

28TH YEAR OF PUBLICATION

THE FIELD ARTILLERY JOURNAL

JANUARY-FEBRUARY, 1938

Peter B. Kyne

writes

The Harp that Once -



PUBLISHED BIMONTHLY BY
THE UNITED STATES FIELD ARTILLERY ASSOCIATION

January-February, 1938

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VOL. 28

28TH YEAR OF PUBLICATION

No. 1

JANUARY-FEBRUARY, 1938

THE FIELD ARTILLERY JOURNAL

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Patron Saint of Artillery

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THE UNITED STATES FIELD ARTILLERY ASSOCIATION

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THE U. S. FIELD ARTILLERY ASSOCIATION

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ARTICLE II OF CONSTITUTION

"The objects of the Association shall be the promotion of the efficiency of the Field Artillery by maintaining its best traditions; the publishing of a *Journal* for disseminating professional knowledge and furnishing information as to the field artillery's progress, development, and best use in campaign; to cultivate, with the other arms, a common understanding of the powers and limitations of each; to foster a feeling of interdependence among the different arms and of hearty cooperation by all; and to promote understanding between the regular and militia forces by a closer bond; all of which objects are worthy and contribute to the good of our country."

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★ *A Message to the Field Artillery* ★

Before the next issue of this JOURNAL reaches its readers, my term of service as Chief of Field Artillery will have terminated. During its continuance marked and sound progress has been made in the development and modernization of the whole army. The Field Artillery in particular has witnessed striking changes in armament, transport, and means of communication. Coincident therewith its technique and tactics have been reoriented.

Throughout this period it has been my good fortune to have been close to these events. As a consequence, I am certain of the readiness of the arm to play its part outstandingly in the team of the arms combined under whatever conditions may be demanded by national defense.

In effecting the changes that have taken place, the rank and file of the arm have undertaken the task eagerly and applied themselves to it loyally. Confident in their spirit and progressiveness, I predict from them for my successor that same fine performance of service which has made me proud to be with them in the ranks of the Field Artillery.

U. BIRNIE, JR.
*Major General, U. S. Army,
Chief of Field Artillery.*

Symphony

First the gun-crew's muffled mutter, and the aiming candle's sputter,
And the rain-soaked branches flutter in the breeze before the dawn;
With a paulin faintly whipping, and a ceaseless dripping, dripping,
And the nervous minutes slipping till the preparation's on.

Now the wrist watch clicking, clicking, with a quick and rhythmic ticking,
Its staccato, tune is picking in a metronomic time;
Then the rocket's high exploding, as the hollow thud foreboding
Of a well-completed loading mingles with an empty's chime.

Comes the thundrous, drumming rumble of the howitzers' dull grumble,
In an off-stage, rolling jumble, in a full, deep-throated bass;
Then the swishing premonition of the rushing ammunition,
As it sweeps upon its mission, swiftly, swiftly in the chase.

Then the high crescendo waxes to the crashing brass climaxes
Of the light guns' battle-axes, slashing madly to the last;
Clashing with the rifles' clatter, with the automatics' patter,
With the rattling, crackling chatter, as the action rises fast.

Then the motif's slow surrender to its own symphonic splendor—
Imperceptibly to render gentler, lilting, tender blends,
Till with jingling toggle's timbre, tinkling with the rolling limber,
And with mess kit's mild marimba, ripplingly the opus ends.

C. R. GILDART,
Captain, FA.

THE FIELD ARTILLERY JOURNAL

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NUMBER 1

The Harp that Once—

SOME forty-odd years ago a skinny orphan boy who had been supporting himself selling papers on the streets of Chicago since his tenth birthday, decided he had had enough experience as a fighter to take a crack at the amateur fly-weight championship of Illinois. He was fourteen years old and in the same night, in the same ring, he won the fly-weight, ban-tam-weight, and light-weight amateur championship. He was no mean boxer—he could hit and he was a fury in the assault.

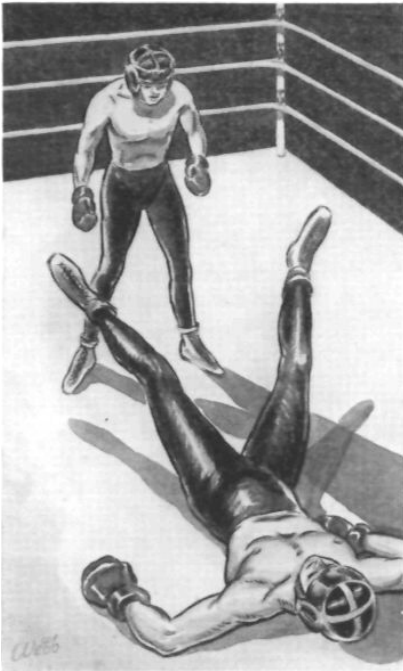
To Bob Kelly (for this is his name) this was all in the way of good clean fun and it was nice to have the medals to show to the other kids. Also, they inculcated in his competitors a healthy respect for Kelly. He continued in the amateur ranks until he was thick enough in the middle to turn professional. His manager had visions of a good thing in the boy, but Kelly had no desire to be a champion; his ambition was to be a dentist, so he fought just long enough to save what he thought would be sufficient money to see him through a jackleg dental college. He was a master boxer—boxing was his joy, not fighting. It was a game with Kelly to tantalize his opponent until he had him bewildered, then knock him out, for, unlike most boxers, Kelly carried a terrific punch in either hand. And he had tremendous respect for his

By
Peter
B.
Kyne

nose and his ears—so much so, that no opponent ever laid a glove on these forbidden areas. And Kelly had another reason for being a ring wraith. A punch-drunk ex-pug would not make a good dentist and Kelly had to be a success at anything he tackled. He told me, quite seriously, that he just couldn't afford to be hit too hard or too often!

His money gave out before he acquired his sheepskin to practice dentistry; he was too old now to point for a championship; also he was a middle weight and, in the fullness of time, would be a light heavy-weight. So he became a sparring partner for a middle-weight champion who was always doing his best to knock out his sparring partners, which he should not have done in the case of Kelly, whose job it was to improve the champ's style, not act as a punching bag. So, when the champ laid Kelly on the canvas, the blood of the Celtic kings in Kelly commenced to boil. He hopped up and socked the champ one that sent that hombre back on his heels—and then the battle was on. Four times the champ put Kelly down—the only times in the latter's career this had happened—and each time Kelly bounced back like a rubber ball and toward the end of the round, tucked the champ away for a home run.

"Uncle" Bill Naughton, sporting editor of the San Francisco *Examiner* at that time, saw Kelly in this action



**"FOUR TIMES THE CHAMP PUT
KELLY DOWN"**

and, as a tribute to Kelly's toughness, hung a nickname on him. He is Rawhide Kelly to this day.

Of course Kelly was too smart to serve as a punching bag for any champ and somehow his ambition to be a dentist had passed. So he became a manager. He was too honest for that, however, so presently he drifted to Hollywood and five dollars a day as an extra. Before long he was playing bits (this was in the early days of the silent films) and presently he knew he could write crazy little western thrillers as well as the next man. Then he produced them.

He was making a series of cheap two and three reel westerns when the Great War started; he had to complete his contract and that did not happen until early in 1918. Thereupon Kelly decided

to buy himself a membership in the United States army, if possible, while the government was still permitting voluntary enlistments; the thought of being sent for was repugnant to his royal blood, and even if it had not been his age indicated he might never be called in the draft.

However, he suffered from a slight physical drawback. The fight game had cost him the sight of his left eye, although the injury was not apparent. A little light filtered through this orb but not enough for him to make his way around if he closed his right eye. Naturally he anticipated difficulty in passing the physical examination, so in his despair he took into his confidence the late Charles E. Van Loan, who once was sporting editor of the *New York American*, and who later became one of the greatest writers of sports fiction in this country. Van saw at once that Rawhide had to have help and since he was a friend of mine and I was commanding a battery of field artillery at Camp Kearney, he advised Rawhide to go down and see me on the outside chance that I might be venal and show Rawhide how to beat the gate.

Now Rawhide arrived with a note from Charley, who carefully refrained from telling me of Rawhide's bent lamp. I liked Rawhide on sight. He was a light heavy-weight now, but in swell physical condition still; he had a keen fearless eye, a quick decisive manner, and he walked briskly like a cat stalking something. He was highly intelligent and employed excellent English; there was an aura of charm about him and I wanted him immediately. He was raw sergeant material if I ever saw it.

Well, he sat around my tent all morning gossiping about this and that. I discerned later he was sizing me up, wondering how far he could trust me. Finally I said: "Well, Kelly, if you're

THE HARP THAT ONCE—

going to join the army you had better get over to the Base Hospital and be examined. I'll send you over in my car." (The hospital was about three miles distant).

Kelly looked anguished and then came out with it! I said I was sorry but he might as well return to his picture-making.

However, Kelly was one who takes a licking hard. He said: "Would you be willing to get me one of those army eye-sight test charts and leave me alone here in your tent for an hour or two? I know I can memorize the chart in that time."

So I went down to our medical department, which had such a chart, relic of the day when our medical corps examined applicants for enlistment. (After we moved to Camp Kearny all enlistments had to come through the Base Hospital.) I borrowed the chart when nobody was looking and Kelly fell to the job. About noon I heard his lesson and he was letter perfect, so I told my soldier chauffeur to take him over in my car.

The medico said he'd never had a finer physical specimen at Kelly's age. "And now," he concluded, "let's see if your vision is as sound as the rest of you," and he stuck a card over Kelly's left eye. "Marvelous," he murmured, and stuck the card over Kelly's right eye. "Still marvelous and getting marvelouser," the medico murmured—and turned his infernal chart over to disclose a new arrangement of letters. Kelly ran down the list perfectly until he came to the fine line at the bottom, which he flunked. And this with his good eye. Then the medico murmured sweetly: "Now, then, Kelly, it's the left eye, isn't it?"

