

VOLUME XIV

NUMBER 3

MAY-JUNE

**THE
FIELD ARTILLERY
JOURNAL**

EDITED BY

WILLIAM C. HOUGHTON

MAJOR, FIELD ARTILLERY, UNITED STATES ARMY

THE UNITED STATES FIELD ARTILLERY ASSOCIATION

1624 H STREET, N. W.

WASHINGTON, D. C.

**COPYRIGHT, 1994, BY
THE UNITED STATES FIELD ARTILLERY ASSOCIATION**

Contents, May-June, 1924

Polo	<i>Frontispiece</i>
Inactive Activity	213
By Captain Frank E. Lowe, 303rd F. A.	
Battery "B" of the Twelfth Field Artillery During the Late War	221
By Captain George D. Wahl, F. A.	
Preparation of a Battalion of Field Artillery for Summer Training Activities	237
By Major C. P. George, 16th F.A.	
Care, Protection, Preservation and Accountability of Government Property Issued to the National Guard	242
By Chester B. McCormick, Major, F. A. (D.O.L.).	
Jimmie	271
The March to Concentration and Two-sided Manœuvres of the First Cavalry Division, September–October, 1923	273
Based on a Report of a Field Artillery Observer.	
A Two-point Resection	292
By Lieutenant Edwin L. Sibert, F. A. (D.O.L.).	
Foreign Military Journals—A Current Résumé	294
Song of Field Artillery Guns	304
By Fairfax Downey.	
Current Field Artillery Notes	304
National Guard Camps.	
Reserve Summer Training.	
Summer Employment for the Regular Units.	
R. O. T. C. Summer Camps.	
C. M. T. C. for the Coming Summer.	
Work of the Field Artillery Board.	
Cavalry Division Artillery.	
Polo.	



Cut loaned by the courtesy of *The Cavalry Journal*

POLO

Sculpture in Bronze by Herbert Hazeltine.

THE FIELD ARTILLERY JOURNAL

VOL. XIV

MAY-JUNE, 1924

NO. 3

INACTIVE ACTIVITY

The Story of a Reservist and a Road March

BY CAPTAIN FRANK E. LOWE, 303RD F.A.

WHEN the 7th Field Artillery, less the Second Battalion, accompanied by Troop B, Third Cavalry, under command of Major Francis T. Armstrong, F. A., U. S. A., cleared the precincts of Fort Ethan Allen, Vermont, at 7 A.M., June 14, 1923, and took up its two weeks, 225-mile road march for Camp Devens, Massachusetts, it carried excess, though authorized, baggage in the persons of four members of the Officers' Reserve Corps, *sans* pay, *sans* power, *sans* preliminary practice, and I may add *sans peur*, we were there, attached by an informal memorandum, accepted unquestioningly by all of the command; guests, observers, camp followers, as you will, but doing full duty as officers of the Army—and yet they say the day of the volunteer is past. It is to relate how this came about and what came out of it that this is written.

Those of us Reservists who answer the mail questions of a correspondence course from the seclusion of our domiciles, or who, for two weeks in the year, sally each day from the semi comfort of cantonment buildings to hear the lectures of a Leavenworth "team" or to witness Regulars demonstrate how it should be done, are truly availing ourselves of what training the War Department, in its limitations, makes available. Those of the more enthusiastic ones who, after a tiring business day, assemble at some hospitable nearby army post or local armory to travel over a map, in our minds, many miles afoot or ahorse to obstruct the sinister designs of the Reds or the Blues, in our hard-earned leisure, are actively carrying on that same training.

Training! yes, of the military mind. What other kind of training can a reserve officer get, especially one of battery grade? Can he, on a map in a four-square room, solve the real problems of a march, reinforce bridges, extricate stalled carriages, exercise that vigilance necessary to keep his horses, men, and equipment in shape for combat, suffer endurance and gauge it in others, or even bring his own mount to its destination in condition and his own anatomy not wanting in repairs? For that sort of training, indeed, practice is essential.

THE FIELD ARTILLERY JOURNAL

It was this line of reasoning that prompted Colonel George L. Taylor, F. A., O. R. C., who had dropped his business to live and work through the winter of 1922-1923 as an unofficial member of the 7th Field Artillery at Fort Ethan Allen, to suggest to Colonel James B. Kemper, U. S. A., Chief of Staff, 97th Division, the possibilities of attaching reserve officers, on an inactive status and without government expense, to the troops when they moved from winter garrison to summer training ground.

This idea originated with Major Francis T. Armstrong, commanding the Seventh, to whom it had occurred, during the return march from Camp Devens the previous year, that here was a fine opportunity for reserve officers to get some highly practical work, which thought was stimulated by Colonel Taylor's example during the following winter. To those who knew Colonel Kemper, it is needless to say that he was not slow to grasp the idea, and to those who know the 7th Field Artillery, it is not necessary to say that they welcomed Colonel Kemper's proposition. And so arrangements were effected and invitations issued.

In deciding on a plunge much depends upon setting your mind to it. At first notice this seemed to the writer only a reasonable excuse for locking the work desk and effectually cutting the lines of communication for two weeks. While pondering on this aspect, dormant memories were aroused of rattling trace chains, rumbling limbers, stamping picket lines, and singing bugles, the curling smoke of camp fires, the pride of hardships overcome, the workmanship of a "shop" that nowhere else can be found. Thus the idea crystallized into resolve.

There were, however, still misgivings. Before making formal application a personal mobilization test was necessary. Equipment was broken out from the garret where it had peacefully reposed since 1919. The mind of the local bootmaker reverted to his busy days of 1917, when there came to his hands a pair of military field boots with instructions to let them out, and be liberal about the calves. The tailor, too, found himself dubiously comparing a pair of somewhat moth-eaten service breeches and his tape measure's index of the owner's peace time girth. A few years of office work and home victuals are none too good for an individual's military preparedness, and in this way and instance, therefore, was the need of "training" emphasized.

In due course the writer found himself included with five others in an official "memorandum," whose avoidances of governmental obligation were manifest to the expert eye. There was nothing directive in it; no one was "ordered" to report anywhere or to anyone; no travel was "necessary in the public service"; the subject persons were merely "attached" to, that they might "accompany,"

INACTIVE ACTIVITY

the 1st Battalion, 7th Field Artillery. In fact, the stipulation was clear that no expense should devolve upon the United States and that "this authority cannot be construed as ordering these officers to active duty." All this was with regard for the dearth of available public funds. Somewhere in "the book" an official memorandum has been defined as having the force of an order. As officers of the Army, at least of the third component, we could not be camp followers. Nor were we guests, since we intended to work and to pay our way. Considered as baggage we were authorized excess, but to be no mere dead load. In the status of inactive duty we were most actively engaged. Hence we were also anomalies.

In response to a most cordial letter from the regimental adjutant, Captain Philip T. Quinn, voicing the regimental commander's welcome, naming D-day as June 14, 1923, and H-hour at 7 A.M., and giving the duty assignments and other necessary details and instructions, the writer arrived at Fort Ethan Allen the night before the jump-off. The kindness and sincerity of the official welcome at once created the sense of a natural element; it was as though the intervening four years had not existed. The transition was completed by the assignment of quarters for the night, breaking out of kit and the packing and expressment of "cits" to the other end of the line. Then followed introductions at the mess and dinner. The military atmosphere was further enhanced by some visiting officers from the War College fighting, over the plates, a battle for the defense of our northern borders, after which they pulled out in a convoy of staff cars of the old familiar color, remindful of similar events in the A. E. F. Next came a round of official calls under convoy of Colonel Taylor, a trip to the picket lines where the regiment was in camp on the drill field for the night, and introductions to Captain Leonard H. Frasier and Lieutenant Edward C. Gillette of Battery "B," to which the writer was assigned for "duty." Such a large evening made the old gold medal cot a downy couch indeed.

Of the original six reserve officers authorized to make the march, four were able to avail themselves of the opportunity. These were Colonel George L. Taylor, 365th F. A., from New Hampshire, Lieutenant Colonel H. N. Jackson and Major H. A. Allen of the 388th Infantry, from Vermont, and the writer representing 303rd Field Artillery, of Maine. Thus all the three states within the 97th Division's jurisdiction were represented. Over four years had elapsed since the writer had served with a mounted battery. During that period there had been few opportunities for riding and an office chair is not the best conditioner for field service. Is it therefore strange that there should have been some dubious feelings in the stomach region on the first morning, which was helped by a chilly dawn? Camp Devens seemed very far off and there were visions of

THE FIELD ARTILLERY JOURNAL

saddle sores and other rookie troubles to come. Perhaps the others had similar qualms! But they were of the game type. Colonel Taylor, gray, alert, and wiry, can vie with the most zealous subaltern. To mention Lieutenant Colonel Jackson's three wound stripes on one sleeve setting off a *blue* overseas service chevron on the other is sufficient. These volunteers for the hardships of a two-weeks road march without material remuneration were an inspiration.

First call was at 5:30 A.M. followed quickly by reveille and breakfast, the command forming on the drill field at 6:45. With the artillery battalion following the cavalry troop, the head of the column cleared the post gates promptly at H-hour. The Seventh's band played the command out. At the last note of "The Girl I Left Behind Me," it broke ranks and climbed aboard the wagons of the Service Battery bringing up the rear, stowed instruments, and took up the occupation of mule-skinning. So, throughout the trip these bandsmen alternated their attentions between braying horns and braying mules with equal efficiency, as skilful in the service of their lips in the one as the other, thus bringing home to the intimate observer the serious personnel shortages of the Regulars and their expedients to meet them.

Practical *training* was now on in earnest. Of work there was plenty. The Seventh, like most regiments, was much below strength both in officers and men, which added to the duties of all and was not ameliorated by the torrid weather later. Riding the column all day, making camp, attending stables, supervising watering and harness cleaning, conducting inspections and doing guard duty served to round out some very full days. Artillery that cannot march efficiently cannot fight efficiently, and here was training for the Reservist of the real sort. The writer performed straight duty and was taken in full faith, unquestioningly by the men. His instructions and corrections were accepted cheerfully as if he were one of their own; they could have paid him no higher compliment. The officers, too, showed their confidence and added to his profit with sage counsel and helpful information.

A terribly hot spell added another quality to this training by way of a test in endurance. Keeping your wits alert and patience up to par is not only more difficult but more important in those circumstances. The care of the animals, the morale of the men, and the tendency to irritability of the drivers must be watched more closely, the while controlling your own discomfort.

For the first five days we enjoyed seasonable weather with cool, and even cold nights and comfortable days. With June 18th came indications of a hot spell that hit us at sun-up on the 19th. The writer has lived a number of years in the southwest—summered in the Salt River Valley of Arizona and been at Yuma and the Needles

INACTIVE ACTIVITY

in July—but the five days of June 19-24, 1923, seemed to him the high spot for prostrating heat. The natives said it was "most unusual," "the worst ever known in these parts," but to the stranger in any locality climatic extremes always have been, and always will be, thus vindicated. They cheered us with the news that it was *much* worse to the south—and we were headed south. At any rate the heat was evidently great enough to affect certain newspaper men who were alleged to be in touch with us, judging from articles that appeared in some of the Boston journals, which related that the men were falling fast by the roadside and the horses dying like flies. The natural rumor reached us that First Corps Area Headquarters was seriously concerned.

Our casualties for the whole march, however, were merely a cavalry trooper rather badly kicked the first day out, who remained with the column, an artilleryman taken ill the third day out, who was returned to the post on a ration truck, and two cases, only, of A. W. O. L. There was not a single arrest, disturbance, or even complaint throughout the hike. As for animals, two old horses were left behind en route and later brought to Camp Devens, and two, only succumbed to the heat. One of these, a handsome, high-strung animal, the individual mount and pet of a veteran soldier of thirty years' service, who nursed him with all care, died during a road halt on the 19th; the other, a draught horse in the combat train, died on the 20th in camp at Lebanon, N. H. The press reports were, therefore, exaggerations.

As the crow flies, the command moved a distance of a little more than 221 miles, travelling down the valleys of the Winooski and Connecticut Rivers, and across Vermont, through southern New Hampshire, to central Massachusetts. On one day the column climbed what was, without semblance of doubt the longest hill in the U. S. A., and then proceeded down its other side for just as far, during which a rainstorm luckily descended to break the frightful heat. The whole distance was covered in thirteen days which included three one-day halts. Two of these were Sunday rests, June 17th and 24th; the third occasion was when we remained in camp on June 21st to avoid exposure to the heat, resuming the journey by night marching from then until June 24th.

The commanding officer deemed it fitting and wise to observe the Sabbath as a day of rest, whatever other necessity might exist, notwithstanding that few others along the route, so far as observed, seemed similarly disposed. Had he done otherwise you may be sure some zealot would have started a clamor over the evil ways of the Army. There are always those who are too ready to do that. During the corresponding march of the previous year there was bad blood between two drivers in a team, one of whom, an Italian by

THE FIELD ARTILLERY JOURNAL

extraction, sought to settle the difference with a razor, and so finished his journey in close arrest. The news preceded the troops and, following the march through Bellows Falls, Vt., they were interested in reading in the local print a scathing denunciation of the brutal methods of the Army, pointed by the statement that two prisoners were carried chained to a carriage in plain view of the populace. Official investigation disclosed that the "two prisoners" were a couple of cannoneers at their usual caisson seats, across whose knees some loosened equipment was draped while they clung to the side rails in response to the urging of the Bellows Falls' paving. The real prisoner was snoozing in a covered spring wagon. The clarion scribe had no need to learn these details; could not the eye see? Anyway, what need to investigate, for are not the evil ways of the brutal army a foregone conclusion? So always halt on Sundays amid the God-fearing folks of New England's hinterland, whatever they themselves may be doing.

Yet there was a more practical advantage in this. Automobile traffic is heaviest on Sundays in New England, with its accompanying dust and risks. That condition was bad enough on week days during that hot, dry spell on the narrow, crooked, hilly roads typical of this section, but on Sunday it was intensified doubly. Of accidents we had none, due mainly to the excellent march discipline, but there were many narrow escapes from injury to men and animals due mostly to careless and reckless automobile driving.

It is pleasing to recall that there were many incidents in contrast to this. One occurred when the command was traversing a highly crowned and rather narrow gravel state road in southern Vermont. The column was well over to the right and there was a clear right of way from the opposite direction, along which came a touring car driven by a kindly old gentleman conveying what seemed to be his entire family. In trying to give us more than our share of the road, his car slipped into the steep ditch, which was partially concealed by tall oats that grew clear to the edge of, and almost level with, the highway. With the car tilted at a precarious angle, its engine stalled, the column still moving, a detail of cannoneers, dropped from their seats, quickly surrounded the stalled car, as quickly set it, with its occupants, back on the road, and were back on the carriages almost before the old gentleman had realized what it was all about. He was still standing in the road waving his hat when we passed around the next bend, and we felt confident that one more vote had been registered for "preparedness."

With all its hardships the march was not without many pleasant incidents. The C. O. overlooked no opportunity to establish friendly relations with the local population. The discipline of the command was excellent and the reputation that preceded us, resulted in frequent

INACTIVE ACTIVITY

receptions and parties to officers and men. Towns were regaled with evening band concerts, to their great enjoyment. To the writer the most enjoyable affair was a lawn party at the attractive summer home of Colonel Taylor at Alstead Center, N. H., a few miles from our camp at Marlow. Here we both celebrated his birthday and received the announcement of his daughter's engagement to our Battery Commander. Thus again were the ties of our three-in-one Army drawn closer.

No hike was ever without its humorous incidents. One only shall be related. During the hot spell a reserve officer who had been assigned for duty in the battalion reconnaissance car penetrated well in advance and sought a shady place on the banks of the Connecticut, where he might doze in comfort until the command came up. Awakened by a vigorous hand on his shoulder, he beheld at his side a beautiful vision in a one-piece bathing suit. This vision, with evidence of concern, communicated to him that she had read the accounts of the heat ravages among the troops and thought she had come upon one who was either dead or overcome from heat. The officer allowed he was overcome all right, and was hoping that his fevered brow might be tenderly bathed, when up came the column and the vision took refuge in a protective pool out in the river while the casualty clambered back into his car; he was not allowed to forget the incident during the rest of the hike!

To return to more sensible matters, this march served to bring us back a bit from the realm of has-beens. We observed new wrinkles and some changes from the former order of things. One improvement easily commended itself to the writer. It is the reduction of the number of carriages in the battery, à la France, effected by eliminating the old 6th, 7th and 8th sections and combining them in the battalion combat train. This must be a welcome relief to all battery commanders, since it makes the battery more compact and, by shortening the battery column, makes it less liable to delays in marching and manœuvring.

As usual the 6th (old 9th) section caused us the most trouble. It is a horse killer, calls for constant rotation of teams and section personnel and frequently requires a four-pair team. If the weight and unwieldiness of these carriages in the maintenance section could be reduced to any degree, it would seem that their mobility and consequently that of the battery would be greatly increased.

Our last night march brought us to Troy, N. H., on Sunday, June 24th, only two days' march from Camp Devens. Those last two days were over hard-surfaced roads through well-populated districts, so with the break in the heat on the heels of a rest the journey came to an easier ending. When the column swung through the cantonment gates a waiting car and welcoming wife signified to the

THE FIELD ARTILLERY JOURNAL

writer the end of his most gratifying experience since demobilization. It was with real regret that "Bob's" passenger parted from him, for in spite of a bad start, those two had gotten on most splendid terms. "Bob," however, evidenced no such sentiments, as he was finally turned into the corral, *albeit*, it can truthfully be stated that he did not have a sore spot about him, had held his weight and apparently felt ready for a return trip, though he had received no respite all the way.

The net material results for the writer were a generous coat of tan, a three-inch take-up of the belt, a toughened anatomy, and a most enjoyable vacation at a minimum of cost. The moral and more lasting effects were a restored confidence in his endurance powers, a fresh grip on a man's game, and a strengthened regard for the Regulars. He cannot properly express his appreciation for the courtesy, hospitality, and fine spirit of the officers and men of the Seventh to those who shared their march. That was no easy affair under the conditions that existed, and the same morale and *esprit* which earned the Seventh a regimental *foutragere* from the French in the late war was still in evidence—a good thing to see when one considers the handicaps, disappointments, and discouragements that are the lot of the Regulars in this difficult post-war period.

In short, it was a keenly appreciated and much worthwhile effort, and one which is heartily commended to every field artillery reservist, of whatever grade, who can find a similar opportunity. Those who casually certify each year their willingness to answer a call for any emergency can, in this manner, learn positively if they are actually ready to take the field on short notice, or whether they are, in effect, kidding themselves. Without deprecating the lectures and map problems, it is the best sort of training a reserve battery officer can get in this day.



BATTERY "B" OF THE TWELFTH FIELD ARTILLERY DURING THE LATE WAR

BY CAPTAIN GEORGE D. WAHL. F.A.

(Continued from Last Issue)

SOISSONS

It has been mentioned before that the firing battery suffered a severe epidemic of gripe shortly after we were relieved from active participation in the affairs around the Bois de Belleau. On this account the battery was directed to take up billets in Les Ecoliers Farm. It had been raining for several days and the shelter of the farm was necessary for the speedy convalescence of our sick.

The same night that the firing battery moved to its new billets, the echelon also was moved. It had been back along the Marne in an excellent location. However, the Marne was too far away. The new echelon was much closer. It was in some woods southeast of the town of Cocherel near Les Essarts.

These woods had been thinned at a recent date. Logs of various sizes lay scattered about upon the ground which was also covered with underbrush about waist high. This combination of logs, underbrush and soft footing due to the recent rains made driving on a dark night extremely interesting.

The night of July 14th, on which date both of these moves were made, was quite dark. The firing battery made its move without a mishap. The echelon had quite a hard time. The vehicles could not be neatly parked. They wandered all over the place in vain attempts to avoid the many obstacles. The "furgon" broke a wheel, finally, which was a great help. When at last their work was done, the tired echelon personnel lay down beneath what shelter they could find. They were, if anything, a bit more scattered than their vehicles.

About 11:30 P.M., on this same night, just as everyone was sound asleep, orders were received to start immediately for Betz.

To commence a night march under more inauspicious circumstances could hardly be possible. In addition to gathering together a scattered echelon and travelling with many sick, a new wheel had to be obtained for the "furgon" somewhere. This vehicle carried our fire-control equipment.

The dark night was rather more of a help than a hindrance in the end. While the rolling stock was being located and herded back upon the road, a reconnaissance party started out to locate a place where furgon wagon wheels could be expected to grow. Such a

THE FIELD ARTILLERY JOURNAL

locality was found and after much cautious manipulation a new wheel was obtained.

By 2:00 A.M., July 15th, the battery was on the road headed for Lizy-sur-Ourcq. The heavy bombardment around Chateau Thierry could be distinctly heard.

Immediately upon taking the road the battery commander's detail was sent on ahead to locate and mark the route. While desirable at all times, on a dark night this reconnaissance proved almost invaluable. At least we did not get lost.

The trip to Betz occupied all the morning of July 15th. The roads were blocked with traffic. No attempt was made to form the battalion. Each battery was given the route and told to make what time it could.

At noon, Major E. J. Dawley, the battalion commander, stopped us on the outskirts of Betz and ordered us to halt for a few hours' rest. He told us about the big German drive which had started during the night and cautioned us that we would probably have to return to the positions which we had just vacated. We were the furthest advanced of any battery in the 12th Field Artillery at this time. Battery "C" was next and halted to rest some two kilometres south of us.

Next, orders were received to proceed on to Taillefontaine. In compliance with these, at 4 P.M., Batteries "B" and "C" were formed and marched together as a battalion. The first part of this night march went well. All traffic had straightened out and was going smoothly in one direction.

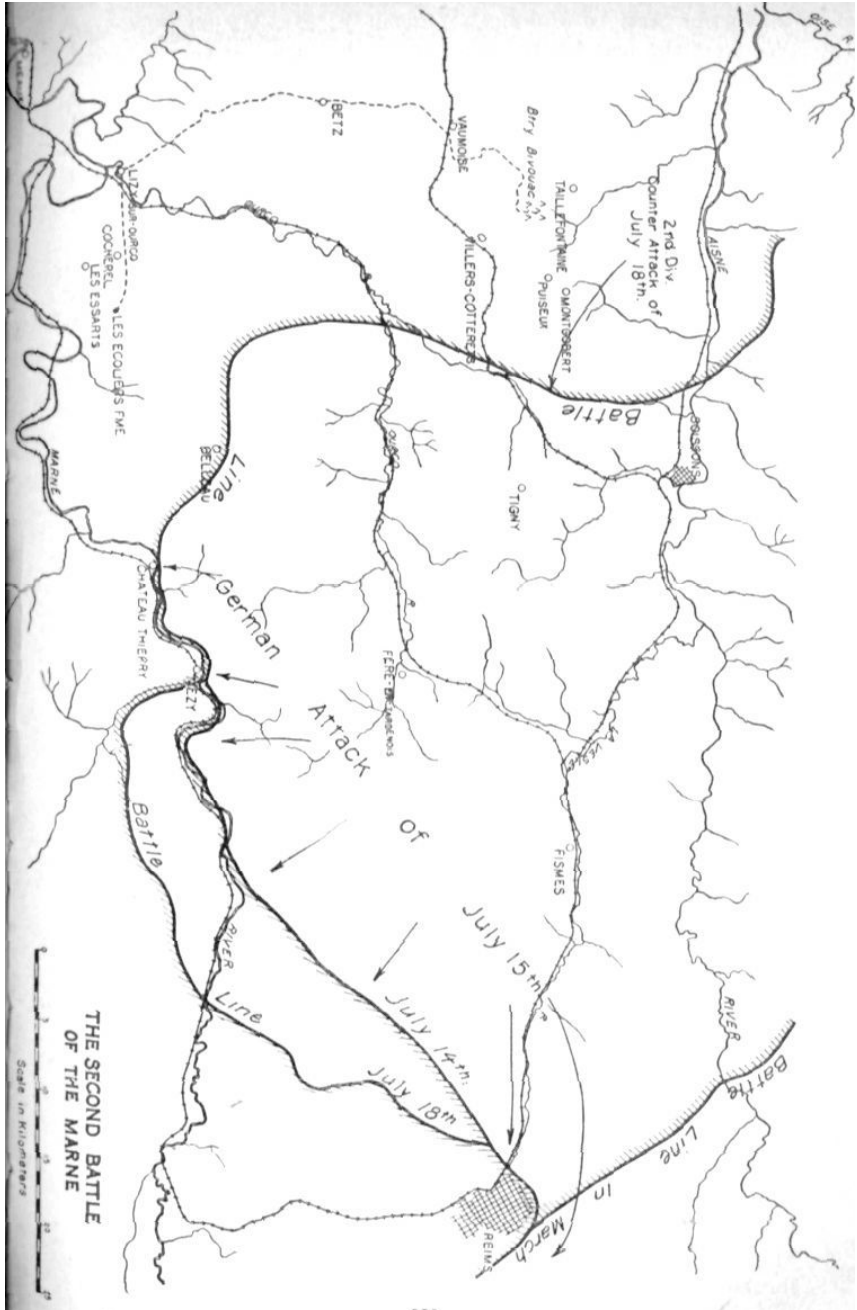
About midnight we encountered a column of trucks loaded with infantry going, it is thought, from Vaumoise toward Villers-Cotterets. The locations given here are a guess. As the battalion was conducting the march we did not have to follow the map very closely. The line of march of these trucks crossed our path and consequently we were held up for some time.

After waiting about an hour and a half our patience was exhausted. We started forward along the side of the road. This was a violation of existing traffic regulations, but something had to be violated as the column of trucks extended back for miles. Our misdemeanor was explained to us in detail by many excited Frenchmen. On this occasion the expression "*Comprends pas*" (I do not understand) served us as an excellent pass word. Much to our mutual relief, we soon turned to the left and lost our irritated French friends. Things again rolled along smoothly.

About 4:00 A.M. a mishap happened to Battery "C." One of its heavy wagons tipped over on a grade, completely blocking the road. After that we marched on alone.

We reached our final destination in the Foret de Retz, about four

BATTERY "B" OF THE TWELFTH FIELD ARTILLERY



THE FIELD ARTILLERY JOURNAL

kilometres west of Puiseux, at about 5:30 A.M., on July 16th. We were the first battery from the 12th Field Artillery to arrive in the forest.

The battalion commander greeted us with the news that reconnaissance parties would leave in two hours. This information was received without much enthusiasm by those directly concerned. Everyone made a mental resolution to get as much sleep in the next few hours as possible.

The reconnaissance parties from the regiment assembled at l'Essart Farm, about one kilometre north of our bivouac, our temporary Brigade Headquarters. There we received instructions from General A. J. Bowley, which sent us to the command post of the artillery of the Moroccan Division at Puiseux. From that unit we received the allotment of positions near Montgobert. (See the map at the end of this article.)

After a somewhat tired reconnaissance a position (167.2-288.7) for the battery was selected just in rear of the crest and behind the Montgobert-La Beauve Farm road. Everyone then returned to the battery bivouac.

When we had halted south of l'Essart Farm that morning the woods had been comparatively empty. Before the reconnaissance parties left, the roads had begun to fill. When these parties returned all routes had long ago become jammed. Slowly moving down the road one could see representatives of all the different arms. We were thankful that our details could avoid the jam by moving across country.

Our orders allowed us to remain in bivouac until dark. We hoped for a break in the traffic before that time. Any move under existing conditions did not give promise of much success.

During the night of July 16th-17th, Lieutenant R. G. Clark occupied the prospective position with the advanced echelon of the battery. This party had some difficulty in getting to its destination. All roads immediately became filled with traffic as soon as it got dark. The grades near Montgobert were steep and in the traffic they were a serious obstacle. However, the position was reached and occupied before dawn.

Profiting by the experience of the advanced echelon, the remaining elements of the battery made an early start on the next evening. Puiseux was passed just about dusk. In this way we beat the night traffic and occupied our position without difficulty.

As soon as they were unloaded the caissons were sent back for more ammunition. This was not as simple as the statement sounds. By this time a solid stream of traffic had commenced to flow through Montgobert headed for the front. The battery had just come through in time!

BATTERY "B" OF THE TWELFTH FIELD ARTILLERY

Between the time of our arrival at our position and daylight, battery after battery arrived and unlimbered along the same crest that we were occupying. When dawn came the 75s were practically hub to hub in line behind the crest. Further to the rear a second line composed of 155 howitzers were firing over their heads. Just to look at them made us feel like awfully small frogs in a rather large puddle.

So far we have been describing the march of the battery into a new sector and its emplacement in the line. Before going further, it might be well for the sake of clarity to bring out just why these moves were made. The following extracts throw light on the subject:

General Pershing's final report states as follows:

"* * * The selection by the Germans of the Champagne sector and the eastern and southern faces of the Marne pocket on which to make their offensive was very fortunate for the Allies, as it favored the launching of the counter-attack already planned. There were now over 1,200,000 American troops in France which provided a considerable force of reserves. Every American Division with any sort of training was made available for use in the counter-offensive.

General Petain's initial plan for the counter-attack involved the entire western face of the Marne salient. The First and Second American Divisions, with the First Moroccan Division between them, were employed as the spear head of the main attack, driving eastward through the most sensitive portion of the German lines to the heights south of Soissons. The advance began without the usual brief warning of a preliminary bombardment and these three divisions at a single bound broke through the enemy's infantry defenses and overran his artillery, cutting or interrupting the German communications leading into the salient. A general withdrawal from the Marne was immediately begun by the enemy, who still fought stubbornly to prevent disaster * * *."

The following account from the Report of Operations, Second Division, gives additional information:

"* * * On July 14th an order came from the Sixth French Army placing the Second Division under the orders of the Tenth French Army and directing the movement of the Second Field Artillery Brigade to Betz. The next day the artillery was ordered to proceed farther north to Taillefontaine, and in the evening an officer from the French Corps brought an intimation of an immediate move. On July 16th the division, less the Artillery Brigade, moved to the vicinity of Taillefontaine. This move was made by French *camions* and the animal and motor transportation marched overland. The troops marched to points on the best highways where the *camions* were halted for the embussing of the soldiers. * * *

THE FIELD ARTILLERY JOURNAL

"* * * On the morning of July 17th, the troops debussed in the vicinity of Pierrefonds, Reutheuil and Taillefontaine. Division Headquarters was established at Carrefour de Nemours (2½ miles north of Villers Cotterets). It then became known that the Second Division was to participate in a surprise attack, side by side with the best veteran French troops. The Third Corps under General Bullard, consisting of the First and Second Divisions, had been formed and selected for this honor. In the attack the First Division of Moroccans (French) was placed between the First and Second U. S. Divisions. General Bullard, in a memorandum to the whole Corps, called attention to the distinguished honor which had been conferred upon the First and Second Divisions * * *."

From the above extracts we can see the reasons for the battery's hectic march to the vicinity of Taillefontaine. The account of that march is a fair sample of the adventures of all the small units of the Brigade. How our infantry got there the Report of Operations also states. The truck train which annoyed us on the march from Betz was probably one of these *camion* trains loaded with infantry.

The plan of the contemplated attack can be seen from the following, also an extract from the Report of Operations, Second Division:

"* * * The Tenth French Army, of which the Third U. S. Corps was now a part, was to attack and break through the enemy's front between the Aisne and the Ourcq rivers, pushing forward in the direction of Fere en Tardenois. The northern boundary of the Second Division sector was marked by the general line Viviers (exclusive)—Le Transloy Farm (inclusive)—Villemontoire (exclusive). The southern boundary was marked by a line passing to the south of Chavigny Farm—Vauxcastile—Hartennes et Taux. The three objectives for the division were generally marked by a north and south line through Beaurepaire Farm, the ravine east of Vauxcastile and the eastern edge of Vierzy."

The 12th Field Artillery supported the 4th Marine Brigade, which in this engagement, had only one regiment in line (5th Marines). In the 5th Marine sector (approximately the north half of the division sector) the Second Battalion was on the right and the First Battalion on the left. A very hazy memory has it that Battery "B's" rolling barrage lay about in the zone of advance of the Second Battalion, 5th Marines.

The battery commenced its barrage at 4:35 A.M., July 18th. As mentioned above, there was no preparation or previous adjustment. For about five minutes the barrage lay on the hostile front line. Thereafter it advanced at the rate of 100 metres every two minutes. Near each intermediate objective it could be held on call from the infantry.

