it is at the most five squadrons, not twenty-five or thirty, that are railable and are in the same garrison (except Berlin and Potsdan). With every additional squadron the difficulty increases, and with a division of six regiments and one or more batteries it becomes onfo of the most difficult and important problems. It is the proot of the example whether the individual training has been rational, and whether everything in the troop is acting right.
H. Nor is it easy to commond.
S. Certainly not. It will pot suffice to take the lead and ride ahead, but the division of the gits, to let the horses get their wind, etc., will considerably increase toe velocity and closeness of the subsequent charge. Hence the suferior cavalry leader should possess knowledge of the horse and its
H. The manner of arrangipg the advance and combiting with -it passage of defies should affor ample means for judging the ability of the superior leaders, and esp cially of the divisional commanders.
S. Certainly. You can judte thereby whether he has correctly guided and supervised the indifidual training of the organizations noder his command. It will lao demonstrate whether he reads the terrain correctly and utilkes it, whether he possesses self-
control and calmmess. If he exhibits excitement and impatience. they will communicate themselses to the whole body and hare an injurious effect on the force and weight of the charge. For the success of cavalry depends on its timely arrival in good condition. It is only then that the long gallops, the veliement and closed charges are at all practicable. The charge should be ridden with dash. Where is that to come from, if the horses are exhausted by the ad. rance and no longer respond to the spur? This is certainly not encouraging for the rider. Where is the contidence of the leader to come from, if he is in doubt whether he will be able to pass in safety this defile, the marshy ground. etc., and, once beyond, to make at once a compact charge?
H. Such doubta I suppose also occurred to the caralry of semblitz. Frequently, perhaps, he tonk risks and was lucky.
S. So; he was sure of his quarry. He knew what the tronps could do, and kiew where he was leadiug them. For his caralry did splendid reconnoitering. At Zorndorf he had the Zaberground thoroughly recomoitered and the passages marked with whisps of straw. This is another art that has been lost. the rapid reconnaissance of the ground over which the charge is to pass.
H. It has remained one of the chief features in the army.
S. A principle that in rarely adhered to. I dont care to give names. but I might mention many cases in which during the last wars where great masses of cavalry made miles of circuits in order ti) pass a certain terrain. simply because the reconnaissance of it had been neglected. Fords might have been found immediately in trout, and the point where we were being expected with impatience might have been reached hours earlier.
H. Do you think that many leaders ponsess the necespary qualifications for leading great masses of caralry, and exercising them to adrantage, in the manner proposed by you?
S. Nature rarely endows a man with this gift. But even a mediocre head may acquire it through practice and routine, prorided he is a good horseman and judge of horses. The practice fround should be correspondingly selected, not a level stretch easily passable at all points, but broken ground in which men and borses are prepared for war as much as the leaders are practiced in overcoming and utilizing the ground.
H. You spoke at different times of a special sort of gait for the sustained trot, and called it, I believe, dog trot. Is that gait different from the prescribed drill trot of 240 meters per minate?
S. Certainly. It is quite a short gait, which the horses can en.
dure for miles in one breuth. I is, so to speak, the nutural trot of the ridden borse. Its rulgar name is dog trot or cossack trot Prince Friderici Caarles gavp it the name of "traveling-march trot." Call it tráveling trot, if fou like. In forced marches horses cannot eindure the lively drill trpt, because it would be too hard on their lunge.
H. Why don't you propose the traveling trot for the drill?
S. Becanse the horses that would go none but thil trot, would soon be stiff in the legs, particubrly the front legs, while their lungs would remain sound; bence te traveling trot for traveling, the regulation trot for regulation efolations. Ererything in its place! I tell you such exercises of targe units possess great practical utility. The new drill evolutidns of the division ought to be re garded as secondary to them. It paght to be laid down as a principle that the regiments sbould not eherge from such exercises wakened and broken down, but on the contrary, steeled for all eventualities of war. They should form the colmination of the training of man and horse, and of the course of military gymnastics of the horse. The trainer who overtraids is poor one. A poor division is one which, at the termination of a more peace exercise by division, is too much exhausted to be fed at once against the enemy.
H. You seem to be much ppposed to the three line tactics, as recommended in the eighth section of the regulations.
S. Only as regards the formation for combat I am a faithful adherent of the aystem of Frederick the Great, who wanted the first line made as strong as poselble, overwhelming in tact; hence I prefer the formation which plapes the greater part of the force in the first line to the formation it three linest of equal strength. In fighting cavalry the restoration of the fight against a half-way equal opponent cannot be counted upon if the first line is defeated. The moral impression is also quite diforent if the first line is strong, and thus perbaps enabled to overlap The system of reinforcing from the rear is very proper for the iffantry combat, but for the caralry it is too mach of an infanitry aprangement. Above all, no hesitations or trieq in the charge! He who risks much gains much; bence you should bet with confidence on the first card.
H. You prefer to spend the season of dirisional exercises in advances, passage of defiles, deployments, etc. In that case all exercises in three lines, whether of equal or unequal strength, would have to be omitted.
S. That would not prevent from deploying in three lines, and
making all of them charge against a common enemy, each in accord. ance with its assignod task.
H. If you spend so much time and horse power on exercises of advance you will not be able to outline. not to say practice, each if the caves mentioned in the regulations during the few days of the gear when the cavalry division is together for exercises.
S. Is it at all possible to outhe, not to say practice all the rases of the three litie tactios mentioned there? For each line, if I am not mistaken. fire tasks are mentioned that it is to perform. For the three linea, that makeraltogether 125 combinations. Would you want to practice all of them?
H. Then you criticise the reguhatoon an too prolix.
S. Sot at all. The duties and modes of action of the leaders of the three linew are necesary and excellent, only we cannot drill all of them. In war it is the businese of the hader of each line to recognize from the situation which one of its functions is to be preformed. Moreorer, it is quite impossible in peace to represent the situation true to nature; the diviniobal leader arranges everything betiorehand. In that case he loses the most ensential benefit to be derived from the exercise, that of breaking himelf in in comhination with his subordinate leaders by drill from the addle; or he selds weach line an order specifying a certain situation. In viow of the rapidity of the movements, that order will always arrive too late; or he rides everywhere himelf: In that case be cannot lead of course, i. e., not from the place where he ouglit to be-in the presence of the enemy. If, then, he makes at the most two "harges each day with the whole division after passing defiles or difticult terrain. it will be enough.
H. I had imagined you would adrise a normal attack formation for the division; against cavalry one of three lines, the second line leing in squadron column, distributed to both flanke and orterapping, the third line in regimental column in rear and center of the first which charges in life: against infantry a formation in two tines, the second line ovorlapping the outer fiank. You will certainly not deny that if cavalry is to take a halld in the infantry fight by charging around the flank of its own infantry, two lines will suffice, the second line overlapping the outer flank as stated.
$S$. Please do not paint the devil on the wall and save me from normal formations! They become at once soul killing schemes.
H. It might be atated that circumstances would modify the scheme, and that it was to be considered as holding good merely for an ideal "tabula rasa." Did not Frederick the Great make his
cavalry charge in the manner explained by me? I borrowed it from him.
S. Yes, he bad it chatge that way, sometimes, nol always. I am willing to admit that phere may be cases in which two lines, or even one line, may suffice, anf where each one might be mate stronger. But no scī̀me, if yod please. Your scheme for infantry
would not even fit the most celebrated charge in the battle of Vionville. Bredow's brigade should bave been followed by in second line to engage tbe cavalry which charged the brigade atter it had delivered its charge and was in ditorder, and by a third line for the purpose of increasing the temporary success to victory. It is therefore mach better to lay down general principles for the action of the three lines, as is done by the regulations, and to demand from the initiative and insight of the leaders to do the right thing in the right place. Thus it will also blecome possible to give expression to these principles in the charges foccasionally made by whole divin. ions in peace time. We must penounce the idea of illustrating all poesible emergencies or else prepare for them. Still worse it would be to lay down a scheme to which everybody would stick. It wrould kill the spirit that is to animate the cavalry.
H. You believe, then, that ap many exercises in thrue litte tactics. as now carriod out on the drill grounds by large bodies of caralry, are not necessary?
S. That is my belief; at andy rate the chief weight should be placed on the close, vehement charge, and therefore also on the question of how to bring the troops fresh, unfatigued and in good order into the enemy's presence. It will in no small degree augment the self-confidence of the troops and the confidence of the leaders in the troops. When the leader knows that his troops will overcome all difficalties of terruin, and that in spite of these diffi. culties he can bring them up tofthe enemy in full strangth and in" close formation, he will undertake some things as matters of course, which otherwise would appear to him as ruinous risks. The officer who in the course of yeark of such exercises has been promated to the leadership of large bodies, will know' what the truops can do, and will be capable of great achievements. For that reason I said
 ing of the cavalry should produce the bigher leaders.
H. Do you mean to produge Seidlitzes by the system of training?
S. Seidlitzes! No; nor Zitens, nor Bluchers. Gediuses of like kivd are born as such, and are merely perfected by the system
of training. Men like Driesen and others, however, are thereby produced, and they, too, have achieved great thinge.
H. It is true, if in the divisional exerciees the horses are not ex hausted be too long a drill in three lines, as I have seen it done for five or six hours at a stretch. no period of rest wifl be necessary.
S. Nor shall we hare any more influenza. I again revert to lhis fact even at the risk of being tiresome. Our presetht breed of lurses is more blooded and far more noble than forty years ayo. The blooded horse requires a tratment different from that of the common horse. The former military mount, because of lower brced. required less exercise in the open, and could stand fattening. Our present remounts, part of which are very noble animals. require much fresh air and exereise in the upen. To them the sudden mansition from severe work to absolnte rest is highly injurious. Which rest is frequently prescribed from a false notion of how to ate a horse. On the other hand, the sudden change from reat to erere work is equally injurions. Suth change should be gradual. and made with great care The nobler animal also requires purer air in the stable than the common animal. If these peculiarities of the nobler horse are disregarded. influenza will continue to demand its victims, especially if the hornes are stabled together in targe tables. If abrupt changes between rest and work are a voided; if the horses are taken out in the open daily in any kind of weather and put through a smart trot to warm them upand put the blood in circulation, they will remain in good health. If influenza breaks wut in a stable the veterinarians prescribe much gentle exercise in the open. hence exercise and air are called in to prevent disease.
H. According to your ideas remounts and recruit horses are relegated to the hall in winter when the ground in impracticable. In their case you will have to give up the prophylactic care for their health.
S. It is too bad that our dimate obliges us to do so in the case of these sixty six horses. All the more reason not to give up the remaining seventy to equally injurious dietetics. All the more reason to take remonnts and recruits out in the open as often and lung as possible. If they are relegated to the hall for weeks and months, the transition to sustained work in the open should take place gradually and with great care. To the men much exercise in the opell air is likewise more beneticial than the air in the hall: moreover, it hardens them. The demands made on cavalry in the tield, especially on ite officers. are such that no officer who lias be. come soft can fulfill them. They can be made equal to these demands
only by hardening and habituating them to all kinds of weather in peace. In addition, the efficiengy of cavalry depends on their riding and the instruction they give in riding, since the non-commissioned officers get civil positions so eatly that they are no lodger the sup. ports of the interior service as they were tify years ago. The better the officer rides, and the better the inatruction be gives. the more pleasant and interesting the sarpice will be to him, for the result. will not fail to materialize. But if he learns nothing beyond thi cternal sameness of a scheme add of a soul-killing cranming tor the one day of inspection, he will dot acquire passion for the service he will become blase and prefer bis boudoir to the saddle.

United States. But at prekent any first-rate power could attack nur coast cities and wreck them. rhat being so, we should not post pone until war is upon us the b siness of manufacturing our aword and shield.

We have been hearing muc of late about Jayes Monroc, but very little about George Waspington. Two of the most striking piecos of advice giren hil cou trymen by the great foldier and statesman who led our Repolutjonary armien to success kere: "Beware of foreign ontanglements and "In time of peace prepare for war.". It seems to us that the words of Washington are more deeply impregnated with wiodon than are those of James Monroe. But things must be accepted as they exist. If the country believes that the Monroz doctrine mean foreign entanglements, the natiof must forthwith be placed upon a footing in accordance with this belief. If we are to entangle oprrelves in the affairs of Venezuela. Cuba, Hawaii, Samoa, Chili, A fnenia, and those of any people who want our assistance, it is merel the part of common sense that we should arm ourselver. Not to do so is folly. Yet the United States is utterly unprepared for any kind of war-it has no defense against bostile fleets, and it ie even less prepared to carry on an offensive war in Sonth A meric or elsewhere. Let us stop making faces, and arm. The contrast between our militant speech and our empty hands is liable to bring down upon us the contemptuous. ridicale of the armed nations of the world.-San Francisco Aryonaut.

## great bratald anil the unithd states.

The measage of President Cleveland to the Conitemistates conLress in relation to our boundafy difficulty with Venezuela came as a sbock and a revelation of the statesmen and the people of Europe. It was felt as a shock because, fords mean anything-and in the mouths of statesmen who guid the destinies of nations, they carry with them an immense repponebility-the President's message implies, in certain eventualities, that the United States goternment is, prepared to commit the tro branches of the Anglo-Saxon race to a eriminal, suicidal, and calamitolus war. The stupendous natureof the-disaster with which the Prefident threatens, we will not suy the intiprosts of this country and hif own merely, but the highest interests of humanity, will soon, we apprebend, be borne in upon himself, as it has already been uy on the most sagacious of European statesmen. No greater misfortane could overtake civilization than matually destractive warfare bitween two branches of a race which has riot only marchedi in the fofefront of all enlightenment, but has shown, by its measuretess stability and resource, that it has been as a guard over the beat interest of the civilized world. The President's messago was a revelation because it has never entered into the cannsels of Europesn diplomatists to believe that either international law or international right could justify one great mation in constituting berself the jufge apd dictator in the afiairs of another.

Fex European juriste will allow that an independent tribunal. created at Washington without any sanction of international law. can enforce the observance of a speculative .- doctrine" of President Monsoes theory of right by a great power like our own. The contention is. on the face of it, absurd. If admitted it would imply that the C-nited States of America have a rested right in, or a protectorate orer. the whole 1 merican continent. But, as the New York World pointa out - describing the message of the President as : "blunder," and a preposterous piece of "jingo bugabon"-England is no foreign nation in the Western Hemisphere. We own there more territory than the Inited States, and were there before the ['nited States existed.

How really preposterous is President Clevelands distortion of the Monfoe doctrine a very short examination will show. The settlement of the Venezuelan frontier dispute, and hence of every other like dispute, in accordance with this strange teaching is essential, we are told, to the integrity of the free institutions of the Cnited States, and even hostilities with Great Britain may become necessary for ${ }^{-}$the tranquil maintenance of our distinetive form of Eovernment." To maintain this curiously distinctive cnaracter of American policy there is to be a balance of power" on the American continent, in which the will of the L'nited States weighs more than all the rest. and in order to maintain this "balance" the direce tion of force in Europe is to be upset and the peace of the European continent to be imperilled. We do not know, moreover. that the I'nited States government has ever taken any steps even to give the appearance of justice to the rights it assumes. It is a truth in politics, as it is in morale. that every right implies a corresponding luts; but has the government at Washington ever assumed the duty of enforcing internal order upon the states of Central and Southern America-many of which are a reproach to civilization-or taken tepe to secure respect tor the lives and property of Europeans within their borders? We give, in another columa, an account of the past relations of this country with Venezuela, and we renture to say that no one will rise from the perusal of that plain statement without recognizing that our position, which has been explained mont temperately by Lord Salisbitry, is amply justified in history. It must be fully recognized that we base our claim. with unquestion able right, upon inheritance from the Dutch, and within the ScBom scrge line lies the minimum of territory which we hold as not subject to arbitration. Beyond that line we have been willing to treat in a spirit farorable to Venczuela, but we have never admitted her right, which is a mere unsupported contention put forward in the Constitution of 1830 , to the rague territory assigned by the Spaniardn to the Captaincy General of Venezucla. Which, we may observe, incladed, not only British, but also French and Dutch Guiana.

The temperate and statesmanlike attitude assumed by the British public in regard to this matter contrasta favorably with the beated fieling in the C'nited States, but there are already nigne that American opinion is asaming a calmer tone. On the Continent opinion
is almost universally wilh us. The Temps regards Prewident CleveLAND's slip as almost unprecedented in the annals of diplomacy: The Débats describes the Monede doctrine as a political maxim which cannot be accepted by the rest of the world as prevailing against international rights. The Berlin Post observes that President Cleveland's policy seems deliberately shaped to rufte other powers . The National Zeitung considers the American demand for arbitration a mere farce, in fiew of the fact that the United States ussumes the attitude of sole dictator. The Kölnische Zeitung and the Frankfürter Zeitung both regard the President's action as a minchievous political maneuver, and this is a view very largely held in this country, though it is difficult to credit the responsible head of a great State with wanton thifling with the highest interesta of humanity. In any case onr coutse is clear. The claim cannot for an instant be admitted that if ans independent American state encroacbes upon the territory of its neighbor, and that neighbor is the colony of a European power, the respective claims shall be submitted, under the compulsion of the Unfted States, to arbitration. There is no sanction, either in reason or international law, for such at course. Fortanately for the peake of the world the good sense of peoples often outwoighs the ill-conceived actions of untrained diplomacy. There is more worth in Mr. Bayard's noble utterances of the confident hope that anity whll long remain unbroken between ourselves and our "kindred beyond the sea" than in all the devices of the wire-pullers of the States. There is sound, good sense among thinkers on both sides of the Atlentic, and, as we firmly believe, such a weight of public opinion that yo breach of friendly relations can wecar. The President has been ifl-advised. As Protessor Woolsey, of Yale College, one of the most qagacious of American jurists, says, finding his offer of arbitration d\&clined, President Cleveland offers himself as mediator. "But the mediator known to international Jaw must be accepted by both parties, who are also both free 10 reject his decision. In this case peither party has made the President mediator, and be anpounces his intention to enforce the decision. He is, therefore, not a mediator, but a dictator. - The President has gone gunning with ourt taking out a gun license." He may, nevertheless, yet retice fr m his foolish position with mone appearance of dignity, if the Sen te will but refuse to pass the rewr. lution of the Congress authorizi $g$ the proposed Venezuelan Commission. That this or other cirdumstance may be discovered opening the way to a modus vivendi, and an ultimate abandonment by the United Staten of the undubstantial claim put forward, must be the hope of all right-thinking men on both sides of the Atlantic. Army and Navy Gazetle.

## WAR WITH THH UNITED STATES

What is done cannot be und ne. President Clevelanid, either recklosaly as an electioneeritg $n$ ove, or with determined counsel, has drawn aside the veil any dis losed to the British eye not the fuce
of a kinsman wheh as we all expected. but that of a rancorous cnemy realy to neize on the amallent pretext fir picking a quarrel with us. In the Cnited States that countenance may possibly have been theatrically made up. It may be that the horrible tyranny of democracy can allow no one to speak his mind unless be han a couratge not as that of other men. It may be that the feeling disclosed was not real: was a part of that great governing shadow cast by no one knows who a mere mhadow in that gart, of solidity which the awe-btricken eitizens of a democratic State ober.

But the point is, that whether the sudden outburst of hostile feelbus towards this country was real or unteal. theatrical or natural. that is the fecling with which we hate to count. That is what will dominate in the Gonited States and direct her actions towards us in the future. She cannot encape from its directing force, any more than we can from its consequences, unless she submits herself to revolution and break-up. It may be true that as far as the immediate question is concerned. things can be smoothed over. The pretensions put forward by Mr. Cleveland to Congress may not have been communicated to our gorernment - may not be official. in short, as far as we areconcerned -and therefore must pass unnoticed by us. The Conited States Commission may declare that our deter mination to withhold a certain tract of what we assert to be British Giniana from arbitration is as much justitied as would be our refusal (1) submit the nationality of the site and buildings of George Town to the consideration of the same tribunal. America may get out of it that way.

Erery Englishman, however, now knows, and can never again firget, that the C'nited States propose to dominate in America, and are hostile to us because we are the chief har (1) such domination And yet her position is a ridiculously absurd one. She claims. in effect, that all our interests in America must give way to what she thinks hers, in order. chiefly, that she may be exempted from those charges for armaments which weigh so heavily on the powers of Furope. She does not perceire that neither mations nor men erer surrender their vital interests to others unless compelled by force. To live as she now does, free from any great cost for armamente, she must behave as she has hitherto done, and keep herself to herself. She is a numerous and fairly wealthy nation, but she is a great na-tion-in the sense of power in the world-only by sufferance. There is a general European understanding with her that the States on this side of the Atlantic will not attark her interesta in America, but it is mutually agreed that she shall not attack European interents anywhere. The moment she announces her intention of acting like an armed nation and breaking the compact with Europe, she be comer ridiculous in the face of the world if' she does not make those sacrifices in the way of armament which European nations are compelled to do. and which she would in any case have been compelled to do had Canada remained French. Having, by a great public act. condoned and supported by a great mannfactured or spontanenin burst of feeling, committed hereelf tothe position of an Furopean
power, and claimed to be great, nfton the ground of new political light and a basis of good will, mointeining friendly negotiation throurf all international difficulties, but on the ground of self-assertion and a claim of right not to be ques ioned, she will be forced to do an other nation do. She will be pompelled to maintain an army and a navy adequate to her pretensipns.

The prospect is sufficiently pelancholy; but we must understand that if the United States remai united there will ultimately be war between the British Empige a d that nation. The world learns nothing; and the latest creation in the form of a great power drifs. -in apite of all the better kno ledge of its wiser citizens-into the position of the oldest. For this empire, it must benceforth regard war on the United States, howeper we may deprecate it, as one of the probabilities. At present, perhaps, the mere instinct of an excitable people might check then before they went, too far. For it - is absurd to suppose that aqy of her statesmen with common powers of reasoning and an influential position wonld hesitate to speak his convictions before an irrerocaple step wais taken. However defective our army organization pay be, it is difficult to conceive that we could not have $\mathbf{2 0 0 , 0 0 0}$ men on the Canadian frontier lifng before the United States could train and equip 50,000 . Mexico in the south would scarcely fail to seize her opportunity; and an all-pervading British fleet infesting the Pacifit and Atlantic seaboards would only complete a second edition of that "Anaconda" policy which the Federals employed with such Federals employed with such complete success in the giv beyond imagination a criminal folly on the part of the power which forced it on.

Unless all the preachings of all the experts for the last twenty years have been but soupdin brass and tinkling cymbals, the coantry which was best prepard d would win. The British army unless all our modern efforfe ha fe been futile-and the British nary would not only be first in the field, but the general pbsition of the United States and Gfeat Britain at war would be frikingly analogous to that of China and Japan. Japan was ready, and China had made no real preparations. England is ready, and the Cnited States are in no was ready. China, an apparently hunogeneous nation, is in reality but an assemblage of nations, only holding together because there has never been any advantage in separating. There has never been an dutside pressure upon her such as to make separation the interest of any of her parts. This is so much more true of the United States, that even without such outer pressure one-half made a fierce struggle to shake itself clear of the other half. The concentration of Japanese power manifested its success against the diffusion of Cbineaf power, and it is not reasonable to doubt that English concentrat d power would do the like against the devolved and diffused powfr of the United States.

An inflated patriotic fenti ${ }^{2} e n t$ bas nevor held out very long unlese material advantages we bebind it. The pressure of war apon the North, South, Edst, abd West of the United States would

- carcely consolidate those huge quarters of an unwieldly group of nationalities. For it must be borne in mind that the Cinited States have not been long enough united to produce astrictly amalyamated race. There are millions of A merican citizens who are only such by law. and haje no real "American" sentiment. Tbe inertia of these divergent races in the midst of the States might easily raise anew the cry of State righta, and paralyze the central executive. On the whole, we may for the present hope that the sensible men in America who hare allowed themselres to be carried away by the flood. will reflect that the result of war might be too disasirous to the United states to be contemplated for a moment. But for us, we must wait and watch. If the armament of the Cnited States grows, we shall understand that the sensible men cannot stop the rolling of the democratic ball, and can only prepare it to crush as it rolls. Then we may be sure that a terrible time of trial has come. and that we mint nerve ourselves and prepare to meet it. - The Brond Arrorr.


## THE AMERICOCANADIAS FRONTIER.

There is not wanting eridence that notwithstanding the unbe. coming and unjustifiable threata and pretensions of President ('leveland, there will be no war between the Guited Kingdomand the United States. As, howerer. this country is resolved not to submit to bullying by any power, the best way of preventing threate developing into actual aggression. is to show ourselves capable, if need be, of detending our material interests, and of rindicating our honor. Besides, with a country on our frontier liable at any moment tor purposes of party, to take ap a hostile attitude, it is desirable that we should consider what the strategical position of the Dominion of Canada is, irrespective of the present difficulty.

At the first glance the map diecloses an apparently very weak frontier. The border line, about 4.000 miles long. runs from the mouth of the Fraser River due east till it strikes a point on the worthwest ahore of Lake Superior, a little south of Thunder Bay. Thence it is defined by Lake Superior. Lake Huron. Lake Erie, and Lake Ontario. From the northeast corner of the latter it runs along the left bank of the St . Lawrence to St . Regio, and then tor 167 miles along the $45^{\circ}$ parallel of latitude to the Connecticut Rirer. From that point it deacriben an irregular curve enclosing the greater part of the State of Maine, and bringing the latter at its most northern extremity within twenty five miles of the St . Lawrence at Riviere du Loup. From the end of the eastern arm of this bight it runs a few iniles due east till it strikes the Bay of Fundy. The great defect of this frontier is that owing to the unfortunate Aseburton Treaty the State of Maine runs like a wedge into our territory, and as we have just said, approaches at one point to witbin twenty-five miles of the St. Lawrence. In Maine, therefore, forces might be collected which could within a mile or two strike the railway which runs from St. Andrews to the

St. Lawrence at Rivière du Loup, and in the other direction via Moncton connects with the rilway from Halifux. Fortunately. however, there is from Halifits another branch, which passing through'Newcastle, strikes thd St. Lawrence at Melis, and then rang along the south or right bink of that river. Lntil it reache Riviere du Loup it is too remot from the frontier to be in danger from a mere raid. The eadt and west railway communication is alsi liable to be severed by a party landing from a steamer oll Lakes Erie, Huron an Super or Yo doubt however, we should coon have a fleet of gunboats on the lakes, and much would depend upon the result of a conteat for the naval supremacy of the inland waters. Moreover, it mus be orne in mind that if railamy can be easily cat they also aford medos tor rapidly bringing up defender to the threatened spot, and that cutting railways can be practiced by both atened spot, Moreopr, behind the main line, running from the Atlantic to the Dacifid, and covered by the St. Lawrence there are many other lines. In addition also to the main lines of railway and water navigation there are shorter supplementary line of both sorts of communication which lead from the interior towaris the frontier. The frontief lying west of Lake Superior does not at present call for much attention for several reasons. That part of the Dominion is, comparatively speaking, a desert, and like a great portion of Russia has no centrs. A small force could easily be dealt with by the mounted polife and the local militia, or by troop sent from either the east or the west by means of the rail way. So large force would dream of taking an incursion. It could he nothing more substantial, owin to the diffeulty of obtaining fooi: bence tor eeveral years to com we may almost dismiss from consideration the western half of

With regard to the eastern to the Americans of possessing ritory, is more apparent than the country, is not formidable thioly populated, and possess topth An attempt, therefore motb. An ates there sallyport, nulese there mere each end of the base of the tri fitercept the invader's lifues whilst a large force could by railway commanication be re render. Without going into measures for rapid mobitizat etails, our proper policy is to adopt fortify certain important poin ${ }^{\text {a }}$; to avoid dissemination of troops along the frontier, which sholid be carefully watched by amall patrole of monnted rifles and cavalry, and to await the first move of the enemy. That move, to be of any importance, would require long preparation, and woald efve us time to ascertain the intended direction of the blow.

It seems to be forgoten, it war with the Cinited states shonill
be furced upon us, that we should not confine ourselves th the passive defensive, and that whilst the Canadian forces were being organized and gaarding the frontier. an imperial force could throw itaelf on the eastern flank of the evemys mustering forces. Fifty thousand regular British troops, landed cither on the coast of New Hampshire or Maine. would exercise a paralyzing effect on the movements of all intending invader: but as a war between America and thip muntry would be a duel a outrance. We should not confine ourselves to su, 000 men. We should, by calling up the reaerve be able to send at orce of 100.000 men to the coast of A merica. besides contributing - me $\geq 0,000$ men to stiffen the Canadian militia. Hence, though there is every reason why we should forecant a possible, let us hope mit a probable, future, and make careful preparations, there is little reason for being despondent as to the result of a war with the [nited States. Eversthing depends. however. uphon our having the eommand of the sea, and as to this there should not be a shadow of a doubt.-The Broad Arrow.

## THE DEFENSE OF GREAT BRITAIN

It is an ill wind that blows nobody good. and the warlike storm. that bave burst upon us with the opening year, may atter all blow rertain home truths regarding the unsatisfactory state of our home defenses into the public mind. aswell as into that of the government of the Empire. The British public, in spite of its many idiosyncracies. is at bottom shrewd and far-sighted; moreover, it does not require. more than ordinary foresight to grasp the following four facts:

1. That Great Britain as a European power is completely iso. hated and alone as regards defensive measures.

2 That an invasion of this country by any of our powerful neighbors is, in spite of our nary, by no means an impossibility.
3. That our available land forces are quite inadequate to meet such an incasion.
4. That were such insasion successful, it would mean for us momercial ruin and an end, for some generations at least, of our prosperity as a nation, and our place among the great powers.

Isolation from the alliances and intrigues of continental nations is far from being an undesirable goal to aim at: on the contrary, the seneral consensus of public opinion approves of it. What we want, however, is isolation, with the assured safety of our colonies and the British Isles. This at present is not assured, and were a portion of wir fleet engaged with one, or maybe more powers, away from the Channel, there is notbing to prevent another of our European neigh. lurs taking the opportunity to land a force and march on Londen. Such a schemp as this has been carefully worked out by able men thoth in England and on the continent, and bas been prosed, as far as such things can be proved, to be quite feasible.

To remedy this grare and momentous danger. therefore, without
going as far as conscriptiod for general serrice, is the question that should be decided without furt fer delay, and now is undoubtedly the opportunity for those responsibfe for our national safety to prese it; and were the unvarnished facts cloarly laid before the public by those to whom it looks for advice in uch matters, there is little doubt that the British electorate would le ${ }^{\text {d }}$ not only a willing ear, but applaud the decision. There is no ochasion, so long as our nary is reaily equal to that of any other two preat powers, 10 greatly increase our forces of the regular army for ervice abroad; but what we want in a thoroughly well-equipped, we force purely for home defense.

Were iuvasion imminent civilian manhood would willin lives, if need be, to defend tho avail their untrained sertices cotps of well-trained and disci outcome would be but remore matood had not been prepar Empire from financial and socil

The remedy here suggested as follows: The repeal of the constitutional custom of ballo act of Parliament requiritig th burghers and peasants, in the kin, and the bonor of the na say: Every able-bodied man his conntry in the militias for probably a total service of abo in the reserve for the miltia, tinuous service in the volunted army, and nine in the army re

That there would be any g, by a very large body of pure every man's daty, no mater emergencios recognizes better his country in cases of grave $n$ dition of what is required onl fruitless policy of shutting the

The great advantage of a be that our volunteer force factor, as drill and disciphine practical sense; at present, w tem of voluntoering, it is not work and their most solemn ever, and the lack of recruits those who now-and of a tr are content to do their volunt trouble as possible, resigping und abeence from drills, wou
drilled, well-disciplined and reliable
o-morrow, ninety per cent. of our y give their serrices, aye. and their mother country; but what woutd at the eleventh hour against army ined troops? Practically nil! The and regret that the flower of our , and so have sared the eye of the 1 ruin.
meet these pressing needs in roughly suspension of the fime-houored and for the militia, and the passing of all training of our able bodied citizens. efense of their homes. conlutry, kith. on, should necessity arise, that is to of eighteen should be liable to serve say, twelve years- that would be eighteen months only - and trelr. nless he elects for twenty years' conforce, or three years in the regular erve, or for service in the rogal navy. eat hardship in this liability is denied commercial men, and after all it is what bis occupation-as no one on han the Bfitish workman- to defend tional danger. To act on this recog. after the danger bas arisen, is but: table door when the steed has escaped. cheme such as above suggested would ould then become a. really powerful ould be a possibility in the true and h our come-and-go-as you-please syso. Volunteers would buckle to their responsibilities with more zeal thall ould be an unknown quautity; while th it must be said there are many ering with as little work and as little called over the coals for slacknes. think twice about the adrantages of
leaving their corps with the ballot for the militia or service in the regular forces as their only alternative. The militia would in a like manner be ennermously increased both in numbers and efficiency. according as the authorities deemed necessary, while the regular forces would profit by the increase of recruits, and consequent powers of selection and rejection of recruits that would accrue from the more martial instincts instilled into our population.

As regards the offcering of the militia and volunteers that appears at first sight a difficulty, but it is one that could be overcome. Those now in the auxiliary forces would by selection -only it must he real downright bonest selection-adrance to higher grades. Officers of the regular army retired for age, and those who retire and they are many - solely because owing to family, business or property ties, they cannot any longer serve out of Great Britain. would, in lieu of being pensioned off when in the prime of their life. find employment in our auxiliary forces provided they are selected tior that purpose, and thus bring with their services a system of regular disciplime, habits and customs, which would in time learen the whole of our defensive arny. Thowe retired from the regular army as unfit for further service through their own fault, might with adrantage be shelved on a reduced pension, to the benefit of the army and country. - The Broad Arrow.

## AN ENGLISH VIEW OF CLEVFLAND'S MESSAGE

If President Clevelanis message to Congress on Tuesdar week were to be taken seriously, it would probably be the most momentous document ever penned. Because that document. if recarded as a serious pronouncement of national policy, and if carried to its legitimate conclusions, means war between Great Britain and the United States. The message throughout breathes a spirit of arrogance and defiance towards this country, and is altoLether. from whaterer standpoint we regard it, a monstroun state paper. The Monroe doctrine I have heard of for many sears past, hut, as I recently had occasion to point out, this doctriné has never received the assent or consent of any of the great powers of the world, and has, for the most part. been looked opon as a flagrant piece of Yankee impudence. But the authors and supporters of the Monroz doctrine in their wildest flights have never put forward nuch preposterous pretensions as did President Cleveland in his message. "The time has arrived." remarks this extraordinary man, "to take measures to determine with sufficient certainty for its justification what is the true dirisional line between the Republic of Venezuela and British Guiana." An inquiry to that end im therefore to be conducted "carefally and judiciously, due weight being given to all available evidence, records and facts in support of the claims of both parties." "When the report of this Commission is received, it will," observes the President, ", be the duty of the Cnited States to resist, by every means in its power, as a willful
aggression upon its rights and inerests, the appropriation, by Great Britain, of any lands or the exprcise of governmental jurisdiction over any territory which, after investigation, we have determined of right to belong to Venezuea." The cool impudence of auch assertions as these has surely $n$ ver been surpassed in a state paper The United States is, in effect, $t$ investigate a matter upon which it has really no concern, and having so inrestigated it, in the absence, of course, of one of the parties boncerned which repudiates jurisdietion, declares its intention to eforce the decision of this precious Commission by force. If this it really the feeling and intention of the United States government and it proceeds seriously to eary sucb intention into offect, the rault, of course, will be between the two countries a war which, mugh as England may regret it, whe han no reason to fear.

If President Cleveland au their words, the result will be, tire, of course, of incalculable $n$ of hate between two great na speaking the samic langusge, a glory. But sometimes war, ter regarded, is the lese of two evt resisting President Cleyelan certainly cease to call herself it can have but one result-t navy of the United States is a military force in Canada as iuvasion of that Dominion, into the enemy's country. thing, or to talk of enemies $i$ the great republic. Fortunate take the President's speech, hero. It is pretty generally twist the British lion's tail American electorate in view of If so, it is, I must say dangerous devices are deroga speaking State. Let Prusiden to it that the British lion dd back up at this rocurrity ta lay about him with his paws. December 26, 1895.

## ©OU

Cavalrymen, and we bope be country at large, will bave turned with chastened feelings to an article upon "Our Cavalry" in Kinc. millan's Magazine. The cavary, indeed, has nothing to reproach itself with. Loyal service ad earnest endeavors on a chequered
his governnent mean to stand hy s I have said, war -a war produc. sery und losn, and arousing feelines ons sprung from the same stork. d possessing a common heritage of ible as it is, and mast be, however , and if Great Britain shrank from s propositions by force, whe must Great" any longer. If war comew. e navy of England is supreme: the significant, and we could pour such ould not only successfully resist the t, furthermore, carry the campaign t we prefer not to think of such : connection with the inbabitants of $y$, bowever people in the States may is importance is largely discounted egarded as only another attempt to gratify the Irish portion of the he forthcoming Presidential election and spiteful proceeding, and such ory to the head of a great English Cleveland and his supporters lool s not one of these fine days get hi--twisting process, and determine t. Admiralty and Horse Guards Gazette.

## CAVALRI.:

path towards efficiency are its characteristies and the fault lies with the country. As is said by the writer in Macmillan-in whom wo think we recognize the llon. J. W. Fortescre- - ${ }^{\text {the country. }}$. by which he means the political wire-puller. "hoids a party triumph hearer than the efficiency of an army, and would sooner see whole regimente ruined than one rote lowi." A typical regiment, easily recoguizable as the Seventeenth Lancers-to whose history Mr Fortesces has just done excellent justice in a rolume-is selected to illustrate the old evils of the system, and at the same time the scellent qualities of our cavalryimen. Admirable is the pieture of a regiment as-like any unirersity. inn. or college-anancient and lonorable society, formed tior the purpove of training young men in a great and urble profesion: " It has its purpose to attain, ite tra ditions to cherish, its reputation to upholid. its unity to preserve. and to thisend, over and abore all equeen' Regulations, it pos. -imes its own code of laws and customs. both written and unwrit. ten. which goes by the name of the rerimental system." How can this purpose lee well carried out. says the writer if the regiment be aplit up in detachmente in unsaitable places. deprived of the very means of ita action? Colnol Graves is quoted in illustration of thin "abominable system," as also of the depletion of the ranks. Reformers have generally left the cavalry severely alone and it has suffered from undeserved and unwise neglect. Vet its recruits are the best in the service its horses are better than thome of any other army and the men ride them better than eould any other men in finrope.

Colonel Graves gare in his article in the Journal of the Royal Tonited Service Institution an example of a regiment which in the -ourse of the decade 18:9-89 passed through the hands of six commanding officers, of whom the first three never had their entire regiment on parade during the whole term of their command : the fourth had them concentrated for but three months, the tifth but for five, and the sisth for a year. And this kind of thing is going on unaltered. Ant cavalry officer cantell with little troulle, as the writer in Macmillan sags, the number of regiments that hare not stood to. fether in line for monthe, and even years. From time to time, however, their turn comes for concentration; they are sent out to the yearly maneuvers, and critica complain that they are not up to the mark, and that too much time. which should be devoted to higher training, has to be given upsimply to drill. How can it be other wise when their colonels never have a chance eren of seeing them, and their officers have not so much as ground to drill them on?

How differently do they do things on the Continent. As a "riter in "Military Notes" in the Journal of the Royal United Service Institution for October pointed out, of all the maneuvers held this autumn int Europe, the most interesting, from a cavalry point of Fiew, were those of the Hungarian caralry, in the presence of the Emperor and the chief members of the army staff, near Kis Czell and Zenta. At the former place a caralry force larger than any before assembled during peace in Europe, consisting of serenty-two squad.
, rons with forty-eight horse arti ery guns, divided into two bodies. which started some 130 mlles a ${ }^{\text {art, performed extended reconnais- }}$ sances, culminating in the discof ery of their respective whereabouts. and in an action of the most br liant description on September 18 th . The average march of the morefconcentrated bodigs was about forty miles daily, while some advanced patrols are said to have covered eighty miles in the twenty fourfours. An officer of hussars is said to have ridden sixty miles on September 18th.: The Honved, or Hungarian reserve division marched fifty-six miles on that day, arriving in time to fall on the fla $k$ of the enemy during the action. The efficient appearance of bot men and horses at the clowe of these trying manenvers was most femarkable. The horses, it is said, looked in excellent condition, if spite of the weight carried so long daily, and casualties were pratically non-existent. , The reasons for this are very instructive. "The daily work," we are told, "is gradually extended at the compencement of the drill eason until the horses become fit and theil backs bard. The men are nerer changed from one horse to ano her in the squadrons, as they have, unfortunately, to be in ours on account of the disproportionate numbers of men and horses. The han thus looks on his horse as his own property, spares bith when he can, and cares for him as a friend. The men are dismoun ${ }^{\text {ded }}$ wenever possible, and girths are loosed and backs cooled by slightly lifting the saddle. The saddles are so made that they dllow of a free current of air between them and the blanket on the back, this. It is possible to see th cantle to withers. . No boree squadron to maneavers. Fin pace of the march is an almos halte, but with a minimum of the almost complete immanity

A cavalry regiment in Hy sisting of six squadrons of abo or troop of twenty-five men a behind for recruits and remou sideration in regard to the $A$ do horse in the ranks until it this is the all-important consi troop for recraits and romou strength of this cadre never bel much longer sball we play at five, four, and sometimes er with recraits brought out for or squadron into which to po We lock our cavalry up in cer they rast for want of opportar out-ot the-way places in Irela young recruits on to young a this means to $d$ anformed horses, and we hope by this means to aphold the char cter of the once famous British cav. alry. We have a small enoug force of cavalry in all conscience ;
the least one would expect would be that the War (lffee would do its best to render it efficient. Instead of this we go out of our way to prevent its being so, and we call the arrangement by which all this is accomplished a system.

Eren if our caralry were all that the War Office would hare us believe and more if esery reciment were up to war atrength, fully manned, fully horsed, and fully trained, it would still be too weak for its work. As it is we could only put into the field a ridiculously small force. heterogeneous and half-trained. the officers unacquainted with their men, and the men ignorant alike of their work, their comrades, and their horses. So it was 150 years ago, so it is now and so it will ever be until the British public awakes or is rodely awakened by difaster. It is, in fact, as the writer of the paper in Macmillan points out: "We hareincreased marvelonsly in wealth and population in the past 250 years; but the highest ideal of the British caralry lies behind us in the year 1 titis-erery regiment of tillo borses, esery troop 100 strong. every officer respousible for at least thirty men. When this is done for our twenty one regi ments at home - though tive squadrons of 120 will do as well as six troops of 100 - then, and not till then, we may say that England possesses a force, and still none too strong a force, of cavalry. Will the British taxpayers ever be brought to realize how seriously they are interfering with the proper caralry development whilst they allow cavalry to be frittered away as a fifthrate police in places where it is absurd to give them "house romm?" Thin system -be the expense what it may - ought to be abandoned. an we trust it will be before the term of sersice of nur new commander-in-chict expires.-Army and Nacy Gazette.

## CAVALRY REORGANIZATION

Under existing conditions a British caralry regiment at home is a mere skeleton. The question is, can these dry bones live? A general increase of the cavalry establishment is impracticable, and therefore no reform is worth discussing unless it starts upon the basis that we cannot have more men and horses, and mast he content to make the best of the numbers already provided for by the army estimates. At present it may be safely asserted that if the caralry brigade at Aldershoi were called upon to furnish one regiment for active serrice, at the proper strength, this could only be done at the expense of reducing the remaiuing corps to utter impotence. Such a situation is not only extremely undesirable, but it is obviously vicious and inexcusable. Deep-seated ulcers can only be removed by a bold use of the knife, and it must be upon such principles that any real reform of our cavalry system mast be approacbed. The long and short of it is that, accepting the existing eatabhishment of the British cavalry as it stands, there are too many units, and an amaligamation of some of them is the only possible remedy. If there were fewer regiments there would
be bigger squadrons, and by number of officers there would provide for a amall increass of can scarcely be denied that twd war material than three veal horses are altrery well in thei denls tooded with them must can be fit for uctive service. Rd some when absorbed with caref

That the proponala which with violent denunciation viduals are undeniably involred public good has demanded ind would propose to reduce the $H$ by amalgamating the First an regiments of Dragoon Guprds remaining twenty-one regamer serenteen. Tbe Seventh Drap the Nineteenth, Twentieth and be the proper regimente to ama into effect, would naturally ca would be grave difficulties of would remedy all these, and $l$ have strong regiments capable which, unaided by drafts from of renerves, are useless for war.

Of the thirty-one regiments one in Egypt, and one in South lome stations in Great Britai round numbers, and excluding the culculation, we find that th misaioned officers and men and which, divided amongst thirly rougbly, 516 non-commissioned But if the number of regimente to bay, to twenty-fire, the fery missioned officers and menland

In India, under the existin ments have a streugth of 5,409 with 4,725 horses. It may be sufficient, and it may equally b unnecessary it would not be $n$ 676 non-commissioned officers a the same fighting strength, an the pay and allowances of twe tem. For home service there than 500 men and 400 horses. axisting total establishment, having 608 men and 412 horses bo kept permanently at war st
the consequent reduction in the be $u$ saving of money which would he strength in men and borses. It strong regiments represent bettev ones. Reserve men and raserve way, but a skeleton regiment sudeed considerable training before it ervists, like old ale, are only whole moderation.
re presently to follow will be met ry probable. Hardships to indi, but it is not the first time that the vidual nacrificen. Briefly. then. we usehold Caralry to two regimenta Second Life Guaris. The seven we would reduce to six, and the s of the line we would reduce to on Guards, the Fifth Lancers and wenty-first Hussars would secm to gamate. Such a scheme. if carried se many heartburnings, and there Il sorts to smooth over; but time e result would be that we should f being used in place of weak ones, others or by an excessive injection
of British eavalry nine are in India, Africa, whilst the remainder are at and Ireland. Taking figures in the officers and their horses from reare in all about 16,000 nou-com 2,000 horses in the British cavalry ne regiments, gives an average of officers and men and 387 horses. were reduced as we propose, that is espectable average of 640 non-com 80 horwes would be reached
arrangements, nine caralry regi-non-commissioned officers and men assumed that this estublishment $i$. taken for granted that if it were aintained; but eight ragiments, of d men, with 590 horses, would give produce a saving to the extent of ty-nine officers - no inconsiderable should be no establishment lower The Household Caralry, taking the ould provide two regiments, each The regimenta at Aldershot should ength, erery man and horse fit for
service at a moment's notice. No horse should be borme upon the astablishment of a war strength regiment before six years of age, and no recruit should be posted to it until sufferientiy trained to take his place immediately in the ranks. No horse should join ang regiment until after having been fully nchool-trained at a depot. ('avalry regiments have quite enough to do to carry on their training for war, and therefore schooling remounts should form no part of their daly work. The men of no other nation bat our own could ride the horses whith our cavalry are called upon to bestride in the ranks. The best German cavalry resiment mounted uphon our ladfetrained. Vawning. intemperate animals would be nothing but a rabble. It is comparatively casy for a man to learn the "aids." so as to apply them to a horse which understands them, but it is anly a finished horseman who can school a forse. There are a lundred good riders to one good horseman. Hundreds of horses are spoiled by being ridden half-trained lis men who are incapable of completing their education, and dozens have lever even had the advantage of learoing their first lessons from a real horseman. ('in we wonder, then. that the ranks of our reviments sometimes present a ragiged appearance? The only wonder is that they are, generally, as grod as they are. For a pure shock, after nothing but -tratightriding, the stodit hearts and strong seats of our cavalry ooldies: may fairly be'trusted to overthrow any enemy who has not a very ir reat advantage in point of numbers, but if sharp. tricky maneuvers immediately preceded the charge home, we ahonld have

* less reanon for confidence. whilst in single combat or in affairs of "Pposilng groups the superior handiness of their horses would give any continental adversaries an immense adrantage. In short. bigger squadrons and an improved system for the supply and training of horses are the two things primarily needed to improve the British Gavaly. Given the material, the present Inspector-General can be fully trusted to make the most of it, but even he cammot give war training to skeleton squadrons. "Made-up" squadrons, wuch as we ste at maneurers, cannot compare with genuine squadrons previously worked up as complete units at squadron training. Such nquadrons we live in hope of seeing some day. Under the existing caralry "ranization they are an obitous impossibility. - The Broad Arroir.


## ('AV'AI.KY DRII.L ANH TR.IINING

The Commander-in-Chief lias just sanctioned, on the recommendation of the Inspector-General (Major-General Georar Leck), a new drill book for the caralry, which will be issued in a few dase. When compared with that which it will supplant, very few points of resemblance are found. The old book was modeled on lines first laid down about forty years ago and although since that time there huve been sereral so-called "new" drill books for the caralry arm, successire issues bave varied but elightly from their predecessors; indeed, they may safely be said to hare been little else than reprints
one of the other, pablished as editipns became sold out, and to have differed only in some slight particular which to the meantime had been anthorized by the Adjutanf-General. While other arms pro. gressed, cavalry to a very large extent remained stationary. To account for this is not very diffcult, for, not only in this country. bat alen on the Continent, the opinion was very generally held that with the introduction of rified, orms with their immensely greater range and accuracy, and the rait multiplication of purely ballistic forces, the role of cavalry was thing of the past. A remarkable evolution has now taken place, and to-day we find this gloriously picturenque and adventurous eqgine of the battles of the past particularly of those of the Napd eonic period, from which its decline may be said to have dated - resfored to its pride of place and glory. and with its prestige not oply unsmirched but, if possible, enhanceid. The conditions, however, which must govern the employment of cavalry in the civilized warfare of the future differ considerably from those of the past.' More than efer will those who belong to it have to be the "eges and ears" of aryies; but with this their role will be by no means ended. The cavalfy ill hold in their hands the tirat stake of the campaign, and on the issue of this preliminary struggle that which will make for the ult mate success or defeat of the hostile. masses will more than ever depend. The responsibility thus thrown upon the arm will be overwhel ting.

In such circamstances as ar now commonly accepted it is more than surprising, that the orga ization of the British cavalry, amd the ordination of a syatem of tadical training in uccord with present day requirements, should have geen so long deferred. Fortunately the new drill book is now beford us, and the rers necessary reorganization scheme which has been ostrenuously demanded will shortly be brought into operation. Thy old book was issued in three cum. brons volumes, but the new one has been brought within the compass of two much handier ones. The tirst, in two parts, deals with equitation and foot drill, and is equally applicable to all the other branchen of Her Majesty's servite. The second volume is the cav. alryman's own, and in 286 page, divided into three parts, describes drill, maneaver, and miscellanpous, the latter of which includes duties in aid of the civil power, ascorts, dutics on the line of march transport by railway, rules for squadron training, detached duties ceremonial, guard, royal and ctremonial escorta, etc. The princi ples of equitation and foot drill, which are but the means to the end of qualitying a cavalry abldier for the bigher duties of his eervice carried out whilst be is nounded + for once divorce him from his horse he is no longer a cavaly man, who has been defined as "a trained man on a trained horse -mast of necessity remain pretty much'as 价ey have been in ti ne past. It would, therefore, be a bootlees task to attempt a comparison with regard to these matters of the instructions previ申usly aid down with those that are now provided, when the pringiples ppon which both are founded have undergone no change. But it i safe to say that it would be impossible for anyone to avoid being strack by the entire absence in the
new colume of that cast iron mode of expression in which the details of drill instruction were formerly framed. The old atyle may have been suited to the time when it was first adopted. but things have very considerably altered in the lant forty years.

The instructions in the new volume are so clearly expressed that the task of the recruits who are to come will be rendered much less irksome than was that of those who have passed that stage, a result "apecially desirable in military training, the early or routine stages of which cannot by any flight of imagination be deseribed as exhilarating. It is, however, in the second volume that the most noteworthy changes hase been wrought. The compilers have done their duty in a very complete manner. The old volumes hare been -abjected to no overhabling or process of revision; they were completely discarded, and are replaced by an altogether new book, fresh and even piquant at times in style. written in terse language, and altogether deroid of unnecessary rerbiage, although ample exposi tions are given both of the principler which underlie movements an well as the directions for their execution. In this respect the com. pilers have elaborated upon the principle adopted with so much success by the Adjutant General in the "Infantry Drill Book, 1893." and were one asked to recommend a simple treatiae on either cavalry or infantry tactice it would now be diffecult to do better than refer the inquirer to the drill books of these respective arms. The full value of such an adrantage as this can only be realized by thost who underdent the trying ordeal of "cramming" drill or tactics in the old days, or who may have seen a young soldier strugyling with a sheaf ot drill books and a collection of "manuals," atter which operation the was as often as not lef with his confusion worse confounded. and which ended not iffrequently in his getting up com. plete books by mechanical rote rather than acquiring an intelligent grasp of the principles they were supposed to teach.

It will, no doubt, be remembered that some time ago it was or. dered that the organization of caralry regimenta should be of an aggregation of squadrons. the squadrod itself being an aggregation of troops. Following this the squadron in the new drill is treated fior the first time as the smallest tactical unit. whereas formerly it was the regiment. and proceeding therefrom to the aggregation of regiments into brigades, and brigades into divisions. Consequently now, as the tactical unit of the arm, aquadron exercises are described as the groundwork of anl the morements and batte training of larger bodies. Great stress is, therefore, laid upon the importance of efficient squadron training. According to strength these unita are split up into three or four troops. which for purposes of interior economy, discipline, and initial training are placed under subaltern offers and the junior captains of a regiment; but the actual respon. sibility for the proper carrsing ont of troop training in the annual course will scarcely lie so much with these officers as with the squadron leader who ia cbarged with its supervision, and who is directly responsible to the commanding officer that on the conclusion of the troop and squadron courses-and the time has arrired
for the training of the regiment as such - the troops comprising the squadron shall be able to move togetber with cohesion and uniformity of pace and distance. The qquadron training will be divided into two periods, each of three we ks' duration, called the winter and spring courses, The winter course is to be beld between October 15th and March 15th, and thespring course between March 16th and May 31st. With certain limited exfeptions they will be attended by all trained soldiers and first-class refruits belonging to the squadron. Only one squadron of a regipent yill be under instruction at once during the winter course, but in thpe spring, when all the squadrons are at beadquarters, two of them yill be trained simultaneously it order to allow the commanding oficer reasonable time to drill his regiment before it takes part in rigade or divitional work. The winter course will be devoted to equitation, foot practices, sword and lance exercises, dismounted d ty, outpost duty, pitching tents ind the picketing of horses, digging kitchens and shelter trenches, the theoretical instruction of officeft, non-commissioned officers and men, and the practice of uffleers and non-commissioned officers in imparting instruction. Proficiency in reconnaissance must be tested by scheme set by the officer commanding the regiment or the second in command, and a report, ogether with copies of the whole of the papers and maps counectod with the exercise, forwarded within a prescribed number of day following the completion of the spring course of each squadron by the officer commanding the regiment to the Inspector-General of qualry through the general officer commanding the district in which

Some idea of the commendable have guided the compilers of the from the axioms from which all have been made, which are that " can attain success, therefore what and practiced during peace," and tha on the drill ground which is mpo battle." The injanction is strong struction of the recruit and the a should be progressive, and in the of the second volume is prefaced which young soldiers are approp represents the application of dril with the enemy, and that consequ drawn between parades for dril Maneuver must always be conduct which mast be based on correct pr stood by all engaged in the operat will nearly always be the clitnax of maneaver of a small body should in detached duties sucb as the tached duties sucb as the oncentration of a reconnoitering force, or the supporting of pickets|to repulse enterprises against an ontpost line. The sections with re ard to the daties of cavalry when fighting in conjunction with other arms are clear and explicit and
in accordance with some of the best continental models. It must. howerer, be pointed out that with regard to the employment of borse artillery with their own arm, cavalrymen are referred to the "Artillery Drill Book." As a matter of fact it may be added, that the artillery book is at the present moment under revision. When, however. the new issue is made it is expected that it will be found that a.mutual underntanding will bave been arrived at by both cavalrymen and gunners which, so far as our own service is concerned, will settle, at least for a time, the vexed and much debated question of the relations in joint employment of cavalry and horse artillery -The Army and Vary Gazette.

## ROCTE MARCHING

Having seriousty considered the -ubject of route marching the (immander-in Chiet has ordered that several moditications shall be made in those sections of the Quecns Regulations which deal with this subject. In future the troops are to be practiced twice a week between the dates of October 15th and March 15th, and the rate of marching is to be progressife from October up till Junuary, commencing at nine miles a day. At the end of the marching seasnn all officers and men who have taken part in these marches will be required to complete fifteen miles a day for six consecutire days. The attention of commanding officers is especially called to the effect of these marches on the troops, particular care being taken as to the proper fitting, etc., of the men's boots. Very young soldiers may be allowed to dispense with the valise or kit, whilst all doubtful cases of men being able to withstand the straiu of these exercises (tactics are to be combined with the marches) are to the referred to the medical officers for their opinion. Halts of fire minutes are to be made each hour, and in the case of a march exceeding six hours, sufficient time is to be giren for a meal to be taken. When it is intended for the troops to march a distance exceeding twelve miles, biscuits will be issued for the men to carry in their haversacks. In this last respect, surely it seems a pity that we do not take a leaf vut of our French neighbors' book, and follow the plan which they have pursued for years, viz, of issuing sticks of chocolate to the men for this purpose. All the adrantagen are on the side of the choco. late, sare, perhaps, the matter of expense. It is more easy to stow. is decidedly more nourishing and anstaining, whilst at the same time more satisfying; is far less liable to deterioration through damp or wet weather, not so liable to create thirst, and, finally, far less likely to break up and crumble into dust through the friction caused by the movement of the body whilst marching. A dry biscuit after atwelve miles march eounds the very reverse of refreshing, whilst one sodden through from damp or rain seems equally unappetizing. There can be no quention as tw which Thomas Atkins would prefer or as to which of the two is the more strengthening - chocolate or hisedits. - The army aml Nidy dirzettr

## ARMY HORSES.

From time to time the diskussion on army horse supply is revired by the delivery of a lecture such fo that of Veterinary-Lieutenant Colonel Thomson at Aldershdt. 'Ihe lecture was admirable, but. as the Duke of Connaught remarked it contained nothing very novel. The fuct that an officer of the lecturer's experience deemed it suit able to address his audience on the rules of form and the method of testing a borse's action should bfing home to the authorities the need for establishing some system of elementary instruction for mounted officers. The merest tyto in borse lore should have at his fingers' ends ull the truths equncitited by the lecturer on these sub jects. It has already been complyined, and with justice, that it is unfair to the caralry to send to hat branch of the service cadets who have receired no more instriction to fit them for their duties than their infantry brethren at Sadhurat. Whether a cavalry col lege, as some have suggested, sif buld be established, or merely a large practical school like that at Saumur, it is not easy to say, but probably an institution partaking of the nature of both would be the best. In any case it is desirable that some steps should be taken to furnish a upiform education in porse knowledge and management to all the junior officers of our mbunted services. A nother painful revelation made at the meeting ad ressed by Veterinary-LicutenantColonel Thomson was that clippind had not been sanctioned becuuse of the expense of the extra blankft required for the clipped horses. It is only fair to kay that the Bitish taxpayer is too shrewd and sensible to object to this expense. It is not the public, but the redtapist, that stops the way of refofm. It has been proved orer and over again, in the Royal Artillety and elsewhere, that the health and efficiency of the horses are reatly promoted by clipping, and that the price of the blanket is more than repaid by the additional power obtained from the clippe horses. When no blankets are available it may be wise to leave ibe coat as nature supplies it, but bo it remembered the horse in a tate of nature bas no hard work to do. He can wear his greatcon, and keep cool. When he has to work and sweat, his long coat pocomes wet, and he has to stand after work in his wet coat or hare a weary time spent by tired soldiers in drying him. Jobmasers and prisate owners have long ugo solved this question and pfofer the expense of the blanket. Why sbould old soldiers bo so puperile as to hesitate and object, and end by adopting reforms with a bad grace after all?

One more pointin connectio with the same meeting strikes us as most extraordinary. It is reported, whether correctly or not. that Major General Comez expressed bimself satisfied with the quality of the horses supplied to the army, and "was convinced that the markets were equal to supplying any demand that might be made upon them. ${ }^{\circ}$ Quality anf quantity are, according to this anthority, all thatican be desired It may be permitted to ask how these statements thily with the eqnally authoritative reports on the immatare conditidn of remonnt, and with the openly-expressed regrets that older burses cannot be bought at the regulated prices.

If a London jobmaster will not buy a horse under six years old because be cannot stand the wear and tear of work at a younger age, it would be interesting to know whether the British army gains in efficiency by purchasing its horses at four years old. General Combe. when he said that their quality left nothing to be desired. cannot surely have meant that the quality of a four year. old was as food as that of a horse of six. Then, as to quantity, it has been shown not only by the late lamented Director-Gencral of Remounts. but by others more recenty. What we hare not sufticient horses for one army corps and lines of communication, and yet we profess to be ready with two and even three army corps. Where are the horses to come from? Is it from "the markets?: On recent emergent oceasions ererything possible was lone to buy horses for the army in the United Kingdom, but nothing like the requied quantity was forthcoming. The fact is that we are in a dokthl plight in the matter of army horse supply, being only able with difficulty to hold our own for jeace requirements, and having wothing but a wretched reserve of cab horses to fall back upon, with which it is abourd to say we could makegood the waste of a considerable war. It would appear. therefore, that (eeneral Conbes optimistic prorouncement has to be received with notalitte reserve.

With regard to the opilliol that if horses were lef till they become older they would be bought by foreign and other purchasers and be lost to the army. it may be cmough to say that, according to a plan suggested in thene columbs. a moderate subsidy, not inuch greater than that paid for the cab horses. would keep a geod supply of young horses in the country, and wiste us trainable animale to make good our annual waste, and at the same time form a reserve ith case of war. Within the lust few weeks a whipment of Australian horses arrived in this country and their owners were disappointed by the low prices realized. It appears. howeser. that buyers were airaid that the horses might not stand the British winter, and this brings us to the conclusion that when horses come from abroad, or when they are bought young at home. for the army, they should be seasoned and matured on suitable grass land and under experienced supervision. They would thus reach a certain age and be more serviceable before going to work or entering the ranks, and on that account would be relatively less expensive and last longer. It is to be hoped that the friends of the farmer and the well-wishers of the army will see it their duty to bring about a much-needed improrement in our supply and reserve of military horses. - The Army and Nury Gazette.

## THE OLD ORDER CHANGETH.

If there is one article of faith steadily adthered to by the Com-mander-in-Chief-and his beliet in it consistently and constantly prociaimed - it is the need for the officer to be well read, well edu. cated in his profession. It was, therefore, a coincidence, fit and apt, that his first official inspection should be that of the Staff

ing that hospitality, and reximental entertainments will cease to be those serere taxes on the officers which they have been hitherto. The Broad Arrow, December 21. 1595.

## WOOLW](II AND SANDHERST.

The Board of Visitors who report on the Royal Military College and Royal Military Academy render an important service to the army and to the state. Anyone who has carefully read their reports for the past ferw years must have beenstruck with their acumen and discretion in pointing out weak spotsand in recommending needed reforms. In government establishments, and especially in old ones. there is an almost insuperable tendency to allow tradition and usape. to assume the force of law. This tendency manifeste itself likewise in ancient public schools and universities and in fact, in all longestablished places of education. There is. therefore a two fold necessity for the risits of a clear headed and experienced board, who can counteract this evil, and inspect sandhurst and Woolwich from a practical standpoint. The board is guided by the interents of the cadets and the requirements of the army, and consequently condemns useless waste and expenditure, which are apt to creep into the best regulated institutions. In sanitary arrangemeots, inju. dicious distribution of study and exercise. and faulty methods of education. all come in for adverse comment on the part of the board. but it is at the same time acknowledged that the recommendations male in the previous year had been in several instances adopted. This is, however, not enough. It is preposterous that visitors of the high position and proved ability of those composing the board should have their recommendations under any head treated as some of theirs have been.

Perhaps the immobile power that the visitors expected to act on their recommendation is one of those impersonal entities which hare neither a body to be punished nor a soul to be anathematized, but the country is not likely in its present temper to stand thewo shadowy erasions of doty much longer. The risitors bave per. formed their task with faithfulness and with exemplary patience. One of the most sensible changes which they have introduced is tha assimilation of the vacations at Woolvich and Sandhurst, and they have in their laat report very properly recommended that the Wed: nevday half-holiday be dibcontinued at the latter, so as to make the amount of work more alike in the two places. By degrees the influence of the board is making itself felt, but seemingly in the face of eonsiderable opposition, and this ought not to be. It is unaccountable that a proper breech-loading gun has not been supplied for the instruction of the Woolwich cadets as the visitors adrised. There should not be any difficulty in providing a modern gun for the use of our future artillery offecers when the arsenal and the repository are both at their door.

The visitors have set their faifes against unnecessary expenses and extravagant charges for wagles, but there is reason to belicve that much more trenchant reforma are required. What in the name of common sense can be fond to becupy the " 200 subordinates" at Sandburst who frequent the disgrfaceful canteen above referred to? Even at Woolwich, where luxury is supposed to be unknown, there are eights-six servants for 208 dadets, in addition to officers servants and otber noldiers; and if te include officers, professors, noncommissioned officers, clerks, etd., there are about as many nonstudents as students in our twh great military schools. If any civilian place of education were obnducted in this way it wotld have a short life and a merry one. Whe must, therefore, look to the visitors to give a few turns more to the acrew under this head, for there is no duabt that use and want have created a number of posts which are little more or less than sinequres. We all know how "perquisites" have a way of becoming fnot only strongly established but amplified, whether they are enjpyed in the form of leisure or of allowances, and it has more that once been noticed by the visitur that the Sandhurst professors lape little or no work to do.

With increasing preparations for national defense and increasing taxation, the country will requife to see from her servants a fair day's work for a fair day's wage It was, therefore, hardly enough to point out that the Woolwich professors taught classes, while thone at Sandburat didnot; it ought o hare been plainly stated that a non-teaching professor has no taison detre, and is in fact a contradiction in terms.. If the bread of idleness is eaten in the higher ghades it cannot but tempt the lower ones. It is gratifying, how eder. 0 observe that both instiqutions are gradually improring in efficiency and in the economy of their management, and this is in no small degree due to the faitatul and independent discharge of their daty by the visitors. Th injustice with which cadets after passing out have been treated if so many cases was properly stated to be in direct contrarention of Btanding orders of the Royal Military Academy, and it is to be hoped theat we shall not again hear of duly qualified cadets being kept a whole jear waiting for an appointment. All who pass out pre entitled to commissions "at the end of the course." It cannot, herefore, be regarded as less than a breach of faith when commissiof $A$, and all that commissions imply, are withheld from the young geptlemen who have fulfilled their part of the contract.-Army'and Na

Gazette.