Kelly sighed and said: "Yes, sir, I memorized the chart and you're no gentleman. You've double-crossed me."

The medico was a good egg with a sense of humor perhaps too pronounced

for an army doctor. "You've been poorly advised," he told Kelly. "Some soldier got you a test chart to study and memorize, didn't he?" Kelly admitted this and the medico said: "He should have warned you not to read the fine print at the bottom. Nobody ever gets through that—and when you read it perfectly I knew you for a fraud."

"Wait a minute, doc," said Kelly, "while I take time out to curse Captain Peter B. Kyne of the 144th Field Artillery."

"Does he want you?" Doc queried.

"He swiped the chart for me."

Doc said he was a fan of mine and hated to take a shingle off my roof, but the hell of it was they just weren't using one-eyed soldiers in this war.

"Have a heart, Doc," replied Kelly. "They don't put those little letters on the Germans, do they?"

Again the medico laughed and again Kelly struck. "Besides," he said. "It's my left eye and I'm a right-handed rifle shot and close my left eye anyhow when I'm sighting. So what good is a left eye to a soldier, any how?"

"Damn it," said the medico, "the army needs men like you," and certified Kelly for service!

Kelly returned in triumph to me with his service record, very anxious to climb into a uniform and get busy immediately. I told him, however, he would have to be quarantined in the recruit camp for three weeks, and why. Then I took him over to the battery mess and told the mess sergeant to feed him; after which I sent him over to the recruit camp in my car and began casting about for some noncom I could bust legitimately in order to give his chevrons to Rawhide Kelly.

The day Kelly got back from the recruit camp I instructed him to report to the first sergeant for assignment

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to a tent and a gun section. I had made me a new first sergeant a month previous and was already aware that I had made a mistake. He had been an acceptable duty sergeant; he had spent some time in the navy and had learned discipline from a person known as Jimmy Legs. As a duty sergeant he was just tough enough for me, but as first sergeant he was too tough for all concerned. He disapproved of my methods; one day he very frankly begged me to change my tactics if I expected to command an outfit remotely worth while. I had thought his predecessor and I had been doing a fair job; at least we had a happy family, but this lad had run all the happiness out of the battery street and was even unhappy about it himself without knowing why. He was particularly hard on my chauffeur and my striker; he'd lie awake nights thinking up dirty jobs for them. He was a hearty lad in the pink of condition, about thirty, a light heavy-weight, a scrapper and a good one. Nobody ever had to ask him for it. For some years prior to enlisting he had been a guard in the refractory ward of one of our state asylums for the insane, and had kept in practice, because the wild ones were always ganging on him and trying to murder him. I think he regarded me as mildly insane and a lot of my soldiers as manic depressives. He was in his customary low spirits when Kelly dropped in and named himself.

The top took a long look at him. "Ah," he murmured, "so you're another pal of the captain's, eh? Aren't you the rook I saw hanging around the captain's tent all forenoon about three weeks ago? And aren't you the bird that rode down in the captain's car, like a High Cockalorum, to the Base Hospital to be enlisted, and then had yourself driven over to the recruit camp?"

Kelly saw it had to come and the quicker the better. Affecting the vocal mannerism of a chorus man he replied: "Oh, yes, sergeant. The captain has been so sweet to me."

So the top, who was a hundred and fifty percent masculine, got up from his desk. He believed in preparedness. Said he: "Now, listen to me, you spray of sweet lavender. The fact that you're the captain's friend will not get you anywhere with me. I'm the first sergeant and what I say goes, you this and that, understand? My advice to you is to transfer immediately."

Kelly put his hand on his hip and minced a little in righteous indignation. "Oh, dear" he pleaded, "please do not call me such wicked names, sergeant. I have never been accustomed to such awful vulgarity."

There is a limit to human endurance, military discipline to the contrary notwithstanding, and the top's limit was soon reached. "Boy," he said, "you're a short horse and soon curried," and led with his right. Somehow. Kelly knew he would do that, so he went inside of it.

I happened to be standing in the entrance to my tent gazing down the battery street when the corpus delicti came out of the orderly tent, running backward on his heels the way a man sometimes does when he's knocked out on his feet. I saw my tough top collapse on his back and lie there, all spread out like a starfish. . . . Kelly came to the door of the orderly tent and stood there, rubbing his knuckles . . . after a while the top turned over and got slowly to his hands and knees and shook his head to clear it Kelly came out and helped him up and they went back into the orderly tent and completed their business.

After a while I went over to the orderly tent and began fussing around

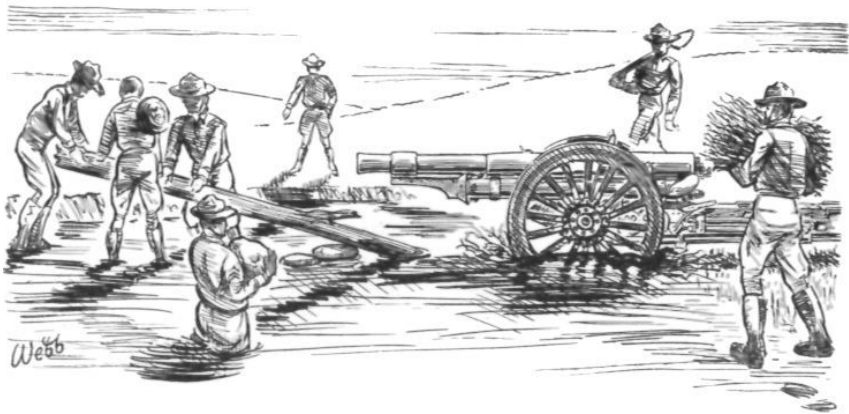
THE HARP THAT ONCE—

at my desk, but the top didn't make any report to me, so I concluded he was a wiser man than I had suspected. His right jowl was a little puffed and his face was very rosy. I thought maybe I'd get his resignation by humming softly "Has Anybody Here Seen Kelly" but evidently he had never heard that one sung, so after a while I told him he had his good points but that I felt he was miscast in the role of first sergeant and I would like to spare his feelings by reading out his resignation as first sergeant at retreat. He could go back to duty sergeant. He wouldn't have it. He preferred to die game so I had to bust him. That night he went AWOL for ten days and when he reported back to me he was ready for the worst. So I busted him to private, loaned him some money, and sent him away on a special detail back to Rock Island Arsenal to learn something or other. While I was at the School of Fire at Fort Sill my first lieutenant left in command of my battery recommended him highly to the third officers' training school, and he was accepted and emerged a second lieutenant, which proves that it is an ill wind that doesn't blow somebody good.

After taps that night Kelly sneaked over and told me all about it. He had been

reading the Blue Book and had discovered he had fractured an article of war and was I going to put him in Alcatraz for it? Upon being assured that the top had not reported it and that I never made an issue of matters unofficial, he declared the top was a good egg and if he'd known it he would not have provoked the riot.

I made Kelly a cannoneer with the third section, and three weeks later we (having just been designated heavy field artillery) were issued 4.7 guns in lieu of the old 3-inch weapons we had trained on. So I took the outfit up into the hills one morning to accustom them and the teams to tough terrain and on our way home my green drivers bogged one gun in a deep mud-hole. The teams were as green as the men and would not pull together; I realized, if I kept on trying uneven draft, I might injure some of them. So I sent the other three guns and caissons back to the park, told the crew to remain at the mud-hole and that I would order out the 45 HP tractor to pull the gun out of the bog. I promised also to eat luncheon hurriedly and have the mess sergeant



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load luncheon for the gun crew in my car and send it out.

Forty-five minutes later when I returned the gun was just coming out by hand and the sergeant was down to his buttocks in the mire with the men pushing and shoving, while Rawhide Kelly, cool and clean, stood on the bank and directed the operation in the tone of one born to command. He had ordered some stout limbs broken from an adjacent sycamore tree, gotten boulders under the rear axle and, using the boulders as a fulcrum, had pried upward and put loose rocks and brush under the wheels. He kept building up the wheels and laying traction until it was time for the final push and out she came. The sergeant in command must have recognized in Private Kelly his military superior, for he had taken orders from the latter meekly and without question.

So I took his chevrons away from him and gave them to Kelly.

One day Kelly came to me. "Sir," he said, "there's an order from division in the orderly office to send a sergeant and three privates away for arduous overseas duty. This is a school division and I don't think it will ever get to the war. Please send me, sir."

I nated to lose him but I sent him, for the Kellys of this world should always have action, and eventually he found himself in Camp Devens, Massachusetts, where, apparently, the replacement draft was being organized.

One day the brigade adjutant sent for him. Ensued the following conversation:

"You're Sergeant Kelly?"

"Yes, sir."

"Good. You're to instruct a class of one hundred and fifty officers in the Browning machine gun at 1:30 PM today."

Now, as heavy field artillery, destined to handle GPF 155-mm. rifles in France

we had one hundred and eighty-six rifles and two Lewis machine guns to protect our ponderous, not-easy-to-move weapons in case German infantry should infiltrate into dead ground and assault us. I suppose the adjutant figured we had Browning guns, or maybe, after the fashion of so many wartime adjutants, he didn't figure at all.

"I have never seen a Browning machine gun," said the honest Kelly.

"That's none of my business," the efficient adjutant replied wearily. "You're ordered to do it and you'll do it. If you're the wrong Kelly let somebody else dig up the right one."