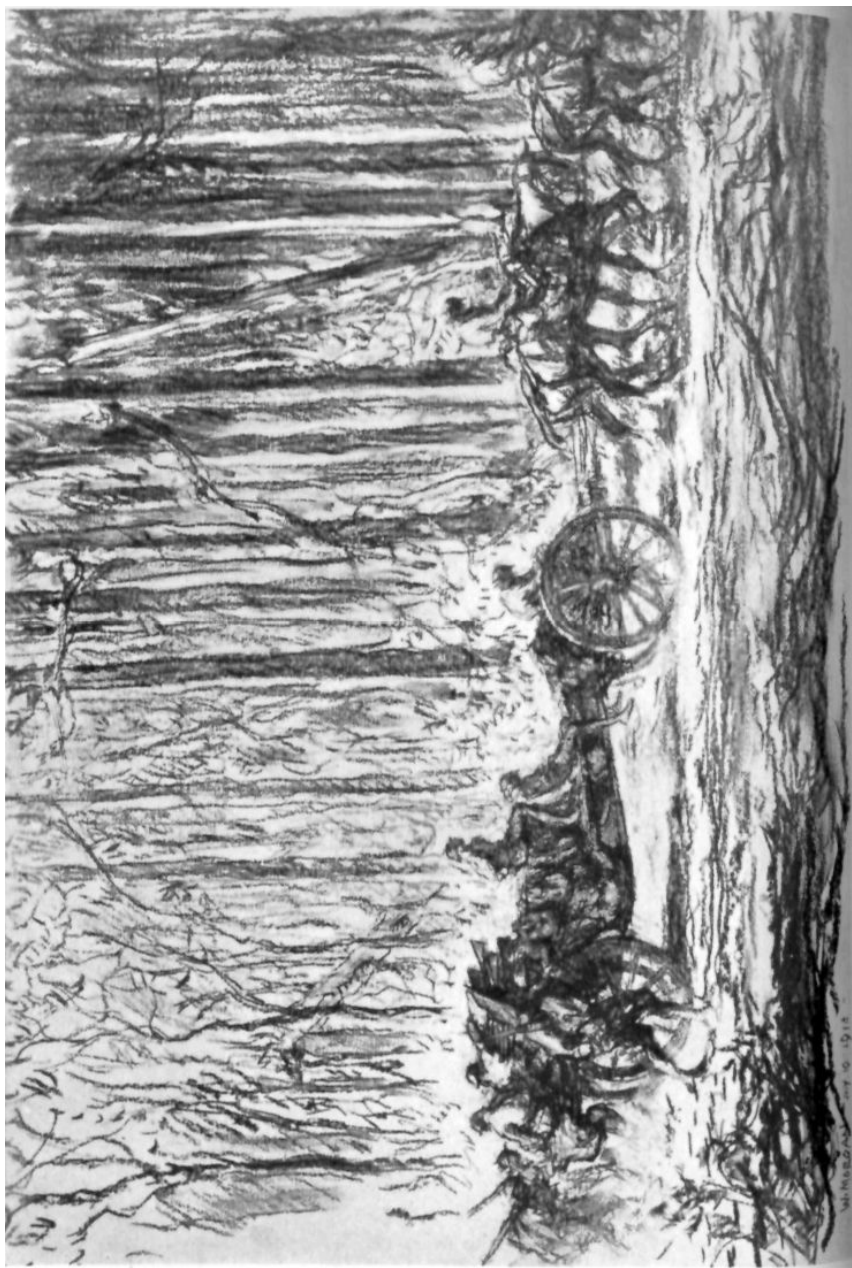
The infantry, after wandering all night in the woods, barely got



CROSSROADS AT VERTE FEUILLE ON THE MORNING OF JULY 19TH
From a drawing by Captain W. Morgan.



MOVING INTO THE SOISSONS SECTOR



ARTILLERY MOVING THROUGH THE FORET DE RETZ, JULY 19TH
From a drawing by Captain v. Morgan.

BATTERY "B" OF THE TWELFTH FIELD ARTILLERY

to its position in time to jump off for the attack. In fact, some of it deployed on the run as our initial concentration fell in the enemy lines. The change in direction at the first objective also helped to add to the confusion of the hurried deployment. The 17th Company, 5th Marines, the extreme left flank company of the Second Division, finding its flank uncovered, protected itself by cleaning out Chadun, which lay away outside the Division's northern boundary. However, in spite of everything, the infantry was on a line from Vauxcastile to Maison Neuve by 8:30 A.M. On this line it busied itself trying to reorganize and locate its very much mixed up elements.

At about 10 A.M. reconnaissance parties left to follow the advance of the infantry. Orders were left for the battery to follow to Verte Feuille Farm (171.6-288.1) on the edge of the forest, as soon as the limbers could be brought up.

While the parties were waiting for orders in the vicinity of the farm just mentioned, a whole brigade of French cavalry left the woods and deployed toward Chadun. As soon as they encountered artillery fire, they picked up the gallop. The sight of the galloping horses and bursting shells in the bright wheat fields made a most inspiring picture.

About 1 P.M. the battery arrived at Verte Feuille Farm. It was turned north toward Le Translore (171.6-288.7), where a halt was made to water, feed and rest the animals. This rest was sorely needed. The animals were pretty well exhausted.

About 3 P.M. orders sent us to the vicinity of Beaurepaire Farm. From this point we went to and occupied a position in a small valley (174.0-287.1) about 500 metres east of the farm. In this little valley the guns of the entire regiment were in one long line.

The observation post was established on the crest northeast of the battery. It was in an old machine-gun nest. The western face of this nest was a veritable pin cushion full of 30-30 Springfield bullets. The German machine gunners must have had a pleasant time in it. However, as it commanded the town of Tigny, the approaches to that town and the Bois des Hartennes to the east of it, the above-mentioned bullets did not bother us much.

At 5:15 P.M. the attack was renewed. The objective for this attack was the town of Vierzy and the final objective for the day. The 3rd Brigade was to be the controlling infantry element. The other infantry units supported its advance.

During this attack the battery fired mostly on the town of Tigny and the woods in that vicinity.

The final objective for the day was reached by dusk. The infantry dug in there for the night. The main difficulty encountered was with the town of Vierzy, which offered a stubborn resistance. On

THE FIELD ARTILLERY JOURNAL

account of its location with respect to our own troops we could not render much assistance.

The advance was continued by the 6th Marines on the morning of July 19th. This was the only unit of the division which had not been engaged previously and which, consequently was still in shape to fight. It struggled manfully forward to a line just west of Tigny, meeting heavy resistance all the way. The German front had been heavily reënforced during the night by units apparently quite willing to fight.

The 6th Marines, finding both its flanks unsupported, decided that it would be very unwise to continue the attack in the face of the resistance it was meeting. The front lines in the sectors adjacent to the Second Division were about one kilometre in rear of that now held by the Marines. Consequently, at 10:30 A.M., the attack was discontinued.

The Second Battalion, 12th Field Artillery, was supposed to echelon forward behind the advance of the 6th Marines. The First Battalion fired heavily all during the attack. Reconnaissance parties from the entire regiment preceded the Second Battalion which was to occupy positions east of Vierzy.

When the attack was discontinued, the units of the 12th Field Artillery which had gone forward were waiting in Vierzy for the ground to the east to become available for artillery purposes. When the attack was discontinued this ground became impracticable for our use. We were ordered to return to the position near Beaufepaire Farm.

Before it could be turned around in the narrow defile west of Vierzy, the Second Battalion was taken under fire by hostile airplanes and also shelled by the enemy artillery. It was extricated with difficulty. The road was very narrow and the hostile fire was not much of a help.

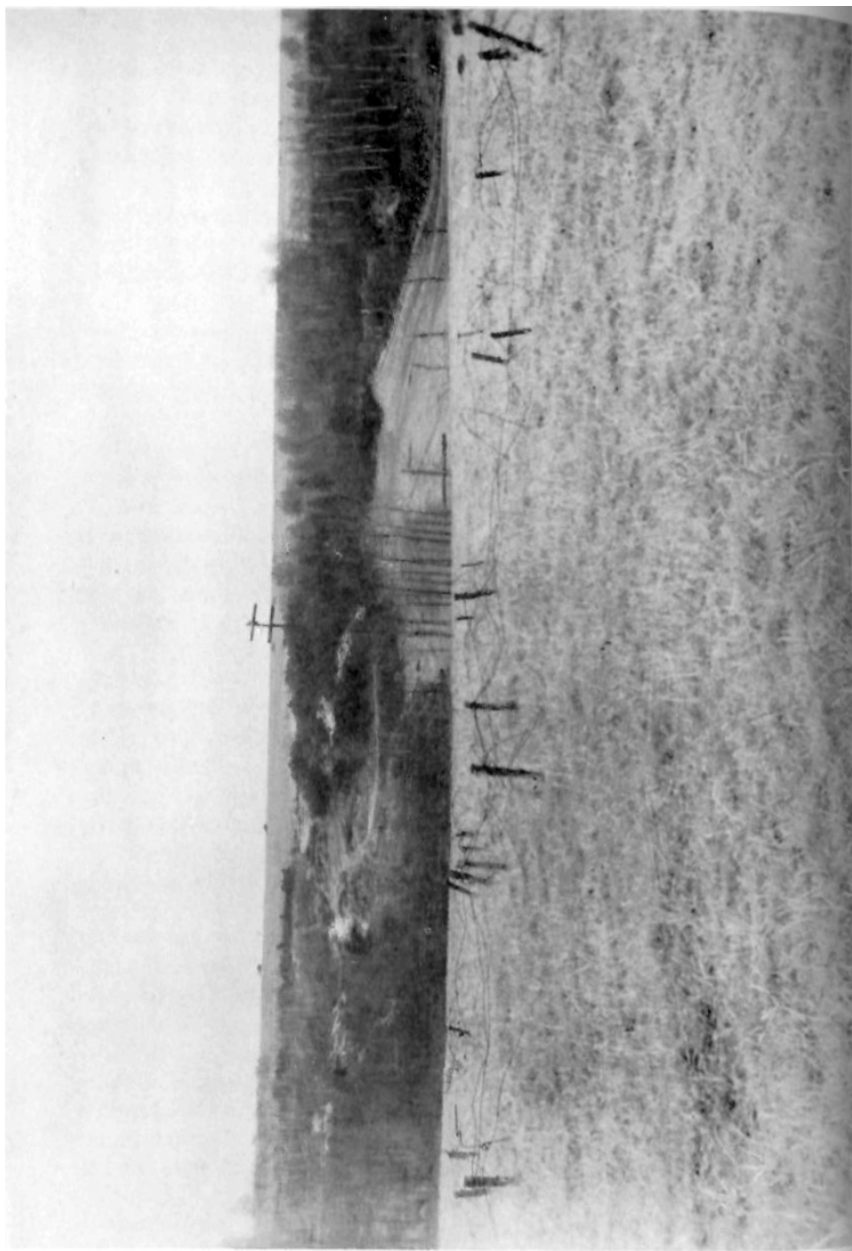
After the return of our reconnaissance parties the rest of July 19th was spent in heavy firing on the town of Tigny, the Bois des Hartennes and the roads leading thereto from the enemy's rear. The attack of the morning warned us that the enemy was bringing up heavy reënforcements and we did not want any successful counter-attacks on his part. This firing could be watched from our observation post. Several times the town of Tigny seemed to disappear in the smoke of the bursting shells.

The enemy artillery did not bother us much during this period. What little there was left of it devoted its attention energetically to our infantry. However, most of it was still down in the ravine near Vauxcastile and in the woods south of Beaufepaire Farm.

The hostile planes did annoy us exceedingly. They flew over our positions practically at will and did everything but spit in our



LOOKING EAST FROM LA VERTE FEUILLE



THE RAVINE EAST OF VAUXCASTLE
Looking north of past from Point (174.8-286.8)

BATTERY "B" OF THE TWELFTH FIELD ARTILLERY

faces. One was led to wonder what had happened to the Allied anti-aircraft defense.

During the evening of July 19th the infantry of the division was relieved and sent to the rear. The fighting around Vaux and the Bois de Belleau during June as well as our more recent engagements had all but exhausted them. Replacements also were very badly needed.

The 58th Infantry Division (French) took over the lines in our sector. This division was a pretty good one. We remained in its support. However, as we were now "additional" artillery our duties were much lighter than they had been.

July 20th was not very active. On the whole, the day was spent in much reconnaissance by the officers and in sleep by all others who could arrange it. The whole unit was almost at the dropping point from fatigue.

Late in the evening of July 20th the First Battalion of the 12th Field Artillery changed to a new position near Montremboeuf Farm (176.2–284.9). The 58th Infantry Division (French) was to attack on July 21st. The change of position was made in order that we could utilize the road from Montremboeuf Farm toward Cabane Cante (177.1–285.2) and Tigny for our proposed advance. It was not contemplated that we should fire from this position. We were to follow the infantry in close support.

The battery had by no means as clear a picture of what was about to happen as is given above. In order to appreciate the events of July 21st in their true light, it is necessary to go back to the late afternoon of July 20th and at the risk of repetition bring out just what we did know.

At the time mentioned above, the battery commander's party reported to battalion headquarters. We did not expect a move. We merely expected another of the reconnaissances we had been making that day.

On assembling at battalion headquarters the battalion commander told us of the move projected for that night and informed us that the batteries would be sent on after us. We then rode to the vicinity of Montremboeuf Farm, made our reconnaissance, and got what sleep we could before the batteries arrived.

The only information we received during reconnaissance in addition to that in regard to the move was that the French Division that we were supporting would attack the next day with unlimited objectives and we were to follow in close support. Detailed orders were to be furnished to us during the night.

Some time during the night a runner brought a roll of maps to the battery. By turning down one corner it was ascertained that the maps were copies of the Oulchy le Chateau map and the 1/20,000

THE FIELD ARTILLERY JOURNAL

map to the east of it. Detailed examination was reserved for daylight. The roll was not even completely opened, as we already had a copy of the Oulchy le Château map folded and ready for use.

We got no further orders that night. When the other batteries were observed to be hitching in an S. O. S. to the horse lines we brought up our limbers. We just did manage to get ready for the road a few minutes after the other batteries had completed their preparations. A reprimand from the battalion commander disclosed the information that we were supposed to move forward at 4:35 A.M. in the order B, C, A. As we were not ready, Battery "C" moved out first.

The attack started as scheduled at 4:30 A.M., although we did not know it at this time. As mentioned above, the First Battalion started forward after the infantry at about 4:35 A.M. The head of Battery "C" was just crossing the crest at (176.5-284.9), and the other batteries were about to take the road when the head of the column was greeted by a volley of 77s. First Lieutenant Mehl, Battery "C's" commander, was killed. This battery was immediately withdrawn behind the crest. The presence of mind of Sergeant Brought, in charge of the 1st Section, contributed largely to the success of this manœuvre.

It was then decided to use the valley roads for our displacement. The battalion was turned about and moved down the road, which runs east from Montremboeuf Farm toward Min. de Comte and Parcy-Tigny. The order of march was now A, B, C.

The gait used was a trot, as we were behind our schedule. The steep grade, inferior road and the increased gait loosened our hastily packed equipment. Our route was liberally sprinkled with all varieties of individual household effects.

When the battery arrived at the crossroad at (177.1-284.1) the battery commander received a verbal order from the battalion commander, the substance of which was about as follows. "Take the next road to the south that runs east and rejoin the battalion in the new position. Keep moving and do not block the road."

We kept moving and as there was no time to ask questions we knew less about the situation than the reader knows now. We did not even know what time the fight was to start much less what we were supposed to do. It is a horrible sensation to be alone in the presence of the enemy without any information whatsoever.

We moved on to the next road which turned east, pulled off to the right of the road, and halted. The men were directed to readjust their hastily packed equipment and the officers assembled for a council of war.

It was decided that we could keep in touch with the other batteries on the northern road and eventually get some dope from them. We

BATTERY "B" OF THE TWELFTH FIELD ARTILLERY

agreed that the direction of attack was probably due east. Parcy-Tigny was therefore selected as our first objective. After about a ten-minute stop we prepared to move on again.

Lieutenant O. L. Early and two scouts were to precede the battery and examine the route. As they were in need of a map, we remembered the roll of maps which we had received during the night. They were brought forth and unrolled. Securely wrapped up inside them, we discovered the complete order we had expected to receive during the night!

From this order we received all information in regard to the attack that we could possibly need. The route of advance of the battalion, as well as the location of the new position, was also covered. These details are not clearly remembered, but it is thought that the new position was to be in the vicinity of Neuville St. Jean (183.0-284.0).

In the light of this information we tentatively selected the route Parcy-Tigny-Hartennes et Taux-Neuville St. Jean. Lieutenant Early then started forward with his detail.

We delayed a few minutes to give them a start and then moved forward. Just as the battery was crossing the crest at (177.5-283.9), a very breathless scout came galloping back with the information that our front line ran through Parcy-Tigny and that a position was available in a field at (178.2-284.0).

The battery trotted over the crest and went into action in the position mentioned above. There was considerable shell fire in this area. On the way in one horse was slightly wounded and Private Briel, lead driver of the 3rd piece, was wounded in the thigh. Lieutenant Scroggs took the limbers away and posted them about 500 metres in rear of the battery.

From information secured from the infantry to our front it appeared that the 58th Infantry Division (our supported troops) had jumped off on time and were still advancing. The troops behind whose line we then were, were not to advance until 9:00 A.M.

Consequently, at about 7:30 A.M. the battery took up its fire mission in front of the line in which the 58th Infantry Division should have been at that time, according to the orders in our possession. A message was sent to the battalion commander telling him where we were, what we were doing, what information we had, and asking for further orders.

An observation post was established in the church tower of Parcy-Tigny. From this observation post the forward movement of many small infantry units in the sector of the 58th Infantry Division could be clearly seen. Its front lines were hidden from view behind the Bois des Hartennes. However, we reasoned that if

THE FIELD ARTILLERY JOURNAL

the rear elements were moving, the front ones ought to be, so we kept on with our fire.

We could also see the infantry to our immediate front lying in the wheat at about (179.5-284.5). Every time a shell came in headed for the ravine in which the battery position lay, it whizzed by the church tower. Each round the battery fired also whined by. One felt almost as if one could stroke them with the hand as they passed. This was a most comforting feeling. The church was very old and there was no mortar between the stones. It looked as if one really solid hit would knock it down like a house of cards.

As we could see nothing from the observation post but the back areas, we abandoned it at about 8:30 A.M. At about 9:00 A.M. the battalion commander ordered it reestablished for liaison purposes. A dense box barrage had been laid down around the town by this time and some time was wasted in looking for a way in. Finally the enemy apparently took a gun out of the barrage to cool and we got through the hole it left.

Shortly after the observation post was reestablished a counterattack against Percy-Tigny developed from the direction of Tigny and the Bois des Hartennes. We could see the enemy infantry very plainly as they left the wood and worked their way up through the wheat. We could not fire upon them as they were too close. The town in our front masked our fire. A message was sent to the battalion headquarters and fire eventually did come down in that area.

It never occurred to us until later that we might have moved the battery. However, the probable success of this move is doubtful, because the enemy fire was quite heavy around the battery position. Regrets of this nature are instructive, but as useful as post-mortem bridge games after the incident is closed.

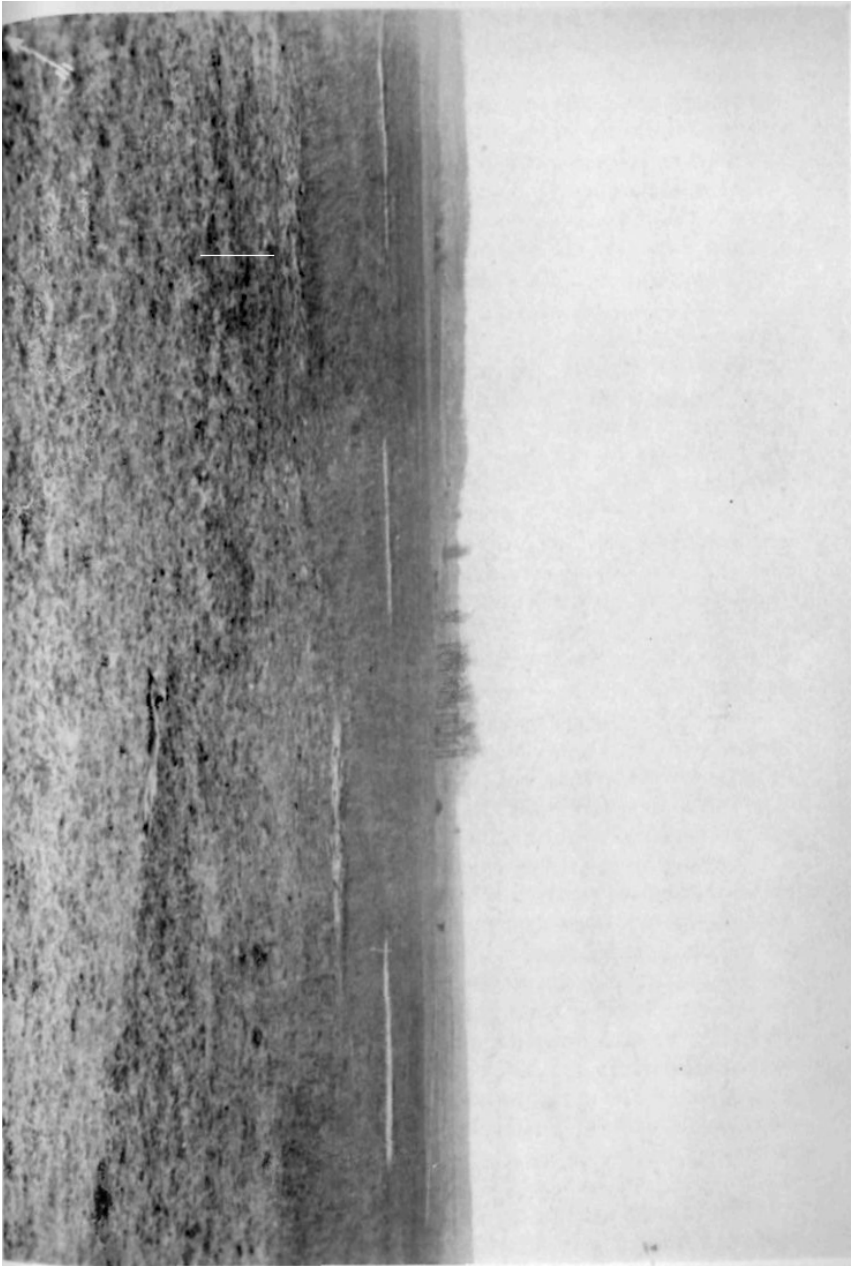
During the counter-attack the observation post was very much in the position of partisan rooters at a football game when the home team has been forced back to the one-yard line. We were certainly all for that line holding!

The work of Scouts Patterson and Murphy in carrying messages to and from battalion headquarters is well worthy of special mention. The shell fire was intense and it was an extremely hazardous thing to move anywhere.

About 10:30 A.M. the ammunition gave out. The men were withdrawn from the vicinity of the guns and placed under the protection of the hill side at (177.2-283.9). The observation post remained in position.

The battery position and all adjacent areas were being heavily shelled all the time we were there. While we occupied this position at least 100 rounds of from 77 mm. to 150 mm. landed within a radius of seventy-five metres of the position. Several landed between

TIGNY





THE MORNING WASH UP
From a drawing by Captain W. Morgan

BATTERY "B" OF THE TWELFTH FIELD ARTILLERY

the pieces. The ground was soft, as we were in a creek bottom. This masked most of the fragments. Our only casualty was the loss of the battery executive, First Lieutenant D. J. Fitzgerald. This occurred after we had evacuated the gun position and the personnel was on the hill side mentioned above. A shell burst in the valley and a fragment, coming up, hit him in the foot.

Lieutenant Early was detached from our battery shortly after we opened fire. When Lieutenant Fitzgerald was injured, Lieutenant H. B. Hester was sent to replace him temporarily. This officer left the battery again as soon as we withdrew from this position.

About 11:30 A.M. orders were received to withdraw to Montremboeuf Farm. The observation post was withdrawn from Parcy-Tigny and the guns were prepared for quick limbering. In order to avoid excessive casualties most of the personnel were kept clear of the position. The carriages were limbered up one at a time and sent away at an increased gait. When all had been reassembled the battery was marched back over the route it had come to Montremboeuf Farm.

We passed back up the grade we had descended so hastily that morning. In doing so we were able to gather in most of the belongings we had scattered by the wayside. On arrival at the farm we parked, facing west, in section column, under a steep bank along the south side of the farm. The horses were unhitched and tied on the wheels. We then proceeded to feed the men and animals. It was now about 1:00 P.M.

While we were eating several high bursts were observed over the farm. The battalion commander immediately directed us to move on. The men returned to their carriages. The drivers gulped down what was left of their food while the cannoneers hitched in. It was thought that the cannoneers could eat while the carriages were in motion.

Just as the command to mount was given, the first shells burst in the farm. However, as our parking place was practically defiladed, very few shells hit in the battery. We did not suffer much damage until we commenced to move.

Battery "C" was bivouaced across the road to the north of the farm. The fire was most severe at this point and their casualties were very heavy. They were almost wiped out. Lieutenant T. E. Wood was killed by the first shell.

As we were suffering the least of any of the batteries, we remained in place with the drivers mounted and the cannoneers at the horses' heads, while Batteries "A" and "C" passed us going west. When our turn to move came the battery took up a slow trot in order to avoid a stampede and crossed the shelled area, taking the road down the grade toward Villers Helon.

THE FIELD ARTILLERY JOURNAL

During this move the battery took with it such wounded of the other batteries as it could. The rest were placed in a nearby cave and cared for by the hospital corps men on duty with the battalion.

The total loss during this manœuvre was three horses, which had to be abandoned due to wounds. The battery commander's party remained behind and destroyed these animals after the battery left.

The most difficult piece of transportation to disengage was the rolling kitchen. This had been in the farm yard when the shelling commenced. Lieutenant Scroggs was detailed to superintend its withdrawal. Great credit is due him and the members of the mess sergeants' detail. Not a man, animal or piece of equipment was lost or left behind.

A wheel came off a caisson in the 5th Section when it reached the bottom of the grade. At this time there were only two commissioned officers on duty with the battery. Lieutenant Scroggs was on duty at the farm and the battery commander had not yet rejoined the battery. When the battery commander came down the road from the farm a few minutes later, the caisson had been unloaded, the wheel replaced with a mess kit handle for a lynch pin, and representatives from every section of the battery were busily engaged in repacking it, the occasional shorts and overs helping materially to encourage the men in their work.

The chief of the 1st section, Sergeant One Round Hogan, was temporarily in command of the battery. This work was originated and directed by no officer. The battery may well be proud of this small incident coming after a very trying morning. We had not abandoned one single item of our equipment under fire. Inconspicuous as it is, this is one of the small items which marks the difference between a battery and an undisciplined mob.

The battery went into action again in a line of trees (173.7-286.5) about 900 metres southeast of Beaurepaire Farm. The limbers and other rolling stock went into park near the ravine at (173.2-286.2).

We learned here that the attack that we had gone forward to support that morning had advanced about three kilometres. It was then brought to a halt as its flanks were unsupported. A counterattack on its flank had forced it to fall back.

Some gas shells had been mixed in with the high explosive we had received near Montremboeuf Farm. During the afternoon it began to take effect. Privates Watkins, S., Mullins, Smith, E. J., Whitt, Valley, and Cook Marco had to be turned over to the medical authorities. Many others became quite sick.

During the late evening of July 21st, Lieutenants J. R. G. Clark and C. E. Anderson joined the battery from the rear echelon. They had heard that all the officers had been killed and that there had been

BATTERY "B" OF THE TWELFTH FIELD ARTILLERY

severe casualties among the enlisted personnel. They had come up on their own initiative. Their services were thankfully received by the officers remaining with the battery.

This ended perhaps the most eventful day in the history of the 12th Field Artillery. When night fell we felt as though we had seen something of the war!

The next morning Privates Grant, Horder, Edinger, Scott, Bentley and Prince were taken in hand by the battalion surgeon. The medical authorities then advised that the battery be given a rest to prevent more casualties from our recent gassing. The whole battery was directed to remain in place until July 23rd. We proceeded joyfully to catch up on needed sleep.

Everything was not so peaceful, however. During the night of July 22nd-23rd German planes bombed Beaurepaire Farm and the road toward Vauxcastile. One plane was a bum shot. The bomb lit in the ravine behind the battery limbers. The only casualty was Corporal C. E. Lucia, who was sleeping on a ledge in the ravine. He lost his foot.

On the evening of July 23rd the battery rejoined the other batteries of the battalion in a position (175.3-285.0) near Montremboeuf Farm. The rest of the battalion had moved there the night before. The road was very slippery with muddy clay, but the trip was made without mishap.

A detail from the battery took over and fired a battery of German 77s which were found in position near Vierzy at point (175.7-285.9). It was more or less a question of, "We shot some shots into the air and they fell to earth we knew not where." We were not able to locate the bursts. As we had no range tables, sights or even an elementary knowledge of how the fuses were supposed to work, this was not unexpected. However, if the wishes of the shooters were heard, the Germans must have noticed our fire.

About this time a British division appeared in the sector. On July 25th they staged an attack in which we participated. They had their own artillery, so our fire was used to augment the fire of their own guns. The ultimate degree of success of this attack is not known.

During the evening of this same day we were relieved from this sector. The battalion marched to a bivouac in the Bois de Retz. This was the same wood from which we had started our attack. Now, however, it was a part of the S. O. S. To help ruin a peaceful march, the Germans bombed the woods early in the evening, and during the wee sma' hours it rained heavily.

On July 26th we started "rest" routine by trying to police up all our equipment. It was not much of a success due to the rain.

This ended our experiences with the battle near Soissons. As a whole it was very good experience for us. It was our first big

THE FIELD ARTILLERY JOURNAL

offensive. Our sins of omission and commission were many. A big offensive makes more demands on the training and ingenuity of an artilleryman than anything else. One of the things concerning the whole affair that we can boast about is that we never made the same mistake twice. We made our mistakes with a vim. We did what we thought was right at the time to the best of our ability. After all the only unforgivable offense in war is the failure to do something even if it is wrong. It is much better to make an enthusiastic mistake than to accomplish nothing and do nothing wrong.

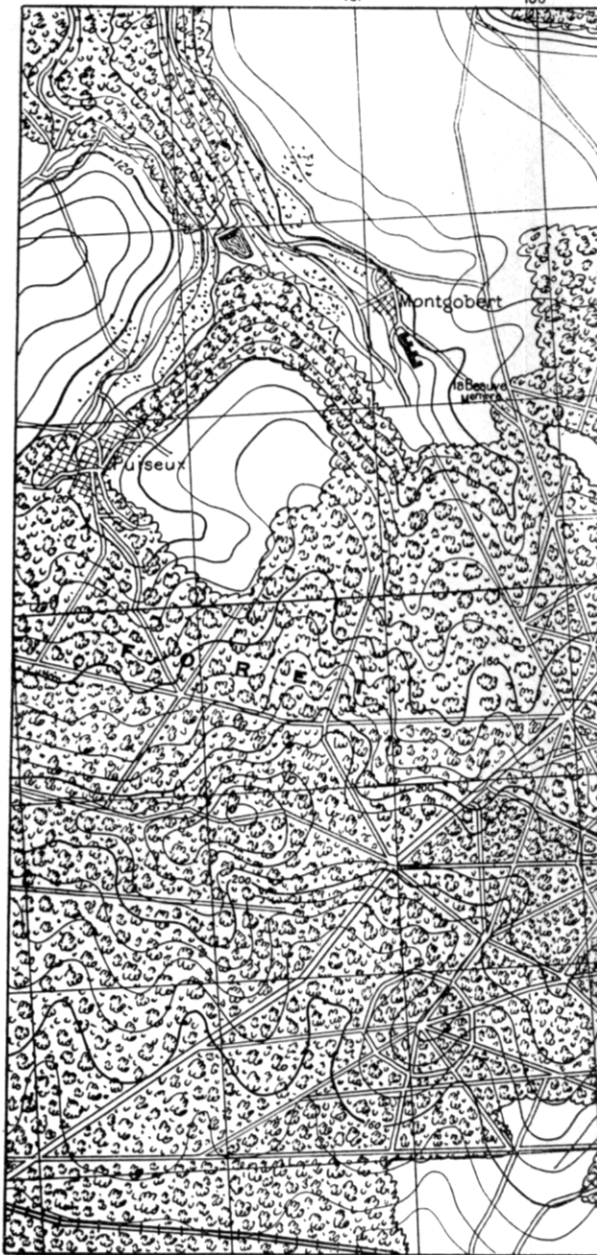
Shortly after this offensive the author had the misfortune to become detached from the command of this battery and assigned to other duties within the regiment. At this point it becomes necessary for him to turn over the story of its adventures to more capable hands. In doing so he wishes to make it clear that he assumes no credit for the work done by the battery. It was organized and trained for its work by other officers who did their work well. While in command it was his constant endeavor to keep out of the way and let the battery function as it so well knew how. For the many mistakes he is willing to take full responsibility. Most of them are clearly his own. The few that are not, add very little to the score for one thing, and for another, a commander is always responsible for the work of his unit as it is done in his name. In the end it is but a small price to pay for the proud privilege of being able to say, "I once commanded a BATTERY!"