## THE BRTISH ARMY

Recent returns of the streng b of the British army at bome and sbroad, exclusive of the Indian native army and the forces raised by colonial authorities, show that there are in round numbers $2 \geqslant 1$.000 oficers and men actually string, and entirely exelusire of the reserye. This total allows abo $t, 300$ to the three regiments of Houshbold Cavalry; 18,600 to the twenty-eight regiments of Dra-
gron Guards, dragoons, hussars, and lancers; more that 37,000 to twenty-one horse batteries, eighty seven feld batteries, ten mountain batteries, ninety three garrisun companies, adod the depots and riding extablishments of artillery: 7.7011 to the various companies of engineers: 6.1100 to the seven battations of foot gards: 135,500 to 1+1 battalions of tine infantry, highlamders and rifles: $\overline{5} .000$ to rarious colonial corps raised as part of the imperial forces: 3,5010 the army service corps: 2.501 to the medical waff corps: and the remainder to the ordnance store abdarmy pay corps. In the dis. tribution of the army there are on home erevice about 110,1000 men. of whom $2 \bar{x}, 000$ are in Ireland, wearly 4.0 m in Scotland and the rest in England. Wales and the channel iblands. If,010 in India Burma and Aden; mearly 15 wino in the garrimons of Malta and Gibratar: 3.500 at the Cape and Nutal; :3.000 at Hong Kong; 4.501 in Egypt and the residue are scattered over the Went Irdies. Bermada, Nowa Scotia, Matritius, Ceylon. the Stats Settlements, and other places, ome of which, like sit. Helenat have the nervice of but very amall bodies of the Imperial troops. The Camadian dominion has only about l.foll of the Quedis forces. Australia none at all. and the recent despateb of men to the $A$ frican west coast has only added about 1.000 soldiers to the ordinary strength in that part of the Enipire India remains the great absorbent of the regalat herces-abroad, and at the beginning of this month there were in the four great commands of the Punjab. Bengal. Madras. and Bombay, nine regimente of caralry, eightyeight batteries and companies of artillery, and fitty-three battalions of infantry. The Bengal eommand still takes up the largent portion of the British troops in Iudia, having some 24.0100, and the new command of the Punjab comen next with ${ }^{2} 0,0010$ and of the two other commands Bombia has about lano more men than Madras. the later including Burna.- Army and Nary Gravtle

## THE CNITED STATES ARMY

We do not wish to use provocative language towards the Americans at a time when so much depends upon discretion. Still, in fiew of the danger with which President Cleveland has threat ened un - and which danger may any day with as litile cause reap. pear-it in natural that we should take stock of our military position. Canada is no doubt our weak point, but it is not, after all, so weak as the Americans assert, and us come Englishmen appar to think. The frontier is long and only partially protected hy the lakes. The railway which connects the Atlantic with the Pacific is in many parts of ite course too near the American border. Hence, there is the risk of an incursion by the Americans for the purpose of cutting the line, with a view to preventing a concentration of troops at points seriously menaced. It must, however, be borne in mind that to idterrupt commanication for any great length of time, not only must the gap be made, but held, in order to pre rent repair, which is not a long process. Moreover, at the first
approach of war, the frontier wofld be strictly patrolled and telegraphic communication be estab ished with the points at which troops would be massed. Hence until the interruption had actually been effected, reinforcement itself. be quickly brought to the task of gaarding the line would解 Canadian forces, but in a monfh the colonial forces coald be strengthened by a couple of atmy corps from England, plus a substantial body of engineers a d garrison artillery. We might also rety on the logglty of the Apstralian colonies to send help to the British Columbia end of the frontier. At first, however. we should have to trast the defense of Canada entirely to the Cana dians, and even after the arrivay of troops from England the main reliance would have to be placed on the Canadian militia

Let us see what the military fesources of Canada are. Unfortunately, notwithstanding the urgent representations of successive com. manders of the Canadian militia especially those of Major General Herbert, the politicians, with ilfjudged parsimong, have lef much that was necessary undone. Th非 is Expecially the case with regard to arms. Only the permanent force, which consists of 1,000 artillerymen and infantry, are atmed with the Martini : 800 mili . tary mounted police are provided with Winchester carbines, whilst the active militia, some 30,00 men, are armed with Suiders. Recently $\mathbf{1 , 8 0 0}$ Lee-Motfords wer ment, but these constitute but a renources of the Dominion are a posaibilities are numerous. Th militia, organized in battalions, taining many men who have ser militia. This sedentary militia, called up, could turn out three the loweat computation. Practio in placing under arms in a very service, with a strong second lini manication, garrison or strategic fill up the gaps in the first line. unless we have been living in a coming from England as needed. unlipaited number of officers fro from the auxiliary forces, and a troops. Of course il would ta Cayldian militia, bat to check the pilitary mounted police and suffice. No invasion in force w the tormons resources in men the qutset there would be only $t$ scatfered all over the country, militia and volunteers. Tbese milifia and volunteers. These the fateet pattern, but have neve
justly pleads that some details could be introduced in a more or less modified form to suit peculiar national requirements. The first ob. stacle to the formation of large Hegiments of caralry- which constitute thé basis of the Hungarian system-in the British army, is the want of suitable barrack accommodation, and the breaking up of the cavalry into small units for possible police duties, a state of affairs apon which we have often dilated, and which now, we are reminded, "is indeed to be deplored from every professional point of view, but chiefly, no doubt, from the fact that only concentration in large bodies can give scope for the carrying out of many of its most important duties by cavalry, without constant practice in which this arm can never become realiy efficient."

Strong cavalry regiments of pver eleven hundred men, equal to a British brigade, are those which the Austrian government hare found best suited to their requitements. In many points of detail this strong regimental system shows undoubted advantages orer any other, and is well worth seripus consideration. Perbaps in no respect does it conduce to efficitncy more than in its developings initiatjo in the squadron commander, who is, "in fact, an unfet tered chief, responsible to his oplonel for parading his unit in an efficient state at the time and place appointed, but unhampered by the endleas minor orders relatios to teeding, watering, gruoming. or hour of turning out, which wound deprive him of all initiative.

The consequence of this is $\alpha$ wholesome competition between squadron leaders to the great drantage of the service. This is shown in the discipline and goof beharior of the men and the appearance and condition of the hofses, which depend on the judicioun handling of the men by their leaders and their good stable management. We have often pleaded for decentralization of command and more responsibility for subordinste officers, and in no branch of the morvice more than in the cavally will the gond results of such a system be apparent. Naturally be writer of this interesting article devotes considerable space to the reserve squadron aystem which has attracted so mach attention lately, and which has so much to commend it. Ite advantages ar obvious, as are also those of the staff system by which certain pen are permanently unhorsed in peace time, such as servants, faryers, saddiers and others employed. Thie effect of all this is that the fohting men are complete and ready for eervice, each regiment maint ining its own squadrons in a state of efficiency without having to draw on other regiments. The silperiority of the Fungarian systom cannot be denied, but then it is carried out under conditions ver different to those which obtain in Eagland. Still that is no reasd n why some effort should not be made to adapt it as far as possib o to British requirements. Tactically interesting is the proposal bat the rear rank should follow the front rank some twenty length behind. The adrantage claimed, for this formation is that it woul obviato the confusion caused in a suélée, by both ranks being subjycted to shock at the same moment whereas with the ranks separafed by such a distance as twenty lengths the rear rank would adrive intact and ready to act as a
formed body as necessity demanded; The subject of tactical formations for cavalry is, however, a wide one, calling for more detailed argument and treatment than is possible in a short article. Xo doubt this point, and the many others touched on in respect of arms, "quipment and saddlery, will attract the attention they deserve, and heal. as we hope to an early discustion of the question of cavalry reorganization. - The Brond Arrow

The following letters are reprinted from the Lomion 7 of.... They are from the pen of a military correspondent, and appeared under dates of Sovember 5 th. December 2 th and December 2-1h, 1.95

The present very efficient state of the Austrian cavalry wav dwelt upon in a letter on the recent Hungarian cavalry maneuver published in the Times on October 3d. It was therein mentioned how, despite exceptionally long marches in trying heat, at the close - of some eight weeks hard maneuvering the horses looked in perfect condition, fit for allything. bright in coat and well covered with Hesh.

Ceriain reanons of ereat importance, and all wortly of attention from a military point of view. Were given for this most desirable state of perfection. But others remain to be mentioned, constituting lessons for carcful study on the system which has brought this about. A wise nation will apply to her army any of them which may be found adaptable to her own particular characteristics.

The first and most important point is so rudimentary that ity mention might, at first sight. appear to be wholly superflunus. But experience shows it to be much neglected and, to a great extent, left to chance by some nations priding themselres on possessing good cavalry. It is based on the fact that a good caralryman on a bad borse is of no more use than a good infantry shot armed with an indifferent rifle - neither being of much, savo on paper. This once grasped, it becomes self-evident that the first necesaity to improve the mounted arms is to raise the breed and increase the numbers of suitable horses throughout a country until the desired standard be attained. On the continent this matter is now recciving well-desersed attention. The breeding of army horses is being enormously developed with more or less successful results. In no country, howerer, has the question been so carefully studied as

- in Austria, where the government has, through a wise system of encouragement afforded to the farmer, converted the vast, open plains of central and southern Hungary into the brecding grounds of the best caralry horses in the world. $A$ visit to thene parto noon convinces one of this. The most striking thing to the horse-loring traveler is the number of well-bred, well-shaped borses seen, and the dearth of coarse, bairy-heeled odes. Good animals, mostly of the
stamp of smart, medium-weight hanters, abound everywhere. They are met with grazing in droves cross the open plains, or trotting briskly along, generally in pairs, fruwing the light, wooden framed farm wagon of the country, followed, as a rule, by a foal or yearling. The young stock thus accompary the dam, feeding by the roadside, then trotting or galloping a ong to catch up with the parent, becoming active and hardy, an, at the same time, docile and tractable through the frequent ofits made in this manner to the neighboring villages or towns.

There are nine large studs i six smaller one in Austria. I Department, but hare been mana stud corps. They were formed b the breed of borses and to impro these establishments a certain thoroughbred stallions, many of sent roand the country to dif farmers' mares, at nominal fees. the produce, which is purchased years old -exceptionally at four rarying annually, but fixed for that the average may not exceed expenses have been defrayed.

There are, besides these st - horses found to be exceptionally three and a balf, are kept wh sanctioned for artillery draugh chases are made by standing o present six, at central places in \&hase horses direct, if of a vers of riding and ten percent. of dra that practically no caralry hors the ranks or is over thirteen y above the Hongarian cavalry $h$ animal of the same arm in Eng for this are the great care besto erninest in Hungary, the assista of thoroughbred guvernment sta of first call on the produce, an -qxpensive intervention of the horses being eliminated througb annually, only thoroughly soand ranks. They average $15.1 \frac{1}{2}$ or 1

It cannot be objected that th plicable to our chief horse-breed has only to be vigorously adop within three or four years. Th sem required to start a couple the roquisite namber of stallion selves; the former would, with

Hungary, besides two large and ese are under the Agricultural ed since 1866 entirely by military the Emperor Joseph II. " to raine the mounting of the arms. It umber of horses áre bred. and hem English, are maintained and erent centers, for the service of The 具overnment has first call on rect from the breeder at from five and a half-up to seven, at prices 895 at between $£ 16$ and $£ 32$, so £25 on allotment to corps after all
ds, three renount depots where sood, and bought, consequently, at e maturing. The arerage price horses in 1895 is $£ 28$. The purmmittees, of which there are at Hungary. Regiments may pursuperior class. Twelve per cent ght horses may be cast annually, wo serves more than eight gears in ars of age. At the prices stated rse is far superior to the average land. The reasons, stated briefly. ed on borse-breeding by the gov: cegiven through the cheap service ions, the claitn thereby establiebed the purchase direct without the niddle man. All old and useless he weeding out of twelve per cent. serviceable adimals remain in the .2 in height.
points mentioned above are inapng country -Ireland. The system ed for it to prove its own success one thing neccesary is the initial fremount depots and to purchase The lapter would pay for theme other matters mentioned, econo-
mize a large proportion of the present remount expenses, and within fire gears the breed of Irish horses. of the tronper class, now rapidly degenerating in quality and diminishing in number. would be materially improved.

The Irish breeding farmer at present nelects his own stallion, Which, owing to "hard times" and the scarcity of thoroughbred -ires in the country, is gencrally the cheapesi procurable. His protit is so small, the middle man getting the lions share of this, Wat he hesitates to pay a larice fee for the chance of of trifing ultimate gain. But this would no longer be the case under the -rtem adopted in Ifungary, when thorougtibed sires would be 애ainable at a lower rate than the present half-bred ones. and with the prospect of a certain sale for the produce at ath enhanced protit. It in not rash to predict that the supply would donble within fire on six years, as any one acquainted with Ireland knows well that at fresent the ordinary farmer han almost given up horsebreding an a paying concern, and carries it on only tothe extent of an annual bal for farm or personal hunting purposes. The great economy effected by the introduction of remount depots, where horses can be kept until five year: old, mast not be lowt sight of, if it be granted hat horses must be purchaned at four or younger, so as to secure then for sale to cisilian purchasers. In no continental nationare harses worked for caralry purposes until fire years old. The luxury in tound to be too expensive. Aninitial sum is roted. young horses atre purchased, and sent todepots to mature. It requires but a tyro it equine matters to know that a horse subjected to serere work, carrying a heary load, at the aqe of three off. before lie is fully grown or matured, inust suffer under the strain. As a matter of national economs, therefore, the allotment of horses to corps is delerred on the continent until the age of fire, and. even then. no linrse under six is allowed to accompany the maneuvers in the field. There is another consideration not to be overiooked in considering the best stamp of horse for cavalry purposes. Whichin that a well. thed horse, besides che adrantage of supporting the strain of hard Wrirk at a fast pace better than his coarser comrade, is also far liandier and easier to ride and to manage in maneurer. The wellbred ones may ber a bithotter and keener. but they are notawkward in the ranks. Be it said in praise of our cavalry soldiers, as harsemen, that if they were mounted on Hungarian caralry hornes they would defy comparison in Europe. For every reason, there. fire both financial and military, the improrement of the breed and supply of horses for cavalry purposes is one of the most important military quentions of the day.

The means adopted to insure a nuiply of trained reserve cavalry horses in Austria and Hungary also affords a asefuland interesting study. It must firmt be mentioned that thereare two distinct classen of reserve - the first, a reserve of men and horses for the active regiments; the second, a similar supply formed into a distinct body of reserve, or, us it is called in Hungary, Honved cavalry. To tho first class belong, for seven years, those men who have served in
the active army for three years, of men who bare passed out of formed for both by the purchase, age of remounts more than tho deficiencies, and, on the outbreat defiencies, and, on the outbreaty exigencies of the moment may ne latter parpose, and a searching thereon made. There are three Dual Empire, besides some $\mathbf{8 0 , 0 0}$

To avoid the expense of main annually, the State gives them of military purposes, to approved thom in retarn for their keep. called op for four weeks' annua tumn. If they are not found to or, if necessary, the horse must $b$ to deserving caretakers. . At the in Haugary, if the horee is turnet dition, the animal becomes the annual percentage of borses thus remounte.

It may be objected that this pepsive one. To judge by those opinions expressed by competent one, and a country like A ustria, state, and whose military estimat other powers, bas, doubtless, con of cost in relation to efficiency. the decision that an expensive and with this opinion no one can
hile the second class is composed he first. The reserve of borser in peace time, of a certain percentrequired to supply the place of of war, by the compulsory callius. fany suitable animals which the quire. A register is kept for this riennial inspection of all animals ad one-half million horses in the mules and donkeys.
aining the extra horses purchased , after they bave been trained for ivilians, who are allowed to use ey are inspected in the spring and training or manenver in the and. be looking well a fine is imposinl. replaced, while a reward is girwn ad of six years in Austria, or five out annually in exceptional con. property of the caretaker. The armed out is made up in corp. ly
atter system appears to be an in Honved horses seen, and by the adges, it is an admirably successtul bose army is in a most excellont compare furorably with those of idered rery carefully the question It may be that she has arrived at ulity is better than a costly sham. find fault.
$\stackrel{1}{1}$
The details of the establish hent, organization and equipment of a Fingarian cavalry regimett are interesting matters for coinsideration, amongst which ther may be found, perchance, some which could be introduced with adrantage into the English service in a more or less modified form to suit peculiar national requifementa.

A regiment which forms tup subdivisions of three squadrolis eadh for tactical convenience in the field, is composed of the resim@ntal staff, two subdivision sta fe, six field squadrons, one pioneer trcop and one reserve cadre, wi hatatal strength, exclusive of the rederve cadre, of forty-four offic $\mathrm{r}, 1,083$ non-commissioned officirs and mon, and 1,020 borsos. each aubdivision having at its Tto eatablishment of each fiel al ferns, 145 non-commissioned ono non-commissioned officers
colonel commands the regiment. ad a lieutenant-colonel or a major. equadron is the captain, four sulb. fifers and men mounted, twentyod men dismounted (staff and ser-
rables), or a total of 171 of all ranks. with 149 troop horses and reven chargerr. The reserve cadre consists of one captain. two subalterns. sixty two non-commissioned offeers and men, with fortyeight remounts, four trained troopers and fire chargers. 'I'he jioneer tronp, commanded by a selected senior subaltern, numbers iwenty-fire non-commiswioned officers and men, with twenty-six horses.

It will be obsersed from these details that a cavalry regiment in llungary is almost equivalent. numerically, to an English cavalry brigade in peace time. It is obrious that barrack accommodation, as well an other reasons, wholly precluden the introduction at present of units of this strength in Eagland, mont quarters being barely -ufficient for half such numbers-in some cases, indeed, for a couplo of amall quadrons only-and units having to be broken up aper -tantly tuturnish safeguard, at large hanutacturing centers. is. indeed, to be deplored from every professional point of view; but chietly, no doubt. from the fact that ouly concentration in large lodies can gire scope for the carrying out of many of its mont improtant duties by cavaly, without constant pracite io which this arm can never become really efficient. The Austrian gorernment, not satisfied with the great adsantages for training which a strength of over 1,100 men and horses gires to regimentr. assembles wgether, anmually, as many units as possible in one place for at least eight weeks combined drill and maneuver, and to this fact may be attributed in a great measure, the splendid training of the cavalry apart from advantages of superior organization and equipment.

Many details are as applicable to small as to large units, how. cuer, and some of these will now be mentioned. The great object songht to be attained is the complete readiness of each of the six field squadrons of every cavalry regiment in the Auntro-llungarian atmy to take the field, at any moment. with 150 efficient men and horses. In order to insure this an ersate cadre. or reserfe squadron, forms part of every regiment to assint in the training of remoente and recruits in peace time, and to this all recruits, untrained and immature horses. sick and other inefficients, are transterred from the field squadrons on the outbreak of hostilities, their places being filled by reserves, and by forty-fise non-commissioned cfficers and Pmen and fifty-three horses, which are attached to the ersatz cadre in peace for this purpose, over and abore the regimental establishment. The immense benefit derired from the ersatz cadre cannot be overestimated, and particular attention is directed to this system. now introduced, on a generally similar busim, into every army of continental Europe. While forming a reserve nurleus of trained men and horses always ready to fill the most urgent vacancies in the active squadrons, and assisting in the peace duties of the regiment, it receives all inefficient material on mobilization, leaving the corps in a most complete state, ready to march at a few hours notice, free from all the encumbrance of recruits, remounts, sick and other casuals. These latter change places with the reserve men and

ening to the most willing woldier. Many a good soldier ceases to trf to turn himself, his horee and his saldery out smartly when he finds heaped upon bis shoulders the burden of three ordiuary men. nwing to the short numbers of a low establishment. He feels the task to be imposeible; he does mot. therefore, altempt it. In Austria, on the other hand, but few nen are called upon to groom more than their own horse, as all . staff "employed are dismounted or in separate units, and this accounts for the very clean and smart appearance of both men and horses in that country. On active serrice the dismounted men ride some of the npare animals which are taken to supply the gaps caused by casualties. They are super. numerary to the establishment of $150^{\circ}$ efficient tiphting men, which is laid down as the mounted strength of a squadron.

The pioneer troop is a separate unit. forming part of the staff of the regiment, under a specially trained officer. who is responsible fire the performance of the technical duties as well as for the general effiency of his command. The artificers, selected from amonest men who hare followed particular handicratts before contistment, carry picks, shorels, batchets, saws and smalher implements. tools fir destroying railways and sixty four pounds of an explosive car. ried in two pound boses, sad to be nuperior to dyamite for military purposes. All these can be carried either upon the saddle or on a led horse. leather casen being prosided tor both means of transport. To judge by the pioneer troop of the Fifteenth Hungarian Huswars. whersed at the Zenta maneurers in the autumn of thin year, which was commanded by a most capable and smart officer, the training of this branch is as thorough and successtulas it is in all others of the Hungarian civalry. The troop was nent forward with one of the adranced reconnoitering squadrons which had orders to cross the river Theiss, and to establish contact with the enemy on the other bank. Frame boats, covered vith canvas. as well as plank, and inflated rater proof asck rafts, were quick!y made by thene pioneers. whereby the saddlery and arms of the squadron were taken across the river, some 300 yards wide, the horses swimming orer, and the reconnaissance was pushed rapidly forward on the other wide.

By the same means the regimental telegraph patrol established overthead communication with the other bank, and all information gained by the advanced scouts was quickly transmitted by telegraph to the rear. Each regiment has a telegraph patrol, consisting of two non-commissioned officers who have undergone a six months special course of training and of two privates as artificers, forming part of its staff. They carry wire tor some eight miles of telegraph and telephone comminication, as well as various appliances for reëstablishing or for destroying telegraphs and for tapping existing wires. Besides these, each caralry division would be accompanied on active service by a telegraph detachment, with six four-borse wagons, sup. plying materials and wire for twenty miles of telegraph and telephone. It should be stated that, besides the regimental pioneer troop, there are fire men in every field squadron, trained in the more ordinary military pioncering duties, who carry shovels, picks, axes,
now ordered to do, would only add to the general confusion. More. wer, is it not courting the very opening out which is to be deprecated when men know that the increased intervals will be quickly tilled by the rear rank men. on excited horses pulling donble, rushing up into tbem? And has it been considered what the general appearance and unity of action of the eventud front rank will be ia the case of the two ranks heing differenty armed at the outset, - when one man wields a lance and his neighbor a sword" Instruct your men througb gradual annual naining and progressive increasing the pace, until they can ride $k$ nee to knee at the gallop. Never allow the fustest pace-that laid down for maneuver-until well on in the regimental drill seawon. when horses and men are settled down in their work. These last are no new theories, as every one
 the front rank bave no one immediately hehind upon whom to rely for filling gaps, they will be careful to endeator to precent gaps, and in the case of pasage over difficult or tire-swept ground each man will instinctively close on his neighbor. wowards the center, as a asualties occur. Such are the arguments brought forward for at leart a trial of a formation. the introduction of whicb might add considerably to the caralry power of the nation first to adopt it in "ar, and they are wortly of careful consideration. The Austrian and Hungarian caralryman is an excellent rider. He rides as the good horseman rides hunting or hacking-that is, in the most com. fortable and the lightest manner possible to the horse. He gives to the motions of limb or head of his mount, without rigidity of body and band, but at the same time without careless swaying about in the saddle. He rides on all four reins, with due regard to the sen. sibility of his horse's mouth, and rises in his stirrups on all occasions, whether it be march, maneuver, or Imperial inspection parade. This rising is anything but unsmart, when carried out with uni. tormity, after careful and systematic instruction. To those accus. tomed to look upon this style of equitation as an indulgence of riding at case on the line of march the very idea of ite toleration on the parade ground savors of a general unsmartness hard to associate with good cavalry. But let them see it properly done by horsemen whose equitation lesions are based upon the wstem, and their opinions will quickly undergo a change, as they obserse with what uniformity the men rise and fall, all bodies rery slightly inclined forward at a similar angle. That it is casier for man and mount is incontestable. This, together with the flexible and rational method allowed of treating the horses moutbs, may account, to some ex. tent, for the splendid condition of the animals. in spite of serere work and an average weight of over twenty stone upon their backs. The Austrians have to support them in these points their almost general adoption by the other continental atates of Europe.

The beat mode of carrying the caraliry carbine is one of those burning questions which is still undecided in England. All continental Europe is unanimous in slinging it acros the back - the only exception being the French cuirassiers, to whom carbine bucketo
are furnished. The Russians g is fixed when near the enemy. trained on the same lines as th stantly called upon to fight on writer to join, dimmounted, in th tion, side by side with infantry only worthy of mention, in the p oriong hay, as a highly interesting curiosity. The Austrian and Hungarian cavalry carry the carbine by means of a broad sling, over the left shoulder. the flat of the stock resting against the back, Twenty cartridgen-thirty mors are brought on in the baggage qurts-are carried in two poucher on the front of a brown leather wist-belt, to which are attached two small straps, which buckle under the right arm over the small of the butt, to prevent the carbife from swaying about. The men when questioned, expressed thomeelves as satisfied with this mode of carrying the weapon, stating that it was comtortable. It appearright that the firearm should e ciarried on the men when in close proximity to the enemy, as mand are unhorsed, yet quite uninjured in a charge, who could give a ood account of themselses with tir. action on foot if attacked subs uently by mounted troops. A com. promise between the two systents might, perhaps, be the best method where the carbine, carried in ${ }^{\text {bucket when on a march far from }}$ the enemy, could be strapped oo the back in his more immediat, neigh borhood.

The Austrian carbine is a handy weapon, which has, like the French, a double-action pull-off-the second being very light. Thirenders the shooting very muce more accurate, as the man, know ing when to expect the shock ghd being prepared, and consequently steady, shoots without the jerk which is ineritable with an inferior shot if there be but one heay y pull to release the spring The magazine holds fave cartridges, but the carbine can be used as a single-shot weapon if desired. Phopoint-blank range is 300 metres. It is sighted up to 2,400 metrgs, if said to be very accurate, and is certainly perfectly balanced, cofnint up to the shoulder as handily athe French carbine, which is, if the writer's opinion, a very perfect arm. In weight the present Adstro-Hungarian carbine, with magazine attached, is practically the same as the English single-shot Mar. tini-six and threctourths pounds; but it is being readjusted to make the bore smaller, when it will doubtless weigh a little lew.

The Austrian and Euglish word weigh the same-two pounds nine and one-half ounces; but the hilt of the former is slighty lighter, the blade a little longer and more curved. The Austriain spord is a well-balanced weapt $n$ which has not changed pattern for sip-and-twenty years. It is earried by means of a leather belt. under the tunic, and slings on the man, who thus has on his person both sword and carbine. In Higgland both these arms are carried - ot the saddle.

A very important point to hote is the minimum of articles in the - soldier's equipment and saddlefy entailing burnishing and polishing There are no white belts or blass tips and clasps, the bridles are
so far as to carry a bayonet, which But then their cavalry, modeled and "dragoon" of former dayes is con bot. It has been observed by the final attack on an intrenched posi anal attack on an intrenched posihorses led behind - a proceeding

nther reasons. This should not deter offcers from writing freely. tor there is much concerning the glories and traditions of cavalr: that makes us wish to find the sources of success, which mast it the future as in the past, he in a knowledge of all the details of service and organization.

It has alrays been the endeavor to avoid any friction with, or antagonism of other branches of the service, but the Council stands ready at all times to set forth, in a proper light, the true interests and wishes of the cavalry arm without tear or faror.
W. H. C.

## CONVERSATIONS ON CAVALRY

The series of letters entitled "Conversations on Caralry "will be ancluded in the next issue. These letters were translated for the Jocrasal by Licutenant Reichmasi. The style in which these wittersare written in the original has detracted tery much from their ralue, but those who have followed the translation from letter to letter muat be impresed with the fact that bencalh a mass of rerbiage athd endless repetition there is a rast amount of practical knowledge ,hown by the author, much of which applies with more force in our vervice today than we would have been likely to admit as possible as few reary ago. There is hardly a page that does not contain "pplanations of the causes for faulte in the German caralry, which we may expect in our serrice under the present conditions, and whichare apt to increase until another war comes to show us shortcomings, which, in any nation, seem inseparable from a long continiued and luxurious peace.

Tracing. as these consersations do. the history of the German caralry through so many years, and coming from the pen of a distinguished commander. the letters possess much ralue. It is a matter for regret that they could not have been revised and preented in the usual brief and pointed style to which we are accus. tomed in military publications. This is the only English translation of these letters extant, and the work thas been much appreciated abroad.
$\mathbf{w}$. H. C.

## BOOK NOTICES AND EXCHANGES.

Hof to Shoot a Revolver.
By Major William Preble Hall.
The careless confidence of the average citizen is probably in itmost exaggerated form when he attempts to handle a gun. He will onfan think it necessary to be $f$ well-heeled," and will be found to possers an indifferent weapon of some kind. But he will usually be content with the possession, and will walk the earth serencly confi dent in bis invincibility, and fill utterly tail to realize that much patience, practice and trouble ate necessary before any man is fit to papience, practice and or ase a fire-arto of any kind. The process of loading and pulling the trigger are so easil learned and the results are so sud. den and terrific that people oftn ignore the fact tbat a revolver in unskilled bands is one of the mpat unreliable means of defense, and one of the most dangerous to ypurself and your friends.

In our country acts of violehce are so frequent that it is not a blood-tbirsty sentiment, but merely a justifiable prudence that urges a certain amount of skill in the use of weapons as a part of the education of erery man and womy $n$. In such a way the weak become atrong and the helpless may be miade free, and the burglar, the rav. isher and the murdercr can be oiled. A man may becone an expert pistol shot and yet never earry a weapon, but if the necessity should ever occur, his feeling of contidence and his power to defend himself and others will amply fepay many an hour of practice with the revolver.

Major Hall's method is intended for this class as well as for noldiors whoe profession makes it ridiculous for them not to be familiar with their weapons, althongh such is unhappily the state of many

A large portion of the panphlet is devoted to monnted firing and surely no better man than Major Hall can be found to tell of it, fo be hus studied and practice for years on this line of work.

It is impossible to agree wifh the author's favorable recommen. dation of the 38 -calibre, hamm rless Smith \& Wesson revolver, but it is safe to say that if you faitffully carry ont the other directions in the pamphlet you will be quite competent to pick out a better weapon for yourself.
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Fifld Exercises Supplementary Report by Brigadier-General James W. Forsyth.
"Field Exercises" is the title of General James W. Forsyth: supplemental report, and a perusal of it will well repay those inter wied in the practical outdoor work of the army. To have successfill exercises, those which simulate the conditions and occurrencem of actual war. requires patience, carefal individual and collective instruction, trained umpires, and, above all, a determination to suppress everything of the sham battle order. Problems may be drawn wer so carefully yet the moment anythins intricate is atcompted there is an appearance of crudeness in the operations, and inde. cision as to resulte, that is particularly disheartening. But this Work must form a permanent part of the instruction in future and by adhering to simple problems until umpires and troops are well grounded in their respective parts, more adranced and complicated operations may be safely and profitably undertaken.

Experience shows that umpiring to the most difficult role to fulfill, and he who gives his decisions promptly, according to precedent and the circumstances of each case, may congratulate himself, if upon more mature reflection he finds he has rightly judged onehatf of the occurrences coming under his observation. Whenever possible the decisions sbould be rendered and carried out without rausing a general. cessation of movements not dependent upon minor parts of the problem.

Too much care cannot be taken to secure the interest of the men, and this can be best accomplished by explaining as mach of the general plan as is possible before commencing the execution of any problem. When there are opposing sides, as indicated by General Forsyth in his use of Blues and Browns, it is believed that a decision as to which side has the adrantage should be announced whenever practicable. Mintakes should be noticed for correction, and pn the other hand the men will be much encouraged br commenting farorably upon such conduct as merits it.

Warkeannot be simulated, for the element of danger decides the fate of many morements long before the actual crisis could arrive. Nevertheless, a garrison well trained in field exercises is infinitely better prepared for war than one which is not so trained.
W. H. C.

Flementary Veteminary Mancal. By Bruce Seton. late Fifteenth Bengal Lancers. Gale \& Polden's Military Series.
This little book presents an outline of the more common diseases, is concise, and as free from technicalities as auch a manual can be. The work is specially designed for the use of officers attending the Veterinary Scbool at Aldershot.

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## JOURNAL

or the

## UNITED STATES CAVALRY ASSOCIATION.



No. 3.3.
THE UAVALRY OF THE GERMAN EMPIRE


$\mathrm{A}^{\text {s }}$
S the writer has never had the pieasure of seeing that magnificent military body, the German caralry, the following essay, as many of our eksays mast necessarily be, is a compilation of such facts pertinent to the subject as were accessible.
The writer has, however, had the adrantage of easy access to the military works of the War Department library, and it is beliered that be has been lable to secure much information in regard to this great caralry cotps which has never yet been put in concenient form for American officers.
Many of the regulations for the gorernment of the German caralry system are of course not applicable to the cavalry system of a country as free from the "militarism" of Europe as our own; in fact, we are glad to think that many of our own regulations cannot be improved upori. But some of the more striking differences, particularly the regulations for the training of cavalry recruits and of remounts, will be fonod worthy of trial in our own system. At any rate, it is believed that a description of the caralry arm of one of the foremont military powers of Europe cannot but tend to broaden our riews in regatd to what should constitute the proper organization, equipment and training, to secure the greatest efficiency in the cavalry arm of the present day.

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THE CAVALRY OF THE GERMAN EMPIRE.
The German Empire is formed by a confederation of twenty-fire states and the imperial territory of Alsace-Lorrainc. Its area is 211,140 square miles, and the number of inbabitants (census of to military service between the ages of twenty and forty-five year. of age, except members of rejgning or mediatized houses. the two latter classes, however, entering the military service voluntarily. almost without exception.
Military serrice may be difided into active and Landsturm service. The period of active sersice is initiated by toree years neroice with, the colors, which begins the jear the lierman youth completes his twentieth gear. Next he goes at twe⿻t of age, to four sears' serrice ofith the reserve. While thus enrofled He is liable to two trainings of not exceeding eight weeks each From the reserve at twenty-refen years of age, the soldier passes t" the Landwehr, service in the first ban or levy. lasting for seren years, bringing bim down to phirty-two ycars of age, while service in the second ban of the Landwehr, seven years longer. brings the soldier's age to thirty-nine. The Landwebr is intended, in time of war, to support the active army, but in emergencies may be used to fll the ranks of that arms.

The last division of the arpy is the Landsturm, whose function it is to provide for the defense of the country, and in extreme neces. sity to strengtben the army and navy. It consists of all male. between the ages of seventeed and forty-five not belonging to the army and nary. The Landstyrm forces receive no qpecial training. bat are required to wear a padge so as to be easily recognized. There is also a special bods of men who do not p\&se througb the atanding army, but are used fo fill up the ranks of its units from time to time, called the Erastz| reserve. It consists of men diequalified for military service for ceftain reasons, among ot bich are family dependency, minor bodily defe.ts and temporary physical disability.

Daring times of peace Geaman officers are appointed from two
pources-the corps of cadets, fod from young men of education and rocial standing who join the regiments as "officer-zqpirants." The proportion of civilian appoinfoes to cadet appointeqe is about three to one.

Officers of the Reserve and Landwehr are farmished from the officer-aspirants quitting the active army, by officers transferred from the active list, and from men who have distinguished them selves before the enemy.

Promotion is not fized by

THE CAVALRY OF THE GERMAN EMPIRE.
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of captain promotion is babituslly by seniority, but the Emperor has unlimited power to promote meritorious officers. Abore the grade of captain the rule of seniority ia rarely departed from. Among field offieere the rule is eren carried to an extreme, for a tield officer cannat be promoted to the next higber grade until all his seniors of the same grade in other arms bave been promoted. But a regulation whicb makes this custom less rigorous is that pay and allowauces got with command, as well as grade, so that a field ,fficer in command of a regiment receires the pay and allowances of a colonel. Few officers fail to reach the grade of battalion commander, but when they reach the top of the list of field officers, whetber they will be retained or overslaughed by an appointment of the Emperor becomes a question of much moment to them. There are no examinations for promotion, but each compang officer musti annoally write an essay on some proleanional -ubject. Promotion is also based on confidential reports, made annually by the negimental commander, of the official and private record of all officers in his command. The dutien of officers up to the raok of colond are much the same as in our armg, but the regimental commandef's duties are mucb more responsible, as he is personally responsible for the clothing and equipage, and bas much creater freedom orithio his command. The bigher dirisions of the army are the brigade, division and the corpe-there being twenty army corps.

With such brief mention of the system of recruiting the army with officers and men, made necessary in order to better understand the enormous amont of military training all arms of the German service receice, I will pass to the subject proper, the caralry arm of the German Enpire.

The caralry is fue only branch of the Germany army which has not been increased since the Franco-German War, the army as a whole having been increased from 401,659 men in the gear 1871 to 486,983 in 1890.

It consists of 2,350 officers and 65,311 men, organized into ninetythree regiments or 465 equadrons. Germany has more cavalry than any other Europend power. Ruseia alone excepted. The latter, with her Cossacks, number 687 squadrons, an uxces of nearly fity per cent. It is aled interesting to note bere that the French cavairy number 420 equadrons, or forty-five leas than the Germans.

These ninety-three regiments are organized into forty-six brig. ades of two regiments eacb, one brigade containing three regimente. On mobilization, one brigade remains attached to each infretry division; the remafinder forms an independent cavalry di


German caralry forces ten regiments of cuirassiers, th dragoons, twenty of hussars, twenty-fire of ablans ( of Bararian hears caralry and six of light horse.

The par of the officers and men seems very amall with that of the United States. It is as follows:

Pay of captain (first or second class), 8928.20 to annum.

Pay of first lieutenant, $8: 99.88$ per annum.
Pay of second lieutenant, $8: 8.244$ per annum
Pay of first eergeant, $\$ 171.36$ to $\$ 175.64$ per annum
Pay of sergeant, 8107.10 per annum
Pay of rice-eorporal, band musician, or reanlisted per annum.

Pay of prirbte. 829.98 to $\$ 38.55$ per annum.
These rates of pay are increased by certain allows
Each Prussian regiment bas a certain clothing a manages its owh clothing independently, througb a mission of officers, under the direction of the reg mander. The clothing, to the modestly clothed army try, seems very conspicuous in color and cut.

The cuirassiers have white coats, and white pantal The cuirass, of imon, is coated with copper, consists breast plater united by shoulder scales and side-strape used for field service, but onls on parade. The headg dress, a belmet of white or yellow metal, curred back nape of the neck, surmounted with a spike. For spike is replaced by an eagle. For undress they use of white cloth. The cairassier boots are, for mounte reaching half-uedy up the thigh; and for dismounted d ton boots.

The uhlans ar lancers have a tunic of either light green, with trousers to match-the latter having a das green stripe. The lance cap for undress is of polisbed weale chin chain For full dress the cap is covered cover. The boots are knee boots for mounted duty, an boots for dismounted.

The hassars have tunics of red, green, light and o black, with pantaloons of dark blue. Their headg "busby," surmotnted for foll dress by a white plume. ments bave on the front of their busbys such devises beal and cross-bones," a star, or a scroll. The boots boots.
The dragoons have light bue coats and dark blue pantaloone. Their fall dress headgear is a belmet, sarmounted py a plume, the colors differing in different reqiments. For undress a light blue forage cup is used. The boots are the same as thone of the uhlans.
All German cavalry regiments are now armed with the saber, ance and carbine, without dist nction. The saber of the cuirassiers is* atraight one, one metre, gixteen centimetres in length. That of the dragoons and hussars if slightly curved, and much shorter \&han that of the cuirassiers, be ng only one metre and two centipetres in length. The saber of the uhlans is more curred than that of the dragoons, and in length lies between those of the others, its Then dismornted the lance may either be left attachd to the saddle, or stuck in the ground in fropt of the horse; the latter, when \&ghting on foot, are often tied to the upright lances, , with only a few中en to guard the horsee.

The carbine, model of 1888 , of the same system as the infantry dife. It weighs three kilogra, ${ }^{3}$ one hundred milifigrams, and is $\therefore$. datried when moanted, almost forizontally, on the inght side of the - qaddle, attached to the pommel and cantle. The revplver, model of 1879, is six-sbot. Only officen, sergeants and thompeters, are apmed with it.

Formerly there were three patterns of saddles, the German for Prussian cuirassiers, the Danish for Bavarian cavalry, and the Hungarian for all other regíments. At present ali cencalry regi-中ents are equipped noiformly fith the governmen saddle, model of 1890. This saddle consists of a wooden tree, the prooden arches of which are connected by a leced leather seat, the whole being qovered with a saddle cushion. The bars are padded. Wallets are strapped to the pommel arch, the lef wallet having small pocket geeigned to carry fifteen cartidgen. The weigh of arms and saddle equipments average fifly-foven pounds; and the clothing and qther parts of the kit average fopty. So that the borse will usually carry, exclusive of the rider, nearly one handred popinds.

Fhech Pruseian cavalry regimint carries among itacamp equipage 108 batchete (carried in walletap, eight long-handied shovels, and

PIRE.
six hatchets, (carried on wagons). Also, two bag cases with augers, one case with four gun cotton diso detonators, one apparatus for climbing telegraph bobbin of sileer thread

The regulat transportatioff of a caralry regiment four-borse baggage wagon for regimental staff, one tw store cart, and one four horse forage wagon. These, *quadron waggns. gives a total of five two-horse, ano wagons, with fifty draught horses, and twenty-fis small-arm ammutition carts accompany the Germa ments, but for each independent caralry dirision, to wagons are attached to the artillery of the division. ammunitign whgons is designed to carry from ten to per carbine, and in addition to its ammunition, is pro teen gun-cottor discs for demolitions.

The squadron baggage wagons carry the officers ${ }^{\circ}$ inary stores and instruments, tailor's, saddler's an supplies, six blankets for sick men, reserve clothing most likely to wear out while in the field), the pion drivers' kits, three days' forage, and a blacksmith's f

The Germad goveroment ration, the same for all of a viclual portion and a bread portion. The for meat, vegetables, salt, coffee, and at times, whisky. classified by the government-that issued while in issued on the marcb, and that issued ingarrison.

Similarly the forage allowance is distinguished ad nature of the aqrice which the animals are performi son, march and field ration of forage. Again, it is cording to the breed of animal it is intended for, into light, and light caralry of the guard.

In order to compare it with our own allowance of forage, the following is the middle allowance for German cavalry horses:
of tools. two one case with oles, and one
onsists of one horse medical ith the twelre tell four-horse drivers. No caralry regiammunition Fach of these fifteen rounds ded with six.
aggage, vetershoemaker's eing clothing rs' tools, the rge.
cops, consists er comprises The ration is he field, that
ording to the $g$, into garriclassified, uc. eavy, middle.

| Oats | gimrrmon. |  |
| :---: | :---: | :---: |
| Hay.. |  | 58 |
| Straw. | ....... ....... .. | . $81 \times$ |
| Oats. | $\pm \times$ ¢CH. |  |
| Hay. ... | .. ....... .... .... ..... | [34 |
| Straw ... | .... ..... ..... ..... .. | [9 " |
|  | Field. |  |
| Oata .... <br> Hay | .. ......... ...... .................... 1 | 81 lbs |
| Stram.. | ..................................................... | $8_{8}^{4} \cdot$ |


marked in and way (except by a numbered ticket) receise only about ten minutes groomingaday. T ance of forage is elesen pounds of hay. six pounds teen pronds of straw, with green. Tood several mon The cost of muntaining these autinals is in tome de agricultural sales and by cattle breeding. but it is annual cost of maintaining one animal areragen 86

Each reginent annually receires a certain numb hav an equal oumber condemned. Each reginent h remount fund, out of which it is at liberty to purcha on its own account, the regiment haring a right to young horse which appears worthless as a cavalr, his first two spars nerrice, and also of ridding the of an animal ak cidentally disabled. Thus the remo mentioned, accumulates from sales of this characte, the sales of the forage which has accumulated, due to horses from the regiment. The annual payment $u$ means make in order to enter the serrice as "one $y$ soces to swell the remount fund of the regiment also.

Unce a yeat each regiment sends a detachment strungth, undef charge of an officer. to the depot authorized quofa of remounts. This party bringe regiments either by rail or by abort marches, no miles a day. Three remounts are led by each troop an old horse, a ad they are not ahod until ther reach An the old horkes are condemned each year about tember (after the fall maneusers). the arrical of arranged to tale place about the beginning of Augu

The training of the remounts begins the 1st of in the German arms receires the attention which deserves. Daring the year that the remounts rema they are designated as "ynung remounta," and durin sear, the first ofth the regiment, as "old remounts" The "old remodnts" in each squadron are looked af officer, who is personally responsible for the educa mals ander his charge. The greatest care is taken beginaing not to spoil their dispositions, and to grac them to the reetrainte of military duties. The first are merely ridden around among the old borses, to at home in their new surroundings and accustomed weight of a rider on their backs. They are then $g$ to allow their teachere to handle them on sll parts
nor shod, and eir daily allow. oate and thir. ths in the rear. ree reduced by tated that the ${ }^{101 .}$
of horses and in addition, a croung horses Il at once any animal during aselres at once nt fund. before and also from be loss of such ich soldiers of ar volunteers"
f the required to receite its e latter to the exceeding ten r. mounted on the regiments. he end of Sep. e remounta is
eptember, and ts importance at the depots the following lp to May lst. by a selected on of the anifrom the very ally accustom w weeks they ake them feel to baving the dualls taught their bodies,

5
and the greatest patience is exercised to give them confidence in thbir riders. Later on mach atutntion is paid to jumping, and the remounts are taught first to go pver the obstacle, led alongside an old horse, and afterwards by themsetres. Much imporiance is also attached to teaching the remount the gaits, and to proficiency in pasing easily and promptly from one gait to another.

So much for the procuring of borses for the German caralry in tides of peace. In order to bp ready for the immense number which would be required in the event of war, a muster of all the borses in the empire is made eyery ten years, just after the cattle census. : Every horse owner is bofund to produce for the committee who make the census in eacb department all his horbes, excepting stallions, borsee under four gears of age, horses blind in both eyen, mareb great with foal, and horses worked underground in the mines. Oyt of this number submitted tre picked serviceable riding and draght animala. On mobilization, each province must furnish the number of horses required, a fized price being paid for them by tho state. . As a partial recompense for this obligatiod forced upon the people the government provides thoroughbred stallions tor the selvice of mares throughout the qountry.

In most German cavalry reginents, the recruits (aferaging from thirty-five to forty-five per squadron, annually) arrive by October 1s6, and from that time till May fat of the following year, they are gifen recruit and individual dril) -seven months of noat thorough training, whicb training is lookdd upon in the German service as sedond to no other daty.

Withia-week after the recrhits arrive those of each squadron are bard at work in the riding blll ander a selected officer. They are farpisbed with the steadjest horses, and the gait established by an old soldier in the lead. During these firat two fnonths, Octobef and November, the recruits pee snaffle bits only, and ride upon blanketa. Special attention, durfog this period, is giren to the control of the borses, the changipg from one gait to another, and to burdle-jumping. Then they aire given saddles, and during Derember are made proficient saddle mders, with and without the aid of stiprope. During the first two peeks in Jannary tho regular bits aro given them for the first time, and after learning to control the horses properly, the instruction passes to the nee of arms, which ladts for aix weeks. Tbis bringe the time down to March lst, and the month of April, being generally fair, is given op to the ordinary equad drill out of doors.

Daring all the foregoing six montbs' instraction, foot drill, sword
exercise, and zymasium practice is kept up regu: to carbine drill in January and February. Fro they join, the recruits perform stable duty. but reren months. This exemption, of course, gives for instruction in drill.

The daily fllotment of time is one to one and riding. one to one and one-half bours for foot drill sium practice, and one hour of "theory" in the ef

While all this thorough training is being gire the remainder of the equadron is divided into two ridern forming "ithe firat clans." These two clane dirided into edections of ten or fifteen men each. ficiency in riding. To the very best riders are gi some of those particularly proficient in horse-tra animals to look after during the winter months. training of the recruits, the older soldiers by ( remounte, goet on progressively from week to we of April when all soldiers. including the recruit? the squadron for indiridual drill until May lst.

Besides these dails mounted drills during the the old soldiens, there are foot drills daily, at fi later by squadion: and also gymnastics and awor osually by graduates of the Gymnastic School at

Riding inequctors for the caralry and light niehed from riding academies at Hanorer, Dresdes tion Institute at Municb. The one at Hanover co for officers and one for non-comminsioned officers light artillery, who, in a two-jeara course, receive tion for the dukies of riding and fencing instruct cers' course each cavalry regiment sends annuall must be fond of riding, and well qualified to beco The effect of these schools is to secure for the Ge, form agstem of riding and of fencing.

The system of aword exercise for the Germa progressive and complete. It includes:

1. Sword exercise on foot, in single rank.
2. Sword exercise on foot, in double rank.
3. Sword exercise on foot, cutting at figures, on the march.
4. Sword exercise mounted in a saddle, on wo
5. Sword fxercise mounted on horseback, w mèlées.
rly, in addition the time when guard duty for hem more time ehalf hours for ne bour grmnaning.
to the recruits, lasses-the best are again subcoording to proen the remounta, ing getting two his simultaneous sses. and of the k. up to the first are united into
inter months for t by squad, and exercise, taugbt erlin.
rtillery are furand the Equitasists of a school the caralry and orough prepara. ss. For the offione officer who e an instructor. nan army a uni.
caralry is rery
oth at a halt and den horse.
b combats and

It would seem that with all hese drills taking place duriug the finter months, there would be left little enough tipe for the persponal instruction of the officers themselves; nevertheless, "officers" $r$ des," under the charge of the regmental commander, take place fire times a week.

For the benefit of those of $x$ in this country who think oursolres occasionally overburdeded with routine duly, it may be iqteresting to note here that of he thrée lieutenante attached to a German cavalry squadron, two of them bave three mpunted drills a des. One of these bas, in add tion, the theoretical instruction of the under-officers; the other, thif foot drill, gymnastige, sword axerclse and theoretical instruction of the older soldiens. The third sabaltern devotes the entire day to the different recrpit drills. To the foregoing drills mast be alded "officers' rides for all three adbalterns five times a week; 中 that it is a safe estimate that at least five days in the week each lientemant drills abopt seven hours daily. No wonder, then, that the results on officers, nen and hores ape truly wonderful.

From the lst of May, up to bich point in the pear's training we bave followed the character for instruction, until the middle of June, is known as "the spripg drills." During this period all røgimental parades are forbidder and instruction is coptined entirely to the school of the squadron. The drill is in this case, as it the ofhers before mentioned, progfessive, beginning generally with individual exercises, and endink with tactical maneuvers at the increased gaits. As noted in the training of the recrulte, the utmont adtention is attached to the proper gaita, and in addition, the horsen. like athletes, are trained to keqp their wind, one of the objects in $\nabla$ lew being that at the end of adrill at the trot, they may atill be alle to make an effective obarge against an imaginart enemy.

From the 15 th of June to the let of August is known as $\cdot$ field sarvice," and instraction is undertaken (still by squadron) in the dhties of war, apart from those on the field of battle, sqch as adrance a 1 d rear gaards, reconnaiseance outposts and raids. In these drills the equadrons leave the barracks about 6 A. M. dail, and return aqont 12 or 1 o'clock p. M. In at these drills an imapinary enemy is either personated or simulate.

During the first ted days in Agust the regimental autumn drills take place, tho squadrons concertrating at regimental beadquarters. These drills are followed by a wak's brigade drill. The drill year is closed by the "autumn mapuvers," which take place the last part of August or first part of september. While the cavalry take generally formed for caralry maneuvers alone

To test the thoroughness of the system of tra in the German caralry, the latter is subjected to inspections, and following the scheme of instru drill year. these inspectiona come an test examio been accompli申hed. There are annually about as follown:


It is to be outed that the general officers mat of their commands in persoll. atad there in no sta tore, as in our army. There are however. two Prussian and que under Bavarian administratio rank of lieutenant-general. and asristed by an -harged with the treatment of special caralry in-pectors are annually designated by the Emperd maneuser of the cavalry divisions. and on su usually inspect also. the mounts of the different 4 In 1 ngm , the too Prussian inspectors were cons rommismion to donsider, experiment and consult if interest to ule cavalry arm

In case of Nar, it is contemplated that the -hall immediately be increased from ninetr-tive ta twelve men, whfle the regiment would take the three officers and six bundred and four men, bat and thirty tire horses per squadron. The plan of $n$ is eacb jear worked out to a nicety, is greatly assis already mentioded, of leaving one squadron of th the regiment as a depot squadron, tbus allowing o and horses of that organization to be at once trans thar of the regiqent, bringing the latter up to its ing in operation course of severe ion through the ions of what bas elve inspections,
bject of Innjection
riding on the soattle.
riding on the siatile.
iding on the spaftie.
riding on the suattie.
a ridden on the snnfte.
d aword drill.
to and ist Clame.
rade.
ride.
ride.
a drill. mounter
sital trill. mounted
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ralry nquadr.ins one hundred and eld with twenty. og one hundred bilization which d by the scheme fire comporing o necersary men red to the other pproximate war



THE SIOLX CAMPAIGN OF 18:5.
a funnel-shaped driveway to the corral, through which would be drivenall the animals in case of a threatened attack on the herds. The defensive strength of a camp like this can readily be seen.

This camp ofas also visited nighty by hostile prowlers until dieneral Gibson in order to be better prepared to repela daylight attack. directed that the troops be quietly aroused at 2 oclock erery morning, and a fine formed completely around and about 3words witside of the camp. We were not attacked, but that immunity was doubtless owing to the commanders precautions againnt wurprise.

One of our camps. before reaching the Rosebud, was known as whe "alarm cama." The lodians muld be seen on the "pposite muffe chasing burfala, and our proximity did not appear to concern them in the least. The camp got its tame from the fact that the picket on the riper hank, on two different occasions at night, fired at what was thoqght to be an Indian crosing the river, but which woved to be in each cave, a log.

General Gibeos tried rery hard to cross the command at this pate to atack be Indians who reemed to be an audacious and incitine, but owing to the river being in the fullness of its "June rise" it was physcally impossible with the facilities at hand to get the command oner, and after trying all manner of schemes and methods the attenpt was abandoned. Right at this place was seen a beautiful illustration of the wonderful atrength of the buffalo. some few of our horses swum the riser, but landed several hundred yards below the point at which they started, so strong was the currint, whereas some buffalo that crossed the river did so in an almost straight line.

It is, I think, cause for self-telicitation by the members of the command that wodid not get acruss, for we subsequently ascertained that the Indiads fere entirely too strong for us, and that was why they seemed so indifferent to our being there

A few days aner this we had reached a point a little abore the mouth of Tongud River, when the steamer Far West was seen coming up the Yellowstone. Camp was made, and in a short time it was learoed that General Terry was aboard and that the Seventh Cavalry, under command of Gneral Ccbiter, was on the opposite side of the river; that Major ReWo, with six troops of that regiment, had just made a reconnaiseance to the Rosebud, locating the camp that Gibbon wanted"lo attack, and we were intormed, in Montana parlance, that thofe "were not our Indians." We were then started back to the mout of the Big Horn, as General Terzy, actiog on the saggestion of che Crow scouts that we would find the hostiles on

the duties of galde after ．．Mich ${ }^{\text {．}}$ Bowiek，our regular guide，had been sent with Gester，had but an imperfect knowledge of the coun－ try over which we must go，and while he guaranteed takines the command throukh all right while he had daylight for it．he would not be so certain after dark．About sunset rain began falling and the night was as dark as Egypt，and it needed a good guide indeed to take us through that darkness：the eye was of no use in this case for it could not see；instinct was what had to be depended upon： riding in column one could hardly see the man in his immediate tront，although only threc fect separated them，and Taylor was forced to acknowledge himself helpless．Littee Face，a Crow scout．Was then entrusted with getting us into the valley of the Little Big Horn．Shortly after his assigoment to that task we were obliged to abandon the three Gatling guns that we had with us in a ravine，from which it seemed impossible to extricate the command． I mile or two further on we were floundering about in another ravine when Gencral Terry，concluding that we were not profiting aly by marching in this way，ordered a birouac，and right glad were we to bareat chance to throw ourselves on the ground，which we did so soon an our borsen were cared for and secured for the night．

Very early on the morning of June 26th Lieutenant Bradey． seventh Infantry，who bad command of the scouts，of which some were Crow Indiaps，left the birouac，General Teray intending to delay marching and to marcb slowly so as to permit the infantry to orertake us，and also to enable the artillery detachment to bring up the guns that had been left back the night before．

The command bad bardls got started when horsemen could be seen rapidly approaching us from our front；they proved to be I．ieu－ tenant Bradley and his scouts．It appeared that upon coming up out of the ravinefin the morning，be espied several monnted Indians going like the wind，as though they were trying to eacape from bim． He followed them as fast as possible；the chase led down into the ralley of the Little Big Horn，and from the timber and undergrowth on the banke of that stream the runaway Indians had a chance to Nee who it was that they were running away from，and when they saw that it was eome of their own people with soldiers，they came from cover and bowed that they were Crows．Then for the first time did white man learn of the fate of Creter and bis command； these Crows were of the ones sent with Ccrifer from Gibbons com－ mand．They tolf of Custre striking tbe Indiads and of the result， telling that the＂poldiers were shot down like buffalo．＂

and about midosay in the afternoon a emall bunch of Indian poniea came out of the timber on the riser and came to the column, but did not sem to be satisfied to remain with us, and galloped abead toward the adfance party; they had gone about balf way when neveral Indiand darted out of the timber and drove the ponies up into the hills: their andacity was something wonderful, but no firing could be permifted for fear of bitting aome one in the adrance party or in the main column.

Late in the afternoon figures could be seen on the bluffs to the right front of the column, and along which Lieutenant C. F. Roz. with his troop, "F," Second Cacalry, was marching as flankers. Later it could be seen that these figures had the appearance of car. alry marching in column, with guidons fying. About 6 oclock the command was halted until it could be definitely determined what it really was that was in front of us: they were in caralry formation, and yet there wasan indefinable nomething in their morements that did not appear \&itogether natural.

We were sti申 far enough away from them to require stronger glasses than ancone in the command had, to make them out. RoE was abreast of the column, and three horsemen were seen to approach his front and appeared to be making a report of some kind, and one of our officers looking at them with glasses, exclaimed, "Of course that'e Custre's command; his scouts are reporting to Roc." A man was see to leare Roe and come toward us on the gallop; it was his trumpeter, with the report that the men in our front were hostiles, and with a request for orders to attack them.

The ralley was narrowing up here, and as it was getting well toward nightfall, Roz was ordered to rejoin the column, and the column was ordred into bironac in sucb a manner that it would bave beed able to repulse any attack the Indians might make, but the strength of tho bivouac was as apparent to the Indians as it was to us, and as thef were not hunting for any such fight as we could have given then they drew off, and did not fre a shot. Tbe rery ground covered by the command in its bivonac is now occupied by some of the buifdings of the Crow Indian Agency.

Early on the morning of Jone 27 th the march was resumed, Lieutenant Brapley with his scouts crossing to the right bank of the Little Big Horn, while the main column remained on the left bank. It was very soon seen what character of place it was that the hostiles warted to draw our command into. The river here bends and washes the bluff, and just where it does, 80 is a narrow ravine with broken bluffs. It was here that the bostiles boped to
entrap us, but Generals Terey and Gibbon were tof wary for them. Croesing this place and dropping down again into the valley, we struck the lower end of whit had been the camp of the hostiles. and discovered the first evide ces of the fight. Her were found the 2 buckskin coats of Lientenafte Sticgis and Porzer, of Cubter: regiment, blood-stained and with numerous bulled holes in each. Three "tepees," filled with apad Indians, scaffolds bere and there holding others, and evidencas of hurried departupe, carried with them proufs that the killing fas not altogether one fided.

Just after we bad reached the bottom, and were examining the camp, a courier from Lieuter ant Bradley arrived with the intelligence of the finding of a grgop of dead soldiers, followed sbortly after by a second courier with word that the bodies of about fifty dead soldiers had been found. This courier had bardly started on his roturn to Bradeey when the third bad arrived, bringing the report that upwards of 200 had been found, and others could be seen some distance off.

Now was the truth of the report brought us by the Crows made apparent. With faces blancled by suppressed emotion and apprebension for Custas's safety, the officers exchanged glances and connseled togetber; with firthly set lips commands were passed from one to pnother, the if en instinctively seating themselves firmly in their saddles, shorteping their reins, and drupping their rigbt hands to their carbines. The general bearing of the command boded ill for the hostiles shond they make their appearance.

Captain Ball, with bis toop, "H," Second Cavalry, war in advance as we moved up the falley, feeling our way cautiously, not knowing at what moment wo might be called upon to repel an attack, and that this might be better done part of the cavalry was diamounted to fight on foot. Suddenly Ball's tropp was seen to take the gallop, and in a little while disappear from $\mathrm{c}_{\mathrm{S}} \mathrm{r}$ view.

We could see moving objpcts on some bluffs the were to our left front, but too far off to pe made ont. What pad become of "H". Troop was food for wild conjectare, when two horsemen were seen coming toward ns as fast|es their horses could carry them from the direction in which "H" Groop had disappeared. ""H'Troop baw boen ambusbed," was of churte on every lip, but we were soon relieved of that painful appuphension when the riders got close enough to be recognized ae Lifutenant Jacobs, Seveqth Infantry now major and quartermaster and a civilian named Mat. Carroll. who brought as word that Cprraz and the Seventh Caralry had been wiped out, and that the roope we could eee was the remnant
of Reno's bateation with thirty wounded and no doctor. All baste was made to reach and succor Reno's command, and we got there about noon, and went into bicouac acrose the river from where Revo made his stand, and on the ground where be had struck the bostiles. had bis fight, and was driven acrons the river. In order to get room to bivouat we had to bury his dead and drag away the slain horses.

The fiendish and devilish ingenuity displayed by the hostiles in devising modes of matilation and torture for the unfortunates who fell into their bands is alnost beyond the conception of man; their atrocity extendad to the infliction of cuts and stabs upon the dead horses. Lienteaant DeRicio and Scout Girard hecame separated from the commund in the stampede for the hills, and concealed themselses in the brush on a small island. from which position they were unwilling witnesses of the work of the Indians in torturing and inutilating the wounded, and declare that it was done by the squams. Still me are expected when fighting those people to defer firing until the sex of those firing at us can be determined, for fear that we might hill a squar, and yet the ounce of lead tbat comes hurting toward as, searching out a rictim, comes as unerringly when the trigger is puled by a squaw as if rent on its errand by a man.

Ererything possible was done for Reno's wounded. Dr. Paclining, our surgeon, wag here, there and everywhere, and did all in his power to alleviate the sufferings of those whose wounds were necessarily fatal, and who bad lain ore in the bot June san for two days and a half, and to cure up those whose wounds were less serious or painful. (ieneral Teray and staff surrendered their tents for the use of the wounded, and there is no toubt that the shade they afforded was a godsend to the poor fellows in their sufferings.

Lieutenant Doane, Secoud Caralry, was charged with the preparation of hand and mule litters and travois for the transportation of the woudied to the steamboat at the mouth of the Little Big Horn; there was not a sbirk in Gibbon's command, and it responded cheerfully to the demands made upon it to make these wounded as comfortable as posible. One poor fellow was shot through the body, and the agons he erdured was terrible; he was carried on a hand litter, so that be should be jolted as little as possible, and it required four strony men to carry him. Eren now I soe the care displayed by Lfeatenants Jacobs, Hamilton and Roz and Mat Carroll, four large men, as they gingerly picked their ateps and carefully handed the litter over to four stont enlisted men.