Well, I hadn't had Kelly very long, but I had imbued him with the motto of our brigade—IT SHALL BE DONE, and no backchat or excuses. Moreover, Kelly was not a man to suffer fools gladly. So he said:

"Can you furnish me with a book about it, sir?"

The adjutant tossed one over to him. "Now, sir," said Kelly, "Where's the gun?"

"Over in front of the colonel's hut."

So Kelly grabbed the book and the gun and hiked him away to a quiet spot and looked at his watch. It was 11 AM. He had read the book by twelve and understood some of it. Then, with the book and the blueprint of the gun before him, he took the gun apart and noted the name of each part. Then he put it together again and discovered that God was good and the devil not half bad for he just had time to get to the rendezvous with his Browning machine gun before the class arrived.

Kelly wasted ten minutes waiting for more to arrive, but finally sighed and said: "Well, gentlemen, I guess you're all here. I was not furnished with a roll call, so I'm not going to wait any longer for the tardy ones. And I think, gentlemen, it might be well

THE HARP THAT ONCE—

if you all sat down and made yourselves as comfortable as possible in the shade of this barn. My experience as an instructor has been that if students are uncomfortable during instruction they can not keep their minds on the lesson."

He gained a minute while they all sat down, for he was billed for a one-hour lecture and all he had managed to learn about the Browning machine gun could have been told in five minutes. So his strategy was to gain time. After his class had sat down he walked up and down a minute in profound thought, then smiled brightly and said: "You may smoke, gentlemen."

He gained about two minutes while the class fired up; then he slowly removed the canvas cover from the gun, folded it and laid it reverently to one side; forced to commence his lecture, he said:

"Gentlemen, this marvelous weapon you see before you is the very latest in heavy machine guns. It has been invented by Browning, with whose reputation as a gunsmith you are all, of course, familiar. It is automatic, air-cooled, and belt-fed. Now, when I was receiving my instructions on this formidable weapon, our instructor, who certainly knew his business, started by taking the piece apart. I can do no better than follow in the footsteps of an expert. So we will take the gun apart, name each piece as we remove it and learn to recognize it."

He carefully unfolded the canvas cover and spread it in front of the gun. He hitched up his trousers and rolled a cigarette and lighted it. And he took the gun apart slowly and laid each part on the canvas cover.

"Now, gentlemen," he announced, "comes the bug in the military amber. We must put the gun together again. Lieutenant (pointing to the dumbest-looking shavetail), in the assembly of the piece, what part do I start with?"

He gained a minute while the dumb one studied the problem and guessed wrong. So Kelly made a competition of it and thus the job went until finally, as the hour of instruction ended, the gun was re-assembled and the canvas jacket back on it. And Kelly had delivered no instruction on the Browning automatic machine gun! He smiled brightly upon his pupils and



"HOW LONG HAVE YOU BEEN IN THE SERVICE?"

said:

"That will be all for today, gentlemen. Meet me here again at the same hour tomorrow. Thank you for your earnest and sincere attention."

The class got up and scurried away—all but a brigadier general who gnawed at his cigar and eyed Kelly as if the latter was a creature but recently descended from Mars. He made Kelly uncomfortable with that cold ophidian stare, so Kelly asked sweetly:

"Are there some questions you would like to ask, general?"

"One," said the general, "How long

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have you been in the service?"

Kelly rubbed his corrugated brow. "Well, sir, I spent three weeks in the recruit camp at Camp Kearny, California. Then I was a cannoneer in Battery A of the 144th Field Artillery for six weeks, and I was a week getting here, and I've been here a week. Just eleven weeks, sir."

"As one four-flusher to another," said the general, "come clean with me, sergeant. You never saw a Browning machine gun until today."

"We were informally introduced at 11 o'clock this morning, sir."

"And, two hours and a half later, you have the supreme nerve to lecture on the piece to a class of officers?"

"Sir, I have nerve enough to tackle anything once."

"Who ordered you to instruct us?"

"The brigade adjutant, sir. I told him he was making a mistake but he wouldn't listen to me, so far be it from me to tell an adjutant his business. He gave me a book and the gun and I read the book!"

"The way you sparred for time was gorgeous," said the general. "You're much too good to instruct in the Browning machine gun. That's a job we can leave to less-competent men. Come with me, son. You'll be the first sergeant of brigade troop at retreat."

And Kelly was and held the job down until flu laid him low in late August and lobar pneumonia developed. And presently Rawhide Kelly died and the hospital orderlies removed his hospital night-gown and hove it down the laundry chute to be reorganized for another victim, laid Rawhide's beautiful middle-aged body on the tea-wagon, wheeled him over to the morgue and covered him with a sheet. Presently came a squad of morticians with knives and a bit and brace and a bicycle pump and a jug of embalming fluid. One reached under the sheet and revealed Kelly's leg with a cloth shipping tag tied to his ankle. He read:

"Kelly, Robert H., First Sergeant Brigade Troop, Number umpty-ump, lobar pneumonia—this is the guy, sarge," and threw back the sheet. He was feeling around with his squirt gun for Rawhide's jugular vein when the corpse spoke up faintly, but in the voice of one born to command:

"What in the hell are you trying to do to my throat?"

"Cripes, sarge," yelled the assistant embalmer, "this dead soldier is alive."

"I asked," said Rawhide sternly, "what the hell you're trying to do to my throat. Answer!"

"We was goin' to embalm you."

"I'm only a quarter alive," wheezed Kelly, "but when I'm half dead I'll take you apart to see what makes you act like that! Where am I? Who took me out of my warm bed and laid me on a frozen plank?"

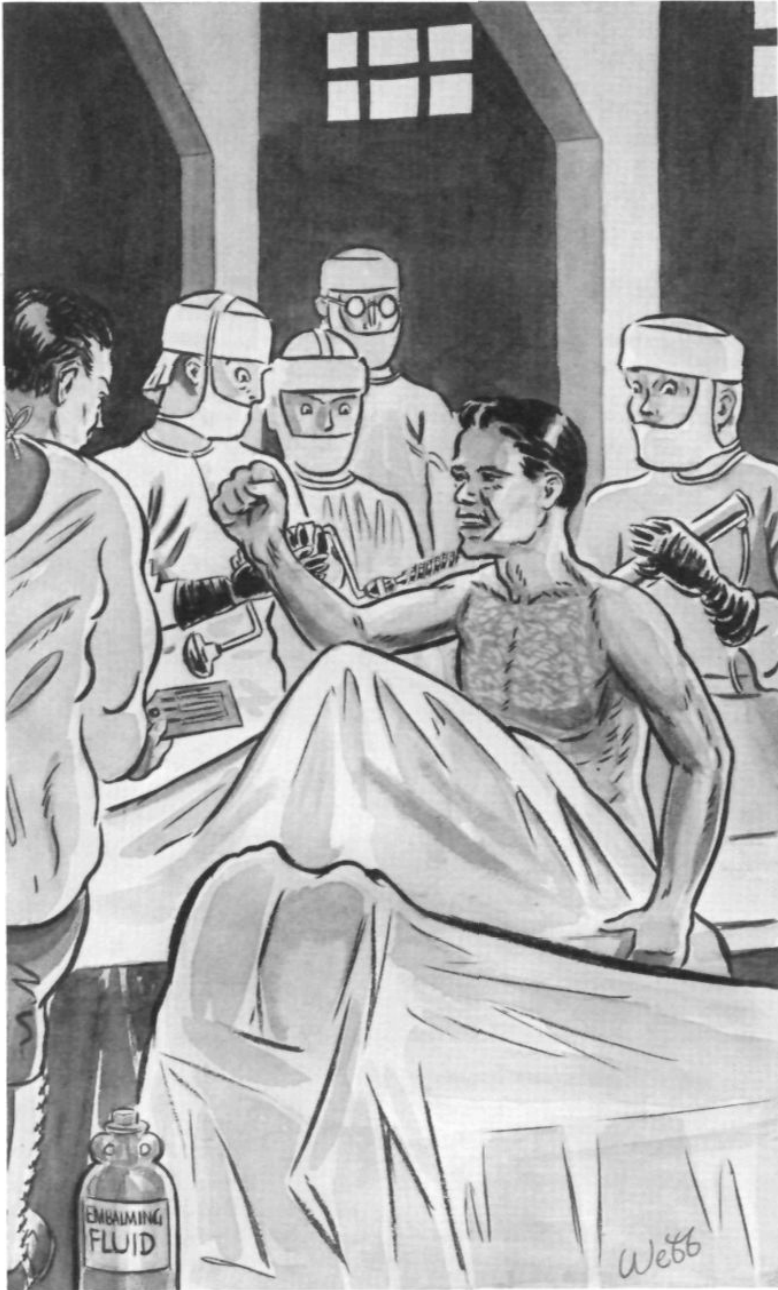
"You're on a slab in the morgue. Quick, sarge, let's grab this guy and run him back to the ward."

Which they did and the doctor was surprised and so was the nurse, because the doctor had held his stethoscope against Rawhide's fifth rib and murmured: "The old pump's quit." And the nurse had rubbed her lovely finger across the ball of Rawhide's open eye, but unfortunately the left one—and of course he never blinked. It was a terrible moment and reputations hung on slender threads but Rawhide just wheezed. "Oh, hell, we all make mistakes, and I'm feeling better. Not so tight in my chest."

So they threw a slug of bourbon into him and a shot of adrenalin and pretty soon Rawhide began to sweat and declared he was having a good workout. . . .

He went to France with his general and the day they lit in Sunny France it was the 10th of November and raining hard. So Kelly knew he'd been swindled again. The following day the

THE HARP THAT ONCE—



"WHO TOOK ME OUT OF MY WARM BED?"