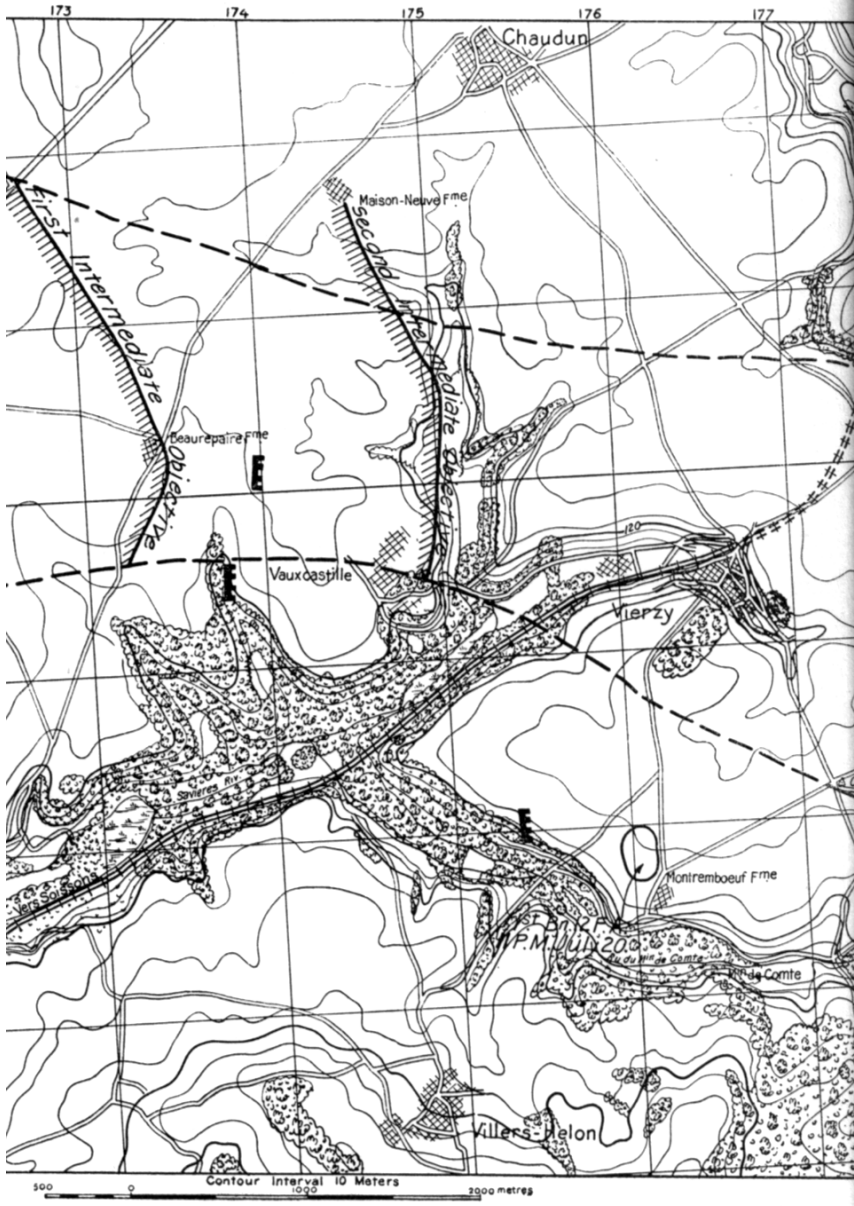
166

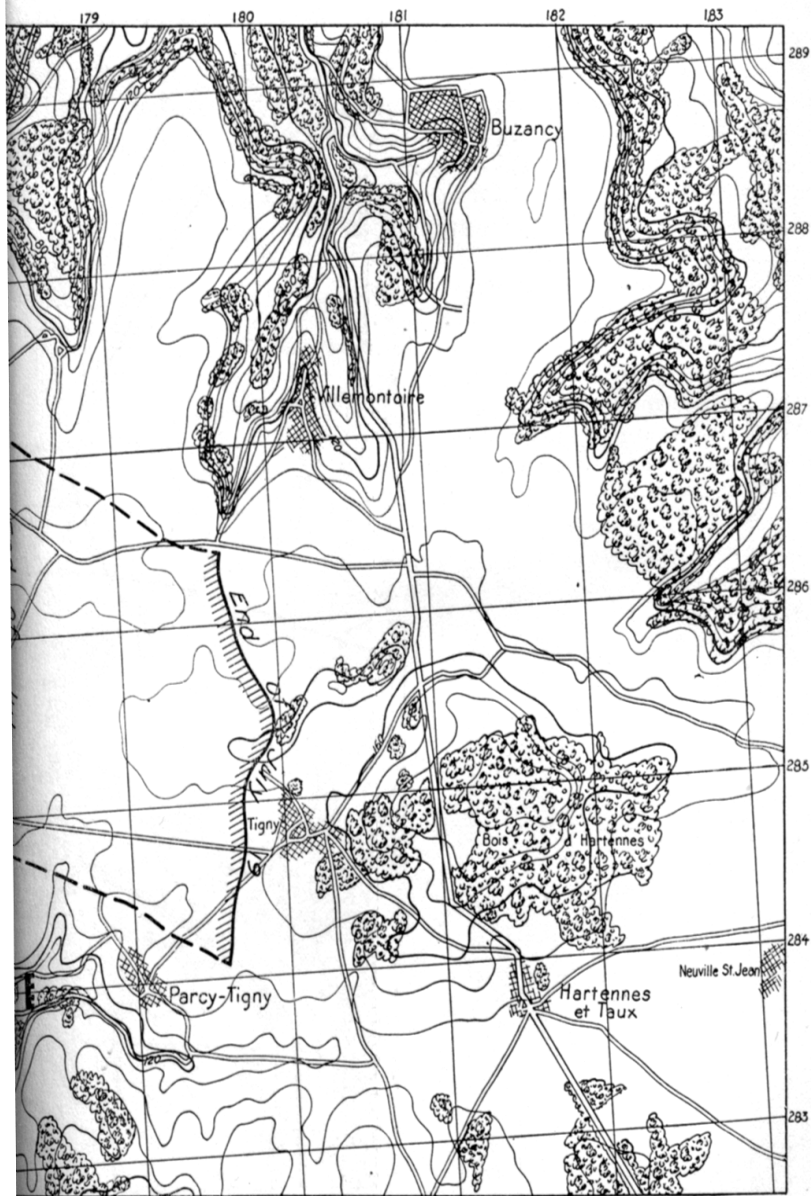
167

168









PREPARATION OF A BATTALION OF FIELD ARTILLERY FOR SUMMER TRAINING ACTIVITIES

BY MAJOR C. P. GEORGE, 16th F. A.

PRIOR to the World War we all had visions of leading our organizations in campaign, but the task of training great numbers of untrained men was in the majority of cases given little consideration. The average battery commander contented himself with the preparation of his organization for the field as a self-contained unit, and his training schedules were prepared accordingly. The preparation of individuals, except the officers, with a view to their use as instructors, was generally not thought of.

Had we but known in 1915 or 1916 what was before us, how much more efficiently we would have functioned is evidenced by the results we now obtain with personnel of less service than that of ten years ago. When war was declared, we found ourselves overnight minus most of the noncommissioned officers, due to the officers' schools then starting, and in addition with about one-fifth of our original personnel as a cadre from which to build. Surely there is no excuse for such a condition of affairs to again exist.

We have established a military policy based on sound principles and as long as we of the regular service remember our traditions, live in the present and build for the future, this country need never fear for a lack of preparedness!

We are called on each summer to assist our fellow citizens in the preparation of themselves for a possible emergency. They evidence this desire to prepare by joining the National Guard, Organized Reserve, R.O.T.C., and C.M.T.C. Units of the regular service are allotted, under the War Department's scheme of instruction, to various training camps to assist in training individuals and units pertaining to the above. It behooves us therefore to prepare our organizations to efficiently carry on any instruction we are called on to give.

At most of our stations the period December first to March thirtieth is known as the "closed season" and very little outdoor activities are carried on. From April first to June fifteenth is the "open season" and we can offer little or no excuse for not training outdoors during the latter period. During the "closed season" every effort should be bent toward the careful instruction of officers, noncommissioned officers, and selected privates. The value of the school is in direct proportion to the amount of instruction the individual obtains.

The proper instruction of the individual is the gist of our entire

THE FIELD ARTILLERY JOURNAL

training program. Great stress should be placed on detailed instruction; it is not sufficient that the individual have a general idea of the subject, he must understand and be able to explain the minutest detail. It must be remembered that all officers, noncommissioned officers, and a number of privates will be called on to instruct during the summer training and they must be prepared to answer any and all questions pertaining to the particular subject in which they are instructing. To answer questions in a hit-and-miss fashion is inexcusable.

Field Artillery Training Memorandum No. 7 gives us an excellent guide from which to prepare our schedules for training, and schools for noncommissioned officers and selected privates. The following general scheme has been followed in the writer's battalion.

CLOSED SEASON DRILLS

Mornings are devoted to drills, weather permitting. During inclement weather instructions under cover is carried on, consisting of any or part of the following: harness drill, gun squad drill, gunners' instruction, military courtesy, pistol instruction. Every horse in each organization is exercised for at least one hour irrespective of weather conditions.

A morning schedule runs about as follows:

7:30-7:45—Inspection by battery officers of barracks and men at their bunks. The object of this inspection is to enable the battery commander to keep his men up to a high standard of personal cleanliness and appearance. He can easily pick out the drones, and does not have to wait for the weekly inspection to do it.

7:45-7:55—Dismounted drill. This consists of a short foot drill, using the Lentz Cadence System; it enables the battery commander to improve the carriage of individuals and the general appearance of the organization. The drill is conducted on the way to stables.

7:55-8:30—Care of animals (watering, tying in stables or on picket line, and brushing off, particular care being taken of the horses' backs, legs and feet).

8:30-10:00—Mounted drill. The first fifteen to thirty minutes of every mounted drill period is devoted to gaiting exercise. The battery is placed on a rectangle approximately fifty yards on a side; the battery is then gaited at a walk and trot. The trot is at the rate of six miles per hour and the walk about three and one-half miles per hour. Every effort is made during this period to teach drivers to allow their horses to extend the head and neck, and the general tendency to drag on the roller rein is discouraged. This exercise has for its object evenness of gaits and the elimination of that well-known formation known as "backing and filling."

PREPARATION OF A BATTALION OF FIELD ARTILLERY

The last hour of mounted drill is devoted to formation involving the occupation and evacuation of positions and simple tactical problems. This is varied to include some drill ground exercises to familiarize drivers with the manœuvring of a battery.

10:00–10:30—Drill of the gun squad. This period is included in the mounted drill, providing sufficient cannoneers are available.

10:30–11:00—Care of harness and matériel. During this period harness is carefully wiped off, using a soapy sponge and all matériel is cleaned.

11:00–12:00—Care of animals. A minimum of 20 minutes is allotted to the care of each horse in the battery. Grooming is supervised by all officers and noncommissioned officers, except gunners, who during stables care for the matériel of their respective sections. Time is not the controlling factor in the process of grooming; the cleanliness of the animal is paramount.

Afternoon

1:30–2:30—Noncommissioned officers' and selected privates' schools. Schools for battalion and battery details. For noncommissioned officers and selected privates the scope of instruction covers:

(a) All Field Artillery Training Regulations affecting the duties of noncommissioned officers in a battery.

(b) Care of animals.

(c) Pistol marksmanship (a much neglected phase of our training).

(d) Military courtesy.

(e) Manual of Interior Guard Duty.

The schools for battalion and battery details are conducted by the commanding officer of the battalion headquarters and combat train, assisted by his lieutenants and one lieutenant (reconnaissance officer) from each battery, providing those officers are available. Combined instruction of details is conducted generally so that signal men, scouts, instrument men, and radio men are instructed in separate classes, each class under an officer.

2:00–3:00—Two to three selected noncommissioned officers from each battery and combat train are given instruction in equitation under an officer.

3:00–4:00—Officers' Schools. These cover such subjects as are prescribed by the War Department and such additional instruction in field artillery subjects as is necessary.

4:00–5:00—Officers' Equitation.

The above would seem to rather fill the day for all concerned, but in addition all kitchens are inspected daily at 11:00 A.M. by a designated

THE FIELD ARTILLERY JOURNAL

officer and all stables and stable yards are prepared for inspection daily by 5:00 P.M.

During the closed season every effort is made to give the personnel a thorough grounding in the subjects taken up and as much of the practical application of theory as is possible under existing conditions.

OPEN SEASON

The following *minimum* times are devoted to instruction:

Morning inspection—15 minutes.

Care of animals and harness prior to drill—30 minutes.

Gun drill—30 minutes.

Mounted drill—1 hour, 30 minutes.

Care of harness and matériel after drill—30 minutes.

Care of animals after drill—each horse 20 minutes.

Instruction of details—1 hour.

Preparation for gunners' examination—30 minutes.

Pistol instruction—30 minutes.

Pistol firing—1 hour.

Pitching tents—rolling packs—packing saddles, etc.,—30 minutes.

The mounted drill period is devoted to the solution of assumed tactical problems.

Following the above schedule usually takes from six to eight hours daily. During the spring all instruction starts at 7:00 A.M. and it is possible to finish all work for the day by 3:00 P.M., earlier as instruction progresses.

The conditioning of animals for the summer training period is a big factor. Careful supervision by all concerned is necessary if the animals of an organization are to perform the hard work imposed upon them in any camp of instruction. Experience has taught us that we over-feed our animals during the winter, causing digestive disorders and numerous other complaints. The proper supervision of feeding is generally neglected in the service—a horse or mule should be fed oats in proportion to his condition and the amount of work he performs.

Go through any stable and you will find a few horses much fatter than the others; watch the stable force and you will find the fat horses are getting more than their allowance, and the thin ones are neglected. Save on the easy keepers and use it on those hard to keep. No horse except the hard keepers should be fed a full ration of oats during the winter months. The average amount is eight pounds a day. During the spring as the work is increased the oat allowance is also increased. Endeavor to turn fat into muscle.

The full ration of hay should always be fed.

PREPARATION OF A BATTALION OF FIELD ARTILLERY

Personally I prefer to start horses on a hard march with their muscles hard and with a little excess of fat. Overtraining is as detrimental if not more so than undertraining. During the spring, short practice marches are taken once a week by each organization. The length of the march is gradually increased from 10 miles a day to 20 miles a day. During the march the trot is always interspersed with the walk. Trotting is at the rate of six miles an hour, no faster. Necks are hardened by using, daily, a saturated solution of salt.

Results count and with no idea of boasting, this battalion has hiked the past three years over hard roads many hundred miles, at an average rate between halts of 4½ miles an hour, with a minimum of sore necks or other casualties. We attribute our success to the personal supervision of officers and noncommissioned officers and the realization by every driver that a halt is to enable the horse to rest and be cared for.

During a camp of instruction every man is imbued with the idea that he is there as an example of the efficiency of the Regular Army, and that whenever a Field Artilleryman turns out he should excite comment by his neat appearance and soldierly bearing, whether mounted or dismounted.

The following axioms are suggested as a guide for instructors:

All work will result in a waste of time unless the instruction personnel itself are thoroughly familiar with the subject at hand and have a clear idea of the systematic order of progression of the instruction.

Thoroughness and lasting results can only be attained by having each individual receiving instruction perform his duties under expert supervision.

Men are taught through seeing, hearing and doing. First show them how the work is done, explaining each operation, then have them perform each operation, step by step, under careful supervision. Remember that familiarity with a subject is only attained through constant repetition, therefore repeat operations frequently and insist on correct performance until correct performance becomes a habit.

Familiarity with instruments and mechanisms must first be accomplished by individuals before combined duties are taken up. Sequence of instruction in all subjects should be carefully followed. An instructor not well prepared soon loses the confidence of those receiving instruction.

CARE, PROTECTION, PRESERVATION AND ACCOUNTABILITY OF GOVERNMENT PROPERTY ISSUED TO THE NATIONAL GUARD

BY CHESTER B. McCORMICK, MAJOR, P.A.(D.O.L.)

THIS article is prepared after years of study and experience with the National Guard Field Artillery of several states, that regardless of local conditions or type of unit the principles herein may be applied to all arms as well as field artillery.

In equipping the hundreds of artillery units throughout the several states, it seems that little or no attention is given to standardization or a uniform method of care, protection, preservation and arrangement thereof.

It is true that armory conditions throughout the country vary in type from beautiful structures to shambles. This, however, makes no difference. Regardless of local conditions and facilities, the problem of housing and care of government property rests upon the shoulders of the battery commander after the state has seen fit to locate the unit in his locality. In turn, the federal government holds the battery commander responsible through the agency of the state. National Guard Regulations, among other things, provide:

"Par. 793. It is contrary to the proper relation between the War Department and the states, as well as violation of law, to issue stores where no adequate provision has been made by the state to protect them from deterioration through the action of the elements or from loss or damage through theft or fire. No artillery matériel will be issued for use of any battery unless it is clearly shown by the state authorities that adequate armory facilities, both for instructional purposes and for safeguarding the matériel, are available for housing purposes, etc.

"Par. 794. Lack of proper care of federal property will not be tolerated, and any loss, damage, or destruction of property by reason of carelessness or lack of proper attention will result in the states concerned being charged with the value thereof, etc."

In addition the federal government provides for the expense of maintenance of competent caretakers with every horse-drawn unit. Annual inspections are conducted by the War Department with a view of ascertaining if the conditions are fulfilled by the states as well as many other conditions under which this matériel is issued.

Thus the responsibility of the unit commander begins. Conditions



FIRE CONTROL EQUIPMENT

Note the arrangement into instrument group, signal group and topographical group. Note accessibility for drill. Don't pack instruments away in damp store-rooms or wet cases. This is a very good reason why they should not be left in the reel cart

CARE, PROTECTION, PRESERVATION AND ACCOUNTABILITY

existing at home stations effecting the care and responsibility of federal property issued to the National Guard have no parallel with troops of the United States Army in garrison. What might be termed a model with the Army cannot be applied to the National Guard. In this particular the National Guard is exclusively a different type institution. The system of control, issue, use, housing, etc., is entirely different. Two hours out of every week this property must be accessible as a whole for use in any particular, the remaining 166 hours of the week must find this same property secure from loss, theft, deterioration and under constant observation of competent caretakers.

From my own personal experience, lasting over fifteen years with artillery property responsibility of the Michigan National Guard, I know that provided the principles outlined herein are conscientiously applied and followed that it is a pleasure to command any artillery unit. Relieve the battery commander from the burden of property responsibility and permit him to turn his entire attention to administration and training of his unit and what a revelation it would be. This, however, is obviously impossible. Property responsibility overshadows all other obligations combined to which a national guard officer is subjected. Matters of administration are based upon details prescribed by regulations which, fixed and carried out by daily routine, soon becomes a habit. Our present system of Training Regulations, together with schedules of instruction prescribed by higher authority, establishes a fixed routine in this particular.

Our Service Schools lay great stress upon the technique of the several arms, but little or no attention is given the care, protection, preservation, responsibility and accountability of property.

The expense of arming and equipping the various services runs into large sums of money. However, vast amounts of this property disappears annually through avoidable causes other than "fair wear and tear in the public service." These items are normally charged off the property loan record through reports of survey, etc., as lost, stolen or destroyed through causes that are a dead loss to the unit commander, state or the United States, depending upon circumstances.

Is it not a fact that nine out of every ten officers relieved from command, for any reason whatsoever, generally spend days, weeks and sometimes months straightening out their property accounts, and in the end are invariably "stuck" for something, which often runs into large sums of money?

Is it not a fact that the high spot in judging the efficiency of a command is normally based upon an inspection where every article of equipment and the storerooms must be exhibited to the

THE FIELD ARTILLERY JOURNAL

scrutiny of an inspector? Just as sure as death and taxes, once a year, each unit of the National Guard is subjected to exhibition and count of every article of its equipment at the Annual Armory Federal Inspection. This is the most important inspection that takes place during the entire calendar year, as the condition and training of the unit as presented at this time is the basis upon which the War Department establishes the efficiency, appropriations for the state, and statistics covering the general activities of the National Guard.

This being true, then, should not a policy of "A place for everything, everything in its place and kept there," combined with a standard system of arrangement and accountability whereby the organization, in so far as the property is concerned, is always ready for an inspector? Almost every unit commander has some pet scheme for the arrangement and care of his property; is susceptible to any suggestions that will plug leakages and assure him of the maximum protection. However, he has no fixed standard as a guide. Often a commander will declare that the local armory conditions have no precedent anywhere in the country and what may be considered a model system elsewhere cannot possibly be applied in his case.

We are informed that the matériel pertaining to a single 75-mm. gun battery costs the United States approximately \$150,000. In addition to this is added the cost of clothing, equipment and small arms of the enlisted personnel, camp equipage, animals, forage, pay rolls for caretakers, camp and armory drill pay rolls for officers and enlisted men. Multiply this by the total number of similar units scattered throughout the United States and it will aggregate many millions of dollars. Now compare this with some large business enterprise where immediately, you will find a standard system of care, protection, preservation and accountability of property in the hands of its respective branches that is efficient and air-tight from losses and deterioration.

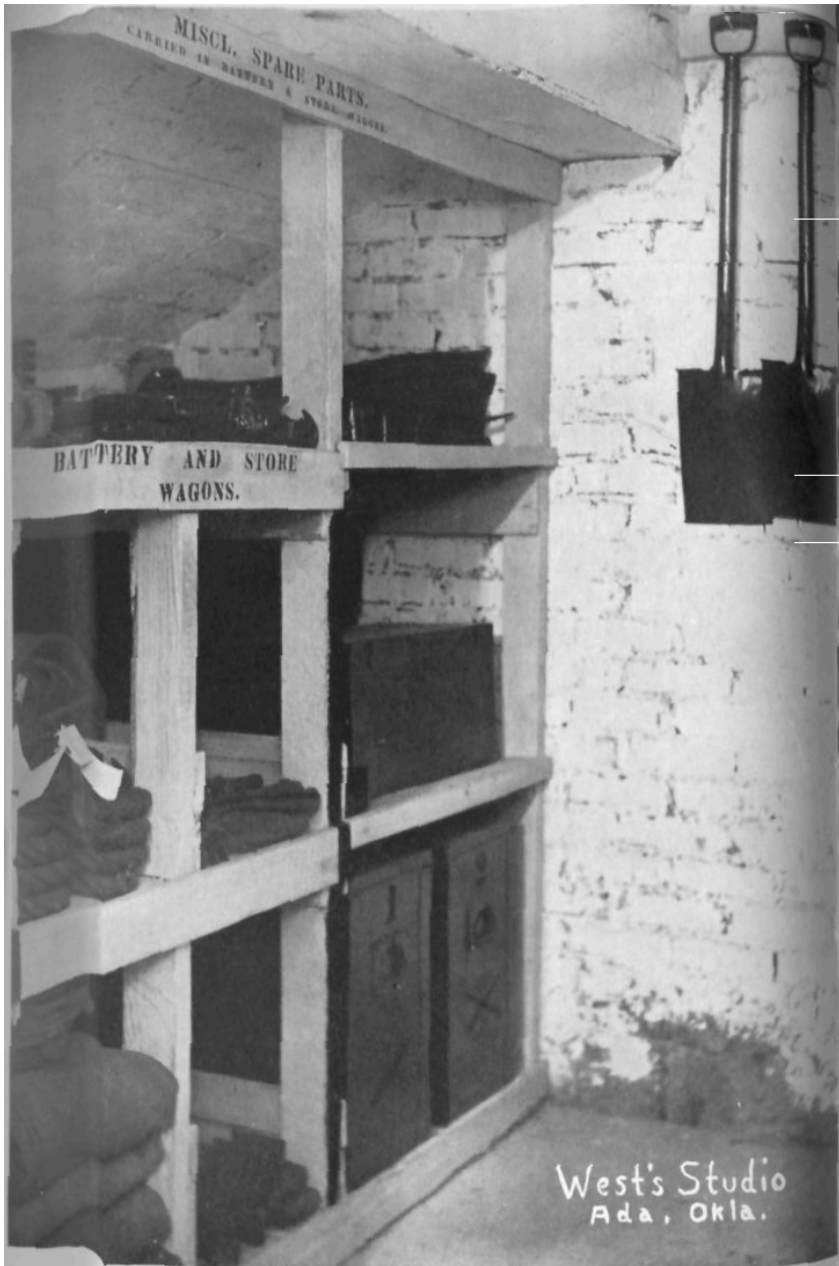
The national guard officer is a very busy man. Invariably he is a highly respected citizen in his community, who in addition to making a livelihood for himself and family, is interested in many local, civic and business enterprises. He can devote but limited time to his unit.

It is, therefore, the object of this article to provide a standard method of handling and control of federal property in the hands of the National Guard that in the end this may become a secondary matter; that the unit commander may devote the major portion of his limited time to the administration and training of his organization—always ready for mobilization within a few hours to meet any emergency, whether it is local, state or federal. His unit in so far as the property is concerned, is always ready for inspection.



SECTION EQUIPMENT

Every article of equipment pertaining to a section is neatly systematically arranged throughout the entire battery. Take the third section for example: Top shelf all instruments, tools, etc., not carried below are here; center bin left, picket rope, all vehicle traps rigged for identification; center bin right, tubular oil cans, fuse boxes, lanterns and pads, caisson wrenches, etc; bottom left pan and canvas water buckets; bottom right, S.H. shovels, axes, pickaxes, pickknarocks, hatchets, pole props, etc. Aiming posts are overhead. Long-handled shovels and rammer staffs are arranged to suit building conditions



BATTERY AND STORE WAGONS

A cement column prevented showing the reel cart compartment. These compartments are arranged in the same order as the gan sections shown in other cuts. However on the top shelf, about 13 feet in the open, is displayed all heavy miscellaneous spare parts and accessories carried in the battery and store wagons that are too large to contain in the miscellaneous spare parts chest. All these parts are tagged for identification.

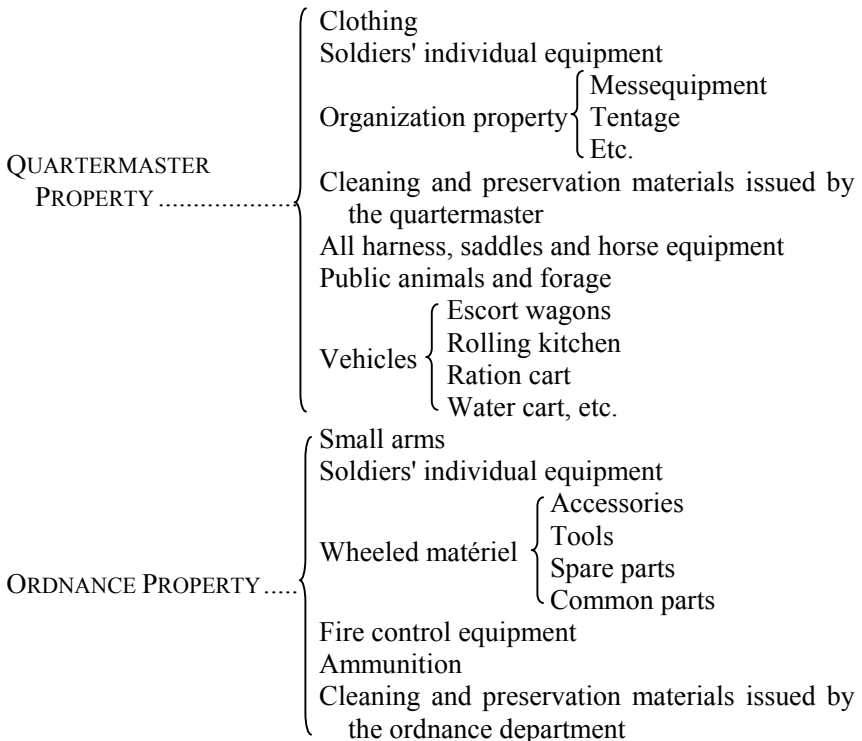
CARE, PROTECTION, PRESERVATION AND ACCOUNTABILITY

Protection is afforded the enlisted personnel from loss of property. Every article of equipment is constantly in sight under the observation and scrutiny of the battery commander and caretakers. Elimination of unnecessary handling and re-handling of equipment by the limited number of caretakers is achieved, that more attention may be given the maintenance of the matériel and public animals. Property is so systematically arranged that upon mobilization there is no delay or confusion and everything moves with speed and machine-like precision.

By a careful examination and study of the descriptive matter, photographs and drawings accompanying this article, and conscientious application of the principles which are based upon the hard school of experience of one who has passed through all phases in the development of the present National Guard Field Artillery, it will indeed be found a pleasure to command such a unit.

CLASSIFICATION OF PROPERTY

It is well to become familiar with the classification of the various types of property, which is an important element in storage and allotment of space. The following brief outline is given as a guide:



THE FIELD ARTILLERY JOURNAL

SIGNAL PROPERTY	{	All signal equipment
		Wire
		Batteries
		Telephones and switchboards
		Radio appliances
ENGINEER PROPERTY	{	Compasses, prismatic
		Sketching outfits
		Topographical equipment
MEDICAL PROPERTY	{	First-aid packets
		Foot powder
		Adhesive plaster
		Litters with slings
		Veterinary

CARETAKERS

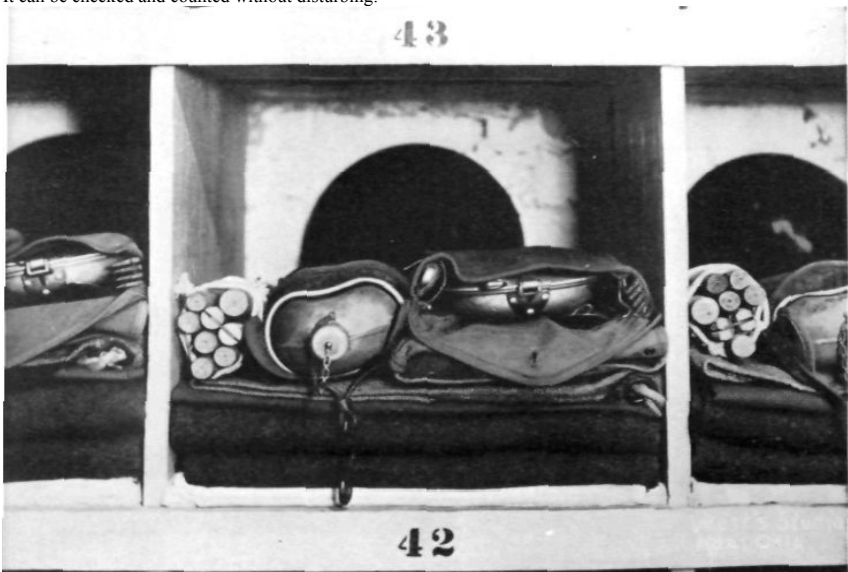
Before proceeding further it is believed advisable to mention the matter of caretakers, as they play a very important rôle in the scheme as outlined here. Caretakers must be carefully selected; men who are ambitious and loyal—those with prior field artillery experience if possible. Their supervision is most important. The best of caretakers get out of hand, become lazy and worthless unless the battery commander keeps constantly in touch with and directs their activities. One should be senior, so to speak, who directs the activities of the others. The most satisfactory plan is to appoint one as stable sergeant in the organization, as his contact with the animals and their characteristics make him invaluable as such in the field. Another should be appointed either chief mechanic or supply sergeant; the latter is more advisable, as his personal contact and familiarity with the equipment the year around likewise develops him as invaluable in the field. One other should be a competent horseshoer. If you have not such a man, then advantage should be taken of the privilege offered by the War Department to National Guard specialists and send a candidate to the Enlisted Specialists School. All must be handy with tools.

Regardless of their particular assignment, caretakers must work at anything, individually or collectively, that is necessary in the general maintenance of the animals and equipment. It makes no difference if they should hold certain rank as noncommissioned officers in the organization. This is incidental to the fact that whether it be grooming, stable police, horse exercise, cleaning harness, painting vehicles, or what not—all must do their bit. First of all they are caretakers. Furthermore, no caretaker should be diverted exclusively to paper work to the sacrifice of his share of responsibility in the general maintenance of the equipment. This is contrary to



ARRANGEMENT OF INDIVIDUAL EQUIPMENT BINS

Everything is properly stencilled or marked with numbers corresponding to enlisted men's organization numbers and lockers. This arrangement is inexpensive compared with the benefit derived therefrom. The vertical partitions may be constructed from old boxes. The whole is given a coat of flat white house paint and stencilled with the organization stencil outfit. The principle outlined herewith is applicable to any type organization. This equipment is always ready for any emergency. It can be issued to 75 men in twenty minutes. It can be checked and counted without disturbing.



INDIVIDUAL EQUIPMENT BIN

Note haversack and canteen flaps unbuttoned to reveal contents. Note shelter tent pole and pins bound securely together with tope to prevent loss in issue and handling. The equipment is arranged from top to bottom in the order in which it is most used for instruction purposes: Haversack with contents—canteen, complete—shelter tent pole, pins and tope—barrack bag—shelter tent, half—blanket—bed sack—mosquito bar—steel helmet.



EQUIPMENT BINS

This is an extension of the view on the preceding page. Note extra bins for officers' field equipment, prescribed and furnished by the United States. Note batted door-one entrance. An issue window should be provided — the door may be split with a half on the lower section. Note the service table on casters - size

CARE, PROTECTION, PRESERVATION AND ACCOUNTABILITY

the spirit of the regulations. However, there is no objections to such an assignment in so far as it does not interfere with the regular routine. The construction and alterations necessary for installation and arrangement of property as outlined herein can be done exclusively by caretakers.

ARMORY CONDITIONS

Local building and housing conditions govern every unit. These vary. The following are given as examples:

A. Ample armory facilities with spacious storerooms, riding hall, stables, vehicle storage, animals, etc., all upon the same premises.

B. Down-town armory with complete facilities for personnel and floor for dismounted and standing gun drill only. Storerooms which may include wheeled matériel and harness. Animals kept on premises elsewhere.

C. Limited down-town armory facilities, including accommodations for officers, personnel and dismounted formation only. Limited storeroom space. Animals, wheeled matériel and harness on premises elsewhere.

The ideal plan with horse-drawn outfits is where a down-town armory is provided simply as headquarters and assembly place for the personnel for dismounted instruction and standing gun drill only. Two gun sections are kept at this place for this purpose. Here in addition to club features are maintained offices, locker rooms and storerooms containing only surplus clothing and personal equipment of the personnel. Upon premises at the outskirts of the city, owned or leased by the organization, are located stables, vehicle buildings, harness room, matériel storeroom, riding hall, recreation hall, together with plenty of acreage for pasture, mounted drills, athletics, etc., organized into a complete plant. Where local city, county or state fair associations exist such an arrangement can invariably be made at small expense. Climatic conditions govern the conduct and class of training which fluctuates between these places.