On the 28 th the remnant of the Seventh Caralry performed the last sad offices for their dead comrades, and then birouacked with


CONVERSATIONS ON CAVALRY: BY PRINCE KRAFT ZC' HOHENLOHEINGELFINGEN.
(CONCltided.)
H. After al you hare explaided to me I assume that you desire essential changes in our riding instractions, our organization and our cavalry drill regulations.
S. No radical changes. I hase always based my ideas on the riding instructions and regulations. I think both are rery good.
H. Let us then begin with the riding instructions.
S. I told sou once before that I should bail with jos an amplification of the last sentence of the introduction of the riding instruction. I sbould propose that it read: "The leasons exclusively designed for the third class and likewise the lessons on the double trail in the sechnd part shall, in the squads of the regiment, under no circumstances be tanght or inspected bs equads; they should be taugbt and insperted in indisidual riding.'
H. The resulation proposed by you would require a considerable rerision of the text.
S. It might instead be worded in this way: "Exhibitions of side paces on the donble trail and paces with shortened tempo in individasl riding." I should like best to bare the illustrations of presentiog a riding squad at inspection omitted altogether, because it has been the experience that theee illustrations lead to schemes injurious to the nature of the art of riding.
H. In othe places the text would also bave to be cbanged, and likewise everything in the second part of the riding instructions that refers to side paces on the double trail and gaite with shortened tempo by equad.
S. It would have to be emphasized that the training of the remount should above all be indifdual training, and that the combination into squads with distance should not take place too soon.
H. The same should be prespribed in the first part for the train. ing of recruits.
S. It should at least be brought about that when the indiridual recruits are able to ride around by themselves, individual training still is and remains the chief opnsideration. The regulations for the seat are excellent. It should be more emphasized though that no instruction in bandling the rans be given until the seat is secure. firm, and independent of the reills.
H. It would be great sarfing of material if in exll exercises and lessons too rapid a progre at the expense of thoroughness were cautioned against.
S. That is done now on evely page of the text of our present riding instractions. I might al host say between every two lines. For instance, the instructions cill attention to the fact that there are horses which on account of their conformation afe not able to go the paces on the double trail as H rescribed. It would not be superfluons, bowever, to prescribe expressly that lessons on the double trail be practiced by such men ind horses alone whose efficiency. training and development preflade injurious consequences for the borse. At the point where the instructions deal with the distance between the trails in these lessons, it should be enjoined that this most perfect lesson should attempted with normally built, completely bent and fully develop d horses alone; that in the absence of these prerequisites a smaller dystance between the trails, down to the second position pure and sit ple, should suffice. It should be emphasized at the amene time that these lessons are merely gymnas. tics, means to an end, and are to ease as soon as the end has been attained.
H. I sappose fou have simils wishes regarding the shortened tempos in trot and gallop?
8. Wherein, however, the shotening and increasing of the pace are bot to be mistaken for the shoftened tempo, slnce the shortening and increasing should form one of the principal meane of training.
H. I am sure yoa wish to hape the divisions into periods at the beginning of the eecond part omi ted.
\$. It has simply led to a plecipitation in the training of the rempants and a misnnderstandin $\{$ of the meaning of the instructiops. If the division into periodef can be dispensed with in the training of the recraits, it can certaing be dispensed with in that of the
remounts. The riding instruction sliould admonish that rapidity of progress should not be at the expense of thoroughness of training. For this reason it should be specifically prescribed that no horse from among the old remounts should be permanently ${ }^{\text {p }}$ placed in ranks before it is fully developed and under the rider's control. For close drill the old remounts should, if possible. be turned out on such daysonly then the squadron commander can give them special (un-ideration in the exercises. It would not be superfluous to call attention to the fact that in case of an outbreak of war the old remount would be more tit for war service than if it were exhausted, -poiled. and ingured in its sinews by premature participation in close drill.
H. You concur in the present division into two riding clasmes. where, with sonte admissible exceptions, all men of more than one Year of service belong to the second class on general principles?
$\therefore$ I should not oppose this regulation if allowance were made fir the wishes I bare expressed, and if the training were handled in the manner I have explained to sou.
H. Lastly, I suppose you would like to hare incorporated in the regulations fome rule fixing the number of trainers.
S. The pregent instructions are no full and plain on the selection of the remount riders that nothing better could be aaid on the subject. If the superintending superiors insist on compliance with these resolution, the things I want done will be done. It is better for the squadro to have fewer trainers, all of them efficient, than to have more, apd among tbem men of doubtful proficienc.s. We can get along rery well with the present instructions. It is only to be wisbed that alterations be made in the text where experience has proven that contrary to the intention of the authora it has led to misunderstandinge. I would give an order forbidding all final riding inspections, and direct the regimental commander to consince himself by his persgnal, always unexpected, presence with the several squads under instruction, whetber that instruction is correctly giren in the several squadrons of the regiment. Tbe brigade commander sbould at the sape titne be beld responsible that the personality of the regimental fommander find expression in his regiment. For this reason he is made responsible in all arms for the individual training. The thrigade commander can take notice of the details of the serrice ip the regiments, and gire bis adrice. Moreorer, under existing fegulations, it is his duty to report to his superiors whenerer the dptails of the service in a certain regiment are not handled accordiyg to correct principles.
H. Woald be not be interaring with the service by watching its details so systematically?
S. It would have to be lid down that he do so in proper mander. He has two or three rgiments, or tedi to fifteen squadrons altogether. If in the course of the winter service, say between 'November 1st and April lst, pe witnesses the training in each squadron once, as the regiment 1 commander witnesses the detaily of the riding service, and if we kllow two days to each squadron. it will make twenty or thirty days distributed over these five months. The brigade commander can then so divide the time for each squadron that he will see it one year at the beginning, and in the next toward the end of the training in riding, and thus get an idea of the whole service. Squadrops which be knows are going about it in the right way he need not see ay all, or he may inspect their riding in winter.
H. Would you also do awhy with fixed inspections during summer?
S. No; but I would confin then to this, that the regimental commander inspects the troop a d platoon, the brigade commander the squadron.
H. In these inspections merf drill would not be sufficient. We frequently see three-fourths of $n$ hour or an bepr deroted to a equadron. In that period you c $n$ see nothing but crammed exbibitions. Not only the drill, but fevery detail of riding, ought to be made a subject of inspection. More time sbould purticularly be devoted to individual riding and the movements in dispersed order. The brigade commander will have the equad instructors show him the individual riding. I have po objoction if now and then he - makes the proof of the example, and requires riding in squads with distances. In this manner the brigade commander could hardly inspect more than one squadron ach day. It might, under circumHances, make it impossible for him to inspect all the squadrons before regimental drill is taken up, eepecially if the latter is to take place as early as June.
8. I don't think so. If be d rotes two days to each squadron, he can inspect all the ten or fifton equadrons in twenty or thirty days, little more than three or fiop weeks.
H. But he cannot begin his ospection on the day on which the ‘last recruite have been placed in fanks.
S. Why not? Only be shonld apply the proper measure of criticism to the equadmon, that would, at the same time, best supplement his knowledge of the conse of ipstruction followed in the
-quadron. You forget. however, that according to my ideas the -quadron would bave been drilled the whole year round. winter and - ummer. If at the time of the brigade commanderis inspection ...me recruits capnot drill with the squadron without "upsetting" it. they whould be presented to the brigade commander as recruits. excluded from the squadron drill. and inspected in individual riding. It is not necessary, howerer. that every squadron be inspected by the brigade conmander, and marked with the stamp of '. done" before the regimental drill begins. The brigade commander can rely well inspect some squadrons in detail later on in Juls.
H. You adrpeate standing cavalry divisionf in peace. in order - facilitate the fransition from the peace to the war status at the mument of mobilization.
S. Not quite I desire the dirision of the caralry into caralry fo-pectiona, as la d down by Fremeriok the Great. There should he as many cavaly inspections in peace time as there would be cavalry disisions in far. The inspector would then be the born caralry division commander in war. All he would have to do in case of mobilization woald be to detach those regimente which are to form dicisional cavalry: in war he would thus keep regiments and brig. :wles which he k owes from long acquantance. Neither the regiments nor the inspector need know which of the light regiments are designated each year for dirisional cavalry. The detail may be changed regularly, as with the squadrons designated as depot squadrons. Any difference of truibing of the cacalry divinion and divisional cavalry would thus be prefented.
H. What wold be the duties and functions of the cavalry in--pector in peace? Would you separate the cavalry entirely from the army corps?
S. No; that nay remain as it is and need not bechanged. The duties of the inspector would be to inspect the different bodies of aralry and to exprcise the united division each gear.
H. The organizations which he would inspect, analogous to the irspection of the equadrons by the brigade commander, would be the anited regiment and the united brigade. Could an inspector inspect every yeat eight or twelse regiments during the period of regimental drill? Does that drill last long enougb to make it practicable?
S. It can be qone. Many regimente will probably hare a drill sround in commop with the other regiments of the brigade. The two regiments can be inspected in one day. At any rate, the regiments which hav but one garrison should have the same drill sea-
son, should drill throughout th year, winter and summer, nometimes. in the school of the regiment, They will then remain in prac any and the additional advantag wild not be looked upon as some thing extraordinary-a kind of international festivity -and that the training would be carried out more thoroughly. The inspector should also have the right-an duty to inspect at any time during the year, and at times other than that, when the squadrons are united for the larger exercises. There he should go into the smallest detaila, ande he cannot inspect the individual riding while the regi ments are united. Eren thou h twelve full regiments were placerl under a aingle inapector, he copld, on an arerage, inspect one squad. ron etery month in detail, con ormably to the season and the degree of training attained. Hence 胙can inspect every year one squadron of each regiment, and that wopld suffice to indicate the direction in which bik inferiors would har to work
H. This, I suppose, is nov alry divisiona are formed?
S. It is probably the last emost from the time when generals were at the same time the chilfo of one squadron each, which they not obly inspeeted, but drilled as did Seldlitz at Ohlau.
H. I suppose you will wat a common superior over the vine inspectors. Otherwise there s danger that the work may be done on different lines in every itspection. You probably facor an in-spector-gederal of cavalry?
S. If there is a proper pefson for the place, his function might be very beneficial. We bad pne untila short time ago. He was suddenly taken off by death. I do not care to assert the necessity of an inspector-general of caplay, for the qualifications he should possess are so many that it fould be bard to find the right man. Here, then, the organization lecomes dependent on a man's person. ality. In the end it will alwas be the supreme war lord who will have to decide what requirempnts cavalry is to be enabled to fulfill by its individual training, and he will thus remain the real inspectorgeneral of cavalry.
H. Yon would not expect the sapreme war lord to be a cavalry man and professional rider, fof you said yourself that even a professional rider never leards evfrything, while the monarch has th devote bis time to matters quite different from the art of riding.
S. I told you once before, believe, in one of our first conversa. tions, that it is not at all ne essary for the monarch to be a good
rider. Frederick the Great never had the reputation of being a apecially fine rider.. But he knew what to demand from his caralry and fixed the redults the caralry had to accomplish. Any monarcib with military understanding can do that for all arms. Our monarche are all military experts and grow up in the army. They know what the several arma need and fix the task for each, though they may not hare been brought up in that particular arm.
H. You nas be right. Did not, in dars gone by. our imperial master recognize as correct, and order the great change in artillery, the adoption of riffed guns. notwithstanding the protest of the inspector genera of artillery? Such a superior would not be able to prevent the dfails of training from being carried on under vers different system in the sereral inspections. for the simple reason that he would hesitate to interfere in details which are not familiar to him.
S. The riding schools must bring about the uniformity of detail.
H. Does notour riding institution at Hanorer dothat? It is in a very good way
S. The present riding institution cannot do it, because its purposes are too extended and manifold.
H. I have heard rery serious objections, and had occasion to make them myself. The most important matters are, however, naid to be greatly improred.
S. Yet the idstitution is not equal to the demand. In the first place, it is too large to train every individual thoroughly. On the oher band, it is toosmall to turnish the requisite number of riding instructors for the eutire German cavalry. The pupils there learn how to ride scbobl, sport, and races. That is all very well. But they do not suffiriently learn how to instruct in riding and break young and perfecty raw horses. Hence the complaint that the graduate of the Hanover school "kniebels" the horses. Hence the frequent remark that he must forget everything he learned at Hanorer before being of any service in the troop.
H. You are eriticising the present system of the riding scbool. Why does not the papil learn there what be needs with the troop?
S. The criticssan does not fall on the system, but on the fact that a single institution cannot do all this at once. These are thinge that cannot be learned all at once; they mast be learned gradually.
H. The ridiog institution is even now so large that its direction by one man is top difficult. An increase in the time of instruction would extend it sill more unless the number of graduates annually transferred to the cavalry were decreased. This is likewise imprac.

ttensnts as many as required, pertaps one per regiment or brigacke. For an inspection of ten or twel e regiments, that would make at the most twenty to twenty-four young, and ten or twelve older lieutenants.
H. And at the central institution at Hanover?
S. It would suffice if it pro aced one instructor annually fur each branch. With a four years course there would be four contingents of ten pupils each; total, forty pupils.
H. Thas 200 or 300 officers vould be withdrawn from service for purposes of instruction?
S. Is that not the case now?
H. At present each regiment has but one officer at Hanover : that makes altogether about 100 .
S. And all the regiments, ifcluding those garrisoned in more than one garrison, have to assemple their junior officers for instruc tion in riding at regimental head uarters.
H. Would you suspend the regimental instruction of officers in riding completely?
S. Certaidy not. All lieutenants at regimental headquarters sbould, in addition, receive daif instruction in riding. But it would no longer be necessary to prder officers from cutlying garrisons to regimental beadqnarters for the sole purpose of instruction in riding. It would not be injurion to practical service if the junior officers were firat ordered to th branch riding institution to be

- instructed in riding. What are puior officers good for in practical winter service, if they can neither ride nor instruct in riding? They would simply do mischid through the errors they make. They must first be taught. Yo might just as well asy tbat the onsign is withdrawn from practifl service by being ordered to the war achool. Is not the young ar illery officer ordered for one year. and the brightest ambing them fo two jears, to the artillery school to complete their edication, and does the artillery complain that forces are thereby withdrawn fro practical service?
H. After mature reflection I cannot but agree with you, for the entire practical service during peace is but a continuous buge school, in which the entire nation in arms is being trained for war. Tell me your further wishes in so ar as they concern the regulations.
S. The regulations are the oddier's gospel, and it is not well to attack them, even if it be merely to express wishes.
H. I think it quite possibl to entertain the highest respect for the regulations, and, at the migbt be framed differently an
might contain. Imagine you were a member of a commission to revise the regulat ons. What would you propose?
S. Very few things indeed. Quite recently a few bighly welcome and simplifying decisions hare been rendered, and this being the case. I fould bave bot fer propositions to make.
H. What propositions would they be?
S. I should propose in the first place that more stress be laid on the control of the troop in dispersed order and that it be stated expresaly that the troop alone is capable of delivering a closed, charge, which, though in dispersed order, remains capable of direc. tion, the men of the platoon following their officers, and the latier implicitly obeying the signals. In accordance therewith, it should lie made the chiefconsideration that the troop be skilled in assuming close order from dispersed order at any time and in any formation. For it is my opition. as is evident from all I have so often and explicitly stated, hat the passage from individual training to the movement in dispersed order and trom the latter to close order should be made the basis of the course of training. and that the regulations lay more stress on this point.
H. Properly ppeaking, regulations merely lay down the finished forms in which the tronps are to more but not the course of training.
S. You are avare that the authors of the regulations have long -ince recognized that it is imposible to ignore the course of training altogether. I should, therefore. like to see this matter taken in liand. At this point I would propose for the gallop not to begin merely with opend files and greater distances of the second rank, but to take previously thereto the swarm formation as a transition from the individual riding to riding in aligned open ranks. $i$. $e$., that eceming disorder of a troop or platoon of horsemen in which they muve in diapersed order, agreeably to what I explained the last time. For if you pass at once from individual riding to riding with open ranks and files, the men are too easily tempted to use rude aids in "rder to keep the direction, and to injure the horses. But when the tait of the drill gatlop bas been once established in the more simple warm formation, and when man and horse have become accustomed 11) stand this more rapid morement without excitement, it will ke less difficult to keep direction without awkward aids.
H. You do not desire any alterations of the forms laid down in the regulations?
S. I am a great adrocate of dressing on the center, and would like to have it addpted under all circumstances.
H. I, Too; have bailed with joy the dressing toward the center. and I think it is observed evert where. You would not introduce dressing toward the center for the parade march?
S. That would be inconceiv ble and impracticable. But I should like to see it in the charge, not only of a single squadron. but of larger bodies up to the size of the brigade.
H. It is the charge for whil it has been iptroduced?

S: Only for the aquadron. And that is what endangers the compactness of the charge of 1 rger bodies. Each squadron commander leads bis squadron. The least deviation from the original direction taken at the start will fecrease the interval of the squadron on one and increase it on the of er flank, thus producing great gaps.
H. The regulations cannot deal with errors that may be com. mitted?
S. Yes, they can, if the errofs are so obvious. Supposing, how. ever, that such errors in the original direction are not made, the closeness of the charge would sfill become doubtful the moment we suffer losses doring the advan e. It is hardly to be expected that in fature war cavalry charges ull take place where the hostile ife will not claim its victims before ctual collision. Even in the charge against icavalry, horse batteries will have their say. Now, suppose the shells fall particularly thick in some squadron of a line of the strength of a brigade. That-squadron melts down to the size of a platoon. Gaps are at once formed between it and the neighboring squadrons. There can no longet be a question of compactness of the whole mass. It is well known hat in caralry charges Frederick the Great laid the greateat str se on the "muraille" of the entire charging line.
H. What regulations would you then propose?
.S. I would let all regulations regarding the dress atand as they are, but at the moment when the leader gives the command, "To the charge," the dress of the en ire charging line, if under one command, even an entire brigade, lapould be taken toward the center. For instance, if the first line cossisted of two squadrons, the right squadron would command "E es lent" the left squadron "Eyee right." In the case of tbree squadrons the center squadron would caution "Straight to front," thd right flank squadron, "Eyes left." the left, "Eyes right," and so oh, up to the strength of two regiments.
H. Are the men on the flanks of the first line or the platoon leaders to act as guides?
8. The plation leaders, of ¢purse.

CONIERSATIGNS ON CAVALKY.
H. In case of an eren number of squadrons it would have to be decided which platoon leader would be the guide. the left flank phation leader of the right, or the rigbt flank platoon leader of the lefl ving. It may be objected to that the guide of the squadron of direction might be another than the one the equadron is uccustomed to.
S. According to the regulations the squadron should be accuswmed to all platoon guides acting as squadron guides, for it should be able to charge no matter what the inversion of the platoons may be. ane the third platoon from the right is always that of direction.
H. I think if would be simpler if no thought had to be given under iny circumstances to the person of the squadron guide. I would ropose, therefore, that with an even number of squadrons the guile of the platoon of direction of the lefl flank equadron of the rght wing, with an uneven number of squadrons the guide of the patoon of direction of the center squadron be the guide. and that the squadron of direction. determined in this war, should always ommand "Straight to front." the others "Eyes right." or ." left," repectively
$S$. The difference would be small, and it would make little differeme whethet mine or gour plan werc adopted.
H. From what rou told me the last time of three line tactics. I think yu would like to have the regulations changed so as not to make te three lioes of equal strength. I think you will propose to torma division of three brigades of two regiments each so that the firsuline hard the strength of two brigades, the second and third line of ne reginent each.
S. ou are quite mistaken.
H. 3ut youkant the first line as strong as possible.
S. be. But still better. I want a main line as strong as possi. ble. It uight very easily happen that the first line bas to get out of the enmy's was, and that the second line makes the first charge.
H. 'r that the first line adrances against the enemy's flank and that theiecond charges in front. I beliere I told you that I have seen thi morement repeatedly emploged as a ruse during the manerers, and that the opponent was alnost invariably deceired, especully when there was much dust. He would throw himself on the fist line, which wheeled into platoon rolumns and galloped off wa fink, and which he hoped to strike in flank during the movement. That line, however, had raised such clouds of dust as to conceal te second lide which kept straight to the front. The first line wheehg into line, together with the second line which kept straight
it would be found that the rule should be altered. or expressed differently, and that prery real case would be an exception to the rule.
H. I an quite curious to know what you would propose.
$S$. I would let ever ing contained in the regulations on the employment of the sereral lines. their morements and object, stand as it in. The satutence, howerer, which l have just cited, I would frame as follow : . The caralry division is, as a rule. tormed in three lines-the first, second and third line. The strength of the lines depend on circumstances. It should be endearord to make that line which fo to deliver the principal blow as atrong as possible. or, at any rate, arong enough to orerlap the enemy and take him in Hank.
H. That would leare more freedom to the leader of a division.
$\therefore$ At the same time it would ever remain obligatory upon the leaders of the sekeral lines in war. to throw their lines into the fight in accordance with the excellent precepts of the regulations on the employment of the several lines.
H. We hare in the course of our converations wandered over the entire feld of caralry, I believe.
s. Not so much "wandered." say rather .. lighty touched upon." For if we were to wander all over it. we would have to delay longer at each part. That would probably be too tedious tor you, who are nok devoted to this arm alune.

HI. I have at least formed an approximate idea of what you think of the cappilities of cavalry, what demands you make on the course of training, the leading. etc.. on the whole work in peace time, in order se to perfect the cavalry that it may be equal in war to the altered and increased demands due to the latest firearms. and I am very prateful to you for it. 'You base your ideas on the ground of existing regulations. You frequently direrge from existing cur(1,ms, and I belidere the majority of old practicians would condemn you as an innovator.
S. I think so ton, though I brought forward nothing but what is old, and want po have nothing to do with subsequent innovations. It is now 100 ycars since the great king departed this life. From that moment bil principles began to fall into oblivion. Mach has been talked about them at all times. but it was frequently found too inconvenient to carry them out. To work in this mander requires unceasing labor. All those fond of personal comfort will declare my ideas impracticable. But, believe me, there are many who think and feel as I do, and act in their own sphere accordingly. 164
H. Do you really believe that your system would be practi cable?
S. If you please, I have incented no special system. I bare, as stated, adopted the principles of friderick tefe Great and Seidlitz as my rule.
H. Well, I will express mygelf in this way: Do you really be liere that it would be practicable to train the entire caralry of our army on the principles explained by you? Don't you believe that the number of opponents will b, ton great to allow your ideas to prevail? And if they prevailed bow many years would pass by before the cavals were trained hroughout on these lines?
S. These questions are hard to answer. Habit and ease will cling to what has become custo ${ }^{n}$ since the Great King's decease. Whether it will be possible to opprcome them, who can tell? How long it will take depends on the putborities who endeavor to carry it out, and the more or less determined stand they take. The caralry will improve constantly and gradually. Frederick the Great wan quite dissatisfied with his cavalry at Mollwitz. Four years later it shone brightly àt Hobenfriedberg and sixteen years later it reached the zenith of its glory at Rossbskb and Leuthen. We both shall probably never reap the full parvest. But what matters that? Does the forester when sowing saed ask whether he will some day cat and sell the onehundred-ger-old trees? Do we charge only when we are sure of victory? Sbfold we abstain from attacking false notions on the training and instruction of caralry, because re do not know whether or not our opinionfowill prevail? Where in the world bave prejudices not existed? Whever attacked them did not prerail over them at once. In most casen it means hard conflicts of opinion as hard as those of baftle. It wit, bowever, not prevent those fond of their arms from working, each |n bis own sphere, that that which is right and correct, may prevail Let every one do his duty in peace, not alone the duties of the ervice, for these duties our zealous officers perform most conscientiously. I mean the duty of reflection on one's arm and of doing away with pernicious traditions. Then the arm will perform deeds as gerious as were those under Fred. meice the Great and Seideitz. It can do it, it will do it, notwith. standing the long range of model arms. Let the way to the goal be shown. Officers as brave as oprs will do anything that may be asked, if they are only shown bof
[THETED.]

REDCCED
ARGETS FOR KNOWN DISTANCE FIRING.

Br Captain Jamps parker fucrth Cavalry

$I^{T}$T may somet mes happen, in case of an impending campaign, that time and facilities are lacking for the usual course of target practice. Under sach circumstances any method by which the recruit may, in an expeditious manner, and without taking up time that is needed for drilh, be given a fair knowledge of the principles and practices of "shooting at a mark." would prove of great value. This may be done by the use of reduced targets, the fring point being so clove to the target that the bole made by each shot is distinctly risible to the firer, thus enabling him to correct his aimand method of pulting the trigger for his next shot. The time usually lost in making and pasting up the shot holes is thus aroided.

To illustrate this method of instruction: Let us suppose that a large number of recruits bare just joined the command, which is to take the field in three dass, and that only one-balf bour each das can be spared for the recruit's instruction in shooting. A squad of recruits, numbering eas thirts, are marched to the target buttwhich may be only a few yards away from their tents or quarters. Around these they find thirty instructors or coachers, selected from the most experfenced old soldiers. Facing them, lying on their sides, againat the butt, are ten "B" largets, paper covered. On each one of these " $B$ " targets are pasted nine reduced targets, a series of three in a bonizontal line near the top of the "B" target, another series of three along the middle, and another series of three near the bottom. There are thus ninety reduced targets, numbered in plain figures from one to ninety. One of the reduced targets is assigned to each recruit, and the scorer tates down the number of the target and the name of the recruit.

After fifteen foinutes spent in aiming and pointing drill, the firing commences. Esch recruit is given a package. asy of twenty cart-
ridges. The distance say is twenty-five feat for the pistol and forty feet for the rifle or carbine, the reduced targets used at those distances being equivalent to "A" targets at fifty yards and 200 yards respectively. At the command "Commence firing!" all the recruits begin firing slowly, and continde, each firing at his own target, until the twenty cartridges are exfansted. The instructors, standing alongside the recruits, correct aalts of position, of trigger-pulling. etc.. point out the positions of each shot, and explain the cause of each failare to hit the bull's-eyp. If the recruit misses the target altogether, the shot is always to be foand on the blank paper space surrounding the reduced target. With the evidence of his gooll or poor shooting before bis eyes, and with the example of the scores of his competitors to be seen on his right and left, the recruit puts forth great efforts to make a god score.

The firing of twenty shots by each recruit requires from ten to fifteen minutes. More than topnty or twenty-fire shots cannot be put in one target without confusing the shot-holes. The balf hour js up. If the firing is to go on new targets must be assigned to the recruits. If not, they are manched back, and the next squad of cecruits is brought on the ground for instruction.

The scorer, having the number of eacb recruit's target recorded. counts up the scores after the squads fire, and the scores are afterwards published.

Thus, with the above limited facilities, and with the necessary ammunition, it would be practfeable to give in three days to twn men fairly good instruction in thrget practice, to the extent of sixty

- shots per mang no man being absent from his drills and other instruction more than half an hbur each day.

If, at the outbreak of our ¢ivil War, our regimente had fired. ander competent instructors, erfor this number of shots per man, a different tale might have been told.

Concerning the value of such a course of firing, objections may occur. Such are:

First. That this is mere gallery practice. To this it may be replied that it differs much from gallery practice, in that the recoil is that of the full cbarge, and khat while in gallery practice the trajectory varies, causing errors that cannot be guarded against, in this practice it does not.

Second. Tbat a man who is taught to hit a reduced target at a reduced range will fail to bit a flll target at full range. As to thin. it can be said that the principal tbing in known target practice is to teach a man bow to aim at and hit a mark, and that when a
man can bitathreequarter inch bull'sere at forty feet, it is easy. iu four or five shots, to teach him to bit a ten-inch bull s-eye at 200 yards. A mat who can do that is a fair shot. and a fair shot is all we claim to make.

Third. The noise of so many men firing at once is an objection; it certaidy diminishes the accuracy of shooting, but it has this adrantage, that it assimilates a condition of the firing line.

I recommend this system especially for teaching pistol firing at buown rangea, when time is valuable. I have not tried it in carbine and rife tiring: but under the conditions I hare named, I believe it woold be especially suited to hasty instruction in firing the new .30 chlibre carbine and rifle. The bullet boles made by this rifle are sonall and will not destroy the reduced target, as in the case of the .45 falibre. And the lack of recoil. and the lack of noine and smoke wodld facilitate the instruction when a number of men have to fire at bnce.


## SOME SERVICE VIEWS.

Judging by the interest shown at the present time in the caralry of the more prominent nations, there need be no fear of thi important arm being relegated to the rear, unless a future war of sreat dimensions shall develop shortommings which cannot be predi. ated uponany past experience.

To be effective in the next war, caralry must exhibit a perfection f training abd a capacity tor long continued and rapid morement in good order, such as has never been demanded of it before. That these requirenents demand perfect and systematic indiridual train. ing in all thinks is an axiom to be taken to heart.

There are $4 n$ infinite number of details connected with caralry -errice whicb require constant attention. In former years the regular army as bad no riding halls, and such individual instrac. tion as could be giren was usually limited to cutting and shooting at heads, for a brief part of the drill semton, on tracks laid out on the drill ground. In fact. after a recruit was taken up for duty, be was expected to get a firm seat and become a good horseman in actual service on scouts and herd guard. The riding required of the berd guand bas probably had a greater influence in making fearless cavalrymen in days gone by than any squad or troop instruction ever giren

But a reryfew of the men now in the cavalry, except the old non-commissiohed officers, hare ever seen any field service. The recruits now jdin without any instruction at depots. We are in a state of evolution, from campaign-seasoned army to one untried on actire servide. That much more care and continuous labor in the way of instruction must be bestowed on the men goes without aying.

At the roore important stations, particularly those recently built for caralry, riding halls are provided, and these will afford facilities thr winter instraction. The temptation is offered here, bowever, of degenerating the work of instruction into circus performances, for the benefit of the galleries. The teaching of horsemanship and proper training of remounts should be kept in view all the time. Visitors should not be excluded, but exhibition rides sbould' not be too frequent. else the preparation for trick and fancy riding may absorb valuable time.

In the pursait, mounting and dismounting at various gaith, jumping from poe horse to mount behind a trooper on another horse ridden at a gallop, without touching the ground; riding orer hurdles while sanding up in crossed stirrups, low reaches for the heads at a gallop and many similar feats are witnessed daily in the riding balls, and great fearlessness cbaracterizes everything done.

The anxiety to keep up with otber organizations, or to excel them, causes they kind of work to be pursued almost to the exclusion of bitting and taining the borses and men in the more difficult art of riding with a light hand. No horseman can observe the riding without becomi $\mathrm{g}_{\text {impressed with the fact that, as a rule, the horses' }}$
mouths are spoiled；that they schooled in the regulation haye never been properly bitted and aits，and that they are ridden by the two clagees號 Gidgety，prancing animals tha never go straight in ranks，and are a source of constant annoyance at all drills in line．

Some way must be devis d whereby the horses can be better trained before being put in the ranks．The only way to accomplish this is for the cavalry regime ts to unite in asking for authority to detail remonnt riders and tra pers，in the same way that instructors are detailed to drill recruits． There should be an allowance of at least one man to every thre remounts，and one competent man should always be on this duty 0 train or retrain any horse requiring it：This would aave many orses from condemnation as unman． ageable，and is thereforo in the interest of economy．

The system now in vogue｜s to avoid all semblance of dismounted drill，except for recruits．Tuis resulted from the practice，which formerly existed in all mixed garrisons，of compelling cavalry to drill and parade dismounted ith the infantry．Men who are not properly set op never look pell on horseback；all who bave not erect，soldierly carriage，shou d be put in a special squad and be drilled dismounted frequently to correct such faults as do not arise from defects of nature and whileh cannot be eradicated．

Good equadrove and reginhents can only come from an aggrega． tion of good troops．The degfee of preficiency to be attained being fixed by the drill regulations，the troop commander should be givell the widest latitude possible，nd then held responsible that his organization arrives at a proptr state of instruction．

The question of extra and speciai duty men is a bugbear in all armies，and in the cavalry of dome nations a certain portiou remain unprovided witheborses，in ofder to fill the places requiring men permanently away from the anks．The labor necessary to keep up our military villages must be provided by the troops，and it is worth while to try some other plan of drill，in order that instruction and work may go on at the sape time．In the caralry arm it would probably give better results to divide the command during the period allotted to troop instruqtion，so that half the garrison sbould be free from all duty away frot the troop，while the other half per． formed all guard，fatigue，extr，and special daty．The whole troop， with all the horses，could be put in a better state of instraction in three weeks in this way than in two months of drill with nearly half the men absent from the rauks．Where two squadrons are quartered togetber the eame rod ebshould apply to squadron drill．It must be kept in mind that the term of service is now three years． and unless great care is taken and systematic training carried on，the men will never be first－class calvalrymen．

The fate of our army seems to be that some fad mast always be taten ap and parsued relentlissly．Now that target practice is conducted as a reasonable and mecessary instruction，and signaling
and litter bearer drill occupy only a part of the raiuable drill reason，it is to be hoped that progressive training may be had each vear，so that wen ordered out for field exercies the indiriduals， qquads，troops，squadrons and regiments may show that no partic－ ular instruction has been allowed to monopolize attention to the exclusion of other and equally important kinds．

Cavalry officers owe it to themselres and their arm of the serrice that everything necessary to perfect our regiments for war should the maturely cornhidered and discussed in time of perace．We ought to have the best borses，arms and equipments in the world．We cugbt to provide for remounts and recruits so that there should bot be so muclif dissatisfaction in these matters．We have nerer tried remount \＆$⿻$ cots nor depot squadrons，and if a fair－minded dis－ cussion of these projects developed strength and unanimity of pur－ fose，it is belieded authority of law could be obtained tor making the experiments．It is hardly possible that any worse or more expensive systom of recruiting could have prevailed than that during the Ciri War．Depot squadrons ought to be our salvation in any future e中ergency．Here recruita and horses could be pre pared by those interested in the welfare and efficiency of their awn organizatidns，and there can be no doubt that the regiments in the tield would be maintained on a war tooting in a more exped． （i）us and econonical manner than would be possible under present ur past methode

W．H．C．

## NATIONAL（iCARD CAVALII

It is a mate for congratulation that the value of caralry in the performance of such daties as are frequently required of the militia has recently been recognized by the formation of new troops，as well as by the encouragement giren the older organizations whicb have become eqrolled in the National Guard．The antagonism －hown to independent military organizations commenced some years ago，and in mank States all armed bodies not in the service of the State or Nation are forbidden by law．The crack caralry troope are almost without exception now a part of the National Guard， and this is a wied action．

The interest bhown in the performance of mounted duty in these organizations is by no means confined to ordinary parades and drills．The Joyrnal has receired programines showing field days and tournaments of the Essex Troop of New Jersey，Troop＂A．＂ Ohio National Guard（Cleveland Gregs），and otber organizations． in which many of the exercises call for fearless and expert riding． All bonor to the young gentlemen who are willing to derote the time and mean necessary to acquire the difficult art of military horsemanship．Eren the city riding achools hare become affected with the new spirit，as may be seen from the increasing number of rough riding classes during the past winter．
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GENERAL J. E. B. STHART AND THE GETTYSBCRG; ChMPAIGN.




In tis recent address befofe the Confederate Veteran Association Washington, D. C., Colone Marsball assigns only one cause for the Confederate disaster-th absence of the caralry under Strart.

The exalted and confiden ial position which Colonel Marshali, beld as a member of the perspnal staff of General R. E. LeE, as well as his own commanding abhities, will give to bis opinions great weight in the minds of many especially since they are espressed in a calm and dignified mannet, entirely free from the inyendoes and ugly flings which have marr d the writings of some others on this same subject.

On June 21st General Stuart had begen forced back by Pleasontow's cavalry, supported by fofantry, from his picket line in front of Rector's Cross Roads to Adbby's Gap. During the night Pleanonton retíred, and early on he 22d Strart. reéstablished his line near Rector's Cross Roads, and informed General Lunostriet of the fact. General Lee refers to this information in acknowledging in bis first letter to Stuart the receipt of bis "note of $7: 45$ this morning to General Lonastr, et."

General Lex's letter reades as follows:
Headquarters, June 23, 18ti3
Najor-General J. E. B. Stuart, Companding Cavalry.
Gemrase:-I have just receffed your note of $7: 45$ this morning 10 Gent. eral Longrtaert. I judye the eforts of the enemy ygsterday were to arri-t our progress and ascertain our wh reabonts. Perbspe be is salisied. Do tin know where he is and what he indloing? I fear he will steal a march on 11 s and get across the Potomac beforg we are aware. If you find that he is unow ing northward, and that two brig des can guard the Blac Ridge and take cyr of your rear, you can move with the other three into Mharyland and take pini tion on General kwenis inform the the enemy's movements, and collect all guard his hank, zeep himi infrng of army. One colutin of Getieral Ew eis:army will probably move toward the Susquehanna by the Emmitsburg rolite; another by Chambersburg.

I am, very resp petfully, your obediest servant,
$-\quad$ R. E. LEE. General.
At 3:30 p. M. on the same day Gederal Les writes' io General EwELL as follows:
"I also directed General Oruhar, should the eneay have so far retirel from his front as to permit the de arture of a portion of the cavaliry, to warch with three brigades acroes the Popmac, and place himself on your right an in commanication with yoa, keep you adviged of the movements of the enem? and assist in collecting supplies for the army. I have not heard from him since."

General Lee's letter wo sfuart contains no intimation of any roate to be pursued by STUAB, bat simply directs him to move into Maryland and place himself on the right of General Ewzll and it
communication with him, provided the enemy were moving northward, and provided two brigades of caralry could take care of his rear. By necessary implication Stcart was ordered to remain Where he was so long as the enemp remained quiet. Let us here note that Rector's Cross Roads is about seventeen miles from MiHwood, where pas Lonostreets headquarters, and that Millwood is about seven niles from Berryrille, where was General Lee's head. quarters. and that an answer to a dispatch from General Stcart to fieneral Leecould not hare been received in less than about welve hours.

General Lafes letter of June sed to Stlart was not sent direct, but was inclosed in a letter from Lee to Longetreet, and was forwarded by Loggetreet to stcart at $7 o^{\circ}$ clock p. a on the name day.

General Longstreets letter is as followe:
Headquarters,
Mojor-General J. E. B. Stuart, Commanding Caralry.
General:- Gieneral Lee has inclomed to me this letter for you, to be forwarderit to you, phorided you can be spared from my front, and provided I He speaks of your moving across the Potomac without disclowing our plans tre speaks if you can pet through by that route, In think you by the rear of the to indicate what dur plansare than if you should crows by pasking to our rear 1 forward the leter of instructions with these sugxestions.

Please advise me of the condition of affairs before you leave, and onler General Haxptoz - whom I suppose rou will leave here in command - to report to meat 1 fllwood, either by letter or in person. as nay be most agreealle to him.

Most respectinlly
JAME: LONGSTREET,
N. B.- I think that your pasage of the Potomac by our rear at the present moment will. in a measure, discloe our plans. You had better not leave us, therefore, unless you can take the proposed route in rear of the enemy.

Mariog sent this letter to Stcabt, General Longetreet arites an follows to Genequal Lee:
General R. E. Lee, Commanding, dce.

Geviral:--yours of + o'elock this afternoon is received. I have forHarded your lettep to General STCART, with the suggestion that he pass by the enemy's rear fi he thinks that he may get through. We have nothing irnm the enemy tof day.

Most respectfully,
JAMES LONGSTREET,
Licuknant-General, Commanding.
The conclusibn is irresistible that the first suggestion of the plan of moving the qaralry into Maryland "by the rear of the enemy" came from Genfral R. E. LeE bimself, and it is establisbed with absolute certainky that Geueral Lee communicated this plan to tieneral Srcaat not by direct order, but tbrough General Lonostreet; and that General Longetreet was instructed to withbold it from General Stcart if he thought that Sicart could not be spared from his (Lonastreet's) front, or could not move across the Potumac withouf disclosing the Confederate plans. It appears that General Lef preferred to submit the idea of this movement to Gen-
eral Longstreet's judgment beffe dieclosing it to Strart. Let us also notice that there is no amb guity as to the position of the car. alry in the contemplated mov ment, as might have existed had General Lee written "east of the dountains;" but the expression General Lear and distinct-"in the rar of the enems."

General Lere's letter of Jupe 22d to Stiart; through Long; street, reached Stcart preanmably aboti 11 o'clock on the night of that date. Early the next dy, June 23d, Mosby came into our lines with information from the nemy

In the Philadelphia Weekly Fimes of December 15, 187t. Mosby has told us what was the information he communicated to Stcart I quote as follows:
"On my return from my last tri inside of Hoorer's lines, on the 23 d 0 June, after giving Stuart all the inio mation I had gleaned about the location of rach corps of the Union army, isygyested that a splendid opportunity wan now offered him to strike Hooker damaging blow by passing through an unguarded pass of the Bull Ran Mo ntain with a portion of his caralry, and cutting right through the middle of the Federal army, destroying his transportation as General Les in Penneylyania The tan was at that time perfectly practicable General hre in Pennsylvania. The than and only a small portion of the cavPlry was necessary to be held in 1 is front to observe the movements of Hoorar's army, and report them to $t$ e commanding general. While wewer discuesing the plan Generals Hamp on and Fitz Lee came into the room. 1 cannot of my own knowledge say t at STcART submitted my proposition in General Lez before ordering the $w$ vement. I do know-that as soon as our conference ended he started a couri r to him. Colonel Blackrond. of General Stoart's betaff, recently informe me that Stiart rode over to General Ler's headquarters that day to consu with him about it.
"The plan agreed upon was to tave two cavalry brigades (Jonss a anl Robertson's), under the command o Brigadier-General Beverly Robertans. in front of Hooksr, about Middlebur, to observe his movements ami to keep up commonication with the commanding general, while Stcart, with three brigades, should pass through the Uuion army into Pennsylvania. As HAs. coce's corps was holding Hopewell a d Thoroughfare Gaps, in the Bult kun Mountain, the route selected for STy RT to Ro was through Glasacock's (ial (a few miles south of Thoroughiare pia Haymarket, through Loudon ani. Fairiax, to seneca Ford, on the pol ac. croee Bulf Run at night.with my smay Honkr's headquarters were then a Fairfax Station, with his army spreall out like a fan over Loudon, Prince Thoronghfare Gap, his right at Leed with Pleasontons cavalry in front. mense supply trains."

Hére was asoggeation that mugh well fire Stuart's imagination. Think of Hampton, Fitz Lee arf Chambliss reveling in tbe midit of those wagon trains! Think of the confusion into which the Federal plans might have been thrown bs the destruction of the supply trains of even one corpl! But Stcart had no power to adopt this plan. Its successful eqecution depended wholly apon the supposition that the Federal army would remain inactive for one or two days, and in such a case Stu 1 et's orders required bim to remain Where be was, for General Lese order received the night before
authorized him to more only on condition that he found the enemy moring northard. Should this condition occur. Longistreets or ders were binding that be should pass into Maryland $\cdot$ by the rear of the enemy, $\phi$.. if you think you can get through by that route."

We are not brought to consider General Iees letter to General Stcart of June 23 d . It is as follows

Heaductarters Army of Northery Virgivia,
Major-General J. E. B. Suart. Commanding Caralry
General:- our notes of 9 and 10:30 a m to day have just treen received. As regards the phrchase of tobacco tor your men, supposing that Confederate money win not be taken, 1 am ainh in or nothing seized by the me bing seized by the men.
If General Hoosers's army remains inactive, you can leave two brigades to watcb hita ang Bitharaw With the three others, but whould he not appear mountain to- ounter night crow thepherlatown oust day and move or the mountain o-mortownit

You will, ho wever. be able to judge whether you can pass around their army withnut hiddrance, doing them all the damage you can, and cross the
 ions, etc. $\quad \mathrm{am}$, respectfully and truly yours, $E$ IEE Gener.l.

Generai Les acknowledges the receipt of two notes from Stiart on the $\geq 3 d$ of June. We presume that the firnt. dated 9 A. M... anked for instructiong concerding the purcbase of tobacco for Stcarts men; the second, dated 10:30 a. m.. coureyed the intelligence brought in by Mosby and made the suggestion that he (Stiart) could damage and delay the enemy by getting in the rear. It is doubtless to this that Genen! Lee refers in his detailed report, when he says
" Cpon the sukgestion of the former officer (Strast) that he could damase the enemy and delay his passage of the river by getting in his rear, he was authorized to do sg. and it was left to his discretion whether to enter Maryland east or west of the Blue Ridge; but re was instructed to lose no time in plar. ing his command on the right of our column as soon as he should perreive the enemy movin northward.'

This supports my supposition that general Stiart did not orig. inate the idea of moring his caralry around the rear of the enemy, but heartily adopted it when proposed to him, and strengthened it by the suggention of the damage and delay he could cause by that course of action, submitting at the same time the details of the plan by which he expected to accomplish this damage and delay.

Let us notioe what Colonel Marshatic calls a misconstruction of orders on the part of Strart. He quotes from the earlier purt of Stcarts repori of his Gettysburg morement as follows:
"The commanding general wrote me authorizing this move if I deemed it practicable, and aso what instructions should be given the officer in conswand of the two bligades left in front of the army. He also notified me that one column woald move via Gettysburg, the other by Carlisle toward the asquehanna, and directed me, after croesing, to proceed with all dispatch to join the right (Eakly) in Penneglvania.

Colobel Marbiall declarea bat no such letter is found in the book which contains the other le be inconsistent with the letters dently refers to General Lee's Stuart construes that letter to then affirms that Stuart's const itself.

The sufficient answer to this in General Lere's detailed repor gestion of the former officer (s enemy and delay bis passage of was authorized to do so, and it w enter Maryland east or west of

But let us examine the letter
"If General Hoorrar's army rem i, to watch him and withdraw with the be moving northward, 1 be moving northward, I think youl had better withdraw this side of the to Fredericktown. Yon will, howefer, be able to judge whether you can pass around their army without hind rance, doing them all the damage you can, and crose the river east of the mpuntains.

Now, if there is a real ambighity in General Leve's instractions. it is but another argument to profe that Stcart sought and obtained further light before beginning pis movements, and there are passages in Stuart's report which panot be otherwise explained. At the conclusion of bis report Stidet writes thus:
"In the exercise of the discretio vested in me by the commanding general it was deemed practicable to move entirely in the enemy's rear, interceptige pate in its actual conflicts.
"The resalt abuodantly confirms my judgment as to the practicability as well as the otility of the move. The main army I was advised by the commanding general, would move in twf columns for the Susquehanna. EABLY was directed to commanicate with hifo as early as practicable after crosesin the Potomac and place my command on bis right flank. It was expected I conld find him in Yott.
"The newspapers of the enemy, riy enly soarce of information, chronicled his (Exply's) arrival there and at
great particularity. I
therefore moted to join him in that vicinity. The enemy's army was moying in a paral 1 with me. I was apprised of ita arrival at Taneytown when I was near Hanofer, Pa., but believing from the lapse of time that our army tras already in Yort or at Harrisburg. where it could choose its battle-xround with the'renemy, I hastened to place my commani with it. It is believed that had the cfrpe of Hill and Longetrert moved on instead of halting near Chambersbury Fork could have been the place of concentration instead of Gettysburg.'

Stcart then proceeds to desi ibe the damage done to the enemy in men and material, the alarm caused in Washington and Baltimore, the security of the trains ff Ler's army, caused by the with drawal of the enemy's cavalry fom their front to their rear, the detachment of large bodies of fantry to protect communication ters cited; that such a letter would eserved; that General Stciart evi. tter of 5 P. M., June 23d. and that ean what lie says in his report. He uction is not justified by the letter
barge of misconstruction is found where he says: "Cpon the sug. OART) that be could damage the be river by getting in his rear, he left to his discretion whether to ue Ridge." * * *
itself. General Lex urites:
on inactive, you can leave two brigades ree others, but should he not appear to y in Penneylvania in time to particias early as practicable after crossing
on his right flank. It was expected I   -

The meaning I gather is thie: That Gederal Lez ordered Stiart to use his discretion and then placed such restrictions on his orders as practically to instruct bim (PTCART) not to use that disrretion This is not creditable to Genera Lpe, nor can we easily believe tha: he would place a trusted lienterant in such position.

Colonel Marbiall bays, mofeover, that Stuart had discretion to ase fords "east of the Blue Rfige" and between Harper's Ferry and Edwards' Ferry, "but be hy d no discretion to use any ford thit would place the enemy's army between him and the troops of General Efrle." I submit that Colonel Marseall must abide ty his own limitation in this discussion and must present things ${ }^{\prime 2}$ as they appeared at the time to th se who were called upon to dire: the affairs of which I shall speaf."

General Longetrext says: 'Passing by the rear of the enem! "and the proposed route in rear a "whether you can pass around th can pass around thir army without hindrance doing thin all the damage you can, and cr es the river east of the mountain:: Nowhere do we find the expression "east or weat of the Blie Ridge" until it appears in Gen ral. Lee's reports, which are dat: Jaly 31, 1863, and January, 1864, and in these reports it is not used in sach connection as will at austify Colonel Marsinall's inter pretation. With General Frente at Harper's Ferry, with a sigmal station on Maryland Heights, wich correctly reported every mos? ment of Leg's army in the vall ${ }^{\text {y }}$, with the Twelfth Corps at Leed burg, the Fifh Corps and Plea pnton's cavalry at Aldie, an attemp to cross betwoen Harper's Fers and Edwards' Ferry would hav been little short of madness. Gqueral J. A. Eariy says in the papet from which I have previously quoted: "When Hooker was crossing the Potomac at Edwards' Ferry $t$ was simply imponsible for Stciart to cross that stroam between that point and Harper's Ferry. as Hooker was keeping up his compunication with that place, and the interval was narrow.". We may add that the idea of such an attempt probably did not once becur either to General Lee, or to General Longetreet, or to Genefal Stuart.

Once more Colonel Marsiafle saýs: "The first movement of General Stcart after leaving Salem. Depot early on the morning of the 25th brought bim in conffet with General Hancock's brigade near Harmarket, and, finding that be could not pass around the rear of the enemy, the discretion so given him by General Lovggireet was at an end, and there was yet time for General Stiart to retrace his steps.

As to the fact as affirmed by Colonel Marsiall, "that there was Jet time for General Stuart to etrace his steps," it might be suff. cient to say that General Sruagt did not thinkso. At least nixty five miles of mountain country fay between Stcart, at Haymarket. and the Potomac, at Sbepherdjown. His horses were subsisting entirely apon grass, and, impedet by six pieces of artillers and bis ordnance train, he conld not have hoped to crose at Shepherdetown earlier than the morning of Jun 28th, and perhaps reach the passes of the Sonth Mountain on the 29 h , with a command much redaced
in numbers add efficiency by hard marching. Here be would un doubtedly have encountered the enemy e cavalry, superior in num. bers and condition, with hardly a hope that he could prevent a atrong column from breaking through and creating havoc among the trains of LeEs army. Moreover. What must he do in view of his orders to damage the enemy and delay his morements? He now, for the flrst time. found before him the condition on whith General Leess frst order was based. The enemy wasactually mos. ing northeard and he was one day march nearer to their roar than he was to Rector's Cross Roads. Must he forego this adrantage and trail back orer the mountains? Who that knew Strart would imagine him doing such a thing?

It is only decessary to notice one other point in Colonel Marshall's addrese. He asserts that the concentration of Lees army at Gettysburg could hare been and would hare been more speedily effected if General Stcart had furnished to General Lee the infurmation he experted, and that Lee would this have been enabled to cruah Meades army in detail.

Coder date of February 13. 1s-8, General Farly writes:
"I really do por believe that the battle of cettysburg was lost because Stcart was unable to communicate with General Lee previuus to that battie. nor because he failed to communicate, with me or I failed to communicate with him, whether by negligence or migiortune. nor berause StcArt was not up on the first dap. I have stated wy views fully on the causes of our failure to gain that battle, and I am firmly impressed with the conviction that the ing General Lare, enerion not have placed the latter in a position where he could have fought him to such advantage was presented to us on the morning of the ed of July at Gettysburg.
"I tbink tbat these men whoassign Sticart"s failure to communicate with - General Lex sooner, or his abeence from the field on the first day, as causes of the lose of the battle, have very vague ideas of what they are talking about.
-Stcart's full and complete vindication is found in the fact that he actel within the ecope of the digcretion given him by Geveral LaE, and that he acted within the ecope onergy and skill. I think his decision as to the point of crossing was judicious, and resalted in materially delaying the enemy's progress, and fieneral Lee got all the information that was necessary for him to fight the battle of (rettysburg in fall tine."

Let us now dum up the case. I hare shown

1. That the orders from Lee to Sticart, which have been pre. serced, indicate that the plan of crossing the Confederate caralry oser the Potomac in the rear of Honkers army originated with General R. E. LiE, and was communicated by him to General Lovostreet, with onders to forward to Stcart only in case be (Lonostreet) approred the plan.
2. That General Ler, in so doing, was not misled by any fancied enthusiasm on Stcartis part, but himself devolved on Lonastreet and Stchat a grave respousibility, such a ode as men generally are willing to avoid.
3. That Steart accepted the reaponsibility and decided the question as best be was able, and that Colonel Marshalis charge
of a "misapprebension" of orde s rests on no foundation other than Colonel Marsaall's individual opinion, and this opinion is contradicted by General R. E. Ler's report.
4. That the charge that Stiart disregarded the limitations to the discretion given him, and thit therefore the battle of Gettysburg was lost to the Confederate arm, rests on the same foundation and is entitled to just so much weig t as Colonel Marshall's personal opinion calls for on such a subject when unsupported by any eridence eave Colonel Marshall's onstruction of General Lee's language. Others with equal mean of information, and with the somewhat enlarged comprehension which a military education gives, entirely disagree with Colonel afarbeall.
5. That Colonel Marsiall resents only a portion of the facts as they must have appeared to the mind of General Stcart. He has failed to diecover or has faifod to represent that General Lee first submitted to General Longefreet and then to General Stciart bis order to cross the Potomac in rear of the enemy if the enemy should be moring northward, and if the plan appeared practicable and udvisable, first to Longetreyt and then to Steart. Moreorer. Colonel Marsiall quotes largely from General Stcart's report, but fails to quote those passages whi h indicate a fuller correspondence with his general than is shown to the letters preserred in the offcial records.
6. That when General Stua t presented to General Lee his report of the Gettysburg campaign the issue concerning his interpretation and oxecution of those orders was fairly made, and that Gen. eral Les not only did not contfadict that interpretation, but sustained it in bis own report. Srdart's interpretation of his orders has remained uncontradicted froth that day until the time of Colonel Marshall's appearance before the Confederate Veterans in Wast. ington.

## the hungagian cavalry.

Three letters on "The Hungurian Cavalry" were republished from the London Times in the March number of the Jorrnal. The two remaining letters are give berewith. These letters are of particular interest because the Hangarian cavalry is attracting the attention of all Europe, and its o ganization more nearly resembles ours than the caralry of other na ions. The Bureau of Military Information, War Department, kin ly furnished these letuers for pub. lication in the Journal.

The best means of setting civalry across rivers is a matter of such great importance that it if strange how little attention has been paid to it beretofore in the ordinary peace training of that arm. And jet ho campaign of any importance has been fought in the past, nor will any be carried oft in the future, without furnishing many examples of enforced passeges of rivers where no permanent
means of crosting exist within convenient divtance. Acrounts of the Peninsulat War. of the lislt campaign in Champagne of the Franco German War, amongst others, give descriptions of such operations. wh le those English officers who hare served in Soath Africa. in the Atgban Campaign, or in any other English recent wars, can recal, doubtless, innumerable instances of similar passages more or less successfully carried out. There is no use trying to conceal or to gloss orer the fact that the operation is one attended with no small difficulty, requiring much forethought and previous practice. It in a matter of congratulation. therefore, that there bas been construcud at Aldershot. through the initiative of His Royal Highness the Dake of Connaught and his staff, a capacious poid. where the mopnted troops are annually practiced in this rery important braph of their duties. No fear of accident should prevent every man and horse from being exercised, and it is of the greatest importance also that every man in the caralry should be taught to swim

It is not surprising, in riew of the importance of this part of caralry training, that Austria, posseming a thoroughly practical mounted arm. for actire serrice at an hour's notice, should hare decided to carry out a series of experiments in all possible methods of crossing rires in the absence of permanent passages. and of time amil materials for the construction of a temporary bridge. An endearor will be made to gire a dencription of these experiments in the hope that they may prore useful as guides to similar operations in England.

The force of Hungarian caralry carrsing out the experiments operated under a giren tactical idea. finally reached the Rirer Theiss, and wishing to pusb the reconnaissance beyond, the adranced squadrons proceded to attempt to effect a crossing at three places, with a view to deceiring the enemy as to the real point of passage, which mas Zenta. Where the river-over 300 yards wide - gare full scope for a thorough trial of the appliances and methods under examination. The first duty devolred upon the pioneer troop, twenty-five strging, which accompanied the adranced squadron in its reconnaissance to this point, and with which it mored: also a light country cart, containing all the necessary materiala for the construction of a wonden-framed canvas-covered boat. The parts quickly laid out on the sbelring bank the poles forming the bottom of the frame, labbed them together, and fixed twelre uprights, about two and one-half feet long, at interrals round the outer poles, with ropes interlaced between, thus making a strong though light network, outside bich was stretched a waterproof canvas, passing over the tops of the uprights and rope lacing, and fastened to the bottom of the frame, inside, at intervals by means of ropes. Nine of the uprights were in this particular case formed by the pioneer hatchetr, an infention of the emart lieutenant in command of the Fifteenth Hungarian Hussars Regimental Pioneers, whothus demonstrated another use to which this part of the equipment could be put, and who phored his ability and resource in more ways than
one during these operations.
Within forty minutes the canvas boat, capable of crossing twelry men with saddlery, arms and accontrements at one time, was complete, made by five men who carried it to the water's edge and launched it. The work had heen performed in a leisurely mannel, showing that if liard pressed the party could have completed it in five and twenty minutes, or with practice, even in less. Meantime no one had been idle. The other pioneers had removed the saddles under cover of a belt of trees on the bank, some had atripped themselves, while others were probing with sticke to find a sound point at which to start the horses into the water.

The squadron, hidden away behind trees bigher up, was similarly emplosed, or occupied inflating air-tight bags and filling waturproof ascks with straw, bay or dried leares. Within a few mil utes of arrival a couple of men, striphed and with inflated bladders tied at the back of the armpits, wefe sent swimming across to make soundings on the opposite bank for a landing place for horses and boats. There were now some half dozen sack and bay rafts afloat ready to assist the canvas boat In couveying across the saddlery and arme. Each carried some eight men and saddles every journey: They are of two kinds as stated; riz: waterproof, air-tight inflated. and waterproof, filled with sompthing light, such as straw or hay. The waterproof Gilled sacks are a old pattern. They are fastened. nide together, with rope, resting between two frames of planks. These rafta are slow and clumsf compared to the newly-invented inflated air-tight bag rafts, whilh are formed by tying nine bisstogether, resting on a single framework of planka, and which nocie very handily and ewiftly through the water. Buth kinds, as well as the canvas boat, are propelled by wooden hand paddles. the pioneer spades and shovels being also used for this purpose by the men of the troop. The air-tight bag, some five feet long by three feet broud, and pointed towards he ends, is made of brown cancias. with a mouthpiece at one end for inflation, weighs under two ponads, and takes only a few minutes to ioflate with the mouth. Fifty bage are carried per regi申ont, folded over the cloak at the back of the saddle.

The average timo occupied in the double journey across and back was twenty minutes, and a each trip the rafts and poat left thoir contingents of men and sad lery on the other bank, the former taking ap a defensive position to cover the croseing of the hornewith carbine fire in case of sutprise. The passage of the horses was carried ont in different ways A conple of men, stripped, with bladders or air.belts fastened yoder their arms, and riding the leading horses, entered the watef, arging their mounts with roice and leg until these lost the botton and started to awim. Meantime the remaining borges of the trool had been led to the water, all four reins knotted on the neck, and 18 soon as the leading riders had gained a few yards' start the menf of the troop forming a semi-circle in rear of the horses, began to shout, crack whips and splash, thus driving them into the water aften the leaders in a drore. In some
cases all crossed when once started. but in others a few turned back. and refused ofstinately to face the water again. These were at once taken to the rafto and held by the men by the bridle reins. were driven into deep water, and thus towed across. This plan of -wimming bortes alongside rafts or light boats appears to be good. awhen once fley start in the right direction. they practically take the bark with them at a fast pace as they swim, without any paddling being nedensary: Thegreat point to remember when swimming a horse in thi, way is not to endearor whold his head up out of the water. G|ve him lots of rein. A horse swimming naturally when unheld heeps his head very low. bis nose pusbed well forward. just his nostrils nut of the water. In this position he nwims best. and if held he should be allowed to place his head as he himself chooses. The mistake was sometimes committed during the opera. tions at Zenta of endearorime to hold up the horses heads as they swam, with the realt that they were checked. plunged forward to fet free, sonn became tired, and in some cases, broke loose when almost complefely exhausted. This is a most important point

Anotber method, adopted in a few instances, was for the borses "it each troop f twenty five in number - to be driven into the water behind rafts w th horses held swimming alongside. which thus gave a lead acmes. Again, the men having stripped, rode their horses acrose from bapk to bank. but this plan was not much resorted to.

The metho of swimming horses in droves. already described. furniwh other fery important lesoons. First. it appears that this sritem could be adopted with any chance of success only at points of passage whore the banks thelie gradually to the water:- edge, as it would be alnost impossible to persuade horses to go down a steep balik atd then to take to water. probably deep. at such a point. In thin case the pan of aximming alongside rafts or boats would have to be adopted. Again, of the two drore eystemn the more success. ful is that whefe the men ride the leading animals into the water. But these ridere should be careful to remain on the borses until they are nearly across, as otherwise the leading ones turn immediately to tollow the meo as they swim away to a flank and make back to the bank from which they started. In fact, it would be best if the riders never quitted the horses the whole way across. This was brought out vef: strongly at Zenta, whole droves returning repeatedly because the men left the leading horses too soon. and and this point cannot bo ithpressed too forcibly on all who may hare to carry out such operadions. There is no difficulty in catching the animals on the opposite bank on arriring, as they are nomewhat tired and make at once, of their own accord, for the nearest group of horses at their landing place.

It is imporent that each drove should be ready to follow the last into the water at an interval of a few yards only, to keep up the lead and insube a constant morement until all are acrose. But, abore all, the head of the column must be correctly led. Horses on these occasions are like flocks of sheep, and all follow where the head leads. If once thorougbly scared it is difficult to make horses
take again immediately to brgad rivers, in droves, as they repeatedly break back and refuse to pace the open water. It gaves time. in such cases, to resort at once to leading across alongsido boats or 1 rafts. It is a point worth noticing that horses are certain to swallow a good bellyful of water in swimming, and would, in consequence f be to some extent anfit for rapi work immediately on landing.e

At Zenta no borses were swam with saddlery on and men rill ing, but it may be of interest to mention that the Russian Cossacks practice this as an ordinary quaralry exercise. Whole squadruns have often been seen by the writer to enter the Dnieper in line. fally equipped, rear rank at indreased distance, and to swim across a width of some 250 gards of rather rapid water without confusion or casaalty. :

The squadron and pioneer thoop at Zenta had crossed the Theiw. resaddled, and mored off, within two-and-a-half hours of first reaching the bank. including the time taken in constructing rafte athl boats. The following morning, nore preparations having been miale and two large barges secured. fow portable collapsabte boats and two eorrugated iron pontoons, the compartments of which are separable for transport purposes, were brought up on light wagons which ar attached to limbers drawn by four horses, and were formed into rafte, upon which the 12 -horse artillery guns and limbers of the two batteries attached to the avalry brigade were taken across while the brigade horses, men, suddlery, and equipment were passed over in the manner already desqribed for the aquadron on the previons day. The operation was post nuccessfully carried out in the presence of the Emperor and the army staff. It occupied about four and a balf hours, daring which 12 gans and limbers and more than 2,000 horses and men were transported across this broad river and formed ap on the otber sidd. Through the experience gained at these operations, it is fair to sssume that the same passage could be carried ont again in three hoprs, The only articles made use of which did not accompany the thops were the two large barges em ployed on the second day. The borses of the artillery teams; being accustomed to each other's company, swam guer together, in must cases very readily. In respect of the banks being gradually sloping the point of passage was favorgble, but a sand bank, a few yards after the horses had reached deep water, disconcerted them very much, as they bad to plunge for a second time into deep water after touching bottom. The water, aso, being very deep in midstream. was extremely cold and very uginviting to horses which bad been working or standing under an al|most tropical sun for some time previously.

The points mentioned in this letter do not exhaust all that can be said on this bighly interesting and important_subject, but they are such as are likely to interesu those officers who bave a practical knowledge of such operations alleady, and, it may be hoped, to call forth remarks and notes on theif own personal observations. The now commander-in-chief has had a most varied experiencè of campaigns, in which he himself bas taken the chief pait, in the course
of which $s$ wimming operations must have been of frequent occur rence. Englapd is seldom free for any great length of time from the necessity of warring in some distant corner of the globe where modern civilization has failed, as yet. to make the passage of troom as easy as an ordinary march in Fngland and it is just such remote places that hofsemen may be called upon at any moment to croos unbridged or onfordable rivers. Ashanti is a case in point. There is a gallant cadalry regiment now serving at bome which has a wide knowledge of such matters, gained during its tour of service in South Africa, and whose swimming feats were the subject of admiration at Alders yot last summer. There is no lack. therefore of experience in Eggland. What is required is an epitome of all the information which can be collected, to be utilized as a guide to those who are not so fortunate as to hase bad any extended personal obserrations, and, above all, the opportunity of much annual practice in this important duty, without fear of adrerse criticism in case of accidents to a men or horses, which are almost unavoidable in the carrying oft of such a difficult duty. - The London Times, J,tnuary 6, 189ts.

It would be easy to enlarge upon topics of such military interest as those which this article must bring to a close: here of necessity. only salient feqtures have been brought forward to stimulate the public in general and the soldier in particular into tilling in for themselves the outlines which it has been endearored to give of this excellent cavalyy.

If a word of adrice may be offered to the British officer. prompted throlgh the benefit which the writer feels he has himself gained. it is to add as far as possible the practical experience to be derived from aftempting foreign maneuvers to the military knowl. edge which he has stored up during the yar, in his own drill season, and thes to gire a final polish to his professional attainments. It is ofy at certain large military centers that maneurers take place in fogland, and then the numbers engaged are but a handful. compaged with the strength of the many army corps now massed in all gontinental states for the autumn campaign. whicb forms part of the annual training. It is beyond doubt that much experience may be derived from following these exercises atten. tirely as a spectator, attaching oneself tirst to a regiment or battery, next to a brigade, and finally to a division or larger body. To attempt to hurry from one part of the field of operations to a nother is to waste time and to see nothing. As far as foreign nations are concerned, no one is bindered from reeing the ordinary annual exercises, and os these come on in September, owing to climatic and agricultural influences and to the non-existence of sporting interests to inteffere, at a season when the small-bore rifle and its barmless blank cartridge have already made way in this country for the more ddadly smooth-bore, on the moors of Yorkshire or Scotland, there is no reason why the British officer, if anxious to
gain a practical experience fo upon in these letters, should sacrifice just a fow duys of the easily succeed, provided he will He will jors shooting season in order to do so. He will sea maneuvers carried out with the nearest approach possible to real warfare; bodies of roops, so numerous as älmost to defy the powers of one commander trict, billeted, bivouacked, ina feated retreating, all under copditions, victorious adrancing; defeated retreatiog, ainn the elethent ans as near as possible akin to those of a campaign, the element of sham being limited almost wholly to the blank cartridge similarity to real warfare that locality is unknown to the bellig crents, the battles are no stereotyped cos, depending for victory uppn the knowledge possessed by the commander and his subordinat leaders of every feature in the sur rounding landscape - the namefof this well-known and much blank-cartridge-riddled copse, or of that equally famous hill which has figured prominently at all the finam fights for the past half-century. as the only available artillery whence, presently, the enemy as the sppointed hour for the oommencement of hostilities strikes Nor will the visitor see the capalry sent forward, in a perfunctory manner, to a certain point to furnish information which, as this arm might be well aware, is already known to the commander of the side, and which will have bee anticipated by him, in the orders he issues, before reports reach him. Meantime the half-completed cavalry reconnaissance of the enemy will not have found the artillery duel neariog its end and the infantry deployment com pleted, and masking the fire of the guns, for attack in the only direction in which constant pactice over the same area talls the leaders attack is alone possible. Nor will be find many other un realities of a similar nature to these, which destroy all initiatire and resource, which tend more tha anything else to diminish it the soldier that spirit of self-relianch on which so much stress is laid by his Royal Highness the Duke of Connaught, in bis recent order on spring training in his command

It cannot be too strongly rged that the only way to maki peace maneuvers of true ralue and, in fact, to prerent their beine oven to some extent pernicione is to assimilste them as much is possible to the conditions of re! war. Any otber system may be of some service as a bealiby eqercise to men und horses engaged. but does not warrant a large expenditure of public funds on tbe plea of training an army for war. Hor is it necessary to incur a further large ontlay to secure the desifed similarity to service conditions. the only thing needful being a proper system and a maneuver aict or small compensation fund. The system adopted at the big Austrian cavalry maneuvers of Kio-Czell last autumn, and already briefly referred to in one of thase letters, is excellent. It consist: in starting the opposing forces at a considerable distance apart. allowing the cavalry to reconnditer and furnish information, no disposition to be made by either aiple except on its reports, raried and
unforseen obstacles and contingencies being prepared over the area to be reconnotered, and, above all, plenty of time to be giren to each plase of the impendins battie. It is rare to see an action begun and teroinated in one day on the continent. To each arm is giren full oppotunity to carry out its onerous duties in the general task. Thus the artillery duel commences only afler the reconmoitering cavaly has furnished its reports, and, when begun. lants sometimes thr fughout the rest of the day. as witnessed by the writer at the naneurers of one of the more southern German army corps last autumi. Finally, the infantry deplogment for attack is permitted ouly when such would be possible in war-that is, after a prolunged ardillery action which han paved the way for assault and revealed the point where it is likely to sucteed. By this means each arm has a loted to it a full share of responsibilitier. mistaker are noted and currected, the leeson in thorough and complete. There is no appearance of hurry or desire to bring the exercise to a close. lest dinners shonld be cold and men discontented. It is a case of maneuvers firs, dinners after. The points mont worthy of note. therefore, are these: Introduce the unforescell as much as pionime; aliow no action except on reports actually aent in, give full time to each arm and to each phase of the action. $A$ is to the unforeseen, only a part of that is bere proposed is possible, unlese a maneuver act or a compensation fund be introduced. Is is time that every Euslishman fully realized his responsibility in the detenses of his country in return for the immonity he unjog trom compularily sharing in them personally, and a more fararable opportunity than the present for bugesting to him the most raluable way in which he can couperat will wot. it is hoped, be found for a very"long time. Let the farmer qise free access to his land - maneurers to be held When the harvet is gathered - and let citizens who have reached the age of mantood give a small poll-tax (1) tefray the expenses of maneurers and kompensation tor damages - with care these later -hould be small-and then these essential annual exercises will at once take the necessary place they should hold in the training of nur arms for war. To increase our army without some such provision to provid suitable training grounde is to spent public mones wantonly.