Armistice blew up in his face and he and his general and the newly arrived troops went right back home and Rawhide, with his famous shipping tag death record in his pocket to remind him of the fact that old Uncle Bill Naughton hadn't named him Rawhide

Kelly for nothing, came back to California and took up the burden of life again. He sends me a cheerful telegram every Christmas and he is snowy-headed now, but still I'd hate to see a good man go up an alley with him to settle a controversy.

THE JOURNAL IN THE FOREIGN MILITARY PRESS

The *Artillery Journal* (Jugoslavia), for September-October and November-December, reviews "Artillery Missions and Doctrines," by Colonel Allen J. Greer, FA (May-June), and "Italian Artillery in the Ethiopian Campaign" (July-August).

El Pueblo (Argentina), a Buenos Aires daily, printed, as a leading article, December 9th, a translation of Lt. Col. John S. Wood's "The Italian Artillery in Ethiopia."

Revista Militar (Argentina), for October and November, reviewed "Artillery Missions and Doctrines," "Italian Divisions—The Fast Moving and

the Motorized," and "Cooperation Between Tanks and Artillery," by General Culmann, the latter two articles from the FA JOURNAL for September-October.

Bulletin Belge Des Sciences Militaires (Belgium), for November, reviewed "Italian Artillery in the Ethiopian Campaign," and "Soviet Field Artillery School" (FA JOURNAL, July-August), and for December mentioned "The German XXIII Reserve Corps Crosses the Marne," by Colonel Conrad H. Lanza; "Dogs for Liaison," by Captain H. W. Brimmer, and "Cooperation Between Tanks and Artillery."

RETURN OF THE HORSE TO FAVOR IN THE GERMAN ARMY

The striking lessons learned by the German Army from the Spanish battlefield cropped out in the military parade in honor of Chancellor Hitler's birthday yesterday," says the Berlin correspondent of the "Evening Standard," in the April 21st issue of that paper. "According to military observers, and those acquainted with German Army displays since 1935, the fact stood out that the horse has won back his front rank place in the military sphere.

"Contrary to last year's parade when there was no cavalry in evidence, this year there were not only plenty of riders, but the motorized field artillery has been divided up into horse-drawn four- and six-inch batteries, while the machine gun section has also reverted to horses, with twin and single machine gun caissons being animal drawn. This transition is attributed by military observers to be the direct result of German experience on Spanish battlefields where supermotorized outfits were frequently handicapped by mechanical breakdowns. The German Army is thus partially demechanizing its artillery as rapidly as possible."—"The Veterinary Record."

The German Breakthrough on the Danube Front in 1915

First authentic account of the capture of Belgrade from the records of the Serbian Great General Staff

BY CAPTAIN GORDON GORDON-SMITH

Attaché of the Royal Yugoslav Legation

ONE of the most important episodes of the World War was the breakthrough of the Germans on the Danube front in September, 1915. It caused a complete reversal of the military position of the belligerent Powers.

The situation at that time was one which, if maintained, assured the victory of the Entente Powers. A line of trenches, such as the world had never seen, ran in France from the North Sea to the Swiss frontier. The Swiss, to maintain the integrity of their territory, had mobilized their small but extremely efficient army and had constructed along their frontiers a series of field works which could have held back any attack.

On the other side of Switzerland the line of trenches was taken up by the Italian army and ran down to the Adriatic. On the other side of the Adriatic the Serbian line of trenches ran along the Danube to the frontier of Roumania. Roumania, though neutral, was like Switzerland, ready to prevent any violation of her territory.

On the other side of Roumania the Russian trenches began and ran right up to the Baltic. The British and French navies assured the blockade of the German coast while the Italian fleet performed a similar mission in the Adriatic.

The Central Powers were thus a

besieged fortress, surrounded on every side by a ring of steel on which bristled ten million bayonets. Cut off from every source of supply, their position, if the investment continued, was a hopeless one. The combat swung back and forth, with varying fortunes, within this grim circle but the defeat of Germany and Austria, if the Entente Powers maintained their strangle-hold, was only a matter of time.

Germany accepted, perforce, the role of a besieged fortress but took measures to place Russia, in her turn, in a similar position. By means of her alliance with Turkey she closed the Dardanelles, while in northern Europe the German fleet occupied the Skagerrack and the Kattegat, thus closing the Baltic. Russia was thus completely cut off from her Allies and the only means they had of communicating with her, on any serious scale, was through Archangel, in the Arctic Circle, and Vladivostok, in the South Pacific.

With a view to breaking this strangle-hold of the Central Powers on Russia, the French and British sent an expedition to the Gallipoli Peninsula, with the mission of advancing on and capturing Constantinople and reopening the Dardanelles, thus giving the French and British fleets access to the Black Sea.

This enterprise, though strategically perfectly sound, was characterized by

a series of tactical errors in carrying it out. The resistance of the Turks proved so strong that the Allies' only hope of ultimate success lay in the fact that the enemy had no means of manufacturing munitions. These were obtained from Germany via Roumania. When, therefore, in the spring of 1915, the Entente Powers brought such pressure to bear in Bucharest that the Roumanian Government closed the frontiers to further supplies for Turkey, the position of the Central Powers became desperate. It became a question of life and death for them to break through the circle that was slowly but surely throttling them, and prevent the defeat of their Turkish ally.

The vital point for such a breakthrough was the Danube front, and a German army of 300,000 men, under the command of Field Marshal von Mackensen, with another brilliant German soldier, General von Gallwitz, as his second-in-command, was assembled in the plains of Hungary. The defense of Belgrade and the Danube front thus became, for the moment, the crucial front in the whole War.

Unfortunately for the Serbian Army, the Entente Power committed the colossal blunder of placing their confidence in the loyalty of Bulgaria, with which they negotiated to come in on their side and march on Constantinople to administer the *coup de grace* to the resistance of the Turks. The diplomacy of the Entente Powers allowed itself to be hoodwinked by the astute Bulgarian Premier Radislovov and his Germanborn sovereign, the Czar Ferdinand, formerly Prince of Saxe-Coburg-Gotha. Long after the Bulgarians had signed their treaty of alliance with Germany and had accepted a loan of 200,000,000 gold marks as a "war chest," they continued to "string along" the diplomats of the Entente.

This put the Prince Regent Alexander,

Commander-in-Chief, and Field Marshal Putnik, Chief of Staff of the Serbian Army, face to face with a desperate situation. They knew that it was a life-and-death matter for the Central Powers to break through the circle of steel which threatened them and drive down to Constantinople to save their Turkish Ally from imminent defeat. They knew that the Central Powers would spare no effort



**CHIEF OF THE BELGRADE DEFENSE,
GENERAL MIHAILO ZIVKOVITCH**

to achieve their purpose. Not only was the Danube front threatened by the Germano-Austrian army under Field Marshal von Mackensen but Austrian troops threatened the Western front on the Drina, while the armies of the Bulgarian Czar Ferdinand were ready to storm the eastern frontier as soon as the Austro-German armies moved.

The Central Powers had further encouraged the wild Albanian tribes simultaneously to raid Serbian territory. Though militarily of little importance,

THE GERMAN BREAKTHROUGH ON THE DANUBE FRONT IN 1915

these forces had a "nuisance value" and means had to be taken to hold them in check.

Strange to say, though the breakthrough on the Danube front was one of the most important episodes in the whole World War, no detailed account of it has ever been given in the history of the War on the side of the Entente Powers. The accounts published in the military journals in Berlin and Vienna give a one-sided version of the operations, in which the forces and material at the disposal of the Serbian Commander-in-Chief are greatly exaggerated, probably to enhance the importance of the German-Austrian victory.

The following account of the operations and dispositions of the troops on both sides is compiled from the official records of the Serbian Great General Staff in the Belgrade Ministry of War. It constitutes the first authentic account in English of the fateful events of the early days of September, 1915. On the 1st of September the position was as follows:

On the north, on the left bank of the Danube, in the district known as the Banat of Temesvar, was the XI German Army, under the command of General von Gallwitz. This Army was made up of the 3d and 4th German Army Corps and the 10th German Reserve Corps. This Army, with its seven infantry divisions, had as its objective the crossing of the Danube near Smederevo and the invasion of the valley of the Morava.

On the left bank of the Save, in Syrmia, was the III German-Austrian Army, under the command of the Hungarian General Kevesh. This Army was made up of the 8th and 19th Austrian Army Corps and the 22d German Reserve Corps.

The objective of this Army was to push forward with its main body, four

infantry divisions strong, with 500 guns of all calibers, capture Belgrade, and then push forward to the south, in the direction of Kraguevac, where the headquarters of the Serbian army was established. Another section of this Army, two infantry divisions, was ordered to cross the Danube at Obrenovac and advance along the valley of the Kolubara. The total enemy forces facing the Serbs on the north were 190 battalions with 350 heavy machine guns. The whole force was under the supreme command of Field Marshal von Mackensen.

On the western front, along the Drina, the Serbs were faced by 20 Austrian battalions.

In addition to these enemy forces on the north and west the Serbs had to face on the eastern front the Bulgarian Army of six infantry divisions. The latter's mission was to facilitate the task of the Austro-German Armies by attacking the Serbs on the flank and rear and cutting their communications by rail with Salonica, the port through which the Serbian army received its munitions and war material. They further had the mission of opposing the advance of the Franco-British force, under the command of General Sarraill, which had been hastily landed at Salonica with the view of coming to the assistance of King Peter's Army.