In communities with street-car facilities or where the premises are easily accessible to the personnel, the down-town armory may be dispensed with and the entire plant centred on the outskirts of the city. Experience will demonstrate that the centre of activities must be at the place where the animals are kept.

STOREROOMS

NOTE.—The photographs taken herewith are of the storeroom of Battery "F," 160th Field Artillery, Oklahoma National Guard, at Ada, Oklahoma. The armory is of the Type C described under *Armory Conditions* above. The equipment had to be arranged with the limited space available. The arrangement

THE FIELD ARTILLERY JOURNAL

of equipment of the gun sections, battery and store wagons, etc., was placed under cement steps with only eight-foot ceiling.

Storerooms may be divided into several classes, arranged according to armory facilities, type of organization, etc.

For example:

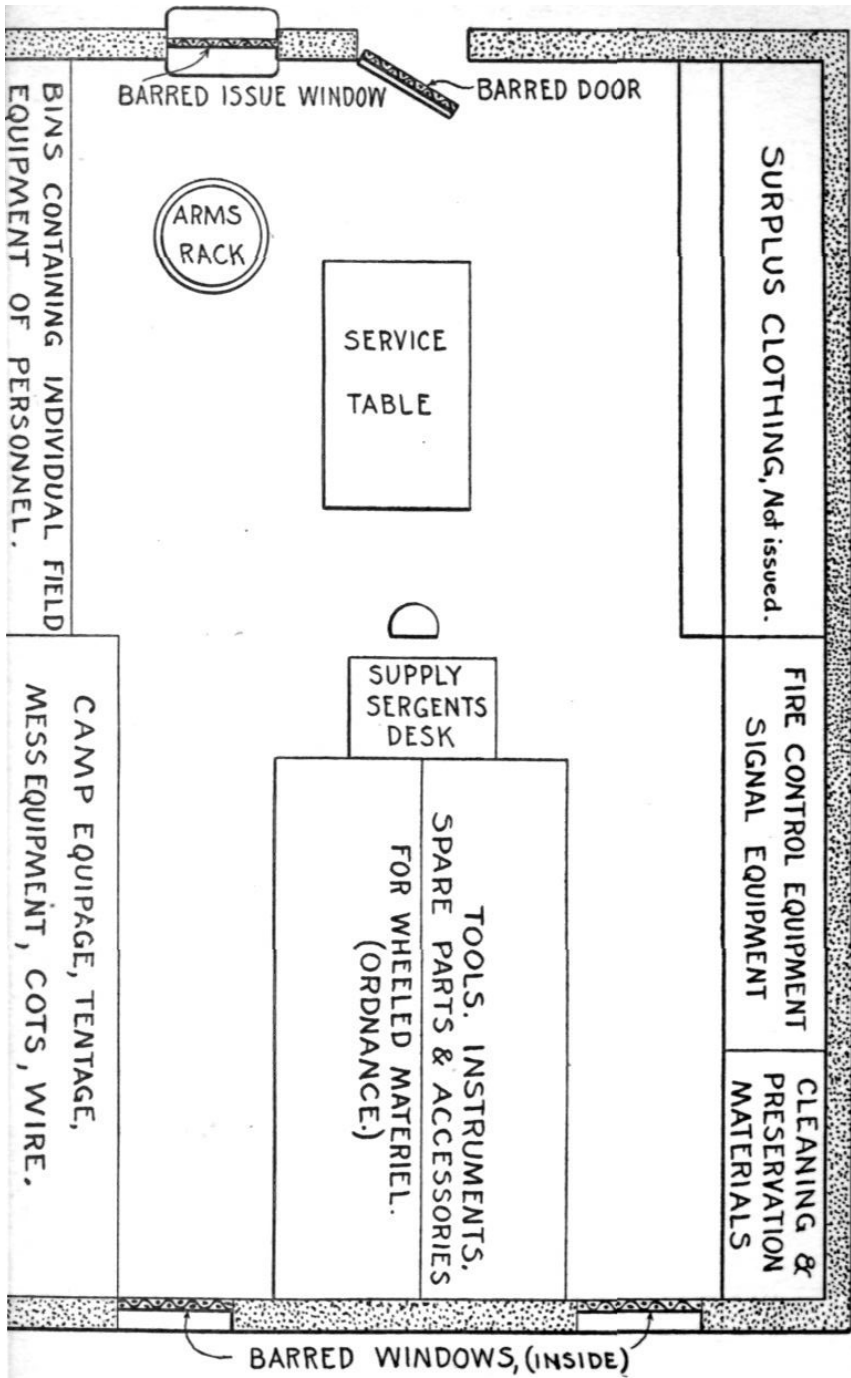
- A— { Surplus clothing
Individual equipment
Small arms
- B— { Tools, accessories and spare parts
pertaining to the wheeled
matériel
Fire control equipment
Cleaning and preservation
materials
Signal and engineer equipment
Organization property, including
tentage and mess equipment
- C— { Individual locker system for
personnel
- D— { Harness, saddles and horse
equipment
- E— { Vehicles

Any combination of the above may be worked out to fit local conditions.

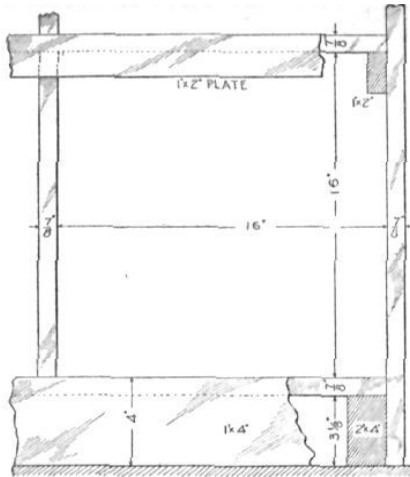
STOREROOM A AND B

By reference to the drawing of a storeroom for equipment listed A and B, it will be observed that a room 20 × 30 feet with twelve-foot ceiling will accommodate the complete equipment of a 75-mm. gun battery, excepting clothing and equipment contained in the individual locker system, harness and wheeled matériel. The sizes of the bins and shelving is based upon actual application of the equipment concerned. Such a room must be dry and free from moisture—windows barred from the *inside*, doors and issue window securely barred with heavy bolts and locks. Have plenty of light, but avoid too many doors. Permit one recruit only inside when equipping. Personnel should not be permitted to frequent this room except when necessary.

Fire hazard must be avoided. It is recommended that all oils and inflammable materials be kept in outside buildings. The compartment for storing cotton waste must be tin lined as a precaution



THE FIELD ARTILLERY JOURNAL



DETAIL OF LOWER RIGHT HAND INDIVIDUAL EQUIPMENT BIN

Note from the photographs how the use of inexpensive flat white paint lightens up the hidden corners and makes the equipment stand out.

against rats. Oily or used waste should not be left about or mixed with new unused waste, as a precaution against spontaneous combustion. Space is provided in the drawing of storeroom A and B for all organization equipment, such as tentage, mess equipment, ranges, cots, cans, etc., etc. Keep the tentage off the floor. In localities infested with rats all tentage should be stored in screened bins. *Be sure tentage is positively dry before placing in storage.* Tent poles are arranged to suit building accommodations, usually suspended from overhead racks. Reserve telephone wire on large spools may be rolled underneath

with tent pins and ranges.

STOREROOM C (INDIVIDUAL LOCKER SYSTEM)

The individual locker system is an auxiliary storeroom in itself. All property therein is entered upon Form 637, signed for by the soldier and secured by the organization. This room is never opened except at formations, except as frequented by caretakers. As a result this property is always in the armory—always ready for inspection without handling.

Any organization commander who permits the uniforms or personal equipment issued to the personnel to be taken from the armory is immediately getting into deep water. In the first place this is a direct violation of the laws and regulations governing the responsibility and control of such property.

Paragraph 534, National Guard Regulations provides: "Uniforms issued to the National Guard and paid for from federal appropriations are the property of the United States, and they will not be worn by members of the National Guard except upon official occasions, including mobilization, assemblies for armory training, target practice, camps of instruction and field training, parades and reviews. They may be worn only on special occasions at assemblies at the armory, when authorized or required by the commanding officer only.

CARE, PROTECTION, PRESERVATION AND ACCOUNTABILITY

The wearing of the uniform on private social occasions is prohibited. The wearing of mixed uniform and civilian dress is prohibited."

Paragraph 443, National Guard Regulations, provides: "No member of an organization will receive credit for attendance at drills, so far as pay is concerned, unless present and under instruction in uniform. * * *"

These regulations are clear.

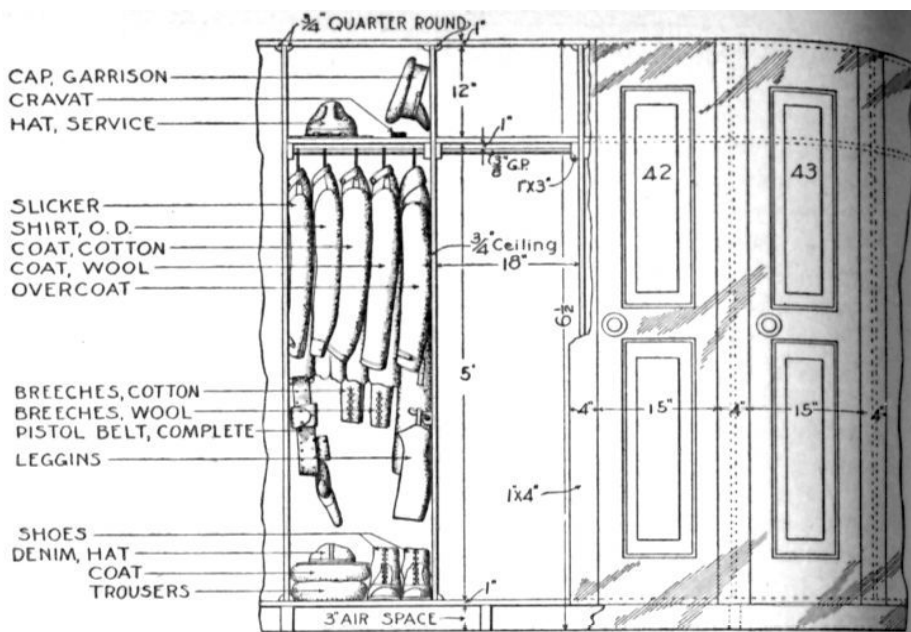
It is shown here how the organization property, matériel, harness and individual field equipment can be easily and systematically arranged to meet any emergency with speed, and at the same time be open to the critical eye of the inspector without forewarning. The same principle is applied to the uniforms and personal equipment issued to the personnel during the period of their enlistment. The answer is the locker system shown and described in the accompanying cuts.

As a matter of discipline the privates and noncommissioned officers should be separated. Personal contact between these two should be avoided as much as possible at formations. Some may not agree with this. However, it has been found with years of experience that where this system is in vogue, better discipline is maintained. In as much as the noncommissioned officer is the backbone of the army and upon his shoulders rest the success of local discipline, then he should be rewarded accordingly. The cut of an individual locker room shows a model arrangement according to this system. Lockers are numbered in accordance with the men's organization numbers and correspond with similar numbers upon the individual field equipment bins in the storerooms A and B. Noncommissioned officers are usually given the low numbers.

The lockers shown may be made of wood or steel, depending upon funds available. A very good economical wood locker can be made from the specifications shown. Where the state does not provide funds, a local "locker fund" can be provided and local revenue diverted for this purpose. In contracting for a new armory include them in the specifications.

The accompanying cut shows a "locker dressed" with all the clothing and equipment habitually issued to an enlisted man. Great care is taken in fitting out a recruit as the equipment thus issued is left in his locker during his entire enlistment. Clothing worn out through fair wear and tear is promptly replaced. He is encouraged to have these clothes altered, usually at his own expense, and kept cleaned and pressed. Every article is plainly marked with his organization number. Thus the recruit will not use the indelible pencil. Instructions are posted inside the door stating how the locker should be dressed, which are rigidly enforced—also rules and

THE FIELD ARTILLERY JOURNAL



DETAILS OF INDIVIDUAL LOCKERS

Lockers may be constructed of wood as shown. In most cases no backing is necessary—using the building wall. Steel lockers are more appropriate but more expensive. Note combination locks. The clothing should be sprayed with moth preventative periodically.

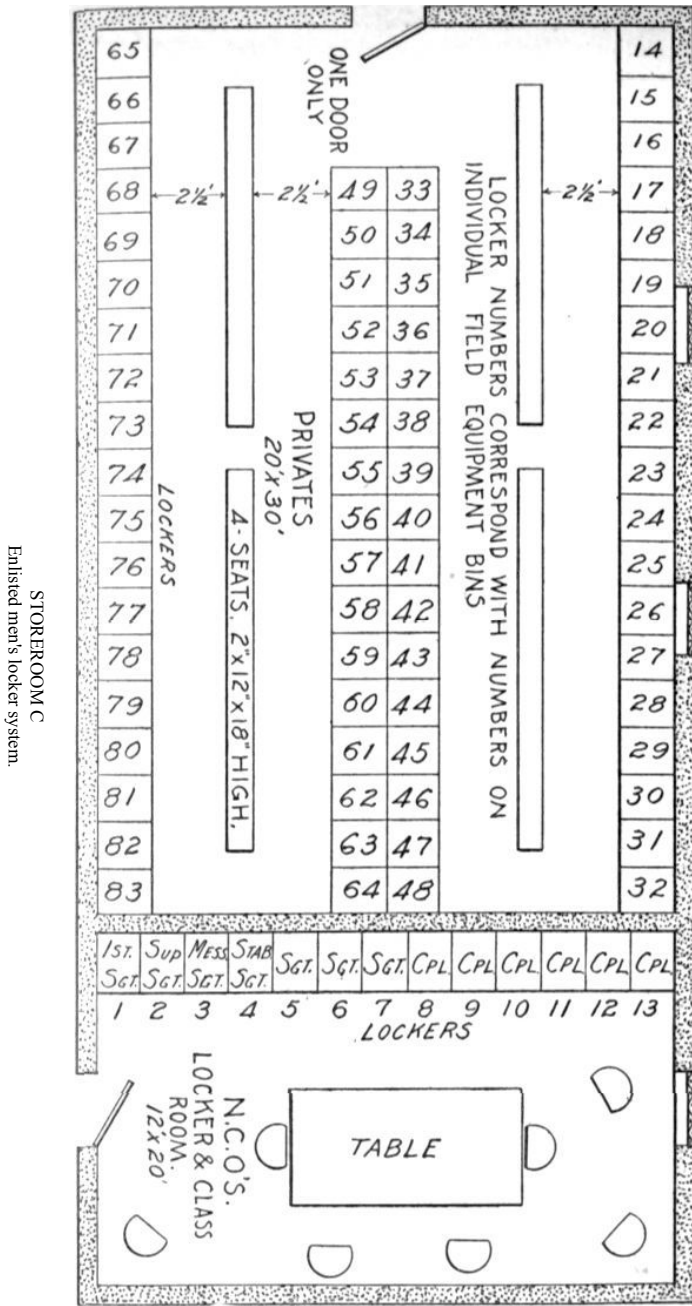
regulations governing the responsibility and control of government property.

Combination locks must be provided. Keyed locks are not satisfactory and an endless chain of expense. When keys are lost or left at home then trouble starts and encourages prying the locker open. Combination locks are extensively used throughout the country by military units. Combinations of the lock described can be changed any time by the supply sergeant. These locks may seem expensive at first cost, but are exceedingly well made and well worth the safety provided. The lock herein described is manufactured by The Miller Lock Company, Philadelphia, Pennsylvania, and can be purchased through any local hardware.

Lockers thus dressed are always ready for inspection and count without handling the property. The battery commander is not at the mercy of a few delinquents or men who cannot be reached.

Clothing once fitted to a man is not taken up during change of season, or at inspections for count, and generally lost to the man in the general mixup after he has taken pride in fitting same. These rooms are auxiliary storerooms, with barred windows and one door. Not frequented except upon formations of the battery, they are opened before assembly to give the men time to dress and closed

CARE, PROTECTION, PRESERVATION AND ACCOUNTABILITY



THE FIELD ARTILLERY JOURNAL

immediately following assembly. Time is given the men to change clothing.

No clothing or equipment is permitted to be taken from the armory, except upon written consent by the battery commander. This is provided for in the form of a memorandum which must be presented to the supply sergeant who makes note thereof upon proper receipt.

As a further safeguard as well as a matter of training, one noncommissioned officer and one private are detailed each drill as noncommissioned officer in charge of quarters and private of the guard respectively. They report at the armory the subsequent drill night about three-quarters of an hour before assembly and are responsible that the locker rooms are opened and closed promptly; that order is preserved therein; that no military property is removed therefrom without written permission as described above, and then only in the presence of the supply sergeant. In addition this detail is inspected each drill night by the battery commander, or an officer designated by him, to note whether the orders governing this post are being enforced. In addition thereto, while on post, such sentinel is required to commit his general orders. It will be surprising the results and benefits obtained from the simple rudiments of guard duty alone.

Thus it will be noted that the clothing and equipment issued to the personnel can be controlled as easily as the equipment in the main storeroom. Your property is always under your control. Clothing is not being worn in civil pursuits and used unofficially. This scheme will save the state thousands of dollars annually on the wear and tear on this equipment. The organization may be assembled in any uniform at the will of the battery commander by a simple note on the bulletin board which the men observe in passing to the locker room. Every man is in the prescribed uniform from shoes to hat, which soon develops a neat appearing, snappy outfit. There is no particular attraction to a prospective recruit who visits the armory and observes a slouchy, ill-dressed outfit.

Do not place lockers in the open about the armory floor or gallery, or in any open room that is openly frequented and not securely barred and protected, or you will defeat this system. Furthermore, when lockers are in the open about the armory floor spectators, particularly women, may not enter the building while the men are dressing.

The size or cross-section of this locker, 18" × 22", is of convenient size to accommodate the complete equipment as shown.

Form receipt 637 is completed and signed by the recruit upon issue of this property, as required by regulations. The battery

CARE, PROTECTION, PRESERVATION AND ACCOUNTABILITY

commander simply acts as custodian for the security of the property while in the armory. Always bear in mind that when military property is secured in barred and locked rooms and proper surveillance maintained over the premises, there is sufficient grounds for survey. In addition thereto, small arms must be kept locked in arm racks or arm chest within such rooms.

STOREROOM D (HARNESS STOREROOM)

Harness, saddles and horse equipment can be controlled and as systematically arranged for care, protection and preservation as any of the property shown on the preceding pages. Leather equipment demands exceedingly close observation to prevent deterioration. It must be stored in rooms with good light, dry and free from moisture. A study of the diagram shows a model arranged harness room for the complete leather and horse equipment of a national guard battery, peace or war. It will be noted that it requires a room approximately 28×35 feet—780 square feet. With this space the harness, saddles and horse equipment can be systematically grouped by section, giving four foot lanes for carrying the harness out and in, as well as ample space for caretakers to handle the harness on a "cleaning horse" during the process of care and preservation.

Note that there are ten double sets of racks arranged in groups by section. By double sets is meant upper and lower racks. Starting with the first section, and arranged upon the first rack at the head of the lane, are the two mounted noncommissioned officers' saddle equipment followed by the lead, swing and wheel of the gun and caisson respectively. Chief of section and off saddles are on the top racks; caisson corporal's and near saddles on the bottom racks. Neckyokes with martingale attached are hung from a spike driven in the rack behind each respective set of wheel harness. Harness sacks, prescribed by regulations as part of the equipment, are hung over the equipment as a protection against dust.

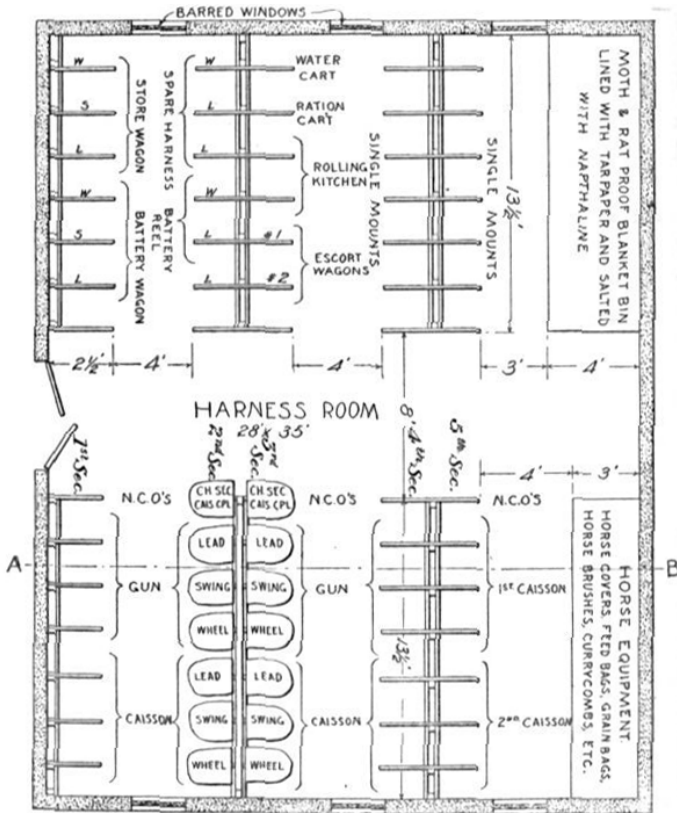
The racks are constructed so the top bar is about four inches longer than the saddle bar to provide room for hanging the bridle. Metal stirrups and bridles are hung suspended as shown, so that when the harness sack is removed these parts are immediately exposed for observation of rust.

It will be noted that the first, second, third, fourth and fifth section harness is arranged identically. On the opposite side of the room at the left of the door is arranged the harness of the battery and store wagons in the same order. Next is the battery reel and spare harness. Next is all the black leather harness pertaining to the maintenance section. The last double set of racks, together with the balance of unoccupied racks, are used for single mount saddles.

THE FIELD ARTILLERY JOURNAL

Single mount saddles are arranged in groups: officers' group, noncommissioned staff group, signal group, instrument group, etc.

Saddle blankets are stored in a moth and rat proof bin built in the corner as shown. This bin is lined with tar paper and the blankets are salted with naphthaline. All remaining horse equipment, including horse covers, feed



SUGGESTION FOR MODEL HARNESS ROOM

and grain bags, horse brushes, currycombs, etc., etc., are neatly arranged upon the shelving in the opposite corner, all of which are stencilled or marked as required by regulations.

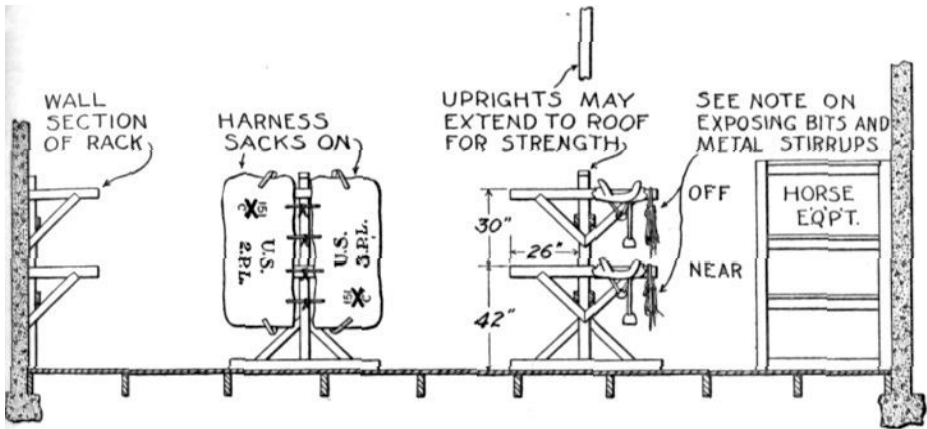
This arrangement provides a similar scheme to that outlined for the battery equipment. It is arranged to meet any demand. How simple it is for the battery commander and caretakers to make a minute inspection of this equipment and keep pace with the first indication of leather deterioration or rust.

A "cleaning horse" is provided by the caretakers, which is

CARE, PROTECTION, PRESERVATION AND ACCOUNTABILITY

moved about the various lanes in cleaning and oiling the leather. At mounted drills and mobilization the various chiefs of section report for their horse equipment, which is moved out in the harness sacks by the drivers, promptly without confusion on the same principle as the gun equipment is issued. Lanes are made four foot to meet this.

Over each set of harness and single mount equipment is placed a neat sign, stencilled upon a white-coated board, identifying the harness by section or single mount—each single mount equipment bearing a horse equipment number. These are examples of signs: "1st Section," "Reel



A SECTION THROUGH AB IN THE DRAWING OF THE HARNESS ROOM

Cart," "Lead," "Swing," "Wheel," "Capt.," "1st Sgt.—1," "Sig. Sgt.—6," "Bugler—10," "Tel, Cp. 2—19," "Water Cart," "Rolling Kitchen," etc. Figures indicate single mount saddle equipment number.

Two styles of harness and saddle racks are noted; one to be fastened to the wall, the other in the open. Where building construction permits the centre vertical member of the double rack should run from floor to ceiling. This is much stronger and cheaper construction. Harness sacks are placed over the equipment and laced to the vertical posts. Harness racks must be built rigid and strong, as they sustain considerable weight.

Wood floors should be provided, if possible, as a protection from unnecessary moisture which is prevalent with cement or dirt floors. Dirt floors should not be permitted in harness rooms.

Army Regulations 850-5 prescribe methods for marking harness and horse equipment. See also Letter Number 15, Militia Bureau, January 23, 1923. Harness sacks, blankets and other horse equipment are stencilled as shown in the other cuts following.

Get out of boxes. Harness stored in boxes will mildew. Bright

THE FIELD ARTILLERY JOURNAL

parts will rust. Avoid too many doors. Provide plenty of light. Bar windows *inside*.

Consider the re-handling that is eliminated by the arrangement as shown here, with a limited number of caretakers. Provide proper facilities for the arrangement and display of the equipment and the caretakers are masters of the situation at all times.

Do not permit harness equipment to be hung at the heel posts in the stables. This may be all right with regular army batteries, where this equipment is in use every day with plenty of help to keep it clean. However, experience has shown that it does not pay in the National Guard. Caretakers can never keep pace with the cleaning schedule and do their other work if it is permitted.

Thus it is again shown that harness, saddles and horse equipment, like clothing, matériel, etc., can be so systematically arranged that it is a pleasure to take care of it. And again it is *always ready* and in order for any emergency, and more attention can be given the public animals by the caretakers and helpers, which is the principle reason for their existence.

STOREROOM E (VEHICLES)

All vehicles of the wheeled matériel must be stored in a building under cover protected from the action of the elements. The care that must be given these vehicles, particularly the gun and carriage, as prescribed in the Hand-book for 75-mm. Gun Matériel, must be strictly adhered to. Artificial heat must be resorted to if climatic conditions demand. All mechanism, bearings, hinges, and working parts must be oiled and kept in first-class condition. Slushing oil will be used on all bright or working parts as a preventive against rust. Painting is part of the annual program, or as necessary. *Matériel stored in the open will not be tolerated by the War Department.*

In some organizations all tools and accessories are kept upon the wheeled matériel at all times. Provided these vehicles are stored in specially constructed vehicle buildings under lock and key this may be satisfactory. However, where such vehicles are stored about the armory floor or about the riding hall this plan is not practical, as the equipment is more or less exposed to loss and theft. Some organizations endeavor to keep the battery and store wagons packed at all times as prescribed for the field. This is not feasible as property hidden from observation is naturally subject to deterioration and rust, together with constant re-handling, which must be seriously considered. In the scheme outlined herein, a series of shelving is provided, which in reality is simply a skeleton of the carriage itself. Everything is displayed in the open under constant observation

CARE, PROTECTION, PRESERVATION AND ACCOUNTABILITY

and secure from loss and theft. At mobilization or inspections demanding the equipment packed for the field, it is a simple matter to assemble it.

Each year after the annual field exercises the entire battery equipment is given a thorough overhauling and cleaning by the caretakers. Every article ordinarily painted is given a fresh coat of paint, including the vehicles proper; tools sharpened; bright parts polished and properly coated with rust preventative; instrument cases and leather parts properly cared for; repairs made that can be done locally; all damaged or unserviceable property segregated and disposed of as prescribed by regulations; instruments needing repairs are sent to the proper arsenals for repairs. Thus periodically the entire equipment is made to look as if it were just received from the arsenal. Throughout the year this entire equipment is daily observed by the caretakers and measures taken to prevent rust and deterioration.

This is a wide open display of equipment for inspection and count without touching the property—*always ready*. The shelving is simply a skeleton of the vehicles proper—an education to the subalterns and enlisted men of what constitutes a battery of field artillery. When necessary the equipment can be assembled to the vehicles.

Each chief of section can here visualize his responsibility in the field. A list, in duplicate, showing the complete section equipment, is hung in the bin. On mobilization for field service one list is given the chief of section for his information, check and signature, the other retained by the supply sergeant. At drills such equipment is drawn by the chiefs of section or specialists and returned to its proper place of storage immediately following such formation.

Battery commanders can make a minute inspection and check any time, pointing out to the caretakers such articles as need attention.

Like equipment is on the same line of shelving. Upon mobilization keys are issued; each chief of section, assisted by his squad, draws the equipment for his section and hastily assembles it to the vehicles. The contents of the battery and store wagons, always more or less of a mystery to those of limited experience, becomes an open book.

Compare this system with that of articles stored in boxes, attached to vehicles open to loss, theft, mislaid, etc. Consider the re-handling always required at inspections, and above all the confusion that ordinarily takes place at mobilization—the equipment that is always left behind for reason that it was packed in a box or hidden in some remote place for safety. Safety first, always, but with judgment.

Immediately following the receipt and assembly of new escort

THE FIELD ARTILLERY JOURNAL

wagons, the mechanics should be required to slightly peen over (bruise) every threaded rod end or bolt thread as a precaution against losing the nuts. This will preserve the life of the wagon tenfold, as escort wagons soon go to pieces and become useless for lack of this precaution. Occasionally the caretakers will tighten all bolts. These wagons are practically indestructible when taken care of and given attention. Park them under covered buildings and repaint regularly. As such vehicles are constantly used by the caretakers, it is advisable to remove the spare parts and accessories carried in the tool box and store same in the storeroom, similar to the arrangement for gun sections. These contain many bolts, nuts, etc., that rust and are easily lost and, like parts of the matériel, must once annually be presented for inspection and count, hence this precaution.

FLOOR SPACE REQUIRED

The following storeroom floor space is required for one battery 75-mm. gun equipment:

General Storeroom.....	600 square feet
Harness Storeroom	980 square feet
Individual Locker System.....	780 square feet
	<hr/>
Total.....	2360 square feet

This floor space is in addition to drill floor or riding hall, vehicle storage buildings, stables, recreation rooms, offices, etc., to properly house the equipment.

GET OUT OF BOXES

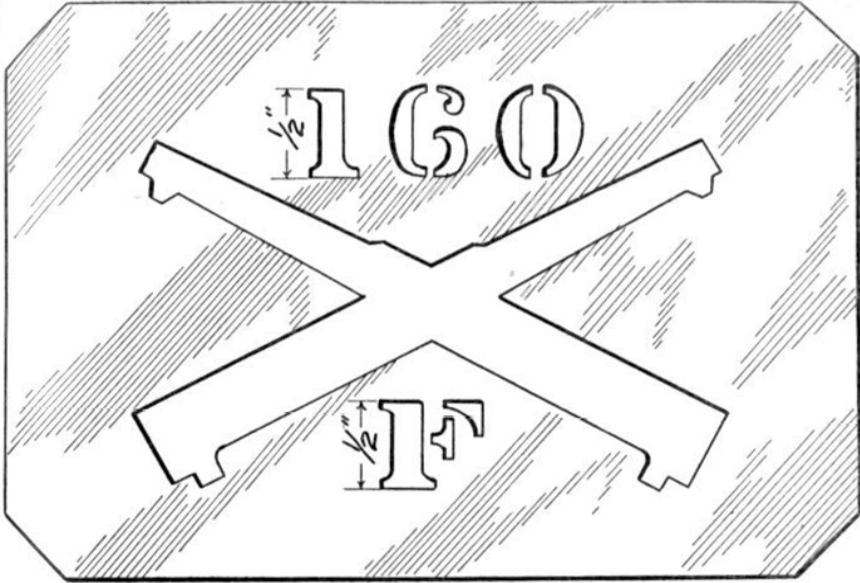
Packing boxes are a necessary medium in the transportation of equipment from the arsenals and warehouses to the organization in equipping, and again necessary when the outfit is demobilized. These outfits are presumed to be permanent institutions. Bear in mind that your outfit is a fighting unit, always ready for any emergency. Boxes cannot be taken into the field. No equipment is issued to a battery of field artillery for field service except that there is a place prescribed to carry it somewhere about the vehicles. Investigate closely and you will find the place.

MARKING AND STENCILLING PROPERTY

As a safety first policy in the care of and responsibility for military property, the very first element to consider after you have secured your property in proper storerooms, is the positive marking

CARE, PROTECTION, PRESERVATION AND ACCOUNTABILITY

and stencilling of the equipment. Army Regulations 850-5 cover in detail the essentials thereof, especially how and where to mark same, with certain exceptions for national guard units as published in Circular Letter No. 15, Militia Bureau, dated January 23, 1923, permitting the use of stencils in addition thereto.



SMALL ORGANIZATION STENCIL

The large organization stencil is twice this size. Circular Letter Number 15, Militia Bureau, January 15, 1923, states that "Outfits, Stencil, Complete, are Available at the Boston Depot, through the Quartermaster General, as Free Issued upon Receipt of Requisition." This stencil might also be made locally. It is 28 gauge brass.