It is essential that an enemy. when carrying out a practice reconnaissance, honld always be opposed to cavialry, whose strength whould be caretuly concealed; otherwise the exercise develops into a wearisome rqute march. devoid of all interest and instruction, instead of entopraging a spirit of resource and self-reliance in those who take part in it. This condition presents no difficulty eren to an isolated sqeadron or detachment.

There are cerfain branches of the caralryman's instruction which could be carried out entirely in the winter, in England as abroad, were be not confronted by two very grave difficulties. These branches are all the detached duties of cavalry -outposts, adranced and rear guards, reconnaissance, escorts, etc., in fact, the most important which derolve upon him in an enclosed country like ours.

The difficulties are the thick, beary winter conts of the horses and the sbort numbers of the men at this season of furlough. Both, but more espocially the former, binge onthe question of expense. If the coats be removed blankets must be substituted. On the conti nent every horse is furnished pith a blanket, which is looked upon as a neceesity and carried folded under the saddle. To the use of this blanket, as well as to the circumstance that the borses do not carry so underbred and coarse a conat naturally, is attributable the fact that fust work is poseible aq all seasons. In England no blanket is issued, the majority of the trpop horses carry all underbred, heavy "coat, which is encouraged still more by the want of warm covering - The result if what might be efpected, viz: that to take the horne out for a walk, even for a few pandred yards, causes them to eweat so freely that twenty-foar hours must elapse before many of them are again completely dry. Whorit is consequently scamped, usetil training is omitted, and men are thoroughly disheartened. It is true that regulation rontemafches take place, and that a wituter squadron training is gone thrqagh, but both duties cause unneces sary bardship to both men an officers in consequence of what ha been described above. It is tifte that these difficulties were recos nized and removed. The En lish cavalry horse is underbred ami arries an anderbred coat. If be is to be worked efticiently in the winter this coat must be removed

As to the numbers, the sysitem by which squadrons are denuded osupply men for the innomerable regimental institutions-orderly rom clerks, quartermaster's atoremen, provost, canteen waiters, etc. to say nothing of those employbd in garrison-leaves but few in the Grlough enga available for otinary caralry duties. The Austrian arlough season available for oghinary cavalry the mounted strenith of earth of separating such employed men is the onls one which will ever secure perfect effi. ciency. To expect men to sit ilt a desk or behind a canteen bar tor 364 days and on the 365 th to appear on inspection parade as efficient oldiers, is neither in keeping foith common sense nor with fairnes. the officers who are beld roponsible for such efficiency without being gived a chance to secure it. The men may be found uneful on paper to swell a total, but there the otility ends.

In connoction with the subfoct of efficiency, a word on the system in vogue on the Continent with ragard to the casting of horses, may be found useful. The regimethal commander reports to the G. O. ©. district, who can, at any timp, cast any horse on any reasonable grounds. Thus a horse which suildenly becomes uselese to the ser vice is cast and struck oft at pnce, the expense of bis keep being saved to the state. In England, save in rare cases of immediate secessity a borse becoming userviceable a day atter the annmal Casting Committee bas eat, must remain, "eating his head off" until the same period the following year. Many such cuses exist, the the same period bere again, busing of nef only to figure on the returus.

The abore points are pot forward, amongst many which exint to show that the hands of the hilitary authorities must be strengti ened, and that fully and promily, in order to allow them to carry
out many urgedt reforms. These reforms do not in themselves in. rolre any greay outlay, but they mean a omall extra expense, and this is enougb to precent their being adopted. How becustomed is one to the gemark. "Yes, that is all very well, but it meqns money." The fratter is closed; there is no use urging ite claims further. It is just this system of scamping thinge for the sake of a few extra poundk. which disheartens our military autborities in their praiseworthy endeavors to improve the serrice, and it in jut the reverse of this oftem which raises a cavalry like that of Austria to the state of perfect efficiency in which it is to day. ."spoil a hip for a ha porth of tar" is not a wise policy, vor one which. it is hoped will be adopted again by England for many yars to come. Now that the necessit of a atrong defensire force bas been clearly demonstrated by the events of the past few short weeks, let evers one strive to cooperate in attaining this end, and should, happily, the clouds on the political horizon lift and thing* look again as peaceta as before. let not the efforts be relaxed nor usetul measures cease because their cartying out incolves a small outlay, upon which the verg existence of the nation may some day depend.- The London Times. J!anuary A1. 183;

## THE EGIPTIAN ARMY

The organization and comporition of the Egyptian army is doubtess familior to many British otficers, but there are on the other hand, a lafge number who might be interested in a brief description of the Force as it existn now. Previous to $18 \times 2$, it had been trained by Anerican officers, soldierly men of raried experience; but they were permitted to bare little or nothing to do with the actual training of the men: they were chiefy employed on staff duties in connecton with topographical and other work, and in ex. plorations in the fidan, and in the deserts between the Nile and the Red Sea. The army mas, however, disorganized by Arabi Iasha, and bordes of rat leries were introduced into it before the catas. trophe of Tel-el-Kebir.

Un the 20th of December, 1882, appeared the decrees of His Higbness the Khedive disbauding the old army, and appointing Major-General Sin Evilin Wood, V.C., G.C.M.G.,K.C.B., as Sirdar of the uew army Permission was given for the appointment in Egypt of officers ferving on full pay it the Queen's army. and twenty-fire officers were provinionally selected, many of whom hare since risen to eminence. The number of the army was fixed at 6 000 men. It was to be a fellahinarmy, but, in riew of the bigh reputation of Turlish soldiers, it was decided that it "would be wise t.) introduce a cer ain amount of professional backbone into the inrertebrate ranks of the fellabin soldiers, by the adenission among them of those hardy warriors who carried the standards of Mohamerd ali from Cairo to Konia." The original conditions of survice were tour fyears with the colors, but this was subsequently
altered to four years in the a my, four years in the police, and four jears in the reserve. And in 1888 , finding that with the continual chances of active service in thff field it would hare been most thowise to have dispensod with the olger and well-trained soldiers, the period of nervice was ugain altered||to six years in the army, five in the police, and four in the reserv

The following table shows the English rank and its equivalent in the Egyptian army. The tanks of Sirdar, Farik and Lewa carry with them the title of "Pashß," the ranks of Miralai, Kaimakami. carry with them the title ot "Bey." All lower ranks to secom! lientenant carry with them tee title of "Effendi;" but in this canc the title has dropped into use then applied to British officers serring in the Rgyptian army:

| Commander-in- | Sirdar. |
| :---: | :---: |
| Lieutenant-Gen | Farik. |
| Major-General | Lewa. |
| Colonel. | Miralai. |
| Lieutenant-Colonel | Kaimakam. |
| Major. | Bimbashi. |
| (Adjntant-Major | Saghkotaghasi. |
| Captain ...... | Yuzbashi. |
| Lieutenant | lazim awal |
| Second-Lientenant. | Nulazim tain |

In January, 1883, the arns. in addition to the staff, consisted n: one cavalry regiment, two haterien of nis cuins, two batteries of four gnns, and eight battalions of infantry formed into two brigades. When a recruit is once called up to the colors, his service begins in the depot battalion at Cairo, liminary training, and is the the frontior, or at Suakin, or first period of service, he do eriod of service he lf, on the completion of hi-
 the first poice service. The police ithe irst reserve of the army, apd should a sudden emergency render necearary to increase the nymer of trained aoldiers. such increase would be drawn from the plice, which in turn would fill up itvacancies from the first-class reserve. On completion of his police service the soldier is drafted the first-class reserve, which is tantitmount to release from service as the reserve is seldom called out.

The staff of the Egyptial arms is on the lines of that in the British army. The native oficers of the army are supplied from the Military school, which thy enter as cadets, and remain in for abont two years. They are tained in accordance with the Einglish military system, and are fairl acquainted with the British infantry drill. An English officer, on joining the Egyptian army, is, as a rule, granted the next highe rank, or in some cases two rank higher, than that he possessed in his Britisiservice, but no English officer has a lower rank than Bimbashit or Major. In English officered battalions there are cosequently no native otficers of higber rank than adjutant-major. Bht there are battalions entirely offcered by native officers.

The most reliable men in
the first battalion of which was raised on May 1, 1884, and commanded by Major H. Hallav Park. C. M. G.. and from ita eurlicet formation up to the present time the confidence placed in it by the British offcers ham never once warered. It was the pioneer iegiment of the Sudanese brigade, which has since proved itself to be the backbone which the Egyptian battalions so much require and which, in comblation with the native troops. has secured more than one honordble rictory. The Sudanese battalions are not coin posed of conscripts, the men are mostly deserters from the enemy, and they are althont entirely volunteers. They are organized into six company battalions. with four officers per battalion of $\mathbf{i 5 9} \mathrm{men}$.

In 1885, Sif Evelyn Wood was succeeded as Sirdar of the Egjptian army by the present Major-General Sir Frascis $W$. Grenfele, G. C.M.G. K. C. B., who retained office until 189!. when Colonel Sir H. H. Kiterener. K. C. M. G.. C. B.. A. D. C., R. E.. was sppointed. Tho present strength of the Egyptian army is

Catalry-Eight squadrons.
Camel Corps. - Six companies, two , f which are fellahin. and tour Sudanese.

Khedive's Comel Corps
Artillery.-Ope horse artillery battery. wo mule batteries (onten apoken of as field batteries), one Masin-Nordenfeldt battery, and tour companies of gatrison artillery.

Infanery.-Fourteen battalions, and two reserve battalions. Nos. 1 to 8 are fellahin battalions, of which Nou $5,6,7$ and 8 are offecered entirely by Eygptian officers. Nos. 9 to 14 are Sudanese battalions all conmanded by British officers. Nos. 15 and 16 are Fixyptian reserve battalione.

## DRILL REGL゙LATIONS.

"The Maual of Drill for the Mounted Troops of Australia," recently prepared by a committee of which Major-General Hitton was President, departs from the British cavalry drill inasmuch as single rank bas been adopted, and excellent reasons giren for the change. It is dqubtful if any American officers would willingly go back to the double rank formation, notwithstanding that it prevails generally in the British and European services. The only criticism ever beard by the editor was made by an officer of large experience -Major-General J H. Filsnen-and this was to the effect that when large bodies of fay 10,000 caralrymen were asecmbled, the single rank formation fould cause them to occupy too much ground.

It is believed that in practice the formations prescribed in the drill regulations admit of massing troops as closely in single as in double rank, and there can be no doubt about the practicability of maneuvering thgm to better advantage. Of course there is the adrantage in double rank, both mounted and dismounted, that recruits can be pat in rear to follow old soldiers. In single rank erery man must be well trained, and depend apon himself and bis officers, rather than upot bis file leader.

In fatare wars if the caralry is to saccessfully perform the mani fold daties laid down for it in the theoretical campaigns of present day writers, individual instryction must be carried to a higher degree of perfection than ever Hefore. The single rank gires better satisfaction under our metho $s$ of instruction, and we have only to guard against the radical expopents of loose order. Cavalry troopers must be thoroughly grounded in their doties and tanght the great ralue of rallying promptly, while their borses still hare wind and strength enough to perform the work which will be required of them. The single rank formation admits of diapersing into a line of skirmishers or foragers wifh great rapidity and simplicity, snd the rally or aseembly, at any pait, may be taught in one drill. The more ntudy and consideration our caralry officers gire to the subject, the stronger will their convictions be that our wisest course is ject, the stronger will their convictions be that our wisest course is
to bear always in mind the services of our own caralry during the Civil War and since.

The squadron system which obtains in Europe, and which we formerly used, was abandoned after the Ciril War. It remains to be seen whether the four-trood squadrons are more satisfactory than the old two-troop squadrons. The administration of squadron affairs is apt to be very ununiform for some time to come, because our present field officers were achustomed to the two-troop squadrons. which were little more than large troops. Since the adoption of the new system; our regiments have not been regularly garrisoned with reference to squadrons, and a tronp belougs to no particular squadron in each regiment.

It is unsatisfactory to an edergetic and active troop commander to serve under a equadron compnander who interferes in all the petty details, whicb in the army reg lations come under the bead of tronp administration. No troop is genefited by having two commanders. and it is believed that if squadron commanders exercise superrision over the officers rather tban the men, good results would follow. It is remarkable that so few offectrs have the gift of drilling large numbers of men in a way to hold their attention and impress them with the value of accoracy in all povements. A equadron commander why can drill bis squadron in that is required by the drill regulations and other modern text foodss, and know when and where tu administer corrections during these drills and feld exercises, will bave very little occasion'to inferfere in minor matters, for each and every one will strive to help bim bave "the crack squadron of the army," and then esprit-de-corps fakes the place of discontent and grumbling.

Our new drill regulations ill soon be issued. The changes are not numerous nor radical. The cavalry regiments should study them antil every troop and sqpadron can perform all the required ovolutions to porfection, and thon let us hope that during the next few years a regiment, at war atrength, may be stationed at Fort Riley, in order that cavalry ot cers may see, for once in a lite time, what it really means to have a thousand horsemen in line.
W. H. C.

## HORSES OF THE sCOTS GREYS

The Edinbufgh Town Council has passed a resolution condemning We proposed change in the color of the horses of the Second Dragoons, better known as the Greys, or Royal Scots Greys. This regiment wan raised ove 200 years ago by General Tbomas Dalzell, and has been made knowin throughout the world, not because of its superiority to other old regiments, but by reason of its grey horses. A picture representing this regiment at a charge, and entited ". Scotland Fordrer!" is familiar to all military communities. It will be very dificult to reconcile the old veterans and friends of this regiment to the sacrifice of its grey horses to the cold spirit of utilitarianispo. which recenty would hare stripped from the British soldier fis historic red coat had not practical experimenta shown that it offered no better mark on the field than many other colors used for piforms.

## THE SOCDAN EXPEIDTION.

The Soudan Expedition does not appear to commend universal udmiration. There are some who object to the whole affair, whilat others assert that. laying aside the question of adrivability under any circumstadces, the Suakin-Berber route should hare been chosen in preffrence to the Nile. Cpon the whole question it is impossible to , ive a well-adrised opinion without kuowints the political considerations by which the British and Egyptian governments hare been guided or impelled. This much, howerer, seems clear. The expedition has been arranged either for the sake of Italy, wholly of in part. or it has not. Assuming, howerer. that a desire to aid the Italians is at all erente partly responsible for the attempt about to be made, it would seem as if direct instead of indi. rect assistance to our ally would have better answered every purpose.

To assist It ly against the Dervishes by vending a British and an Indian brigyde to Kassala would have constituted a plain and emphatic expression of friendship, and should the event have produced the complete defeat ot the Mahdi in that country we could then hare proceded at our leisure to occupy the Nile prorioces and the Nile route hereto. As it is, we are undertaking what we are pleased to style a diversion in faror of Italy, whilst we gain credit only for selfish or Egyptian motives. No one seriously belieres that we should bare moved up the Nile solely out of friendship for Italy. This mas be true in reality, but no one believes it. In our opinion the moley now being spent upon the conveyance of troops up the Nile wquid hare been more profitabls expended upon the Suakin-Berber Railway. Berber could be brought within a twelve hours' railway jфurney from Suakin, whilst the very bent of arrangements in the fuporecan scarcely bring it within rucelve days of Cairo. The shorter route must necessarily command the trade. There will be peace and consequently trade in the Soudan mome day, perhaps not rery far bedce.

When we commenced the Suakin-Berber Railway in 1485 we failed solely throngh our own palt, and not through the intluence of any unavoidable misfortune. Nothing was done until it war tow bot to carry matters to a conclusion. The army wandered about seeking to bring Osyan Dign to action, in place of devoting itwelt to pasbing forward the railwa . As the result. a very considerable force ran grave risk of being estroyed at Tofrek, and the railway failed to advance further than Otao. What should hare been done in 1885 and should still be done is this: Having landed a force bald the railway for a couple of miles and send forward a brigade to cover it. Push on the rail ay, and send another brigade ahuad. Tben da capo until Berber if reached, blockhouses and armored trains being used to maintain the security of the railroad communication. Meanwhile Obman Didna would be obliged either to attack our forces in chosen position or throw up the sponge without fighting. He dare not do the recond, and could not fail to eatll :a handsome beating on attempti g the first.

Tbree good battalions with their machine gans, whether aided by artillery or not, could easil defend a well-placed zeriba agailist all the Dervishes in the Souda , and suffer less proportionate lo.s in the operation than would be fexperienced by 10,000 equally yood troops fighting in the open and howevet well commanded. Osmas Diona might delay offensire operationg on a large scale until the railway and its defenders entelf the bills, but it is far more probable that he would find hinself obliged to attack even betion Hasheen was reached. Delay would appear to his followers in the light of weakness, and the lo ger he delaged the more be would suffer by desertions, and the mpre we should gain by the accessions of the local tribes. "Baksheef $h$ " should be liberally employed as an accessory to the magazine ripe. With one British and two Indian brigades, Berber could easily b\& reached by rail from Suakin in tull months at furthest. That is to say, commencing operations on the 1st of December, 1896, Berbe would be reached by the 31 st of March, 1897. Six months lat $r$ there would be no Mabdi, and a volume of trade would be pourfog down the railway to Suakin. A Suakin-Berber Railway, indeed, offers an excellent speculation to enterprising capitalists.

The task, if resolutely faced, is not beyond our power, at leant we may asame that Lord Wopseley does not think so. As to the advantage to Egypt, the Egy tians are most anxious to see the Soudan again subjected to their rule. Certainly the Egyptians near the border are most anxions to be secured against the continual bloody raids of the Dervishes, ven as far as thirty miles north of Wady Halfa. As a matter of money return, it is to be noted that the Dongola district always di more than pay ita expenses, and it is reasonable to infer that were the Mahdints suppressed, io currellt of commerce between Lower $\mathrm{g}_{\mathrm{g}} \mathrm{pt}$ and Central Africa of a moremunerative nature would efod begin to flow. The Mahdints natarally would not like to be onquered, but there are many tribes who would only be too glad to see their joke removed. Mr

Corbtney quateb General Gorion. Colonel Stewart and Sir Santel Baker, to phore that Egypt would find in the soudan a white elephant. The situation of affairs, howerer. was different under the old regime and under British superintendence. and with British agency, the Sudan would be ruled firmly. justy and economically -The Brond drroc.

THE BRITISH CAVAIRY.
The Brond
Cavalry says

- The Britikh caralry is at length beginning to receive the serious attention of the authorities, and not before that attention was needed. Imporement bas undoubtedly taken place within the lant few years; ble the most optimistic cavalry offecers will scarcely clain that it is in a satisfactory condition. It enjogs amall opmer tunities of practice in mancusers, it has too tew horses in proper. tion to men, is regiments are too weak; as a total its numbersare emall in propoftion to the other arms, and finally there is a want, on the part of generals, of an appreciation of the true caralry pirit with reqpect to the effective employment of the arm on the neld of battle. Indeed, fur many years the awe inspired by the breech-loader, and an imperfect appreciation of the lessons of the American Ciri War relegated cavalry to an inferior position, from which it is onlf now beginniog to emerge. This emergence is due in large measure to the example and teaching of the Germans, who never gave in fo our craze as to the impotence of caralry in the face of improved small arms. As a matter of fact, owing to the great tooral effect of caralry on all but the nteadiest and most bighly disciplined intantry the excellence of the arms of the latter count for less than paight be supposed by those who have not closely studied the subject.'


## HQRSE ARTILLERY WITH CAVALRY

In order that guns may be enabled to seize instantly the favor able opportunify for giving effectire aid to the body of cavalry with which they maf be acting. it is obvious that the artillery officer in command mus be permitted to enjoy the greatest freedom in manearering his own men, so as to insare effective combination with the other at the critical moment. Guns glued, so to speak, to the squadrons nust be almost useless, because they would in that case fail to conde into action soon enough. or clse do so at such close ranges that there would not be time to fire more than a few rounds. A fairly commanding position at a reasonable distance to the flank say 1,000 to 1,500 yards, seems to be erential to the proper fulfillment of the object in riew. Natarally, when circumstances admilted of a choice, the artillery would more and take position upon the protected flank, if any, of their caralry. But the nature of the sround,
the enems's line of approach, o解 the absence of any protected fank. in the case of a somewhat isq ated action, would, as often as not.
result in the artillery being much expoesd, and consequenty standiag in need of a strong ed oort to protect their flank and rear. Modern gans are quite capable of beating off any frontal attack by cavalry, provided that they have time to come into action in the required direction before the e ems is upon them. With numbers against him, the leader of a snall body of cavalry must naturally cast longing eyes upon the party detached from his force asescort to the guns, and lie sees himself placed between the Scylla of jeopardizing the safety of his gutrs py piring them an insufficient escort and the Charybdis of being bea en in the cavalry combat. when an additional half squadron might possibly suffice to turn the balance in his favor.

The point, therefore, is this: artillers battery capable of de one and the aame time? The of conrse, no novelty in intro and some of these would no do present case the idea is to har gan, mounted pivot-wise upon being intended for ase only in roald not need the comparativel required for a low-trajectory w tions against heating could be gain in lightness - in fact, as a and ammunition would answer bomen cases were used for the effective at 800 yards and bec suffice to stop almost any cha weapon as the Snider would be a target as carairy, whilst as much more accurate was the posed to a side wind, than the Lee-Metford. Haring their lim horse artillers conld therefore escort, but the hostile cavalry, eacort of their own arm, wonld Ferging upon the battery, and than if charging $k n e e$ to knee. expected that, sweeping their cavalry, the machine-gưns coul to produce the required effect.

It will, of course, be objecte It will, of course, be objecte to this proposal that howerer light
the machine-guns they must at all events entail so much extra for the teams to draw, since both tomachineguns and their ammunition mast certainly weigh sompthing. Tbis is very true, and it mast at once be admittedithat e ary extra pound bebind the teams is a handicap to the mobility of the gana. But it is proposed to neet a handicap to the mobility of ig gana. Bat
this by suggesting that the H.

Is it possible to render a horse ending itself in every direction at nswer seems to be, yes. There is. ucing the inevitable machinegans. bt be with the cavalry, but in the a special pattern, light machineorse artillery limbers. These guns ase of emergency, at short ranges small bore and sharp twirl of rifling apon, and consequently the precaureatly modified, with a consequent example, the Snider curbine barrel he purpose, if solid bars instead of artridges; six machine.guns, fairly ming dead al 600 yards. ought ti ge. The high irajectory of such a ogreat disadvantage against so tall egards direction we all know how hort, beavy Snider, bullet, when ex ong ballets of either the Martini or bers armed witb macbine-guns. the dispense with the aid ot a cavalry buing no longer threatened by an no doubt charge in loose order, con hos present a more difficult target Iet, even so, it may confidently be e aloug the front of the advancing ecarcely fail to make sufficient hits
to this proposal that howerer light
ened, and that the idea of their haring a range far exceeding that at which the effect of the projectiles can be observed should be frankly abandoned. The reduction of weight secured br shortening the guu would compensate for that added by the machine-gun. The machivegundrould, of course, require to be mounted upon a pirot, and the lattet should be constructed so as to allow the weapon to be carried rertically, orer the rear of the limber. when not made reads for action.

There is apother objection likely to be raised against the present proposal, nardely, that the mounted infantry attacbed to a caralry dirivion would, us a matter of course. furtish the escort to the borse artillery. This would no doubtbecthe case as a rule, but it might happen that ome other enplorment of the mounted infantry might be tound desifable, and moreorer it is to be remembered that opera. tions by amaller bodies than caralry divisions require to be prorided for, and that mounted infantry cannot under all circumstances be available. Aumitiog. however, that mounted infantry are actually present, it still seems far better that they should be tied to the guns upon epcort duty. Six machine-guns well laid would be capable of dofng far greater execution than 100 mounted infantry however good shots the men might be. Then. again, there is another point to be considered. Guns in column of route in a hollow road, though escorted bs mounted infantry. must. if surprised, be at the metcy of a rers few troopery. The mounted infantry, cautht on horpeback by the attacking caralrs, so far from affording protection to the artillery, would insure disaster br masking the fire of the few carbines that might be rady for use. But if, upon the other hand, the battery attacked had ime to turn the team of a single gun to the side of the road aufficiently to enable the machinegun upon the Himber to be laid ujon the enemy, it would require rers determined charging to face the fire of eren that one gun. In short, giving reasonably effective scouting in its immediate neigh. borhood the cifcumstances can hardly be imagined where a battery provided with machineguns could be captured without at all erents dying pretty hard. The question appears to be whether the adrantage of eoabling artillery to dispense with the assistance of any escort is sufticient to conipensate for the disadrantages of earrying the machine-guns. That the machine.guns would afford protection, at least equivalent to that giren by an escort of any ordinary strenkth, will probsbly be admitted, and the question of whether the mhchine-guns can protitably be prorided is that now nubmitted for decision.- The Brood Arroic.

## RAILWAYS IN WAR

The public have oever appreciated the skill Sherman showed in arranging his forces, securing his transportation, and guarding his communications, while be adranced with an arms of 100.000 men for 300 miles from its base, which was Nashville, drawing all bis

eminently satisfactory the traffic returns fully prove. From them it appeara that in three months the railway had carriod 9,000 tons of commissariat stores nine mile ; 2,400 tons of material nine and one-third miles; 14,000 troops apd 10,000 followers twelve miles. and 2,000 tons of baggage a simifpr distance. The entire work was performed without accident, and for the whole time and distance the line was in use it proved inviluable, in that it saved during the hottest period of the sear the tr ops and baggage animals one of the most trying marches they wofld otherwise have had to undergo.

We now come to the most coldessal concentration of troops the world has ever seen, namely, th great Franco-Prussian War. In the period following the campagh of 1866 special attention had been devoted by the Prussian general staff to railways as a meanof assembling and moving lary bodies of troops. 'Two vearw before the occarrence of the wal a complete programme of time tables had been drawn out as to the tomposition and size of particular trains; the hours of departure and arrival at atations, so that when the order for mobilization was gi ed by King Willian on the night of July 16th all the details weye so perfectly regulated that the telegraphic order emanating fron the Roval Cabinet might be considered simply as the instantan ous motion of a vast mechanirm perfectly geared op for its work beforehand. The entire German railwas aystem was dirided into for the concentration of troops being allotted to every two or th sions, who were charged with had each attached to them a spec tribution of the rolling stock, $b$ baving no central bureau posses each separate bureau worked for efficiency was the result. On Ju coinmenced, and between that with 100,000 horses, had beell 8 number of trains employed being

Tarning to the French side, denunciations of their whole plan, the that among the syeepins the railway systom itself, are induded. This is a great elror; it was not for the want of perfectly optrired railroads that the French so disastrously failed in effecting their concentration. The French roads were models of strategic adaptation, and, what is more to the point, the staft and employes th than their Prussian rivals. Bu was to be carried out bad not When the time of pressare came demands upon the railway officiats military staff made outrageous latter to execate. Mr. F. Jacqua in, in bis lectures delivered betore the School of Military Engineerilgiat Chalons, entitled, "The Railways During the War," gives grtphic descriptions of the confused state of affairs. The tirst regime to move from Paris on July lith was timed to leave the Eastern Failway Terminus at $5: 45$ P. M., but
nine main lines of communication owards the frontier, one of these ee army corps. The line comminne management of the transport, al bureall for the control and dis. still the mistake was made of ing a grasp of the whole, so that ta own hand, and a certain lose ut $y$ 18th the transportation by rail ate and August 3d, 384.000 men. $380 m b l e d$ on the frontier, the total about 1,300 .
:
it arrired before? p. m., and the second regiment similarly arrived betore it was manted. These troop were accompanied through the streets by a hofling mob, shouting $\cdot$ a Berlin!" who crowded into the station yads, and even on to the platforms, while the men broke out of the ranks, to get drunk in cabarets, and to lose their ammunition, the latter being heard of again in the days of the Commune. Nofwithstanding all this confusion, which only increaved from day to day, the Eastern Company had by midnight on the 2bth inst, ten lays after, run 594 trains to the frontier, conseyint 186.620 men, 32,410 horses, 3,162 guns and rebicles, and 395 prorision wagons. Here follows a rather remarkable statement, truly French: ' If on the 27 th or 2 eth of the month this army had cronsed the frontier it yould bare been opposed by no serious obstacle (we will prove this assertion by assuring our readers that the German ralwar official admitted it themselres), and could hare cut the enemy line of railway by whicb he was making bis concentration. We do not go so far as to sar that ultimate success would have been ours-ci申many possessed a better system of organization, hesides crusbing numerical superiority; but the campaign would hare commenced rery differenty for our arms from the way so adly realized, for we should bave had the adrantage of fighting on the offensive, t me to remedy some of our defects, and to augnent in a certain extent our means of action."-Admiralty and Horse ciurrds riazetted

The followi E extract is from the report of Lieutenant Emory, Theineers, who accompanied (ieneral Kearney in hie march from Fort Leavenworth. Kansas, to San Diego, California, in 1846: . Moht A paches were furnished with the Mexican cartridge box, whifh consists of a strap round the waist. With cylinders inserted for the cartridges." It is possible this furnished the orig. inal idea of the $\because$ thimble belt," as it was called. which was uned on the plain-tor pany years before the introduction of the woven belt.
W. H. C.

## SCiafRTIONS FOR FOLLOWHRS OF THE CHASF:

These sugction- for followere of the chase are printed upon a rard and dintioted in Virginia tor use of thove not familiar with fiox hunting cultoms

1. Be asoufed it requires practice to gallop acrose country.
2. Cee two girthe and roomy stirrups ; almo have safety hars on your sumble, if possible.
3. If you : be prominent.
4. Don't show jealousy or selfishness in the chase nor try to cutride your nfigbbor.
5. If you dan't control your borse, ride in a new direction.
6. Do not ride directly in another's tracks without allowing plenty of intersal in case of his falling. It is often well for a lady to follow a gentleman rider, bus she should be careful not to be tor close to bim.
7. Go slowly at gaps, and at places where you see differemt sorts of weeds, indicating a blid ditch. Go at your fences quietly. giving the hurse in front of so plenty of time to get orer.
8. When a horse may reffse once to jump an obstucle, which can only be croseed with conve ience singly, he must be taken to the rear of those near at hand. The field must not be delayed by a balking horse.
9. Do not ride orer growing ctops, but go around them, although it may take you far out of your way.
10. Do not ride in front of the master of hounde, except by hirequest, or unless he may get thrown out.
11. Give the master room $n$ the road to get the hounds aheat of the field.
12. When the hounds are fault, gife them plenty of room. and let whoever is hunting the go ahead.
13. Look out for wire fencfs, and let others know of their pres ence.
14. Shouting at the hound by any of the fiedd is forbidden.
15. If a hontsman riding too near the hounds be called back by the master, or by another officer of the club, he must ober promptly and not feel offended
16. The master of hounds 非 the sopreme authority in the hunt. He may on occasionsappoint add announce at the meet an assistant for the day, who shall be recognged as master of the field and obeyed accordingly.
17. In conclusion:
"Your head and you heart keep up; Your bands and our heels keep down; Keep your knees cpse to your hors's,s
And your elbows close to your own."

## BOOK NOTICES AND EXCHANGES.

 char I. Wazher Hathow Kimberly Publishing Company. Kansan (fity. Mo.
This is the econd colume of the International Series, and comprises threestulies: "The French Carairy in 18:0." by LieutenantColonel Bonie : . The German Cavalry in the Battle of Vionville -Mars-Ia-Tour. by Major Kaehler, and "The Operations of the Cavalry in the Gettysburg Campaign." by lieutenant Colonel Geo B. Davis.

Captain Wayner has selected thesestudies as trpical of the cav. alry service of the three great nations - Ciermany. France and the Cnited States in time of war. The history of Germany's auccesses in 1870 has often been ket torth, and other nations have stodied the minutest detail with aridity, and copied her methode blindly.

Major Kaehler is a well-known and accomplished writer and soldier. The matner in which he has presented the serrices of the caralry in the battle under consideration is most entertaining, as well as accurate. American cavalry officers have so litte opportuwity of witnestug maneurets of any larger body than a squadron or two. that the operation- of the very numeroun cavalry treated of in this artiche must prove particularly interesting.

It is. howeder, the study he (ieneral Botie which particularly attracte attention. It is here that is tound a calm self examination. in the hope of learning why the French met with disaster, and an appeal to Fredchmen to remedy their short comings, and be prepared for that ferenge which all France hopes to have, as a slight recompense for her humiliation in 18:0. The author hegins at the fountain head and strikes the key note of German cavalry nuccess when he says:
"The Prussion cavalry has a system of ncoutiog very far superior on service to our own. They pushed ahpad long distances with the greatest rapidity and daring, and the glory of ensuring the general succere of their operations is entirely due tof them. They search the villazes, woots, by paths-in short, the whole count
rar are enabled o make every alrang.men and an wina hation
"This mannzr of operating was unknown to us, and during peace we en.
tered into mimic warfare with indiffenence and want of interest in the work For this reason we were always sumprised, and to it may be attrituted man of our disasters. This fact will appfar clearly in the record of our retreat, and by the contrast thus established betwen our cavalry and the Prussian, one will be able, to judge which army hat the best method of imparting drill and instruction.'

In speaking of charges, ampugst many other good things the anthor eays:
"On the part of the enemy, as ell as on our own, charges were begun at absurd distances. In addition, stary ng at too rapid a pace at firet, the horat: blown on arriving at the wished-ior point, and were there iore incapable of in blown on arriving at the wished-ior point, and were thertiore incapable of insaring success. A mongst other ingtances, we will yurte the charke of vin
Bredow's brigade. Whan it was tapen in flank by our cavalry, the horse: were so dope up that the men coulg do nothing with them, and they wert accordingly at the mercy of our solder, who broke through them, knocking them over and scattering them like be
"If we look at the charges that vere made against infantry, we shall sut that they failed because it had not firat been shaken by a cannonade. Thitruth is so old that it seems almoe foolish to repeat it. Nevertheless, this error was over and over again complitted, and always with one same reriult. namely, the useless destruction of he trops who were engapetl. Take, io, example, the gellant charge of our quirassiers of the (iuaril. Be sides, in this case we had neglected to send out suadron vedettes, and. cunsequently, he. fore reaching the gaal they arrived al, the line was bruken up by the obsiacle it encountered on its path.
"We must also point out that mony of our regime nte were surprised and attacked whilst in the middle of a simation, and that they were chlized th charge before finishing the movorftat, thus bringing ntwut confusion amil uted the fact of our lancers having teen nistaken for lruenians iy our drauted the fact on our lancers,
"All this proves how necessary it is to aroid on the field of hatte a suc estion of movements before one cay face the phemy, and for this reason in should do away with all hesitation al to which of them unt is to choose.
${ }^{*}$ Charges begun too far off; no shanidron vedettes sent cut ; unbroken infantry artacked; regiments surprise thist forming; atiacks entered upon unity in the general command, therelbeine no general-in chief for the cavalry.
"Such are the lessons that ma be learnt by a study of the battle of Keson rille."

Even at this late day it makesa cavalryman sick at heart to read of the cavalry about Metz. T e author closes the recital of these operations in a way to make plan how completely the cavalry was destroyed:
"During the long days that intenfened before the capitulation, our sufferings increased day by day, and little $y$ y little the cavalry melted a way
"On the oth September, provisiops had already begun to run ehort, ant we had to farnish 1.000 horees to aid in feeding the troopes. Noon this amonnt had to be increased, and we were bare $y$ yble to feed those that were left. Th. men gathered up leaves wherever thfy conld, to feed the horses, and did not heaitate to lead them put to grare evgh under the enemy's fire.
"By the 21gt the rations had been cut down that more horses died than the commissariat wanted. Those thit remained ate each other's manes and

BわOK NOTIVES IND ENCHANGES.
tails, dirt or leave. Fivery effort was made to keep rhem alive, not for comGalant purpmets. riter to feed the army

Soon the motality caused by famine became ireadful: it rained withou asing, the whole canip was a sea of mud, and the gro mid was meverl with ach a number of dead homes that no one took the tmuble to hary them Thowe horsen that were still standing in the hines were knocked up and quiv ring in ewiry limb. without atrenyth sufficient to swallow the leares that tuck to their wated life, and, as amn as they fell to the ground, were torn $w$ pieces by the fambed soldiery. In spite of all our sufferings, the morale of the men did not diminish. Searly always wet through, without shelter, food
 hase without a mhrmur, thus giving proof of the ir indonitable courage under

Thus vanisted this numerous cavalry that we have pictured so brilliant is regarde courag on the battlefieli. Better firr it had it perinhell altogether in the field wher it had fought 9 w well.

The closine Edan are depided in in the caralry of the Army of the Rhine a will remain thrpugh life with those who participated is: them

Try to imazne all that there is mot repmant in misery, everything that is pestilent ahd writhed, and you will furm buta a fant conception of the privatione we had to endure. Siglit catne on, n. barch on our nay without
 huppy moldiers art withut either final, whelter wr clothing. We werr obligend to. remain in the open, and the rain tell ith torrents. Deep in mad, without - loaks and with opr wothew worn out we crinul logether for warmith. Hunger
 dhough the Meus was at hand, its waters wiere corruptad lis the numberlese ...ryser that thonted in it
"The horses hatz to underm the same sort of sufferinge, and, in conse. Guence, the diegrder was dreadful. Ome haw witen hearil of the immense herik
 the warth tremble with the treat of their howig, and these wild lands, like a hirricane that cacalry In ordef eo avoid giving the up to the eneme their pieketing mpa

 menced to fixht. And wre each other th piecea, and then for a chanme rushed mencer to the riverat sucth a pace that the foremuet were driven into the water and drowned, and the river encumbered with their bodien."

General Bo, ie conceals nothing, but acknowledges complete deteat. and proceds to the tank of finding out why the French cavalry a:iled to accomplish more glorious deeds than fell to its lot in this campaign. Thes is what he says about German methods and the effect on the Fudench

When we wfe at Chéoe Populeux, the enemy was covered for ten leagues in advance by his cavalre, As ne advanced we kept meeting little groups of ive or aix men thether, who retired sluwly and only aiter ascreraming our in the rear If had followed them ip each group would have fallen beck not they. reacheila aupport strong enough to naist, and then nppoeed us, in iriter to prevent bur breaking through the curtain and putting at their main turly. This servter was wo intullikently performed by the prussian cavalry that we marcheal ha it were in a net, in the mexher of which we were event nally entangled.
"There is a striking difference between the above and our way of acting * * The outposta were so bofly posted that the cavairy were place.t behind the infantry; and this was odr beat means of keeping guard. In plact of keeping ap a perpetual contact y means of one or two men or by small detachments advancing continuous $y$ y und keeping as much under cover as poesible, we carried out our reconnqissances with ohe or two equalrona or was going on. The reconnaissences no doubt, were ordered to proceetl long distances, of the enemy
"What then happened? Why, that our enemy was following un only a mile or two off, and as soon as we fere asleep, or not on the lwokout, over
"In this manner we were surprifed, bqth at Wissembonrg and Beaumont.
"At Vionville the horses were bing whtered when the enemy's artillerv opened fre. At Woerth our commydir inchief had such bad information
that he imagined be was opposed to 40,000 , in place of which he had to contend against 140,000 .
"From the preceding examples ${ }^{2}$ is natural to conclude that the import ance of caralry is not diminished, bat only that it is not expedient to enplly this arm in the inanner we did duritg thisicampaign
"We must look for the best results to movements in extension of the line. and to flank movements.
"In all these battles it was on the flanke that our cavalry might have taken a brilliant and decisive share yad it been concentrated, in place of being split up into nseless fractions.
"As regaris charges, with the eyfeptiop of those undertaken against (as airy, experience shows that regiments that attack straight en the front almunt inariably sufer enornously, withou gaining any reasonable success. Int inoid, therefore, wasting our courag in thin nseless manner.
"Continually drilled in masses, e are incapable of acting in an isolater fashion. But the principal things Thich slowed our deficient instruction mere our ignorance of the conntry inability 10 rean a map rapinly, anil" days it was smpposed that physical force was more necessary to a cavalry soldier than intelligence. This is a longer the case. This campaikn hisproved that courage is not everything that an intelligent system of instruction in reading maps, etc., is abeolutely ind lispensable; in aldition to this, rapidity. dash, and ruse in discovering an enfny; watch him ceaselessly, discover his plans, and defeat bis projects by one's own combinations. Lei us, therefore. combine together to andertake for the future the part that it is necessary w. should take. We shall attain this rendit by ceasing to make numberlese anid intricate movements the ground wort of our drill. From the month of Feb. rary up to the annual inspection-f hat is to say, during the nowt seasonabl.months - we spend our whole time in drilling in masses; everything else is merely accessory. Without doubt if is of the utmost importance that a regiment should be able to maneuver rippidy, and maintain order whilst doing so; but one-third of the movementepprescribed in our cavalry rexulations art ample to attain this end. This abosh of the drill-ground, and this mathematical exactitude, brought to bear on latignnents, tce, all marked out before. hand, restrict our freedom of action hod habituate us to work in a conanemanner; whilit realy to cavalry sol him to do so he has his horse, which is his principal arm.
"Let us then prepare, all aiding in the work without jealunsy, and with a penerous emulation. let us acquire by industry the qualities that we stand in need of, and let us nite to rebuild the ruined edifice. A terer the dreadful
disasters that Ffance has undergone, our hearts can have but one thought.one ambition-that of restoring and avenging wur conntry. which has been on ruelly humble
"Let us then take for a motto. 'Courape and confidence in the future. for it will most fertainly give us a splendid revenge.

The study of the Gettysburg campaign. from the pen of colonel Davis, who neds no introduction to the readers of the Jotrnat. is in that writet's best rein. His closing remarks tell much of the story of caralts success. which may be said to have had its begin. ning for the Union army during this campaign
"I will say word in rlosing as to the leseons taught by this campaign In the first plact, what may be called the 'wience of outimets' was developet as it had not im a n before in the history of war. l'p tw this time the practic had been to mafntain a cbain of infaniry outpoets along the front and tlank: of an army in the vicinity of the enemy. Cavalry had been neither frovly nor boldty used ard out post duty had, as a rule, heren timidly and inefficiently perfurmed. Whin the lines all was believed sale; but beyond the ontposts not only was it enemys territory, hut the country was presumed and ber wars iust prece ing our ow in he Crinpe and in andy, in the two krea was true to a prackable degree This a as larely tue to the fact that the cavalry had bech fractioned up and diatributed among the larper unita of in fantry. The sahtr thine was attempted in the Army of the Potomac. but
 Irawn fonm the infuntry corps and wincentrated, firat in a division, then corpw of three ( visions. acting under the oribers of the commanding peneral In a word. the pme pronciple was applied in its organization and empluy ation of the artillery. In the Army of Northern intrixiace into the onean Inen isolated fotm the first, and was thomushly trained in ont bont mork. cometimes on the neglect of its priper tavalry inatriction. Thin course. was prrhapm, necessery, but it impaired the efficiency of the Confederate cavalry whenever it wat calleyl upon to meet the Federal avalry monnted. The rizult was that the latfer steadily improved, while the former remained stationary if. indeed, it did not decrease in effertivenes towards the close of the war.
"In this canpaign we have the fint xample of the outpoet work of ar. army being don. 'by wholewale thy the arm trest itted for the task. The cas. alry of one army wias employed to lacate the main budy of the eneny, and inci A.ntally to exaigine the country between the comtending armies. The cavary of the other a my endeavoren to prevent this information from being ob cained, by interposiog tuetf as ampen betwen in ona main bony and thai of the pnemy. In the performance of these duties, we have seen that there were frequent chlisions. If the tactical detaila of these encountrer he care fully and thorodghly studied, I think the fact will appear that while there
 pmeet. I think the fact will ales appear that the command was most fre quently and unformly successiul which was most gkillfilly handled as a mmunted iorce-flismounting only to acconpplish a temprirary purpows, or, an in huforids casgat Grettysburg, when it wan nexessary to oppose infantry, or
to hold a point fi great atrategic importance until the infantry could arrive."

From thispollection a good idea may be obtained of the conditions of cavaly service in the three armien. When it in remembered that France had a most painstaking and able officer in this country during the Civil War to report upon the organization and operations of عuralry, the only conclusion to be drawn is that our methods were held in contempt, or else the reports did not make ally impreseion on the French witf. But our own cavalry was
grosely mismanaged during the darly part of the war. and perhap if the Germane had given the Fitench a breathing spell, some of the faults pointed out by General Bonie would have been correctind without delay.

The entire book in well wort the careful reading and thought fulconsideration which it will piobably receive at the hande of cout caralry officera.
W. H. 1

Napoleon" Bonaparte's First Campaign. With comments by Herbert H. Sargent, Firat Lieutenant Sceond Caralry, C. Arms. London. Kegan Paul Trench, Trübner \& Co.
The following very fuvorable notice of Lieutenant Sargent: recent book appeared in Broad /rroc of March 28th:
"To the mind which appreciates the real criteria of military genius, Napoleon's first campaign in Italy ia the mont engroswing and instractive study that is ofered by the whole of his brilliant career, and for this reason the volume now before un will be warmly welcomed by the more stadious clase of readers, although it mas. perbaps, not receive the carctul attention which it undoubtediy deserves from that large section of the public which has beronic aurfeited with the ton genercua output of Napoleonic literatime There can be no greater teat of the highent order of military capacity than Napoleon was subjected to in his first campaish, and the manner in which he emerged from it placed him, at the afe of twenty-six, in the very front rank of generale by a title which wanuperior to any that he subsequantly established, in that the re. murces at his command were maver again so attenuated. What Napoloon had to do in Italy was to achiere results with wholly in adequate means, noder a rarioty of conditions adrerse to all hopeof realizing them. These are the circumstances which requirgenins or the highest order of Lalent to dominate them. How hie succeeded, and fory he succeeded, it is the object of this book to tell. He was young, practically unknown, the men under his comment were half ptarved, ill-clad, irregularly paid, and confronted in a vastly superior position at the odtset by an allied force well-formen. unmericaily greater, maneuvering in a rich country within eawy reach of thdir own base, and led py commanders who were probatily as good as any at that particular proch save the unrevealed Corniculi whom it was their ill fate to med. Nor can we estimate how cir Napoleon's youthful genius redposised the balance without takimis into account the unpatriotic jealonsy of the Directory in Paris, whit withbeld from him the modest reinforcements for which he clamored. and therebs anconsciously contributed to aggrandize his fame and hin subsequent power. Neither French nor English writera culi over attain to a averely impartia and judicial spirit in their disser. tations upon a man who had no d/re an influence in embittering the relations betwewn the two perpld. Anserican critice, howerer, art far more successtul in passing a \&iir and caudid judgment, because

they are on this subject better able to write without prepossesmion or prejudice; ${ }^{2}$ Lieutenant Sargent has, in our opinion, furnished an exceedingit admirahle little history, distinguished alike for the Wear arrangements of its facte, and the judicinusness of its communts. Whether Sapgleon invented the root principle of his strategy of "perating upor interior lines, dividing the forces of his enemy and massing a nuperior force upon the point of attack. an subeequent - tudente in hinfehool believed, and the generals of his day undoubt. ally thought wen they denounced his methode: or whether be was merelg, as Lifutenant Surgent holds. the first of modern commandern to aphy hoary and immutable principles of strategy, is immaterial. The principle is permanenty associated with his name, and the dazzlidg successes of his first campaign. which opened with the sea at his back and a chain of mountatus between bim and his allied foes. and ended at Leeben, after the destruction of six Austrian armies and 120,000 men, illuntrates more completely thanany of Sapoleon's subfequent wars the effects of his strategy. Lieutenant sargent. ill his interenting comments upon the campaign, sums up its striking reselts thus: Throughout the campaign the average -trength of the French forter wan 46.010) and that of the opposing tirces th , 160 - fa ratio ot about three to tour. With these numbere. Bonaparte detated one Sardinian army and six Austrian armier, and killed. woynded. or captured 120.000 men. During the entire -truggle each Hrench soldier put hars de combat, on an average, two athd a hatt dutrians. and $\mathbf{t 6 . 0 0 0}$ Frenchmen were more than a match for 6 bool Austrians. The Austrians tought bravely throushout: bue even when, as at Arcola and Rivoli, Bonaparte waw nable to nutnquber the enemy at any point of the batlletield. In. athieved the viftory by akill in tactices and defeated ot,000 A ustriall with 40,000 mon. The author has a ready knack of enahrining the loman to be dquced from this campaign in rery clear language. and the criticifors which follow the description of each battle ure modelo of perspeuity. The decline of Sapoleon's energy towardsthe - lose of hiv carker hat often been dwelt upon. but the activity ot his southful days fas preternatural. and at no period of the Italian campaign was t more atrikingly manifested than at Ricoli. How he infused his own energy into him men we ean judge from the atcount of Mapena disison, which, after marching and fighting continuously tof twenty four hours, marehed the whole night, all the next day, and, after a short rest, was ready for battle in front of Mantua. Spechal interest, wo would observe in conclusion, atachen whe atruggle on the Tagliamento, where Bonaparte first ent wuntered the frchduke Charles, who had, un that occasion, but reatricted oppotunities of displaying the high military tulents he ponsessed. A Accession of usetul litile maps dispersed through the book serve to il ustrate the comments in the text.

## Jofrnal of the United Stathe|Artillery.

March and April, 1896: 1 Tents of Pneumatic Torpedo Gun ut Shoburyness, England, by B. C. Bucheller. .2. Sea Coant Ine. fynees and the Organization df Our Sca Coant Artillery Forcos. 8. Recent State of the Struggle Between Armor and Artillefy 4. A Proposed System of Harbor Defenses, by T. L. Sturtevad 6. Range Table for the $\mathbf{1 0 - i n c h}$ B. L. Rifle, Steel, by Captain James M. Ingalle. 7. The Bicgele and Its Adaptability to Military Pur poses, by Lieutenant W. C. Dafis. May and June, 1896: 1. Ver tical Firt in Sea Coast Batterios, by General H. L. Abbot. $\geq$. Ex. porimental Determination of the Sotion of Projectiles Inside the Bore of a Gun, With the Polarizing Photo-Chronograph, by Dr. A C. Crehore and Lieutenant G. ©. Squier. 3. The Resintance of Air

4. Resistance of the Air for Great Velocitien of Projectiles, tran-lation by Lieutenant H. C. Allen. 5. Sea Coast Defenses, cte, and Discussion. 6. Range Table for the 12 -inch Cast Iron B. L. Nortar. by Cuptain J. M. Ingalls.

Pboceeding of the Royal Abtillery Institction.
March, 1896: 1. Iucidents of Bash Warfare by Major W. D Conner, R. E., Profensor of Fortifications, R. M. A. 2. Adjuntable Pointers for Concentrating the Fire of Guns in Groups, by Majow L. C. M. Blacker, R.A. 3. Major General William Phillipm, 4. Marl bourough and His Methods of Wartare, by T. M. Maguire, Enq.. LL. I) April. 1896: 1. A Plea for Indirect Fire, by Major J L. Keir. R. . . 2. The Influence of Ammunition on Sheoting, by Captain J. II. Mith aell, R. A. B. Bayard's Armor, by Captain Orde Browne, R. A 4. Artificial Illumination, by Profesor Carlon Lambert, R. A 5. Artificial Illumination, by Profesor Cartion for Firing "Puffs" for Training Observers. by 5. A Suggention for Firing "Puff" for Training Observers.
Captain C. S. Vores, R.H.A. May, $1896:$ 1. Garinon Artilery Warfare, by Major O. Rowe, R. A. 2. Artillery and Musketry Firic by Captain P.J. R. Crampton, R.A. 3. Considerations on the Sul, ject of Trajectorien, by Captain F. J. S. Cleeve, R.A. 4. The Battic of Austerlitz, by Lieuteuant-Golonel J. C. Dateon, R. A. 5. Th. Causes of Drift of Elongrated Projectiles Fired From Rifled Guns. Caunes of Dritt of E. IIq日ated Hen, hate R. A.

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1. The Syatem of Armay Training of General Dragomirow, ot the Rnasian army, by Major Thnnochy, Fourth Sikhas. 2. "Stothe wall" Jackson, by Lieutenant 1. M. Bower, Second (Q. O.) Bengal Light Infantry. 3. How Australia Can Help India, by georg. Cathcurt Craig. 4. Notek on Volunteering in India, by Captain W. Dennjk (Twenty-sixth P. 1), Adjutant Second Administrativ. Battalion, N. W. P. Volunteen. 5. Notes on Recounaissance, by

Captain II. B. Vagha. Serenth © D. C. O.) Bencal Infantry. i. In fantry Fire Tact ks Mo Licutenant Colonel E G Banner. T. The German, Frencl anil Ruswian Evatems of Infantry Altack and Defense, by Capquin P. Hollathd. Finh Punjab Infantry.

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May. 189t: . The Defense of Our Maritime Frontiera. by W. T Denniston. $\because$ Forward Step Towards Bimetallism. by J. A Grier. 3. A Contemporary of Saladin. 4. The Battalion of Engi neers, L. S Armb by Henry Warner. 5. The Battle of Sadowa by S. B. Arnold. Firnt Cavalry. 6. The Great War with Rusnia. by W. H. Russell, L. D. June. 1896: 1. Reminiscences of Sapoleon Bonaparte at St . Helena. by Alfred Lee Royce. Chaplain Li. S. A $\because$ What Our Catalry in Mexico Ibid and Did Not Do. and Other Things by Wm\{ B Lane, Lieutenant Colonel C. S. A. 3. The Stury of a Volunger, by H. L. Hawthorne. 4. Bacon and Shake speare by Danicl (iohurn Adec. F Farthw Centre of Gravity, by Wm. H. Shock, if $\therefore$ Nary

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1. What Bechme of the Flag. by W. W. Stratton. Nixteenth Maine Infantry. E. Incident in Burning the Hon. Thaddeus Ster ens Iron Works During Lee's Invasion of Pennegleania, by D. B Rue, First N. C. Confederate Cavairy. 3. Hernes (irares, by W. D. Hatch, Seventh Haine Infantrs. 4. Personal Experience at the Batele of Geteysbrg, by J. Newcomb. Jr., Third Maine Intiantry 5. Libby Prison Life and Escaper by $\because W$. Earle. Ninety sixil Illinois Infantry.

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1. The Arms School at fort in Time of Peace, by Major Wilson. ?. The School at Fort leley, by Captain Gresham. 3. The Sioux Cam. paign of 1290-91 by Lieutenant Richardson. 4. Ligh Artillery Horsex, by Lieut nant Berkhimer. 5. Military Aeronautica, by Captain Glanstord 6. Target Practice in Armien of Europe. hy Captain Roberts 7 . Some Great Commanders of History. by Captain Field.

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The Rider and Driver.
Our Dumb Animals



The fact that the cavalry is an expensive arm is ample reason for giving it the very best organization, and for keeping it at the highest state of efficiency, in ofder that the people may get the best returns for money appropriat d for its maintenance.

On account of the length ff dime necessary to organize, equip. and eapecially to train, new raciments at the outbreak of war, it is casential that the atrength of his arm should be kept at such num. bers that the cavalry of the regular army, added to that of the militia, should be fully up to ${ }_{\text {Gs }}$ proper, proportion when compared to the organized infantry forc os, both regular and militia.

Rocognized authorities gipo this proportion, as follows
"According to Napoleon, f the infantry of an army were repre. mented by unity, the artillery should be one eighth and the cavalry gne-fourth, or in a mountuinof country one-fifth. In the German army at the present time the caralry compared to the infuntry is a little more than onc-sixth, and the artillery momewhat more than one-seventh. In the Frencif army these proportions are a trifle, greater. With an active army in the feld, the proportion of cavalry would probably be consi erably arbater, for large numbers of infantry and artillery are oft $n$ beld in garrison or on the lines of communication, while the capalry is almost entirely at the frout. * * * Wheu the Germand entered France in 1870, their caralry constituted between one-niph and one eighth of their entire strength, the three German armies (aggregating 447,000 men) conlaining 336 squadrons. On the subject of the proper proportion qf cavaley, Housnlohe says 'Considering the great importance of the possession of a large on ass of caralry, and the immense advantage which a superior for eo caralry will give us at once over the enems, in that it will heindfold him and open our eyes, will shut him in closely and giv as all the freedom, and will tie his hands while it will assist us to strike, we cannot bave too many cavalry.'
"The answer to the queftion is, therefore, simple: We must have as many regimeuts of civalry as possible.
"With us the proportion hould be such as to enable our cavalry speedily to overwholm any कhich it may be opposed, watever the proportion may be to theother arms. The extended use that may be made of cavalry in rids and in dismounted fighting would render it much easier to hate the proportion too small than tow large." (Wagner's "Organifation and Tactics," pp. 14-16.)

Jomini sars that in an of country the cavalry should be one. sixth, in monatainous country ono-tenth the whole strength

Duparca places the prop-rtion at from one-tenth to one-fifth of the strength of the infuntry. Hallece says that it should be one. fourth to one-sixth the numbr of infantry.

Let ns then take one-tenth, or the very lowest proportion per.
missible consistent with sound principles of organization, amd note how this compares with our latent publinhed returns of the army and militia, wheh are as follows

|  | Dracription | - araty. | Imfaniry. | Aratury. |
| :---: | :---: | :---: | :---: | :---: |
| Regular Army <br> Militia. <br> (iadet Corps capa | ..... ...... - ...... ........ ............ | 6,604 | 14,002 |  |
|  |  | 4,4** | 100,433 | +901 |
|  | ble of pertorming military duty |  | $\underline{23,293}$ |  |
|  |  | 11.53 | 138.158 | 48 |

The infantry force arailable being $13 *, 15{ }^{2}$. the proper number "' cavalry - taking onetenth, or the very lowest proportion allowable - sho ild be 13,-15. To muster only 11.5 ite we have been "hliged to include 4,968 militia caralry, but a very small proportion , thone troopet own their horses. these being hired when riguired fur drills, street parades and encampmente.

It must be pparent to the merent novice in military mattens that a large prpportion of auch casalry must be unprepared for turaing out on hort notice for hard active service : however. for the sake of argument, we inclule them. and make the rery vident :aumption that every one of them in what che country at the "pening of hostlities will require, viz: highly trained tronpers, thoroughly skiled in the use of all their arms.abd mounted on horses broken to stand fire, and accustomed to the conditions of tield serrice.

The returns from which the above figures have been taken are varying constandy, but they indicate that under the conditions named that the favalry of the regular army should be not far from 9,000 men. With the abore data. the exact number would be: $13,815-4,968=\$, 847$.

There are rasons for believing that when the later and more accurate returng are received that the number of militia cavalry will be less thanthat given above, and calling for a corresponding increase in regume caralry, and we will sccordingly assume $\mathbf{9 , 2 4 0}$ for this force, the being the number contemplated by the organization to be propoded, and all must admit that this is as small as the regular cavalry force should be, having due regard to the fundamental principlep of organization above quoted

This force slould be organized into regiments and troops to meet the condigons of service as they exist in this country, and afford the best facilities for keeping the troope up to the maximum degree of efficiency.

The skeletonizing of two troops in each regiment has been ull. sparingly criticised, but it wpuld seem that the critics hare lowt
sight of the growing deman for the services of line officers for duties which detach them frow their regiments.

The army is aupported by the people, and if they demand-athey certainly do through their representatives - the services of officers at colleges, for militia duty, etc., it behooves us to accerde and to so shape our peace orgnization that this condition of affairmay be met; bence far fronr pesturing our skeleton troops, it is pro posed in time of peace that one squadron in each regiment be. skeletonized, and that the number of regiments be increased t.. twolve in order to still retain about 100 active troops.

Since the abandonment of the plan of haring caralry recruittruined at the general depot a Jefferson Barracks, and the general adoption of the regimental reruiting system, the necessity is more apparent of having a depot topop in each regiment, in which, as far as practicable, all regimental recruits and horses should be girell a thoropgh course of drill before being sent to the active troops.

Ode troop of the skelcton squadron should, therefore, be desig. nated as the depot troop of th regiment, and for the purposes abuse indicated be provided with th full complement of officers, non com. missioned officers, trumpeter farriers or blacksmiths, wadiler, atil ten well instructed privates.

The thirty-six skeleton thoops (three in each regiment) will permit the detail of 108 conpany offers away from their regiments, and still retain a full Somplement of officers on duty with the active and depot troops. There are now nearly 100 troop otticers absent from their reginents, and the demand for officers iconḱtantly increasing.

One major can be dropped so long as the third squadron remains a akeleton organization. The hajotant and quartermaster should he selected from the company officers of the skeleton troops; the former from the captains, the latter from the lieutenants.

When one or more of the akeleton troops are filled, the President should bave power to appoilt an additional major, and all addi tional captain as adjutant, and an additional lieutenant as quarter. mattor.

The law to carry out all theos woild have to be framed somewhit as follows:
"Section 1. That the capalry arm of the aervice shall consi-t of twelve regiments of caraly, each to consist of one colonel, ohe
reterinary surpeons at the pay of 8100.011 per month each, one ser-geant-major. ohe quartermaster-sergeant, one chief musician, one chief trumpetor, one saddler sergeant. one farrier sergeant. and three squadrons.

Sec. $\quad$. That each squadron shall consist of four troops: two squadrons to consist of actire troops. the third nquadron to consist of three skeleton troops and one troop to be designated the depot trop.

- Sec. 3. That each active troop ahall consist of the officers, non commissioded offeers, trumpeters, farrien or blacksmiths, saddler and whoner, now provided for by law, and seventy-one prirates.
"Eer 4. That each skeleton troop shall consist of one captain, one firat lieutentant and one second lieutenant.
"Ser. 5. That each depot troop whall consist of the officem. noncommissioned fticers. trumpeters, farriern or blacksmiths, saddler and wagoner, fow provided for by law. and ten well instructed privates. Prothed. That the skeleton and depot troops may be filled to the full complement of enlisted men when, in the discretion it the Presiden, the interents of the country make it desirable.
". sec. 6. That the adjutant and quartermanter shall be selected from the officers of the skeleton troops: Prorided. That when one ir more of the keleton troops be filled. the President may appoint - ne additional pajor, one additional captain as adjutant, one additinnal lieutenan as quartermaster.
"sec. 7. That all recruits and horses for the regiment shall, an far as practicab e. be ansigned to the depot troop. and thoroughly drilled before bfing assigned to the active troops.
- Sec. 8 . That in time of war the skeleton squadron shall be filled. and all thorpe of the regiment may, in the diacretion of the President, be in reased in strength to 100 enlisted men each.

While the topal number of active troops is lef about the name as now (the presedt number being 100 , and the proposed organization prosiding for nihety-sixactire and twelve depot troops-total, 108). the strength aud efficiency of each is very greally increased. It should be borne in mind that it requires the same number of officers. non-commisioned officers and artificers for a troop containing serenty one prizates' as for one containing but thirty or forty

Small troopd are the bete noir of troop commanders, for let the orders requiring attendance on drills be ever so slrict. experience shows that a cerfain percentage of absentees must almays be allowed
for on account of sicknese, detalbed duty, guard, cook, ntable orderly. room orderly or non-commissi申ned officer in charge of quarters, and actual vacancies in the troop, othat in years past when the maximum strength bas been sixty foen (non commissioned officers and all) to the troop, forty men of less is the number in ranks at drill. The proportion of ubsentees, herefore, is less in large troops, and if it be the aim to secure the highest efficiency at the least cont. these are the most economical

The drith regulations very troperly provide for large troops only. and unless the number of priphtes is fixed at about serenty-one. we will continue drilling and traing our men in time of peace in exercises essentially different fromphose used in war-a waste of eneryy in time of peace and an invita ion to failure and disuster in time of war. Seventy one is selected as the maximum number of prirate, for a troop in time of peace, for with this number, if every otficer and man be present in ranks, it gives us a normal troop of thur platoons of twenty files front fach-troop front, eighty men.

As in time of war the cavality munt be the very first to be broughit into action for the parpore of aiding an enemy's country, cuttine his communications, striking an valnerable points before be hay had time to place them in a state of defense, and subsequently to act as the eyes and ears of the main army, and thoroughly screening its movements from the observation of the enemy, it would seem that we should have at least about poe hundred troops which will be at all times in the bighest state of efficiency and ready to take the field for an active campaign on wenty-four hours' notice. If ninetysix active troops be not sufficied $t$, more regiments organized on these lines will give the desired number.

It requires at least four tifmes as long to make a fairly efficient cavalryman as it does an infaltryir an of like degree of efficiency.

The training of men can be bastened by drilling them for tive or six bours each day, combined with all the oral instruction which they are able to digest and ret in; intelligent, active recruits under such conditions can be taught be elements at least of their military duties, and will make fair soldfors in a surprisingly short time; but with the horse it is quite different, for be is a creature of one idea. learns slowly, and his instruqtion cannot be pushed begond a certaip rate of apeed, so that wh lo small companies of infantry may be suddenly recruited up to on handred men each, and by dint of bard work be soon in a condithon to take the field; the same cannot be said of the cavalry. The covalryman may get along fairly well, although he bas three arms in which to become proficient to the each day and op more.