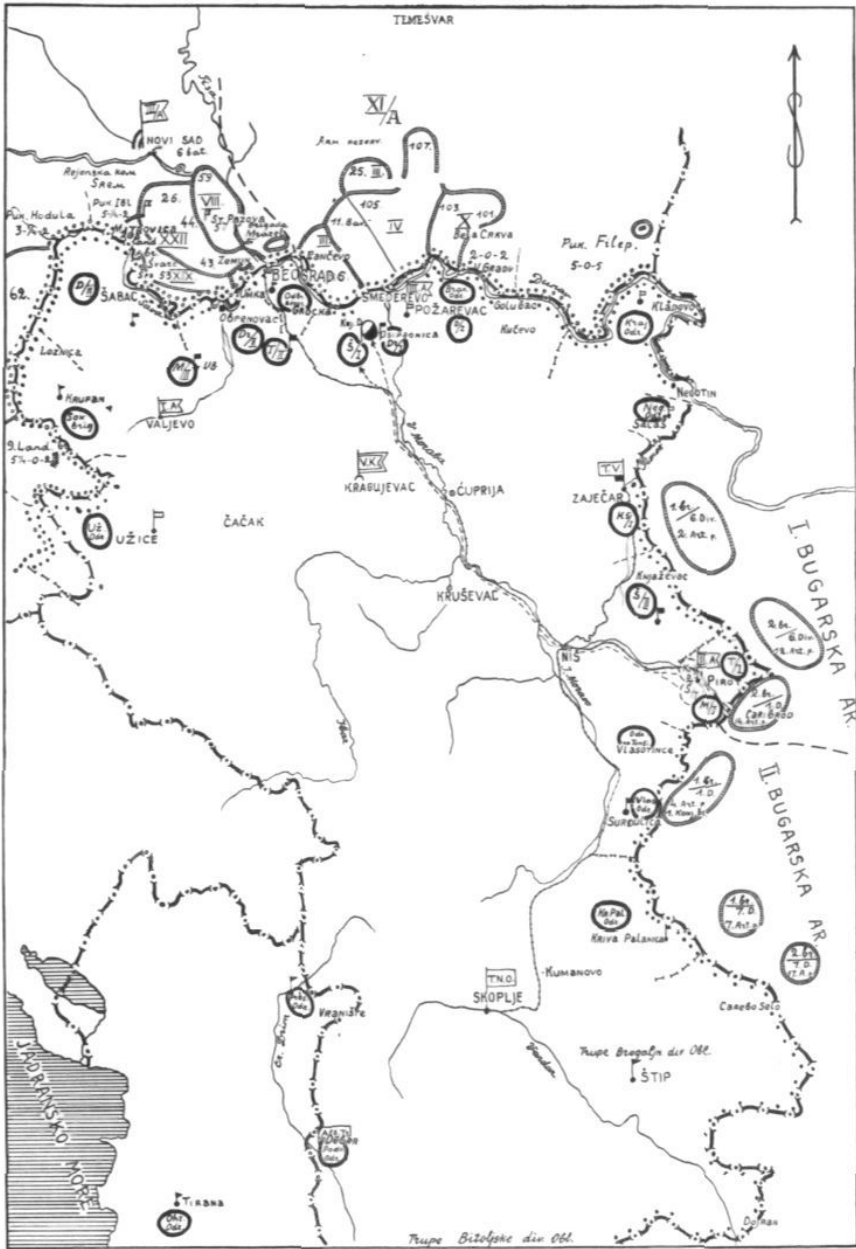
The total strength of the Bulgarian Army, concentrated on the eastern frontier, amounted to 152 battalions of infantry and 20 squadrons of cavalry. The Serbian Army was thus face to face with Austro-Germano-Bulgarian troops totalling 342 battalions of infantry, with 500 heavy machine guns, 60 squadrons of cavalry, and 1,700 guns of every caliber.

The disposition of the Serbian forces was as follows:

a. *Against the Austro-German Armies.*

The III Army, made up of the Danube


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THE SITUATION ON OCTOBER 5, 1915

(The legend is on the following page)

THE GERMAN BREAKTHROUGH ON THE DANUBE FRONT IN 1915

	Railway
	Enemy troops
	Serbian
V. K.	Serb. Head Quarters
I, II, III, A	I, II, III Army
Knj. D.	Cavalry Division
S/I, II	Shumadia - - /active, reserve
D/I, II	Dambe - - - -
M/I, II	Morava - - - -
Dt./I, II	Drina - - - -
T/I, II	Timok - - - -
Oabr. Beogr.	Belgrade Defence
Bran. odc.	Branicevo Detachment
Kraj. odc.	Kragujevac - -
Neg. odc.	Negotin - -
UZ. odc.	Uzice - -
Vlas. odc.	Vlasina - -
Ka. Pal. odc.	Kiind Palanka - -
Podr. odc.	Podrinje - -
Pisr. odc.	Pisren - -
Ohr. odc.	Ohrid - -
Odc. na Tumba	Detachment of Tumba
Sok. brig.	Sokol Brigade
T. V.	Timok Army
T. N. O.	Troops from the New Territory
Alb. Tr.	Albanian troops
Trupe Bregalnica	Troops from the Bregalnica Division
dir. Oh.	
Trupe Bitolje	Troops from the Bitoly (Monastir) Division
dir. Oh.	

and Drina Divisions, 1st Ban,* and the Branicevski Detachment, held the Danube line from Djerdap, near Golubac,

*The Serbian Army, on a war footing, was composed of three "Bans" or classes. The 1st Ban consisted of men from 21 to 30 years of age; that is to say, the men serving in the active army at the moment of the declaration of war, plus the men in the first class Reserve. The 2d Ban consisted of men of 30 to 38 years of age. The 3d Ban consisted of men from 38 to 45 years of age. This was much on the lines of the French Army on mobilization, the 1st Ban corresponding to the French active Army plus the first class Reserves; the 2d Ban corresponding to the French Territorial Army, and the 3d Ban to the Reserve of the Territorial Army. In addition the Serbian Government had the right, if necessary, to mobilize the young men of 18 to 20 and the men of 45 to 50 years of age. This would correspond to the French *levée en masse*.

to Grocka. The line Grocka—Belgrade—Ostruzhnica was held by a force known as the Defense of Belgrade, made up of various units.

From Ostruzhnica to the Montenegrin frontier the line was held by the I Army, composed of the Drina, Timok, Danube, and Morava Divisions, 2d Ban; and the Sokolska and Uzice Brigades.

The total Serbian strength on the northern and western fronts was 143 battalions of infantry, 112 heavy machine guns, 15 squadrons of cavalry, and 362 guns.

b. Against the Bulgarians.

The Timok Army, made up of the Kladovski and Negotinski units, the Combined Division, 1st Ban, and the Shumadia Division, 2d Ban, held the line from Djerdap to Midzor on the Old Mountain.

The II Army, made up of the Morava and Timok Divisions, 1st Ban, the Independent Cavalry Division and weak defensive units from the Tumba and Vlasinska Detachments, held the line from Midzor, on the Stara Mountain, up to the old Serbo-Turkish frontier.

The troops raised in the new territories, which had been captured from Turkey in 1912, were provisionally formed into two divisions, known as the Vardar and Bregalnica Divisions. With other units they made a total force of 31 battalions of infantry with 54 guns and held the line running from the old Serbo-Turkish frontier to the Greek frontier.

The total Serbian strength on the eastern front, facing the Bulgarians, amounted to 132 battalions of infantry, 96 heavy machine guns, 25 squadrons of cavalry, and 292 guns.

c. At the disposition of General Headquarters was:

The Shumadia Division, 1st Ban. At first this was concentrated near Pirot, on the eastern frontier, but was

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afterwards transferred to Smederevo, on the northern front.

d. On the Albanian frontier there was:

One unit of 13 battalions, with 8 heavy machine guns, and 24 guns.

The total strength of the Serbian Armies amounted to 288 battalions of infantry, of the 1st, 2d, and 3d Bans, 216 machine guns, 40 squadrons of cavalry, and 678 guns, of which only 498 were quick-firers.

According to the foregoing data the united strength of the Austrian, German, and Bulgarian forces attacking Serbia was superior in numbers to the extent of 55 battalions of infantry, about 300 heavy machine guns, 20 squadrons of cavalry, and 1020 guns of all calibers.

To this it must be added that the enemy units were at war strength. This was not the case with the Serbian units, which had lost thousands of men as the result of the epidemic of typhus, which had swept the country in November 1914 and the following months. This disease had been brought into the country by the Austrian troops in 1914 and raged in the camps containing the thousands of prisoners captured during the rout of Field Marshal von Potiorek's army.

According to the data in the archives of the Serbian Ministry of War the direct attack on Belgrade was executed by the 8th Austrian Army Corps, with its two divisions and part of the 22d German Reserve Corps. This attack was preceded by an artillery preparation carried out by 500 guns of every caliber, which later supported the infantry attack. Among the artillery there were many guns of 300-mm. and one gun of 420-mm.

The troops actually defending the city, as has been said above, were known as the Defense of Belgrade. They held the line from Grocka, to the east of Belgrade, to the village of Ostruzhnica, on the right

bank of the Save. The total length of the line was about 55 kilometers.

The Defense of Belgrade was made up of 20 battalions of infantry (of which 12 were 3d Ban) and 77 guns, of which only 49 were quick-firers. The heavy artillery consisted of four guns of 120-mm., two of 150-mm., two Russian coast-defense guns of 150-mm., a French coast-defense gun battery (3 guns) of 140-mm. and 8 British long guns of 120-mm.