A unit commander who fails to properly mark his property for identification not only violates regulations, but lays himself open to personal financial losses under his property responsibility.

Prescribed stencils and metal and leather stamping outfits are articles of issue, together with metal tags for certain articles of equipment. However, it has been found that metal tags are easily removed, which fact prompted the Militia Bureau to permit the use of stencils in addition thereto.

The following pages illustrate methods of stencilling certain artillery equipment that is easily lost in field and garrison and which demands positive marking. This applies particularly to sleeping blankets, horse blankets, paulins, harness sacks, canvass buckets, etc., etc. Ease of identification is essential for barrack bags left about railroad terminals, coaches, etc. Shelter halves must be marked so

THE FIELD ARTILLERY JOURNAL

that when rolled the organization and individual number appears upon the outside. Harness sacks must be positively marked, so that at night at detrainng points, or otherwise a driver can promptly identify the harness which is fitted to his animals.

Each corresponding article is marked in the same place. Horse blankets are so stencilled that regardless of how the blanket is folded, this stencil marking is a "telltale" whether or not the blanket is properly folded.

Certain abbreviations are given herewith for stencilling section and individual horse equipment.

Property must be so positively marked that it can be identified under any circumstances. Every possible means must be used to assist the recruit. This is particularly true with property. Clothing, including overcoats, coats, denim coats and slickers should be plainly stencilled



ONE INCH ADJUSTABLE LETTER
AND FIGURE STENCILS

The $\frac{1}{2}$ " and 1" atencils are issued. The $2\frac{1}{2}$ " stencils are not issued, however this size set is indispensable in marking and protecting certain property issued to the National Guard.

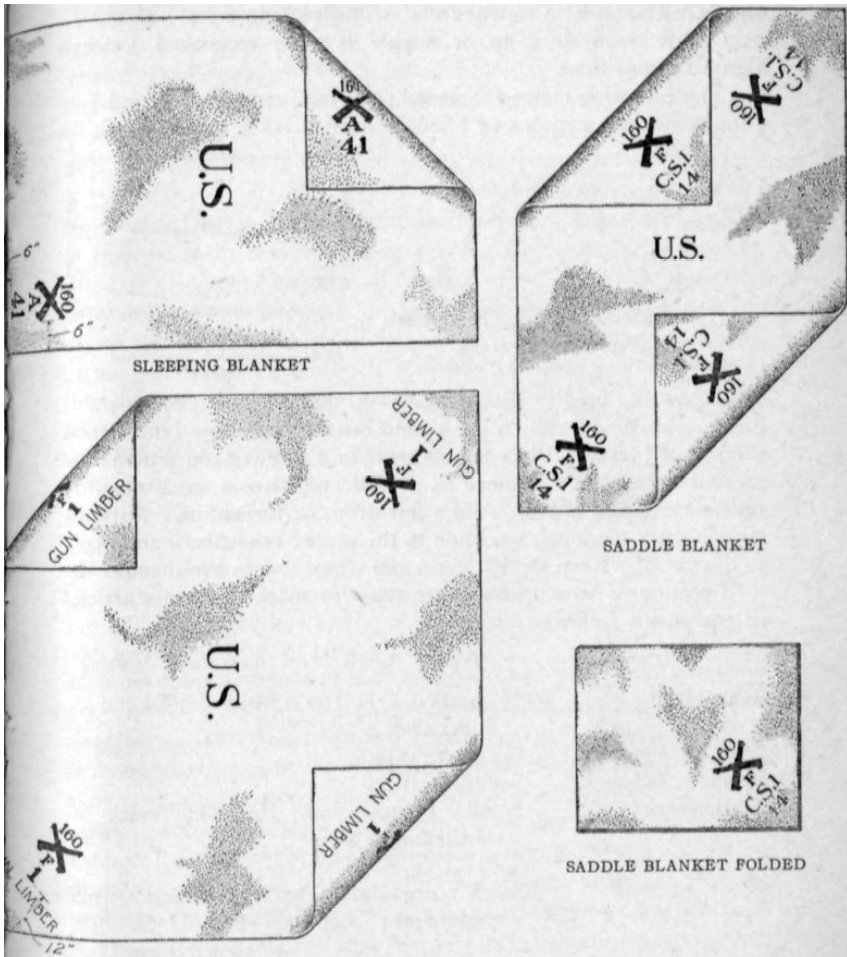
inside the centre of the back, or inside the sleeve, when lined, with the small organization stencil. This same stencil should be used on the breast lining of shirts, on the pocket of breeches and on the inside of leggins. In addition the individual's organization number should be placed therein by the use of indelible rubber stamp figures, which are obliterated and renumbered on subsequent issues.

This always serves as a means of identification of stray articles of personal clothing.

There is, however, one exception to the rule, *i.e.*, overcoats and slickers. These articles, easily lost, especially the overcoat which is an expensive garment, are best numbered consecutively from one up, with the stencil, and issued to the personnel disregarding organization equipment numbers, noting on Form 637 that such number overcoat and slicker are issued. This saves a lot of time in stencilling. Otherwise every article issued to the soldier bears his organization equipment number.

It has been found where different units occupy the same armory, and at field exercises where they meet up with strange units, that the best way to prevent theft is to have every article of equipment bear the organization designation. With proper coöperation between commanders, there is then no excuse for loss of property except through carelessness.

CARE, PROTECTION, PRESERVATION AND ACCOUNTABILITY



MARKINGS ON SADDLE AND SLEEPING BLANKETS AND GUN AND CAISSON PAULINS

The sleeping blanket is marked on both sides on opposite corners with the large organization stencil and the individual equipment number in 2½" numerals. The saddle blanket is marked on opposite corners of each side with the large organization stencil and the individual's designation and organization number in 1" stencils. Note when this blanket is properly folded the mark appears in the right hand corner. The paulin is marked on all four corners on opposite sides with the large organization stencil, the section number in 2½" numerals and the vehicle designation in 1" stencils.

THE FIELD ARTILLERY JOURNAL

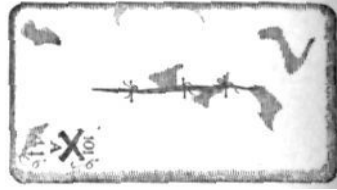
STENCILLING

Stencilting is positively an art, particularly with military property. The stencil paste issued to the service contains a certain dye that when applied to canvass, etc., will give long wear. However, this paste soon dries up or supply is soon exhausted through delayed requisitions.

The following recipe for stencil paste has been found exceedingly satisfactory for canvass or blankets as it gives a stiff black finish similar to



MARKED SHELTER HALF
Small organization stencil and 1" numerals.



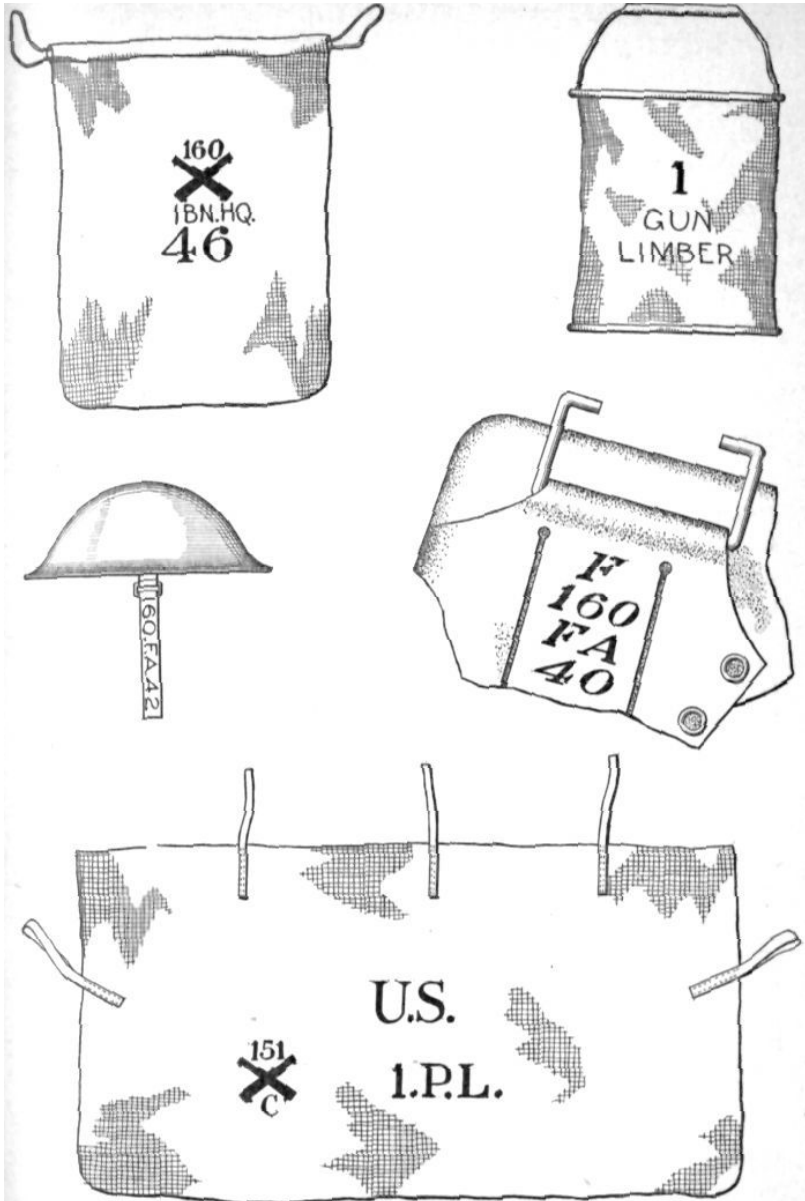
BED SACK
Large organization stencil and 2½" numerals.

that used in lettering awnings and will stand considerable grief. Purchase locally a one-pound can of "Drop or Ivory Black ground in Japan." Place the contents in a screwed-top fruit-jar to prevent drying up. Remove as needed and place a small quantity upon a clean pine board. Add a few drops of turpentine. With the stencil brush work out a portion to the proper consistency and apply to the stencil. Keep stencils clean and wiped dry to avoid smearing.

Location of stencils and other types of marking certain articles of equipment follows:

Article	Type of Stencil	Location of Marking
Belts, pistol	½" stencil, "F. 160 F. A. 42"	Inside folded end
Blankets, sleeping	See illustration	
Blankets, saddle	See illustration	
Carrier pack	Small organization stencil and 1" stencil	Under haversack
Cover, canteen	Small organization stencil and 1" stencil	Organization stencil above U. S. 1" stencil below U. S.
Cover, horse	Large organization stencil and 2½" stencil	Left shoulder
Feed bag	Small organization stencil and 1" stencil	Above and below U. S.

CARE, PROTECTION, PRESERVATION AND ACCOUNTABILITY



TYPICAL MARKINGS

The barrack bag is marked with the large organization stencil and the individual's organization number in 2½" stencils. The harness sack is marked with the large organization stencil and the I.P.L. flead set of the first section piece) in 2½" stencil. The canvas water bucket is marked with a 2½" numeral and 1" lettering. The steel helmet and pistol holster is marked with the leather marking outfit.

THE FIELD ARTILLERY JOURNAL

Article	Type of Stencil	Location of Marking
Grain bag	Small organization stencil and 1" stencil	Either side
Haversack	Small organization stencil and 1" stencil	Back centre
Pouch, 1st aid	½" stencil "F. 160 F. A. 42"	Inside flap
Pocket, magazine pistol	½" stencil "F. 160 F. A. 42"	Inside flap
Pouch, music	Small organization stencil and ½" stencil	Inside flap

Metal and leather stamping:

Article	Location of Marking
Bridles	Headstall
Canteen	Top of cap "F. 160 F. A. 42"
Cup	On handle immediately below hinge
Currycomb or horsebrush	On strap or back
Fork	Across back of head of handle
Halter	Across nose band
Harness, artillery, cart, wagon	Where convenient on major portion thereof: Back strap
	Collar { Breast collar Chope strap Neck strap
	Breeching body
	Cincha
	Martingale
	Neckyoke strap
	Saddle, near side pommel
	} "F. 160 F.A."
Holster	See illustration
Knife	On handle right of U. S.
Meat can	On centre of handle and below the ridge (with hinge to the left). Cover not marked
Saddle	Near side pommel "F. 160 F. A." "10"
Saddle bags	Centre on top near stud hole
Spoon	Across back of head of handle

It is well to stencil the wheeled matériel with the large organization stencil. All guns, limbers and caisson should bear their

CARE, PROTECTION, PRESERVATION AND ACCOUNTABILITY

section number in 2½-inch stencils. Battery reel, battery and store wagon limbers and carriage should be so marked with the 2½ and 1-inch stencils.

All instrument cases should be marked with the leather stamping outfit and wood tripods stencilled with the ½-inch stencil. These are easily mixed with other organizations at firing points. Leather telephone cases, switch boards and field glass cases are marked simply: "F. 160 F. A.," "Hq. 2BN 160 F. A.," etc.

Wood-handled tools are best marked with branding irons on the handle, grip end.

The marking of public animals is covered in Army Regulations 850-5.

CARD SYSTEM

PROPERTY LOAN RECORD AND DESCRIPTIVE CARD

The card index system illustrated herewith is an excellent means of assistance in unravelling the seeming mystery surrounding some eight hundred different named articles of ordnance property alone. The "descriptive card" feature thereof, in which the data is taken from "Equipment Chart Light Field Artillery Brigade, Infantry Division, Peace Strength, 1922," "Table Showing Individual and Organization Quartermaster Equipment, 1923," "Circular 58, War Department, July 18, 1923," etc. This provides prompt location and identification of any article. A close study of these cards relieves the responsible officer or noncommissioned officer of any great apprehension and unveils the fact that each part enumerated therewith has its function and place in the upkeep of this great machine. This is particularly true with ordnance property in the matter of classification (3), and where carried or stored (8). Otherwise the card is self-explanatory.

The Property Loan feature on the reverse side of the card is a great improvement over the present form "Property Loan Record Card," 8" × 10", used by the services in general. The great objection to this latter card, from the artillery standpoint, is that there are too many articles listed upon a single card; when you consider over a thousand articles of various kinds of property, it is indeed difficult at times to locate various articles.

The form suggested herewith has the following features:

- One article only entered upon a card.
- Approximately double the capacity for entries.
- Articles easily grouped and subdivided by classes.

Special additional sub-divisions for
SIGNAL PROPERTY, MEDICAL PROPERTY, etc.

Organization Equipment

Clothing

I N D I V I D U A L E Q U I P M E N T

Q U A R T E R M A S T E R P R O P E R T Y .

Ammunition

Miscellaneous Equipment

Fire Control Equipment

Gun & Carriage 75 m/m(French)

Wagon, battery

Limber, store

Limber, forge

Gun, mae

Cleaning & Preservation Material

Battery Accessories & Common Parts

Sighting Equipment

Wagon, store

Reel, battery

Limber 75 m/m gun-caisson

Caisson, 75 m/m gun.

O R D N A N C E P R O P E R T Y

Ax. 5-lb., with handle

Ord 36

COMBINED

(CLASS OF PROPERTY and ITEM No.)

PROPERTY LOAN RECORD

FOR ALL ORGANIZATIONS.
FOR ALL CLASSES OF PROPERTY.

ACCOUNT OF

Battery F, 160th Regt. F. A., Okla. N. G.

Ada, Okla

(ORGANIZATION) (STATION)

1923	ON (INDIVIDUAL)			with			and			(OFFICIAL DESIGNATION)		
	ENTRY GIVING S.T., S.R., S.S.No. etc.	QUANTITY REC'D (+)	QUANTITY REY'D (-)	BALANCE ON HAND	DATE	ENTRY GIVING S.T., S.R., S.S.No.etc.	QUANTITY REC'D (+)	QUANTITY REC'D (-)	BALANCE ON HAND			
1-30	R.R. 43	12		12								
6-5	S.T. 14		1	11								
8-10	R.R. 126	3		14								
9-27	R.R. 137	4		18								
10-1	R.R. 143	6		24								

COMBINED DESCRIPTIVE CARD—PROPERTY LOAN CARD FOR ALL CLASSES OF PROPERTY

The information on these cards is taken from: Ordnance descriptive chart, light artillery brigade, infantry division, peace strength, 1922; table showing the requirements of individual and organization equipment, quartermaster equipment, 1923; Circular Number 58, War Department, July 18, 1923, etc., etc.

CARE, PROTECTION, PRESERVATION AND ACCOUNTABILITY

DESCRIPTION			
Ax, 5-lb, with handle	Ord	36	
(ARTICLE) (1)	(CLASS OF PROPERTY, GEORGE S. W. L. NO., ITEM NO., ETC.) (2)		
Accessories for gun caisson		6	
(PROPERTY CLASSIFICATION) (3) (EXAMPLE: Spare Parts for Caisson, Limber, etc., Personal equipment, etc.)	(APPROVED ALLOCATE) (4)		
78(Forge limber)-1			
106(Gun-cais.lmbr)-10.133(store limber)-1	ISSUED	6	6
(DUPLICATED UNDER WHAT OTHER CLASSIFICATION) (5)	PLACED	6	6
	WAR	6	6
	(GRAND TOTAL) (6)		
None			18
(GOVERNMENT SERIAL NOS., as Gun Materiel, Instruments, etc.) (7)			
Front of caisson chest door	Room B. Bin C.		
(WHERE CARRIED OR STORED) (8) (EXAMPLE: In Issue, On Caisson footboard, Room A-Bin 10.)			
REMARKS: (9) List of component parts of any article described under (1), as "Kits, Pistol Cleaning" etc. (2) CLASS OF PROPERTY enter "Ordnance", "Quartermaster", "Signal", etc. ITEM NO. enter serial number of card. (6) Total of (4) and (5) as with artillery where many articles are grouped under different classifications. Enter below any information pertinent to the article, such as expendable, known shortages, inspection check, etc. In filing each card in first group enter appropriate CLASS OF PROPERTY (2) as, Ordnance, Quartermaster, etc., theme subdivided under PROPERTY CLASSIFICATION (3).			

REVERSE SIDE OF THE COMBINED DESCRIPTIVE CARD—PROPERTY LOAN CARD

Item numbers, or card numbers if desired, provide a means for refiles in proper place and order.

When checking property a group of cards pertaining to any classification may be removed from the box, and with the aid of the "Descriptive" feature thereon materially assists in locating and identifying any article.

By comparison of the figures in column "Balance on hand" with "Grand Total (6)" on the reverse side, reveals "overs" and "shorts" at a glance—basis for requisitions, survey, etc.

Component parts that go to make up any article listed collectively are entered under remarks (9), materially assisting in watching accessories that often go astray.

For example:

Kit, pistol cleaning, with contents complete (entered on line (1))

Component parts:

1 Box, brass, 3" dia. 1" deep (grease)

10 Brush, thong

1 Oiler, brass, flat circular, 2½" spout

10 Rod, cleaning, pistol

10 Screwdriver, pistol. (This entered under remarks (9).)

THE FIELD ARTILLERY JOURNAL

The muslin bags, with linen tags stitched thereto, together with the common linen tag (wired), are salient features in completing this system of record. These serve to identify many complicated pieces of mechanism that often require the presence of an ordnance expert to identify. A rubber stamp is provided, from the form as shown, upon which brief entries are



MUSLIN BAG WITH STITCHED IN TAG

This is used for containing small parts easily lost such as screws, pins, springs, etc., that cannot be tagged. Larger spare parts and accessories are tagged with the common wired linen tag.

made from the "descriptive" side of the index card. Not all articles are tagged. Just articles carried in the battery and store wagons, as spare parts and accessories, especially the contents of the miscellaneous spare parts chest. The linen tag is generally used. The muslin sack is used only for containing small screws, nuts, pins, screws, springs, etc., that are easily lost.

Thus articles for repair and general upkeep are readily found, let alone the case with which these articles are layed out for check and count at the federal inspection.

This card system, together with the tags and containers described above, standardized for any unit of artillery, should be made an article of issue. However, in as much as it is not, it will have to be made up at local expense, or by the state. The results obtained therefrom are well worth the outlay. This card is applicable to any type unit or class of property.

JIMMIE

JIMMIE, Rhode Island's most famous war horse and a familiar figure to thousands who have watched the post-war military parades, has passed on to that happy grazing ground to which all good and faithful war horses go when they die.

The news of Jimmie's death will be received by many Rhode Island field artillery veterans with surprise and deep regrets. If there is any branch of the service where horseflesh wins the praise and friendship of the man in the uniform it is in the field artillery. And Jimmie was one of the few artillery horses in the United States who served with the same unit right through the entire war and came back home after the fracas had been satisfactorily settled.

Jimmie was an officer's mount, but that does not mean that he would not have pulled a gun if he had to. He would have done anything to help win the war, for the simple reason that his best friends wanted the war won. That was reason enough for Jimmie. He had friends in every battery of the One-Hundred-and-Third Field Artillery, and admirers throughout the Yankee Division. Men liked him because he was a "beauty" and because he never complained about the short rations or the vicissitudes of sleeping all night in the pouring rain, knee-deep in mud, while the shells whined overhead or burst nearby. Men liked him because he was a good-natured horse, even if he was an officer's mount.

During the early days of 1917, Jimmie stuck his head out of a freight car in the Union Station and decided that he liked Providence. Simultaneously a group of field artillerymen in this city decided that they liked Jimmie. So the horse came off the train and began to make friends. Several months later the United States declared war on the Imperial German Government and Jimmie, who originally came from Iowa, was ordered into the service with the batteries at Quonset Point. When the troops moved, he accompanied them to Boxford, then to Newport News, Virginia, and December 15, 1917, he embarked for a twenty-nine day cruise that landed him finally in the remount station at Saint Nazaire, France. Those were the days when officers' mounts were sent overseas. A short time after Jimmie's trip the Government ordered the practice stopped, and thousands of good American animals lost their one and only chance to be famous. But Jimmie, lucky old sorrel, climbed in under the ropes and became justly proud of his record. He was not only one of the first American horses to arrive in France, but he was also one of the last to return. It was not until the early months of 1920

THE FIELD ARTILLERY JOURNAL

that Jimmie came back to Rhode Island to be welcomed by his old commander and the boys who served with him under fire in France.

Jimmie was happiest when on parade. John Philip Sousa would have been tickled to see the effect of one of his march tunes on this wise old horse. No sooner had the leader's baton begun to cut figures in the air than Jimmie's head went up; his eyes quivered with excitement; his ears stood straight up on his well-formed head and he pranced along as if the piece of music had been dedicated to no one else but a chestnut sorrel army horse named Jimmie. Crowds cheered as he passed, and with each cheer, Jimmie arched his neck and showed his approval by doing an extra one-step for an encore.

Almost everybody has heard of old Putnam of the Fifth United States Field Artillery in the Philippines and China. Putnam pulled a three-inch gun and five tangled-up horses up a hill near Pekin and practically won the Boxer Rebellion all by himself. He later received a Congressional citation and had the distinction of being one of the few army horses to be placed on the retired list. Then there was Duke at Fort Riley, a horse who knew every bugle call in the list. He hadn't captured any cities like Putnam, but he had seen service and he knew the zing of a Spanish bullet and the crack of a Spanish shell as well as he knew the sound of the Captain's whistle on a drill field. When he got old, the Government gave him "light duty" and he spent his later days running errands for the quartermaster at Fort Riley.

Horses like Putnam and Duke and Jimmie, who have earned the affection and respect of human kind by loyal service to the Flag, have helped to make life worth living for their brothers who still trod the pavements and drill fields of earth. It is difficult to praise one horse without praising all, but it is possible, at times, to single out the horse that has earned fame and affection for himself and his fellows.—From the Providence *Evening Bulletin*.



THE MARCH TO CONCENTRATION AND TWO-SIDED MANOEUVRES OF THE FIRST CAVALRY DIVISION SEPTEMBER–OCTOBER, 1923

BASED ON A REPORT OF A FIELD ARTILLERY OBSERVER

FOR several years the 1st Cavalry Division has been distributed in stations along our southern border. This border duty has given many opportunities for cavalry operations by smaller units in patrolling and reconnaissance, developing initiative and resourcefulness in junior cavalry commanders. It did not, however, offer sufficient opportunity for operations of larger cavalry commands and the exercise of the higher command and staff functions. The idea of conducting such operations had been uppermost in the mind of the division commander for some time. Early in 1923 he began formulating a plan for a concentration, by marching, of the entire 1st Cavalry Division at a central location, for the purpose of carrying out a series of manœuvres and combined field training.

The region of Marfa, Texas, in the Big Bend District, being centrally located for the troops of the Division, naturally suggested itself as the most suitable locality. Three areas were considered. One in the vicinity of old Fort Davis, northeast of Marfa; another between Marfa and Shafter, southwest of Marfa; and the third between Shafter and the Rio Grande. Through the efforts of the local cavalry commander at Marfa (Commanding Officer 1st Cavalry), who was highly esteemed by the business men and ranch owners of Marfa and vicinity, permission was finally obtained from 25 ranchers owning or leasing land in the Marfa-Shafter-Alamito area for the 1st Cavalry Division to operate over their lands and to use the water thereon during the month of September, 1923. The proposition presented by the division commander was put across through the cooperation of the Highland Hereford Breeder's Association and the Chamber of Commerce and Rotary Club of Marfa.

The size of the manœuvre area obtained in the vicinity of Marfa was approximately 900 square miles, or three-fourths of the state of Rhode Island. The terrain around Marfa is varied, including plains, rolling foothills and mountains. It is watered by one stream, Alamito Creek (dry during certain months), and contains about 200 tanks, wells and springs. The soil is in general well adapted to cavalry operations with fine extensive pastures in the lowlands and a stony shale in the foothills. The area is practically devoid of

THE FIELD ARTILLERY JOURNAL

trees, which makes concealment from air observation almost impossible. Ground observations is, however, not so easy, due to the rolling nature of the terrain.

Down at Marfa, land is not figured by the acre, but by the section or square mile. Some of the ranches are very large, embracing from 100 to 150 sections or square miles. The only obstacles to manœuvring are the wire fences. For the manœuvres some 25 or 30 additional gates were put in to permit passage without destroying fences. The whole area is a fine grass country devoted almost entirely to breeding of hereford cattle. All the ranchers point with pride to the Marfa country as one of the finest cattle raising regions of the world. Just before manœuvres began, large consignments had been shipped north to farmers in the middle west states who fatten them for the market. If we stop to consider that the successful prosecution of the cattle industry also depends upon grass, water and fences, the magnitude of the generous contribution of the patriotic ranch owners and business men of Marfa to the success of the Cavalry Manœuvres will be appreciated. It was surpassed only by the kindly attitude and hospitality of their families.

A suitable area for the manœuvres having been obtained, the next step was to prepare an outline plan, make the necessary cost estimate and have the project approved. Approval was finally obtained July 28th. In the meantime the division staff went ahead to work out the details of the marches to concentration and then the subsequent manœuvre operations. The plan under which the concentration and manœuvres were conceived, reflected the high professional ability of both commander and staff. As a result of their thorough and painstaking preparatory work, everything ran smoothly and apparently no detail was overlooked. Every member of the division staff had had the advantage of a recent course at our General Service School. They understood the technic of staff work and how to be of service to their commander. They all possessed a high capacity for work, adaptability, and an understanding of teamwork. The manner in which the division staff functioned and the way it acquitted itself stands as a fine tribute to the training which Leavenworth is now giving.

The operations of the 1st Cavalry Division consisted of five parts:

September 10th-23rd—March to concentration;

September 24th-28th—Period of two-sided manœuvres;

September 29th-October 3rd—Period of one-sided manœuvres;

October 4th-8th—Field meet at Marfa;

October 9th-22nd—March to home stations.

THE MARCH TO CONCENTRATION AND TWO-SIDED MANŒUVRES

The First Cavalry Brigade (less 1st Cavalry) marching from Fort Clark, Texas, on September 10th, covered a distance of 285 miles to its concentration camp at Marfa where it was joined by the 1st Cavalry on September 22nd. During this march it experienced four torrential rains which made the ground very heavy, compelling the column to make frequent detours to get around the muddy lowlands and washouts. The longest day's march of this column was 33 miles; the average daily march for the two weeks was 22 miles with no day of rest until Marfa was reached.

The remainder of the 1st Cavalry Division (2nd Cavalry Brigade, 82nd Field Artillery Battalion (horse), 8th Engineer Battalion (mounted), Division Air Service and Division Troops), marching from Fort Bliss, Texas, on September 15th, covered a distance of 180 miles to the concentration at Ryan (about 20 miles northwest of Marfa on the Southern Pacific Railroad). This column experienced no rain at all. The weather was hot throughout the march, making the roads dry and dusty. After the second day, all water used by this column was obtained from tank cars which were spotted by the division quartermaster in the vicinity of each day's camp. The longest day's march was 30 miles; the average daily march for nine days was 20 miles with a rest on the eighth day. This column marched in three serials: 1st Serial, 2nd Cavalry Brigade and a detachment Division Trains; 2nd Serial Division Headquarters, 82nd Field Artillery Battalion (horse), 8th Engineer Battalion (mounted), Ambulance Company No. 43, and the Division Trains (less detachment); 3rd Serial, Motor Elements, 1st Cavalry Division, and the Division Air Service. The airplanes of the 12th Observation Squadron made the hop from Fort Bliss, Texas, to the flying field at Marfa in one day on September 22nd.

Both columns made their marches to concentration on schedule time. The animals showed little fatigue, and upon arrival at the manœuvre area were in splendid condition. Advantage was taken of every opportunity to water. Animals were watered at least four times a day, immediately after reveille, shortly after arrival in camp, before retreat, and then about 8 P.M. On some days animals were watered as often as five and six times. The fine condition of the animals during the march and the subsequent manœuvres was in great part due to this careful and frequent watering.

Every observer was impressed with the fine soldierly spirit existing in the 1st Cavalry Division, the robust physical condition and excellent horsemanship of both officers and men, and the fine condition of its animals and transportation. Although many trying situations arose during the ten weeks that the Division was in the field, situations which tested the patience and endurance of both

THE FIELD ARTILLERY JOURNAL

officers and men, they never lost their cheerful good humor and "played the game" from beginning to end.

The 82nd Field Artillery Battalion (horse) is also entitled to its share of praise. The way it stepped along in the column, through the heat and the dust, always closing up on the troops in front of it, was splendid, and showed that it had the necessary mobility to keep up with its cavalry. The entire battalion arrived at Ryan in fine shape. During the entire march only one horse, 15 years old and nervous, died of heat exhaustion. The battery commander wanted to leave this horse behind, but the corporal who rode him begged that he be permitted to take him along and made a bet that he would get him through all right. He was heartbroken when, in spite of his efforts, his favorite mount died. Except for one horse that had to be evacuated for a sprain, there were no other casualties in the battalion. Taking the roads as they were and without any blocking from the column in front, the battalion could have averaged four and one-half miles an hour, including halts. In view of the great heat and dust this must be considered very good. The actual average rate of march per hour, including halts, during the entire march, was very close to four miles an hour.

This concentration of the 1st Cavalry Division offered the first opportunity to get this fine command together as a division. The units of the 2nd Cavalry Brigade being all stationed at Fort Bliss had previously worked together as a tactical unit. The brigade commander had, however, been called away to other duties for two months previous to the manœuvres. Its staff had undergone almost a complete change in officers who had just joined the brigade, and therefore it was somewhat handicapped in experience.

The 1st Cavalry Brigade had its two regiments located at stations separated by about 300 miles and therefore had no previous opportunity to work together as a brigade. Its staff had been hastily put together a few days before the manœuvres commenced and had no previous experience.

These brigade staffs were practically forged into good working machines by the hard knocks and practical training they received in the subsequent manœuvres. Therein lay one of the great benefits of the manœuvres. A staff cannot be expected to give the maximum service to its commander unless it is organized and learns to operate during the garrison period of training. The same applies also to the staffs of lower commanders. The manner in which the brigade and lower staffs pulled themselves together and improved as the manœuvres progressed was noticeable. Quite naturally their work did not always contrast favorably with the superior work of the division staff. The latter was completely organized, composed of officers who had all had the same fundamental training, thought on

THE MARCH TO CONCENTRATION AND TWO-SIDED MANŒUVRES

the same lines and used the same technic. Its integrity was such that it functioned in the field exactly as it did in garrison. On the other hand, members of brigade staffs are often engaged on routine post administration duties in garrison and do not always have opportunity to operate tactically. In the field, the brigade becomes a very important tactical unit, and in case of two-sided manœuvres, its members must also take over many administration duties. It may therefore be expected that brigade staffs in changing from garrison to field duty, will not at once operate smoothly under the heavy load suddenly thrown upon them.

The two-sided manœuvres began on September 23rd. In the following narrative the general situation and special situations for both sides at the opening of hostilities are first stated. Each manœuvre day of the two-sided manœuvres is then presented, followed by comments on tactical employment. These comments are made not in a spirit of criticism, but in an endeavor to discover correct tactical employment in the particular instance and to show under what situation the artillery operated. All commanders were frequently influenced by circumstances over which they had no control. Their units were only seventy per cent, of the authorized peace strength. Very probably had actual battle and not manœuvre conditions prevailed, they would have acted quite differently. In actual battle many a plan of action which looks faulty on paper turns out to be a successful feat of arms due to the morale of the troops and the aggressive leadership of their commander. These attributes the 1st Cavalry Division possessed, to a high degree. Also in manœuvres commanders will often make an estimate quite different from the one they would have made had they been able to sense certain factors that are present in battle.