We are not 2 nation of horsemen, and so few horses are bred for riding purpose that it is not by any means always easy to secure suitable remounts for our present small troops.

The lack of good cavalry in the tirnt years of the War of 1861-65 was a disadranfage keenly felt in the Forth, and vigorously com. plained of, while the South had the advantage of the nooral effect produced by a fow such organizations as the Black Horse Caralry, which carried ferror with them wherever they went. Thene men were fine horse中en. well mounted and their excellent personneland tine mounts offgt in a measure their lack of training. Their reputation was such fhat we would have required sereral times their number of indifferent casalry w sonteract the effect which their real or supposed bighting capacity produced on our raw troms. "C'nseen, but aprehended danger causes more feeling than any amount of real banker which is seen." (Sagrmas.)

A troop of afalry which ia allowed, in time of peace. to run down in numbers, and therefore effeiency, and which just before bostilities commence is largely increased. does not have its marching and fighting capacity correspondingly augmented. but the raw material acts in a measure. like so many weak links in a chan, and tends to retard and weaken rather than to ntrengthen the whole.

As to the practicability of suddenly enlarging amall trompat the commencenent of hostilities, the writer begs to relate his own experience:

In Septembe 1890. I assumed command of my troop at fort Assinuiboine. Mprit., after a tour of detached service. We had forty mon, and lexs han that number of serviceable horses, for good recruite that year seemed to be scarce, and horses more so. Smon we began to hear of rumors of "ghost dances" on rarious Indian reserrations, but we were so far distant from these disturbances that we bad little hope of being called out. We were accordingly asreeably surprfsed at being directed to "hold ourselves in readiness." and moreso when the three Assinniboine troops were ordered to Keogh, arrivipg there by rail about December 1 at, meeting other troops of the regiment there at the same time. The troops were good as far as they went, but they were too small, being only about forty men each. Tbis the War Department endeavored at once to remedy by sendieg to each troop some twenty-five raw recruits, and the same numbe of green, and more or less unbroken horses, some of which apparfotiy had never been saddled, while to increase our difficultien, the tomperatore dropped to ten below zero.

We were in camp training recritits and breaking horses for atl entire month, a much longer time than we should probably have for preparation in the event frar. At the end of this time w. were ordered to march to the fittle Missouri River, and broke camp just at the close of a blizzard

Encumbered with arms a d accoutrements, and bundled up in their stiff, heavy buffalo over oats, it was all that some of the men could do to mount their greerf horses, but they got there somehow and I had before me a troop for sixty eecen men; that is. I bat that number when the "mourt" was sounded. I only had sixty-six when the tail of the column a ew minutes later left the post. for one of the new horses, driven fra tic by new sights, sounds and conditions, pranced around until apping on the ice, he fell and broki. his leg and had to be shot.

On the ten days march wheh followed many of the men mounted on green horses were compelled to remain in their saddles at the regular halts, due to the difficuty of mounting their green unbroken horses.

Such was the condition of phe at leant of the troops which were sent out to intercept the Siou, whose merits as irregular cavalry needs no commendation here.

There may be practical cafalry officers who think it judicious. economical, and all that sor of thing, to keep up a well drillet nuclens of a troop consisting of about forty or fifty men and horsiand trast to doing effective wrk by doubling their strength by recruiting when hostilities con mence, but if so. they have not heen beard from.

As well might the fire defartment of a great city kecp at each engine house two-thirds the phoper complement of men and horses. and trast to hiring the oth $r$ third after a fire alarm has beell sounded.

We have said above that if proposed to dropone major. Thiis suggested only with great luctance, for it retards promotion not a little, but while there are bot two active squadrons, three majorare not a necessity; but what is a neccesity, howerer, is some provision of law which will insur us having in command of regiments. equadrons and troops in time f peace, men who are physically able to lead them in active campai $n$, in raide conducted to the limit of endurance of goung men and food hormes, and helle we ask for

## gradet compttant retirement

A serious defect in our caralig service is that of having in command of regiments, squadrona and tromp, men who bave long since passed the prinfe of lite.

The cacalry arin. more than aty other. absolutely demands for its efficiency thet itz officers be ith prime physical condition

A squadron fommamter or a captain whowe physical condition is below that of the arerage of his squatron or troop, will. ineritabiy, in field service, retard bis entire command, and so far as the expen. diture of energ. (atd therefore effectivellese) is concerned, be keeps his entire command down to bis own pace.

There are fow who ate familiar with the requirements of the mounted service but who will admit that a colonel of cavalry who has arrived at the age of sixty two is tom old to command a regiment in the fielf where vigorous action is required.

Likewise th cases are rate where majors who have passed the ase of fifty fous are capable of as bard service as the average men of their squadrons. while any captain who haw served in the subordinate position of company officer until he has arrived at the age of titty, is too od to be placed in command of a squadron.

The necessity of having in the varinus arades in the cavalry arm officers who are relatively gounger than wother arms. is dis. tinctly recogniad in toreign nervices by the rewulation governing retirements and promotions.

Experience proses that officers who served exclusicely in subordinate position antil past the prime of litio, are apt to be fimid and unwilling to tale the rowponsibilitiee which necessarily go with the higher grades fhen tinally promoted to them. Hence, a healthy flow of promoton should by looked upon an a necessity for the gorernment rather fon as a reward for the individual.

These officeq, howerer, while past their physical prime, are, in very many cand, still capable of performing most excellent service on duty requirifg less physical energy, and it is therefore proposed to employ then in the places of younger officers now on duty with the militia, at cplleges and schools, and on other similar duty. The demand for the nervices of officers for duty of this character is constantly increasing, and by this means these demands may be met while the efficiency of the caralry arm will be greatly increaned.

To meet thid the following is nuggested
"Section 1.
sixty-two year
arriving at the age of fifty-eig t gears shall be retired; any major of cavalry arriving at the age of fifty-four years shall be retired; any captain of cavalry arriving at he age of fifty years shall be retired and any first lieutenant of ca alry arriving at the age of forty wix years aball be retired; Provid $d$, That the retirement of colonels of cavalry provided for by this act shall take place at once on it passage, and of all other officesp within six months after its passage and Provided, further, That all retirements made in pursuance of this act shall be in addition to the limited list of $\mathbf{4 0 0}$ now provided for by law.
"Sec. 2. That all officers re ired under the provinions of Section 1 of this act, shall, upon retirement, be examined by boards similar in composition, modes of procedure, and with powers similar t, thowe rested in the ratiring bourds now provided for by law, which shall determine in each case thether the officer retired is capable of purforming daties other that those incident to active field service.
"Sac. 3. That all officers pund, as provided in Section 2 of this act, to be capable of performing duties other than those incident to active field service, shall be liaple to detail for duty with the militia of the several States, for doty as professors of military science and tactics at institutions of learning as now provided for by law for officers on the active list, and fr such other like duties an they may be adjudged capable of performing; Provided, That while so serving, retired officers ahall, riceire the full pay and allowances of their respoctire grades; bat sball not be entitled to promotion.

The following table shows be ate at which retirement becomes compulary for officers of all afms in several foreign armies


- Unjese they bave commanded an affoy in the feld.
$\dagger$ MajonGenerals.
$\ddagger$ Lleatenent generale.

The following, taken from the Miltaer Wochenblatt of April 4, 1896, shows th arerage age of caralry officers inforeign servicen at promotion the grades of major, lieutenant-colonel, colonel hrigadier and dfrision general

| OPFICERS | Gramasy |  | Italy |  | R1Ma |  | France. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vears | Mos. | ears | Mos | Years | .Now | Years. | Yor. |
| Major. | 45 |  | +i | 4 |  |  | 4 | 3 |
| Lieutenant Colon | 48 | 4 | +5 | 6 | 42 | 2 | 45 |  |
| Colonel.. | 51 |  | 45 | 4 | 4.7 | 10 | $4!$ | 10 |
| Brigadier-General | 52 | 5 | 55 | 6 | 48 | 9 | $5:$ | 11 |
| Ibivision General. | 55 | 1 | 59 | 6 | : ${ }^{\text {\% }}$ | 4 | 34 |  |

All this, it is true, means increased expense: but it may be urged that so long as the caralry of the regular army in to be a model for that of the militia, as well as for the rolunteers in time of war, no moderate increase of expense should stand in the way of making that model as perfect as possible. One hundred troops in a very small faralry force for a country of 70.000 .000 of inhabi tants, and for this very reason tbey should be second to none in print of excellance, and be alwaye ready for hard active aersice Can we conside ourselres prepared when if suddenly called out for raiding requiriug hard riding and severe exposure we should be obliged to leare behind one-third of our field officers and many of our captains. throwing new responsibilities at exactly the wrong time on youngef men who are unused to command?

As to the increase in number of officers on the retired list, it should be rë̀mepbered that one bundred or more additional retired officers perform ing duiy at schools and colleges and with the militia, and where the are doing something for the country, will not jeopardize the fetired list half as mucb as ten retired officers who are idle. yet to 11 appearances capatle of carning a liviug.

Retired officfre who are comparatively soung, and who, though unfit for active ervice, are jet capable of performing light duty, are a constant menace to the retired list, which is a creation of comparatively recent years, and whose beneficiaries are better paid than any other army in the world. Wheu the reterans of the last war have passed away, apd the retired list is composed of officers whose disabilities have teen incurred in service in time of peace, it will be looked on with less faror than now, and the employinent of retired officers under a xty-four years of age on light dismonnted duty, when they are \}apable of performing such, might well be extended
to officers of all arms; but we pass that, as it has been our intention to discuse only those retired from the cavalry arm of the service.

The writer is far from thinting that the plan above outlined is the only one worthy of considefation; but these idean are thrown out with a view to exciting disqussion among caralry officers who. it is to be hoped, will present peir views on this subject through the pages of the Cavalay Joumal The necessities of our branch of the service seem to be glaring enough - is it not high time that we were discussing measures to remedy our weaknesses?

DISGUSBION
Perfection in army organiztion in all armies is the result of evolution, "a surviral of the fest," as it were, and of no part of auy organization of any army chll this be more truthfully sails than of the cavalry of the army of do United States. The experience of the cavalry in the Civil Wuflen little to be learned by cavalry organizations, and less to be dasired in the way of reorganization. Any scheme for change arouses the sunpicion at once that an individual want on the part of the proposer of the scheme, rather that a crying pecessity for the reorgaization of the arm of the service for its good, is at the bottom 1 the proposition. While I do not mean to impugn the motives of be writer of the article in question. the answer to the inquiry as to whether it in not posnible to care all the defects imputed by $h$ to our cavalry system without resorting to acts of Congress mpo far towardstixing the purpose.

The cavalry hitherto has ma ntained a reverve on such question. which is worthy of emulation apd endurance. Certainly the recult of attempts to improve their ganizations on the part of 'the infantry and artillery do not invile cavalry officers to an attempt for a change. The cavalry up to this time have been united; why divide them? The good whic might result to the few by the changes suggested would be mof than counterbalanced by injuries. real or fancied, to the many. Any proposition for change would create endless discussion. As $\{$ yfficer not without experience in the cavaley arm of the service, $n y$ advice to all officers of the arm is to let "woll enough alone," and to aroid all discussions which. must certainly result in diseen,ions and divisions, and possibly in changes which might and must contain "ills that we know not of

It is not apparent to my mind that good will result to the car-
alry service th the change in the way of increase suggented by Lieutenant Byow. By hiv own showing he doen not materially increase the 都tive organizations or the aumber of men in them. What accordidg to our present regulations, is to prevent the cav alry umberins ?, 1mo men if necesary? The defecta that Lieutenant Hzows compladns of in our present organization is the result of not keeping our trpeps full rather that any other apparent defect.

The abandqument of the plan of hating cavalry recruite trained at the general fepot at Jefferson Barracks wa- wmething that met with faror by each cavaliy troop commander. All captains as well as lieutenants would rather train their own men and borses than hate it done inperfectly at some rendezcons. therefore the troop of the skeleton nquadron proposed would be objectionable to my mind in the eyes of most cavalry officers.

The propofiton of Lieutemant Braws to increase the cavalry by the officers of ton regiments, would cause a great increase of expense and would be fery objectionable upon that account. The argument he uses in favo of this in keeping on wating ordersa list of officers. is not conclusive. The present arrangement is working satisfactorily. There in nothide now in the urganization of the cacalry, excepting the limit to the number of men in the army, that presents the trops being as large as those proposed bs Lieutenant Brown, and a propasition for that increase will surcely meet wita faror at this time. It mont be reqollected that our present caralry organization was designed to met the exigencies of an actice Indian warfare. Is it wise, then, in fiew of the comparative peace that reigns on our frontiers, so fay an Indianw are concerned. to agitate the subject of an increase of faralry organization?

While we nay not be a nation of horsemen, there are abundant horses in the cquntry, not only for our uwn caralry service, but for export to foreignarmies. I apprebend that Lieutenant Brows is in error in compluining of the lack of good cavalry in the first year of the War of sol-bin. Our cavalry then was quite as good as it was later in the war. but the army being. unfortunately, commanded by officers who did not appreciate its uses, the caralry was not or ganized in larg bodies, and consequently was generally outnumbered in all the cavaly engagements during the first part of the war. So "on as our caoulry was properly organized ander General Hooker on the plans lopg parsued by the Confederates, it met with success in all its entergrises.

It is not clear how this reorganization proposed in grinie to result in our having arger tromp thall at prenellt. The experience of

Lieutenant Brown with his frop at Fort Assinniboine in 1890 is not by any means new, and an long as there is opposition to the increase of the army beyond ita present numbers we have erery reanon to believe such experiences II be repeated in exigencies again to come.

The second proposition of dieutenant Brown, that there should be graded compulsory retirempent, is especially objectionable in the minds of tnost men who have sem service in the cavalry. Experience in the Fnglish army should befa caution to us in adopting anything of the kind as our army is now organized. If our present retire. ment laws are strictly enforpd there is little or nothing to be desired in this direction. Thefgreat increase in the number of officers on the retired list is certaif! to be deprecated. Those that are now there 'shoald be held subjec to the orders of the Secretary of War, and detailed for college 1 nd other civil duties when they are fit at all for serrice.

On the whole it is clear to my mind that caralry officers will be running a great risk to agitatedany phane of the subject of reorgani zation, and my adrice to the caralry arm, in which I take great interest, is to let "well enough alone."

Brigadier-General Janes W. Forsy h, U. S. Army:
As I have left the cavalry, adiam soon to retire from the service, I dialike to express for publicafoe any opinions on a subject which concerns so intimately the perfonal interests of all cavalry officers as does that of graded retirethents. The remaining propositions advocated by Lieutenant Brotn I sce no objection to, and believe the aervice would be benefited of haring them carried out, except possibly the reduction of the fumber of majors in time of peace. This would somewhat retard fromotion, and as promotion is now detrimentally slow, I do not thenk anything which tends to make it slower would be a step in the f ght direction

Colonel J. K. Mizner, Tenth Cavaly
The delay in answering bas boen due to the press of official mat. ters and the difficulty of arrivi $g$ at a concensus of opinion.

All oficers are opposed to fraded retirements; retirements bet. ter be left as they are.

The majority of officers are in favor of pushing some legislation favoring the caralry. The lemplarion you suggea, would, I think,

REORGANIZATION AND RETIREMENT.
find as many adrocater as any other. Some object to any skeleton organizations, as menacing our existence in times of peace, and having to be flled with recruita in time of war.

Lieutenant-Colopel Gcy V. Henay, Third Cavalry
I am of the opinion that our organization is good enough, and should not be interfered with, except that if two troops are skeletwized, the men (prirates) should be given to the other troops. The non-commesioned officers of the skeleton troops at headquarters of the reament could be utilized to drill recruite for at least thirty days bffore being sent to troops. The atrength of active troops sbould fe at least seventy-better results are attained by a large than a snall number of men at drill.

As 20 retirefnents, age is not the index at all times of efficiency or activity, bu that fixed at sixty-four for all is considered bent. Some coloneln at sixty-four may be still active, while othera at a much less age re not.

If officers mo are incapable for active duty were retired, slow. ness of promoton would disappear. By actire duty is meant not only field servile, but as well the daily drills and exercises pertain. ing to each pquition-whether captain with his troop, major or lieutenant-cologel with their squadrons, or colonel with his regiment. In forefors sersices, officers from general down participate in all drills refuired in their positions, and this is not neglected, and each is kept in good physical and mental condition for all requirementa of duty. With us, the above is the exception, and if all those who have been reported, or should be by authority, for indifference or inact fity, were retired, we would have a flow of promo. tion withont lefislation.

Tis a good role to let well enough alone, except to weed out those who are pot up to the atandard of efficiency in all the requirements of the service.
I.ieutenant-Colone S. B. M. Yqusg, Fourth Cavalry:

Such articlesfas this, while they no doubt are the honest conric. tions of the author, arrived at after due stady. research and thought, have in the pas contribated their mite to the defeat of good and seemingly wholdeome legislation for the benefit of the army entire.

I have no defire to enter into a criticism of the paper, but I do think that the apparent discontent manifested at times in the columna
of army papers and magazinew by otficers in their own particular braches of the service, and the desire to gain adrancement throush> logislation for their renpective arms on certain lines, without considering the necessity of employing similar means to the other arms, gives color to the imprassion that obtains in oupegislative balls, that every billintroduced proposing any materiafthangen in the organization of a particular arm and the laws governing it is drawn for the benefit of a clas rather than the army.

My experience prevents mbencurrence in the proposed reor ganization, and also the suggeption of graded retirements.

In reading Lieutenant Brofon's paper I tind two very bold state. ments which are not founded onany tacte within my knowledge or experience; and to omit any peference to them wonld be equivalent to an admixnion that they ame facts. Assuming a force of $9: 3+4$ cavalry, Lieutcnant Brown safs: "Thin force should be organized into regimente and troops to paet the conditions of the service as they exist in this country." This plainly infers that our present organization in the cavalry ddes not meet these comditions.

The fact in, the conditions pf nervice, as they exist in this country, have been met and fiffilled in every particular by our present organization.

The small matter of the frill regulations providing for large troops is easily remedied. Opr organizations are at present on a peace standard, capable of expmaion to double their strength at the approach of war, but any officers who saw active service in our last war know that after one short sharp campaign a troop commander who started in one bundred strong was in big luck if he could master forty men in ranks; put we felt no trouble with the drill regulations on that account, afd Lieutenant Brown cannot assume the present drill regulations ${ }^{-}$condition the present organization has failed to meet. The presgot organizatian differs from that of the war only in having four troops instead of two in a squadron. and in single rank instead of houble rank formation.

Again, Lieutenant Brown ays: "We will continue drilling and training our men in time of peace in exercises essentially different from those used in time of way - a waste of energy in time of yeace and an invitation to failure and disaster in time of war."

I cannot imagine where Lputenant Brown has been serving the past six years, that his observ tion would permit him to make such statements. The troope in th department where I bave been eerving the past three years bave poen trained and instructed regularly for actual war as faithfully and thoroughly as our champion prizi
righter: before they step intu the rins to make the bateles it their lisen.

To begin with. our recruite are put through the setting up drill and a courne f the gymnasium to supple and shape them up and give them asplits and celerity of movement: they are tanght the facings and sepsete, une of their arms and how to nande them how to ride farlessly and how to manage and train their horses. cte.: instruct fin squad. troop and squalron movemente, individual movements. if extended order. long and rapid marched. and all kinus of batll exercises and minic warfare (using blank ammuni. tion) in connection with all other armiof the service. including the practical worling of the honpital corps. besides signalling with flag. wreh amd helipgraph; in making patrols, secret scouts. topograph. ical aketchen, facing lines for telegraphic and telephonic communi. cation, rephacipg supply of ammunition: football, baseball, handlall. polo, running. jumping. wrestline , tioot and mounted, boxing athd tencing are tapght and encouraged.

In fact, ounarmy of to day in drilled and trained in about every. thing essentia to physical endurance and a:tual work on the tield of battle. from the strictest accuracy in troop. squadron and regi. mental movenquts, involution andevolution, where men must forget their ondividullity and act in a body, machine-like, as a tool of destruction in the hands of the engineer and mechanic. down to the disordered mefee, where every man is to exercise bis prowess and judgment as a man in himselt, by bimeelf, and tor his country.

「aptain W. H. C Firer Sixth Cavalry
My personal views are much at variance with thone set forth in the propositions made by Lieutenant Brown. It is a mistake to provide by lau that there shall be three equadrons to each regiment, and that each quadron shall consist of four troops. These detaila should be propided for by drill reguiations, not acts of Congrese. Gur caralry whot through the Civil War with two troop squadrons. The regiment 0 which 1 belong participated in the Pine Ridge campaign with tbree squadruns, of three troops each. After the - tirst feeling of fincongruity is over one is apt to be fascinated with the flexibility of a threetroop squadron. The authority to so arrance a reginent dinposes of any embarrassment as to what the lieutemant-colodel should do when all field officers ure prenent, which is but sefom the case in active service.

I am oppose on principle to all skeleton troops. In time of war
one or two troops sbould be dfsignated for service at the regimental depot, and should be employe in drilling recruits and horses, to be sent to the regiment upon the order of the regimental commander.

Large troope would be mont welcome, but no nation pretends to keep its peace orgauizations at war strength. I bare for years adpocated the plan of dividin garrison, so that during a portion of the year when nutdoor drifs are practicable one-half the organizefions shall perform all gualra, fatigue and other work, wibile the other half attends strictly tod drills and other military exercises. Ten days under these conditidns would produce greater uniformity of inatruction than many weoks under the present aystem.

So long as officer remain in the grade of subaltern after forty years of age, it may be expocted that all sorts of schemes will be devised to bring about a flow of promotion. Of all that can be con. jured up, the graded retirement echeme in fraught with the most of future evil. Our retirement hawb are already liberal, and if it were not for the erroneous ideas mbich have grown up in recent years, there would be a brighter oflook for unfortunate lieutenants. I refer to the impression which seems to prevail to some extedt, that when an officer is recommenfed to be sent before a board. be munt be a little "off color," or his regiment would let bim remain until be gets another grade. The retirement of an officer should never be regarded as "sending him to Coventry," but on the contrary, he should be congratulated that yenerous government grants him so liberal a reward for eerrice, fand enrolle him on a list which has contained, from time to time, the most honored names in our mili. tary history.

The question of an office s retirement should be based entirely upon his ability to perform, habitually, all the duties of his grade in garrison and feld. Examinity boards now determine this whell officers come up for promoun, below the grade of field officer. There will be little objection fotarrying an officer on the actire list for a short time when very blar his promotion, but there should be 2 limit to sentiment in this firection whenever it is apparent that several years must elapae bfore promotion can reasonably be expected. By enforcing the lafra now in existence the necessity for adding more to the statute bopk may be avoided.

A prediction, based upon actual events of recent gears, would more clearly indicate the popsibility of several infantry regiments being turned into artillery af no distant date, and the whole influence of the cavalry being required to present a reduction, rather than to eecure an increase. fet not the fear of someone else getting
kEORGANIZATION ANH RETIREMENT.
more than h deserves lead us into danger pits. Let us rest on the proud laurel of past caralry aervice. Aecure in the knowledge that if the countris needs demand more regiments at any time, we are preparing nofe officers who will be competent to organize and com. mand them; but until the necensity becomen more apparent let us not importune Congres.

Captain W. D. Beach, Thirl Cavalry:
The subjeft presented by Licutenant Brows weeme to have been carcfully coldidered, and his conclusions as to the proportionate nomber of ceralry our army should contain, can hardly be dis. puted. Were it possible to present this subject in such a wny that the good to the government would orershadow the subject of indi. ridual promolion and increased expenses, there might be some hope of securing facorable notice. An increase of 2.636 enlisted men to the cavalry and would necessarily mean an increase of the army to that extent, fof they could not be taken from the other arms of the service withoyt crippling them, so that the increase and reorganization woupt course only be thought of in connection with a general reorgsontation acheme for the whole line of the army.

As to the peceasity for constantly having the tromp more nearly up to itactiqu atrength. there can be no question. The unwritten history of our Indian campaigns, with which all cavalry officers are familiar, show too many instances where the newly arrived recruit has been wors than useless; unable to care properly for himself, to say nothing of bis horse and equipments.

Now that pelikelihood of extensive Indian trnubles is becoming more and more remote, it is but the part of wisdom to prepare for other contingencies, to train our mounted arm in the science of long continuct and rapid marching, in swimming, and in the making of demolitions, in addition to the individaal training wbich has now reached such perfection. Much of this can be fairly well accomplished fith the small troope now at our disposal, but it can be much better ddne with the troops at their maximum strength. As Lientenant Brown states, the cavalry will be the very first to be brought into agtion, asin raiding; for that reason it must habitually be in a inore complete state of preparation than the other arma. It is an expensic arm, and for that reason it is very like "waring at the spigot" to ramp it by unwise economy, which will surely mar its efficiency when the day of trial comes.

As to the graded compulsors retirement it is beliered that the
sentiment of those in the armif, to any nothing of others, is against the echeme. The retired list was created for a wise and generous parpose, and is too great a bfon to the old and the disabled officer to even risk making it anpopular by the scheme proposed. Why should a lieutenant become fifted for his position at torty-six. while bis captain, who perforpe practically the same duties, is considered fit for four sears morf? As a matter of fact there are now but two lieutenants of caralry who have reached that age

It is believed that ability to undergo hard field service should be the teat of an officer's filngs for the duties of his grade. When that test (which might be incidental to annual field exercises of a month's duration) sbows an fficer to be physically unfitted for the duties of bis grade, then retipe bim, or transfer bim to a staff corjwhere his known abilitf in any particular line could be made of benefit to the government.

First Lieutenant J. F. Bsll, Sevefth Cavalry:
That a benefit to the cardry service would ennue from graded retirements is probably true men the balance of adrantages alone is considered, but because of the resulting increment to the element of chance (already too great) in promotion hardships misht oftener occur, and officers be forced out whose accumulated experience would be a serious lomand invaluable, to even the caralry service, at a time when expetience is urgently needed, namely, at the outbreak and during th continuance of bostilities. It is undoubtedly true that every day a cavalry officer adds to bia age after twenty years' service rendere him physically less fit for active car. alry operations, and physica unfiness also sometimes exercisen a baneful influence on zeal and mental equation which is proportionate to its own degree. But physical efficiency is influenced more by habits than by length of gears, as experience (a mental function) is more influenced by intellectual effort than by the mere parazge of time.

I think skeletonizing twh additional troops would be a good thing for the service. It wquld increase the size of the rest and insure the presence of a greatpr number of officers with the colorstwo very desirable considerat 00 thereto is the creation of condition of affairs which might lead an ill-informed Congress with economical tendencies to conclude that there were a lot of aselesp cavalry officers in the service, causing needless expense, and thus repult in a reduction of the caralry arm.

The prorkion reducing the number of majors by one and firse lieutenants bf two in time of peace would slighty retard promotion in the lower srades, lut it is undoubtediy in the interests of economy, and this proppsition is entilled to the credit of being unique in this regard. for I pare never before seen one made that would sacrifice through mofires of economy) any of the interests of officers. If we want to secure beneficial legislation, howerer, it behoores us to how that cadefor our orn interesta is not the only inapiration of our efforts.

1 also approve the proposition to hare the adjutant a captain, and the quart $\quad$ master a lieutenant. because I have always felt that the confident al assistant and mouth piece of the regimental comrander shoul be an officer of long service with the regiment and intimately ac uainted with ite troop commanders. There is not st ch necessity for these qualifications in the quartermaster, and it is peferable thak he should be a younger man than a captain is liable to be. This another reasonable proposition in the interests of ecronomy. Al others I hare neen have suggeated that the quartermaster also bela captain. As graded retirements would undoubtedly espedite promotion, we should not be hoggish in our requests and aloo ask for extra captains in time of peace.

Should thefe not be something in the bill, however. which would preclude the possibility of these three racancies in regiments (of major, captainfand first lieutenant) being considered in the light of uriginal racanfies, admitting the appointment of men not belongiug to the caralry arm at the time they are filled? In other words, stould it not be prorided that these vacancies should be filled by the appointment of officers in the regular line of promotion in the caralry arm?

0RDINARY bistory makes little mention of the night operations of war. A fow battles biare been' fought by night, but they have been so rare and so exkeptional in character as to be almost lost to view. Purely military history is but little less deficient in this respect. The few trpical pight attacks are described quite fully. bat the work done ander corer of night in the course of the ordinary campaign is diamissed with the briefest mention, if, indeed, it is not overlooked entirely. Bven writers on the art of war often omit to give the sabject a full and systematic discussion. Withowt farther investigation, therefofe, one might readily conclude that night was simply a period of inactivity and slumber for armies in the field, as for other men, and, accordingly, a subject to be briety dismissed as anworthy of seripas consideration.

Not so, however. History ${ }^{\text {lomits mach that occurs by night. is }}$ it omits many other technical details, which bare no attraction fir the general reader. Writers pn military art omit to treat of the subject, except casually and in connection with otber matters, party becanse of this dearth of hisporical materia, and partly becaure theirs is a science of rules and generalizations deduced from tite similar experiences of war, whereas night operations alone are so maltifold and so varioos, so dependent upon exceptional circumatances, or the exceptional genius of a commander, as to yield rules and generalizations macb lese readily than ordinary operations by day. But it is not to be conclinded that the subject is therefore unimportant. A doeper study whll show that every active campaign is filled with instances of night work. Under cover of darknew the enemy's lines are penetrated, information of vital importance obtained, or possibly officers of pigh rank are captured. The enemy outposts are attacked and drifen in, aronsing his troops to arms. distarbing their slumber and sthattering their morale. Secret recon-
naimances are undertaken. Raidnare made upon the enemy"n communicatione so the destruction of bridges and depotand trains. A bold atratage made possible by darkness extricates the army from a dangerous predicament or entraps the adversary in a similar one. Night settien lown upon the tield at the close of the battle, and by morning the defeated ariny is safely out of reach of the victor. Position is uken before dawn for the coming battle. And sume. times, though rarely, the entire army may be launched upon the five, in a generpl night engayement.

The enumeration might be extended indeninitely, but the alowe will suffee tofive a cluc to the importance of the subject of night operations. for can these be likened to the corresponding move ments by day Darkness alters every condition of warfare. Troops can move wif ease, rapidity and precision by day where they might be throkn into utter confusion at night. Small alarms are exaggerated. and disorders multiply. Marching columnsare delayed by minor obsfacles, and readily go astray. In short, wo totally dif. ferent are theqouditions tbat any action planned for execution by das but attempted at night, or the reverse, mustalmost unavoi:ably end in dinaste

The condifions of modern war make the subject evell more important thon ever before. Vast numbers and extreme mobility characterize tee armies of today. Lines of battle are many miles. in extent, ado batten often last several days. During the inter. vening nighte, troope are dispatehed to strengthon the portions of the line that hure been weakened by the fighting of the day befiore The weak part of the enemy's lino has been discovered, and all army corpe is prought from a distance to support a final assault at break of day, Fhile another corpa makes a long march for the purporte of strikifg the enemy simultaneously upon the flank. In thort, great aqirity characterizes both opposing armies, and upon the success of these night maneusers, no less. perliaps, than the actual fightiog by day. does the ultimate victory or defeat depend

The extreme accuracy, long range and rapidity of fire of modern weapons bare rendered the problem of reaching the enemy's position without utter annihilation an extremely difficult one. Can the night attack b resorted to as a solution of the problem?

And again the electric searcb light will unquestionably be an important factor in the next war, not only at sea but in land warfare as well.

The subject of night operstions naturally arranges itwelf under the following heads, which wifl be discussed in order:

1. The Night March.
2. Attack and Defense
3. Ambush and Stratarem.
the
As logistics is one of the nost important of the branches of the art of war in general, since dearly all other operations are either intimately connected with it, or wholly dependent upon it, so the march is at once the most fequent of night operations, and also enters as a very important fac or into almost all others.

The march presents itself for consideration under two distinct phases: (1) when distant from the hostile forces. and ( $\because$ ) when operating in the presence of $t$ enemy.

Under ordinary condition the night has many disadrautages. even for a simple march, and tence is not often employed; especially is this true when the enemy fistant, and tactical considerations therefore do not enter. Nerefheless circumstances may sometimen arise which will render the night march adrisable, and these will he considered.

One of the most familiar ufes of the night march is to avoid the exceasive heat of day in very warm latitudes, especially in distant regions, or where water is scigree. This expediont has frequently been adopted by Britiah troots in India and in upper Egypt and the Soudan, the troops marchi $g$ by night and securing the requisite rest and sleep by day. Von fre Goltz anje: "By bright monn. shine troops march upon god roads without difficulty almost an rapidly as by day, and even upder unfavorable circumstances good troops bave accomplished night marches at all times without detriment." And it may be added that many of the disadrantages that commonly attend the night march can be obviated in this case, for the roads can be deliberately rconnoitered and repaired and marked each day for the march of the succeeding night, and the enemy not being near, fires and lights ca be used freely, botb for cooking and for lighting and marking the

When a commander has

* In the decumion which followe it the principles of the art of war momir an pey relate to the ordinary movementa by day, and only thoee ebarecterietice and princtples

ocided to adopt this experiment, the heculiar to night will be considered.
tirst problem that presenta itself is tharrange the hours for march. ing and for cap duties. A regular schedule should be adopted and persistently followed, for this will prerent much needless confusion. delay and wofry on the part of the troops and. also. by proriding a regular ersfern to take the place of their customary habits of life. will reduce the fatigue and wirain upon the men to a minimum.

The coolet hours of the twenty-four should be chosen for the march. This is the latter part of the night. after the earth and atmosphere tave become cooled, and the early morning. The best arrangement foill be to commence the day's march about 1 oclock A. M., and as marching troops spend about eight hours a day on the road, the trops will reach camp about 9 o clock in the morning. before middaf heat begins to he felt. This plan offers other importantadragtages alan. The march being terminated by daylight. the difficulty bi going into camp on unknown grounds in the dark is obviated. The start will need to be made at night, but this will be a compaptively simple matter, the neighboring terrain and ront, haring become familiar in the course of the day. Furthermore, the has few miles, always the moet trying part of the day's march, since the troops are then growing weary, will, under this arrangement. be made by daylight.

It 1 octoct is allopted as the bour for starting, the reveille should be sounded at midnight, or a sufficient time before that hour to enable the troops to feed the animals, strike camp and serre a good hot breakfast before marching. The usual halts should be made, as when marchipg by day, with a long halt about 6 A. m. To enable the ment to rest. ease their packs and eat a lunch. The day's march being complefer about 9 or 10 oclock in the morning, the troope go into camp. feed und gronm the animals. and perform wuch other camp duties usually follow a days march. About midday comes another good meal, after which the men rest or amuse themseliren, or erect shady of such material as is arailable. Few will be able to sleep during heat of the day, but at some hour toward the close of the afternonn, say 4 or $5 o^{\circ}$ clock, the call to quarters is sounded, at which all men are required to retire for the night, under sbelter if possible. Thenceforward the utmost quiet should be maintained throughout cemp, until the troops are amakened for the next day's marcl.

It is onmetimes asserted that if a part of the night is to be decoted to marching it should be the tirst part, and the reason assigned is that the layer part of the night being cooler the men aleep better, and therefore heir strength and endurance will be less taxed. But
the disadvantages of concludi $g$ a day's march at night have already been noted. Furthermore, मhen men go to sleep at 2 or 3 oclock in the morning, their sleep in scarcely half orer when day comes on, and the cendency is to cht short the period of rest; whereas. soldiers weary with marching will fall asleep readily at 4 or 5 in the afternoon, and night coming on they will sleep until midnight, or until the bour of reveille, this getting their full period of sleep. And it may be added, that tita aim in this use of the night narch is to preserve the physical oftality of the men by employing the best hours of the twenty-foar not in sleeping, but in marching.

The details of the daily bechedule may be varied somewhat according to circumstances, , ut in no event should the trons be required to march without first having a good meal. Gei,eral Stewabt, conducting a colump from Kharti to Khortoum in 10 ain. babitually need the night match, beginuing about $2 o^{\circ}$ clock $A$. M. Colonell Wilson, who accompa ied the expedition, commenting upol this march, says: "'The camels march much better at night, and men and camels suffer from the beap when they march by day." He com plains, bowever, "that the camels start on empty stomachs, contrary to the habit of the beast; thit they get neither proper rest nor proper food, and that men canot stand marching from $\geq$ A. M. to 111 or 11 4. . . With nothing inside them."

Having decided upon the daily schodule, it remains for the com mander to adopt such measure as are practicable for renderins the march easy and expeditious, and for dininishing the difficulties incident to night marchiog. The road to be marched orer each night should be traversed the day previous by a detachinent of cavalry and mounted pioneer, with tools and a good supply of lanterns in light wagons. Thay make all needed repairs to roads and bridges, and at all points where the column might go astray in the night; they mark the propef direction in some manner previously agreed apon; or one or more men may be left to direct the troops when they arrive. At fords and all difficult parts of the road fuel should be collected, and men left to keep fires buraing near by during the passage of the colomn. Lanterns will be useful in marking the road when fuel is not available. If the route lies through a desert or prairie regon where there are no diatinct roads it may be necessary to use llphts thronghout to mark the way. Tbis can readily be done by keeping small fres burning, or by placing lanterns in elevated positions at intervals of a mile or lesa and in eitber case one or more men must be left at each point. The leading detachment should be accompanied by a staff officer, charged
with the dut of selecting a place for the camp. and upon eelecting a site lie ataits there the arriral of the troops. All men and detachments left along the route join the rear of the main column as it pasies. and each day a afficient number of mounted men are nent forward o replace those detached. or the whole force ia replaced with fresh trops

Hot counties are frequently damp and malarial also, and when marching through such a district that route should be chosen wbich least exposes he troops to the malarial poison. which is especially noxious at night.

The marc will be considerably facilitated by allowing the men to open out fomewhat, but straggling muat be carefully guarded against, lest proldiers become lost or desert. During halts the men may be fermitted to sit or lie beside the road, but none should be permitted to go turther. especially if the uight be dark; and whell the match is resumed care must be taken in arouse any who muy bave fallen asleep.

A discussion of the night march as a means of aroiding the heat of the day, bowever, would be incomplete without a caution against it- too frequat use. By moonlight. or even by bripht mtarlight. troops will march nearly as well as by day; but as the collditions become less forable, the difficulties rapidly multiply. It must be conceded that day is the natural perind for work, and night for revt, and that these can not be reversed without some added strain upon the strepgth of the men; hence it is only when the tax upon the ritality fom excessive heat by day is eren greater than that caused by night marching, that the latter can consistently be used. Such probably will never be the case in the Northern States or Canada, and Cldom in the Southern States, though in the extreme south. or in Xexico, good opportunities may sometimes be offered for this use ofthe night march

There arefother circumatances, howerer, that may render the nisht march expedient, eren when the ellemy is distant. and the octurrence of ponme one or other of these will give rise to its frequent emplospent. But the conditions will differ but little from those considefed in the above discussion. which need not be repeated. The principle there laid down should be applied as far an practicable. The most common of these cases will be briefly mentioned, with sheb additional poidts as may be peculiar to each.

Considerations of speed often lead to forced marches, which are gederally made by iacreasiog the length of time spent upon the road. This nay be accomplished either by beginning the marcb
before daylight, or by continuihg the march into the nisht. Fi, reasons already considered, the former method should always be adopted if practicable.

It will sometimes happen, hpererer, that a command mast continue its march antil after dark in the evening, either in making an unexpected torced march, or in order to reach water or a suitable camp ground. In such a case, if there is any doubt as to the conndition or direction of the portign of the road to be traversed after. dark, a monnted detachment should be sent ahead charged with dutien already lescribed. Andifenerally a monnted detachment. ${ }^{\prime \prime}$ considerable size under competent officers whould be sent torwarit with direetions to gather fuel, and to familiarize themselves with the terrain of the camp ground before dark, so an to be able t.. direct the troops upon their arrival. This precaution will l.e. especially important when the ight is very dark or stormy.

A most important use of the night march is suggested by V". der Goltz: "In future wais, then great mannes have to be movel in small space, several army copps being obliged to follow one roal. we shall not be able to dispense with night marches." This is esper cially applicable to our own country, in many parts of which prat ticable parallel roads do not dxist in sufficient number to enable :a vast army to march with a single corps upon each. An army cor ${ }^{\prime \prime}$ in column of march, with traind, stretches out a dintance of tittect miles, or a full day's march, and a column which would require two or three days to concentrate upon its head would be extremely un. wieldy, and also decidedly risk when approaching the enemy. By means of the night march, bofever, the difficulty may be largely obviated. A corpe can march pight or ten miles, perhapa, and cline. apon its head in a day. Suppose two corps are concentrated near each other; at daybreak one corps marchea out, the other remainuls in camp and sleeping through he day. At nightfall the firet corphas completed its march, closed up, and gone into camp; the secont marcbes by night, and morning finds it closed up near the tirst.

Again, the colomo mey be hortened as follows: Two corps at nightfall are in column of march, one in rear of the other. The leading corpe moves off the rha entire, without closing up, and campe or bivouace; the rear corpo now takes up the march orer the cleared road, and by morning is abreast of the first. The latter now moves off the road apon the other side and camps for the day. while the first corps takes th road again and marches as betore. By either method new road is fovered only by day, while the second permite a full day's march to be made. If compelled to march more
than two corp upon a single road, it may be possible to detach the trains temporarily from the leading corps in order to reduce the length of coldmu of combatant tronp, which may then be supplied by a special tansportation service of tight wagons capable of corering twenty five or thirty miles or double the distance marched by the troops in \& day The tronpmath supply trainsalternate the one taking the rod by night. the nther by day. and the empty wagons wot returning but awating the arrival of the main train as the march progreses. Other plans can readily be derised according (1) circumstanfen, but the combination of the day and night mareh in some nimildr manner will be indispetwable in such cases.

Ancther ufe of the night march is as a means of training troupe. For reasons that will appear later night operations will surely be noure extendep in future wars than in the past, and it is only by trequent marghing and maneuvering at night that tromp cail be come tamilian with the appearance of object under such circum. stancer, and af quire the coolnees and contidence in darkbess necen. sary to succes. This training should be given before the eneny is encountered dod should be thoroughly and systematically conducted. During its phogress the men should be subjected to marebing and maneusering finder all degrees of darkness and under all conditions of terrain, and all forms of nurprises should be practiced, lest the troops be stanpeded at the tirst cause of alarm when operatilli in the presence fo the enemy.

We will now leave the tirnt and turn to the second phase of the present topic.

When in the presence of the enemy, tight marching becomes a matter of vafty greater importance, and get the difficulties are greatly multiplied. Fighting is now at liand. and a battle is to be won or loat. The strength of the men which we have presiounly huobanded is now to be expended recklessly whenever occasion demands. Adtual considerations are uppermost; the enemy munt be forentalled here or baffled there: and the march may have to be made regardlpos of the hour, or the condition of the men, or the darkness of the night, or the difflculties of the road, or the dangers from encountring enemg's troops on the way. Fires cannot be used, and seldom even lanterns, lest the movement be disclosed to the enemy. ft will not ottell be possible to reconnoiter and mark the route by day, and not infrequently the morement must be made quite off the foads, through woods or over unknown terrain. In the darkness hen are alert and imaginative, nmall disorders readily
grow into panics, and the sudden onset of a small force of the encony mas throw a marching colum

The first great requinite fo intelligent, thoroughly disciph ned, and apecially trained for night action as mentioned above.

By day, good officers may not so at night, when the me mat rels largels upon themselves.解 battles of the Wilderness shows how trained reterans act under such circumstances:
"There were no bugle ca la that night. Indeed, I heard no music, not even the tap of a rum. Silently the battery molled off of our camp ground. We copld bear the molid tread, tread, tread, of onseen infantry as they narched by. All around us the air hummed and vibrated with fe. Murmurs, an of reeds whisper ingly greeting the flowing ses filled the air. We came to a broad road which showed white in the night, and along which the Second Corps were streaming at a stinging gait, with their arms at will. We tarned into the road and $m$ rched alongaide of these men. * * 4. About 2 o'clock in the morning we heard a noise in the forent to our right, and then a couple piffe whoterang out wharply. In. stantly tho column halted. The infantry faced to the right. and
$\because$ crowded close to the cannon. A acore of men sprang over the guns and dashed through the forest in the direction of the anund we had heard. The riflea of the soldjars crowding un were rained to their shoulders.
"'Lie down! Lie down!' they whispered to us. 'Lie down' Get out of our line of fire,' whispered a soldier, whose eyes blazed with excitement, to me and to my comrades
"We crouched low around the gun trails and waited. After the columo halted, I did not hear an officer give a command. The en listed men knew what to de, and did it instantly and without orders. It was an impressive sight that I saw above me; two linen of veteran infantry, with rif $\mathrm{s}^{2}$ almost aimed, with set faces and blazing eyes, gazing intently fito the darkness of a dense forent in search of an unseen enemy fhom we thought was lurking there So profonnd was the silence that I could bear my heart beat. Soon we heard voices of the skirmi bers who had rushed into the woods. calling lowly, but distinctly, 8 they returned: 'Tbere is nothing there. Don't firet Don't fir! We are coming back.' They rojoined the battle line, which feed into colamn, and limbering up. we resumed the march."

The second great requisit for success is that competent guides be available to insure the arrifal of the troops at their proper denti-
nation as plapned. Marching columns sometimes po astray with serious consequences eren by day, and at night the danger is its. crensed a hundred fold. At the French sortie from Pondicherry in 17tin, made under cover of night, the left column. which should have taken the British force in flank and rear. mistook its dertination. and con not take part in the action before the others had been drisen fack. Again. in the night attack of the Russians on Frzeroum in $8: 7$, out of four attacking columns only half of one reached its pipper position. And numerous similar instances might be cited.

For the ifnumerable marches of small detachments that take pace nighty fin connection with the outpost and reconnaiseance errices specil guides will seldom be arailable. In such cases it will generallydevolve upon the officer or non-commissioned officer in charge of the party to direct its mareh. If possible be should make by day reconnaissance in person along the route which be intends to follow. and note such landmarks as will enable him to recognize his fay in the darkness. It a personal reconnaissance is impracticable gr will generally be prosible to get a view of the country from fome neighboring height. in which case the officer should examin the route with a field-glane and make written notes to aid him. For example, he may wish to surprise one of the enemy pickeds at a certain place visible in the distance. He may note that ther are sereral forks or cross-roads to be passed. Near whe is an old tone bridge; here the left-hand road should be taken. At another the road divides into three branches at the edge of a wood, and the middle brauch is the one to be followed, and mo un. Or if the rouse lies across conntry, such notes as the following would be taken: Fillow along the barbed wire fence half a mile to the rail fence runhing east: follow the rail fence to the edge of the woods; skirt 中te edge of the woods about a mite toward the north until the brool is reached: follow the brook down strean to a log whanty on the right bank. where there is a lane leading straight to the enemy's apranced poat, distant about a mile and a half: These notes should be committed to memory, so that no light will be necessary. In marding, the party will ordinarily be somewhat extended. and perfect silcoce will generally be maintained; the leader. therefore, should tare a large white cloth attached to his jerson by which he can be distinguished in the darkness. lest some other member be migtaken for him. and part of the party go astray. In case of caralry the leader might be mounted upon a white horse:
this, howerer, might prove a disadvantage when encounterint the onemy.

For larger and more important expeditions of this nature especially if the objective poilht is distant, un effort should be mishs. to secure an inhabitant of the country or one of the enemy'sol. diers as a guide, as mentioned below.

Before setting oat every member of the party should be math acquainted with the plan to be pursued, and mhould receise simpribut explicit instructions as ta what to do in the emergencies likely to hapyen. And if chere is possibility of other triendly parties being met, all should be prosifled with a countersign or other mean. whereby they can recognize dach other and avoid conflict.

For the march of the larser bodies of troops that take place it connection with tactical operations, reliable guides must invariably be provided. There should be attached to headquarters several staffofficern specially qualifiol for this doty. Attached to General Wolseley's ntaff during the Egyptian campaign was a natal otticer. Lieutenant Rawson, "a ma well accustomed to steer his way by the stars, and familiar with the desert from having accompanied sir Garnet in bis many wanderidgs to and fro from Inmailia by night. His services were of inestimble value during the campaign, enpe (cially in the night march preceding the attack on Tel el Kebir.

When lurge columns mardh by regular roads, the officer detailed to conduct the march will often be able to perform this daty with out assistance, depending upgn knowledge of the route and terrain. previously acquired from a atudy of the mape, by reconnaissance. or otherwise. In important movements, however, too great caution cannot be taken, and a goide should always be emploged whenever practicable, the officer usios bis own information as a check upon the guide. Civilian inbabitants of the neigbborhood, peddlers. country doctors, livery stable employes, and the like, make the best guides, and in the abennce of such, prisoners captured from the enemy may be employed. Great caution must be exercised in case deserters from the enemy be ased, lest they be spies and lead the column astray.

The employment and theatment of guides is, in general, the same as by day, but greate precantion will be necessary to prevent deception or eecape. Two reliable non-commissioned officershould accompany the gaide, to whom be should be bandcuffed or tied. If mounted, his horse should be led by another person. The oficer in charge, while treatog bim with due consideration, should impress apon bim that treachery will call for instant death. But
excitement and even when no oficer should frequently, try the road. He vet reached, a If the officer b suides may bu the other.

Much that vering will b ittle remains in the presend march will b hanged condi fons. The range of accurate fire at night being coon body than by d the guards and flankers may be nearer the main ady than by day, though the greatest rigilance must be main. could scouts ant most npen country and on the brightest night. could scouts and fiankers be able to keep pace in the darkness with patrol system prise. A larg upon the road route small patied at intervaly of 2011 to 1.001 yards along the men are detacter of say wo non commissiohed ofticers alld seven men are detached. One man remains on the road: the oon-conaangles to the rosd an with three men, move rapidly nut at right
 womiles. depending on circomstances. A countersign enables them to recognze one another, and a system of signals by means of rifte shots enaples them to fire warning of the presence of the cnemy. The getachmente assemble and join the column on the next, or a subsequent day. This system oecessitates the permanent detachment of twenty-five or thirty men per mile, but this is s -mall number when the additional security is considered. On a prolonged raidng expedition, where the men detached would haro no opportunity of rejoining, this method might prove expensive in men, and of cootre should not be employed if it can be aroided.

The entire ommand should be made acquainted with the nature uf the operatio betorehand, and instructed as to what to do in an emergency; an a watchword to enable friendly troops to reengnize each other is sbsolutely indispensable. Marshall Mormory naya:
"More than of ce, columns of the same army. during nocturual
fear may caune the guide to lead the column astray intending to do so. To guard against this, the ndeavor to cafm his fears, and should question him to discover by what means the guide recognize. dould also question him as to parts of the road not mself has whether bis knowledge is real or feigned emploged in personal knowledge of the roans. Iw as gone betore applies also here, and ince maneu. resersed tor consideration under Chapter II. but o be said concerning the night mareh of a columa of the enemy. The seneral formation of the .lay retained, except as necessarily modified be the on the road generally, therefore the indepentent the only sure protection against ambush or sur detachment precedes the regular adrance guad and at intervaly of 5011 to 1.0001 yards along the
$\qquad$號
operations bave been known o take each other for the enemy, and to cause much misclief." And he mentions an affair of an Austrian army under Joseph II., at Haransebes in 1789, when the varioucolumns taking each other for the enemy, fired, and more than $\mathbf{6 , 0 0 0}$ men were killed or dis bled. A strict silence is generally :. be maintained; loud talking or giving of orders. and the use of bugle or drum should be prohibited. Riffes sbould not be loadel. and equipments should be ad usted so as not to rattle. With artil lery and cavalry special mealures may be necessary to deaden th.. sound, such as strewing has over the road, wrapping the whect. with straw, and tying sheeps, in over the feet of the horses.
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## POLO IS THE ARMY

ITHINK mont officern must riew with pleanure the increang interest in thletic exercises throughout the service Other things being equal, the mbier who take an altive part in out of door sports will have greater physical endurance than his comrade. whose daily volpriary exercise consists in watking a beaten path letween bis barfacks and the post exchange $A$ wound and healthy mind generally accompanies a healthy bocty, and while there are doubtless many exceptione. an active interes in out ot donr lite will, if it perforfing no greater work. keep many a man out of miwchief. Thanks fo the general orders on the subject during the past tew years. toge ber with the recent impetur given to athletice at West Point. and disseminated by itw graduatom in all part- of the country, a bealty interest in such matters seems roused. which will make itnelf felt on the army of the future.

To the Amencan who risits England, the general interent taken in athletic aport by men of all clases and ages neems truly remarkable. It is not be same interest which impels thousands of Americane to sit for hours in the hot sun and witners a game of base ball; but rather, that whici leads the elderly English genteman of sixty years of age to cballenge bis son. uged eighteen, to a game of ricket, and tak genuine plearure in morsting him. This personal interest which ar British cousins seem to feel in manly sports has undoubtedy mathe itself felt in moulding the national character of the people. It infuence bas made a lasting impression on the British army and navy, and no small part of the wonderfal success which has attenfed the British conqueats in two heminpheres, may lee traced to its presence.

But while al present our army seems in a way ready to follow in the footsteps of the English, there is one striking fact, noticeable
to the foreign visitor, and that is that so fem of our offcers persoll. ally participate in atbletic event. The reason is a natural one, and I will not enter into a discussion of its causes. I only wish to give bere a brief description of a game which, for a number of reason. should recommend itself to our 中fficers - the game of polo.

Eren the history of the garce is an interesting one, but beyoud mentioning that it had its origin many centaries ago in l'ersia, and was from there carried to England through officers serving in India I will not enter apon the subject

To begin witb, it is not, contrary to popular opinion, an unu*u ally expensive game. Outside of the first outlay for a pony, theris little expense except for an'ockasional broken mallet. In fact, in many cases, a raw polo pons, costing say not more than fifty dollarif carefully handled in the thordugh manner customary to our oth cers, may be sold for many times the original price. The eastern demand for trained polo poniesfis steadily increasing, and quite a number of American ponies are even exported to England. Thi only additional expenses, other than for saddle and bridle, is fin balls and mallets, the aggregatecost of which varies of course with the amount of breakage. The litter depends in a great measure o! the experience of the player, the quality of the balls and mallets. and the soughness of the game played. Willow balls, which are the best, may be purchased for about 813.00 a gross, or nine cell, apiece. Imported mallets, at present the most matisfactory, cont abont $\$ 1.75$ apicce.

The only limit in regard to the dimensions of ponies is that it beigbt, the present limit being li4.1. The qualities to be looked fir in a polo pons are quickness (both in starting and turning), speed. ease of contrul and intelligench. Many a pony may have great speed, but be utterly worthles on account of lack of ability w control; for this reason racing ponies are generally poor polo ponic. The pony's intelligence should the such that he will not be afraid of the moving ball or awinging mallet (called technically "ball shy and "mallet shy"), and such that in time be will take a personal interest in the game. This lather trait, which comes more rapid!y than one would imagine, is an pxceedingly interesting one. Some pooies will almost play the gapme by themselres, inclining to the right or left as the ball is.driven obliquels, stopping short from : gallop to tarn in a new directipn, and whirling about so rapidly when a etroke is missed as to almost unseat the rider.

As a great many ponies prove unfit for polo it is always well before actual purchase to take the pony on trial for a week or two
to see if he posesses polo qualities and instincts. After purchase his eduration pould be begun at once. and continued daily ; but not too long af a time, to aroid his associating the game with a remembrance of monotony add fatigue. He should be first practiced without a mallef. in turning quickly to the right add left, from both a walk and gallpp. He should also learn to break promptly from a halt to a gallop The trot should be eliminated as much as possible from bis pologate, as it is desirable that all his morements should be executed at gallop. Next. with the mallet in hand, the pony sbould be brought at a walk close to a ball. and the latter struck sentls to the front. This should be alternated with the execution a: right and leff moulinets with the mallet, to accustom the pony to the presence of he latter close to his head and ears. These exer--isew should be ontinued for some dars at a walk. especially if the rider is awkwafd with the mallet. a- it is of extreme importance to aroid striking the pony in the first leswos. The idea of pain hould not be afociated with the sight of either the ball or mallet. As the training progresses the rider may take a slow gallop. and practice the dimpent strokes. varying the leswn with sudden stops and sharp turns It is found useful to say "whoa when bringing ponies down to a walk or halt, as an intelligent pony will soon understand the meaning of the word, and will slacken the gait voluntarily. A\& moon as the pony has lost fear of ball and mallet lie should be adeustomed to the presence and rough proximity of "ther ponies. If will often be found that he is at first "ponyshy." and dislikes rusking into a "scrimmage" for fear of getting hurt.

The mallet sfrokes greatly resemble those of the a aber exercises. Thus the right frward ntroke is very much like "against infantry : right parry," and the left backward ntroke like "agrainst infantry; left parry." Si bilarly the right backward and left forward strokes are somewhat life the right and lef cuts against infanter.

To learn to se the mallet. (which should juat touch the ground as the rider sits erect on the pony). the player should always begin with short, easy strokes, delisered with the pony at a walk, until the eye accustogis itself to the distance, and the arm gets the swing "f the nallet. It heagy strokes are attempted at first, the ponse legn will suffer. The stroke most used. the right forward atroke, is delivered with the full arm. the firat position of the mallet being nearly vertical. For the back stroke on the right side, the mallet is turned sjight in the hand, so that the mallet-head will be parallel to the grougd when the blow is delisered. The backward and firward atrokes on the left aide are little used, except by expert
players, but the side strokes under the pony's neck and beHy will be found exceedingly useful' in circling the ball to the left in order to avoid an opponent.

It will be found in a short time that in addition to the bencticial exercise, due to control of the pony, the muscles of the sabre arm, expecially those of the wrist, will become highly developed, and the eye will be so well able to judge the distance to the ground that the splitting of an apple with a saber blade will be comparatively easy.
Polo may be played by any number of players, up to and including four on a side. A greater number makes the game extremely dangerous. Major Sanger has told me tbat when be aceompatied General Schofield to India a number of sears ago, they witnessed a most spirited contest bet $\ddagger$ een teams of English officers athi natives, each team consisting of some twelve or fifteen men. Ttuc rivalry between the two bodies of men was so great that the grame assumed the aspect of altanote cavalry charges and melece. Before the natives were finaly victorious, one of the latter was killed, and several of the English officers seriously injured.

The polo field is a rectangfe about $700 \times 500$ feet, with goal prots twenty-four feet apart at the middle point of each shorter side. The object is, of course, for ench team to drive the ball in his opponent's goal. In opening theigame, the plagers designated as Xos. 1,2 and 3, "line up," facing each other at the middle of the tielil Each "back" (or No. 4), plage back of this line in order to fuard goal. The ball is thrown be ween the opposing lines and play begins, counted daring three periods of twenty minutes each. with five minutes intermission between periods. If the hall goes sut at the side lines, the teams "lipe up" at that point, and the ball is thrown in as before. If it gees out at either end, but not between the goal posts, the ball is placed on the boundary line, and deliberately knocked, into the field by a player of the side whose goal is this menaced. Throughout the game, interference with ponier is a feature, giving opportunitiea for "team work," and the dangers of collisions are reduced to a minimum by forbidding riding at right angles to a player at full spped, and by otherwise rentricting "foul riding" by the imposition of severe penaltien. Dangers due to ponies falling are further reduced by the use of flat English siddles. an arrangement which our qavalry officers have at first tound very awkward, accustomed as they are to the McClellan saddle.

When the game is well plaged it approaches a cavalry melet more nearly than anything flae could, without the dangern of actual
combat; and ote daring riding. quick and accurate atrokes and counter-atroke of the bold interference and ensuing "scrimmage, all tend to kee excitement at the top noteh from beginning to end

On accoun of our officers well known abilities as "rough riders," together with the opportunities in the West for the purchase of poniey at a low price. polo should make rapid strides in our army within the next tew years. The concentration of troopa at large posts. and the frequent opportunities that cor officers will have to conted with each other. with rival regimental organizations, and wit the expert civilian teams. should make polo the favorite officeq: game, especially in caralry regiments. Teams bave already peen formed at Forts Walla Walla, Leavenworth. Riley and Myef: and efforta are at present being made to give the West Point cafleta a knowledge of the game, so that upon graduation they mas carry the game to their future stations

At present the crack civilian teams, with their veteran players and superior feam work, together with the strings of expensive ponies at their commad, have proven rictorious over the few army teans that hafe played againot them. But. poseressing as we undoubtedly do, the best riders in the world and reflecting that polo. as an army gage, is yet in its infancy. there is every reason io be. liere the time will soon come when our army polo teams will be able to hold their own against all comer-

## THE SHELTER TENT FOR CAVALRY.

## by captain J. g. Galbraith, firat cayairy

6 TTENTS are supplied by the Quartermaster's Department on requisitions approved by commanding generals. The number for each regiment, for general and staff ufficers, etc., will depend to a preat extent upon the season, climate und nature of service. They may be dispensed with if, in tho opinion of the commanding general. it becomes absolutely necessary." This quotation is from paragraph 40 of the "Regulations for Tropps in Campaign."

This suggestion of dispensibg with tentage leads to nome serious reflections. We know enougb, of the value of shelter to hope that means may be found of having it available, and that the occasions. may be few indeed when it will have to be absolutely dispensed will.

We cannot have the wagope always with us, and when we are limited to pack-mule transportation we will usually find that rations: and ammunition are about all that we can load. A mule can pack only about one-fifth of the wight which he can pull on wheels. Thus it would take ten mules to carry on their backs what a two. mule team might haul ; so that cavalry, with its appropriate trans. portation of pack traine, cannof begin to carry along the amount of baggage which may accomp ny infantry with their customary wagons.

But, worse than this, cavaly on campaign will often find itself without any accompanying trapsportation whatever. In fact, it is the recorded experience of offecers of infantry that even foot troops cannot depend on transportation, and that it is only prudent to toach men this fact, and to practice them in taking care of themselver in nuch emergencies. The effcient performance of the duties of cavalry in civilized warfare refuires that it should be independent of wheeled transportation; an the practical limitations on pack-
trains will usually preclude the carrying of baggage or full-sized tents.

We are taught that the rear guard should be entirely free from impedimenta. if posnible, in order that it may, after meparation from the main body necessitated by stubburn resistance, close up by furced marches.

Cavalry trops on screening duty, and raiding columns and patrols, are vert likely to lowe sight of any transportation for days at a time. and he renturesome character of the work which they are expected toperform necessitates great freedom of action.

The toregoifg considerations account for the fact that the car alryman must gee his own horse an a pack animal. Much as this necessity in to Ee regretted. it must be recognized and provided for. The trooper on dampaign must hare with him on his horse a good many things in order that he can get along without otber trans. portation. At he same time, and for obrious reasons, the number and weight of the artick-a carried must be kept down to the lowent possible limit. Without enumerating all of the articles with which the saddle is usually packed in our service, our dincur. sion has special reterence to the question whether the shelter tent should be one of those articles Is it of sufficient importance? Why not simply bisonac? What is this bivouate anyway?

The dictionary detines the bicouac to mean "eamping without tents or cover. and in all the annals of wars. we find that the bisouac has been quite the customary thing Its discomforts were accepted as unspoidable: its disastrous effects on the health of the troops seem to have been lightly regarded. and we find little mention of the mordle of the trmps being lowered or their ardor damp. ened by such triftes as loss of sleep. rain-soaked garments or a couch of mud.

- Wrapped in his cloak. with his saddle for a pillow and the blue canopy of hearen abore him, the soldier dreamt of glory," sounde well, doesn't it? But try it, and see how enthusiasm will give way
© to depression. Subject your men to unnecessary privations-prirations that could hare been provided againat -and see their courage coze out at heir finger-tips.

What of the experience of our great Four lears' War? In the first two years four ranks suffered more from exposure and disease than from the epemy's fire. The birouac was more deadly than the bullet. During the last year of that memorable struggle we are told that the sfelter tent was in general use. Commanders found that while wagpn trains must be reduced, while baggage had to be
cut down, yet sbelter there nust be, if possible. The dog tent, at first despised, forced its way i to favor.

So far as the writer has obferved or ascertained, that lesson of the war wus soon forgotten, and the shelter tent fell into comparative disuse and neglect. It may seem hardly credible that an officer could serve in the cavalry on pur frontiers tor nigh a score of yearn without seeing any proper une made of the shelter tent. but it is true.

Within the last two years one troop of cavalry has given the shelter tent a fair trial. Before that time, neither the ofticer- nor men of this troop appear to hare had any adequate comprehension of the possibilities of this ardicle of equipment. The old style of shelter tent was the one used by us until 1895. As furnished to this troop, it was a miserable apolggy for a tent. The canvas was ot the strength and quality of flour. facks-little better thana sieve-athd open at both ends. The sheltor half was used as a wrapper for the blanket-roll; that.was about fall it was fit for. Each soldier was issued one of these rectangular pieces of cancas, without roper. poles or pins. If it were attempted to use pins, they were driven through the edges of the cunyas. Forked sticks, when obtainable. were relied upon for poles. The lariat could be used in the pitch. ing of the tent, to support the ridge; but the lariat should be kept available for its legitimate uses.

The outfit was a sorry mal eshift, and very few knew how to put it together or set it up. To the young recruit there was nothing about this piece of canvas to doggest any availability as a tent, and he was not told to so regard it; nor furnished with the meane fir making a tent ont of it; nor eas bis troop taught or required to $\mathbf{I}$ o into camp with shelter tents.

Young soldiers are carelea in matters of health. 'They do not feel, at the time, the ill effects of exposure; and,in the glory of their youthful vigor they thipk themselves proof against rheumatism, colds and fevers. Thes will not, unless compelled by their commander, take the trouble to guard their own health. A recruit who bas undergone the fati ues of a bard day's march is in $n$ () bnmor to pitch a tent of any sort. He will rather throw himself on the ground and sleep. Tye penalty for this sort of thing is not always prompt, but it is sure

Who among our cavalry pfficers has not noticed that so many of our cavalry soldiera are broken in health, prematurely gray, "skeletons in armor" at forty, when a man should be in his prime? How prevalent is rheamatism among troopers of less than twenty
years serrice. see bow stiffe Try the mounted gymnantics on these fellows and edge of many hardships and example for th knowing, but included in the

Let our ain be to train the younger ment to a better care of themselves unger emergencies. It seems to me a reproath on our service that of regulars have not been compelled to learn aud practice the usfof shelter tents, and that they have not been loner since provided with the improred outits now arailable. If the necessity and i pportance had been generally undervtood and appreciated, it seems fos though the improvements wold have been forth. coming : but I ruppose that mont of us emyself included) bave drifted along. ynreflerting and unobserrant of these matters, and have taken it for granted that these hardships were unaroidable incidents of mifitary campaigning. When our troopers hare been caught out, we hare been caught out with them, and wharing their discomforts we have not felt to blame, nor has it occurred to us that better protision tior shelter might hare beell usually at band and available.
soldiers sbuld be regularly taught how to pitch shelter tents. and practiced ih their use. Caralry should have them as a part of their marching equipment, to be carried on their horses. Even when the condtions of climate and nature of serrice and amount and kind of transportation are such as to warrant the use of such tents as the improsed Sibley. with stores and pipe, the shelter tent nutit should now be left off the saddle.