The distribution of the troops of the Defense of Belgrade when the attack began on October 6th 1915 was as follows:

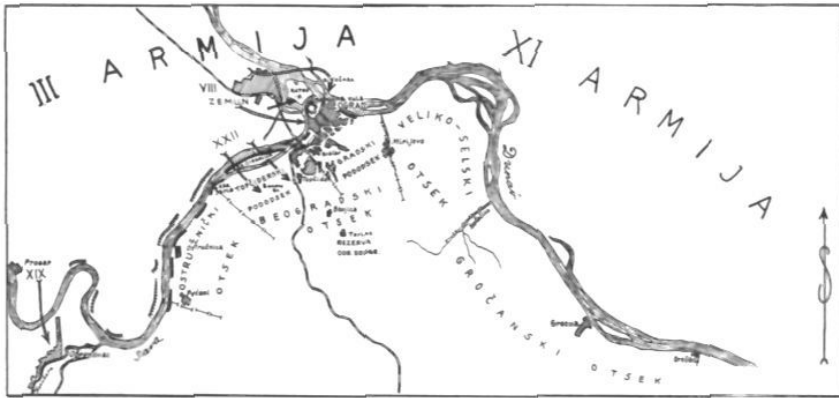
(1) *Grocka Sector.* From the Oreshacke Inn (to the east of Grocka) to the river Bolecice (to the west of Grocka). Troops: Four battalions of infantry, 3d Ban, and 16 guns (two field pieces of 75-mm., two British long guns of 120-mm., and twelve slow-firing De Bange guns).

(2) *Great Selski Sector.* From the Bolecice river to the Mirijavskog rivulet. Troops: Four battalions of infantry, 3d Ban, eighteen guns (4 field pieces of 75-mm., 2 guns of 57-mm., 2 British long guns of 120-mm., 1 French coast-defense gun of 140-mm., and 9 slow-firing De Bange guns) and two heavy machine guns.

(3) *Belgrade Sector.* From Mirijavski river to the Jarac tower, on the eastern bank of the Save (southwest of Belgrade). This sector was defended by a special body of troops with the following formations:

(a) *City Subsector:* From the Mirijavski river to the railway bridge over the Save. Troops: Two battalions of infantry, of 600 men each, 1st Ban: a detachment of Belgrade police, 370 strong; a detachment of volunteers from Syrmia, 250 strong; 2 British long guns of 120-mm., two field pieces of 75-mm., three slow-firing De Bange

THE GERMAN BREAKTHROUGH ON THE DANUBE FRONT IN 1915



DEFENSE AND FALL OF BELGRADE, OCTOBER, 1915

Grocanski otsek—Grotska section
Beogradski—Belgrade
Ostruznicki—Ostruzhnica

Gradski Pododsek—Fortress half-section
Topchiderski—Topchider
Rezerva Odb. Beogr.—Reserve of Belgrade Defense

guns and 2 antiaircraft guns, placed at Vracar (in the southern section of Belgrade). In the upper and lower sections of the city there were six field pieces of 75-mm., two Russian coast-defense guns of 150-mm. and two heavy machine guns. The total number of guns of all calibers defending the city proper was thus 17 pieces of artillery and 2 heavy machine guns.

(b) *Topchider Subsector*. From the railway bridge over the Save to the Jarac tower. Troops: Two and a half battalions of infantry, 2d Ban, with 12 guns and 4 heavy machine guns. On Topchider Hill: Two French coast-defense guns of 140-mm., two guns of 150-mm. and four slow-firing DeBange guns; on the New Hill, four field pieces of 75-mm.

(c) *Reserves of the Sector*. One and a half battalions of infantry, 2d Ban, and one machine-gun unit (5 heavy machine guns) at Banjica.

(4) *Ostruzhnica Sector*. From the Jarac tower to the Peline marshes. Troops: Two battalions of infantry, 2d Ban, two

heavy machine guns and fourteen guns (2 British long guns of 120-mm., 2 guns of 120-mm., 2 field guns of 75-mm. and 8 slow-firing De Bange guns).

(5) *Reserves of the Defense of Belgrade*. Troops: Two battalions of infantry, 1st Ban, two squadrons of cavalry, and four guns. This force was posted at Torlac.

From the data regarding the strength and distribution of the troops of the Defense of Belgrade, at the beginning of the Austro-German offensive in October 1915 (which are taken from the archives of the Serbian Ministry of War), it is clearly evident that the superiority, both in numbers and material, lay with the attacking force. On the Belgrade Sector alone the enemy had 66 battalions of infantry, 120 machine guns, and 500 pieces of artillery of all calibers. To this the defending force could only oppose 20 weak battalions of infantry. 15 heavy machine guns and 77 pieces of artillery. This superiority was most evident at the

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point where the enemy forced the crossing of the Danube.

This crossing was executed by the entire 8th Austrian Army Corps (31 battalions of infantry and 48 heavy machine guns, supported by 500 pieces of artillery of various calibers).

On October 3d the German-Austrian forces began a fairly heavy but desultory bombardment of Belgrade. This lasted three days but it was only on October 6 that the direct attack was opened with extreme violence. Five hundred guns of every caliber began a tremendous fire on the city. It was estimated that in the course of 24 hours nearly fifty thousand shells of every kind were thrown into the area of the city's defenses.

In addition, enemy airplanes, flying low over the city, dropped bombs wherever they pleased. To this terrific artillery assault the city was practically unable to reply. The Allied heavy guns had been emplaced, not to repel an attack on Belgrade itself, but to prevent the free movement on the Danube and the Save of any boats transporting enemy troops. The only Allied guns which were in a position to offer active resistance were the Russian guns on the old Turkish fortress. Both the heavy guns were put out of action the first day by direct hits and had to be stripped and abandoned, while the quick-firer ran out of ammunition and was destroyed by the Russians themselves.

The British guns in the Grocka Sector did not come into action on the first day as they could do nothing to aid in repelling the enemy landing and it was better to keep their position concealed until they could be used effectively.

The destruction wrought by the tremendous enemy bombardment was almost complete. Such antiaircraft guns as the Serbs possessed were immediately located and put out of action. The electric

light, the telephone and telegraph communications, were all cut. The city was on fire at many points and the whole river front was pulverized and torn to bits.

During the night of the 6th of September the enemy commenced their landing operations, making use of flotillas of flat-bottomed boats which had been prepared at Jakovo, on the Save and behind Zemun (Samlin).

The landing was made at two places: on the west end of the Tzigantia Island, which was connected with the Serbian bank by a bridge, and on the quays of the Danube in front of the city itself.

The crossing at the latter sector was executed by the entire Austrian 8th corps (31 battalions, and 40 heavy machine guns) supported by the whole of the enemy bombardment artillery. The defense of the city subsector was composed of one weak battalion (600 men), one police unit of 370 men, one unit of volunteers from Srem (about 250 men), 2 heavy machine guns, and 17 guns of various calibers.

(The official German report speaks of the whole Serbian bank being covered with machine-gun nests supported by guns on disappearing platforms. On the whole Danube front there were only 15 heavy machine guns and the Serbs did not possess a single gun on a disappearing platform.)

On the morning of the 7th of September the Austrian troops on the Tzigantia Island were still held in check by a small force which fought with great gallantry, but in the course of the day the small remnant of survivors was compelled to evacuate.

By daybreak on September 7th it was estimated that 4000 to 5000 Austrians had, at the expense of tremendous losses, gained a footing on the Serbian bank of the river. Throughout that

THE GERMAN BREAKTHROUGH ON THE DANUBE FRONT IN 1915

day the bombardment continued with undiminished fury. In the morning the British battery had come into action against the batteries across the river, 24 guns and 4 howitzers. The concentration of fire was such that both of the British guns were covered with debris and had to be abandoned until night, when they were cleared and made ready for action the next day.

Another British battery was on this day brought from Grocka and put in position on Banova Hill which commanded Tzigantia Island. It came into action in the afternoon and was immediately made the object of concentrated fire, but continued in action during the remainder of the day.

The other British battery had meanwhile resumed firing but one of the guns was almost immediately destroyed by a direct hit from a heavy howitzer.

The enemy monitors on the Danube now came out and attempted to take part in the fighting. They were at once attacked by the two French guns and the one remaining British gun and driven off. One of the French guns, however, was the victim of a direct hit and put out of action.

During the night of September 7th to 8th the enemy continued landing men in large numbers and by noon on the 8th they were practically in possession of the river front of the city. The city itself was burning fiercely at several points and there remained only one French gun at Topchider, one British gun at Velike Varchar, and two British guns at Banovo Hill.

Before noon on September 8th the British gun at Velike Varchar was hit and destroyed. In the afternoon the French destroyed and abandoned their remaining gun. Orders were given to destroy the British battery at Banovo Hill, but with great gallantry, under cover of the darkness, the men

succeeded in bringing up the ox teams and got the guns away down one side of the hill while the enemy infantry was swarming up the other. These guns later rendered yeoman service during the retreat of the Serbian army.

A second crossing of the Danube was made at Semendria by the German troops under the command of General von Gallwitz. Here the attack commenced a day later than that on Belgrade. The bombardment here was equally fierce and overwhelming. It was estimated that the enemy had in action against Semendria, throughout the days and nights of October 7 and 8, no less than 200 guns. Twenty of these had been placed on the island facing Semendria, under cover of the trees.

The Serbs had practically nothing to reply to this tremendous fire and after two days' artillery preparation the enemy crossed the river in force and occupied the town, though not until after desperate fighting with the Serbian infantry.

By this time, thanks to the overwhelming superiority of the enemy forces, the fate of the Serbian capital was sealed. German troops, having crossed to the right bank of the Save and occupied Banovo Brdo, threatened the rear of the troops defending the city subsector.

The Serbian General Staff has no intention of belittling the courage shown by the 8th Austrian Army Corps, which fought with gallantry, but it is evident that 31 battalions supported by 48 heavy machine guns and 500 pieces of artillery did not need to display great heroism and morale to crush the two Serbian battalions supported by 2 heavy machine guns and 17 pieces of artillery.