Troops engaged in the two-sided manœuvres:

BROWN

2nd Cavalry Brigade (7th and 8th Cavalry; 2nd Machine Gun Squadron);
82nd Field Artillery Battalion (less Battery "B");
Company "A," 8th Engineer Battalion;
Ambulance Company No. 43 (less one platoon).

WHITE

1st Cavalry Brigade (1st and 5th Cavalry; 1st Machine Gun Squadron);
Battery "B," 82nd Field Artillery;
Company "B," 8th Engineer Battalion;
One Platoon Ambulance Company 43.

THE FIELD ARTILLERY JOURNAL

The Brown and White Cavalry were considered as covering forces of higher opposing commands. The 1st Cavalry Division headquarters functioned from a central locality as the higher command on both sides. Daily operations and administrative orders were sent in secret from Division Headquarters to the two hostile brigades. Division Headquarters also controlled the air



service placed at the disposal of the opposing brigades, each of which was without knowledge of the other's situation except as disclosed by its own reconnaissance and operations. Security in bivouac and combat was continuous throughout the five days of the two-sided manœuvres.

THE MARCH TO CONCENTRATION AND TWO-SIDED MANŒUVRES

General Situation

A north and south line about 12 miles east of Marfa, is the boundary between two states who have recently declared war. Brown (west) and White (east). A Red state south of the Rio Grande is expected to join White as an active ally.

White is covering its concentration at Alpine (30 miles each of Marfa) with a cavalry brigade whose leading elements crossed the frontier September 20th and seized Marfa.

Brown is covering its concentration at Sierra Blanca (100 miles northwest of Marfa) with a cavalry division at Lobo (60 miles northwest of Marfa).

Neither side has air superiority.

Special Situation (White)

On September 22nd, the 1st Cavalry Brigade arrived at Marfa and pushed its reconnaissance to the north and west to gain contact with a Brown cavalry force reported to be advancing along the Southern Pacific Railroad from Lobo.

Reliable information has been received that the friendly Red state intends to declare war on Brown on September 23rd and is now concentrating a large Red force at Ojinaga (on the Rio Grande opposite Presidio, 55 miles southwest of Marfa).

Special Situation (Brown)

The 1st Cavalry Division (2nd and 13th Cavalry Brigades, the latter imaginary) after covering the detrainment of Brown infantry at Sierra Blanca, pushed forward to the south and west.

On September 23rd, the 13th Cavalry Brigade (imaginary) is watching the crossings of the Rio Grande in the vicinity of Bosque Bonito (35 miles southeast of Sierra Blanca), where hostilities are expected with a Red state south of the Rio Grande.

The 2nd Cavalry Brigade and attached troops advancing southeast along the Southern Pacific Railroad reached Ryan (19 miles northwest of Marfa) on 23rd of September.

FIRST DAY MANŒUVRE, SEPTEMBER 24TH

Brown.—A march in the presence of the enemy.

White.—A reconnaissance and a position in readiness.

MISSIONS

Brown to seize Fisher's (4) and the wells in the vicinity thereof, holding them until the arrival of the 13th Cavalry Brigade (imaginary).

White mission was twofold:

(a) To send a reconnoitring squadron on the afternoon of

THE FIELD ARTILLERY JOURNAL

September 23rd to well (16), from which point it was to reconnoitre toward the line Ryan-Conejo early September 24th.

(b) If the enemy was discovered to be moving south of the railroad Ryan-Conejo, the rest of the brigade was to be moved *via* Thaxton (47) to hold the Brown force west of the line Skinner-Walker-Sauz, covering the junction of the Presidio and Lajitas roads on the right and the Fisher-Sauz-Cooley road on the left.

EXECUTION

White sent out a reconnoitring squadron on the afternoon of September 23rd with the mission of preventing Brown advance east of the line Skinner-Walker-Sauz, and to cover the junction of the Presidio and Lajitas roads. Patrols were to reach the line Skinner Ranch—Fisher Hill—by daylight September 24th and reconnoitre for a distance of two miles north thereof. In case the enemy reported at Ryan attempted to advance east of the line Skinner-Walker-Sauz, the squadron was to delay him and cover the Fisher-Sauz-Cooley road.

By midnight of September 23rd-24th, the White Cavalry Brigade had information that their White Infantry would reach and occupy Marfa on the 24th. Definite information had also been received that the Red reënforcements had crossed the Rio Grande at Presidio, 55 miles southwest of Marfa, enroute to join the Whites near Marfa.

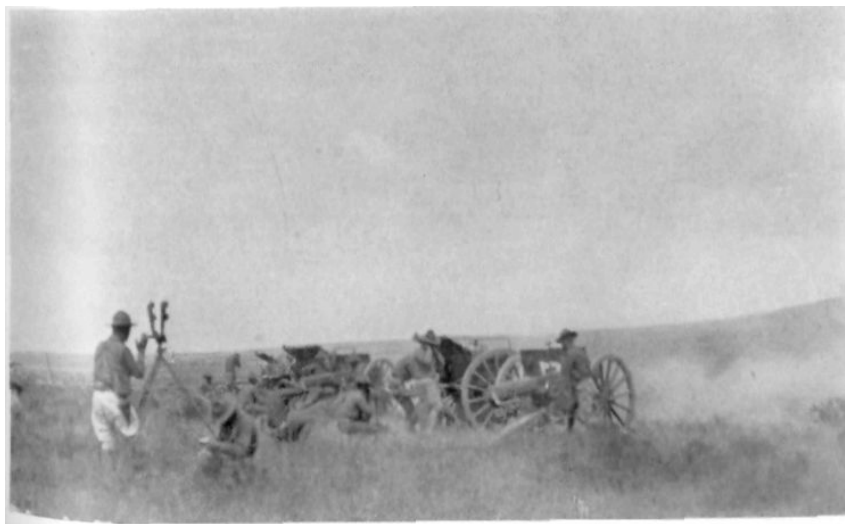
At 8:30 A.M., September 24th, having received an airplane report which indicated the movement of a Brown Cavalry Force southwest from Ryan on Skinner Ranch, White ordered out another squadron to Walker Ranch *via* Presidio road—well 48—Thaxton road, to observe for an enemy advance in the direction of Skinner Ranch and prevent the enemy from crossing east of the Ruidosa-Marfa road.

The rest of the White brigade was held in readiness at Marfa to march on fifteen minutes' notice *via* Presidio road—well 48—Thaxton Ranch road on Walker Ranch. At 9:30 A.M. it marched on Walker. Practically one-half of the force was in the advance guard which was ordered to act aggressively, but to take care not to bring on a general engagement.

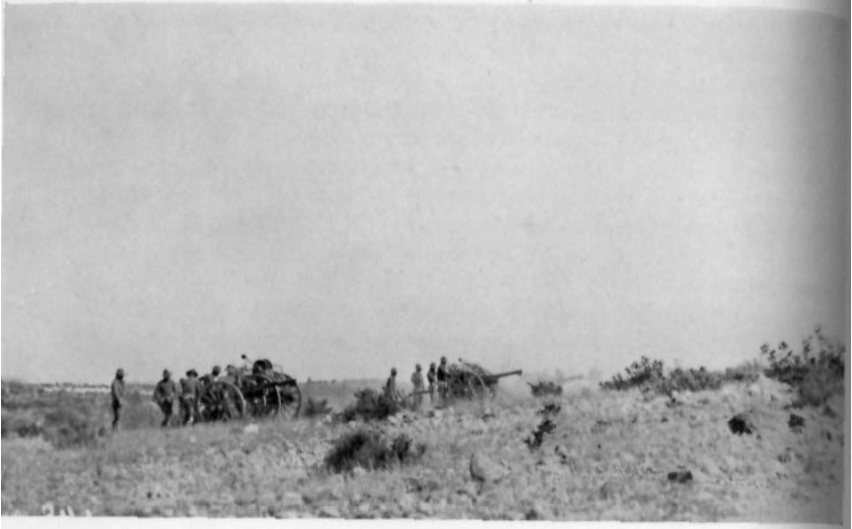
Brown marched on Fisher's Ranch *via* Holmes Ranch, starting from Ryan at 7:30 A.M., September 24th, with a reënforced squadron in the advance guard. Brown continued its march without interruption until the column reached the foothills about six miles northwest of Fisher's ranch when at 11:30 A.M., its advance party first encountered the enemy and was driven back. When the rest of the Brown advance guard came up, it was found that the enemy, estimated at one squadron, was in position across the Holmes-Fisher trail at about 800-1000 yards distance. The Brown advance guard



BATTERY "C" GOING INTO ACTION



BATTERY "A" IN ACTION



BATTERY "B" IN POSITION



BATTERY "C" IN POSITION
The pieces are echeloned to secure defilade.

THE MARCH TO CONCENTRATION AND TWO-SIDED MANŒUVRES

was quickly deployed with two troops and machine guns in the pivot and one troop in the manœuvring force to turn the hostile left flank. The advance guard artillery went into action quickly and supported the attack by direct fire.

The enemy apparently withdrew, whereupon the manœuvring force pushed on but was counter-attacked by an equal enemy troop. The advance guard commander, thinking that the enemy had withdrawn, had in the meantime ordered the column to assemble. As a result there was no machine gun or artillery unit in position to cover the assembly of the advance guard. This delayed the assembly for a considerable time and enabled the enemy to make good his withdrawal.

About one-half hour later the enemy was again encountered in an excellent position about two miles northwest of Fisher's Ranch. The Brown advance guard again deployed, this time manœuvring against the White right flank. Machine guns and artillery went into action promptly and supported the attack. The advance guard commander had ordered in the meantime, that machine-gun platoons would thereafter advance by bounds so that at least one platoon would be in position to meet any hostile counter-attack, and that one machine-gun platoon and the artillery would remain in position to cover the assembly of the advance guard.

Before Brown advance guard could push home its attack, White again withdrew, this time to the high hill northwest of Fisher's Ranch. From this position White was again driven and forced to withdraw south of the Ruidosa road, the Brown advance guard occupying the hill and covering the advance of the main body which was moving to the east slope of the hill. This advance of the Brown main body was also covered by the artillery, the two batteries going into action on a saddle one and one-half miles north of Fisher's, from which they could cover the terrain to the south as far as Sauz Ranch. At about 1:40 P.M. these batteries fired on two White squadrons, one near Sauz Ranch and the other advancing on the Sauz-Fisher road. The Brown main body now pushed one squadron east to secure well 10 and the gate near it, from which direction it had received fire. Shortly after this recall was sounded.

COMMENTS

In the instructions to the White reconnoitring squadron sent out on the afternoon of September 23rd, par. 1 (b) stated: "This brigade remains here until the direction of the enemy movement has been determined; it will then move south." Now the enemy was at Ryan and might have moved along the railroad on Marfa in which case the White brigade should have moved *northwest*.

Division orders directed that a reconnoitring squadron be sent

THE FIELD ARTILLERY JOURNAL

out on the afternoon of September 23rd, and when the direction of the enemy advance was discovered, to move with the rest of the brigade *via* Thaxton. At 8:30 A.M., September 24th, based on an airplane report, indicating a movement of Brown cavalry of unknown strength and location, southwest from Ryan on Skinner's Ranch, another White reconnoitring squadron with a machine-gun platoon was sent to Walker with the mission of observing the enemy movement in the direction of Skinner's ranch. Since Skinner's Ranch had been included in the zone of reconnaissance of the first squadron sent out, and there was no indication that this squadron was not fulfilling its reconnaissance mission, this action was not absolutely necessary. However, the White commander decided that in view of the indefinite information he would play safe and send out a second reconnoitring squadron. The first squadron was apparently not informed that another squadron was being sent out to take over part of its mission. What should have been done was to transmit the airplane report to the first squadron, or better still, arrangements should have been made to have the reconnaissance plane drop information to the commander of the first reconnoitring squadron. One-half of the entire White brigade was now out on reconnaissance mission.

In the verbal order to the second White reconnoitring squadron, the brigade was ordered to be ready to move on Walker Ranch on fifteen minutes notice. One hour later the rest of the White brigade moved on Walker's Ranch, with half its force in the advance guard. The advance guard was therefore very strong. In view of the fact that neither of the two reconnoitring squadrons had up to this time reported contact with the enemy, the White advance guard should not have been given the contradictory mission at this time "to act aggressively but not to bring on a general engagement." It would have been better to await until contact had been gained.

The first contact with the enemy was gained by the first reconnoitring squadron at 11:30 A.M., about five miles northwest of Fisher's Ranch. This fact was not known to the White commander until shortly after 12:00 noon when he was between Walker and Dam 15. At 11:30 A.M., when contact was gained with the enemy, the White brigade had one squadron five miles northwest of Fisher's Ranch, one quadron near Walker's Ranch, and the rest of the brigade between Thaxton and Walker Ranch. This last column continued its march on Walker, where it caught up with the second reconnoitring squadron. This second reconnoitring squadron had some difficulty in finding its way and had not reached Skinner's. It was now ordered to take a position about one mile north of Walker and cover the right flank of the White brigade. It later went into camp at Walker. It was unable to verify the previous airplane report of

THE MARCH TO CONCENTRATION AND TWO-SIDED MANŒUVRES

Brown cavalry moving on Skinner's. As a matter of fact this incorrect report was purposely injected by Division Headquarters to cloud the situation and compel aggressive reconnaissance by White.

At 12:25 P.M., the White commander by verbal order now ordered the advance guard to reënforce the reconnoitring squadron at Fisher's Ranch and to prevent the passage of the enemy south of the Ruidosa road. The other squadron of the column continued its march on Sauz. These were the two squadrons fired on by the Brown artillery about 1:40 P.M., one near Sauz Ranch and the other as it was advancing from Sauz to Fisher's Ranch.

At 1:40 P.M., the Brown brigade was in possession of the high ground just north of the Ruidosa road overlooking Fisher's Ranch, and commanded all the terrain to the south and southeast as far as the ridge just northwest of Sauz Ranch. The White brigade at this time was disposed as follows: 1st Cavalry engaged with the Brown advance guard in the vicinity of Fisher's Ranch; 5th Cavalry, one squadron at Sauz and the other one mile north of Walker's Ranch. The White brigade was therefore more or less dispersed and on unfavorable terrain which was commanded by the Brown artillery. White had no artillery at this time while Brown had two batteries which were using long range direct fire on three out of the four White squadrons. Had the Brown brigade launched an attack at this time, either to the south or southeast, it would have separated the two White regiments, probably defeated them and secured the Sauz-Cooley road.

It would have been better had White not reënforced its reconnoitring squadron at Fisher's Ranch but instead made its plans to delay the enemy with this reconnoitring squadron, holding the rest of the brigade in a position of readiness prepared to keep the enemy west of the line Skinner's-Walker-Sauz. In case Brown continued to march south from Fisher's, White could have attacked in flank; had Brown marched on Sauz, white could have defended the line Walker-Sauz and counter-attacked at the proper time; had Brown marched northeast on the Ruidosa road, White could again have attacked in flank.

The movement of the White main body from Marfa to Walker was a little premature in the light of information actually received by White. However, commanders often feel compelled to take action on inadequate information. The only information White had was an airplane report received prior to 8:30 A.M., which indicated the movement of Brown cavalry southwest from Ryan on Skinner. This airplane report gave no information of the location of this enemy force, how far it was from Ryan and at what time it was observed. The Brown force observed might have been only a reconnoitring detachment or Brown outpost. Nothing was known concerning

THE FIELD ARTILLERY JOURNAL

the Ryan-Marfa road. Negative information that the Ryan-Marfa road was free of the enemy, was of greatest importance to White, and reconnaissance for such information should have been included in the air service mission.

The first reconnoitring squadron had with it a pack radio set, B2, with five intelligence scouts, and B3 with three intelligence scouts and a motorcycle. Due to radio trouble, the squadron commander and the intelligence personnel were unable to transmit any information of the enemy until about 12:00 noon. The White commander realizing that his information was inadequate, decided to play safe, and sent another squadron to Skinner. Had he waited until 12:00 noon to move from Marfa, he would not have reached Walker until about 1:45 P.M. which would have been too late.

The first White reconnoitring squadron should have gained earlier contact with the enemy and made its reports more promptly. However, the radio did not work well on this day, due to bad static conditions and probably the jamming by the powerful signal corps station at Marfa. Such trouble will also occur in war, probably to a greater extent than in peace manœuvres. Cavalry must therefore not lean too heavily on its radio sets. It must have alternate means of communication always available and use them as soon as the radio fails. Motorcycle messenger can frequently be used, but in the majority of cases, Cavalry must depend, as it always has depended, on its horses and men to get a message surely to its destination.

The Brown brigade was marching in the presence of the enemy and expected contact on this day. Since its mission was aggressive, a 75-gun section was attached to the advance guard. A platoon would have been better. A section was used because the particular battery from which the advance guard artillery was taken had only three sections. This, however, is not unusual, since batteries will frequently be reduced to two or three sections through losses in combat. The rest of the Brown artillery marched at the tail of the main body. It would have been better to have had it farther forward in the column, between the two regiments in the march column.

Except on one occasion when the Brown advance guard failed to cover its assembly, its actions were well conducted. The advance guard commander saw the advantage of leaving his artillery and some machine guns in position to cover the assembly of the advance guard, and immediately ordered that thereafter at least one machine-gun platoon and the artillery section would remain in position until the advance guard had assembled, after which the supporting units would close up at an increased gait. This was done later, the machine-gun platoons leap-frogging to insure the steady progress of the advance guard.

THE MARCH TO CONCENTRATION AND TWO-SIDED MANŒUVRES

The field artillery commander had sent forward his reconnaissance officer with two scouts, to accompany the advance guard commander. This reconnaissance officer acted as adviser to the advance guard commander and directed the employment of the section which was commanded by a 1st sergeant as tactical commander. The presence of an officer with the advance guard was of great assistance to the artillery battalion commander in his subsequent reconnaissance.

It is believed that the employment of a platoon of artillery with a squadron in the advance guard is justified. Modern cavalry on reconnoitring missions will frequently be accompanied by machine guns and armored cars. Against the latter, small arms fire has little effect. The only way to stop them is by artillery fire, or by blocking the road. Blocking a road is, however, not a simple proposition and when done is also an obstacle to your own main body following in rear. Artillery fire is therefore the only means which cavalry now has to combat armored cars.

The fire power of machine guns is also very effective in delaying an advancing enemy. Two machine-gun platoons or sections, withdrawing alternately from one firing position to another, and covered by a few riflemen, are able to inflict great damage on an advance guard and compel its distant deployment. Here again the 75-gun is the only available means for cavalry to quickly combat such targets.

Another important consideration is the protection which artillery with the advance guard can give in covering the advance guard assembly. It can also protect both the advance guard and the main body while the former makes its bound forward to seize the next ridge. The road space of a squadron in the advance guard, including its distance in front of the main body, will be about 2500 yards. If the next ridge in front is more than 2500 yards distant, the main body is vulnerable to hostile artillery fire before our advance guard has seized this ridge. Under such circumstances, the advance guard should be covered by its artillery, until it is in possession of this ridge. The artillery then closes up on the tail of the advance guard at an increased gait. The artillery with the advance guard should always be in such strength that it can form two groups which leapfrog each other from position to position. This will insure the security of both the main body and the advance guard, and always make some artillery immediately available with the advance guard. For example, if the advance guard artillery is a battery, the platoons leap-frog; if a platoon, the sections leap-frog.

Probably the greatest benefit resulting from the employment of batteries and fractions thereof with smaller cavalry commands, is the tactical training and experience junior officers of both branches receive in such combined operations. Each learns what the other can

THE FIELD ARTILLERY JOURNAL

do best and both soon understand what the one must do to assist the other in reaching the common objective. It is not by a study of the employment of division, corps and army artillery that junior officers of other branches will understand the proper employment of artillery and how it coöperates with them, but by observing and learning the employment of a battery or one of its subdivisions.

In the presence of the enemy, the march of the advance guard will seldom be a steady progression; it will usually be a series of successive bounds to seize the next favorable position in front to cover the main body. In the presence of a watchful enemy with airplanes and artillery, the march of a large force will also cease to be a steady progression when it arrives within long-range fire of the hostile artillery.

SECOND DAY MANGÈUVRE, SEPTEMBER 25TH

Brown.—A defense.

White.—An attack.

MISSIONS

Brown to maintain present positions, covering the water at Fisher's Ranch during September 25th. Reconnaissance towards Cueva (111)—Cooley (14)—Marfa.

White to attack September 25th and drive to the north the Brown cavalry now near Fisher's Ranch in order to clear the Ruidosa road and prevent interference by hostile cavalry with White troop movements on the Presidio road. The line Dam 15-Sauz-Carlton Tank (7)—110 must be secured during the day at all costs.

EXECUTION

(See map at the end of this article)

Brown brigade made its dispositions for a passive defense which, to quote the exact words of Field Order No. 3. Second Cavalry Brigade, September 25th, was "close in and in general triangular around the ranch houses." The two sides of the triangle towards the enemy formed a right angle with the apex at Fisher's Ranch house, each side being occupied by one squadron. The third side of the triangle was occupied by two troops, one on the west and the other on the north slope of the high hill northwest of Fisher's. Within the triangle were located the brigade reserve (one squadron), three machine-gun troops, two batteries of artillery, the brigade command post and observation post. Both batteries had very little defilade and could very easily be run into direct fire positions. The battery covering the east face of the triangle had a field of fire extending from due south around through east to northeast. The battery covering the south face of the triangle had a field of fire extending from due south around through west to northwest. The machine-gun

THE MARCH TO CONCENTRATION AND TWO-SIDED MANŒUVRES

troops were so disposed that one of them covered each side of the right angle, while the third troop covered the apex in the vicinity of Fisher's Ranch house.

The position was occupied by 8:00 A.M. One company of engineers was designated as escort for the grouped field and combat trains which were moved north on the Fisher-Ryan road to a point three miles north of the ranch house. During the previous night, due to a misunderstanding of orders, the larger part of one Brown regiment was out on reconnaissance, some of the troops not returning to bivouac until shortly before dawn.

The Brown brigade now awaited the attack of the White force, which was known to be in bivouac on the line Sauz—well 16—Thaxton Ranch, about five miles to the southeast.

The White cavalry commander knew by the morning of September 25th that the White division (imaginary) had arrived at Marfa and that the Red reinforcements (imaginary) coming from Presidio were expected to reach 102 by 6:00 P.M. that day.

By its patrols on the previous evening, White had located the Brown force in bivouac near Fisher's Ranch house. It was believed that the Brown lines extended along the ridge south of the Ruidosa road. The location of the Brown flanks was not definitely known. At 7:35 A.M., September 25th, the White attack order was issued at Sauz Ranch, time of attack 8:00 A.M. The plan of action was to attack with regiments abreast, 5th Cavalry on the right—1st Cavalry on the left; boundary between regiments, the Sauz-Fisher road; line of departure, a ridge about three miles from the actual Brown position. The scheme of manœuvre was to drive hard with the left, pivoting with the right, with a view of securing the gates on the Ruidosa road and enveloping the hostile right. The White battery was ordered to take position about one mile southwest of Sauz Ranch. This was 7500 yards from the nearest point of the actual Brown position. The battery had the general mission to support the attack. The flanks of the assault echelon were protected by combat patrols.

The attack was launched at 8:00 A.M. as ordered, on a front of about 5000 yards. The Brown force was, however, not south of the road, but north thereof. The White attack therefore had a long way to go across open ground. Being practically frontal and without artillery support, it was considered repulsed. The 5th Cavalry being unopposed reached its objective, the Ruidosa road near wells 9 and 10. It had not assisted the advance of the 1st Cavalry on its left.

From the observation post on the high hill northwest of Fisher's Ranch, Brown observed the repulse of the left of the White attack and its subsequent withdrawal. Apparently, Brown did not know

THE FIELD ARTILLERY JOURNAL

that White was in possession of well 10 and made no change in dispositions. From 10:00 A.M. to 12:00 noon, there was no action by either side. White seemed to have disappeared from the front of Brown. About 11:30 A.M., the Division Commander learning that Brown still continued its passive defense at Fisher's hill, sent an order for Brown to counter-attack and secure wells 9 and 10 on the Ruidosa road for use by the rest of the division.

Brown moved out from the position on Fisher's hill shortly thereafter to seize wells 9 and 10. One squadron and machine-gun troop were left in the old position. While Brown was making this manœuvre, White renewed the attack about 12:30 P.M., this time shifting the left regiment farther west in order to strike the Brown right flank. The main blow of the White attack was made with one squadron attacking mounted in the direction of well 6—Fisher Ranch house. The White battery had been moved forward about two miles into a position within 3500 yards of Fisher Ranch house. This change of position had required one and one-half hours. Recall was sounded about 1:30 P.M.

COMMENTS

Field Order No. 3, Second Cavalry Brigade (Brown), September 25th, 1:00 A.M., is worthy of study not only for technic, but also for plan of defense. Considering first par. 2, we find the interpretation of the mission assigned by the division, "to maintain your present positions, *covering* the water at Fisher's Ranch." This was expressed in the Brown Field Order "to continue to occupy and hold Fisher's Ranch house and water adjacent thereto." The division did not state specifically how much water it wanted the Brown brigade to "cover," but the fact that the 13th Brown Brigade (imaginary) was expected to relieve the 2nd Cavalry Brigade, should have prevented too narrow an interpretation of the amount of water to "cover." Had the needs of the rest of the division been considered, then it would have been necessary to *secure* also wells 9 and 10 east of Fisher's Ranch as later ordered by the division.

The mission of the Brown brigade as stated by the division was not clearly expressed. What the division wanted was for the Brown brigade to *secure* the water along the Ruidosa road, two miles on both sides of the Fisher's Ranch house. The Brown brigade commander would then have been compelled to take or gain possession of a position far enough in front of the water to preclude any danger of its destruction, obstruction or loss. Unless expressions having a well-understood meaning are used in orders, they are apt to be differently interpreted by those for whom intended. Had the division order used the expression "secure," Brown would probably

THE MARCH TO CONCENTRATION AND TWO-SIDED MANŒUVRES

not have adopted the unusual plan of defense which permitted the enemy to obstruct the use of water.

Considering now the plan of defense as expressed in the order, we find, from the artillery point of view, that the following important elements for the organization of a defensive position are lacking:

(1) No boundary between regiments and no missions given to regiments as such. The brigade order prescribed directly to squadrons, troops and batteries.

(2) No regimental sectors designated; no mission or responsibility given to regimental commanders.

(3) Instead of giving location of area within which the field artillery battalion would take positions, the order prescribed exact positions for batteries.

(4) No defense mission given the artillery.

(5) No provision made for local security by units along a designated line.

(6) Fire of artillery and machine guns not coördinated by the commanders concerned.

(7) Action of outpost in case of attack not stated.

For cavalry to make its initial dispositions for a passive defense before the direction of enemy attack is known is very dangerous. Practically the whole Brown brigade was located in an area about one and one-half miles square. The defense was practically back to back and lacked depth and proper organization. The brigade reserve was located within a few hundred yards of the front line. The only place it could have been used without moving by the flank, was near the apex of the triangle. The artillery was not sufficiently defiladed. It had no definite objective zone. Since there was no general plan of defense, the artillery could prepare no defensive fires which coördinated with those of the machine guns. The idea of a back-to-back defense compelled the artillery to take position on a ridge line from which it could fire in practically every direction. Such a position also exposed it to hostile observation and neutralization.

The lessons which this defensive position emphasized are:

(1) Cavalry against cavalry should always make its initial dispositions as for an active defense.

(2) Subordinate commanders and their units must be given definite sectors of defense.

(3) The machine guns should be attached to regiments and their action coördinated with that of the troops in centres of resistance.

(4) The machine-gun squadron commander is the brigade machine-gun officer to coördinate the fire of machine guns between regiments and with the artillery.

THE FIELD ARTILLERY JOURNAL

(5) Each regiment throws forward local security detachments from which patrols are sent forward to cover routes of approach.

(6) The main line of resistance is based on a line of mutually supporting strong points.

(7) Regimental reserves if available are held back to reënforce this line and to make local counter-attacks between the centres of resistance.

(8) The brigade holds out a strong reserve to meet envelopements or to influence the action at the decisive moment.

(9) Reconnaissance must be continuous.

(10) Every advantage must be taken of concealment.

(11) The plan of artillery defense must be coördinated with that of the troops it supports.

(12) There must be a plan of defense for the whole command.

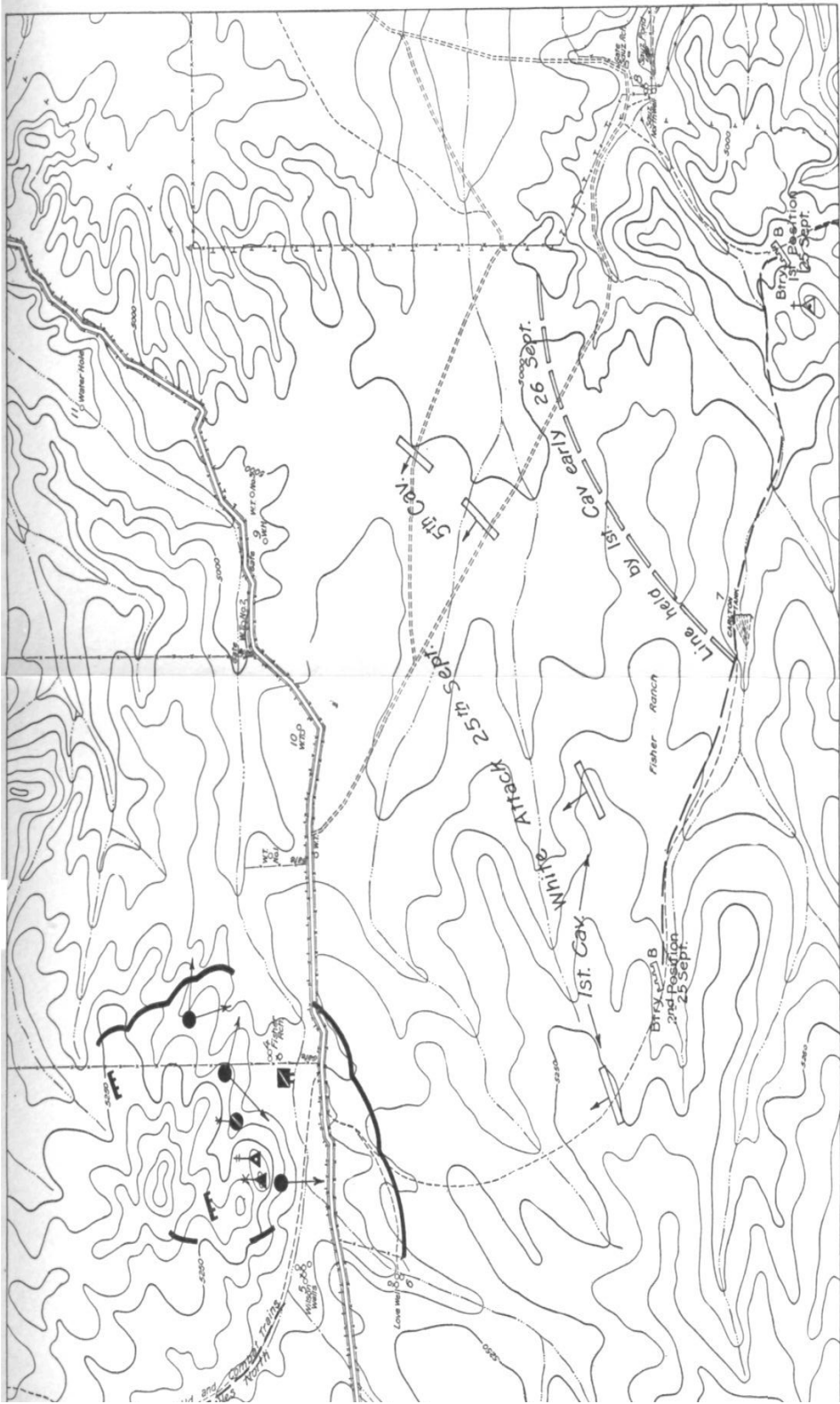
The all-night reconnaissance made by one regiment left its officers, men and horses in a tired condition. One of the most important missions of cavalry is its reconnaissance, but if this is not carefully planned and strictly controlled by higher commanders, the latter may soon find themselves with exhausted cavalry to lead in battle.

Considering now White, its attack was launched without sufficient knowledge of the hostile position. The attack was really planned on reconnaissance made the night before and the order was issued before Brown had completed the actual occupation of its position. Had White sent out early in the morning, two or three troops to make a reconnaissance in force supported by the artillery, the discovery would probably have been made that Brown was making a triangular defense. This reconnaissance would have located the hostile flanks and developed the Brown position. The necessary information for a plan of action could have been obtained before 9:30 A.M. and an attack, based on a wide-turning movement against the flanks and rear, could have been launched by 10:30 A.M. The actual location of the Brown position not being accurately known, the White artillery was too far back, being 7500 yards from the nearest point of the Brown position. White therefore had no artillery support for the attack.

Since White failed to maintain contact after its first attack, the movement of the Brown force from Fisher's hill to wells 9 and 10 was not discovered. The final mounted attack by White against the Brown right did not have sufficient strength, cohesion and fire support, and therefore was not decisive.

The intelligence service on both sides was improvised. Intelligence officers were frequently used as mounted messengers. This was probably necessary on account of shortage of officers.

An intelligence officer, if he is doing his job properly, has no time to go out on messenger and patrol missions to gain information.



- Brown white
Brown white
- Cavalry Brigade O.P.
Artillery Battalion O.P.
- Cavalry Brigade C.P.
Artillery Battery O.P.
- Windmills
Tanks or Water Holes
- Machine Gun Unit
Cavalry Squadron
- Cavalry Troop
Battery

The troop locations above are only approximate and are intended to aid the reader in following the text.