The soldier tho takes it for granted that the wagonswill alwayn get into camp fill have this delusion rudely dispelled; the cavalry. man who has afwaysattached to his saddle the wherewithal for food and whelter wil hare the laugh on the improvident comrade who thinks the Lorth (or our Cncle saycsl) will proride, the troops practiced in the use of hasty corer (whetber againat the enemy's munketry or the bearen artillery) will have cause to thank their officers for such training.

The shelter tent bas recently been greatly improsed. The soldier is now grorided with a really complete and serriceable out. fit, comprising poles, pins and fastenings. The jointed pole can be readily improrfd and strengthened by the troop blacksmith. This
outfit is not burdensome nof troublesome to carry on the borse The tent affords good shelter ${ }^{\circ}$ the two persons who carry its parts. It will gain in favor the more it is used.

At the weekly or Saturday inspections, whenever the troop turns out in full marching order, the complete shelter tent outfit should form a part of the field equipnent, and should be examined, and it. constant readiness for ase infisted upon and maintained; but in order that this examination caf be made withotat awkwardnesm, and in such manner as to really fipd out the practical efficiency of the troop, the raddles should be uppackedland the tents pitched for in spection. And this brings us to the necessity of a shelter tent driil for cavalry.

Drill is the teaching and thainiog pf soldiers to military dutichy frequent exercises therein. For the efficient performance of such dutiè preparation is necessanty. This preparation should be sy. tematic and thorough. Drill inplies system, method und repetition. K nowledge of military duties does not come to the recruit by intui tion; it must be drilled into him.

The methods of the drill cround have been extended, of late yeare, to subjects not formerfy elucidated in the drill books. W. have fire drill, and advance ghard drill, for instance. It has come to be recognized that these dyties should not be put off until the emergency arises, but should, e taught and practiced, and for such teaching and practice to be effiftive, there must be a regular system of drill.

Inspectors now call for the drills, aud they also require troups to pitch tents and break cam in their presence, and they make official report of the time take in these operations and of the sy: tem or lack of system shown. The tents used on these occasionare the shelter tents. Now, inforder to give a creditable exhibition. there must be previous instruftion, rehearsal dind attention to details. These details were not learned in the field or on campaign Thero the methods were bapbapard, the outfit inkomplete, the poleand pins improvised, and the onditions discouraging. lnspectorfound that the troope were, in pany cases, not prepared, by training or equipment, for any satisfactory exbibition of this sort, and that the officers did not know any system of practical drill for such an event.

Who bas moen any manua for shelter tent drill for cavalry? Manuals we bave in great varify manuals of guard duty, manual of signaling, manaal of field enfineering, and all that, bot we know of no instructions for the she fer tent. The perplexed troop com-
mander will not find what he wants in the cavalry drill regulations the form, not the substance, is there In paragraph in of the litte book, " Troops $n$ Campaign." we are told that "the form of camps for regiments of avalry and intantry will be found in the drill regulations of the streral arms." Aud in paragraph 59 it is enjoined that "troopm pill encamp in strict military order. ready at any moment to torm in order of batio or march. The front of the camp should bof or near the line ot batte and whould be equal to the front of the command when deploged in atrong batte order."

The following is the shelter tent drill as practiced at the inspece. tion of a troop of cavalry. To any officer who pratices it, various modifications whengert themselves according to the circumstances under which the camp is made or brokelt. The drill may be had near the picket fine usually in position near the troop stables; but if the troop has been turned out with tield equipment and tranaportation. the field picket rope will be available. The troop being mounted and in line, with the troopers knees about ine foot apart. the captain gises the commands for dismennting. Without forming rank.

By comman of the captain the horses are then uusaddledi Each trooper places his saddle on the ground. ahout one toot in front of his horse s bad. All of his horse equipments and his arms and accoutrements afe piaced on the saddle only the halter being left on the borse. ward and tie up (the picket line having been stretched about fifteen yards to the froqt of the troop in line)

The odd nupbers (front rank) lead etraight forward, crues the picket line and turn their horses to the left about, and tie their halter strapa aqout seven feet apart. The even numbers follow. leading straight forward to the picket line. and tie their borses in the intercals beqween those of the odd numbers. After tying up. each trooper walkn back and taked position, standing aboat one foot in rear of b/a saddle, and awaits orders.

By command of the captain. ("Unpack your blanket rolls.") each trooper upfastens the straps whicb secure the roll to the cantle, and take from the roll his shelter-half and jointed pole and pins. Without furtber command the odd numbers face about; eacb odd number tales one step towarda bis rear rank man and then bolds the two pieces of sbelter tent, while the even number buttons them together (along the ridge ools). This done, the two men take position facing each other, bolding the canras between them, grasping it with the right band at the ridge, while in the
left band each bolds his joifted poles, the upper end of which he inserts in his end of the tent, and rests the lower end of the pole on the ground, the poles vertcal. The poles are then accurately aligned toward the guidon. The front poles should be seven feet apart, and the ridges perpenc

At the command, "Pitch in position, while the even th the rear annexes of the tente takes position about one foot 10 the right of bis saddle, standing in the position of the soldier, ffing to the front, and awaits the in. spector.

The two occupants of eat tent will find their own horses are directly to the front of their prin tent. In the event of alarm this precaution will be found to bave been worth taking. As a matter of drill, it facilitates the quik saddling up which is a part of the drill; and it makes the line forses equal in length to the line of tents. If an inspection of an is desired, the men can be directed to "take arms," putting on their belts, etc., at same time.

For a troop of cavalry acthally in the field the following method of going into camp has been found simple and expeditious: The troop being monnted and in line, dismounts, and without forming rank the shelter tents are pithed in tico rows, Nos. 1 and 3 tenting together in the front row, an the even numbered men putting up their tents in the second row or rear rank.

The details can be easils porked out in practice. Of course the horses would be ansaddled wile in two ranks, and then led forwari to the picket line or turned lose for the herders before the work of putting up the tents begins.

The two lines or rows of tente would about occupy the same ground that the two ranks of horses stood on: and there would b. more clear space between ten s. Ditching should not be omitted.

To break camp: Strike onts; pack up, and mount.
The caplain causes "the goneral" to be sounded by the trumpeter
The men remove their pirs and.poles, unbutton the canras, mak". up the blanket rolls and pach their saddles.

The order is then given to "saddle up," or the signal, "bootand saddles," is sounded. The men go forward, ontie and lead back their borses from the picket lye and take position (stand to horse on the amme ground where th $y$ ansaddled (just back of their kite.

Then they take up their arms and accoutrements (putting on their belts and slinging carbines), and saddle up, first putting the. bridles on their horses. Afte saddling the troopers take the posi.
tion of stand th borse, align themselves toward the guidon, and await the sigual to mount. This ends the drill.

It is perhap well to mention (and the idea is by no means original) that officefe on campaign should not make themselree comfortable at the expense of their men: they should not luxuriate in terts and bedding and camp furniture and mess outht, while their soldiers are treated with scant consideration. Such selfishness affords just ground for diseqtisfaction. An officer can get along reasonably well with a shelter font and a soldier's field iness kit, and the example will not be loat on his men. If transportation is ample, let all be comfortable; but if baggage must be reduced. the reduction should fall on all grade.

It may be cheimed that an officer should have, usually, sufficient tentage for office work and for the protection of maps, papers. inatrumenta, and he greater allowance of baggage which regulations concede to an fficer than to an enlisted man. Granting this, let the tent be pitched for those purposes; but if the men are compelled to birouac, the officer should acorn to sleep in tbat tent. If they have but their saddle, it would seem hardly commendable for the officer to use a pattress or spring bed. If the prirates are crowded into dog tents, the officer should be reluctant to arail bimself of lodging in a house. These considerations. or esidenceis of consideration. have a positive effect on the morale of a command, and if the troop officerf sleep in shelter tents, the men will lose their arersion to them. ff the offers affect to disdain sucb accommodations, the soldiers wil hardly take kindly to them. On campaign, the example of selffenial by the officers has a powerful and salutary effect.
men who have no fear and can stick on ricious horsea would drift into these posifions, whereas the men desired are tbose who understand the corret principles of horsemansbip and training.

The caralry has dercloped a wonderful lot of riders; but the more attention and siudy that officers give to the subject of training horses, the more our shortcomings are visible. On no account -hould we attempt the European plan of separating the horses permanently into femounts, old remounts. etc., but recognize the tact that in war ne horses must be absorbed in the ranks at rery short intervals, and put to hard work at once. What we should do is to $\therefore 0$ carefully ofer all horses recelved and begin their training in anch a way;an fo permit of selecting and adrancing those that bave already been frained to the sadille, and well bitted. The young tour and five garold horses are not usualiy well bitted and gaited. and as they alonost incariably go through a course of influenza or -trangles soon after being put on the government allowance of torare. their traing cannot be pushed very rapidly. Training homes and teaching hen to ride properly are both rery laborious operations, which. a least in time of peace. should be presided over in - very squadroo by permanent riding masters.

Cavalry offere are not all expert inspectors and judges of horses, hut there are aloays enough competent men among them to pro. vide suitable manbers of horee boards. The cavalryarm has alwayn resented the taking away of this duty from its officers. and particularly the methgd by which this was accomplished, because they had no recourse. former years horse boards consisted of three carary officers; then arose the custom of detailing one, and tinally wame the pracice of so wording the quartormaster estimates for appropriationa as to secure the whole business in the hands of the quartermaster Department. The last appropriation for horses con. tains the now fustomary proriso, as follows:
"Horses mof cavalry and artillery: For purchase of horges for the avalry and artifery and for the Indian scouts and for sucb infantry ard members of the lloepital Corps in field campaigos ay tnay be required to be mounted, and th expenses incident thereto, twenty four thousand dollars: Prorided. That tpe number of horses purchased under this appropriation, added to the nupber on hand, shall not at any time exceed the number of -nlisted men an Indian ecouts in the mounted service, and that no part of this appropriatiof shall be paid out for horses not purchased hy contract after comperition duly invited by the Quartermaster's Department and an inspection by such department, all under the direction and authority of the Fecretary of War.'

It is obserped that all horses must be inspected by the Quartermaster's Depagtment, and only the number required to monnt the men in service when estimates are prepared for each troop, are to be furnished. When it is remembered that estimates for remounts are seldom tiled in six months, and applications for recruits are now seldom upfilled longer than a few weeks, the benefit of this provieo is not paderstood.

Tbe purcbape of borses has been entirely absorbed by the Quartermaster's Department, and the cavalry does the best it can with

LSE of cocalife in veterining scrgery.
That acienle is progressicu was fractically and humanely demonatrated on Monday lant. when a tew grains of cocaine replaced tive or six stronsp snitants, ropers hobbles and other torcible and pain. ful means of restraint, foriterly wo necessary in surgical operations on dogs, horseq.etc..ete. to protect both patient and attendant from injuries durin the former's struggles.

Captain F Co $\cdot$ n nerseg, for cotomy or excision of a few inches of his metacarpel nerses, for tho relief of an old standing lamenes. without any apparent knowledge of his being operated "font having shaved the parte and rengered them aneptic, for wenty four hours presiounly. A few drops of cocaine solution was injected over the metacarpel nerves on each sideand a tew inches abore the intended seat of incision. The orse stoot was placed on a bench and a tournquet applied to the fimb, the nerses cut down upon, exposed, stretched, and about tod incher of them removed. The operation is probably the most pain al $^{\text {in reterinary surgery, yet "Dick" was without re- }}$ straint of anyfort further than a man holding the limb steady, nor did Veterinaran Tracy attempt to protect himesta from injuries or ridence in an way whilst operating. "Dick" nerer even moved. Weare happyforecord the tact that in all painful veterinary operations performed at thin post by Ir. Tracy for some time past, the patient is first put under the influence of an anewthetic, either locally or generally, Professional irwiression hanalwaya been our veterinarianis mott keep up lhis food work. Doctor- Kegimental Standard, Eiglet Cavalry.

TCHO BRAHES MARVELOL'S LEAP.
Between 500 and 600 perions gathered at Mesmrs. Heinemans Bros.' Centra Park Riding Academy last Saturday afternoon to witness the atempt of their aged gelding. Tycho Brahe. to break the high jump record.

A week pqerious he had cleared seren feet one inch, and his "wners and rider. "Dice" Dosnemly. felt contident that the bighent honorn were whin the gallant jumpera reach. and they accordingly invited their friends and patronn, who invited their friends, to nee the record smashed. The best pertormance op to then was by the borse Rofeberry. sixteen hands and one-balt inch, who bad jumped, before a number of ruputable witnessee, seren feet six incbee, ridden by Tim Belong. with 140 pounda up, at Dufferin Pars. Ontario. Nex to this came the celebrated high jumper Filemaker's preat performance at Chicago, when he carried 170 poonds, with the late Tom Pott t up, over seven feet four and one-balf inches. A peculiarity of his great jumper is that be stands sixteen and tbreetenthe in frontfand seventeen hands over the quarters. He was seen last yearat th epring meeting of the Driving Club of New York at

Fleetwood, when he was shown ard put over a number of jump; by The well-known equestrienne,

Mesbrs. W. D. Grand, Fred A. McGibion were appointed ty men personally' measured the an porsonally measared the jumps both before and after euh attempt, there can be no posible doubt as to the accuracy of the measurements.

At 1:30 p. m. the horse was brought into the ring and Donselity mounted at 145 pounds. As a rarmer the bars were put up at five feet, over which Tycho Brahe phpped with ease. Then the strugstic -began. The bars were ráised to six feet four inches, and ufter being releared twice, were pat up to $4 x$ feet ten and one-half inches. In Higetting over this height the Horse stumbled, and both he and hi rider fell in a beap, to the gifat terror of the onlookers, who be. lieved neither woald ever rise again, so hard a cropper had thry come. But both were soon up, and, nothing daunted, ready for ai other try. Donnelly evidentl made up his mind to do or die, ami bad the bars put up to seven tellt six and one-half inches full, ju-1 half an inch orer the record. At this formidable fence the game little horse rusbed with all thenpluck possible. Orer went his for. legs, but there wasn't push eno gh behind to clear that part of hi, body. Again he went at the jupp, and this time, to the utter aston ishment of every one present, chared it in capital form. The cheer ing that rent the air when th crowd realized what it had seen beggars description. A nambe of the more enthusiastic spectatorruabed into the ring and bore the plucky rider aloft on their shoul. ders in triumph around the are a.

Tycho Brahe's biography blegins when he was owned by the celebrated turfman "Whitz Haf" McCarthy, and was then known by the name of Bay Rum. He it a bay gelding, nide years old, stand ing fiftoen and one tenth, and yeighing 900 pounds. He was sired by Billet, out of a thoroughbred mare. Mr. "Claby" Robinss. it the Brooklyn Riding and Drivi g Clob, bought Bay Kum from Mr. Cartey and gave bim hia prese $t$ rather atriking name. Mr. Franh D. BEasd, of Brooklyn, was the next owner of the horse. Mr Brard showed him as a jumpef at all the principal horse shows in the vicinity, and thed sold him to Mr. Robsins Woodward for 8200.111 . who shortly afterward sent bim to one of Mr. W. D. Grands allo. where he was bought by bis prgeent owners for $\$ 100.00$.

Riceard Donnelly, who rodo Tycho Brabe in his wonderful per. formance, is a thorough borse申tan and an extraordinarily daring performer over the jumps. H, began bis career on the flat, alli afterward became a leading 'choss-country and burdle rider. He has been a prominent figure in the jumping classes at all the bis and other borse shows for sevemal years.-The Rider and Driver.

ENTRAVAGANT LIVING IN CAVALRY REGIMESTS.
The receot fo-called "scandals" have directed a great amount of public attention to the style of living encourayed in those regi. menta which ar generally regarded by the aspiring roung soldier as affording the fonly worthy outlet for his military ambition.

A list of roungsters appointed to caralry regimente who hare revigned within two years of appointment. would be instructive reading. Many of them, no doubt, raluable and promising officers, whose expensir education has been entirely lost simply because they could not feep pace with their comrades in arms

A short timg agn an old officer, who some fint years ago was the brilliant adfutant of a distinguished cavalry regiment, wished w. get his son in o the old corps. He consulted the colonel, telling him he could ofly allow the boy fioll a year. but adding that be himself had dore very well on half that amount in his voung dars
"Times have changed," said the gallant modern (. O. ". Take my adrice, and don put him in unless you can let him hare a thou and " The old man was obstinate, and the boy joined. but in lese than two years fas on bis way to the Cape completely cleared out.

Would it not be to the adcantage of the arms as a fighting ma. chine if an officeta expenses were brought atrocty within the limit of his pay? Mapy young men in ciril life hare to live on flou a year and pay house rent. An officer has no house rent to pay, and cannot exist on that sum.

If an official topper were placed on the numerous unauthorized subscriptions, wich are usually merely the fads of senior officers or the exabersat pxtraragances of the juniors, and young officers really supported in their refussal to join in amasemente thes cannot atford, something migbt be done.

At present the order that officers must sign a written paper to the effect that he will join in any subscription, is really a dead letter, for what foung officer newily joined dare refuse to sign a plaper handed to him with significant hints from halfa-dozen com rades. The well known phrase: "If you cannot lire up to our mark, you had better make room for those who can." loses nothing by repetition in quable mouths.

A more modeqte atyle of living should be encouraged, and the young officers mpre carefully lonked after by their seniors, as is inne in both the French and German armies. The expenses of a subaltern in a creck cavalry corps in the north of France amount (1) 120 franca pes month. What a contrast to the mess bill of $a$ young bussar! Fhy should an officer be called upon to pay, say, tellof for a cbarge when be can obtain one which will do bis work enually well for 460 or $\mathbf{f 7}^{\circ} 0$, but which does nut please the eye of a fastidious commanding oflicer.

Infantry field bfficers merely require horses as a means of conregance. They trould be able to mount and dismount with ease and rapidity, yet fany C. O. will not allow a horse under sixteen
bands to be ridden on parade. an animal quickly, particularly able figare of the usasl British

The common spectacle on officer struggling to mount an dignified. For iofantry officers fourted camel is amusing bat un neceseary, and coet less then th necene abode of the modern subaltern, with its softly padded chairs. dow": cushions, crystal mirrors, and mossy carpets, with the Spartiai quarters of thirty years ago. The camp bed, the barrack chuir. gailtless of a cushion, the often grimy table, look like the furnitur of a dangeon beside the refinedappointments of to-day. Iuxuriuusarroundings tend to sotten a man and weaken his power of entur ance.

If in future the army is only to be for the rich, it will lose some of the best material for officers in the world - the sons of old officer(who are proverbiafly poor mon) whose ancestors have been sol diers for generations, and have banded down to their posterity the troe military instinct that has made the British Empire what it in to-day. Already these men fidd it difficult to compete with the wealthier classes in the expensfre cramming education required by army candidates.

They are filling the ranks of the cavalry, or crowding into fat away cornery of the empire, there they can follow and make a living by their forefather's calling. The number of officer's sonand unsuccessfol army students among Jameson's troopers is an example of this. It is a sad pity that all this oplendid material should be lost to the Imperial army, mainly tbrough the expensite tastes that have grown up in it.

Owing to the compression of instruction, consequent upon short service, soldier servants are rqquired for all sorts of courses, all bave little time to spare for their masters. A custom is therefore growing up of employing civilfan servante. This is an additional tax on the poor man, and it is needless to say he will receive scanit consideration if he continues to employ soldiers, notwithstandit, the queen's regulations. In eqpry army but the British, an officur can live on bis pay; why not in it, the most highly paid of all? This is the problem for fathers and guardians to solve.

Nothing but a rigorous putting down of extravagance and a ru turn to a simpler mode of life can save the officers of the British army from that deterioration in their professional intellect which is already apparent in their compdea of the cavalry branch. Either the commander-in-chief should psist on its being placed within the power of every offlicer to live on his pay in a manner suitable to his position, or decree that an allopance per annum mast be guaran. toed to every young officer before he is gazetted, to aesist in his maintenance. This is already the custom in the navy in the case of a midshipman. A regalation sucb as this would save many a splendid young fellow from rain on the threshold of life, and be a

How can a short man mount suth if he has reached the usual comfort. a ajor?
irthday parades of a stout, well-fell under-fed camel is amusing bat un. The camp bed, the barrack chair.


Imon to parende. -eriously, while Ponr men, as a rule. dioose their profesions tormer plod on at men regard them more as recreations. The for a change. a change. The poor man has much to lose, but hin rich brother is more taken with the magniticence and plory ot her majesty a aniform than a fythog else.

He peacock trom one campaign to another. picks up a medal here, a breset fihere. While to the pauper, who cannot afford the luxury of a perdonally conducted tour around the battlefields. is left the hard and dell work of instruction - the bitter knowledge liat another will ga her the fruits of his labors.

If the county expects its ufficers to keep up a position. hury muat pay for if, or they will not be faithfully served-Admurilty , ind Honse Gualls Gazette.

In all that c fort or conrenie This obvious fo i-pecially is $1 t$ Strange to say, exercise the fra rery handsome the fat of the 14 wne of educatio ridiculous mist however, of the goen towards d morally obligat

Eren in an cannot lise on b more expensive -tantial private is needed all rd become a crying fiass. It is cara although some

It is all rerg to elter the arm sufficiently rich equally bonorab infantry. This matter we find $t$ conrenience and trom the proper the good of the life there are

## CAVALRY EXPENSES

ncerne the army the good of the state not the comce of indiriduals. should be the paramount olject. adamental pribeiple is too often lost sight ot. and the case with respect to the expenses of officers. monget a large number of people - eren those who chise-there is an inpression that officers receive ay, and it is therefore believed that they "live on nd "at the cost of the ratepayers. Of course per. and intelligence know that is a melancholy and presentation of actual tacts. Comparatively few, better informed realize what a rery little way pay fraying the expenses-some actually and others ry-of an officer of the army.
onomical line regiment in England a careful officer pay until he becomes a captain; whilst as to the infantry and in all caralry regimenta a very nubllowance is indispensable. Reform in this respect and, but in the cavalry the tax on parente has evil, increasing rather than diminishing as yeare Fextraragance which is the theme of this article. our remarks will apply mure or less to infantry. well to asy, and it often is said, that a lad wishing is not compelled to select the caralry, and if not or that brancb of the sersice be should enter the e though cheaper and less sbowy branch-the is plansible enough, but when we look into the at as unal the good of the service is put after the wisher of the indiridual. Lookiog at the matter atandpoint, which is the good of the service, whas ountry, we find that owing to the cost of caralry few candidates for cavalry commissions that the
authoritien are obliged to admil the worst - from an examination point of view-of the competifors. Thus lads who are unable t. pass high enough for the infant y can nevertheless enter the caralry. Any one, bowever, who has studied military history and the art of war knows that althougb the intantry is the most important arm jet it is really less important hat it should be officered by well oducated and intelligent men, phan that the cuvalry officers whoulid be of the higbest clase. An pfantry subaltern, for the first few gears of his military career at all events, is only as a rule called apon to perform aubordinate and comparatively mechanical duties Moreover, he is rarely without the supervision and control of senior officers. In the caralry, on the other hand, the youngest second lieutenant may find bimself in tharge of an officer's patrol, and on bis appreciation of facts, knoufedge of his profession and intelli gence, depends the qualit of fis report. But on that report may possibly depend the decisipn of he commander in-chiefand the fate of the campaign. A cavalry offifer sbould possess a combination of moral, mental and physical qua||fications which is not often or easily found. The caralry officer is to a great extent nascitur non fit. Hence when so small a propotion of men possess the necessary qualifications it stands to reason that the area of choice should be as extedsive as powsible. What is done is precisely the reverw We allow the normal expenses op be so high that the area of choice is extremely limited; so limited indeed that the cavalry are compelled to accept the education dregs of the examination hall. Comparatively a man may be a ood, or an ignoramus on account of idioness, but be is accepted by he cavalry because the number of those who are rich enough to hear the expenses, and are neither fools nor ignoramoses, are too fow in number. Hence the intellec tually inferior man can oblain a ceavalry commission simply because lie is well off. The evil is incrdasing year by year for the landed gentry, and old officers whose nots have always been the most desir able men in a regiment are jeandy becoming poorer. Their places are now to a great extent filld by the sons of noucenux riches. whose parsen are often their sold recommendation. Their object ito obtain a social leg-up, to gojog themselres, to display their wealth and to swagger. Under the flimsy pretext of keeping uil the good name of the regiment hese mushrooms-or shall we say fungi-are the ringleaders in very description of extravagance. Tho colonels, some of them becaluse they are weak, others because they themselves bave been brought up under a vicious system, and others again because they knew that the late commander-in-chiet was nevor sincere in his profesfed desire to keep down expenses have done nothing to cbeck extry vagance. It is a cavalry principl. that the pace of a charge should never exceed that of the slowest horse in a squadron. This principle as regards the rate of living has been carefolly ignored in caplaly regiments, and it has been the rich parvenus who hare regulatod the scale of expenditure. Wi. maintain that this extravagance pas not only been rulgar, but detrimental to the service. As to the " money flashers," as they may be
alled, some of them would not, it is urged, enter the caralry if they were compelled to live like "a poor devil of a foot soldier." Well and good by all means let them stop out. Ther rarely enter the army for aly love of the profersion, and after a few years the cast excuse, rtusal of leare for a race meeting, marriage, or a further accessidn of fortune. induces them :o revert to civil life 1 good riddance io many cares.

Why should the cavalry be so expensive? A showy uniformand the cost of higt priced chargers may account for some of the large allowance declared to be indispensable. Both may be forgiven if that were all. a d a reasonable prirate income would suffice, were it not for other cases of expense. Apart from the cost of messing. which might be smaller without losing in refnement, there are the following items of expenditure: A regimental drag, wholesale entertainmenta, extraragant balls. lavish and indiscriminate hospitality at race metings, the keeping of race horses for garrison and regimental race, polo and hunting. All these are aboolutely un. necessary to the real credit or to the efficiency of a regiment. On the contrary, there is no credit in a body of offecers living beyond their means, ad most of these items of expenditure distract an ofticer's attention from the study of his profession. Polo and hunting are not of gourse to be condemued, for they conduce to good horsemanship, but one may pay too dearly for an advantage. and the silly extrar gance in the price of polo ponies places the game in the calegory of those in which the price and the profit are not (a)relatire. An to hunting, every aensible colonel, whether of intallty or carald. likes to kee his officers good crose-country riders, but here again fomes in the question of the cost of the advantage. In the caralry fit is laid down that, with the permission' of the colonel, a secon charger may be ridden to hounds. Commanding "fficers, boweve often object, and the riding master. perhaps with narrow views, and naturally anxious to chime in with the colonelis views, intervend. We ourselses consider that if a charger is not knocked about fon much be is all the better for hunting. This is not, however, the cavalry view, so the riding master says to the colonel: "I thak Mr. A.'s second charger is being spoilt for the riding-school by hunting." The colonelsnatches at the chance, and forbids Mr. A. it hunt in future with his second charger. Mr. A. in consequence bufa a hanter, but as he can only hunt twice a week with one borse and does not like to remain in quarters when his comrades are ging out, he bays two or three hunters. Cofortunately, even with economy in other matters, he cannot keep more than oone huntef unless his allowance exceeds $£ 500$ a year, so he either borrows fom the Jews or drains the paternal purse.

Wementiond $£ 500$ a year, and we beliere that in many, if not most eavalry reyiments, that is the minimum. Forty years ago $\pm 300$ a year auff ced. Now how many suitable young men of good lirth and positipo receive an allowance of $£ 500$ a year, especially in these hard t mes? The result, as we bave remarked above, is that the area of felection is limited, and the service suffers. A good
deal might be done by the goternment, at small expense to the state, to reduce the cost of life in the army, but nothing can be expected to be done as long an the style of living in the cavalry is as a rule so wantonly and vofarly excessive. The pablic are beginning to look on this extravigance as a scandal. and ask whether it cannot be reduced. We go further. We know that it can be reduced, and in the intereats of the service, the country, and real soldiers, we urge that it is the duts of Lord Wolseley to deal promptly and effectively with the evil. He knows perfectly well bow to act, and we trust that no fear of unpopularity with a certain class will induce him to foregd an imperative dury. - The Broat Arrow.

## FACTS ABOUT BARRACKS.

The opinion bas prevailed in our service that foreign troop were generally well housed. The following extmact would indicate. that our modern posts are palatial, as compared to those at some. very celebrated old stations:
"Any military man who has traveled in France, Germany Anstria, or other continental mllitary country, cannot hare failed to notice the snperior accommodation provided in the barracks of thoee nations as compared with the miserable buildings in which in some parts of the country we still house our soldiers. The recent statements made by the authorities showing. that they intend to pay more attention to this matter than hitherto, cannot fail to be received with intense satiafaction by those who take any intertst in the comfort and well-being of our troops. We trust that the good work accomplished in this respect of late years will be carried on atill more extensively and adequately in the present year. Sinct the old days when our regiments were split up into detachment.. and our garrisons were consequently small, it may contidently be asserted that whaterer sums have been expended for the land forcewere in a great measure muddled away and wasted. Aldershot, the Carragh, Colchester, Shorncliffe, and Pombroke Dock, with their very leakable and insanitary tuts - now being fast relegated to limbo-wil account for the greater part of the money thus throw" away, moatly, it may be remarked, in repairs-for a governmetm hat, like a royal yacht, is always in the bands of a carpenter. Meanwhile in our garrison towns, while the barrack department. like the local tax collector. has continually malcted the occupant, under their supervision, a very moderate employment of putty and a few coats of whitewash were the only returns bestowed. The unbealthy condition and inadequate accommodation of many of the barracks in this country bave long been enmplained of by conimanding ofilicers and our medteal anthorities, who have noticel what the war office anthorities bave ignored - that the militury efficiency of a conntry can never be perfect nutil the bealth of the soldier is assured. The sobject is, of a truth, deserving of much
more attention than has hitherto been given it. Here is our sug. sestion: In fianning entirely new buildings. and erecting the ame, we can dee no reason why rural. rather than urban, localities hould not be chosen, where our soldiers could be free from the contamination of the vlums and stews of a town. and located in districts afford ing the luxury and the profits of carden allotments, -uch as are not happily springing up in the agricultural waste lands of these islands. Immense ranges of barracks located in populous towns are a dkcided mistake. Land ia now, away from the towns, and "far from the madding crowd." cheaper than ever it bas been within the lan century, and with the development of our railway -rstem, strategic centers mipht be selected, when the sanitary condition, the confort, and the useful emplosment of our regimenta could be amplf prosided for. There can be no doubt that, generally speaking. pur barrack departments hare failed to do their duty in the past, hate not realized their responsibilities, and hare been the means of formous sums of public notney being wasted, and thrown, as it pere, to the dogs. Worse still. the reanti of this has been to the refions prejudice of the soldiers health. How many valuable lives, from the highest ranks down to the humbleat grades, have been los through the insanitary condition of barracks at Dublin, Shormpiffe, and elsewhere, it would indeed be hard to say; but it may safly beaffirmed that the number of lises thus wasted has not been inconsiderable. Fortunately, a better policy, inaugu rated by Mr. Panhope, the late lamented war secretary, has been carried on during the past four years, and it is our hope that this wiser policy fill be in the future carried out on even a more extensive scaly than hitberto. Tbere is even now considerable room for improrement in the sanitary conditions of most of our large barrack and in every one of the smaller buildings.-Admi. ralty and Hors Guards Gazette.

## BATTALION URGANIZATION

No infantry in Europe bas greater reason to be proud of their record than that of the English army. That at the greateat of all military epoch they should bare been pronounced by one of Napoteon's marshal as the finest infantry in the world. speaks rolumes for the excellence of that regimental system which corered our colors with so many glorious bonors. Now the success of that system was in the main due to two causes; first, the esprit de corps which it fosteryd, and, secondly. its suitability to the tactical conditions of the dat. When Crawford, at Busaco, "with a ahrill tone," ordered the Fopty-third and Fifts-aecond to charge, they mored like one man, led by their own lieutenaut-colonels; it was the regimental commapding officers who formed and held together the battalion squares gainst Kelerexan's cbarges all that long alternoon at Quatre Bra; it was the regimental commanding officers who formed up and dressed the thin red line on the further bank of the

Alma; it was at the order of its lientenant-colonel that that Higbland regiment at Balacluva receivedin line the Russian cavalry. Regri. ments of infantry in those glorions actions lay at the supreme moment in the grasp of their conmanding officer. Well was it for them that that grip was not only firm but familiar; well was it that the officer upon whom, in-the moment of danger, the soldier knew his life and hope of victory hung, was he whom in peace time be had learnt to regard as hit protector and leader, the supreme controller of bis professional deatinies.

But tactical conditions havet altered. Nolonger is it possibl. for the lieutenant-colonel to hande with his own voice bia battalin. in action. On him still rests toflan, to control, to launch into the fight the units of the battalion, but the execution of his orders h. must entrust to others, and it is to the captain, or, perbaps, even 1 ." the group leader, that the soldier must look for guidance in action To continue, then, the old system whereby the commanding officer was a demigod to the men, and the captain an ornamental subor dinate, is to put new wine into pld bottles with a rengeance. And yet the system still continues to this day, the colonel commands the buttalion in every detail, almost the entire work of the regiment idone by adjatant and quartermater, and the captain, except during musketry and field training, is bat a cypher. He issues his men' pay, he sees their kits are complete and rooms clean, he stands by the colonel's side at the orderls foom with open defaulter book anil inspects some half-a-dozen file on parade afterwards; but what work is this for a man of fifteen to twenty years' service, older that Wellington at Absaje or Napofieon at Marengo? He nees bis cou temporaries entrusted with grare responsibilities both in church al.. state, while he himself has no 中ore authority, no higher sphere of work than twenty jears ago, when, as a young lad, he was givell command of a company during his first leave season with the regi ment. Is not the endurance of such a system for ten months out of the twelve utterly dishearteping to any good soldier? Do not the beat men take any billet rather than be content with the uttu want of scope afforded by company work in quarters to any man who takes an intelligent interest in his profession? Do not mistake me. I am not making any slogfard's protest against the irksomeness of attending to delails, of seoing that the men's boots fit. and that their meesing is well cared for. All this every decent soldicr does gladly, but it is the want of something more, or some little share in bigher responsibilitien that makes bim fear that if he should ever attain command, blo moral energies will have become too cramped by long years of tondage to permit of his regainiug the power of independent action.

And jet no one will deny that it is essential for the efficiency or the army that the best and keenest officers sbould remain with their battalions. The days are gone by when perfanctory performanc.י of regimpntal daty would suffic. Hesven delivers the army from the spread of democratic ideas, fot the fact cannot be ignored that officers, in common with all others in autbority, must expert criti-
ciam; and the criticiem of the sergeant's meas and the barrack room is none tee less keen and shrewd because it cannot be proclaimed on the house tops. Further. too, there has been proof of late that the oficers cannot depute their responsibilities to noncommissioned dficers without discipline being sooner or later endangered. Thus it is that the rery best men are now more than - ver neded thr regimental duty-Admiralty and Horse Guards (iasette.

## THE ATTACK

An increasid the absence of hook. One of whilst in the G army corps com tive the troop: whjected that if be a want of unt ing alongside of another. Now in our riew one of the most important advantages derived from the absence of normal formations is the free band thus giren to commanders to practice their own i.leas in as mant rarieties as the ingenuity of each can devise. No attack formation bas ever been. or will ever be invented which can hee applied absolutely upona modern battlefield, and it is for this reason that the thenipt to lay down ixed rules has been abandoned. Infantry drill pescribes fixed principles for general guidance, but wisely leaves al internal details to the commanders engaged. If people would read their drill books more carefully and talk less, we hould get on fal better than we do at present. The drill book laya down that an at ack is to be delivered in three lides, and states the normal function of each line. It particularly points out the neces--ity for concent ating strength opposite the decisive point, so as to sive strength and endurance to the aseault. It also impresses upon is the great importance of reconciling frontage with numbers, and rinally descendseven to details, such as the advance in the general line, the adrance by rusbes, and the actual position to be assumed by the ooldier when firing. In a few words then we bave, if not a normalattack fomation, at all events normal principles sufficient tor guidance. these are:

1. The atta king force will be formed in three lines, or more, if very large.
2. The tirst fine attacks in a general line until the enemy's fire renders it necemary to advance by rashes.
3. The attadk is to be general and the assault local.
4. Erery unit is to cover a giren frontage suitable to its numbers.
5. The soldar may tire in "any position" until reaching decirive ranges, atte whicu, in the open, he must fire standing or kneeling

Leaving out fire discipling and other matters which rest upon drill, and are independent of particular formations, what more can any one need in order to secur all the uniformity that varieties of ground and intensity of hostil Gre will be likels to permit? Thior that oficer may have his of $n$ ideas as to the most suitable drili formation from which argiven force should, whenever possible, ex. tend for attack; another is a bpliever in particular theories for the postponing of disorder and supsequently creating "organized dis. order"; another contends that the advance by rushes should be commenced before the enemy' fire renders such tactics inoperative. becanse the rushes can thus befstarted in accordance with some sytem in place of being commonced automatically, so to speak, by spasmodic oraptions after the general line has been brought to a standstill. These and other id as become for a time the bobbies of individuals, and trial in practite leads to their being modified, im. proved, abandoned or retaine, according to their merits or the common sense of those who apply them. Whateser the general does his subordinates will be certaip to criticise, and if they do this in. telligently and honestly they cannot fail to benefit thereby. Aspum. ing that the plan adopted in a 中rill attack opon a particular position was really a bad one, and provd itself so to demonstration, it has even so been of service in teading what not to do-at all events ander particular circumstancee It must be plain to every one that in a battle the best that can be hoped for is that all the unitsen. gaged in the attack shall go straight for the points of attack selected for each with one common purpose, and finally reach their several

* objectives, if the enemy fails to prevent them. The circumstances will differ in every locality, and the tactics successfully practiced by one unit might froquently entai certain failure if employed by those next to it upon either flank, let alone by others at some distait part of the field.

We are quite convinced that the true principles upon which training for the attack sbould fe taught are those now observed al Aldershot. For drill purposel there is no doubt whaterer that. given a position to be attacked a carefully prepared plan of attack suitable to the occasion should begiven out for the guidance of all concerned, and the share allott d to each unit should be performed exactly in accordance with the fostructions receired. The very fact that bere and there condition will arise which demonstrate how real bullets would have upset be plan in certain parts, gives only additional ralue to the experimfont, because it makes people see thi reamon why, and thus prepares hem with ideas for meeting similar contingenciea in real warfare or even at maneuvers. Moreover, if an attack formation and scbem of operations, particularly devisen by capable officers for the attgck of a particular position, is foun 1 to reenlt in exposing the danger of attempting to work abeolutely by rule of thumb, bow mach nore apparent does it become that normal systems intended for upversal application must necessarily break down under stress of bittle. The problem to be solved in every attack is how to pass a filing line across the fire-swept zol.
with the least low to itself and the greatest lose to the enemys and :- consure that when the tiring line has reached clone guarters it shall have at its beels sufficient for ees to make sood the initial adrantages zatned by a we l-sutained ansalt in the pirner quarter. Erery porition will offot to the attack a variety of advantage and disad. antapes quite ifrepective of the couraise, dieciphtate or and shoot. mg of the detenters. Varions experhents will sugesest themselves arording to the geniun of commanders or the , ,herous promptinse . Ffered by ummi akable conditions of grount. atmo-phere. .le...and trom the maltitipe of different phans of atack oned agailst a large
 aefulhints for fobsequent applination in real memic warfare

The Brotd froce bav comsintenty. fir many yeary pant. con-

 erneral prineipls applied to a number ot difterent tields ot opera tions, for each of which a net plan ot atack i- tramed and obmerved This is the theor which now obtaits at Ihershot and we are unf. able to conceive fhat any better can be deared. It drill. individual theories should se bound in tetters hut under the tall understand. ing that at regula matheucers and in war fai license will be given 10all. By the "forner in which the tetter are hurst at matheuvers thpee competent o judge will decide up"n the merits . .t thone who tage allantage of their liberty- - The Briad Arrow

## A HFLMF:T FOR AI.I. ARMA

Lord Wolseid liroadly with th seems al hast to have made up hir mind to deal which the has apt unitiorm question. sta tar the molifications of wo doabt been if the righe directum. but he han evidently had betore him the hifnets neat whel he might disturb it he intertered too roughly with cherished thatitoms. however atourd they mizht te. He has. theneture, up whe present only nibhed at retorme. There is mow. lonqever to be a real beriminge a commithee having then appointed, upder the presidency of Major (ieneral Bernett. to hevise a patterngif headdress for home service which will be suit. ahle for all brancheo of the service, the Hounehold troupe excepted. The exclusion of the Guards is in order not to offend prejudices in high places. Ind ded. it is pretty certain that no interference with bearskins and hel hets would be tolerated by the august personages with whom the Household troopsare clocely asociated. There is wmething of coufe to be said from the economical peint of view againat a beadgear which costs till, but a hearskin lants a long time. and it is after all not so extravagant as it seems. Besides we are so accustomed to its presence that we have got waccept it tooth as sightly and soldierly, and as it ha- been urged that the esprit de c.rpe of the brigade would be imperiled it the men were deprived of their apecial dedcription of head cover. and an its abolition would
pretty certainly for the time ingpair recruiting，we can understata that Lord Wolseley found no preat difficulty in justifying the omi－ sion of the Guards in referende to Major－Gederal Bernetts com mittee．As to the Household caralry，it is understood that the mast not be interfered with．An attempt made a few years back i． abolish the expensive saddle－cioth was a failure，whilst the sugge－ tion that the front rank should be armed with lances as the Drag＇en， Guards now are，was nternly hegatived．But the Bcrenett com mittee will have a sufficiently wide field to work in withon： trenching upon the delicate quastion of the privilegen of the lloun． hold troops．Lord Wolseley han done wisely to begin with th． soldier＇s headgear．It is the rfyht end to attack．A soldier＇s herit －in the matter of uniform，of course－is his weakest point．Hi， feet are the strongest．The Brifish soldier in better booted than ans： foreigner．Provision is made that his boot shall tit him．This in literally half the batile．A man with a grazed toot canmot do his work．In the matter of sockn，the soldier is equally well cared for： and there is littlo room for implovement in these matters．But th．． lineaman＇s helmet in just what a noldier＇s head－corering should tur be．It is hot and heavy．Ite cannot shoot aceurately or（on veniently while he wears it．fometimes it is blue，sometitue－it is green，but it is always unsightly and unsoldierly，Then there is the busby of the Fusiliers－a Brummagem bearskin－which has all the inconveniences，but nome of the recommendations－uxrep that it is cheaper－of the bearskin itself．The K．R．R．and th． Rifle Brigade wear，it is true，a smart and suitable headdress．but it is of such recent adoption that there can be no sentimental ohjection to its replacement by something better．The retention of the High land bonnut was a few years back a question of high politics，i， was considered by the Cabingt，and we believe decided by th． Crown．The adoption of the plengary cap with the browel atit tall eagle＇s feathers was not listened to．and the order was giv：口 tin －the retention of the akull－cap with Egyptian plumare，not hectal－ it was Scotch－for it admittedly is not－but because the Hish landers bad worn it．We do not doubt that the committee will h．， averse to the retention of the bonnet，and Lord Wolsmaey will rury certainly accept its recommendation on this point：but if the chath is to be made，it must be in fator of a really suitable atil sighely beaddress．There is it seems to be but a single patteru．Wit． not sappose that it is intended that all arms are to be coveted alik： although the reference to the upmmittee may be read as suggentin－ thin．The cavalry will，we take it，bo－soparately dealt with，ath uniformity will not be easy eve with them．A lancer call scarcely remain a lancer without bis cap，or a hussar a hassar wizhout hi： busby，and then who can picture a dragoon without his helmu： The committee will perhaps mit upon a pattern which will wit everybody，but our imagination does not carry us to what this mas． be．It is not，however，our business to suggest a design，but of tin． committee to provide one，and we wish them gooll luck．T practical difficulties of the task which anprejudiced people are al
（1）recognize are ereat in thomselter hat hehimithere there is the ＂pposition of the prejudiced people th dual with．Fortunately the glestion of the foregnt headgear is settled．The white helmet is unisersal Perlaps it might be of a bether atape but its shape will dubltess be mod tied when the new pattern helmet for home sersice is settled We disume the bew he：algear will be a helmet，and if （ieneral Beraet s committee take．this view they will hase got half way througt their work．The reat will be a quextion of sbape． ．．rnamentation uph material But the real ditioulty lies not in designines what bay be but in aboliohine what is．The Highland twonet surviced forabolition－it wav actually abolinhed ten years ：ano－alld how id will be strengthened by the moral support of the Fusiliers ath those corps who are blesen with distinctive head
 which he has embarked；but in regard whin chancon wi success we
 ：he Ritle＂ap tor fopace．Why does mot Laml Watsener begin with rethrm in his．$w$ w house in the tirn plate athil abolinh the cocked
 Bron，Arrom

## COSACK（AVABAM

 －till under diecution in Runsia．Ia whe allif there is adrocacg of a erataal policy fot doing away with the olvelal characterintice of the Comarts．ad ultimately embndying the torce with the regi mente of the line while in the other the－pectal meritn of the＂lata －rom of athack ath of the irrequat tomations of the Cossacks． are loully extol end．It was ubler the bituence of the tirst order ot iflea－that copack restments were attathed to each caralry di－ vision．the hope peing that in anomiation with the regulars in drill and training．thy Cosack horneman wouhd ere lothe insensibly con． form to the cavatyman of the lithe ath that the national atyle of timhtinge which many belice to he wholly umsuited to the conditions set up by the int foduction of magazine riftes and smokeless powder． would soon hese fits popularity．The reault has scarcely answered expectations．The Coseacks have to mone extent lost their national military charactofistics．but they do not themselves fully appreciate the adrantages of the change．Their small horses place them at nuce in a totally different position in regard to training from the resular cavalry，and hence the impresion is ripreading that the Cossack．approx mated to the linesman，is a Cossack spoiled，and that he can mako but an indifferent trooper of the regular cavalry －The Army and Vary razette．

A HINT TO UFPICERS
Whin is the proper permon to $"$ bell the cat in the case of able． rallant and distibguished officers．filing high and sometimes rery high military appointments，who show themselven to be unacquainted
with the rudiments of military equitation? For the commander of any unit, whether it be a division, brigade or battalion to be afflicted with mal de cheval, cannot but, have a prejudicial effect on those ser ing under him, and might, under conceivable circumstances, lead t. very serious results. Of courseft is not necessary that every mounted officer should be a finished hasseman; but on the other hand it iextremels desirable that he slould be more or less at home in the saddle, and capable at least of "sticking on" in any ordinary emer gency. A sensible offleer whofinds himself, no matter at what time of life, affleted in this unforfunate manner, should not hesitat. longer than he can help in doipg two things: First, he should pro vide himself, with a thorough $y^{\xi}$ "confidential" horse, of mature years, ripe wisdom and gentle nanuers. Secondty, in justice both to himself and to the service, be should proced to go through a course of riding school, either in the garison to which he belongs, or-if he prefers it-away from the haunts which know him. It the will not tuke any such action of his own proper motion, no con. sideration of politeness or delifacy should restrain his immediate superior from at once giving him a hint. and if teresary an order. to the required effect. The fonegoing remarks de general and im. personal; nevertheless, it may be added that thed are prompted $\cdots$ a case in point which amount to nothing less than a scandal at a cortain large camp.-The Broct Arrou.

## DEPARTMENT SERVIGE IN THE BRITISH ARMY

The difficulty of securing the services of suitable officers for the departments of Her Majenty army, both at hope and in India. ia matter which deserves the prious consideration of the military authorities in both countries. It goes without saying, that suri, employment is not favorably reparded by the maj, rity of regimental officers, who have been taught to look on the regiment as the sum mum bonum of military life. We result is that fany, who would become candidates for appoint pents in the departments, were mat. ters otherwise arranged, refrap from sending ip their nanes. ". their own detriment and that of the sersice generally. The projndice against altra regimentai enfloyment-a relict of the old civilial. departmental days-dies hard but the sooner if receives the coly de grace the better will it be fol the service. The authoritien hatir it in their power, by a judicions improvemene in the conditions.", employment in the department, to render them a tractive to officergenerally, but they would do w $l l$ to remember that although bigher pecuniary emolument is neces ary for special wopk performed, it in not the only item requiring copsideration. The fask should not h., a difficult one for the present opmmander-in-chiet and his able lieu tenanta, who must be desirous pf putting an end fo a state of affairwhich is regarded on all side as eminently unqatinfactory.- The Broad Arrow.

## TAXATION OF IN(OMR:

The taxatiot branches of the considerable hars is essentially an requard it more a limits of the Trnil a naval officer Maining that wh master of his ship urders, and unles
it it difficult to it is difficult to she onable that the one perhaps -may be anked. Is it wholly rea rery like asking of offers would be taxed? To tax them in them to hedp pay themetres. The income tax is csentially a way tax, and arely it may in common fairnese be regarded as a civ lian contribution to the maintenance of the army and nary The pay of officers is notoriomsly small, and quite inad. -quate to their fronal requirements Ofteers for the mont part are unable to expreine the tranchise even, it they posecse it, so on all ground it secminoly a right and proper thing that the nation -hould not requirt themin this very secial manner to contribute to the maintenalce of the werrices to which they belong. - The Rriagl Arros

## BOOK NOTICES AND EXCHANGES.

Tactical Studies on the Baptegs Abound Plevne. Thili. .... Zotha. International Military Series. Hudson-Kimberly Pablishing Company, Hansas City, Mo.
This volume is a translation by First Licutenant Carl Reicl. mann, Ninth Infantry, U. S. Army, and this is the first time then. studies have been made avaijable for those no conversant with, German. American officers generally were made familiar with the Rassian campaigns by Greene's excellent writings, but these studicentor ipto details which may be most profitably considered by the military student.

The operations of the cavalry under General Leshkareff, and later under General Kryloff, are opnsoliduted in a dirapter with com ments. The task of the Russian cavalry a as to prevent reinforc... ments and supplies from reaching Plevina. The caralry made .... vigorous attempts at accomptishing this by offensive operation. and the very weak defensive attempt failed completely. The suc cesafol convoy of their large fupply train into plerna during the siege, in the face of Kryloff es cavalry corps of 0,000 or 7,000 . wir most creditable to the Turks, and equally discreditable to the Ru.. sians. As the author pertinedtly remarks: "If the entire aftiair coald be repeated, with the difference of hating Skobeloff .or Gourko at the head of the cavalry corps, a comparison between thir action and that of Kryloff would be as interest|ng as it would li. instractive."

This work, as well as those which have preceded it in the seric. has been edited by Captain A. L. Wugner.
The National Military Hark-Chiceamarpa-Chattanooia By General H. V. Boynon. The Robert Clarke Company. Publishers, Cincinnati.
General Boynton is eminenkly fitted for the preparation of this volume, for be has been a caueful student of the Civil War, anil especially of the campaigns of the Army of the Cumberland. He is a member of the Park Compission, and its authorized Listoriau.
[he labore of Gifneral Bornton have had much to do with the -nceess which basfeen achicred in the preservation and marking of - he historical grof mil about (hattanooga. His services will receive :he retitule of foming generations. for when all the actors in the -reat dramas enafled there have pased away their dencendanta will panse with corent mien at the monuments that spak of hede beside whif thove on the tield of Waterloo are as mothing.

The feature of thingreat park, which will grow in interest from year to year. in the it War in are the III by such portiof within the limit-beacription- of tic ㅇoticers who ma "pen the tield of all whom tiortune

The Yeloowton Natlosal. Park. By Caphain Hiram M. Chit. ienden. authority granted by Congress to the secretary roanda for military mancucers. to be participated of the forces an the may wind to assemble there. current appropriations. The mapand detaled eral Busntun - book will be particularly valuable In fiture be ordered to participate in mabeuvers hickamanga. and are well worth the gerasal of nay not facor with a tour of duty there.
cenden.
There is not it all that is rare the beatiful and curions in the way of natural acenery :S that included fithin the boundaries of the Yellowstone Park It is impossible for any pen to fully describe the wonders to be Wund there. but faptain Chittenden's book goes a long way to. "ards accomplish nge it. He pays a just tribute to the early pioneers of that rkion, whowe marvelons stories were regarded as fure romance, and many years elapod before the public generally could be concince of the reality of the grand cafoon, whose yellow walls gave a nam w the whole region. The book traces the histury of this region from its discovery down to the present time, when it is complegely under the protection of the general gorernmont. Owing to the rapacity of soullest trappers and skin hunters this protection hat been often unsuccessful, but improrement has sone on steablily. find the ure of cavalrymen in connection with a Eralual formationg a healthy public opinion, will, it is hoped. be the means of atfor ingample protection to the animals and curiosities of nature seat ered over the park limita and adjoining country.

The popularity of the tour to lellowstone Part has been in--reasing of late yars. and the more a knowledge of this region becomes disseminated the hetter it will be cared for and improved by the government.

The Ofpicer's (iyide to Campatgsing Equtpments. By I)udey Seagrim. Rqual Artillery. Gale \& Polden's Military Series, Aldershot.
The aim of thi rmient methods of prgviding all necemsary articlea in the event of any nudden summan to proced on active sersice, the exigencies of
which, in the British army, inchle temparary rovidence in every variety of climate.

Under the heading of "Med Wines" appeart the following: "Whiskg. Allowing for hospitaity, reckon one bottle for five ofti. cors at least; if poseible, allow one Jourth bottle pes officer per dien 'ruke as much champagne as possible after providingenongh whink!

Posie; or From Reveille to Hetreat. By Mrs M. A. Cochral Published by the Robert olarke Company, Cincinnati.
This is the work of an army fficer's wife, whote many experi encen are recited in the various dipapters. A slightidea of the dan serous and oflen humiliating dities of the recondtruction perin. may be obtained from the Florid experiences, but fit is difticult tin. any pen to dencribe what army ladies put up with in the Far Wi. during the perilous Indian trouples of a few yeard ago. Therr is one chapter in the book which more experienced writer mith readily bave woven into "The pomance of an Otd Tronk." wit but little necessity for drawing of the imagination.

The Military Schoola of Europ and other Papens Selecteip mp Publication. No. 9 of the publications by Wie Military In formation Division, A.G. (f
This is a valuable number throdghout. The transhation of Colonel Carlos von Banus' puper on "Sndokeless Powder," which receiven so much attention when it appeand in the United S\&reice Mryorin. is well worthy of preservation, and should be read by every line officer.
Pbocezdinge of the Royal. Artileery Institition
June, 1896: 1. A Visit to Perkia, by Major J. F. Manifold. R. A 2. Artillery From an Infantry (䏹cer's Point of Vew, by Captain N. p. Beleher. 3. Francoin de la Rochefoucauld, Mater-Gineral ${ }^{2}$ the Ordnance in Ireland, by Charlen Dalton, Fso July. Is?i 1. Ammanition Colamus and Pafks, Considered With Referenee ${ }^{\prime}$ the Replacement of Ammunitiof, Hories and Men Durint at After an Action, by Captain J. F. Cadell, R. A (gold melal essay 2. Same Subject, by Licutenant (i. F. MacMunn, D. S. O., R . (ailver medal essay). 3. Sume thabect, by Major E, S. May. R. A Augunt, 1896: 1. Alterations of the Clothing of the Royal Arti. lery in India, by Colonel A. B. Stopford, A. A. (i. . . A. in India 3. The Chino-Japanese War, by c plain N. W. II. Di Boulay. I? A 6. Letters Written by Licutenant General Thomar Dyneley. (: 1: R. A., While on Active Service, 1 \&0;-1815.

The Maine Bugle. July, 1896.

1. Extracts From the Unpublished History of the Thirteemit Maine, by Edwin B. Lupkin, Co. "E." ?. Four Brothers in Blue. M Captain Robert Goidtliwait Cartdr, IT. S. A. 3. The Peternmie

Mine , Major (iver Chriatian Bonlowhell 4 My Firat Experi-



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1. The Military Hoxpital- at Bethurhem and Lititz During the

 189a, by William Saker 4 Fixtracts From the Letter Book ot Bonjanin Marsham. 1763-1-tifi, hy Thoma, stewardson. 5. In,

Captan Thomal llolme Surverordeneral of Pemmelvabia and
 Penosylvania
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2. Saval Appratices: Inducements. Finlintins and Traming

 hy Hon. William McAdoo, As-intant serretary of the Nary
 ludley Pouder Píqumatic Gun Hy Hot Howard P. Elwell.

3. Ten learm of Kiot Duty by Majir Alexander ㄹ. Military Alministratione br Lieutenant Alien 3 . Changes in the charac tury of War by Capain Chester. \& Infantry Attack Formations
286 BOOK NOTICE AND EXCHANGES.
by Captain Lejden. 5. Discipline in the Nationd fuard. by I...
 Lieutenant Blak tenant Gray.
Sources of Information on Mhlitary I'rofessional ítbjetts $\therefore$ 10 of the pmblicationm of the Military Intotation havion 10 of th
A. G.


## UNITED STATES CAVALRY ASSOCIATION.

inl. IX.

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No. 3

$W^{\text { }}$
THF gCREENISG SOTY of r.AV.MLRY
 much need fior caralry as there bas been in the past. It would seem that those who make this statement fail to appreciate the adaptability of modern caralry to any phase of wartare. A case cucurred in our Cifil War where caralry attacked and drove off a gunboat, not by a Don Quxote charge, hut by diamounted fire action.
Colonel F. C. Taence. in his work. "Caralry in Mudern War," miys: - "It is merefy ropenting a truism. to asy that the erents and experiences of regent campaigns have conclusively whown that owing to the increatred range and precision of modern weapons, the unefulnese of the deralry arm on the actual battlefield bas been much contracted. This diminution of its usefulness ins, however. by (c) mon consent, afoply compensated by the strategical advantages secured by the wide range of doties and the increased sphere of independent action which (as the Germans began to find out in lino) cavalry can fe trained to carry out."
It was not ontif the War of $1870-71$ that cavalry was used to
form a screen in front or in teur of an army. In the war previn. to that, 1866, the Prussians petached but a singlo caralry divisini, to each army concentrated in Silesia and intended to cross the: mountains iuto Bohemia. fhese divisions were prdered to keep in rear of the armies until aft they bad crossed the mountains at:id passed begond the broken ppuntry. As a resuly they remainet it, rear until after the battle of Röniggratz.

Owing to the great increase in the size of arnifes, early informa. tion of the enemy is more necessary than formerls, in order that the army may act as a unit, and $t$ is the cavalry, and the cavalry only. that cun gain this. It is the cavalry screen that keepe its army informed of where the enemb is and what he is doing. information. that is indispensable for eith $r$ offensive or defensive operations

The most important recomoitering and patroling, as well an the most important messenger dyty, falls upon the acteening squadrot. It is not too much to say thit this is the work par excellence in eavalry in the future. Caphain Wagner. in hid last work, sis. "It implies no disparagemen of the value of cavairy on the batle. field to say that the most ipportant service of mounted troop is in that cluss of duties know as detached action, for on this acti... the salety of the army and the soundness of the plans of the com manding general mainly dep nd.'

The two requirements of the cavalry screen are (1) to find uit what the enemy is doing, or intending to do; a a ( $^{(2)}$ ) to prevent him from gainiug similar formation of our amy. To acoms plish the first requirement to cavalry screen mupt cover the whine front of the army, keeping i touch with the enemy wherever it is gained, and even pushing on beyond the first of hin troops to arcer tain the movemente of the layger bodies. To accomplish the secom requirement the cavalry scred must ecout througly all the countrs that could conceal even a salfall patrol, and must be dense conoush to be able to push the enemy back by force it need be. In the rim case, dash and boldness are fasential; in the second, more caution must be exercised. The nat $\frac{p e}{}$ of the operations, whether offensite or defensive, and the charact $r$ of the enemy, whother bold and en terprising, or timid and slot ful, will determine fo which of thew two objects the cavalry screpu will give first copsideration. The War of 1870-71 was the first and is about the ondf one from which examples of this character of operations can be faken. The lier mans performed the first of hese duties, riz: paining intormation of the enemy, to perfection, put had little or no occasion to make the second duty of primary importance, while the French were dermanadrance

The density of the screen and the extent of the front to be occu. pied are so clowly connected that they may be considered at the same time The will depend principally in the character of the country and the proximity of the enemy. In an open country, ir when remute from the enemy it will be thinner than when in a dense country of in contact with the ellemy. When the second dierman army was adrancing into France in lnfll. wo cavalry di. sowions formed the screen. one in the front and one on the exposed fank. Thus ninty-aix squadrons surroumded this army, torming an impenetrable creen, concealing ali mowements from the Frewh and keeping the fermans well informed.

In general it may be awlumed that in a tolerably open country a cavalry regime t will be able to cover a front of from tise to seren miles; while in close conotry, or it in close contact with the enems, it will not be able to occupy more than one half or two. thirds of this dinface. The distance of the cavalry acreen is trom one to two days farch in tront ot the army. The sicreen mast of - minse cover the fole country, but the main bodies, or squadrons, will more on patallel roald. The details of the work for ane Muadron apply uf all.

The commandine ufficer of a force of thi character will have himabilities put th the severest test. He must be a man of unusual werty and perecerance. be must be bold yet discreet; of pood pactyal judgnen, and mu-t appreciate the powno and limitations of hit men and porses. He must be a strict disciplinarian to prearve order and revent pillage. Being the firat hoatile troops to pasm, there will be much to tempt them; there will. therefore, be need of a strong fand to control them, with power to make aum. mary punishment The troops under him must be self-reliant and intelligent to a man. Posesssing these qualities to a marked degree a* they do, our Aherican cavalry would be unusually well muited th thit duty.

On being sent qut the squadron commander's orderestould corer the fallowing pmints: The road or direction be is to follow : the extent of front he is to cover; what force (if any) he is to connect with en eacl, flank, or how far be is to operate in that direction; he should also be informed of all that is known of the enemg. A littie information of thif kind may eave him a great deal of unnecessary "ork. or enable him in gain valuable information that otherwise mishei not be obtined. The commanding officer of the squadron
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should in torn coufide bis onders as far as consistent to his subal. terns, so that if anything happens to him the mission of the squad. ron can be continued intelligatly and without interruption. This principle applies to every officer and man of a recdanoitering party. each should know the mission upon which the party is sent, and the means by which it is propose to accomplish it. The most stupit man of the detachment may pe the only one to get away; he may. oblain very important information that would not strike bim with full force bad be not been $d \boldsymbol{l}$ y instructed in adtance. Moreover confiding this information to pe menwill make them take a deeper interest in the work, while there need be litule or no fear of their betraying any of it. The commanding officer should be furnishent with the best maps of the equntry obtainable. and those showint the greatest amount of detai use, and in fact almost indispe

The main body, or resery, of the squadron will keep on the main road, the reconnoiterin, being done mostly by patrols. The movements should be carried but with as much secrecy as possible. the enems or even the inhab章ants of the country getting carly in. formation of the presence of ge squadron may secrete that which is sought. When approaching towns it may be pecessary to leave the roads and keep under cofer, that the entrance into the town may be noexpected, and tha whatever is of ralue ut the railroai station, telegraph and postofffes, may be captured before it can b. destroyed or hidden. Infornation will mostly be gained by the ocouts and patrols, and bere the intelligence and, daring, temperel by discretion, of the individua soldier finds its fult ralue.

Baden Powell says that ffor a good acout we want a man who. is a good rider, has good eyesit ht, who is intelligent, and has a deal of plack in him." Scouts anf patrole should bare it deeply im. pressed on their minds that peir dity is to gain information and not to fight. They sbould pepist itrtheir effort long enougb, if necessary, to provoke a fight, pad then run awat. By staying t. fight little or nothing can be phined, while everstbing mas be loat. Tye patrol commander sboul begiven a sketch of the route be i, to take, for no matier how roulgh, it will be more of a guide to biln thad all the verbal instruction that can be given.

As to the strength of patrile, De Birnsat; in The Conduct of a Contact Squadron," gives the following: "Some patrols cannot be too strong, vig: those that ary intended to fight; but these will lie fow, while others cannot be too weak, viz: those intended to sec. To make theee latter unneccsarily strong depletes the main body.
and overtaxes the men and horses. To reduce this last evil to a minimum the cdmmanding officer must often resist the temptation to send out a pat fol unlese there is evident necessity for it. and when sent out it must not go farther than need be to accomplish the purpose.

In sending ont patrole while on the march the leader should hare careful ins ructions as to his route, where be is to rejoin the cummand, and what be is to do in case he meets the enemy. A -rstem of signal should be arranged so as to facilitate the trans. mission of infornation. No party, howerer small, should ever balt without posting a lookout man. and if it is the equadron balting for any length of time, two or three ridettes should be sent out to prominent point in different directions.

In mending oup a patrol the commander should make due allow. ance for its meeqng with difficultien which cannot be foreseen, no that he will not expect it to return at an impracticable time or Hace. His anxiky to go on will be likely to lead him to think that two much time it being owrupied in the pertormatice of a minor duty not carried qut under his own observation, and be may become impatient and impose censure where praise in justly due. It requires the best of judgpent and experience to know how and when to make these allow ances.

On the other fand. the patrol whould obey ite orders as literally as possible, and fot go off on a digression of its own unless made necesary by erfnte of which the commanding officer could not know. If the pafrol does not return at the specificd time or place the commanding pfficer will always fear the wornt. riz: that it has met the enemy i certainty would whole squadron t me up. If it becomes neceskary to go on with ppointed retarn of the patrol. a man should be left at the appointed rendez $\begin{gathered}\text { ous with instructions for it when it does arrive. }\end{gathered}$ Failing in this the patrol will infer that the squadron has been wbliged to retreat or make a detour before a superior force of the enemy. This is pobably the most difficult and perplexing situation in which a patrol can find iteelf. Uncertainty is the most difficult enemy to contend with. Not finding the equadron or any one to direct them to it, he patrol should not take fright, and beat a precipitate retreat. It is still out to gain information, and the men must not let their bun eafety become the first consideration. A rafe Wan inight be to sfrete themselven and await developments. making sure of an arenuefor escape in case the enemy appears in greater
force. Later on, if it appear necessary to retreat, it should be along the general line of adrahce, keeping off the roads and under cover as mach as possible, fol fear of falling in with the enemy before which the squadron may have retreated.