The consequences of the breakthrough on the Danube front were immediate and far-reaching. Germany had freed



A FIGHTER FROM THE VII INFANTRY

herself from the iron grip of the Entente Powers; she obtained direct rail connection through Bulgaria to Constantinople and was able to come to the rescue of her Turkish ally, in a critical position for want of ammunition and other war material.

The first result of this was to render hopeless all prospect of success on the

Dardanelles. The Danube was the front-line trench of the force in the Gallipoli Peninsula. Once this was gone and the Turks reenforced and reprovisioned nothing was left but to evacuate. On October 11th, two days after Belgrade fell, Lord Kitchener telegraphed to General Ian Hamilton, asking for an estimate of the losses which would be involved in the evacuation of the Peninsula. Six weeks later the evacuation was carried out.

The political consequence of the fiasco of the Allied policy in the Balkans was also very great. Under pressure of public opinion in France, Mr. Delcassé, Minister of Foreign Affairs, resigned and disappeared from public life. But this did not appease the public indignation, and a few days later the Viviani cabinet was driven from power.

In Russia M. Sasanoff, Minister of Foreign Affairs, as the result of the complete failure of his Balkan policy, was completely discredited and shortly after was replaced in the Ministry of Foreign Affairs. In great Britain the boundless indignation caused by the Balkan disaster and the evacuation of Gallipoli was the main cause of the downfall of Mr. Asquith and his replacement by Mr. Lloyd George.

TITLES OF ESSAYS RECEIVED

The following titles have been received in the Prize Essay Contest for 1938, award of which will be announced in the March-April issue:

Counterbattery
Artillery Map Makers

General "A," a Symposium on Leadership
The Six Gun Battery
Survey for the Infantry Division
The Meteorological Message
Lateral Conduct of Fire.



A greatly reduced price, to \$1.00, has been made available to our readers for the late Major General H. G. Bishop's book, "Field Artillery, King of Battles." This work, by the former Chief of Field Artillery, was published in 1934.

The Year in Review

(EXTRACTS FROM THE ANNUAL REPORT OF THE CHIEF OF FIELD ARTILLERY FOR THE FISCAL YEAR ENDING JUNE 30, 1937.)

AFTER a tenure of office of now more than three years as Chief of Field Artillery, I am convinced that there is a pressing need of at least two additional officers for duty in this office. The manifold duties devolving upon a Chief of a Combatant Branch under the contemplation of the National Defense Act and as specified in AR 70-5 can not, in my opinion, be carried out with a high degree of effectiveness and in a manner thoroughly satisfactory to the incumbent of the office without adequate personnel in his office for such purpose. The increase of two officers proposed would raise the present allowed number of 8 to 10.

Based upon experience also, I am further of the firm belief that two Assistant Chiefs of Field Artillery with the rank of brigadier general, appointed for a period of four years, with rights of rank and pay of that grade upon retirement, are required for the important post of the command of the Field Artillery School, and for the duty involved incident to making the visits of observation now charged to chiefs of combatant branches to insure the efficiency of their arms.

The Commandant of the special service school of a combatant branch has more than a purely administrative function to perform; he must be thoroughly equipped professionally as a technician of his arm in order to assure a sound direction of the work of the school in accomplishing the purpose for which it is operated.

The visits of observation to units of the arm provide a very effective means of assistance to the chief of a combatant

arm in the fulfillment of his functions, but to fully exploit such means requires in my opinion the undivided time and attention of one officer of high professional attainments and long experience in his arm. His position would be one of such prestige and responsibility as to call for and fully warrant during his incumbency of office the rank of brigadier general.

The necessity for additional officers in the Field Artillery, mentioned in previous annual reports, is again reported. The number of officers allotted for duty with the arm is 248 less than the peace-strength Tables of Organization authorize. However, since the officers required for CCC duty and post overhead are taken from those allotted for troop duty, the number performing such duty is actually much less than that nominally assigned to troops.

The shortage is most acute in the lieutenant grades. Existing field artillery organizations actually require 632 lieutenants (by Tables of Organization), whereas on May 31, 1937, only 437 lieutenants were commissioned in the Field Artillery. Of those officers commissioned, only 312, less than half the required number, were assigned to troop duty. Of the lieutenants not assigned to troop duty, 71 were students at service schools and 40 were instructors at the United States Military Academy, an unreasonably large number on the latter duty. It has been recommended that a larger proportion of captains be selected for instructors at the United States Military Academy.

The number of officers on duty with civilian components is constantly increasing,

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and it is increasing at the expense of officers available for Regular Army troop units.

It is considered that the allotment of officers for the Field Artillery, for duty with the arm, should be increased by 248.

Of 1,609 officers assigned to the arm, but 905 are on duty with it.

The morale of the Field Artillery arm remains very high.

* * * *

The training of regular field artillery units was efficiently carried out during the past year, with further stress being placed upon training in fire direction, in the technique and the tactical application of service firing, and in cooperation with supported arms. Service firing reports indicate general improvement in the results obtained from the present limited ammunition allowance, and marked improvement in certain units.

The Field Artillery School carried out its mission in an efficient manner during the past year. That agency continues to prove its great value in the development and dissemination of technique and tactical doctrine, and its influence upon the efficiency of the Field Artillery in general is becoming increasingly important.

All courses of instruction were conducted in accordance with approved programs. A total of 196 officers and 365 enlisted men successfully completed courses.

An unusually heavy load was placed this year upon the Field Artillery School, in addition to its normal instructional load, in the study and test of the proposed new organization, the preparation and marking of examinations of reserve officers under the Thomason Bill, and the major revision of the Field Artillery Field Manual now in progress.

Although there was no increase in staff and faculty to meet these additional requirements, and the staff and faculty were greatly overworked during a greater

part of the year, the courses of instruction were conducted with the usual high degree of efficiency. Much credit is due the personnel of the Field Artillery School for the accomplishment of the unusual demands made upon it this year.

The training of the various civilian components of the Field Artillery, so far as could be determined from the limited contacts had with them during the year, was satisfactory and in accordance with present field artillery doctrine. There is evidence of increased interest in all components, particularly the National Guard and Reserve Officers Training Corps, in keeping abreast with improved methods and doctrine.

Special training of selected reserve officers in sound and flash ranging has been continued with a view of bringing the number trained in this subject in line with the number which will be required in an emergency.

ROTC instruction continues on a high plane. If increased enrolments continue, it is likely that several Field Artillery ROTC units will require additional instructors the next school year in order to maintain the present standards of instruction. Instruction in truck-drawn artillery introduced last year in twenty units has been well received and the present indications are that it will prove as popular to students as horse-drawn artillery.

Fourteen subcourses have been revised during the past year.

The revision of the Field Artillery Book series has continued in order to make available, particularly to the civilian components, suitable texts on the latest methods, doctrine and equipment. Six Field Artillery Books were revised during the past year. The Field Artillery Field Manual is undergoing a complete revision, and it is expected to be ready for publication early in 1938.

Light Artillery:

Manufacture authorized for the fiscal

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year 1938 will complete the arming of all active field artillery units of Regular Army cavalry forces, with the 75-mm. field howitzer; the project of rearming active field artillery units of Regular Army infantry divisions with the standard weapon (the 75-mm. gun and carriage M2) will still require the provision of 17 batteries of this materiel.

During the past year, development and standardization has been accomplished of the pneumatic-tired adapters to permit high-speed towage of the 75-mm. gun and carriage M1916; manufacture of adapters has been initiated to equip all existent carriages of this type. Although not the equal of the M2 type, this weapon possesses flexibility of fire markedly superior to the 75-mm. gun and carriage M1897 (French) type, modified for high speed.

Development currently being carried out, which continues prior development in this caliber, should produce a new pilot 105-mm. howitzer for test early in 1938.

Medium Artillery:

Modification for high-speed towage of all 155-mm. howitzers of active field artillery units of the Regular Army has been accomplished. While tests of firing platforms permitting ready traverse of this weapon indicate need for improvement in design of the platform, in its application the principle appears to be advantageous and satisfactory.

Heavy Artillery:

The first battery of the production model of the 155-mm. gun-8" howitzer carriage has been placed in service at Fort Bragg, North Carolina.

A suitable modification of the 155-mm. gun carriage, to permit its towage at increased speeds, has been standardized.

The superiority of all-wheel drive over other types, with respect to vehicles of which cross-country operation is required, continues to be demonstrated in tactical exercises. The need for all-wheel-

drive light vehicles for reconnaissance purposes is becoming more and more evident. The increasing availability of the all-wheel-drive vehicle as a commercial product is noted.

Although the tractor does not constitute at present the primary type of field artillery prime mover, through Ordnance sources contact has been maintained with the commercial tractor industry in order that this office may be kept informed as to the availability and suitability of the commercial product, and of advances made in design.

This arm has just completed an extensive study and evaluation of experience to date in maintenance of field artillery motor transport. Working in conjunction with the other arms and services, the first detailed plan for a coordinated system of motor maintenance throughout the Army has been prepared and is being placed in effect within this arm.

Tests of maps produced by aerial photographic methods continue to offer promise of filling satisfactorily an important and apparent wartime need. Of special interest in this connection is the matter of extensive aerial photography and mapping which has been, and is being, carried on by the Department of Agriculture.

Tests of the autogiro type of aircraft, conducted during the fiscal year 1937 both at the Field Artillery Board and the Field Artillery School, confirm the view that it promises to offer important advantages over the airplane for purposes of tactical operation with field artillery troops.

Standardized communications equipment, keeping pace with commercial and scientific developments, exists; the provision of all items to active units has not been accomplished due to lack of funds.