THE MARCH TO CONCENTRATION AND TWO-SIDED MANŒUVRES

His job is to direct and supervise the obtaining of information by subordinate units and to make plans for collating it. After this he must study the information gained and if found to be incomplete, to see that the regiments send out additional patrols to get the missing information. The intelligence officer uses his intelligence personnel to accompany patrols in order to make sure that these patrols get the desired information and that it is reported promptly to him. Having collected all the information required, he studies it, makes his deductions therefrom and prepares his estimate of the enemy situation. This he gives to his commander at periodic intervals, either verbally or written. In making his report to his commander, the intelligence officer must be prepared to support his deductions. If the commander considers the deductions faulty or based upon incomplete data, the intelligence officer must take steps to obtain such additional information until he can prove his deductions and arrive at a logical estimate that squares with the information at hand and *convinces* his commander.

Information is by no means intelligence. It is merely the data on which intelligence is based. In order to be able to make deductions that will be of value, the intelligence officer must see that his information is always keeping up with the progress of combat.

(To be continued next issue)

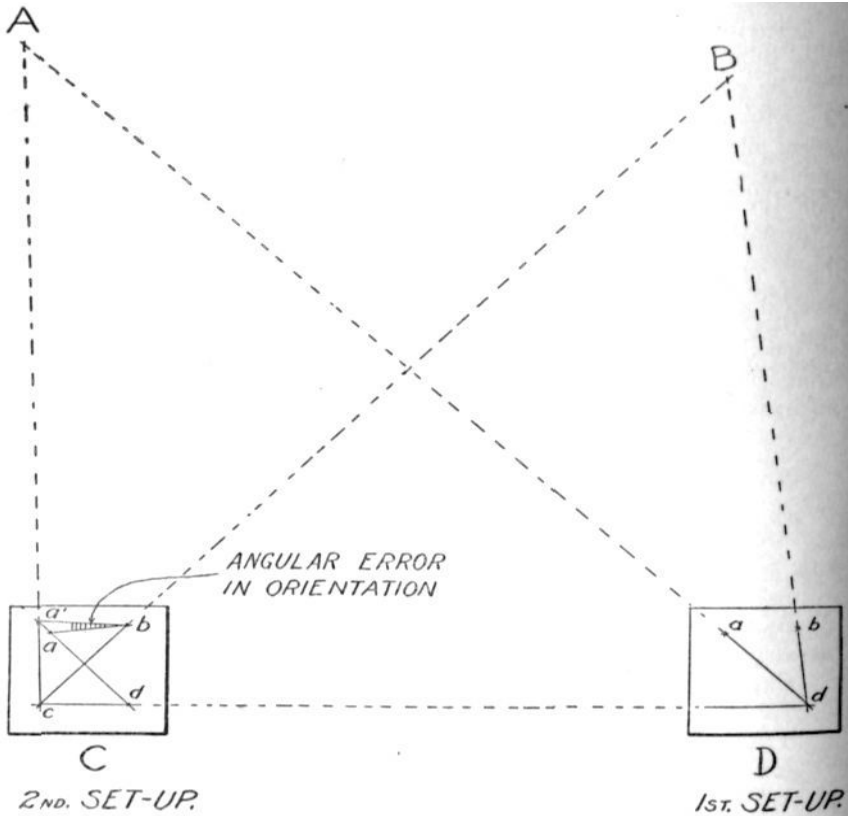


A TWO-POINT RESECTION

BY LIEUTENANT EDWIN L. SIBERT, F.A.(D.O.L.)

CORNELL UNIVERSITY R.O.T.C.

RECENTLY, the undersigned ran across a two-point resection method in Breed and Hosner's "Higher Surveying." The method is so simple, and since it may be used when only two known points are available, it struck



me that it might be of interest and value to our arm of the service.

The Italian resection, or Bessel's Theorem, though accurate, has the disadvantage of being only obscurely logical in the sequence of its operations. The college student, in being instructed in it, wants to know why you make each move; and the "why" is not the easiest thing to visualize or explain, though the proof in the abstract is readily understood. Setting the Italian method to some current popular tune has been the way in which any number of people have mastered it. I know, that during the war at the School of Fire

A TWO-POINT RESECTION

when the "how" was more important than the "why," that most of us learned it purely by rote.

The two-point method in question is merely a resection from the same two points on the terrain at two different set-ups of the plane table, *assuming* in the first place that you are oriented and using the same orientation in the second place. In checking, you find out what angle the plotted line joining these set-ups makes with the actual line on the ground. This is your angular error in orientation and is quickly corrected. Being oriented and with two plotted points identified on the terrain, to find yourself is, of course, simply an operation of ordinary resection.

On a 1/20,000 sheet, this method will give us in one operation as accurate a result as will the Italian method. Such has been the experience of the C. E. College here. The accuracy of this method depends, as in the Italian one, entirely upon the shape of the figure, the more nearly the base line approaches the length of the line joining the two known points the more accurate is your result. The method itself does not provide a check as to accuracy, but by a traverse from your located position back to the first set-up position and again resecting you get an indication as to your accuracy.

A brief description of the method follows:

THE TWO-POINT PROBLEM

Given two visible known points A and B, plotted on your board as "a" and "b" respectively. (See figure.)

Assume a convenient base line CD, at least two hundred yards long and nearly parallel to AB.

Set up at D and orient the board by estimation.

By resecting through A and B you get an intersection "d" which we assume temporarily to represent D.

Shoot a ray toward C. Proceed to C and set up.

Backsight on D.

You now have the same orientation as you had at D.

Resecting from B you get an intersection "c," which temporarily represents C.

Pivoting the alidade around "c" shoot A. This ray intersects "da" at some point a', which is the new plotted position of A, whereas "a" was the originally plotted position of A.

Therefore, the angle a'ba is the angular error in orientation.

The table may now be turned so that "ab" is parallel to AB by placing the alidade on a'b and noting same distant object in line, then setting the alidade on "ab" and turning the board until the same object is again sighted.

You are now truly oriented and may locate yourself by simple resection.

FOREIGN MILITARY JOURNALS A CURRENT RÉSUMÉ

ENGLAND

"The Journal of the Royal Artillery," January, 1924

THE DEVELOPMENT OF MODERN WEAPONS

(MAJOR-GENERAL SIR W. E. IRONSIDE)

THIS article is a repetition of a lecture given by the Commandant of the British Staff College before a group at the Royal Artillery Institution. The writer considers only three weapons, *e.g.*, tanks, aircraft, and transport. The point that is stressed throughout is that these weapons are intended to lead up to hand-to-hand fighting, to get the infantry forward and not to try to consummate the victory by themselves.

The tanks are esteemed for their mobility, their solution of street fighting problems, their mastery of barbed wire, snow and obstacles. They offer a fleeting target and are valuable for reconnaissance. On the other hand, means must be developed to keep the inside of the tank cool and to overcome the difficulty offered by mud. In employment tanks will be shepherded in concealment to the point of attack where they will be closely followed by infantry. The writer makes a plea for a mobile armored anti-tank gun separate from the infantry accompanying gun.

In connection with aircraft, the writer points out that the development should be toward the attack of the armed forces in the field rather than the bombing of the material things of the country and endeavoring to lower the enemy's morale merely. These things would not gain victory. Machine gunning from the air will be most useful, but the air service will render its greatest use by reconnaissance and by carrying artillery observers.

Finally, General Ironside shows how mechanical transport has revolutionized supply and made the fighting forces more mobile, although there has not been a diminution in the number of non-fighting men employed.

"LIAISON BETWEEN INFANTRY AND ARTILLERY"

(CAPTAIN D. J. R. RICHARDS)

This article consists of notes, comments, and criticisms of an article which appeared in the *Revue d'Infanterie*. The writer starts off by saying that, while liaison works well enough in indoor tactical problems, it usually falls down in the open air. Then he criticizes

FOREIGN MILITARY JOURNALS—A CURRENT RÉSUMÉ

existing methods of communication. The telephone is impracticable; reflectors are good but often invisible to those who should see them; flags are not worth the time necessary to insure good results; light signals may be muddled by the enemy. The infantry battalion has no wireless and the artillery do not use the power buzzer. Runners are sure but slow; pigeons are too few and dogs have never been tried out.

Finally, after eliminating all these methods, the author picks out the airplane as the means of liaison. It is to be employed to transmit the following infantry requirements; request for barrage, request for preparation, request to lengthen range when infantry wish to advance.

The signals to the plane are made by means of combinations of individual panels carried by the infantry of the first line. A single line means "I am held up here, request artillery fire." Plane then gives coördinates to battery of a point 400 yards beyond. Of this 400 yards, 200 is for a safety margin, 100 for faulty location by plane, and 100 to allow for faulty data by battery. Then there is a list of succeeding signals made by varying slightly the positions of one or more panels and these signals may mean "right," "left," "plus," "minus," "correct range," "cease firing," etc.

The criticisms of the French article by Captain Richards are these. It gives the impression that the wireless and the buzzer are not effective even when properly handled. Also, by adopting the airplane as the means of communication, there is left no room for the development of the wireless. Finally, the proposal to use the airplane is open to two serious objections: it demands too high a standard for the infantry, and it assumes that the airplane can always see. One thing that is brought out unwittingly is the reliance that the infantryman has on the gun behind him.

"Journal of the Royal Artillery," February, 1924

ANTI-TANK DEFENSE (CAPTAIN R. HILTON)

In the beginning the writer emphasizes the fact that he is considering only the case of defending our infantry against the hostile tanks when our own tanks are not available. It is generally conceded that the best antidote for the tank is more tanks. But there are times when our own tanks are needed elsewhere or are not present in sufficient numbers, and yet the infantry has to be defended. Furthermore, the tank would not be safe if it had to hang around in the forward area waiting for a possible tank attack. It depends for its safety not upon its armor but upon its mobility. The infantry needs a defensive weapon against tanks which can follow closely and exist along with the infantry. Captain Hilton then speaks of

THE FIELD ARTILLERY JOURNAL

the British 3.7" howitzer which they have adopted not only for close support, but for anti-tank defense. This, he goes on to show, is not adequate for both purposes, for it is impossible to get one weapon that is ideal for close support and anti-tank work at the same time. The howitzer is all right for close support but not for antitank defense.

The author then states the characteristics of the ideal anti-tank gun. It should be a small gun with high muzzle velocity, designed for direct laying and having a wide traverse and a rapid rate of fire. Not only would this be the anti-tank weapon, but it would be effective against low-flying aircraft and the close support of the infantry requires defense against these also. This weapon should attack those airplanes in the strata between 3000 and 4000 feet in which, by war experience, it is known that airplanes are comparatively immune. The reasons are that it is too high for small arms and the angle is poor for the anti-aircraft artillery. But the anti-tank gun mentioned above would be very good with these modifications; possibility of elevation up to 45°, another type of ammunition, and a slightly more skilled detachment for fuze setting, etc. After all, the idea is the same as that of shooting at tanks; direct fire at rapidly moving targets.

Captain Hilton ends by recommending that the howitzer remain as the close support weapon, but that part of the close supporting artillery be replaced by this new gun for anti-tank defense and defense against low-flying aircraft. There would then be in the pack brigade weapons to properly support the infantry.

"THE DEGREE, THE MILLIEME, AND THE GRADE"

(MAJOR T. C. NEWTON)

This is a review of an article that appeared in the *Revue d'Artillerie*. Colonel Pagezy, the French author, complains of the fact that the French are about to abandon the mil.

Both of these officers agree that the mil is the best for small angles. Colonel Pagezy, like us in the American Army, thinks that only one unit, the mil, is sufficient. But Major Newton thinks that there should be both the mil and the degree. For my part, I am glad that we have only the mil in all measurements and I believe that the more we use the mil, the better we shall be able to think in terms of the mil in all angles, large and small.

FRANCE

"Revue d'Artillerie," January, 1924

"The Distribution of Light Artillery in the Division," by General Broussaud, is a discussion of the apportionment of the light field guns for the various missions which will come up in stabilized

FOREIGN MILITARY JOURNALS—A CURRENT RÉSUMÉ

and in open warfare. The regulations provide for a division of the light artillery into a section for direct support of the infantry, and another for use on general missions. From a detailed consideration of the various missions which will be encountered under all conditions of warfare, the author concludes that the most efficient use of artillery will obtain when the "direct support" artillery—which operates with the infantry, and away from the control of the artillery commander—is reduced to a minimum. The remainder is under the control of the artillery commander, allowing a maximum advantage to be taken of its power. With the artillery distributed to the infantry, the artillery action resolves itself into a number of relatively small local engagements, the failure of any one of which, however, might prove fatal to the general action. The artillery being out of hand, the higher commander is helpless to control the general action.

"Graphical Constructions or Calculations?", by Captain J. Govin, continues the study of errors inherent in the maps available for military use in France, and compares the relative accuracy of firing data computed from coördinates and that measured directly from map or plane table. The author concludes that when the coördinates of the gun position and the target are known accurately, the desired data should be found by computation. When the location of these points is obtained graphically, by means of intersections, resection, etc., it is better to measure the desired data directly. Calculations should be used if the sheets of the map are inaccurately assembled, or if the gun and target are in different triangulation areas.

In "Employment of Heavy Trench Mortars," Major Schneider further discusses the use of this weapon. He covers the methods used for destruction, counter-preparation, harassing, and gas fire.

"A Note on the Preparation of Fire," by Major V. Buchalet, is an examination of the regulation methods for making a complete preparation of fire. The author holds that fire without adjustment obtains as good results as observed fire, though requiring a greater expenditure of ammunition. Also that the great expenditure of ammunition in 1918 was due less to the method of preparation of fire than to the nature of the targets and the inefficiency of the high-explosive shell in zone firing. He advocates the control of fire preparation by the battalion, and even by groups of battalions, and emphasizes the use of high-burst ranging.

"Can Sound Ranging be Better Adapted to Warfare of Movement?" is a study, by Lieutenant G. Ferrier, of the difficulties

THE FIELD ARTILLERY JOURNAL

encountered by the sound-ranging section in open warfare, and possible solutions to the problem of obtaining results shortly after occupying a position. He suggests the replacement of the wire connections between microphones and central station by radio sets and eliminating tedious computations for each base by using a series of celluloid scales which would give the required data with reasonable accuracy for any base line which ordinarily would be encountered.

"A Graphical Solution, for Azimuth," by Major L. Camps, is a simplified method of determining the azimuth graphically, having given either the zenith distance or the hour angle.

"The Retirement of Officers in Germany," by Major C. Bernis, describes three plans which the officers may elect. The first gives an officer with over ten years' service thirty-five per cent. of his active pay, and two per cent. additional for each year of service over ten, with a maximum of seventy-five per cent. Under the second plan, if the officer intends to enter business, he may receive a lump sum equal to four years' retired pay, in which case his retired pay is reduced one-half for the first ten years after retirement. Under the third plan, he is given a civil position, the salary of which, plus retired pay, does not exceed the last active pay.

"Revue d'Artillerie," February, 1924

"Entrance Requirements for Military Schools," by Colonel P. Tournaire, examines the changes in the entrance requirements, and also in the courses of the basic and higher military schools, brought about by the increased technical knowledge necessary in all branches. The application of scientific discoveries and technical developments to warfare have greatly increased the scope of the scientific subjects which must be taught.

"Applying Probability to Indoor Firing," by Major F. Mercier. The author proposes to replace the "probability bag"—with its hundred counters marked to indicate the distance, in probable errors, over or short of the target that the burst should be indicated—by three dice. He demonstrates that the sixteen different numbers which can be indicated by this number of dice (3 to 18 inclusive) have approximately the same probability of appearing as a shot has of falling in the sixteen "half-probable error" zones comprising the one hundred per cent. zone. This eliminates the bag with its hundred counters, and insures a true dispersion, a condition which is not true of the bag unless the counters are well mixed.

FOREIGN MILITARY JOURNALS—A CURRENT RÉSUMÉ

In "Employment of Large Calibre Trench Mortars," Major Schneider concludes his study on the use of this type of weapon by predicting the extensive use of improved models for trench weapons in stabilized situations, and for accompanying weapons in warfare of movement.

"The Artillery of Louis XIV" is a continuation of Major Pichat's account of the development of the French artillery matériel and methods during the 17th century. He describes the development of manufacture, and the production difficulties which were encountered, for small arms as well as larger calibres. In 1679, a Spaniard, Antonio Gonzales, presented Louis XIV with several cannon of a new type, which had a chamber hollowed out for the powder, and a copper tube which was thrust through the vent into the centre of the charge, to give better ignition. This led to the manufacture, shortly after, of cannon of "the Spanish captain type," with a marked saving in weight. Later, in order to still further reduce the weight, the muzzle swell was greatly reduced.

The small arms of the period were the musket, a matchlock which succeeded the arquebus; the "fusil" or flintlock; and the musketoon, a short flintlock for the use of the cavalry. These were unsatisfactory and unreliable, and constant efforts were made to improve the materials used in order to obtain greater life for the barrels.

"The Use of the Aiming Circle in Precision Topographic Work," by Captain E. Brock, takes into consideration the errors which may be expected when measuring angles with this instrument, and gives methods for compensating for them. To obtain an accurate measurement of an angle, the author advocates measuring it a number of times, with the origin of measurement at different parts of the scale. This eliminates the larger errors encountered, and gives results which are satisfactory for accurate orientation for field guns.

"A Simplified Tangent Reticule Method for Use with the Field Gun," by Major J. Heriard-Dubreuil, eliminates the somewhat bulky equipment for making the necessary computations, etc., replacing them by a simple graphical diagram, which gives the necessary settings for the observing instruments. This diagram may be laid out on the battery firing board or plane table, and will be sufficiently accurate for use with field guns.

"How to Support the Infantry," by Major H. Menjaud, is a description of a method designed to dispense with phone or radio communication between the artillery and the infantry, in fast-moving

THE FIELD ARTILLERY JOURNAL

situations. Two observing stations are established as near the guns as possible which have a view of the sector covered, and also of the guns, if possible. When the advancing infantry, strike heavy resistance, they fire a rocket of a prearranged color, which indicates the approximate distance that the target is in front of them. The observing stations lay roughly on this rocket, and get an accurate intersection on a second one which follows it one minute later. By means of a prepared plotting board, the range and deflection to the rocket are determined immediately. The direction of the target from the rocket is estimated, and zone fire is put down in the general vicinity indicated. This gives prompt assistance, which should be reasonably effective.

"A Note on the Determination of Deflection," by Lieutenant M. Tarbouriech, gives a method of calculating the deflection of the gun when the target and the gun are visible from two observing stations. The distance between the observing stations need not be known, and the formulæ derived are so expressed that all calculations may be made by logarithms. The method is intended for use when an accurate determination is desired, and no accurate topographical data are available.

"Revue Militaire Générale," January, 1924

Captain Charles Delvert in an impassioned, patriotic article, enumerates the immense amount of construction to be accomplished to place France on a sound economic basis and points out that this calls for intensive, furious work and an immediate increase in the birth-rate.

Under the title "Was It an Error to Withdraw the Belgian Army to Antwerp in August, 1914?", Lieutenant Colonel P. Nuyten, of the Belgian General Staff, replies to critics of this action in an interesting and detailed article.

The author relates how the invaders were delayed by Liège and Namur and that King Albert gave the order to fall back to Antwerp despite the advice of the French General Headquarters.

The Belgian Army, lacking in organization, instruction and discipline, was in no condition to carry out a long retreat to Mons or Lille to join the allied left. There were no intermediate positions; and the risk of capture was serious. It was otherwise towards Antwerp. Furthermore, the Germans were making their principal thrust on their right. The Belgian Army was, in effect, a general advance guard, and, to retreat to the southwest, would have given

FOREIGN MILITARY JOURNALS—A CURRENT RÉSUMÉ

the enemy's main drive full freedom of action and no worry as to his flank.

Napoleon teaches that, in the case of a force situated as were the Belgians, it is the duty of the supreme commander to reënforce these troops which the French General Headquarters did not do.

As long as the line of retreat of the Belgian Army was not menaced, was it not in reality the left wing of the allied forces, strongly supported at Antwerp? Was it not this situation that saved the channel ports? This city was necessary to the Army. The defenders were a constant menace to the hostile communications and formed a screen behind which a storm mortal for the invaders might gather. If the Belgians at Antwerp were not a threat to the Germans, why were they ever attacked? As long as the invaders did not have a powerful artillery to reduce the armored forts, the Belgians held at Antwerp an impregnable position. The line of retreat to the sea was held, and all the troops not needed for this were placed on the right bank of the Escaut (Schelde).

In this issue appears the last installment of General Camon's article entitled "Ludendorff's Strategy on the Russian Front." Falkenhayn forced him to again give up his Napoleonic operation against the Russian rear and to undertake a double envelopment beginning about the middle of July, 1915, and ending the first part of September. A large amount of territory was won but no decisive result obtained. Finally, Falkenhayn agreed to let Ludendorff carry out his operation against the Russian rear in the general direction of Vilna, Molodetchno and Minsk. The stage had already been set. But it was too late and his forces were insufficient—only a slight advance was made by the main thrust, up to the Vilna, giving a tactical and not a strategical success.

This installment of Commandant Pujo's "The German Infantry's Methods of Attack" takes up the second phase—the advance from about 400 metres distance to the occupation of the position and the reorganization of the attacking force. The third phase then ensues in which the hostile strong points are taken one by one usually from a flank. In the conduct of the combat, the chiefs of small units are given absolute freedom of initiative.

Lieutenant-Colonel Lucas makes a convincing plea in his "War on Positions and Open Warfare" for the drawing of a clear distinction between the two and the preparation of regulations such that the army may be properly trained for its duties in each of the two varieties of warfare.

THE FIELD ARTILLERY JOURNAL

"Revue Militaire Générale," February, 1924

M. Albert Pingaud's "Germans Described by Themselves" is a careful psychological study of the German in which the author comes to the conclusion that the people to the east have learned nothing from the World War. For instance, the German realizes that he is disliked by foreigners generally, but ascribes it to jealousy of his country's past or today's potential power. His colossal egotism does not permit him to even guess that it might be his personal or national characteristics. Today he proclaims himself sinless and infallible, without reproach and without error; and France must be warned.

The concluding portion of "Was It an Error to Withdraw the Belgian Army to Antwerp in August, 1914?" appears in this number. Lieutenant Colonel Nuyten points out that the two sorties made by the Belgian Army at Antwerp conformed to the principles of war and took away troops sorely needed by von Kluck.

The German attack commenced September 27th and his heavy guns opened fire the next day. The evacuation commenced September 29th, and October 9th the Belgian Army was on a general line running north from Ghent. Threatened in rear by the German troops pushing north into Belgium from France, the Army fell back to the region of the Yser, where it joined with the Allies.

The author also proves that the withdrawal of the Belgian Army to Antwerp was conformable to the national interest.

Colonel Bujac contributes an article on the "Russo-Roumanian Campaign of 1917" with special reference to the operations at Marasti in July and Marashesti in July and August.

"The Grand Manœuvres" is the title of an article by Lieutenant Colonel Jeze in which, after presenting certain facts concerning the manœuvres of before the war and the present day, when long concentration marches are not made and the manœuvre as a spectacle and the grand review are eliminated, the author describes in detail a rational plan for this sort of instruction and training.

The manœuvre with complete units on each side in which each commander operates independently is condemned because it leads to unreal situations, and, if otherwise, perhaps situations undesired for these exercises. He recommends the manœuvre against represented troops or a "mask" which operate under a director, thus bringing about the situations wanted. In order to reduce the time lost during such training, it may be necessary at times to overlook realities, but the director should know when this can be done without detriment.

FOREIGN MILITARY JOURNALS—A CURRENT RÉSUMÉ

Each day's manœuvre should be divided into a certain number of phases—three, perhaps—separated by rest periods during which all chiefs up to the battalion—sometimes, the regimental—commander hold critiques on the preceding phase. The critiques of the larger units should be held at the end of the day.

To impress mistakes on the minds of the participants, to make the manœuvre real, and to practice replacing leaders and other personnel, casualties should be awarded in percentages by umpires specifying grades lost. These casualties should remain under cover and in place until after their unit reserves have passed which should be followed at a distance. Units should be joined or not at the end of the phase according as the manœuvre is completed or continued.

Umpires are needed to make decisions such as whether or not a unit can advance or is broken itself, the effects of fire received, casualties, and to give certain information as to the fire being received. An umpire must be versed in the tactics of the unit to which assigned and should be at least a major.

For a corps manœuvre against a "mask," there should be a chief umpire (General) with a small headquarters; in each division, a chief umpire (Colonel) assisted by 8 umpires (Lieutenant-Colonels) and 28 assistant umpires (subalterns).

The chief umpire is under the orders of the director of the manœuvre and issues orders in his name. The lieutenant-colonels are distributed over the front of the "mask" and operate under the orders of the colonel (chief umpire of the division opposite). The assistant umpires see that decisions are carried out and are simply to maintain contact between the lieutenant-colonels and the manœuvring troops, so that the latter can be informed of the decisions of the former. The assistants cover a front of 100 to 150 metres which gives to each lieutenant colonel a front of from 400 to 600 metres.

The umpire in chief has under him a chief agent (General) and other agents (field officers) who are assigned to division, brigade, regimental and battalion headquarters and whose mission it is to inform the umpires of the orders given by commanders of units and to give them other information upon the dispositions and action of the attack—especially as to artillery—and upon conditions of execution and resulting situations. These agents are not umpires.

For the transmission of orders, instructions and information between umpires and agents, telephone nets are necessary. Wireless may also be used. The assistant umpires have no lines of communication to the umpires.

The number of umpires and agents can be reduced if there is not sufficient personnel available.

Song of Field Artillery Guns

I

THE Infantry have little guns
They carry in their hands,
And pop away the livelong day
With fire of retail brands.
Though some prefer machine guns,
Who wants to shoot with those?
And shake out shot like a pepper pot
Or a length of garden hose.

II

Trench mortars are a clumsy gun.
They need a moving van.
The things are layed by a pick and
spade
And fired by a man who ran.
The slowest guns are railroad guns,
That shoot once in a while.
They take a crack from a spur of track
And recoil back a mile.

Chorus

Give me
Gun and caisson
Galloping on,
Teams with their traces tight.
Through the maze of a dust cloud's haze—
Unlimber! and Action right!
Range dial spun,
Flash of a gun,
Scream of a shell set free
From the steeled guns, the wheeled guns
Of the Field Artillery.

—By FAIRFAX DOWNEY.

CURRENT FIELD ARTILLERY NOTES

National Guard Camps

PLANS to include dates and locations of camp for most of the field artillery national guard units are complete. The units of the Second Corps Area have been interested in securing a desirable camp and range at Montauk Point, heretofore leased from year to year. The matter was thought to be settled by the procurement of a five-year lease on this range. However, at the last moment, all plans were destroyed by inability to secure the promised lease. The plans for the 61st Field Artillery Brigade (Texas National Guard) have not been received before going to press.

In the First Corps Area the two regiments of the 51st Brigade (26th Division) will attend camp at Camp Devens July 5th to 19th and July 19th to August 2nd, respectively. Brigade Headquarters will be in camp a week with each regiment, July 12th to 26th. The First Battalion of the 126th Field Artillery will camp at Augusta, Maine, from August 11th to 25th. The batteries of the Battalion of the 103rd Field Artillery will camp at Charlestown, Rhode Island,

CURRENT FIELD ARTILLERY NOTES

June 13th to 27th, July 5th to 19th, and July 24th to August 7th, the batteries camping separately.

In the Second Corps Area the 105th Field Artillery was to be at Montauk Point July 13th to 27th; the 104th Field Artillery and 102nd Ammunition Train from July 27th to August 10th. The Headquarters of the 52nd Field Artillery Brigade planned to overlap the periods of these regiments from July 20th to August 3rd. The 112th Field Artillery was to be at Montauk from August 10th to 24th. The 113th Field Artillery, recently converted from the old 132nd Ammunition Train, was also to be at Montauk. These plans must all be changed according to late reports, as the JOURNAL goes to press. The 106th Field Artillery (155 howitzer) will go to Tobyhanna, Pennsylvania, from August 10th to 24th. This camp has an advantage for this regiment, in that there is appropriate matériel at camp. The 258th Field Artillery (155 guns) will go to Fort Eustis, Virginia, where the best facilities for heavy artillery in the way of a range, etc., are provided.

The principal field artillery camp for the Third Corps Area will be at Tobyhanna. The two Pennsylvania light regiments, 109th Field Artillery and 107th Field Artillery, will be there July 12th to 26th and July 26th to August 9th, respectively. The 108th Field Artillery will attend from July 12th to 26th, and the 176th Field Artillery from July 26th to August 9th. These latter are the two Pennsylvania heavy regiments (155 howitzer). The 110th Field Artillery (Maryland 75s) will go to Tobyhanna August 11th to August 25th. The 111th (Virginia 75s) will go to Fort Bragg August 17th to 31st, with a preliminary period from May 5th to 8th at Lexington, Virginia (V. M. I.), for 43 officers and 50 enlisted men.

The Fourth Corps National Guard Artillery will all be at Fort Bragg in two periods. From August 2nd to 16th the 116th Field Artillery (Florida 75s), 117th Field Artillery (North Carolina 155 howitzers) and the 141st Field Artillery (Alabama and Louisiana 75s) will be in camp. The 115th Field Artillery (South Carolina and Tennessee 75s) and 118th Field Artillery (Georgia 75s) will report from August 17th to 31st.

The Fifth Corps Area, like the Fourth, is fortunate in possessing an adequate range for its artillery. All the National Guard units will camp this summer at Knox. The 62nd Field Artillery Brigade (Ohio) complete, will be in camp from August 3rd to 17th. The 63rd Field Artillery Brigade, consisting of the 138th Field Artillery from Kentucky, and the 139th Field Artillery from Indiana, will be in camp from August 17th to 31st. The 150th Field Artillery, 155 howitzers from Indiana, will be in camp from August 10th to 24th.

The National Guard of the Sixth Corps Area will be in three

THE FIELD ARTILLERY JOURNAL

camps, one for each state. The 122nd Field Artillery (75s), 124th Field Artillery (75s) and the First Battalion, 123rd Field Artillery (155 howitzers), all of Illinois, will encamp at Camp Custer, Michigan; the 124th from July 12th to 26th and the other two from July 26th to August 9th. The 119th Field Artillery (75s) and 182nd Field Artillery (155 howitzers), of Michigan, will be in camp at Grayling from August 7th to 21st and August 12th to 26th, respectively. In Wisconsin the 120th Field Artillery (75s) and the First Battalion of the 121st (155 howitzers) will be at Camp Douglas from July 27th to August 10th.

The field artillery National Guard units of the Seventh Corps Area will be ordered to camp as follows: 128th Field Artillery (Missouri 75s) to Fort Riley probably from July 1st to 14th; the 60th Field Artillery Brigade (all Kansas) to Fort Riley from August 7th to 21st; the 185th Field Artillery (Iowa 155 howitzers) to Camp Knox from July 20th to August 3rd. It is expected the 151st Field Artillery (Minnesota 75s) and Battery "A," 125th Field Artillery (Minnesota 75s), will be ordered to Camp Douglas as the Sparta reservation will still be unavailable due to explosives stored there. The 147th Field Artillery (South Dakota 75s) will go to Rapid City from June 12th to 26th.

The date and location of the camp for the 61st Field Artillery Brigade (Texas) is not reported from the Eighth Corps Area. The 70th Field Artillery Brigade (Oklahoma) will be in camp at Fort Sill from August 4th to 18th. Batteries "D" and "E" of the 158th Field Artillery (75s) in Arizona will go to Fort Bliss, July 7th to 21st; the units of this regiment located in Colorado will go to Fort D. A. Russell, June 3rd to 17th. The 189th Field Artillery (Oklahoma 155 howitzers) will be ordered to Fort Sill from August 4th to 18th. The proposed disposition of the New Mexico battery of the 158th Field Artillery is not reported.

Two field artillery camps for National Guard units will be held in the Ninth Corps Area—Camp Lewis and Camp Murray. The 143rd Field Artillery (California and Oregon 75s), the 145th Field Artillery (Utah 75s), Batteries "C" and "D," 148th Field Artillery (Idaho 75s), and Battery "A," 196th Field Artillery (Washington 155 guns), will be at Camp Lewis from June 14th to 28th. The 146th Field Artillery (Washington 75s) will be ordered to Camp Murray, the state camp near Camp Lewis, on the same dates.

Reserve Summer Training

The final plans for the training of the Organized Reserves, which in almost all cases is involving the selection of units, is proceeding slowly and at this time the information is mostly tentative. The use of reserve field artillery units, as such, to train C.M.T.C. candidates,

CURRENT FIELD ARTILLERY NOTES

as explained in our last JOURNAL, is at present contemplated in at least two corps areas. In the Second Corps Area one battalion of the 391st Field Artillery is to take over the instruction of the field artillery C.M.T.C. candidates for one week at Madison Barracks, August 24th to 31st. Also in the Fourth Corps Area, one reserve field artillery regiment from the non-divisional group will perform this duty from July 17th to 23rd at Fort Bragg. In each case these regiments will spend their first week at camp in preparation before taking over the C.M.T.C. candidates.

In the First Corps Area the Field Artillery Reserve will be trained at Camp Devens from August 4th to 18th. Present indications are that no complete units will be ordered to camp there, but that the field artillery officers of the divisional, corps, army and general headquarters units will be trained as a group.