If a patrol is pursued by a force superior to that which it can fall back upon, it sbould retreat in some other direction, so as t. divert disaster from the supp rt, too. This latter may be able to attack the pursuing force in flink or in rear, and beat it off.

Spies sent out in front of be adrance patrols would be one of the most fraitfal sonrces of ifformation. If the enemy has been retreating, the inbabitante of the country will know a good deal about bim which they will telf to a spy whom they do not suspect. In the absence of these spies the patrols will get such information as they can from the inhabitants, even using force if necessary, or carrying off certain ones as prisoners. Every posible use should be made of the newspapers of the hostile country, though informa tion obtained from these candot be considered reliable until veri. fied. The records of telegraph offices are one of the best sources of information, atit they shonld be seized whenever possible. The mails will often farnish information through letter from people in the vicinity of the enems. Obtaining information from there eoarces, viz: the inhabitante, papers, telegrapbs, and letters, callattention to the importunce of knowing the language of the country Every officer with the squadron should be able|to understand, speak, read and write it, an if this knowledge is carried wtill farther to some of the non-cor missioned officers, it will be a great assistance. If only one officer fife squadron $k$ no申s the language, people, letters, ete., must be talson to bim before they can furninh any information, and a clew that might be valuable may be worth. less after this delay.

Once in contact with the enemy, it mast be maintained at all bazards. If the onemy is not aggressive, this will not be difficult. though the work will be franght with more danger; but if the enemy is strong in cavalry, ald aggreseive too, tide work will be very difficalt. The squadron ngy have to hide, change its position at night, or even retreat, bat it must always keep itself informed ot

- the whereaboats of the enemy. Patrols and scout\& will then bave to exercise greater caution and secrecy to prevent their being cut off and captured. At this tinfogreater precantion must be exercised as to allowing the inhabitnots to pass, particu brly those goin! towards the enemy. Much inf rmation can often be obtained from a prisoner or two, if they can be captured; learning what regiment
they belong to, fand knowing where the regiment was last heard of may enable cal able deductions to be drawn as to the direction or character of the enemy's morements.

The commanding officer aliould take every opportunity to reflect on what he has learned. and what be will do: but while forming his plans he mut not become so possessed with them as to be disconcerted if fack do not conform to them. He should have afficient fertility of resource to form others at once.

A screening squadron will be able to carry only the least possible amount of baggage, often mone at all. not even rations ." forage. These fill then hare to be collected as they go alolis. This consideratoo, and that of sbelter. will generally make it adrisable to carpp at a small town if the march can be so regulated. The necessary fupplies are penerally requisitioned, though they may hare to be taken by force. This burden would be a very proper one to mpose upon eren the peaceful inhabitants of the hnstile country In a friendly country the commanding officer should be authofized to give vonchers for whaterer nupplies he gets.

In the German service they aim to pay for whatever they get and the squadron commander is even furnished with money for this purpose. This fas the adrantage of making the inhabitants much more kindly diposed. It is advisable nut to provoke the hatred unnecessarily. for they bave it in their power to give much trouble hy giving false finformation, giving information to the enemy, or even by capturing or killing scouts or messengers.

Screening duty is one of the most trying for men and horsen Loss of rest. scent fond and irregularity in the supply, together with the long days of hard work, would wear out the men and horses in a short time. Those squadrons which are in the front of the screen, and fon which the brunt of the work falls, should be relieved at least orery three or four days by squadrons in the reserve of the screening force. It wou!d hardly be to the best interest of the service to refere them every day, as it would entail a good deal of extra marching back and forth, and a new squadron could not push the work as well the next day as the one which hud been doing it the day before

Tbe squadrod should generally be in the saddle by daylight, which means get fing up at least an hour before, and the day's work should not be cilled done while there is daylight to continue it. In order to facilifate an early start, breakfast, except coffee, may be prepared the night before, so as to need warming only. The midday meal will geperally consist of nothing more than such lunch as
can be carried in the saddle-bass, and it will often be late at night before supper can be prepared especially when the food has to 1 e requisitioned or collected. Th men should sleep with their boots on, and their arms and ammunilion belts at their sides.

The days will generally be ong and trying forthe horses. and the nights possibly more so. They may fare worse than the mell for food, though if possible thfy should fare bettet. This would depend largely on the characte of the country. Intan agricaltural country, or one where horses re much used by inhabitant. there should be no scarcity of forage, while in a wdoded or barren country there probably would b. The horses shouldiremain saddlud all night, simply loosening the cincha and remoring the bridle. On arriving in camp at night, and at the longer halts during the day, the officers should examine the horses' feet, legsiand backs, yul see to it that any injuries receir prompt care. At night a few men at a time may be allowed to re nove aaddles and gioom, replacing them immediately after. The orses' legs should be rubbed even if they do not show injurs. of course any loose shoes should he fastened on, and any that bure come off replaced. A duty of thin kind is calculated to impress uppn the caralryman that his borse is of as much, if not more, import nee to him than his weapone.

As previously stated camp ohould, when posaible, be mate in th. ontakirts of a town, where shoter may be had fot the men atui horges, for a night spent out inf the rain is very explusting. Eath, man should sleep near his horse and the men of a tioop or platool whould be kept together, the officer commanding remaining with them. If the equadron in at all scattered in bivodac. a rallyint point shiould be designated oufside the town, to be ased in case ol an alarm.

Of course the camp should be properly guarded by sentinch Cosmack posts-three men and a noll-commissioned officer-will generalls frake this duty as light as possible. Thẹ commandity offeer should bear in mind that he is only guarding pgainst a force of aize enough to do him materfal injury, and any spch force will be detected by a tew posts judichously placed. A chaith of sentinel. should not be posted with a rie to keeping out individual scout. or cren small patrols.

Having considered the subject of collecting infortnation, it now remaine to consider that of trans nitling it to the rear. It a friendly country, or where the reconnoitefers are linked to the main body by connocting posts, this appears asy enough. Bat if the enemy', country, if the reconnoitering lodies hare become ompletely de.
tached from the division. the diffeculty begins as soon as some ten to thirteen mile have been attained, and it increases with the distance. It is quete generally accepted as a fact that relay posts are impracticable for the reason that neither the main body nor the squadron is in position to furnish them, and it is imposeible to keep up the conhection owing to the constantly cbanging positions of the two. :

The adrancages of transmitting messages by telegraph when practicable are manifold and manifest: there would be no loas of men detailed as fouriers; much saving of fatigue to men and horses; infinitely greatel promptness and certainty in transmitting reports and receiving olders. It would be but little comparatirely for a courier to go balk fire miles with a report and return with a reply. In all reports great care atould be taken to make clear what is known with centainty and what is only thought to be true or surmised. The aquadron commander will have to judge which facta are important eqough to report and which are not. The facility with which the eq reports can be made will influence him greatly. He should at leaft report esery night his whereabouts. what he has accomplished dufing the day and his plans for the morrow, so far as he can make hem.

When dispathlea cannot be sent by telegraph. recourse must be had to couriers. The squadion commander will now confine his meseages to thos facts that must be reported. Great care nust be taken in selecting couriers to use only those men whose loyalty is beyond question and who are intelligent and crafty enough to reach their defination. If necessary their horses should be changed for the fesber oues of other men. It will generally be ad. risable to give them a rough sketch of the road thoy are to take, inasmuch as the route they traveled adrancing may bare been circuitous and fah from the direct road they will travel returning. And even if retutning over the same road, they will not remember all the changes is direction and forks in the road.

Dispatches, sthough addressed to the division commander, should, as a rule, fe lef unsealed so that intermediate commanders may read them, \& it will be of great assistance to them to know what is going on if their front. When messages are sent by couriers, it is well to send wo men by different routes, so as to increase the certaints of the message reaching its destination. Each courier may be giren tro dispatches, a true and a false one; the true one to be carefally sefreted. If he is captured, the enemy may be sat. isfied with the fase dispatch, and if so, will be misled. But the
courier must know well which ofe is correct. It is well. when it can properly be done, to tell the courier the conterits of the dis. patch, so that if lost or taken from him, he can fet carry the information, if he is able to reach his destination.

The commander of the main pody should acknowledge all dis. patches receired, and until the squadron communder received such acknowledgment he should repea the message for fear it may hate gone astray. Often the most trying thing to the squadron com. mander will be the uncertainty an to whether or not his dispatchihave been received, and the furtifer uncertainty as tor what may be required of bim in siew of the changed conditions which his dis. patches set forth. Eridently he nust possess his soull in patience. and exercise his best judgnent. Such a state of affaps which will be almost sure to arise sooner or ater, shows the imptortunce of intrusting the equadron command $r$ with the order of the division and the plan of operations, that in the absence of definite instruc. tions be may be able to act for the beat.

The equadron ehould be provided with some high explosives, aoften it will be able to greatly repard the movements pf the enemy or facilitate its own by their use.

The squadron commander will have a grent many thinge to think of, keeping all the working porthons of the squadrop in harmony, seeing that no possible source of information is overlooked, and providing for the rafety and comfort of his men. Hach subaltern should understand all of the deqils of the work in hand, and if anything is omitted he should atfend to it himself orichll the utten. tion of the equadron commander to it. The routind duties might well be permanently assigned to the different subalterns, thus learink the equadron commander fiee to look after the unexpected. There is probably no duty where the subaltern has preater opportanity for distinguishing himseff than in the screening duty of cavalry.


## NIGHT OPERATIONS

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CHAPTER II.

## ATTACK ANU DEFENSE

$c^{10}$OMBATS ${ }^{\text {W }}$ night arange themselres into two distinct classes. viz: (1) Minor assaults by small bodies of troop from a few men to a reginent or squadron, and ( $\because$ ) night attacks proper, involving a r\&ry considerable force. or the entire army. Minor engagements night are of vers common occurrence, and as a small torce mbea little noise, is readily concealed, casily led, and requires no di icult maneuvering. such affairs generally offer good prospects of success to the assailant. They occur chiefly in connection with the putpost service, having for their object the capture of pickets. parols, and detached justs of the enemy. or the origin of bridges, defles, lookouts, or other small frints of rantage.

Sometimes bowever, these small attacks may directly weaken the enemy's forces, when they ansume a much greater importance. Such is the cage when used tor the purpose of harassing the enemy, keeping him perpetually alarmed. depriving bim of rest, and destroying his porale. "Hansibal." says Captain Johnson, "once barassed a Rqman force under the Consul Jusits all night, and so fatigued it that bis victory was easy next day." And the irregular night attacks of small parties of Jacksons men upon the British before New ¢rleans is a familiar instance of the same kind of action. Agaip, the enemy's dispositions may be such that the timely attack of a small force at the proper point may cause bodies of his own trops to attack each other. There are numerous inatances of thip in history, but generally as the result of accident rather than of deliberate design. The possibilities, bowever, are great in comprison to the risks, and opportunitics must often exist
in the course of a campaign, as will sppear from the following ex. tracts from letters written by Gpderal Sir J. W. Fiṭzmayer, K. (' B., R. A.:
"I think, if judiciously done one or more of the pickets might be driven ir and a possible panke created, causing in large bodies the probubility of their engagind each other in the dark.
"This probability struck me fery much the nighi we encamped in the valley of the Chernaga, on our way to Sebavtopol. The night wis dark and fogeg, and some of the army took up their ground tong after daglight had disappeared. No one knew who was on his right or on his left, or from what direction an enemymight come. I am certain, under the circumplances in which we then were, that an enterprising enemy, say 100 strong or so. if the ${ }^{2}$ had attacked us in any well chosen point, would in all probabilify have set us fighting each other. On other orcasions I have scen the rame thing. and I have been convinced from it that organized attacks of the kind, made as I have said, by kmall bodies, would be inote effectic. way of carrying on war."
"I mentioned in my first ibtter that our encampment at the Chernaya, after the affair at Mc|kenzie's farm; offered a very favor able opportunity to the Russianf for a night attack; but it was not the only instance. All the way along from the place of landing it wus the same. If we had been Figorously and judieiously assailed by a small body the night before the Alma, I should not like to say what might have happened.
"There is always the likeli ood of much confudion in a large body of men roused suddenly from their slumbers, aid a panic may be the result."

And speaking of the action of the assailant in such cases, he says:
"As soon as he has set the opposing army in a blaze, he should retire, but still firing briskly. fn some cases a batitry of artillery might accompany the party, but eeping well in the fear, and firing shell at high angles, well clear fr their own men iffront, or even blank cartridges only. At a cerfain stage, the morenoise made the better. Everything should be done to make the attacking party appear as large in number and al formidable as possible.
"Buglers should be placed of different intervals, and to sound tolerably frequently. The men, however, should be warned oot to act on the bugle sound. They should be guided entirely by a whintle, to be farnished to every afficer and non-com mipsioned offecer. By blowing a low sound every now and then, they would know bow $\dagger_{i}$ to keep as well together as migh be considered necessary."

There is anotber class of mpor operations which, with small risks, often produce great resulth. These are the paght raids and attacks apon the depots and magezides of the enemy, and apon the
vital points of etc.

In all these cess; the gres tance undiacor occur in conna which hare al ansaults are ex and defense it discussion of $t$

Night atta chapter, must The reason for Wellington: tul." And of be attempted. seen. The dit bodies of troop that these col known ground formed in order of attack, deployed into line of forward amid untold obstacles upon objectires indistinctly sedn if not quite inrisible. and then some of the reasons for failure begen to appear. To these add the ineritable confusion and terror of tattle multiplied a hundredtold by the darkness: and remembering hat the defender, esen though surprised, fights from a stationary position, or upon well known terrain where counter attacke can be made intelligently in the darkness, and one may well wonder that afch attacks erer succeed. But they do succeed occasionally, and then the results are generally greater and far more decisire than fould hare followed from a rictory under the usual conditions.

It follows, therefore, that night must offer sonie great adrantages as well to an aseailant, and that these under certain circumetancem may eren out reigh the disadrantages. These adrantages which night offers if an aseailant are (1) direct, or the circumetances favorable to bi own action, and ( $\boldsymbol{2}$ ) indirect, or thowe unfavorable to the action fithe defender. The most important of the dirert advantages ard the following:

1. The diminution of loss. This, perhaps, is the most important of all. With hodern weapona, and the unirersal employment of field intrenchments by the defender, it will be almost impossible for an aswailant to ross the wide bullet-swept zone in front of a position
by day and arrive with a force eqficient to secure victory. Night. however, completely destroys the accuracy of riflefire, except at very short ranges, as every night attack has demqnstrated. "In the brightest moonlight," says Captain Jounson, "the shooting will be found less accurate than on the dullest day." The position once reached in force the conditions of tire are equalized, though after this stage is reached shock rather than fire action will probably determine the issue, and in this the assailant should have the advantage.
2. Simple attack formations ossible. All modern elaborate attack formationa and extended ofder lines are desigued for the sole purpose of getting the attacking forces over the bullet-swopt zone. Night largely eliminates this nec ssity, as shown abore, and close order lines and the simplest formations may be employed; this manifestly reduces to a large extent th difficulties and dangers of making a night assault. The simplicity of formation is illpstrated in the following instances:

At Tel El Kebir in 1882, the British army, aboul 15,000 strong. was formed in two long lines, ach in column of subdivisions at deploying interval. The artille $y$, forty-two guns; in single line occupied the center, separating the two wings. Hore the terrain was an open desert.

Daring the battle of Chancellorsville, Sickles: corps made a counter attack upon Jackson's forps in dense woods on the night of May 2 d . Two lines of complanier, in columns of fours at deploying interval, were used, anf directions were given for companies to form front into line whout command atithe first fire of the enemg.

At the capture of Kars, in $1 \& 7$, the Russians attacked in deep independent columns, seven in umber-five for real attacks and two for demonstration. The rtillery did not accompany the advance. In this case the terrai was open, but rugged.
3. The assailant can easily deteive the dejender. Fpattle success depends very largely, and ofter wholly, upon this element. The plan of action must be conccale from the adverapry till the last moment, to which ends feints ond false attacks ofre made. The direction and objective of the rain attack musi be disguised. Superior numbers must be concen rated at cbosen poihts, and inferior bodies of the enemy overwbelmfod before they cati be reinforced. For all such forms of deception night offers to thio assuilant the greateat opportunities.

Very many examples of this
the following: floswian army under Frederiek the Great confronted the Autrians under Marshal Datw at Hochkireh, in Octoher. 175s. The Austrians continaally strengthened their position in front. but on the night of the $1+1$ Marnal Dates took 30.000 men from his coter, moved through the woods by previously prepared routes. ad while it was yet dark. arriving within 300 yarde of the enemy.t fight. commenced a fierce attack. Frederick was thus defeated and compelled to retire
4. Ammunifon may be coconnised. Improved arinvand modern conditions will pad to all enormons expenditure of ammunition in future battles. It will sometimes happen ater a long series of engagements, of when surrounded by the enemy, that the commander will ind the supply dangerounly low and yet prompt action may be imperatue; or the system of supplying ammunition on the field may be ina equate to the exigencies of a battle. In such cares a night attack may wrest a brilliant success from threatened disaster, for an assault by night necessitates little or no exprenditure of am. munition until yery near the enemy's position, and indeed, in very mang caxes the bayonet alone has won the victory
5. The artilary preparation in battle is dispensed rith. Before an assailant can hafe any hope of carrying the enemy's position by day the way mutt be prepared by artillery; and as the defenderis artillery will en caror to prevent this by silencing the guns of the assailant. a longrartillery duel will be the prelude to every battle. Should the defes der prevail in this contest. thereby depriving the assailantis infan $y$ of the support of his guns, and exposing him to an uncbecked sform of shrapnel during the advance, defeat must generally result from the attempt. A decided inferiority in artil. lery, therefore, fould, under ordinary conditions, render an attack hopeless, even though strong in other arms. In a night attack, howerer, the artllery duel being eliminated. the adrantagen to the assailant in such a case are obvious.
b. When sol iers from northern latitudes are campaigning in south. ern countries in the hented season, exhaustion or the troops may be duoided by engaghin the enemy at night. This was assigned by Gen. eral Wolsmegy as one of the chief reasons for atlacking Arabi Pasha by night fat Tel El Kebir.

The chief diedrantages which night imposes upon the defender alone, thereby ading the ansailant, are as follows:

1. The defender is taken by surprise. Says Clacsiwitz: "The more an attack fesembles a surprise, the more sure can one be of nuccess," and, "fondamentally, every night attack is only a more
vehemeit form of surprise." Men suddenly aroused trom sheep ley the attack of an enemy, are okils demoralized. Everywhere is darkness, uncertainty, and contheion. It is true that the defender knows the terrain, and if counder-assaults can be tipade, the tables may possibly be turned againet |he assailant: bute if the attack ho. properls planned and executed, the nature of the attack, where it will strike, and the strength of the attacking force, will all be mat ters of the greatest uncertaint to the defember inth ton bate t., make the necessary dispositionspo meet it
2. Certain elements of strenth are neutrilized: It has alreats been shown how the detender may be superior in artillery, in an munition, or the meuns of supplying it, and yet be cunable to utiliz. these advantages if attacked at fright. The same is true in man! othor ways. The defenders mat have greatly superior numbers in the aggregate, and yet be defeat dy the enemy massing his trool" under cover of darkness, and birling superior numbers upon a fuw choeen points. Likewise, the dfender may possese rifles of greatiaccuracy or longer range; a moro perfect organization and bett.r training for the elaborate battles of the present day; he may hold : position giving great command and an extended view. All ruch advantages will little avail agai st a night attack.
3. Certain elements of weakiless are magnified. Defective com munications, forces too much disseminated, lack of training, bat discipline, low morale, and simifar points of inferfority, important as they are in action by dayligh, are much more so at night, when any one of these, if existing to a marked degree, is almost sure t. occasion defeat.

Thus far only the intrinsic merite of the night assault, arisinut from its peculiar nature, have peen considered; but it will sometimes happen in the course of campaign that the circumstances will demand an attack by night regardless of the adrantages or disadvantagee peculiar to such action. For example, the enemy'army may be discovered to be sy separated, or otherwise placed at a disadvantage, that its immediak defeat will be ciasy, while a few hours delay may enable him to ectify his dispositions. In all such casen the blow must be delive ed at once, whet bor it be day or night. Grant's campaign in Vifginia in 1864 affotids a very notable instance of such av opportunity lost by delay. For mesny weeky the Army of the Potomac had peon marching arid fighting costly battles about the defenses of Rummond. Petersbing, a key to the Confederate capital, was strongyf fortified, but tho works contained few defienders. Grant directed Butler to attach the city, at the
rame time mating a fank mose toward Petersburg to aniwt him. Hascoch joined smith hefore the defenses of the city on the night of June $\mathrm{ha}^{5}$, 1864, but the assault was delayed until morn. ing. by which fime LeEs veterans had urrised and manned the works. The refult was to entail much umbecessary bloodsbed upon the Army of th Potomace and to delay the fall of Peteraburg until Aprit, $1 \times 65$.

Captain Mafare in an address before the southern Historical society, quoted in $\cdot$ Lee's Memoira." says ."The prize was now Within his grap had he holdy advanced, and the moon shining brighty bighly facored such ehterprise. but smith. it would seem, though possessed of considerable protesciobal skill. was not endowed with that intuzive sagacity which wifly diveros the chances of the moment. apd thus halting on the very threstiold of decisire victory, conten ed himself with partial succesm, and having reliered bis dirisionn in the captured worke with hasconss troops. waited for the morning

The followisg vicidaccount of the same incident by member of Hancock's corpe gives the situation in greater detait. It also howa the attitpde of the soldiers with respect to night fighting, tron which it fill be seen that a commander of experienced troops need bave no hexitation on this score
"Infantry h fried past us; batteries rolled by

- Hoars we werth millions of dollars each on this flank movement. Tuey were really priceless, and we dawded away threo of them in getting a.little food into our haversacks.
- Tben ne harcbed. We were in high spirits: we marched tree. Erery mad in the Second Corps knew that we had outmarched the Confederate. We knew that some of our troops were assaulting the Confederate works at Petersburg. The booming of the cannon cheered us. Wh were tired, hungry, worn with six weeks of continuous and bloddy fighting and serere marching; but now that we, the enlisted mep of the second Corpa, knew that at last a flank march had beed successful, we wanted to push on and get into the fight and captufe Petersburg. We knew that we had outnarched Lexs veterans, and that our reward was at hand. The Second Corps was in fibe mettle. On all sides I heard men assert that Petersbarg and Ricbmond were ours; that the war woald virtually. be ended in less than twenty-foar bours.
"Night came The almost foll moon arose above the woods and gold-flecked the dust column which aroee above ns. We had beard heavg firing abopit sundown, and judged that we should be drawing near the battle lne.
"We all excfaimed: 'The city is ours! We have outmarched them!' and we strode on through the dense dast clouds, with
parched throats, footsore and wary. Not a grundie did I hear but with set jaw we toiled on, intfnt on captaring Poteraburg befor the Army of Nortbern Virginit got bebind the works. It was 'march, march, march! no stragiling now. It is far better to march to night than to assault earthworks defended by Les's men to morrow. Hurry along! hurry, harry, hurry!' And we marched our best.
"We asked bow far it was to the battle, line: ©Only a few bundred yards,' they replied. Then we asked what Confederat troops were ahead of us. The answered, with a seorpful laugh 'Petersburg militia.'
"The soldiers balted for an instant." They examined their rif." and shifted their cartridge-boxe to a position where they could get at them easily, and then drank deeply from their cianteens. Their belte were tightened, blanket-rofls shifled, the last bits of hard tack the men had been chewing were swallowed, and their mouths agait filled with water and rinsed odt, and thon throughout the raukmurmurs arose of 'Now for it!. Pat us into it, Hancoce, my boy' We will end this damned rebellion to-night!' and wẹ laughed lowis and our hearts beat high. Soon we beard commads given to the infantry, and they marched off. My battery moved forward, twiste. obliquely in and out among the atumps, and then the guns swuns into battery on a cleared space.
"And then-and then-wel went to cooking. That night wat made to fight on. A bright and almost fall moon shone above us The Confederate earthworks wifre in plain view before us-earth. works which we knew were bure of soldiers. There was a noiny tire from the Confederate pickets in front of us. șo unnersed anit frightened were they that theit bullets sang bigh above us. W. cooked and ate, and fooled the ume away. This when every intelligent man in the Second Corps knew that not mañy miles away the colamns of the Army of Northeyn Virginia were marching furiously to save Petersburg and Richmold and the Confederacy.
"And we knew that once th y got behind the eartnworks in our front we could not drive thenf oat. Still we cooked and ate, and sat idly looking into one anothy's esos, queestioningly at first, then impatiently, and then angrily. Gradually the faxt that we were not to figbt that night impressed itself on us. I wialked over to thic limber of my gun, opened my knapsack, and took out a campaign map and a pair of compasses. Returning to the fre the map wa epread on the ground. As I masared the distances a group of ex cited soldiers gathered around fod watched tha work. We had the lese distance to march, about ofthe toours the start, and allowing tor the time lost at the crossing of the James River we were, at 11 P. 3 four or-fise horrs abead of the Army of Northern Virginia. © ${ }^{2} \mathrm{i}$ they be in the works by mornints, men ?' I asked; and all answercil. 'By God, they will.'

From the foregoing discnsation it will appear; that great as are the objections to the night attand, it devertheless iffers many com.
pensating adratages, and, when opportune, most decisive realen mayensue; for an army crushed in the wight will organize a retreat under the grestent disadrantages. Whether the occasion is one suitable for the use of the night attack or otherwise, like all such questions in wr, must be determined by the juderment of the com mander, after feighing all the conditions atud circumstances of tho case. Here nofrules can be followed with natety - generalehip alone will suffice. Guring determined upon a night attack. it remaina to be seen upon uhat principles it should be conducted.

All battle flans are based primarily upon a knowledge of the position and fepositions of the enemy, and secondarily upon a knowledge of the interveoing terrain. It is presumed that a com. mander will b especially well informed upon troth points before hazarding a nisht attack.

The plan, afys Captain Joussos, should have three ends in riew, viz: Simplicit , decision, necrecy; and he lay down the following principles

> 1. To ensure simplicity

1. The colfuns of attack should be few and they should be kept together \& long as prosible. This euables the officer in command of the ubole expedition to supersise the different columns during the adrance, and to make sure that unforeseen difficulties do not overcome the perseverance of subordinates. During Wasbinoton's celebrated raid on the Hessians at Trenton. on Christmas Das of 1776 , one of his columns finding great difficulty in passing the river, gare up the attempt. and its commander, Colonel Cadwalla. dER, wrote to the chief: "I imagine the badness of the night must have prevented you from passing orer as you intended.
2. The nupbers employed should be as small as is consistent with the requifements of each particular case. This also belpe towards secrect, and lessens the penalties in case of failure. It is the power for miachief given small bodies by darkness that has been one of the principal recommendations of nocturnal enterprises.
3. Ruses ald tricks being apt to introduce a certain amount of complexity int the plans, are objectionable. On the other band, feints add false atlacks are nearly always useful, but they muat be made with sufcient energy and force to attract serious attention.
4. Every farty should bave a fixed destination, or limit to its first adrance. Under farorable circumstances. Lowever, the main attacks may be directed to pusb begond their original destiontions, and false attacia to become real, with one important proviso, viz:
that this extended action shall only be in the first instance at tempted by small detachments, yless the leaders are perfectly sure of their ground, and the danger ff confusion is very small
5. The routes selected shoult be easy to recornize, as short and direct as circumstances will allow, and they shoufd lie as far an possible on low ground and in he shade The last condition is 10 assist in the secrecy of the more pents; and the others are not only necessary to facilitate the arriv at the appointed destination in proper time, but also to simplify the rallying of the troops in case of failure, for as a rule the line of flight or retreat will be in the eame direction as the last part fithe adrance, and: beaten troops will not have time or coolness a fficient to follow a circuitous path.
6. Signals for the commencment of certain tifovements have often caused mistakes, and it whid appear best to fix, when jowsible, a precise time for every pprt of the action. To insure punctuality and co-operation, the taff officers or leaiders of all the detachments sbould set their $\mathbf{w}$ telbes together before starting on the enterprise.

## 2. To Incure Decision.

1. A sufficient number of of cers with each detachment should be thoroughly acquainted with pe plans, so that the original lead. ers can be at once replaced, if thpy are placed hors de combat.
2. The attacking force mut be thoroughly equipped with means for overcoming obstaclea and for entrenchiog the captured position, such as hay bags for lling ditches, scaling ladders, fuscines, gabions, axes, and other tople.
3. The composition of the olumns and their order of march should be arranged to insure rpidity of movemant. The delay that may be caused to troops adpancing in the dark; by unexpected obstructions, is so great, and $t$ e adrantages to the defense thus gained so manifold, that such a ${ }^{\circ}$ very likely to be met with, and consequently a detacbment of engineers should form a part of every column, and be placed near its yead. This detachment may often bave to be of consideraole stredgth, as the use of explosires will seldom be admissible. It app ars to be a getierally accepted maxim that cavalry and artillery should be kept separate from the infantry, and that, if they most accompany the colomns, they shoald be placed in the rear furing the advance; and in front during a rotrograde movement. The former, if suiddenly assailed and driven in, will probably pron uee confusion in the infantry, and the latter can be of little or no we in the dark.
4. All the columns sbould bare competent guides.
5. The asspilants should have some clear distinctive badge whereby to recpgize one another. Watpluwords and countersigns have sometimes heen of use but with them mistakes may arise, and the enemy may find them out and protit by the knowledge

## 3. Tir Insure Secrecy

1. The intention and the plans should at first be communicated to as few persgos an possible : but it should be remembered that supervision and direction are very difficult in the obscurity of the night. and so efery one. if possible, should have some idea of what the has to do before the operations are actually commenced.
2. Striking of lights and smoking must be strictly prohibited. Eren signals nade by trained men with proper appliances are objectionable, but they can be used no as to asoid the notice of the enemy, while fghts struck to read an orter or a watch, or the How of a pipe cannot be concealed. The cuforcement of this rule has always bech difficult, and can only be effected by the closest supervision on fac part ot the subordinate keaders.
3. The silofice must be as complete as powsible, and be main. tained until th fast moment. This rule has no exception during the approach if the position, and whould only be moditied in the actual combat on coses of feints and fathe attacks, and of raids made to haram the enemy repose. It any poste of the enemy lie in the line of drance. or any of his patrols are met with, they must be dealt with silently.
4. The attufk must never fire. The rifles should not be loaded The only weaph to bo used is the bayonet. This is the keystone of offensive tucdes by night. The sbooting can have no accuracy in the dark, whle it is a well-k nown fact that firing has a tendency to cuase halting which may in turn lead to a recoil in the line, and it is extremely difficult to stop when once begun. Again, firing. while it causes the attack to slacken. gives the defenso an idea of the position of he point attacked, and of the strength of the aseail ants.

Nearls all mblitary writers hare expresaly stated that the attack must not tire a hot before day-fipht, and. as a rule, an injunction to that effect has ifmed part of the orders for all night enterprisen.

In the order for experimental mancuvers in Russia in 1881, it was laid down that it was to be explained to the men "tbat in night marching, nois, more eapecially firing, smoking pipes, in fact, ererything tha can draw the enemy alteotion, is a crime," and
"that a night attack ought to be carried out with the greatest quickness, $i$. e., there should be no firing. The rush should li.. made quietly, without the cheeq, and the work done silently with the bayonet."

The exceptions to the foregping hard and fast rulo are quit. clear, and need cause no confusion. They occur then the attach is a false one, forming part of a combined operation; when the attack is made simply to haras the enemy and to deprive hiv troops of rest. In both these enterprises noise and theretiore firing, is the chief means for attoining the end. Bet in the secolla sort, care must be taken to get as close to the hostile povition apossible before commencing, so alp to gain the full effects of surprine

All the above tactical rules or considerations point to one con. clusion-that the assailants in night operations should move alid fight in close order, a fact reopgnized and emphasized by moot writers.

The formation to be used in titack must be simple, but no haril and fast rules can be laid dow, as may be done for an attact ly day. The commander must be ¢ompetent to derisé a system of his own, adapted to the circumbtandes of the particular case. Never. theless, nearly all night attacks shat hare occurred beloug distinctly to one or the other of the two classen already referred to heretotione viz: the attack in extended linef and the attack in several columns more or lese independent.

In eitber type nearly the entire force of the asmailant is thrown forward upon the enemy at once supports and regpreaviaving litule use; for flank attacks and all the complicated heasures to which the defender might resort by daj will scarcely bapossible at night. and provision oeed not be made to meet them. Lindeed, should reserves be held in rear, thes could bardly be maneduered with sufficient celerity and precision to indure good results. In all probability the force so employed would exercise no material influence upon the action, if indeed they did not commit some fatal blunder in the darknees by firing upon their owin troops. Surprise and tbe sudden overwhelming of the enemy before be can recover are the essentials of success, and these are best squared by throwingithe whole arailable force upon him at once, keeping in reserve merely a amall body of troops to occupy the position in case of succese; or to cover a retreat in case of defeat.

The attack in extended lin is obviously best adapted to open terrain. Line of amall column ai deploying interrals with con. necting fles should be maintaised until the enemy!s fire is encoun.
tered, when the may deploy. A single line may be used. or two or three. closel following and supporting each other. in which case if any fire actipn is to be permitted during the adrance, it must be contined to the first line.

In case the fidependent column formation be adopted. great care must be taken in planning and executing it. that the several columns be accurately drected upon their proper objectires, and that their movements be so accurately timed an to secure perfect order and concert of actidn. The uumber of columns, their front depth and strength will al depend upon circumstances of terrain or otherwise.

Whaterer b the plan of action every possible measure must be taken to make he surprise complete. To this the outposts should be eluded or captured; or. if this is not practicable. the tide of as. sault should sufeep the outposts on before it. reaching the enemy position simulteneously with them.

Thus far the subject of the night attack has been considered only from the stand roint of the assailant. Knowing what the enemy can and ought fo do in case he atlacks, the defender must adopt all practicable metsures to foil any atterpt be can make. The first and greatest defensire measure. therefore, is a stmog and rigilant outpost service with numerous and distant detached posts and patrols, which ,hall prevent the surprise upon which the success of the assault will largely dapend. Furthermore, when an army occupies a position $n$ the presence of the enems, the neceskary recon. naissances shofld be promptly made, and the commander should derise a plan of action to be pursued in case of a night attack on any part of the lines where such would be practicable. Only the minor details, beb as the places of assembly in case of alarm, nced be communicat d to the rank and file, but the higher officers should know the whofe plan of the defense. Such measures should aim primarily at a founter surprise of the aseailant, for if this can be effected his defeat will ordinarily be assured. A sudden counter. charge just before the assailant reacbes the position affords the readiest means of accomplishing this end, though an ambuscade upon the line of bis advance, if time permitted, will be more certain and more effectual. Eren if the asailant, contrary to bis expectations, be met by a cool, steady fire from the position. be will be greatly disconcerted, and in the majority of cases completely repolned. Obwtag es should be freels used, for which purpose barbed wire will be ifvaluable. It is seen with dificulty at night, and freely used it a poe may completely foil an assailant.

Telegraphic for telephonic communication should be maintained
between all parts of the army and beadquarters. Too much ini portance cannot be attached to this, for concert of action will depend upon it, and prompt reports from all points may enable false attackis to be distinguished from real onerf
"One of the difficulties of the btaff of the defending force," satCaptain Jounson, "is to recogniz the position of the point attacked To aseiat in doing so, a set map (. e., one properly adjusted to the meridian) placed on some commanding epot near the beadquarterwill be found of great use."

Roads, lateral communications in rear of the pootion, pointe of assembly of the different regimente, brigades, etc.ishould alw:a, be indicated by lights of rariouk colors, so shaded as not to be visible from the direction of the enemy. These will be of incal culable assistance to the troops in case of attack.

Guns may often be trained pon ground which the enemy in likely to cross, and by means of secondary sights, some execution mas be done at night in ease the enemy adrances from this direr tion.

Fires may be kept burning yar the outer edge of the outpost line, eepecially near roads or othe points where the enemy is likely. to appear in force; but great caution should be taken that no firc. be permitted near, or in rear of, the position. ' '

This leads us to the concludng topic of the present chapter. vis: the influence of the eleqric searchlight upon nocturnat operations.

Heretofore sieges have alway been characterized by numerous and varied night operations. Ac the investing works drew near th the defenses, new parallels and approaches could be constructed only under cover of darknesp, for by day the workite partien would be speedily annibilated before t e new worke could be completen sufficiently to give cover. The d fenders, too, made ifrequent sortieby night apon the investing linas and upon the urorking partien In fature, however, fortified placfs will certainly be provided with electric searchlights, and the besfegers in the trenclee will be sub. jected to a fire as deadly by nightas by day. The result will be that the aseailant mast seek to shelter his working parties, not by dark ness, but by an overwhelming fife upon the defenders, for which daylight is obviously more advan ageous.

Whether armies in the field will carry portable searchlighte, is a doubtfal queation as yet. The autbors of "Tbei Great War of 189-," a forecast of the next great European war, betieve that such will be the cuse, for they supposon a battle between the German and

Russian forces fo be fought at Nexandroco by electric light This idea seems rut er visionary, however. The machinery requisite for the production or electricity-ateam engines. dynamos, etc, - in extremely heafy and cumberome. and illadapted to accompany the movement of an army in the fiell in these dayn of extreme mobility. Ongor 1 wo light might accompany the tratn tor use in exceptional cat s, such as a night cannonade of an important point, or to watch an cover a distant bridse or a detile during the night. for which parpose they would be invaluable but it is not believed that the eesch ight will prove sufficiently practicable to exert ang very con-iderable influence upon the meturnal operations of an army in the nefa

## CHAPTER IL

## AMBIGH AND STRATAIEEM

Ambuscade on a small ecale for the capture of an outpost, a patrol, a drovequ catte, a convey of storem or the like are of very common occurr nce inall campaigns. On the other hand the greater operations of tiv character, such as were common in former times, are now selito resorted to. and are no longer considered impor. tant. The reabon for this is easily discosered in the ract size of modern armies their extreme vigiance. and their more pertect knowledge of pe comutry in which they operate. There is one use of the ambuscaple on a darge scale bowever. that has lost nome of its importance focent times: it is as a means of resisting a nisht attack. alreadyalluded to. Infurmation of the enemy intended assault will sonetimes be obtained beforehand, when a boly of troops should b placed in ambush in a suitable position to surprise him during his deance. The aswailant will generally move forward with a very sull advance guard, if any at all, in order to a void detection until fhe last moment. and his surprise. therefore, will be easy. Eren when there is no knowledge of the enemy's intention. ambuscades offet the strongest nafeguards againet a night attack. A comparativel small body of tromps may accomplish the greatest resolts in this way, with little risk.

The place of ambush must be chosen with care and judgment, according to the terrain and probable lines of udrance, and the following aimple precautions recommended by Deparce, should be carefully obserta:
"As soon as the troope are in ambuscade they should obserre increased attenuon. Talking, smoking, moving about, or foing off
apon any pretext, making any find of noise, and lighting a tire should all be forbidden. Going ofleep sbould be;especially prin. bibited. All the soldiers must $r$ main awake and gever in constant readiness for combat. The infan ry should sit or lip down, and in either case their arms should be placed on the ground; for if the: remain standing with their arms in their bands, or if they sit witi, them between their legs, a gun might be accidenthily dischargel (as they are all loaded) and thu betray the existence of the all buscade."

We now turn to the consider, ion of stratagems, by which term we designate all the infinite vari ty of tricks, feints and deceptionnot properly connected with the tactics of the battlefield. During the siege of Lille, in 1708 , the Fspnch were threatenied with disaster. on account of the lack of powdet. The Chevalier de Luxembur:was sent from Duai to introduce convoy of ammupition into Iille. He collected 150 grenadiers and, 000 cavalry, each carrying a mus. ket, a bayonet, and a bag of fify pounds of powder. To deceiv. the enemy, these troops assume the dress of the: Duteh soldierThe convoy reached the camp of the besiegers upat a dark night and represented itself as bringing ammunition to ${ }^{3}$ the allies. anil being pursued by the French. A sentinel hailed bem in Dutch and an officer replied in the sanfe language, "Soldiers of Marlbor ougb." The captain of the guand scrutinized thein more closely bet all his questions were satisfaptorily answered, and the gate wal opened. Nearly the entire con $\begin{aligned} & \text { oy thus succeeded in penetratili: }\end{aligned}$ the lines of the besiegers and enfering the city:

History is filled with those pecurrences, all of the most varini character; sometimes of little importance, sometimes more weights than a victory in battle. Occasipnally they take place by day but generally darkness is essential to success.

Interesting and important as are these operations in every war they constitute a sphere in whic the military student will search in vain for scientific rules or precedents. Each ischeme is bor" wholly of the circumstances and the occasion; therefore, the only rule that can be laid down is that grand old military maxim that ireeponsible for more victories than all others combiged: "Study th. circumstances, and be not afraid to act accordingly.". Here the com mander cannot rely ppon teaching or experience, buti must invariably devise new methods, for the old will fail.

Hannibal, with bis entire army, was hemmed ụp in Campania. the only exit a monntain pass, and that beld by under Fabius. Disaster seemed inevitable. Fabics, extremely cantions, watchod every move of his great antagotast. Hannibai. .
knowing his noture, collected a great herd of oxen, tied tire brands to their horns, and caused them to be dricen off during the night toward some lepaths over the mountains. Fabits eagerly seized the baited hook. The Romans marched away to neet the Carthagenian oxen, while the Carthagenian noldiers marched through the pass.

In the forqroing essay it is beliered that the importance of pight operatiods in land wartare has been demonstrated to be great. They should bf thoroughly studied by esery officer, not merely in order that he hay attack his enemy by night. for this he may not care to do. but falso in order that he may be prepared to meet the enemy's blows directed against himself. Let no reader of this esay imitate frederick the Great: "for my own part," said be. "I am determ hed never to attack by night;" but his enemy did not so determike, and Frederick himself was defeated in the most celebrated night attack in history, that at Hochkirch. October it. 1558.

SCOTT AND HARNEY-AN DFFIUIAL EPISOLIE OF THE
MEXICAN WAR. MEXICAN WAR.
headquarters of the drmy.
Brazos Santiago, January os, 1stic
Sir:-I beg your attention to the accompanying papers (num. berod 1 to 6), touching the confluct of Colonel HARNEY, Cnited States Second Dragoons, who is eyidently seeking ari issue with me to be tried by the President, and in succession, by Congress and the public.

In the conduct of the important expedition with which I am cbarged, I think myself reasonably entilled to the felection, from the mass of the officers under n $y$ command, of the chiefs of the staff, of the dragoons and artillery, and to seud way, on any proper military duty, any senior pfficer of either bránch of service (I speak only of the regular arpy) whose presence might interfere with such selection. Such rght of selection has always been exercised by commanding generalis in the field, who fre, in their commissions, their lives and famfe, eminently respdnsible for the results of their expeditions or calmpaigns. All junior officers are, at least in the first instance, only responsible to their commanders in the field.

In my opinion, and on the hifh responsibility to which I hare alluded, Major Sumere, of the Sifcond Dragoons, is? a much safer and more efficient commander of the cavalry in quastion (compa. pies of the Firat and Second Dugoons) than Coloderi.Harney of tpe Second of thoee regiments. Tpat particular comonand is entirely too important to the success of my expedition to allow me to leave apything to hasard which it is in my power to contuol in advance. I have the honor to be, sir, with bigh respect, your obedient qervant,
P. B.-It may be proper to ad that I knew nothieg of, and had consequently nothing to do with the arrest of Colonef HABNEY until

I receised the charge and specitications, although I faw a paper of instructions the day before from Brevet Brigadier-fieneral Worth (1) an officer frecting the arrest of colonel Harner, if the latter had, as had ben rumored, resumed the command of the regular dragoons in question. I atm. therefore in no respect "the accuser or prosecutor fot Colonel Harney inthis instance. Sedece 1. Act May 29, 1830. Brevet Brigadier-General Worth, colonel Harney and myself ar many miles apart frem each other.
w.s.

Hon. W. L. farcy, Secretary of Hiar

Meadqlarters up the Ahmy. Brazos santiago, January 으․ 1847.
Sir:-Majce-General scotr desires me to say that upon the receipt of this communication you will turn over your command to the next seniof officer, and proceed yourself. personally, to Majorcinneral Tarches headquarters, to whom you will report for duty with the dragdone that remain under his command.

I am, very respectfully, etc., etc., H. L. SCOTT, rolonel W. S. Huthey, Second Dragcons, etc., Matumoras. A. A. A. General.
(2)

Headquarters Second Dragoons. Matamoras, Mexico, January 23. 1847.
SIR:-Youn letter of the $2 \mathscr{y}$ d inst., directing me to turn orer my command and to report personally to the headquarters of Major General Tayldr for duty with the companies of my regiment there, has just been received.

I cannot daguise my aurprise at the unexpected nature of this order, and my fxtreme regret that it should have been given just at the moment then my feelings were deeply enlisted in the success of an enterprile in which I had fully hoped to share the dangers and prication of my regiment. It was my ill-fortune to be separated from that portion of the regiment which participated in the recent actions with the enemy, and I looked forward with much pleasure and freat pride to the time when I should see active service under th orders of Major-General Scotr. I shall not speak of the injustic which I consider to be done in separating me from seven companipe of $m y$ regiment and ordering me on duty with the remaining two The bare mention of the fact is the only allusion which I demign to make on the present occasion, bat it is proper to
mention that those two companies, by a letter which I received yesterday from General Wortr, are expected herein seven or ten days, and that $I$ was instructed o unite them with that portion of the regiment now here.

This fact, I mast beliere, escpped the attention of the commandVing general when your letter wo written, and I now hope that he will take it into full consideration and reverse the painful order. which I have just received.

If other motires, to which I dare not allude, influenced General Scotr in this decision, I bave fut to remark that it is natural that be should selcet those offleers from whom he might expect a hearty cooperation; bat that, to accomplish this, I do not believe he would do an act of injustice, and if mocent conduct cap be taken as an earnest of my endeavors to further his views to the fullest extent. that I can appeal to it with the preatest confidence.;

I have turned over my compland, and should it not be deemed expodient to change the order upder consideration, thave to request that I may be informed at what point I may find tie beadquarters of Major-General Taylor.

I am, sir, very respectfuly, your obedient sẹrvant,
w. 6. harney.

Colone flecond Drugouns.
Lieutenant I. L. Scott, A. A. A. G., He dquarlers of the Army.
(3)

Headquarters of the Army, Behzob Santiago, Janelary 24, 1847.
Sir:-Your commúnication of the 23d instant, relative to your command, was this morning ueceived through Brevet BrigadierGeneral Worth, ad I am directed by Major-Generat Scott to reply as follows:

When he made his arrangemponts, which now cannot be changed, to give Major Sumner the compand of the regulaf cavalry called for by him (Major-General Scoyp) from the army yinder the immediate command of Major-Genera, Taylor, he (MajorfGeneral Scott) expected the detachments would be made op, in nearly equal parts, from the First and Second Dragpons.

Besides the squadron of the second, with Major-General Taylor. who, probably, will be back at Monterey to-day or to-morrow, Captain Horraz's company of the sime regiment is to be soon mounted, and to return to the orders of Major-General Taycor. That general, it is presumed (though Majpr-General Scotr het not given and
does not expedt to give any order on the subject, may, probably, unite the two fompanies of the First. with the three of the second, all of which ufll be under his command, and also a sisth company (Second Dragfons) soon expected out under Lieutenant Sibley.

I am, very resecthlly, your obedient servant,
Ti, Colmel IV. S. Harney, Secund Dragoons.
H. L. SCOTT, A. A. A. (:

## ( ${ }^{(1)}$

Sir:-Your last night, and 1

In my letter of the $23 d I$ endearored to explain my position, and to disabust the mind of Major-General Scort in relation to any preconceived fiews he may have tormed to my prejudice. It was humiliating tofo so, but I deemed it my duty, in the present state of affairs, to pake any reasonable sacrifice to preserve harmony, and to enable tome to accompany this portion of $m y$ regiment into the field. Yodr reply bas disappointed me; it not a revocation of your order. I af least expected that some grod and sufficient reason would be giver for depriving me of my regiment. or that reparation would be mad to me for it in another quarter; with this view I relinquished nf command. By your letter referred to, you have not only depred me of my regiment but you have placed my ${ }^{\circ}$. junior. the mator of my own regiment, in command of it; and the imaginary comenand to which you have been pleased to allude I consider as en firely inadequate to the one you would force me to relinquish, even sbould it ever be brought iuto existence. If General Scotr does not deem me capable of discharging my appropriate duties, be may arrest, but he shall not unresifingly degrade me. It is painful to be driven to this alternative. I hawe endeavored to aroid the issue it has been forced on me, and I must abide by the judgment of $m$ peers. As long as I am a colodel I shall claim the command of m . regimelit; it is a right which I hold by ms commission and the laws of the land, and no authority short of the President of the United States can legally deprive me of it. In adopting this curse I feel that I am not only defending my own, but the riphts of every officer of the army. It is true another course is open fome, but it is well known by your presence with the arm that an importaint expedition against the enemy is at band, and my fesire to participato in it will not allow me to arrait redreso (ade an pppeal to higher authority. It is in full view of all
the consequences in which I may be incolved that bare, taken this step. I do it with no desire to show a spirit of insubordination, but because I believe my honor and my character as aisoldier involred in the issue. I bave no hope hat anytbing I ms say will alter your determination; to discuss the subject further would be useless: and $I$ bave only to add, that $I$ hare assumed the fommand of $m y$ regiment and, will accompany i to the mouth of the river.

I am, sir, very respectfully, your obedient rsant,
WM. S. HARNEY,
Colonet Second Dragooms.
Maior-General Winfeld Seott, Commanter-in-Chirf U.S. Army:
(5)

CHARGEA AND SPECIFICATIO S PREFERRED AGAINST COLONEL W. B. HARNEY, OF THE SECOND REGIMENT OF DRAGOONS.

CHARGE-DIBOBEDIENCE of orDERE and instbordínate condtct. Sppcification 1st. In tbis, that Colonel W. S. Harney, Second Regiment of Dragoons, having been instructed bix Major General W. Scort, commanding the arnis, in an official comenuication bearing date Brazos Santiago, 22d January, 1847, "to relinquish the command of that portion of his, the said Colonel Harney's reyiment, which had reached Mapamoras, and then to repair to the headquarters of, and personalld report to Major General Taylor." did fail to set ont as instructed as aforesaid.

Specification 2d. In this, that the said Colonef W. S. Harney. Second Regiment of Dragoon did, after baving telinquished the command of the troope aforesaid, as instructed as aforesaid, resume the command of the same; tho that after receiving the reiterated orders of Major General Scort, dated Brazos Santifigo, January 24 . 1847, and in defiance of such rypeated orders.

Tbis, near Matamoras, Mex $\mid$ co, on or about the $\$ 5$ th of January. 1847.

Teatimony. Written instruftions of General Scott, dated $22 d$ and 24th of January, 1847. ©olonel Harney's leuters in acknowl. edgment and reply, dated January 23d and Januari 25th, 1847.

By order of General Wolth.
J. C. PEMBERTON,

First Licutenant, A. A. A. General.

Headqcarters of the Army.
Brazos Santiago, January 28, 1847.
Sir:--Major General Scotr has just received a charge, with two specifications afrainst you, signed by order of Brigadier General Worth, a copy of which $I$ herewith enclose.

Considering your well known and long continued hostility to Major General footr, and that it may, howerer erroneously, be supposed that a recprocal feeling has been generated on bis part; and consideting the perfect confidence that all may entertain in the honor and impartiality of our officers generally and almost universally, I am instucted by Major "General Scott to say, you may, if done promptly; select yourself from the officers near at hand, any seren, nine, elefen or thirteen, to compose the court for your trial on that charge and its specification, and that he, Major General Scort, will imnediately order them to assemble accordingly.

As the troop in this neighborhood will be required to commence embarking on the arrival of the transports, now bourly expected for them, a list pf the officers to compose the court. signed by your band, is expected by the return of the bearer, and that he will be instructed to wat for such list two hours only.

I enclose, to facilitate your action, a list of the offcers for courtmartial duty a camp Palo Alto, from whom you are at liberty to select, as well ap from the officers of the Second Dragoons. regiment of monnted riflemen and infantry, at the mouth of the Rio Grande.

I am, sif, very respectiully, your obedient servant,
H. L. scott,
A. A. A. General.

War Departyent,
Washington, February $29,184 \overline{3}$.
Sir:-I have received your letter of the 28 th ultimo. with the enclosures, umpered from 1 to 6 , inclusire, in relation to the arrest of Colonel W. Harner. These papers have been subinitted to the President, and I am directed by bim to say that be regrets tho occurrence. Recognizing, as he does to the fullest extent, your rights as commanding general in the field, and disposed to sustain you in the ample exercise of them, he is not at liberty, as com-mander-in-chief to orerlook the consideration that the officers under you bare their fighte, which is equally his duty to sustain.

In the case 8 you have presented it, he does nut discorer a suff. cient cause for be order depriving Colonel Harney of the command
which appropriately belonged to him, and devolsing it upon his inferior in rank. Without intepding to approve of the conduct of Colonel Harney in disobeying your orders, the President deems it proper to apprise you of his oppion that Colonel Heprener had gow cause to complain of that orded, as derogatory to lịia rights, and hi. lopes that the matter has been reconsidered by you and that the Culonel has been rentored to hif appropriate command.
w. L. ARCY,

Secretary of War.
Mnjor General Winfeld Scott, Commantaing the Armylir the Cnted States in Mexi....

CORRESPONDENCE ACCOMPAXVING THE PHocetdings of THE: COURTMARTIAL in the chse of colonel vi. S. harney

Camp Page, Texas, January 28, 1847.
Sir:-I feel deeply indebed to Major-Gencral Scott for his magnanimity in allowing me o select the members of my coult. bat there are many reasous whfy I should decline this privilege. It is sufficient that I regard the charge on which I am to be tried as involving a general principle, which shall not be decided by a court of my friends, or persons from whom I should look for favor, but by impartial judges who are to render judgment in a case where the rights of all are concerned. Wholly concurring in the riews entertained by Major-General Scort, "in the honor of our officers generally and almost universally," I leave with bim the entire selection of the court, requesting to be peluded the first and third officers named on the list which you enflosed." In regard to the feelings of personal hostility alluded to py Major-General ©cott, I am not aware thaf any act of mine opn indicate such ai feeling towards General Scort, so clearly as his own attempt to rendove me from $m y$ proper command will evince inf the eatimation of all.

I am, sir, very respectfilly, your obedient bervant.
WLLLIAM S. HARNEY,
Lieutenart H. L. Scoth, A.D.C.
Colonel Second Dragoons.
Headquarters of the Army.
Br. zos Santiagu, Janeary 30, 1847.
Sib:-Major General Scort has instructed met to say that the application of Colonel W. S. Harney, Dragoons, for any endorse. ment or letter written by Brig dier-General Wosta, on forwarding Colonel Harner's letter of th 23d instant, is ierrgular, and can
not be granted. Brigadier (ieneral Worth is himseli at hand, and can be required po gire oral testimony in the case it needed.

I am, vert respectfully, your obedient merrant.
H. L. sCOTT. A. A. A. G.

To Captain W. W: Wackall, A. D. C.. Juige Adlocite. Gemeral Cimet Martial.

Gentlemen fr the Colrt:-Inannwerto General sootts refunal to give up the fetter of endorsement, written by Brevet-Brigadier General Worthfin forwarding my remonatrance of the 23 d instant. I beg leave to spate that it is not for General scott to decide what evidence may of may not be proper for this court to receive in my. defense; that it sa matter for the decision of the court, and it is to be presumed the pembers are fully competent to decide the question without any iftruction from the Commanding General of the ariny. In my foter yenterday to the Judge Advocate, I stated that I considered thi document important to my defeuse; in my letter of the 23d I allpded to my recent conduct which had come under the notice of General Worth, and I desire to know what he may have said on the subject. As the whole tentimony on the part of the prosecution s documentary, is it not right and just to allow me the use of such ocuments as may aid to my aequittal? Why were General's scort letters sent betore the court, if oral testimony is more regular, yhen the writer is at hand" Indeed, I do not reo bow General Wgra's endorsement can be separated from the main document, and lam sure if he had made any statements derogatory. to my capacity fo command, that they would hate been produceid on the part of the prosecution. I am entitled to deneral Wortas opal testimony, 1 know, but I prefer this document. and I leare it to the court to decide whether I am entitled to this letter or not.

Respectully submitted. Willials sharNey,
Cocrat Roon, fanuary 31, $184 \%$.

Meadquarters of the Army. Brazos Sastiago, January 31, 1847
Sir:-I har just receired your note as Judge Adrocate of the general court-m rtial, of which Colonel Clark is president, giving me the decisio of the court that a certain letter to me, from Brevet Brigadief-General Worth, transmitting one of the 23d iustant from Colonel Haney to me, is legal evidence. which decision orders
you, as Judge Advocate, to requfe of me that papor, riz: the said letter to me from Breret Brigad er-General Worth, ,although I had by a note to you of yesterday, dfolined, on the call of Colonel Har ney, to furniah that letter, on the ground expressly stated, that that general officer was isear at hand and might be called to testify to the zeal, etc., of Colonel Harney

I am much surprised at the frder and the demand of the honor able court in this matter, conside ing that all official correspondence between a gencral-in-cbief and the principal commanders of corpunder him is necessarily confidential, (and not public, as the court supposes), until duly published by the proper autigrity. I might well, therefore; on that and othyr grounds, refuse compliance with the most unusaal and impolitic porder of the court; but having m. time to combat strange proposithons, and wishing Colonel Harvey to have in his own defense, the benefit of ererything that may conduce to his exculpation from rror, I send the papier in question.

There is no endorsement by Brevet Brigadier-General Wortil on the letter in question from Colonel Harney, that I recollect. The original has been furnished o the Judge Adrocate.

I remain, respectfully yous, WINFIELD sCOTT.
Captain W. W. Mackal, A. A. G., und Judge Adrocate of etc: efc.

Hhpociarters Secosi Division, Rio Grande. January 24, 1847.
SIR:-I have the honor to frward berewith a communication just received for tranemission, fron Colonel Harney. Having already trespassed freely upon the General-in-Chief on this subject. I forbear any remark otber than to fay that since joining me Colonel Harney has evinced bigh zeal, fonergy and enthasiasm. No one han expressed a livelier anxiets for the success of General Scotr: expedition, or deeper solicitude o serve under his orders. He has arailed himeslf of several occasi ns to give utterance to honorable impulses and sentiments.

I am, sir, very respectfully your obedient sericant,
Wi: J. WORTH,
To Lieutenant Scolt, A. D.C., A.A.A.G.

General Obdfer
No. 11 .
Headqearters of the Ahmy,
Brazos Santiago, February 2, $18 \mathrm{t}_{\mathrm{T}}$.

1. At a general court-inartial convened at or near the mouth of the Rio Granfle, pursuant to General Orders No. 5, of the $28 t h$ ultimo, and of which Colonel N. S. Claber., Sixth Infantry, is President, was tried Colonel W. S. Harney. Second Regiment of Dragoons, on the fo fowing charge and specifications:

Charge. Dispbedience of orders and insubordinate conduct.
Specification First. In this, that Colonel W. S. Habser, Second Kegiment of Drpgoons, having been instructed by Major-General Winfield scott commanding the army, in an official communication bearing datt Brazos Santiago. $\operatorname{Z2d}$ January, 1847. to relinquish the cummand of that portion of his (the said Colonel Harney's) regiment which had reached Matamoras, and then to repair to the headquarters of, and pernonally to report to. Major-(ieneral Taylor, did fail to set ou as instructed as aforesaid.

Specification Second. In this, that the said Colonel W. S. MarNey, Second Regment of Dragoons. did, after having relinquished the command of the troops aforesaid, as instructed as aforesaid. resume the command of the same, and that, after receiving the reiterated order of Major General Scott, dated Brazos Santiago, January 24.184 . and in defiance of such repeated orders. This near Matamoras Mexico, on or about the $\mathbf{2} 5$ th of January, 1447.

To which the accused pleaded an follows:
To the first specification. "(iuilty.
To the secon specification, "Guilty."
To the charg. "Guilty, except the words, 'and insubordinate conduct.'"

The court, affer deliberation on the testimony adduced, find the accused, Colonel W. S. Harsey, Second Dragoons, as follome:

Of the first apecification. confirm his plea. "Guilty."
Of the secon specification, confirm his plea, "Guilty."
Of the charge, confirm his plea. "Guilty" of disobedience of orders, "Not Gulty" of insubordinate conduct.

Sentence. A d the court do, therefore, sentence the said Colonel W. S. Harney. Second Regiment of Dragoons, "to be reprimanded in general orders.
"The court, fin awarding this mild sentence, is moved by the belief that the aqcused has acted under the impression that he could not be legally odered, against bis consent, to separate himself from the principal poftion of bis regiment; and while he has, in the be-
lief of the court, been influenced by a landable desire to lead his regiment into battle, be has overfooked the paramofnt importance. especially with an army in the fold, of an fmmediate and unhenitating obedience to orders."
2. The General-in-Chief approves the senteuce in this case. which he remits.
3. The general court-martial, of which Colonel Clarke is prewident, is dissolved.
4. Colonel Harney, therefor, is released from arrest, and will proceed to execute the instructipns which he recieived from the General-in-Cbief on the 2tth ultiono./

By command of Major-Generfl Scotr :
H. L. scoitr, A. A. A. G.

Camp Page, Texas, Febuary 3, 1847.
Sir:-Having sought the decition of my peers in an amicable. not insubordinate spirit, on a quation which 1 coneeired, it seenis erroneously, very seriously involvd my righta, and aderision havingr boen pronounced against me, I theerfally, as bound in duty and bonor, submit myself to my fate seriously and deeply lamentins tbat untoward circumatances sho 1 d debar me from participating in a service which manifestly so sufongly appeals to the soldiership, and patriotism of every officer. As the order is refterated to pro. ceed to the headquarters of Genefal Taylor, I beg to be informed if it is necessary $\bar{I}$ should move in adrance of Captain Henter: - company. I am, very respectfully,

Captaip W. W. Mackall, A. A. General.
Endorsed as follows:
Respectfully submitted for consideration of the General-in Chief.
W. J. WORTH,
Colonel, etc., Brecet Brigadier-General.
lieutenant h. L. scott, a. A. A. general, to colonel w. S. HARNEY.

Headquarters of the Abmy, Brafos Santiago, Febrínary 3, 1847.
Sir: - Major General Scotr hle instructed me tọ say that your communication of the present dafe, addressed to the Assistant Ad-
jutant-General at Brigadier-General Worths headquarters. has been referred ohim, and that you will please report to Brevet Brigadier-Genefal Worta for duty.

I am, vely respectfully. your obedient sersant.
H. L. SCOTT,
A. A. A. Gencert.

LIEUTESAST
f. L. SCOTT, A. A. A. GENERAL. TO BRIGADIFR general w. J. worth.

Headquarters of the Army. Brazos sastiago, February 3, 1 int 7 .
Sir:-I endlose herewith a letter for Colonel Wm. S. Harsey. Second Dragoops, and I am instructed by the General-in. Chief to say that you will, upon assigning Colonel Harsey to the command of the Dragoops, disassociate the Caralry and Rifes, and say, "Major Sumen will continue in the command of the Riffer until the regiment sball be united under its colonel."

I hare the ponor to be, very respectfully, your obedient servath.
H. L. sCuTt,
A. A. A. General.
$T \mid$
ing, military topography and wetching, range finding, signaling. the construction of flying telegriph lines, the making of demolitions with gun cotton and with dy namite, the construction of hanty intrenchments, entanglements, loo boles, small pits, gabions, fasciner, hurdles, spar bridges, cask piers, tc., and the making and revetting of a section of an earthwork. If photography the student makes a satisfactory negative of an outdo $r$ scene and also a copy of a map or drawing and then makes a bromide, a blue and a silver print from his own negatires, the papr for the last two being prepured by himself.

Beliering that nearly everyth h covered by the above summary can be shown to be of practical v lue to a cavalry officer, the editor of the Journal has requested thay a detailed account of this work be given to the readers of this mepazine.

The practical work course th s briefly epitomized has, perhaps more than that of any other depa tment of instruction, been a matter of growth. A gradual evoldion, an adding here, a cutting there has been the rule, until ide as to the direction and scope of the course have now somewhat frystallized, although the department is still bampered to a certan extent by lack of sufficient instruments and facilities for carryig on the work.

For the beneft of our brothes of the mounted arm who decry theory, and 'who contend that th school hobby, like many of its predecessors, is being ridden to death, it may be remarised parenthetically that theory as laid doyn in our best text books is but

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thoroughly, after which the studer his knowledge by actual use of thy Each makes a compase survey and piece of ground, afterward plottifg the resules of his field work to scale. Members of the class eadh make a contoured map by use of the transit and atadia of a plot of irregular ground of about six and one-half acres, using a cootatir interval of fire feet; then each makes a plane table survey of a-plot twice that size. A right line is prolonged by each by using the transit (work that would be involved in the running otut of parallel of latitude). A true meridian is determined by means of an obserration on Polaris, and also by means of the solar attachm nt to the transit.

In order to intelligently determ ne time, latitude, longitude and true meridian, several days are neqeasarily deroted to the study of the morements of the earth, as we as the apparent movements of circumpolar stars.

The idea in making a careful afudy of the accurate instruments and then having each student use each and all of the instruments, in the field, is twofold. In the fiffot place, ability to use them is ralubble in itself; and, in the second place, it furnishes the only means of cultivating the ege and the perceptive faculties so that the subsequent work witb cruder ifstruments, or no instruments at all, is made possible.

Following the use of the more pccurate instruments the course in military topographical sketching becomen comparatirely easy.
 Pheory in this latter class of work amounts to little or nothing withont practice, and the confunt endeavor has been and is o make practical topographers of the students. With this end D view they make a contoured hap of at least two quite exhensive pieces of ground; this is followed by a four mile road reconnaiseance with the topographical field note book furnished by the chief of engineers; Then comes a longer road sketch with compass, pfotractor and drawing-board, in which the plotting is done in the fiefd, and the contours are aketched in to the right and left as the work advances.

Next comes the use of the capalry sketching case, at first dismounted, then mounted at a walk, hen at a trot, and finally at any gait the stadent may desire either dounting strides (in which many

PRACTICAL WORK COLRSE IN ENGINEERING. 331
use the "tall register" with great adrantagei or using a stop. watch and tipe scale.