The field artillery reserves of the Second Corps Area will be trained at Madison Barracks. Whether or not it will be practicable to utilize complete units is not yet decided. The camp will be August 16th to 30th.

Present plans in the Third Corps Area contemplate sending one reserve field artillery regiment from each of the three reserve divisions in the Area to Camp Meade during the periods of July 1st to 15th, July 16th to 30th and August 1st to 15th. Each of these regiments will be attached to the regular field artillery regiment there while in camp. Reserve officers of divisional units, whose regiments are not ordered to camp, will be attached for training to reserve regiments which are in camp. Two regiments of the non-divisional group in this corps area will be ordered to Fort Eustis in a similar manner.

In the Fourth Corps Area, beyond the one field artillery regiment taking over C.M.T.C. instruction as mentioned above, there will be no reserve field artillery regiments ordered to camp. Instead the reserve field artillery officers of the 81st, 82nd and 87th Divisions and the non-divisional groups will be trained at Fort Bragg by the 17th Field Artillery assisted by the other regular regiments at the post.

The Reserves of the Fifth Corps Area are being ordered to camp at Knox by divisions. The 64th Cavalry Division and the 84th Division are to be in camp from July 6th to 20th. The 83rd and 100th Divisions will be in camp from July 20th to August 3rd.

In the Sixth Corps Area one battalion of reserve field artillery will be attached to a similar regular unit at Camp Custer from July 12th to 26th. This training will include training with the regular unit supplemented by daily additional instruction, including tactical exercises appropriate to the needs of the reserve officers. One reserve field artillery regiment from the infantry divisions in this corps area

THE FIELD ARTILLERY JOURNAL

and one reserve battalion from the cavalry division will be ordered to Custer as units between July 12th and July 26th.

The divisions in the Seventh Corps Area will be trained at separate camps. The units of the 88th Division will be ordered to Fort Snelling July 23rd to August 6th. The 89th Division will be ordered to Fort Des Moines July 13th to 27th. The 102nd Division will be ordered to Fort Leavenworth July 13th to 27th.

In the Eighth Corps Area the 165th Field Artillery (90th Division) will be ordered to Fort Sam Houston from August 1st to 15th. The 170th Field Artillery Brigade (95th Division) and 409th Field Artillery (non-divisional group) will be ordered to Fort Sill from August 19th to September 2nd. The 178th Field Artillery Brigade (103rd Division) will be ordered to Fort Bliss from August 3rd to 17th.

The field artillery units of the Ninth Corps Area will be ordered to three separate camps. The 361st and 362nd Field Artillery Regiments (96th Division) will be at Camp Lewis from July 6th to 20th. The 346th and 347th Field Artillery (91st Division) and 414th and 439th Field Artillery (non-divisional group) will be held at Del Monte, Monterey, California, from July 11th to 25th. The First Battalion, 385th Field Artillery, and the First Battalion, 386th Field Artillery (both 104th Division), will be at Fort Douglas, Utah, from July 14th to 28th.

Summer Employment for the Regular Units

The Seventh Field Artillery (less Second Battalion) will spend the summer at Camp Devens. As all the field artillery of the First Corps Area except the National Guard will be here, the regiment will serve all units to some extent.

The Second Battalion of the Seventh will remain at Madison Barracks. All R.O.T.C., C.M.T.C., and the Reserve Corps Field Artillery of the Second Corps Area will be sent here to work in conjunction with this battalion.

The Sixth Field Artillery and the First Ammunition Train will be at Camp Meade this summer. They will serve all the field artillery activities of the Third Corps Area except the National Guard and the reserve officers of heavy regiments. The First Battalion of the Sixteenth Field Artillery will probably remain at Fort Myer except for a march to Camp Meade for their own target practice.

The First Battalion of the Second, the Fifth and the Seventeenth, will remain at Fort Bragg. The battalion of the Second will act as active associate of the C.M.T.C. and will train all 75-mm. regiments of the National Guard. The Seventeenth is charged with conducting the O.R.C. training and administration and will train national

CURRENT FIELD ARTILLERY NOTES

guard howitzer regiments. The Battalion of the Eighty-third will remain at Fort Benning for its own training this summer.

The First Battalion of the Third will go to Camp Knox for the summer. They will serve all field artillery activities of the Fifth Corps Area, which are all found in this camp.

The Battalion of the Fourteenth will spend the summer at Camp Custer. The Reserves, the C.M.T.C., and the Illinois National Guard of the Sixth Corps Area will be in camp with this unit.

The First Battalion, Ninth Field Artillery, will serve three camps. Battery "A" will take part in the Reserve and C.M.T. Camps at Fort Leavenworth. Battalion Headquarters and Battery "B" will remain at Fort Des Moines to assist the Reserve and C.M.T. Camps at that place. Battery "C" will take part in the Reserve and C.M.T. Camps at Fort Snelling.

In the Eighth Corps Area, Battery "F" of the Twelfth will march to Fort Sill for duty with the camps there. The battalion of the Eighty-second will remain at Fort Bliss as demonstration troops for the camps there. The entire Second Brigade at Fort Sam Houston (less the battery of the Twelfth) will participate in the training of reserve officers, R.O.T.C. and C.M.T.C. candidates at or near their home station. The First and Eighteenth at Fort Sill being school troops, are excused from summer work with other components of our arm. These units spend nine months of the year in very exacting service to the Field Artillery School and the summer is their only period for service to themselves.

The Second Battalion of the Seventy-sixth will assist at the camp at Del Monte. One battery of the Seventy-sixth from Fort D. A. Russell will go to Fort Douglas. The remainder of the regiment will remain at Fort D. A. Russell. The Tenth will remain at Camp Lewis.

R.O.T.C. Summer Camps

Present tentative plans will send the field artillery, R.O.T.C. students to camp this summer as follows:

Unit	Summer Camp	Dates
Harvard	Camp Devens	June 16th-July 25th
Yale	Camp Devens	June 16th-July 25th
Cornell	Madison Barracks	June 16th-July 28th
Princeton	Madison Barracks	June 16th-July 28th
V. M. I.	Camp Meade	June 19th-July 30th
Alabama	Fort Bragg	June 16th-July 26th
Ohio State	Camp Knox	June 12th-July 23rd
Purdue	Camp Knox	June 12th-July 23rd
Culver	Camp Knox	June 12th-July 23rd

THE FIELD ARTILLERY JOURNAL

Unit	Summer Camp	Dates
Illinois	Camp Knox	June 12th-July 23rd
Chicago	Camp Knox	June 12th-July 23rd
Wisconsin	Camp Knox	June 12th-July 23rd
Iowa A. and M.	Camp Knox	June 12th-July 23rd
Missouri	Camp Knox	June 12th-July 23rd
Oklahoma	Fort Sill	June 14th-July 25th
Colorado Agric.	Fort Sill	June 14th-July 25th
Texas A. and M.	Fort Sam Houston	June 14th-July 25th
Utah	Camp Lewis	June 13th-July 24th
Oregon Agric.	Camp Lewis	June 13th-July 24th
Leland Stanford Jr.	Camp Lewis	June 13th-July 24th

The grouping of as many units as possible at one camp is very desirable for the Field Artillery; there is the benefit resulting from contact of students from different colleges, but the greatest gain results from better organization of the available instructor personnel and the facilities for instruction. It will be noted only three units will attend camp alone this year; three camps are for two units each; one camp is for three units and Camp Knox will accommodate eight.

The basic field artillery students will attend the same camp with the advanced students in all cases except in the Sixth Corps Area. It is understood the basic students from this Corps Area, which includes the Universities of Illinois, Chicago and Wisconsin, will attend an Infantry R.O.T.C. camp at Camp Custer. This latter policy is to be regretted. It involves the best and most interested students in the basic courses of the respective units concerned. These men will find themselves separated from an organized field artillery course, specially selected instructors and a field artillery atmosphere. But a worse condition will usually result from the subjects pursued. The following subjects are not found in the infantry courses:

- Equitation and horsemanship
- Driving and draft
- The battery mounted
- Service practice
- Field work
- Entraining and detraining.

Any field artilleryman will consider these vital.

In place of the above subjects will be found:

- Rifle marksmanship
- Bayonet combat
- Automatic rifle
- Musketry.

The uselessness of these latter to a field artilleryman is obvious.

Their mastery will take a large part of the summer.

CURRENT FIELD ARTILLERY NOTES

C.M.T.C. for the Coming Summer

The following are the locations of C.M.T. Camps where field artillery candidates are trained:

First Corps Area	Camp Devens	August 1st-31st
Second Corps Area	Madison Barracks	August 1st-31st
Third Corps Area	Camp Meade	July 1st-30th
Fourth Corps Area	Fort Bragg	July 3rd-August 1st
Fifth Corps Area	Camp Knox	July 2nd-31st
Sixth Corps Area	Camp Custer	August 1st-30th
Seventh Corps Area	Fort Snelling	August 1st-30th
	Des Moines	August 1st-30th
	Fort Leavenworth	August 1st-30th
Eighth Corps Area	Fort Sill	August 1st-30th
	Fort Sam Houston	August 1st-30th
Ninth Corps Area	Camp Lewis	June 19th-July 18th
	Monterey	June 26th-July 25th
	Fort Douglas	June 12th-July 11th

Work of the Field Artillery Board

In the November-December, 1923, issue of the JOURNAL appeared the last report of the work of the Field Artillery Board. Since then a number of new tests have been assigned it. Others have been virtually completed, but are holding over for some particular reason.

The tests which have been completed and reports forwarded are:

105-mm. German Howitzer

Divisional Guns

High-burst Ranging

Radio Communication for Field Artillery

Hand Wheels for Gun Carriages

Oil Lanterns for illumination of Aiming Posts

Ordnance Equipment Tables for Porté Artillery checked.

105-mm. German Howitzer

The breech recess on this howitzer had been changed to take American ammunition. Its performance was good and the Board recommended that one battery be equipped with them at Fort Benning, at Fort Bragg and at Fort Sill. It was also recommended that all of these howitzers be recalled from the salvage parks, and put into good condition as funds became available.

Divisional Guns

The 75-mm. gun, Model 1920, with split trail, was reported on unfavorably. The 75-mm. gun, Model 1921, with a box trail, proved satisfactory with minor exceptions. Certain changes as to shields, etc., are being made in the Ordnance Shops at Fort Bragg.

THE FIELD ARTILLERY JOURNAL

High-burst Ranging

A comprehensive report was made on this subject. Special articles have appeared on this subject in bulletins and the JOURNAL.

Radio Communication for Field Artillery

After a series of conferences with a representative of the Chief Signal Officer, a system was planned and the type of sets designated for the different units of Field Artillery. Due to the fact that radio telephones are not sufficiently developed, they were not considered in the plan.

The following tests are now before the Board:

Reel Carts.—This test continues.

Sound and Flash Ranging.—No work is being done in this department. Personnel is being trained.

Training Regulations.—T. R. 430-100, Field Artillery Instruction and Training, is before the Board. The work goes slowly due to the number of other regulations with which these must be correlated.

Saddle-bag Modification for Dismounted Canteen.—This test continues. It appears that there is no objection to this method of carrying the canteen and it allows the use of one type of canteen cover.

Observation Periscope (German).—Awaiting repairs.

Waterproof Clothing and Tents, Waterproof Blankets.—Twenty sets of clothing were received for test. Each set consisted of a pair of breeches, blouse, shirt, overcoat, blanket and shelter half. This clothing had been treated to make it waterproof. On a ten-day trip over the reservation with service conditions, the clothing was waterproof against intermittent or ordinary rain.

Lace Boots for Enlisted Men.—These have been in service over five months and give good results. Data is being kept on the cost of repair. The men like the type issued.

Gas Mask with Telephone Transmitter.—This is really a comparative test between a mask which has the transmitter mounted inside and the navy mask which required no special transmitter. The final report is being prepared. In its present form, the navy mask requires a distinct effort for inhalation due to the shape of the air passages. It carries a sort of sounding board which propagates the sound instead of muffling it as in the army mask. The transmitter inserted in the army mask performed very well, but received the condensation and saliva, and there were a number of contacts to be kept in adjustment.

Comparison of Re-rifled and Unre-rifled 240-mm. Howitzers.—This test continues. Nothing more can be done until enough rounds have been fired to give sufficient wear to the guns.

CURRENT FIELD ARTILLERY NOTES

Deviation Boards (Unkles).—They have been issued for use by the regiments here at Fort Bragg and are not well received because they are bulky, a special piece of apparatus, and require special sheets of paper for plotting. The Field Artillery Board has branched out in this test to try to develop a circular universal plotting board which will do the work of the Unkles board and can be used for general work, and needs no special forms in service.

Test of New Type of Reserve Ration.—This test is virtually finished. A number of rations will be kept until warm weather to see if they will withstand the heat. They are very satisfactory and the troops speak well of them.

Artillery Firing by Means of Aerial Photographs.—Three cases were considered. The first one was a single photograph which included a point visible from a terrestrial observation post to be used as an adjusting point, and also the target, a point not visible from friendly territory. Fire was adjusted and then shifted to test whether the shots would fall close enough to the target to be readily seen by an aerial observer. The second case was a strip of pictures taken by a plane flying a straight line over the battery and the two targets. The third case was the situation where time was available to make a mosaic of the whole area. Three problems have been fired. It now appears that the photographs are practically as accurate as a map.

Range Correction Computer, Deflection Correction Computer and Wind Component Indicator for 75-mm. Gun and 8" Howitzer.—These instruments for computing corrections will do the work with a fair degree of accuracy. Some minor defects were noted. They are still in use.

Battery and Store Wagons.—The same remarks apply to these as to the reels and carts. The compartments have been changed so that tools may be carried even if they are not regulation shape and size. A recruiting party from the 2nd Field Artillery is going to try this plan out on a 500-mile trip soon to be made.

Test of Wire Pikes.—The Signal Corps wire pike has been made in two sections (for ease of carrying) and is now in use for service test.

Variations in Effect of Shell Burst Produced by Change in Angle of Impact.—This test is an outgrowth and amplification of experimental firing made in 1923. The experiments in the effect against personnel or detonation above ground have been completed and work is begun on effect of shell bursts in the ground.

Pavesi Tractors.—Two of these novel Italian tractors have been received, but tests have not been started.

Test of Dodge on Chase Tracks.—Formal tests have not been run. This machine has four wheels in the rear, two driving. The

THE FIELD ARTILLERY JOURNAL

Chase track consists of two strips of rubber belting carrying metal stirrups, which fit over the wheels; it acts as a tire chain and gives greater bearing surface.

Machine-gun Brackets for 75-mm. Gun Caisson.—Just received.

Test of Best Tractor.—One Best 30 tractor has just been received. It is a commercial tractor to be tested for divisional work.

Portable Battery Charging Set.—Not yet received.

Test of Puljack.—This machine is substantially a winch to be used by one man. It weighs 80 pounds, and is of sturdy construction. Tests are not yet started.

Replacement of Doubletree Chains with Cable on 75-mm. Gun and Caisson Limber, Model 1918.—These cables have just arrived and will be tested on the 500-mile trip referred to above.

Rolling Kitchen, Taylor 31.—Not yet received.

Metallic Triangular Plotting Scale.—Scale received, but tests are not yet begun.

Lantern for Illuminating Aiming Stakes.—Re-opening test on which final report has been submitted.

Cavalry Division Artillery

The Cavalry Manœuvres of the First Cavalry Division last fall developed a quite universal demand for more artillery fire power with a cavalry division. One proposed solution is a four-battery battalion instead of the present three-battery force. Another is to give a complete regiment of horse artillery to a cavalry division. Proponents of the latter recommendation argue that this fire power is needed and further point out that more artillery staff than a battalion contains is needed, and the regimental organization will supply this at the same time the fire power is furnished.

It is argued that with a regiment of horse artillery, the commanding officer can be the necessary artillery adviser on the division commander's staff. At the same time the majors will be released for immediate combat duty with their battalions, where they are needed. Some such flexible organization, supplied either by two battalions or four batteries, seems necessary to be able to assist each brigade of the division, which may often be acting in a widely separated formation or separate zones. It is further pointed out that the regimental staff would relieve the combat personnel of the battalions from administrative and supply duties now loaded on them in active operations.

Polo

International Military Championship, Junior Cup, and Twelve Goal Championship

In formulating the plans for the higher polo activities in army

CURRENT FIELD ARTILLERY NOTES

polo, the Polo Committee have decided that the primary mission in the coming year will be preparation for the International Military Championship with England in 1925; the secondary mission will be defense of the Junior Cup now held by the Army; no effort will be made to win the twelve-goal Championship. The decision to abandon this latter event was forced by the mount condition throughout the country. In the matter of mounts, this will be a most difficult year, according to opinion of the Committee. Few horses have been purchased since the war and most of those on hand suitable for polo are about worn out.

In pursuance of the present plans, Major L. A. Beard has been selected to captain the army team to defend the Junior Cup this summer. It is the intention that this team shall be composed of new and promising men so far as possible; from these men and such former players as are available will be selected the team to meet the British next year. Major Beard will be captain of that team also. He is at present on an inspection trip to Fort Sam Houston, Fort Bliss, Fort Riley, Fort Leavenworth and Washington, D. C., for the purpose of selecting suitable mounts and candidate officers for the team to defend the Junior Cup. Not exceeding five players, besides Major Beard, one trainer and thirty-two mounts will be selected. From the mounts used by the Junior Championship team this summer, will be selected those for the trip to England.

Winter Polo at Fort Sam Houston, Texas. (Reported by Lieutenant John A. Smith, Jr., 15th Field Artillery, Second Division Polo Representative.)

The San Antonio mid-winter Polo Tournament, staged under the direction of the Commanding General, 8th Corps Area, and handled by a committee of Army Officers at Fort Sam Houston, is now history.

This polo meet was undoubtedly the biggest undertaking of its kind ever staged, at least as far as the Army is concerned. There were twenty-one college, civilian and army teams competing for the various cups.

To say that we were very successful is very mild. All of our guests, the local sport writers and local polo enthusiasts have been most complimentary in their remarks on the tournament. A total of about forty games were played on three fields within one month, despite a postponement of one week during the meet on account of wet fields.

INTERCOLLEGIATE EVENT

Our first event, staged during the Christmas and New Year holidays, was the Intercollegiate Event. Teams from Texas A. and M., Colorado Agricultural College, New Mexico Military Institute,

THE FIELD ARTILLERY JOURNAL

University of Arizona and University of Oklahoma entered this classic. Each team played four games, meeting each college team once. The games were played without handicap, as we had no basis upon which to handicap these young men.

The University of Arizona went through the tournament with a clean slate, defeating all of its rivals, and won the handsome trophies for the Inter-Collegiate event.

Too much cannot be said for the clean sportsmanship and splendid riding of the young collegians that represented their institutions. All of the colleges here had mounted units of the R.O.T.C., and the Army as well as the individual officers in charge of these particular units can well be proud of the showing made here.

In some of the colleges polo has only been played for one year and is just now becoming popular among the students. With the exception of Arizona, the mounts used in the games were furnished by the Army teams at Fort Sam Houston and Kelly Field. The various teams here took pride in mounting these young players and so far as known, none of the animals used by them suffered any injuries during their tournament.

By way of looking into the future, it is my belief that Corps Area R.O.T.C. tournaments of this nature should be encouraged, and steps taken to stage an annual tournament wherein the winners of each Corps Area event could play the other best R.O.T.C. teams of the United States at some central point. Certainly any city would be glad to assist in financing such an event. At least polo could be played at the R.O.T.C. camps each year, either during, or at the conclusion of the period of instruction, provided mounts could be secured.

LOW-GOAL EVENT

Following the College Tournament, the low and high-goal events were staged. The teams entered in the low-goal event were those having an army handicap of ten or under. These teams were 5th Cavalry, Kelly Field, University of Arizona, 15th Field Artillery, 12th Field Artillery, 4th Field Artillery, 23rd Infantry, 12th Cavalry, 4th Cavalry, Headquarters 8th Corps Area, and Oklahoma City.

This event furnished some of the hardest contested games of the tournament and was featured by the speedy horsemanship of the winners, the 5th Cavalry. The University of Arizona team entered this event and though outmounted by the more experienced 5th Cavalrymen, put up a splendid brand of polo. The 12th and 15th Field Artillery teams of the Second Division always rivals in athletics at this post, furnished one of the exciting contests of the tournament. The 15th, though with a new lineup since their last summer's victories,



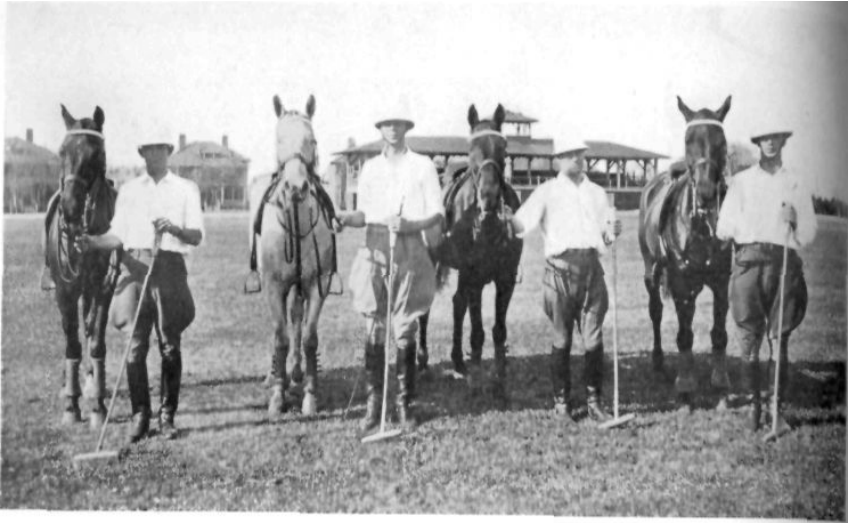
SECOND DIVISION TEAM

Lieutenant G. C. Benson, 12th F. A., Lieutenant E. McGinley, F. A., A. D. C., Lieutenant J. A. Smith, Jr., 15th F. A., Lieutenant-Colonel C. R. Norton, 12th F. A.

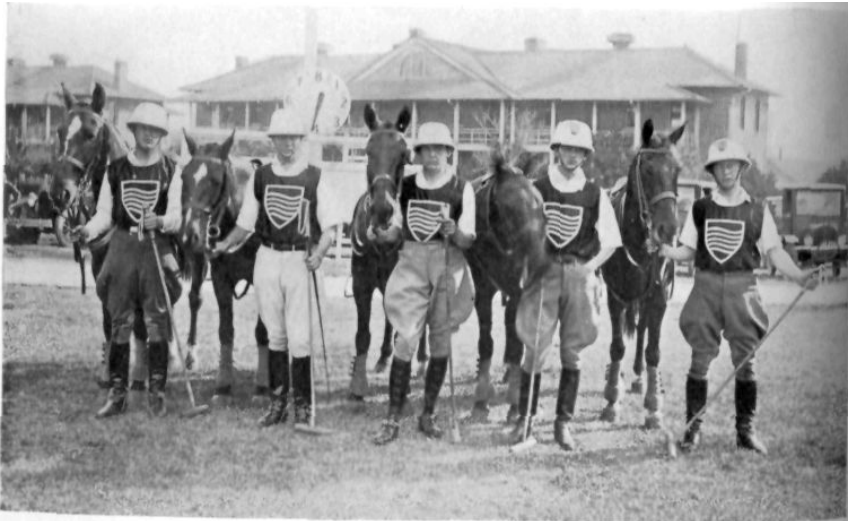


FOURTH FIELD ARTILLERY TEAM

Lieutenant J. V. Phelps, Lieutenant-Colonel E. Swift, Jr., Lieutenant A. F. Shea, Lieutenant Miller, Lieutenant R. T. Bennison.



TWELFTH FIELD ARTILLERY TEAM
Lieutenant M. McClure, Lieutenant B. M. Fitch, Captain H. Kernan, Captain G. R. Hayman.



FIFTEENTH FIELD ARTILLERY TEAM
Lieutenant F. A. Garrecht, Jr., Captain N. C. Manley, Captain L. P. Crane, Captain E. H. Brown, Lieutenant D. S. Babcock (Lieutenant E. S. Molitor, No. 3. is not in the picture).

CURRENT FIELD ARTILLERY NOTES

were able to defeat their rivals. They were, however, in turn eliminated by the 5th Cavalry. The 4th Cavalry-Oklahoma City game required nine periods before the army team could defeat their civilian opponents. Dave Wythe, world's champion broncho rider, was a member of the Oklahoma quartet, and played splendid polo.

HIGH-GOAL EVENT

The high-goal event included all teams of more than ten goals—army handicap. These teams were Fort Bliss, San Antonio Polo Club, Second Division, Austin, Detroit, and the Rio Grande Valley team. The latter team was made up of members of the 4th and 12th Cavalry teams.

The Fort Bliss team, Captained by Major W. W. (Red) Erwin, after eliminating the strong Detroit four in the first game of the event, were considered favorites to win the tournament. However, the San Antonio Polo Club upset the dope by defeating them 16-15, scoring the winning goal in the last few minutes of play. The Bliss team played a remarkable up-hill game, having to overcome a 10-goal handicap given the Civilians.

The Second Division team by defeating the Austin quartet went into the finals with the San Antonio Polo team. The Army team gave away 8 goals through handicap, and this proved too great a lead. Through the first five periods the teams played even, 2-2. The Division team seemed unable to get coördinated and the strong defensive tactics of their opponents had prevented their goaling. At the beginning of the 6th chukker, with defeat staring them in the face, the army poloists started an attack that has seldom been seen on local fields. This attack, though falling short by two goals of tying the score, was cheered by the thousands that had gathered to witness the game. In the last three periods they ran up 6 goals, and increased their score to 8, coming within two goals of possible victory.

THE FLAT EVENT

The flat event was featured by the remarkable form of the Headquarters 8th Corps team, and the final game between the Fort Bliss and Division teams. The Corps Area team, not counted on to win its first game, surprised the fans by defeating the 15th Field Artillery by one goal, and then eliminating one of the strongest teams in the tournament, the Detroit Four. They went into the semi-finals against the Fort Bliss team, and were only defeated 8-5 after a fierce struggle.

The Second Division team by defeating the 4th and 5th Cavalry teams went into the finals against the Fort Bliss aggregation. This proved to be the most thrilling game of the entire tournament. Over

THE FIELD ARTILLERY JOURNAL

5000 people turned out to see the struggle between the two service teams for the flat championship, and many stood in a drizzle during the last two periods to witness the final outcome. Both teams played at top speed at all times, and beautiful work and horsemanship kept everyone on their toes. Neither team had a lead of more than one goal until the final chukker.

The final period opened with the score 8-7 in favor of the Second Division. From a throw-in near their opponent's 40-yard line, Lieutenant Smith, playing No. 3 for the Indian Heads, scooped up the ball and flashed past the Cavalry safety man, and scored a goal. In a few minutes he added the final counter of the game from a beautiful pass from Lieutenant McGinley from the corner of the field. The remainder of the game was played up and down the field, with neither team able to count.

The Division team through their coördinated team play were able to overcome the advantage of playing against men who were considered their superior in individual polo.

Something should be said about the manner in which the tournament was staged. The San Antonio Chamber of Commerce, wishing to develop winter polo in San Antonio, through their publicity committee, put up funds for the transportation of army and college teams to San Antonio. The funds for the other expenses of the tournament were supplied by the merchants of San Antonio, through advertising in a souvenir program that was gotten out for the event. The various college and army teams were quartered at the post and messed with the regimental bachelor officer masses.

Lieutenant Colonel D. D. Tompkins, Polo Representative of the 8th Corps Area, was in direct charge of the tournament, and the details were carried out by a committee appointed by him.

THE GAMES

Intercollegiate Tournament

New Mexico, 8—Oklahoma, 3	Oklahoma, 5—Colorado, 2
Arizona, 10—Texas A. and M., 0	Arizona, 4—New Mexico, 1
Colorado, 5—Texas A. and M., 1	Oklahoma, 3—Texas, 0
Arizona, 10—Colorado, 0	New Mexico, 8—Colorado, 0
New Mexico, 13—Texas A. and M., 0	Arizona, 2—Oklahoma, 1

Low-goal Event

4th Field Artillery, 9—Hq. 8th Corps, 5	4th Cavalry, 5—12th Cavalry, 4
5th Cavalry—Kelly Field, 4	Oklahoma City, 8—4th Field Artillery, 5
Oklahoma City, 11—23rd Infantry, 6	5th Cavalry, 9—University of Arizona, 5
15th Field Artillery, 10—12th Field Artillery, 3	5th Cavalry, 12—15th Field Artillery, 9
	4th Cavalry, 8—Oklahoma City, 7
	5th Cavalry, 11—4th Cavalry, 1

CURRENT FIELD ARTILLERY NOTES

High-goal Event

Fort Bliss, 10—Detroit, 7
2nd Division, 12—Austin, 10

San Antonio Polo Club, 11—Valley Team, 3
San Antonio Polo Club, 16—Fort Bliss, 15
San Antonio Polo Club, 10—2nd Division, 8

Flat Event

Fort Bliss, 15—12th Cavalry, 4
Austin, 4—12th Field Artillery, 1
Hq. 8th Corps, 6—15th Field Artillery, 5
2nd Division, 18—4th Cavalry, 2
San Antonio, 9—Kelly Field, 2
Hq. 8th Corps, 8—Detroit, 6

2nd Division, 7—5th Cavalry, 3
Fort Bliss, 7—San Antonio, 5
Austin, 6—4th Field Artillery, 5
Fort Bliss, 8—Hq. 8th Corps, 5
2nd Division—Austin (Defaulted to Division)
2nd Division, 10—Fort Bliss, 7

Intercollegiate Polo (The Bullard Cup)

Beginning the week of May 3rd, Yale will defend her possession of the Bullard Cup. This will be the second annual intercollegiate tournament. It will be held at Fort Hamilton, N. Y., with contending teams from Yale, Harvard, Norwich, Cornell, West Point, Princeton, Pennsylvania and Virginia Military Institute.

There is an interesting possibility in the rumors that the winner of this tournament will be challenged by Leland Stanford Jr. University and the University of Arizona, which teams claim the championships of the West and Southwest.

The Hawaiian Team

Field Artillery interest is following the progress of the team from Hawaii in its present second invasion of the Pacific coast. Last year a series of misfortunes blighted a most promising effort at the championship. The following summary is from Lieutenant Colonel Browne's account of progress to date.

Twenty-five ponies were sent over from Hawaii in January of this year and about a week later three members of the second team—Major J. Milliken, Cavalry, Captain F. D. Sharp, 11th Field Artillery, and Lieutenant A. S. Reynolds, 8th Field Artillery, arrived under charge of the first team number 4, Major J. M. Swing, 11th Field Artillery.

Before the horses were conditioned they were shipped to Del Monte to get practice games with the 11th Cavalry. An unscheduled six-period game was won by the Cavalry 5 to 7. The first scheduled games were won by the Hawaiian team 12 to 6, and a second game 14 to 7 from the Del Monte Cardinals, made up of George Moore, No. 1, W. Tevis, No. 4, Tom Driscoll, No. 2, and Elmer Boeseke, No. 3. The latter player is in the opinion of many the best player

THE FIELD ARTILLERY JOURNAL

on the coast. Their team was handicapped 15 goals while the army four carried 8 at that time.

The team was shipped to Midwick, Pasadena, on February 22nd, and played that strong team composed of Miller, No. 1, Pedley, No. 2, Perkins, No. 3, and Burke, No. 4—a 21-goal combination. The Hawaiians won two games, 15 to 8 and 17 to 8.

From here the horses were shipped to Riverside. Captain W. J. White, 13th Field Artillery, and Lieutenant Colonel B. F. Browne, 11th Field Artillery, arrived here in time for the first game. A weak team was put in with the idea of developing a strong team for the real tournaments at Coronado. Six players were used. On the Riverside team was Harry East, the fifth ranking player on the American handicap list and considered by many as fine a player as any in the world. His teammates were Max Fleishman, No. 4, Fred Roe, No. 3, and T. Albright, No. 1. The latest handicaps were received before this game and the Hawaiian team found its first team had been raised four goals—Browne 3 to 4, Swing 2 to 3 and Brewer 1 to 3. The Army won the first game 10 to 9 and lost the second 8 to 11. Major C. Brewer, 11th Field Artillery, had arrived before the second game. Seven players were used in this game and some ponies that seemed to be slowing up on account of the very hard schedule, were saved.

From Riverside, the team shipped back to Pasadena and played Midwick on March 7th and 9th. In both games efforts were made to perfect team play and to save the ponies for the tournament. In each game Midwick used the same lineup as before and the Army used what was the tentative first team: Browne, No. 1, White, No. 2, Brewer, No. 3, and Swing, No. 4. In the first game the teamwork was poor and the game slow on the part of the Army. This was attributed to the ponies slowing up. The game was a tie, 8 to 8, at the end of one extra period when play was stopped at the Army player's request. The second game was won by Midwick 10 to 11. The Army teamwork was poor and there was no drive in the attack. Defense was satisfactory as the Midwick team is a very powerful scoring combination. The team was not working well together, but the ponies seemed to have something to do with it. The work was not at any time up to last year's standard.

The team shipped to Coronado March 12th and the 8-Goal tournament began on the 15th for the Jessup Trophy. The Hawaiian team won with Milliken, No. 1, White, No. 2, Reynolds, No. 3, and Sharp, No. 4. They defeated the 11th Cavalry 11 to 4 and Midwick "B" team 7 to 4 in this tournament.

The 12-Goal, the Open, the High-goal and the 6-Goal tournaments will be reported in our next JOURNAL.