The field for cavalry aketching case has now come into quite general use io our serrice, the style issued by the Corps of Fingineers being patterned after the model finally adopted at this school after thorough field tents of many good. bad and indifferent rarieties. The opographical course is intended to be progressive, and while it may not appear obvious that the sketching case is derised for a more dranced course than the transit and stadia and the


Fig 208.
plane table, $\frac{1}{\text { is nevertheless a fact. The use of exact instruments }}$ is necessary s a preliminary to the use of the inexact ones: work must first be fone with care and precision in order that the eye, the hand and the judgment may, by training. acquire a certain aptness whereby readits sufficiently accurate may be obtained without so many aids if the way of instruments. There is no question but what the excet instruments would be ased in military sketching if such a thing were possible, but in rapid reconnaisance sketching it is erident that they must be entirely dispensed with or be of the simplest chapacter if need at all.

It should aloo be borne in mind that the best topograpber is he who does bi work with just sufficient accuracy to meet the end in view, therebf saring valuable time that would otherwise be wasted, even if the delay in completing thesketch did not render it entirely useless for that purpose tor which it was desired.

This clas of work is considered very raluable as being of a kind that would updrubtedly be used in activeservice. To show the proficiency that the students acquire in this variety of work it is only necessary to state that each of the last class made in one day of eight and ope-half hours a reconnaissancesketch of nineteen miles
of country road in Platte County, Mo., (the work necessitatiog a ride of twenty-four miles) and that nearly all of the maps were sufficiently accurate to bave been used by an officer in command of troops for all such purposes as marching, bivouacking, camping and placing outposts. These maps were done in colored pencil, and although the execution of them was hardly of a character to be praised, the maps themselves showed all roads, streams, villagen. railroads, depots, telegraph linep, towns, woods, bridges, cultivation, etc., as well as the generall lay of the country by approximately correct contours. (The best twelve maps showed an average error in distance of but 210 yard*) It bas come to my knowledge that one officer of the last class (a promotion from the ranks) did orer 1,000 miles of road sketching of this kind in the vear after leaving bere, in compliance with Department and Post orders.

Another class of work, probably equally as important, consist. in the rapid sketching of defensive positions; in other words, the making of a contonred map of a position a mile or less in length. showing its capabilities for deffise; this class of work requires good judgment, an accurate knowledge of what to report, and a trained eye in regard to terrain in general.

Still another variety of rough plane tahle work has recently been added to the course; this we desipnate as "outpost sketching." In this we assume that the outpost commander has required eacb picket
 commander to furnish a aketch of the ground in bis own im. mediate front. To make the problem conform to actual service conditions as nearly as practicable, the student is allowed to use range finders. of which we bare six or eight different patterns, but does not go beyond his line of sentries (line of observation) which line is designated by the instructor. The accuracy and speed with which this clase of work is done by the stadents is post ratisfactory, since the only instruments used are a small drawing board, a compass, a clinometer and a ruler. Many hayo found it more convenient to improvise a tripod by tying thre sticks together, as shown in the cut, than to place the board on the ground. A square mile of country can be mapped and approx mately contoored in a few hours

by stepping off a base and then plotting important or conspicuous points, by intersections from the extremities of this base. The method will be readily understoo by the example shown, and there can be no question as to the refative value of this work and that shown by the other so-called mal, in which directions are roughly indicated by lines along which ofe written descriptions of the objects toward which thoy point. Tpe first gives distances, directions. relative elevations, steepness of sopes, fences, extent of woods, and mucb more that might be of im ortance, wbile the other is but a makeshif where time is too brief or the maker too helpiess tuat ${ }^{\text {s }}$ tempt anything better.

The method of contouring without traversing, which is followed in the first class of work, is very rapid, and of an accuracy sufficient for the purposes for which the mp is intended. It ceposists simply in plotting a single point in the dreek bottom by intersection from the two extremities of the base; hen, after ascertaining the angle of depression from any point of the base, as "a," the topographer has but to apply the horizontal quivalent corresponding to that slope as many times as it will bf contained in the distance. By noticing that the slope is somewht steeper near him than near the bottom, be is able to show it more accurately by grouping the contours more closely near the top and widening the interval near the bottom, preserving, of course, the same number of interrals that the degree of depression and scale of horizontal equiralents called for. Arriving at the east end of he base, it is noted that the level line strikes in the branches of a ree near "a," from which it is judged that the former point is abyut a contour interval bigher than the latter, which fact is shown by the contours. Referenge points, the plotting of ridges and gullien and a thorongh knowledge of sketching contours enable the stfident to complete the ploting without great error.

An intereating and important sprance on the use of the cavalry stetcling case was undertaten bly the laet class. The problem consisted in making a rapid reconplaisaance and road sketch without instruments. It was undertaken partly as an instruction and partly as a final test of the student's ablity. The sketches as a whole were better than the first that weri done with the cavalry sketching cases; one, I recollect, being without perceptible error in distance or direction, and without material pmissions.

Aside from the value of the res lis obtained by a good military sketcher, there is no more valuable professional habit than the one which this practice inculcatea, viz the babit of observigg amd of
taking instanfoneous mental note of evergthing that comes in view. and which is fely to be of importance in a military sense. It should be a matter of pride with every officer to cultivate this habit, and to so discipline fis powers of observation that he both sees and remem. bers.

The prescit class will be gicen practice in the conversion of small scale colil maps into military topographical maps on a scale of two or three inches to the mile by a process which it is contem. plated makin part of the theoreticaland practical course in topog. raphy.

In all the foregoing, which is carried out with the greatest care. the work che ked and the errors pointed out, the endeavor is made to have the qudent thoroughly familiar with the theory by study of the text pooks and by lectures. and then give him so much practice that he theory is clinched.

It is belie ted that the study of topography without subsequent practice lacks any ultimate beneft except as an intellectual exercise.


In "map eading" the course is fully as exacting as in map making, it beng an accepted axiom that ten mape will be read to every one that is made. Tbe subject is acquired in a very thorough manner, and the problems proposed and solved daring ibe course aud on examifation, are as difficult as contours will admit of.

The practifal work course in military field eogineering, while not as extensi e as the topographical course, is nevertbelese quite as important in its way. It embraces, among other features, the
making of demolitions with dyamite and gun cotton. An in. teresting feature of the experiments during August was the cutting of a five-foot piece out of a steel rail by using twenty ounces of gan cotton in two packets, wired to opposite sides of the rail. The experiment need not have occupied more than three minuter.

While studying the theory of heltertrenches, field works, spar and floating bridges, otc., the atudent in charge of a working purty instructs it in trench drill, and actually makes the trenches; also a sectios of a field work, after solving in the field the rarious prob. lems relating to deflade, width of ditch and profiling. Previous to making the revetment for the field work, the students make fuscines, hurdles and gabions.

Instruction in spar bridge builling begins with knots and lash. ings, which are followed by the alctual construction of the various trestle, lock and sling bridges on scale of one fifth, to one third regular sizo, and by the construction of cask piers, the object being to allow each officer in the limited time at his disposal to hare a
 varieties, the single lock bridge with corduroyed flooring shown in cat, spanning a thirty-two-foot chasm, was consiricted in a trifle over an hour and a half.

Practical work in photography closes the course, the requirementa being satisfactory negatives bf an outdoor view and of a map or drawing, after whicb the student prepares blue and wilver paper and makes from his negatives a blue, a silver and a bromide print.

PRACPICAL WORK COIRSE IN ENGINEERING. 3:3:
It is belifred that one great advantage in the practical work doneat the shool is that it inculcates in many whalterns a degree of confidenc in their own ability that did not previously exit Our younger generation of caralry officers are fully as able and ambitious as their seniors were and should opportunities such as were offered to the latter occur, they will not be tound wanting
 Hudion Topogry phy ad sketchiag." and are bere reprodured tbriugh the courteny of the Hudeon-Kimberli, Publiabing Company. Kamas Clity. Mo
for at once although it may be best to make haste shely in the matter. F fur troops would complew the organization of a squad ron as used in the regulararmy. Major Roe is to be congratulated upon the ufitorm success which has attended the organization of Troop ${ }^{-}$A. he may ye composed o of material similar to that in the original troop. Thymen way to estaplish in the public mind a knowledge of the real value of cavalry a to hare organizations on the spot to cope with diffi. culties whe the emergencies arise. The active National Guard is composed alry troops hou monges thould be encouraged all over the country particularly perfect the elass of young men who have the time and means to perfect thenselves in this expensive branch of the military service

NEW
DMILL REGULATION: FUR THE RCSEIAN
CAVALR
Orders fated 1 pril 12, 189ti. 10 . Spaused the introduction ot new drill regulations tor the Russian cavalry. The old regulations dating from 1885 and 1 sati, as well as the manuals of instruction pertaining hereto have been rephaced by new regulations consint ing of thre part.

The nec sity for a change from the former resulations had bewn apparent to a lone time. In the preceding ten years numerous. new featurd had been tentatirely introduced, which, althounh sanctioned $y$ the highest authority had never been officially incur. porated in the drill regulations, and on that acomat gave rise 1 , nequalities in the instruction. A tendency to make excessive demadde of the capabilities of the horse had liecome especially noticeable. This certainly. was not consintent with the paucity of he forage rption

In 1893 a special commission was therefore organized in the general staf, to be presided over by Gramd Duke Nikolai NikolaJewicz, compander of the Second Casalry Division of the Guard, at present Inspector General of Cuvalry. The new form of the drill regulations and manuale of instruction is due to his labors.

In geneqal the old lines, almost identical with those in ase in the German cavalry, bave been adluered to for the foundation, but the arrangenent is much more condensed and nyoptical, so that, in apite of the fitroduction of various new features, six of the former sections could be eliminated entirely.

Cnder the present division of the subject, the first part contaitis the individual instruction, the school of the plation. and the drill dismonnted. Heretofore the latter was io be found in separatic regulations, but how, on account of its interior importance, it in embodied in the first part in very brief form. The regulations concerning sad ling, and the harnessing of caralry horses to replacu artillery drap horses in emergency, form a new feature.

The Second Part.- Here we nd the drill of the troop, the regiment, the brigade, the division, and the assembled cavalry corps. Tbe drill of the entire corps of cavalry was introduced several years ago, and has already prodgced very favorable results. As a substitute for the special regulations of 1884 concerning those portions of the cavalry and Cossach which have dismounted to fight on foot, "regalations for the dismonnted portions of the caralry," likewise simplified and abbreviathd, hare been added to the second part. We also find new rulcs for parades and other ceremonies and for signals; the latter are very nuch reduced in number.

The Third Part.-Directione for the bigher instruction of cavalry. (The foreign word instruçon is no longer used; nasstauclenie takes its place.) In the drill regulations proper, other directions for the employment of cavalry ayo almost entirely avoided, except in the fourth section, which part kes more of the nature of tactice. There are new ralos forswimminf, crossing of streams, borscshoeing and instruction of scouts.

Let us now mention some of the more important changes in and additions to the drill regulations. In riding, all four reins are continually need, two being held in each hand. It is only a few moments before an attack that all the reins are held in ove band and the saber is seized with the other.

The requirements concerning the use of the arme blanche have been emphasized. In future fencing is to be practiced by all grades. and special attention is to be paif to the derelopment of a method of fighting which will enable the troops to cope successfully with hoatile cavalry armed with the lance. For the purpose of practicing individual combat against the lauce, apecial telescoping rods hare boen introduced which render a thrust harmlens. Practice at first is on foot, then mounted. Troopers ${ }^{\text {brmed with the saber are required }}$ to ride through the open rauks of the lancers at all gaits and to parry their thrusts. Riding thrgugh lines of infantry is practiced in order to accustom the borses to firearms.

The gaits have also been mo ified. Walk and trot, as before, the former from three and one-ha|f to four and the latter at eight miles per bour. Track gallop (tte former shortened gallop), eight miles per hour. This is intended for use on the track only, by all the men andergoing instruction i equitation. Ordinary gallop (the former front gallop), ten and two thirds miles per hour, for evolutions. A new feature is found it the so-called field gallop, sixteen miles per hour, which is intepded for all movements requiring greater speed, for instancel in the vicinity of the enemy ander fire, or when riding ofer open ground. The use of full career in the attack is retained. Contrary to the former rule the use of more rapid gaits than the trot is now permitted when the use of more rapid gaits thay the trot is now permitted when movements at the trot, absolute upiformity of gait, without a single horee at the gallop, is insisted on Training in the field gallop is required to be sach as to enable the borses to cover two and two-lliods miles at that gait and then to charge 300 paces.

Fxcessive eqertion however is to be avoided. The ordinary march is from twefty to twenty three miles per dar: tbe forced march between twenty-three and thirty-three miles.

The use of combined signals and the personal example of the commandins officer, in place of loud commands and the trumpet. has been gratly extended.

In the sefond part it is prescribed that atter wheels, facinge and obliques, th froop remain halted until tbe command, "Forward," is giren. Ho ever. the command may be given before the completion of the morepent, in which case the troop does not halt.

Formation of line to the front from column is habitually executed by bolh flanks, unlese a particular fank is specified in the command. The guide is towards a flank; under certain circum stances it day be towards the center. The regulations prescribe frequent pragtice of "the rally" in rear of the commander, either in coumn or if line, so as to hare a reserve in band at all times to renew the combat. In the adrance the direction it taken from the platoon behfod the commander, in larger units. from the troop in his rear.

For the foouts (men specially trained in reconnaissance and patrolling, thenty in each troop) there are new instructions, according to whicb they no longer have to serve as flankers. When it becomes n cessary to employ flankers to present bostile observa. tion. special detacliments are used for that purpose. The idea of insersion, and all formations and erolutions finding no application in battle, hare been abolished. Thus (a) regimental column of troops (the toops in line bebind each other with full distances) bas disappeared; and (b) formation of line in an oblique direction by means of preceding troop wheels, as well as change of front in line of platoon clumns, will in future generally be replaced by simultaneous whe 1 of the whole regiment in line or in line of plation columns. The double platoon column bas been introduced in order to facilitate passage of defles and rapid formation of line in any direction; the latter is the controlling idea for all morements. The gaits are governed by circumstances.

From the fourth section (evolutions of the brigade, dirision and corps) the line of regimental columns, used as a reserse formation, bas been exc aded becanse not considered practical. On the other band, precis regulations concerning the employment of the lava (open order of combat) of the Coseacks in conjunction with the operations of the regular regiments of divigions or corps, have finally been introdoced. (Very important.)

The precpte on attack and pursait enanciated in the second and third seftions of the regulations of 1884 have been combined in the fourth section, and illustrative examples are cited. This section thus, in a measure, is a tactical treatise, which may also be applied to th operations of larger bodies of cavalry and horse urtil. lery against ell arms.

In the fothecth section special stress is laid on the importance of
the attacking line (also called the line) in the battle formation. To insure success the attacking line should always be stronger than the corresponding portion of the fenems's force (?). In order to facilitate maneavering, the first line is not to advance in line of battle, but should be kept in lipp of plation columns (our troop columns) to be deploged just before the attack. The attacking line is required to protect its flanks by means of attached troops in platoon colnmns, separated from the first line by not more than fice times platoon distance. The second line, or support, is thus ren. dered more independent as is more readily available for enrelophing movements. It is formed either in reserve cotimns (our regimental colamns) or in line of platoon colamne, and under suitable circum. stances advances in line. Distance from the attacking line formerly was 300 paces, but now is only 20 paces.

The third line, usually called the reserve, has received the additional instructions to attack those portions of the enemy's troopwhich may have sacceeded in penferating the first time. Distance from the sapport 300 paces, and from the attacking line 400 paces.

In the attack the energy of the horses must be saved up to the last moment. For this reason riding is done with both hands. Even when the saber has been drawn it rests against the ahoulder and is held with two fingers untif just before the sbock. A jainst cavalry preparing for attack the trot is to be used until within 401 paces; then field gallop and charge for the last 100 to $\mathbf{2 0 0}$ paces. Against an unprepared enemy the field gallop begins at a greater distance; in order to cause surprise by the rapidity of the attack.

Infantry is attacked in closed lines, or in open lines in double rank, not io skirmish lines in single rank. In the second case only the first line takes increased interrals (the officers remain in the middle of their platoons; formenty they rode in the frout rank; ; the sapport and rewerve are in line. Half-troop echelons are employed in the attack. The second line is held at 100 and the third line at 250 paces from those portions of the attacking line remaining in cloee order; quick repetilion of the attack is thus made possible. In the attack by a division or corps the formation may be in four lines. Great depth is aimed at. For every section of from 400 to 800 paces of the enemy's infantry position, from three to six troops are estimated for the attacking line; against a battery of six or eight pieces, one to thpee troups. In open country the field gallop is taken up at one and one-third miles from the enemy Envelopment of the enemy's flank is to be practiced on the most extensive scale, and false attacks 1 lso.

Attention is also called to the fact that the massing of the artil. lery costomary at the present time affords favorable opportunitiex for cavalry attacks. Depth of attagk formation is of less importance against artillery.

Participation of horse batteries in cavalry maneuvers has been amplified and more precisely regalated. The field gallop has been adopted for horse artillery also, and even before the caralry is ready
for action the artillery must open an effective fire on the enemy. The batteriel should be kept together as long as possible: this is facilitated by the present arrangement of two batteries to a division under a specfal commander.

The regulations for the dismounted action of caralry hare been simplified to fhe utmost. Tactical details are entirely lacking. We hare only the bare statement that dismounted cavairy shall act as infautry. hafing due regard for the limisations of the arm. The movements if fighting on foot have been much reduced in oumher.

Very material departures from the regulations of 1 s 84 are ob. sersed in the principles laid down in the .. directions. for the in. struction of caralry, especially concerning the division of time. Tbese principles are not to be deviated from for purely permnal reasons. They are no longer mere adrice, hut universally applica. ble orders.

In order ko spare the strength of the horses, which is severely taxed in the present active duties of the sersice, two periods of rest. each a fortnitht in duration, are designated. The first is for the apring grazi $g$, and the second after the autumn maneurers. The grazing is topast only from seven to ten dars (formerly as high as four weeks). (in order not to weaken the homes too much bhorly betore the befinning of the summer drills. This period of grazing has not get been abolished, althoush such action hav frequently been adrocated.

The course of instruction for the winter is now to be completed two weeks soner. that is, by the end of April at the latest. Drill in the school of the troop now lasts from four to six weeks instead of only four feeks, in order that the troops may be more thoroughly grounded in heir drill. Evolutions of the repiment. tour weeks as before Swipming drill has been made obligatory: there are six wuch exerciset in ail. Ecolutions of the division and the corps will, instead of fo reeks. occupy from threc to six weeks, of which from three $\$$ eight days are to be devoted to the corps. More weight will if future also be attached to exercires against an outlined enemy, the general situation being based on some tactical idea. There are alo maneuvers of forces of caralry arainst other bodies of caralry, ad against mixed detachments. In order to "avoid absurdities," the portions of the cavalry moving in open order are required to rfde through the entire hostile infantry position, while those portions remaining in close order are required to halt in front of the intint $\begin{gathered}\text { reserves they are supposed to have attacked. }\end{gathered}$

On accougt of the increase in work now required of the caralry its period of participation in the exercises of the three arms has been cut doun to three, and eren two weeks. The period of inatraction in winter is now more accurately regulated thau it was before.

For the ofincers the following course has been definitely introduced: (a) Riding, fencing, raulting; (b) Tactical cxercises; (c) Examination fo drill regulations and manuals.

Instruction of the men in troap sebools has been entirely abol. ished, for time for that purpose was lacking, and enough pricates knowing how to read and write are available to be sent to the detachment of instruction (for the education of non-commissioned officers) anyway.

The older men as a rule are to ride only with the curb, making use of the snaffle reina with both hands at the same time (see above). Riding on the snaffle is practiced when necessary. For the better training of the horses "shoulder in" and "balf-halts" are to be used, whicb formerly was done odly with young horses. All officers are to be instructed in the trafining of remounts.

The new drill regulations and the manaal belonging thereto mark a great advance in every respect. Whether the high demands made on the troops can be successfully met, only the future is able to show.-Militär-Wochenblatt. Extract from Russhi Invalid. Translated by First Lieutenant J. It Dichman, Third C'avalry.


DATES OF CERTAIN WARS, CAMPAIGNS, EXPEIDTIONS EVENT: ETC.


185\%-1Nim.
183.\%.
$1850-18 \mathrm{xi}$
1×35-18i8. $185 \%$

1837-15is
18it-18is
1858.
18.9.
1878.
1858.

1858-18is.
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1859.
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1859.
$1859-1860$.
18430.
1860.
1880.

1840-1881.
1881-1890
1861-1886

## 1862-1887

$1863-1809$
18tij-1888.

Mamon disturbances in Missouri
F York, A rovetook, and Canada ( I'atriot War) Frontier disiphan's Expedition from
prico Nopmbr 1846 Santa Fe. New Mexico, to Chihuahua, cican War. A pril 24, 1846, to May 30, 1848.

- Mexico Expedition, June 30, 1846, to February 13, 1848.
a use War, Oregon, Oregon Volunteers.
a ajo troubles, New Mexico.
o tinuous disturbancea with Comanche, Cheyenne, Lipan, and ickapoo Indians in Texas.
River Expedition Califor
Pit River Expedition, California. A pril 2s to September 13, 1850. Yuma Expedition, California, Decenuber, 1851, to A pril 1852.
Uth Indian disturbance.
ogue River, Yakina, Klikitat, Klamath, and Salmon River InGian Fars in Oregon and Washington.
aptember $\&$, io zepexpedition, Xebraska Territory, April 3, 1855, w July 27. 1850
Ia ima Expedition, Wrshington Territory, October II to Novemcr $24,185.5$
Ch renne and A rapahoe troubles.
en inole or Florila War, lecember 20, 1~in, to May s, $1 \times 58$. Expedition, New Mexico, April li to September, 16, 185:
ax Indian troubles in Minnteota and Iowa, March and April ${ }_{55}^{5}-$
Ctah Experdition.
Ex edition againat Northern Iddians, Washington Territory, July to Oetober $17,1 \times 58$.
uget Sound Expedition, Washington Territury. August 10 to Fptember $93,1838$.
Spokane, Cueur D'Alene and Paloos Indian troubles in Washing. th Territory.
Vayajo Expedition, New Mexico, September 9 to December 25

Widhita Experition, Indian Territory, September 11, 1858, to Deqmber, 1859 . Fspedition Californiu Februery 11 to A pril 8 | $\mathrm{Col}{ }^{1} \mathrm{rad}$ |
| :--- |
| 59. |

Pecpe Expedition, Texas, A pril 16 to Auguet 17, 1859.
An lope Hills Experition, Texas, June 10 to September 23,1850 Reat River Expedition, Ctah, June 12 to October 18, 1854. Joh Brown Raid, Virkinia, Novetuber and December, 1859. Cortina troubles on Texas and Mexican border.
Palfte Expedition, California, A pril 12 to July $9,1860$.
Kidra and Comanche Expedition, Indian Territory, May 8 to Ocber $11,1850$.
Car on Valley Experition, V'tah, May 14 to Jaly 15, $1 \times 80$
Vajajo Expedition, New Mexico, September 12, 1860, to February Apthe In
Apache indian War and troubles in Arizons and New Mexico. Hostilities, homever, commenced upon the fring on Fort Sumt $r$, Aprit 12, 1861, and ceased by the surrender of the Confedefate force n nder General Kirby Smith, May 26, 1865.
ef ate force nuder General Kirby Smith,
Wa apainst the Cbeyenne, A rapahoe, Kiow, and Comanche Indiane in Kaneas, Nebraska. Colorado and Indian Territory.
18:5-1886. Fenian raid, New York and Canada border disturbances.

Campaign against Lipan. Kidasa, Kickapoo and Comanche Indians and Mexican border distu bances. Febran River Expedition February 13, 1869.
Yellowstone Expedition, Av ,ust 28, to October 25, 1871 . Enjan troubles.
October, 1871.
Yellowetone Expedition, Da ota, July 26 to October 15, $18 \div 2$
Modoc Campaign, Novembe 28, 1872 , to June $1,18 i 3$. 18.
Yellowstone Expedition, Da gota, June t, to October 4, Campaign against Kiowa, heyenne and Comanche indan Territory, August $18 i 4$, to February 16, 1875 . Sionx Expedition, Wyomingand Nebraska, February 13 to A ugust $19,1874$.
Black Hills Expedition, Dalpta, June 20 to A ugust 30, 1874 Big Horn Expedition, W yon ing. A ugust 13 to Octoher $10,1 \mathrm{sit}$. Expedition against Indians ${ }^{\text {and Eastern Nevada, Septeuber }}$; to 1875.
1875. Expedition, Dakota, If ay 17 to September 26, 1876. Powder Kiver Expedition, 31, 1876.
Big Horn and Yeilowstone Expeditions, W yoming and Montana, February 17, 1876, to Jun 13, 187. Wary, Kansas, W yoming, quata. Nebraska and Montans. Labor strikes in Penneylvan and Maryland, July to October, 18. Nez Percé Campaign, June if to October 5, $187 \%$.
Bannock and Pinte Campaign, May 30 to September 4, $18 \mathrm{~F}^{-\mathrm{s}}$ Uannox's and Piate Campaign, a ay 0 to September ${ }^{4}$. Snake or Sheepeater Indian troublee, Orrgon and Waslingtun, Augnst to October, 1879.
Distarbances of settlers in Indian and Oklahoma Turritorits.
 Cte Indian Campaign in
Chinese Miner and Labor froubles in Wyominc, Septeniter and October, 1885.
Boux Indian disturbances in South Dakota, November, 1800, to January. 1891
Garea imubles,
Horn War."
Miner disturbances in Itahd July to November, 1842.
"Industrial Army," "Commonwealers," "Coxeyites," and Iabor disturbances.
Troublrs with reneqa.le A fache In
sai, in Arizona and Mexic $n$ borde
Railroad, Pullman, and Lablor strikes extending from Illinois is Pacific Coast, June to Ausust, 1894
Bannock Indian troubles, Jy y and A uguet, 1895.

- Ad tant-General's Office, October 1, $18: \ldots$


## THE ALDERSHOT MANELVERS

[ Miltary Corre poidence.]
The troops are now fast retur ing to the stations from whirh they were gathered for the Aldersitot maneuvers, and it is posnible to form a just eatimate of the resulfo of the great military assembly of the Jear. The weather, after a sigbt improvement at the begit. ning of the second week, became al bad as ever for the unfortunate
men after Mdnday and Tuesday. It would be absurd to discuss an a spectaculat effect the final inareh-past, in which drenehed men, drenched hoges, and drenched harness issuing from bogey camps could show their discipline only by their endurance of conditions intolerable with any kind of comtort. That discipline has been all the more effectively shown for the discomforts of this trying fortnight. I is true that occasional grumblinge might be heard in some parts of the force at the incessant rain. and even that men should be kept out in it; but there were to be heard alaogrumblings or regtets of a different kind, which showed how keen was the interest of the men in the work, even under the most untoward circumstancel. On more than one occasion. when the operations were somewhat prematurely stopped because of the rain, the men in the ranks who had been looking out for the development of forces on the opposite side, and were firmly convibced that if only erents had ben allowed a litte more tine. their wide would hare been seen to have the best of it, bitterly regretted that they had not been required to lie out in the rain tor another twenty minutes. Enough ipteqest was in this way, at all events. shown to make it a point to be noted at least for finer weather, that the men do rery keenly wish o see for themselves what is gotng on, and that rery often the unfpires and headquarter staff, who from a point of vantage hare been able, at a comparatively early atage, to take in the whole sit dation. would do well to remember that their point of vew is a rert different one from that of the men in the rankis, and that unless tie troops have come actually into too dangerous contact, it would often be well to make a rather longer panse before the "Cease fife" is sounded, not because it is necessary in order to determine th merits of the situation, but because it is well that those who ate playing pawn should have rome opportunity of knowing bout the game has gone and because theylike, at least, to some exten, to have the means uf seeing and judging for themselves what Eas happened. For the rent. I am inclined to think that the mos important factor which has developed out of these maneuvers is the increased importance which everyone, they themselres included, has been diaposed to attach to the militia force. The bringing trogether of such a strong body of this branch of the serrice. and sight of the splendid phrsique ot the men, on the whole decided saperior to that of the line. was pretty certain to bave such an fffect. I can onls bope that the consciousness of the possibilities which underlie the $\mu$ resent form of our great constitu. tional army pill cause vigorous measures to be taken which will remove the gefects in it of which ereryone is conscious. The problem is a fifficult one, certainly, and requires to be bandled with great tadt and judgment. The militia is essentially a county force, depend\{nt, therefore, largely apon county influence, and, therefore, npo the infuence of county magnates. The temptation to slip into it $\mathrm{p}_{\text {a }}$ officers youths whom it is more desirable for them thus to be employed than for the regiments themselves to which they are asaigned, $\frac{1}{6}$ rery considerable. It mould never do for practical
parpoees to quarrel with those why affect largely the feeling of a district and the popularity of a locil battaliou. A derpotic decree too anddenly issued by a Secretary bf State might easily kill for us the bird that lays the golden egge, and it would not do to inquire too cloeely into the bereditary widdom or prejudices of the bird They must be delicately dealt with.

Nevertheless, it soems to me theat the territorial, or, as in the main, I may fairly call it, the conn fy system of recruitment for the regular army has now gone far enough, und become nufficiently ostablisbed and popular to assist rary materially in the solution of this queation of the militia. In ma $\mathrm{m}^{\prime}$ districts there in the warment possible feeling for the county regment, and we have seen county cowns prepared for a gala day bedare the battalion was then to pass throngh in a manner which phomised only too kindly a recejpass thr Toumr Atkins. If this feling could be taken adrantace of to ensure the appointment to the militia battalion of thoroughly good officers from the regular batyalion, and if thone were lonki, upon as county appointments, it would be a long step taken. It would be a yet further one if it bectho the custom for county men who wished to serve as offerers in the militia to go for at least afew years into the regular battalion. In any casc, the whole subject yente to be taken up and systematically dealt with by one who wreads "with nerves of iron on who of telt treade a ranks is splendid. All that we cooks who bave to work it up, and more eapecially ot the head cooks in each kitchen. As might pe expected from the nature of the weather, sightseers were for tho most part conspicunus by weir absence. Even on the one thorofghly delightful day in point as weather, when after the rains, wit no dust on any road, the sus shining genially, the air breathing softly, and the beautiful heutherland between the Heatherside Nuperies and Chobham looking its best, und in parts at least rich with the purple plumen and yellow gorse, all glowing in the sunlight - the day when General Alieyxf. gorse, all glowing in the sunlight mither than bave ever been recen at arraged his batteries in larger number than bave eser been from the Aldershot before, and when the whole drams could be seen from the ridges as from the seats of an ampitheatre, only a tew of the local residents were present as pare sightseers, and, though the attendance of those not actually connecte with the maneurers was larce. it consisted almost eutirely of offeprs, mostly mounted and in uniform, who bad gathered for purelly professional purposes from all quarters of the kingdom. The attpadance of tbene was larger and more variod as regards the repres ntation of the different armscavalry, infantry and artillery - than on any other day, perhaps andy partly because oven from early moyning the weather promised well and partly because the assembly of eo large a body of artillery, and its bandling by an officer of so est blished a reputation as Gencra ALLETAE, was a more exceptional went than any other during the manenvers. The night march, which, from the number of the troops employed and the pecaliar dificulyes attending a morement acros dificalc country doring a night dolly dark and blinding, because
of heavy rain and intermittent flashes of lightning. Which only made the interrals fetreen seem to be ot more pitchy blackness, was the most difficult operation undertaken, and certainly, considering it: nature, it was he most successful. The surcess of the concentration proves the rapue of the long years of training in night morements which were bapun it Aldershot under Nir Fvelyn Wood, and have prepared the a my for these most arduous and mont important opera tions to an extent that would have appeared almost incredible when they were firs undertaken. That a large number of militia battal ions, with litte opportunity tor such practice, should have been brought up sudeessfully to the required points. whows how valuable - even lor thpee parte ot the forces which hare not been able to practice them on a large scale - hus been that training of the conducting staff, which has now rery nearly, in this respect, stained perfection. Tpat out of on large a body there should be certain amall portions who hare not yet learned the necessity during nuch an operation of enforcing the rigid silence and absolute suppresion of all light, suth as the strikion of matchee. ele, is a comparatively minor point that will, no doubt, be carefully inquired into. and be accesstully refnedied

Many ot the operations of the last week were. from the nature of the weather restricted to ground which. to the habitues of Aldershot, is rery familiar, and to some extent the tact that erery ponition that could possibly be taken up was known to some of the officers engaged on eitperside, tended to reduce the value of the experience Neverthelesa, the rery large number of troops arailable, the diff culcies which afe incolred in the combined working of bodies more considerable then officers can often hare opportunities of command ing. abd the nfcessary changes in the occupation of even ground familiar to the for the use of smaller units, made the two fine days of the beginnipg of the second week by no means to be denpised. Moreover. evegone present felt and pricately expressed the im. mense alvantage which was derived by the whole force from the prenence and the clear and wholesome lessons of the Commander inchiet The pusiness.like criticism at the end of each day. based on his larte experience and knowledge ot war. and his keen appre ciation of the feally important pointe. to the exclusion of trivial ities, added ent mously to their value for all eoncerned

There are ofe or two proints as to which, if only for the purpose of having thein properly considered. a few sugyestions for future maneuvers mas be offered. First, as to the comfort of the men With a view tohtue possibility of such weather as we have encountered on this ocfasion, one of two things seems to be indiapenarable Either the tents used must be prorided with wooden flooring, or the men most be alowed, on their first arrical in camp, to make, as they would do gn service, proper trenches round then. The objec tion is that the gronnd becomes much cut up and spoiled for fulure use; but if the fodsare carefolly cat out and replaced, the injury is not serious. It is little more than a quention of expense, and it is much more expensive, it that were the only eonsideration, to injure

surmounted. Parade gronnds aro simply useful for drill and preliminary instruction. Troops cannot be trained for wat in a barrack square, and as nonn as the rudiments of a soldier's education hare been learaed he should be taken gut of the nursery and exercised in the open country. The fret thing to bo done to this end is to get our conntrymen to underatand the oupreme imporiance of the matter, and to look at it from a more patriotic point of view than they seem sble to do at present. When a soldier adrocates such measnres, the pablic, I am afraid, re inclined to look upon bim as not an unbiased judge, and to think that in bis estimation 'there is nothing like leather' (laughter and applause). I would, theretore, venture to bope that the influende of the press may be exerted in bringing to notice the national importance of the question, and in developing a more pablic-spirited fattitudo in regard to it. Crops and fences suffer but little injury finom military maneuvers, and the government is always prepared to make compensation for any damage that may be done (applaused. It is certainly extruordinary what peculiar ralue land acquires when any proposal is atoot to atilize it for military purposes (lapghter). This has recently been brought home to me by commanications I bave received complaining that the presence of a surveyon disturbs game, and that a harmlees instrument like a theodolite das a paralyzing effect on grouse (langhter). It is not part of my programme to exterminate grouse (langhter), indeed, I should be extremely sorry to miss the farniliar name from the antumn menu (la ghter), but the preservation of grouse and every other kind of game depends on security of prop. erty, and to ensure that security it is essential to bave an efficient army, and as I have already told you no army can be efficient unless it is properly trained, and it candot be properly irained without ground to train it upon (applause "- London Standard, September 5, 1896 .

THE POSSIBLE ISOLARION OF GERMANY'
The isolation of England has long been a favorite tbeme with German journalists. We offer thet tbesuggestion tbat they might at the present time vary it by discussing the possible isolation of Germany, which of the two now approaches nearer to actuality. The Germans pride themselves on their common sense, but in their dealings with this country doring the past few years it has been conspicuous by its absence. Otberwise they would not have gone out of their way to alienate the good. will of a kindred nation which in Heligoland and East Africa had bhown a desire to propitiate theirfriendsbip, and to offer the needles prorocations first in the Trans . Vaal and then in Zanzibar, which pare embittered tho relations of the two conntries. German writert are very mach mistaken when they describe the spirit of this nation as meek, and as disposed 10 turn the cheek to the smiter. Their knowledge of hintory ought to have prevented their committing auch an error. but their recent action can only be explained by their putting their theory in prac
tice. Thim orm of ammement - or perbaps it wodd be beller to say of expetmental ntatesmanship-has proved very cosily. (bily two vears a o the natural bond linking England and Germany wis in woch a pefect and complete condition that, so far an practicable this country had become a fourth partuer to the Triple Alliance The mont infiacreetand provocativeaction of the Emperor William and bis goternment has placed such a partnership beyond the bounds of possibilitr, and rendered it highly probable that England bounds of ppes wist into the scales against Germany and tor would throb her weight into the scales againat bermanyand for her opponeits. The (ierman Emperor did not allow sufficienty for certain fferences in the opinions held in hisown country and bere. Becape Germana hate Freachmen and vice rersa, and because both are ready to flyat each other's throats, he was quite mistaken infthinking that anything like the same feeling presails here. The Eoglish peuple are far more sympathetically disposed comarda the French than the Germann. and that aymathy is cer. ainly not doninished by the fact tha: the French were unfortunate in their lasowar with their neighbors. Incredible as it may seem at Berlin thare is nothing Englishmen would like better than to see Alsace and forraine restored to their natural owners.iar it is as unatural to sfe Germans west of the Rhine as it would be to behold Frenchment of of it. These are not the expressions of individual piniona but the faithful reffection of what is thourht by all claraes in this country.and there can be no doubt that the caune of this on this coun revulsion of policy of the celing has been mainly the willtal and provocative
 into a certa groove selected by bimeelt:

The consequences of this miscalculated policy, which became more prorocative in its expresion as the experted results failed to follow, are fikely to be serious and far-reaching. Their course is not likely to direrted by such fruternal telegrams and messages as the Émeror William favors. . Blood may be thicker than water." but it will not make German insulte seem milder in the eres of our countrymen who hare the common sense to see that Germany is the one power they might go to war with to-morrow without a qialm. and with the certain conviction that it must end in their maprial benefi. But the alienation of Eugland and Ger many from each other, and the evidence afforded that they are going to be advemaries and not allies in internationai controversies and contests. must materially modify the relations of otber powers, und react i jurionsly on the Triple Alliance itself. It is unnece:sary to layfurtber stress on tbe moral effect the wantonness of the Emperd. Williams provocation to this country must hare un the minds of his own aliies. In Vienna and in Rome the question will be askf, Can a ruler who goes out of the way to make all enemy of awell-disposed state, and to throw it into the arms of the other sithe, be either a wise or a mafe leader to follow? It certainly is ndt common sense, and we doubt if even Macceiavelif conld have discovered a plansible motive for vuch tortuous aud reck-

e. In this manner. solely liy a reckless course of antee of peace. In thion to Fichation the purt of Germen Em uncalled tor provocation to England on the part of the German Em peror, will the disruption of the Triple allance be brought to pans.
and in a litt time after that the would be bully of Europe will find itself in thet position of isolution, the threat of which German journalists fare held in terrorem over the head of this country. Admiralty and Horse Guards Gazette.

ГHE GRAND REVIEW AT CHAI.NXS
On the of of the present month the French army or, at least s0.001O of itspicked and most representative regiments, will march betore the Fmperor atd Emprese of Russia on the historic plains of Chalons. fa parade ground there is not a finer one in the world -while the banorama. with the Ardennes on the one hand, and the Fonges on the other as a background. will be pronounced by thone who see it pr the first time magnificent - than the spmt on which ©harles Matel deteated the Saracens. The late Emperor Napoleon dedicated if to the training of the army with which he hoped to gain the B ine frontier. and lavialied milions on making it the ne plus ultre of a permanent milhary camp provided with the Imperial actessories suitable to the hegdey of the Tuileries regime. But during lie twenty wix year- of the Repubtic. Chatons bas been relegated if comparative obscority. and the brilliant ceremolyy arranged in the casar's honoran the ally of France will be the first effort to rextre the departed gluries of the Xapoleonic era.

The Fred ch government and perple have legitimate reasone for wishing to how their military power to the beat adsantage before the potentate whose alliance phaces them on an equality with the three powe that had joined topether for the exprese purpose of preventing france trom annuming the offolsice. It was therefore decided the for the display on the large and comprehensive acale the occasio demanded. both Lothgehampa and Vincennes were too cramped, afd boweser much the Parixiall-were disapponted, he arguments formor of General Satssiers stheme of a review at Chalons wefe unanawerableand consincing. There then remained the questio of the troops and their number that were to take part in it. and in deciding these arrangements several difficulties had to be met and overcome. Owing to the tat that the reservists abould be released from their duties on Sept. 317th. the regiments would be reduced to uch a diminished atrength that it would not hare been easy to coll ct at Paris a sufficienty imposing torce without a more stensire the garrisons than wus either prudent or desirable. fit first it was proponed. when the Czar was expected to reach Pariston Oct. 3d. to keep the reecrsists with the colors for the neceseary lumber of extra duys, but even tor the Emperor of Russia it wfuld not liare been possible or popular to detain them for eleven or thelve days beyond the limit of their duty. The difficulty liad to be ofercome by selecting a site nearur the numerous garri-
*
sons of the esstern frontier, from which corps and parts of corps could be withdrawn for the forty-e|ght hours required for the pur posee of the review. These, with the Paris garrison, and certain special contingents, e.g., the Alpi, e and Algerian armies and the Territorial army, rill supply a total on the parade ground of not less than seventy, and perhaps eighty thousand troops.

Another difficalty of a practic 1 nature beset the organizers of the review. The French army is the plainest and must uniformly dressed of any army in Europe. Fhere is hardly any variety left in it by Republican simplicity, and of the pomp and pageantry of war scarcels a trace is to be seen. The French military authorities are far from being blind th this defect, and they very quickly natw that the march past of $\mathbf{7 0 , 0 0 0}$ blod tunicy, with no more imposing headgear than a kepi, would soon pall on a ruler whose army contains a greater number of costamealand uniforms than that of any other -potentate, except our own Queen Empress. With a view to introducing, some color and varie $y$ into the scene, Zousres and Chaseenrs d'Afrique have been sumponed from Algiers, and a battery of mountain gons and a regimpnt of Alpine riffemen from the Alpes Maritimes. The former aro to be accompanied by their Moorish kettledrams and horse band, and the personal escort of the Emperor will be composed of those spahis whose turbans and flow. ing burnouses are the only things if the French army suggestive of Oriental magnificence. The marine artillery, infantry, and fusiliers, which form part of the Paris garriton, will also be -brigaded with the land forces, and in this manner as much varicty as possible will be imported into the display. But the main effect of the review of this French army will arise from the evidence afforded that the reconstituted forces of France are equal in all the warlike qualities to any other in Europe, and the Enfperor of Russia is not likely to allow his judgment as to the serviceable character of the troops defiling beforo him to be biased bythbe fact that the color of their jackets is monotonous, and that there are fower plumes and less gilt than in Imperial armies. Thpre is no doubt that ereryone present at the review: as either spectator or critic will be very favorably impressed with the efficiobly and energy of the soldiers of the Republic. As the men will not have shaken off all the effects of the recent maneuvors, that imprpsesion is likely to be enhanced by their hard condition and quickndes of movement.

In the midst of their anxiety to dablish their military efficiency and power in the eyes of their auggat Russian visitor, we bope that the Preoch press and public will fot think there is any tendency among Englishmen to disparage or doubt eitber. English critics were among the first, during the mhneuvers of 1885 and 1886 , to proclaim that the new French army had reached a stage of efficiency and excellence that justified its com farison with any in Enrope, and in the last ten years its progresa las been steady and sustained The warlike spirit and love of glory which have always cbaracterized the Fronch people are as high as ever, and when the occasion arisen, whatever the reeult may be, beir army is sure to uphold its
ancient fani add, in wa We are only concerned in matching, and we must Fra, wo dering, how far the impetuosity of a self-confident has no can pe restrained by the caution of the Russian ruler who has no imolediate cause of quarrel with either of his western neighbors, and who is. indeed, supposed to have joined them in a pact of enf reed peace for the prolongation of Turkish excess. Some curionty is legitimate as to whether the Emperor Nic日otas Some curionty
know what papers of a erious character, and as to the riew the French army takes of his participation in this ceremonial. There is no harm in the reminde that the Nixth Corpswhich will proride the bulk of the troops on tqe ground is $\cdot$ the adsanced guard of France and the flower of ber army." but when this is followed by the statement that the Ruquan ruler will review this French army "opposite the common enfoy at the starting point of the march for Metz and Stramburg, Pne may reasonably wonder what is thonght of it all at Berlin, as sell as of how the Emperor Nicholas will be able to reconcile his presence in the character of supporter and sympathizer of F\&ince at Chalons with his words and engagement- at Vienna and Brevtau. We fear the French are laying themsolece out for a rade disappointment in the end.-Admiralty and Hurse Guards Gazte. October 1, 1Stm.

STRATEGY AT THE AIDFIRGOT MANECVERS.
In consiburing the lessons to be drawn from any mancurers, the question at nce arises. For whom are such maneuvers principally held? The answer obviously in that operations on a large neale, such as thot recently carried out at didershot. are primarily held to teach the generals their work. Berond the fact that a campaign inwolres hati work and long marches. the private and the company officer learn but little from such maneurers. They gain in many ways valualle experience, and realize. perhaps for the firnt time, how large sforce is required either to attack or defend a position a mile long, b t, relegated as they often must be to the third line, they see very litte of what is going on. and frequently do not underatand the object of a morement in which they are taking part. Their own work can be much better taught them when the operations are confined to a single battalion or a brigade. As maneurers on a large scale re therefore mainly for the benefit of the generula and large acale are therefore mare a right to ask whether they are so condacted as to afford th latter as much experience and practice as possible. We regret to saf that with reference th this year's Aldershot maneurers, the answer fan hardiy be in the affirmative.

Each day's work was founded on a scheme, which contained, firstly. a ge eral idea, and, secondly, a special idea including unually orders or in tructions. The general idea gase the broad strategical situation, a d to consider this carefully, and base their action upon it. Would hafe been a most useful exercise for the commanders. U'n.
fortunately the apecial idea, as a rule, lef them absolutels no initia tive, and to spend even a few minuthe in stadying the broad outlines of the situation would bave boen a paste of time. The general was almost always ordered to assume thlo offensive, or to remain on the defensive, and if on the defensive the orders further defined for him the exact position he was to occapy. ${ }^{\circ}$ In fact, the scheme, framed solely with the view of bringing abo t a battle, saved the commander the most important and anxious, phrt of his work. He need not consider whether it was best for bif to attack or stand on the defensive; he had no choice as to the position he was to occupy, nor could be even fix the strength of his own outposts; finally, the orders to attack were generally so definite that any attempt to out maneaver the enemy was quite oyt of the question. The entire force was combined for maneuvers pur times. On three occasions foar divisions, with an enormous saperiority in artillery, were pitted against one, and the operations became practically a drill on a large scale. Only once were two divisiohs opposed to three, and then most valuable leseons were learned, the Commander-in-Cbief describing it as one of the most instyuctise field days be had seen But the weak rear gaards ordered lo hold impossible positions to the last were monotonous, in the extfeme, whilst the precise order: issued to commanders of detached forces crushed all initiative, and left no scope for generalship in the $\frac{1}{}$ roader sense of the word. Let the reader compare for a moment the orders issued to these unfor tanate leaders with the instructions fre sent to Jackson during the campaign of 1862, when the latter fommanded a detached force in the Shenandoab Valley. Of course toe limits of government ground seriously hamper the framers of schemes, and the chief blame for this excessive spion-feeding of copmanders must rest upon the Hoase of Commons, which refused to pass the military maneurers bill. Yet sarely schemes might b prepared which would leave generals the responsibility of choosihg the offensice or defensive.

Certain it is that initiative is not oncouraged at present in our army, nor is the study of broad st ategical principles, and it is to be feared that in a European war ou generals may suffer from want of training in these matters. On August 16, 1870, General von Alvembleben, commanding the Thifd Corps, then about Gorze, was informed by the cavalry that five Ffench corps were to the west of Mete, and apparently aboat to retife on Verdun. He knew that the general plan of campaign was of cut the Frencb off from Paris, or drive them back on the Belgian frontier. A recent work by the German general staff informs ns that, on receiving the above report be saw mentally the whole tBeater of war spread out before him, and the reapective position ofthe French and German armies. He realized at once that the only chance of intercepting the French lay in immediately stopping their retreat, and though he knew that ho could not be supported for many hoprs, he decided, on his own responsibility, to attack. The victory of Gravelotte, and the subsequent capitalation of Metz, were the direct results of the indecisire battle of August 16tb. Von Molte: had trained the German army
to initiatire and von Alvesseberes rapid grasp of the situation and immedige decision to attack a force five times his own strengil are not consiflered remarkable in Germany. On September E , $1 \times 9 \mathrm{~A}$. the adranced guard, cousisting of one division of a western arm $\because$ was at Hartey Road. and its commander receired the following order: "Anficipate the enemy at cesary Camp. Failing that. endeavor to repel him." He failed to anticipate the cnemy, who seized the camp with one battery and a brigade but, bringing up his three batteries, he put the enemys single battery out of action. and he was informed about the same time by his cavalry that the enemy had only one brigade on Cesars Camp. Sticking. howerer, to the atrict letter of his orders. he argued that an enems. to be repelled. muat first at ack, and he did nothing until the eastern force had brought up einforcements, and were able to hold the position against him. Yet his orders clearly indicated Cararis Camp as the objective. Tat was the main point. and a gencral who had once got this fact if to his bead woulh act according to the spirit of his orders, or notfrouble himself about the exact meaning of a single word. The German, grasping the situation. did not besitate to at lack an army with a single corps the Englishman, differenty trained, would not attack a brigade with a division. There was much discussi,n at the conference as to the meaning of the word "repel," but the order was fufficiently clear in pointing ont Cexars Camp. It wa undoubtedy ambiguoun, but at maneuvers slighty ambigoous offlers are an excellent means of training generals to take broad vigws.

We think single change in the education of cadets would have a most benefical effect in this matter throughout the army. Instead of making them learn up a series of isolated actions from a text book. let one fampaign be vers thoroughly studied. The stratery and tactics of both sides should be carefully worked out, and the motises and $\mu$ rmonal characters of the commanders should be con sidered. Moral forces, where they come into play, shonld be pointed out. and the efects of good marching. discipline and morals should be illustrated. Officers would then realize how nany things, besides the tactics of he battlefield. combine to cause rictory or deteat, nor would they expect a battle every day when on maneurers. The interent of a cose study of a single campaign would aloo lead many offeers to staly military history for themselves. The story of a battle, taken part from the campaign, is not very illerenting. Afer studying Lees character and tollowinge his career a man will exult in the vitory of Chancellorsville and sympathize deeply with bis defeat at Gftysburg. Finally. in maneviers, the schemees should deacribe the ithentions of the commander-in chief. and leave suburdinates freedop to carry out instructions in any way they choose. Admiralty and Horse Guerds Gazette.

SOME REMARES ON THE SOUTHEASTERN MANEUVERS.
'Tbe recent operations in Sir Wlllam Butler's command leave behind them a distinct feeling that something definitely useful has been accomplisbed. In spite of many serious difficulties it was found practicable to turn out a pobile force of some 60,000 men and 1,000 horses, and to exercise them under conditions approaching those of war, orer a tract of country some thirty-fire square miles in extent. It is a truism to pay that the object of all maneuvers is to teach, but it is very gendrally held that those who derive most benefit from them are the generals, or commanders of divisions and brigades, who-except in one or two large military stationsbave very few opportunities of practicing in peace the work they would have to perform in war.

Glancing at the work that bas just been performed by each of the three arms employed, we turn first to the cavalry. Tro regiments of Dragoon Guards (the First King's Dragoon Guards and the Tbird Dragoon Guards) and two nquadrons from the cavalry depot, took part in the operaliona. The squadrons were each of them sixty strong, and were viriousls distributed from day to day to suit the dispositions made fin accordance with each special idea. They thus had no opportuni $y$ of acting together as a brigade, for which much of the ground woold have offered facilities. Their riding and general appearance desprve high praise, but many conspicuous instances were afforded ff a want of individual resource and ordinary common sense und $r$ emergencies. In one case a troop of dragoons, acting as escort to a battery, allowed three more enterprising squadrons to capturp the guos, not only without making any resistance, but without bringing in any warning. During the greater part of the feek's operations the scouting which the cavalry performed, the jhformation they brought in, and the messages they carried, gave fevidence of imperfect training, faulty practice, and a respect for discarded traditions ând exploded rules of conduct. Indeed, it was'ohly at the end of the week that single troopers, patrols, und large bodies began to move with any due consideration for concealment or with any serious regard for their own eafety or for that of the bodies of which they were supposed to be the eyes and ears. Ag in, whether it was that they are now for the most part armed with lances, or with some inherent prejudice, they showed the greategy possible reluctance ever to dismount and use their carbines. Te may here observe, however, that one cavalry officer who had bpen sent by bigber aqtbority on the almost impossible mission of edtrencbing and holding a village with a bandful of his men, performod his task with exemplary zeal and ability. He made actual barficades across the approaching. roads-which were narrow and throngh a steep ancent-and he dismonnted his men and caused them to fire on a small attacking force. But be was soon ordered to fetire, and was never commended for what he bad done or tried to do. Suech is lack, and such is manenver warfare. Of course the cavalry cbarged on eome occa-
instances named we were, so to speak, in a position to make our. own arrangements. Both men and horses could be borrowed from other regiments to fill the ranks of those required for service. If the former were mere skeletons f the time being, they were not required to take the field, so their reak 0 ess was of little immediate consequonce. Should we, howevet, be drawn into a conflict with any great power, thinge would bear a different complexion. The practice of robbing Peter to pay faul would hardly meet the case. practice of robbing Perer to pay fath would hardis meet the case.
We would require every regiment, every squadron, every man We would
effective.

Preparation for a campaign prepareduess is an ever presen
not now a matter of months; mobilisation 8 matter of dars, nandition of national existence. us, therefore, to use every means in our pors. It is incumbent on erery reserve man, but every reserve horse, fit to take his or its place in the ranks.-Admiralty and Horse Guards Gazette.

## AS THEY WERE.

The contrast between the initial stages of the career of young men appointed to commissions in the army in the imiddle fiflis and those which now obtain, is sufficiendly marked to render it a matter of astonishment bow the former effer managed to derelop intoanything approaching military excollence. Nevertheless the "Birthidy Book" contains a goodly list of fell-tried soldiers of that period still on the active list. They must necessarily have educated them. selves ap to astandard which is in the present day judged only to be attainable after much preliminaty study carried on at high pressure, followed by continuous and perer-increasing demande, tested from time to time by atringent examinations. That the new order of thirge is right no one of cuarse can doubt, and yet the old could not have been altogether wrong, since we find equal excellence resulting from both syatems. But in spite of Cram and competition and continnous test, the survival ith the higher ranks of the tittest holds as good to-day as formerly. It is not, therefore, anong those of forty years' continnons service that we liave to look for the grod which followed the newer order of training, bot mucb lower down in the gradation list. If we are to accept as correct Sir William Brtien's statement that no real Bytish battle has taken place sinice Inkerman, then no one has yet reulfy met the teat which permits of asying anthoritatively that be is or is not in adrance of his uncrammed predeceseors. In the days of purchase and of nominatiun the majority of officers retired soo alter gettiog their companies, and only the keen coldier stayed on with the determination of making woldiering his life's career. Nqwadass, when every onc who is permitted to remain is by that fac certified to be competent and assumed to be keen, we hare a crow of theoretically qualified off. cers jostling each other in their saluggle for adrancement, whilst the professional existence of other can onls be prolonged if by
some means th tion. Of a hufy can make good their claim to promotion by selechan ten a huqdred equally qualified appirants, perhaps not more han ten erer fome to the front, whilst the relatire inferiority of icyl ical-that it is difficult to assert that the elect are necessarily their lacking of staf college praduaten who hare shown themselves to be conspicuous fai ures, and of officially condemned professional illiterconspicuous fai ures, and of omialiy condemned professional
ates who hare conspicuously proved themselves successes.

The Crimeqn campaign was, as a campaign, distinctly a general's failure. So wo Majuba and so was Maimand. The two systems gare the name fesulta, whilst in all three instances honor was saved by the lower ratnks. In the older time the leader of men was illeu bsted in those thackneved Eton playing-felds.-in other words, the whole of our phblic schools. He was further developed in the regiment by a coune of outdoor amusements, of which hunting, shoot iur and cricket were the most favored. Everything was left to nature; to spefial trsining, to artifice no one gave a thought. Vet somehow thiogs seemed to right themselven, and the right men to make their appearance when the demand arose, and to which the supply war certainly equal. We live in a time when, in theory, it is farin excess, but the touchstone has yet to be applied, and no one can say when contact occurs what will be the result.

Just as a mon-of-war of to-day is a huge mass of perfected ma. chinery set in action by stops and buttons, but liable to promptly go to the botto 0 on colliding with an cuemy, so is our human mai ot war-a bigfly educated and fully primed indisidual capable of dealing witb rast problems and a master of kriegspiel - as certain to sit upon his baunches and be rendered useless by a knock on the head as was the bapprego-lucky officer of the times when muscle was adjudged of more account than bigher natbematics. Nodohbt the conditions in the future will be very different to those which obtained in the past, and that very much $\dot{v} i l l$ depend upon the conpany officer when the tight begins; the gederal must. to ensure victory, be a Molfaz who will prese the stops and buttons and make the machine more in the desired direction, but with the effects brought about by the collision he will bave but litte to do. None the less is it true that as bows and arrows hare given way to magazine rifles and lange. inders, and all the other mechanical contriv ances which scence has placed at our disposal, and which supplement even if they do not entirely replace the combined natural powers of band and eye, so brute force and blind courage bare had to reckon with the altered conditions of warfare, conditions which of course cannof be asfels ignored and delayed until the moment for dealing with them ariscs. Hence it is that the necessity of the fallest theoretigal training is beyond dispate, for when we come aux prises, only the shall we learn which portion of the practical test to which we shall be pat is to be successfolly met by the theoretical knowledge already acquired. Still one may be permitted to doubt whether effectite fighting will cot as formerly depead largely upon
those qualities which nature and not art bas supplied, and which pere the chief if not quite the sole dtributes of the British soldie. in the days gone by. As things are we may be as good as our geighbors and as ready for the woryl, but it will be no easy matter to do better for ourselres than when tbings were as they were. Fhe Broad Arrow.

## THE SLRDAR AND THE SPECIALS

"Sirdar Kitchenea has exbibited so much judgment, quite apart ir,"m gbundant military capacity, in the conduot of the Dongola expedition, that it is only due to his reputation and to his poaition as commander-in-chite of rassong for whatever he does in the disquarge of his duties. When, ther.. fore, the special correspondent of a great fournal attached to the army uniu-r bis onders formulates what is in fact a con plaint, echoed by other corresponitents, against the Sirdar, though it is calld an 'explanation,' we wait to s. 1 if there are groubds for what prima faciepappears to be an inconsiderate atw ill-advised course. The special correspondent of the Times says :
"'The newspaper correspondents who accompany this expedition are. practically chained to headquarters, and, poreover, it is made extremely ditfjgult for them to acquire from any eource that kind of information which is feely commnnicated to them on most ca opaigns. I myself have frequently toops, reconnaissances, patrols; and so fo th, but this has on every occasion been refused. Though Colonel Hunte with two-thirds of the infantry division, is now at Abearat, correspondepts are forbidden by the Sirdar ti, roceed to that place. There may be fxcellent reusons, though they are Gegond my comprehension, for these undsual restrictions; but I ferl bound 6 point out that if, as may well happen the only serious colision with the Dervishes takes place before the corresfondents are permitted to join the force at the front, and if, conseqnently, whe cannot be there to chronicle what ccurs, the blame will not lie with us.'
"From the correspondent's and the editor's points of view-periaps rom that of the public also - complain ${ }^{(3}$ of that kind may be justitied, but offcials, civil and military, in Egypt and it home, will probably hold that the Sirdars action was judicious. As the correspondent says there may be reasons or zeeping him tight at headquarters. Pne consequence of the presence of \&special correspondent with an advancyi corps is that undue prominence chief and of his officers in such circulnstances may be distoried in the accounts of an action. But Sir H. Kitcimener is not the man to allow any sonsiderations of that kind to infuence hirm if they croes his mind for a moment. Perhaps Sir H. Kitchaser may be infiuenced by regard for the personal safety of mentlemen who are pot tanto part of his military family. In European warfare it is necesaary to byar in mind the damage and danger to which armies may be expoeed by inte igence which can be communicated O the enemy. There cannot be the smillest apprehension that the corre spondence Irom Khalifa or his lieutenants on the Nild The Emirs are beyond the reach of telegraphs or poetoffices."- Army and Javy Gazelle.

It is the old story of the modern thirst for news and the journalistic valuation of a "scoop," placed against the opinion of the commanding general as to what shonid or should not be authorized in an army actively engaged in fipld operations. Nearly all the prominent genorals of the Civil Waf were tronbled with this question at various times, and embarra sment, if not disaster, was laid
at the door of babbling correpondents. The correspondents bave never borne reatrictions with good grace, but a few of them have set for the professional military correspondent so bigh a slandard. that when the rigit kind of man is assigned the duty, much of the supervision and circumbocution formerly considered necessary is omitted altogethar.

In-regard to this particular instance it may be said that the adrancement of Lidutenant. Colonel Kitchener to be commander-incbief in this campaign. has proven to be so happy a move on the part of the Britisb government, 弓that no amount of complaints. would alter the condidence which has been gained by the successtul execution ot his plus in portion ot the globe wich beretotore bas not reffected asimuch glory on British armsasmany other partof the world hare done. The British public may well content itecil with the work of firdar kitchener, even if the story of bin suc. cesses must be deftred until all the smoke ot hattle has pansed away.
W. H.C

## NAMEX (IF VEHICLES

The fact that the first coach ever brought to this country he Colonel lefancey Kave was named by its owner "the tally ho" is no justification for twisting the meaning and enlarging upon the importance of the ford so as to make it refer to coaches generaliy considered, says the Pittsburg Dispatio. The word "tally-ho" is used in a perverted sense as applied to coaching. It is a huntint term, pure abd simble. Take the common expression that you hean on every side: ." Mr. Soband.so has just passed by in his drag." Now a man up in fuch things would expect to see a persongo by with a swell four-ih-hand turnout. Drag is the nameapplied to it coach when it is ued prisately. As soon as a four-in-hand coach is put into public sertice and a fare is charged for riding upon it it ceases tob. a drag and becomes a coach, just as a hausom when driven publicly befomen a hansom cab. Inother common mistaki. is the calling of two horses a team instead of a pair. A pair ot horses is never a tam unless hitched tandem. A team iencmething more than a pair, sqehas a tandem, unicurn. four-in-hand, etc., and to hear people talk about a pair of hormes as a leam is quite as bad as to hear a person say, "John, put that silugle"set of harness on the hay". A single set of harness is an impossibility, as it takes a doulide equipment tior a seq. Used in the sense of the word trap is another expression which fou nerer hear except in the rery Yankee States. It seems to be a generic name for all kinds of traps and nothing is too lowly or too fofty to apply the term to. A name almost as general as rig in ifssignificance is "dog cart." It seems as if anything having two wheels should be giren this name, according io notion here. Theoong thing that should be giren the name, huwever, is a two wheel cart having a box under the reat, called a dog box, for the reception of dogs. guns, game and such thinge. lou very seldom hear the mrangement of one horse in front of wo
spoken of as a unicorn; it is mote usually called a "spike;" jet this is the slang for it. Properly speaking, a "spike" is the name that should be applied to such teaths as you find working in iron or dray wagons, when the driver ridf the near horse and drives the lead boree with a jerk lino.-Exchlinge.

## GERMAN PETSION LIST.

The large number of generals and other bigh Prussian officers who bave been placed on the retifed list since the late army maneuvers has led the Vossische Zetung to point out that since the accession of Emperor William 546 Prussian generals have been retirod and that 276 retired generalla are still living from before his accession, adding that altogether 787 Prassian generals are drawing pensions. Other newspapers, including even some of the conservapensions. Other newspapers, including even some of the conserva-
tive organs, are joining in the complaint and stating that the avertive organs, are joining in the complaint and stating that the aver-
age age of the retired generals is reduced every year. This year it is 55 years of age, against 63 in 1890 .

Another long list of retirements is expected within a fortnight, and it is considered certain that the Reichstag this winter will take the matter up. The budget commission will insist that full light be shed apon the matter, and will asf for guarantees that the rejuvenation era will be closed before the commission passes the next military budget.

Moreover, there is considerable indignation at the fact that the Emperor bas highly decorated the three chiefs of his military cabinet, Hagnie, Plessen and Arniy, and that the bill providing for reform in military trials has again been sent to the mibister for war in order to revise it and frame it more in accordance with His Majes. ty's wishes and less in accordance with popular wishes. The bill itself will not reach the Reichstag until late in the season.-A Associated Press.

## POINTS OF A SADDLER.

To The Gazettr:-As our fair are now commencing through. out the country, and as you ask $m$ to give you my ideas on points to be considered in the selection of eaddler for use, as well as judging a saddler in the show-ring, I submit the following in plain, unvarnished English:

1. Color. This should be a solid one and not apt to sunburn; black points, no white markings.
2. Size. This should be from th bands 1 inch to $15.2 \frac{1}{2}$.
3. Conformation. Fine head, proad between eyes, small muzsle, nostril extending, ears long and thin, not too erect, rather pointing forward, especially when moving; long, rangy, arched neck, coming well up from shoulder (thro wing the rider back ward instead of forward), the latter running back, with ehort coupling, round
barrel, measuring large around heart; limbs flat and bony; well muscled in arm ard thigh; not encumbered with surplus flesh.
4. Eyes coffee brown, rather prominent, without any noticenble white.
5. Mane and ail heavy, latter carried well up, with stiff bone.
b. Gaits. He should go all the gaits required by the National saddle Horse Bredders Association, and perform them distinctly, eapecially a square trot.
i. Soundness, style, finish. with good knee action and plenty of go.-Will A. Guines in Breeders Gazette.

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1. The Sixth Regiment of Cavalry, by Captain Wm. H. Carter. Sixth U. S. Cavalry. 2. Four Brothers in Blue, by Captain Robert G. Carter, U. S. Army. 3. Nine-Monfhs' Men, Medical History by I, ientenant Frederic N. Huston, M. D. 4. Norwich University in the Civil War, by William A. Ellis. 5. Reunione of Veteran Associatione.

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