A complete resurvey of the kind and amount of equipment which should be prescribed for every field artillery unit

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has been made and new Tables of Basic Allowances have been prepared and issued; there is taking place concurrently restudy and reissue of Table of Organization. The effect of these two steps is to strip field artillery units for action, seeking increased mobility and readiness, even in garrison service, for operation in the field.

During the fiscal year 1937, few changes in organization occurred in the Field Artillery arm. Comments are included below on the several items of importance.

New special Tables of Organization (peace) were prepared for all types of field artillery units, Regular Army, and a majority of these tables have been approved and promulgated by the War Department during the present fiscal year.

Pursuant to War Department instructions, plans were formulated and effected for the organization of eight field artillery meteorological units. These units are established to take over from the Signal Corps, effective July 1, 1937, such meteorological service as is required by the field artillery, Regular Army.

The War Department approved in principle the expansion of the 1st Battalion, 68th Field Artillery (Mech.) into a four-battery mechanized unit; however, it was considered impracticable by the War Department to activate

additional batteries for this purpose during the fiscal year 1937.

Incident to the distribution, in thirteen monthly increments, of additional grades and specialists, ratings allotted to the field artillery, during the fiscal year 1937, a substantial quota of such grades and specialists' ratings allotted but not distributed to field artillery units prior to December 1, 1936, was transferred to the Air Corps. This reduction in the original allotment, particularly in the higher grades, caused an inequality in like grades among certain field artillery units and seriously handicapped the field artillery in adjusting and maintaining the required level of grades and specialists' ratings among its enlisted personnel.

An allotment of 710 horses, riding, 574 horses, draft, and 45 mules, riding and pack, or a total of 1,329 animals, was made to the field artillery arm. These replacements, of generally excellent type, were distributed to animal-drawn field artillery units during the present fiscal year, and served the purpose of decreasing existing shortages and strengthening the mobility and effectiveness of the field artillery organizations concerned.

U. BIRNIE, JR.,
Major General, U. S. Army,
Chief of Field Artillery.

●

124th FA won't stay out of the news. Their polo team, during January, won the President Bru Cup in Havana, defeating the Cuban Army team three straight, and out of 23 Illinois competitors in examinations for USMA appointments, 124th men took first and second place. . . .

The New French "D" Tank and Self-Propelled Artillery

BY GENERAL FREDRIC CULMANN, FRENCH ARMY

Translated from the French by Sgt. Fred W. Merten, DEML

THE September-October, 1937, number of THE FIELD ARTILLERY JOURNAL contains a study of the employment of tanks based on the French regulations on the "tactical employment of large units." These regulations were dated August 12, 1936, and published in the early part of 1937. Since then, the French army has been issued "provisional regulations on the employment of D tanks in cooperation with infantry," dated July 13, 1934. The publication of these provisional regulations, which deal also with self-propelled artillery, was postponed two years to give precedence to the publication of the general regulations of 1936.

In the following, we shall discuss the principal characteristics and tactical employment of the new D tank, basing our discussion on the provisional regulations of 1934.

CHARACTERISTICS OF THE D TANK

WEIGHT. Permitting transportation on 15-ton or 20-ton flat cars and the utilization of pontoon bridges with a capacity of 13 tons, the weight of the D tank may be estimated at from 13 to 15 tons.*

The D tank then is a *medium tank* suitable for *establishing contact* and for *combat*. Covered by artillery, its radius of action extends throughout the depth of the hostile zone of action, "especially in

*The flat car with two axles, which is standard in France, carries 10 tons (old type car) and from 15 to 20 tons (new type car). The 30-ton car with two bogie axles is rather long.

offensive operations aimed at the hostile artillery positions and objectives located beyond that line." In addition to great speed and a large radius of action, this tank possesses tremendous fire power and strong armor protection.

SPEED AND RADIUS OF ACTION. The maximum rate of speed of the D tank is 11 MPH. It is 5 MPH in the zone of action, but will be reduced to 2 or 2.5 MPH on ground that has been heavily shelled or is blocked by many obstacles, such as trenches, woods and others. In any circumstance, however, its rate of speed is superior to that of the infantry.

In situations in which *silence* must be observed, as, for instance, during the approach for a surprise attack, the speed of the D tank must be reduced to not exceeding one MPH.

The *normal* distance covered in a day's march is 30 miles; the *maximum* performance is 50 miles, subject to the condition of the roads. About six hours a day must be reserved for the overhauling and refueling of the tanks; this applies to all motorized units (tractor-drawn artillery, etc.). A day of rest must follow after every third or fourth day of travel.

The radius of action of the D tank, that is, the space which it may cover without refueling, measures from 50 to 60 miles.

OBSERVATIONS

The maximum rate of march and the radius of action of the D tank satisfy the requirements of a tank designed for cooperation with *infantry*.

According to the provisional regulations

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of 1934, the D tank is designed further for joint action with entirely mechanized units which, provided the situation is favorable, operate independently against a weak or disorganized enemy or execute a surprise attack. Mechanized cavalry divisions and other armored forces designed for penetrating deep into the disposition of a weakened opponent may take up the pursuit in this manner. The speed and radius of action of the D tank would hardly meet the requirements of such independent operations, however.

Current models of from 10-ton to 20-ton medium tanks used abroad (18-ton Vickers Armstrong tank; American 15-ton T-2 tank) possess a speed of from 20 to 30 miles and a radius of action of about 95 miles.

The French field piece mounted on roller wheels with elastic suspension and drawn by a tractor with flexible tracks has an individual speed of 20 MPH; travelling in column, its speed is 15 MPH.

OBSTACLE ABILITY. On good ground and in dry season, the D tank can cross a trench six feet wide and over, a vertical wall 86 inches high, and climb a slope of 35 degrees. On soft or frozen ground, this obstacle ability is greatly reduced.

The D tank can ford a body of water of a depth not exceeding three feet.

ARMOR. The regulations of 1934 claim that the D tank offers "protection definitely superior to that of the light tank now in use." The Renault FT tank. M1917 (weight seven tons), carries an armor 0.63 inches thick (0.87 inches on the turret). Concluding from data on tanks of from 10 to 20 tons, the armor of the D tank is about 0.8 inches thick (heavier armor on the turret); the improvements in steel manufacture witnessed since 1917 (chemical composition, heat and mechanical processes) serve further to increase its power of resistance.

ARMAMENT AND EQUIPMENT. The armament comprises a 47-mm. gun and a

machine gun, both mounted in the turret, and a machine gun mounted in the center of the tank; the latter machine gun may be placed also vertically for anti-aircraft fire. The large ammunition supply carried by the tank includes 90 rounds of 47-mm. shell and 2,000 rounds of machine-gun ammunition. While the effective range of the 47-mm. gun measures about 450 yards, neutralization fire by machine gun may be delivered up to a range of 900 yards.

Fire from the moving tank being practicable, the machine gun may sweep the ground in front of the tank by putting out of action any opponent who exposes himself or is not armor-protected. This method of fire has been highly effective in Spain in combating men who would attack the tank with hand grenades and bottles filled with flaming gasoline.

The 47-mm. gun is a satisfactory antitank gun; its use is now standard in the Belgian army. The 47-mm. shell will penetrate the steel plate of armored cars, light and medium tanks, and that protecting the gun crews of the artillery and heavy accompanying guns of the infantry.

The D tank carries a crew of three men: The tank commander who fires the pieces mounted in the turret; the driver, who simultaneously serves the fixed machine gun; and the radio operator.

RADIO COMMUNICATION OF THE D TANK. D tank units are equipped with short-wave and very short-wave radio transmission and reception sets. The radius of the set of the individual tank measures from one to two miles, that of the platoon and company from three to four miles. The battalion has a still more powerful radio set, with an effective radius of from four to six miles, installed in the command tank. This assures direct communication from the individual tank commander up to the battalion commander. The battalion commander,

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in turn, may communicate by radio with the covering artillery and the general commanding the large unit to which the tanks are attached.

In the future, the tank battalion and company will be provided with radio reception sets that will enable them to pick up messages from airplanes. The battalion will transmit information to the airplanes by use of the panel system.

These provisions facilitate the command of the D tank battalion and its components, causing the official regulations to draw two important conclusions:

(1) The tank units constitute, even in the midst of combat, flexible and powerful weapons in the hands of the division commander.

(2) "The tank company commander may, at any time and without delay, communicate with any one of his platoon commanders, even when in action, and alter his mission. * * * *A platoon of D tanks is at no time entirely without contact.* Consequently, the company of D tanks is less in need of a reserve than the company of FT tanks (M1917, without radio equipment); and, as a rule, all four platoons of the D tank company are employed simultaneously from the outset of an operation."

SELF-PROPELLED ARTILLERY

The regulations of July 13, 1934, are the first document which mention *self-propelled and armored artillery*. The use of this artillery was described in a previous number of THE FIELD ARTILLERY JOURNAL (September-October, 1937, p. 332); its purpose is to complete tank protection by artillery.

Capable of rapid cross-country movement, speedily going into and out of position, and its armor permitting it to operate at short ranges, self-propelled artillery will follow closely behind the advancing tanks. It will speedily open fire upon the hostile antitank guns that have

not been located in advance but reveal themselves only in the course of the action. Ordinary artillery, placed a considerable distance to the rear, would be too slow in laying its pieces on targets of this kind, and its fire would be far less accurate than that of self-propelled artillery.

Self-propelled artillery, furthermore, possesses sufficient speed to function as "tank chasers," prior to the tank action, by contacting the hostile tanks, inflicting damage upon them and disorganizing them.

DISPOSITION OF THE TANKS FOR COMBAT

The D tank battalion, comprising three companies of four platoons each of three tanks each, normally is employed as an *independent tank* unit;* it precedes the mixed units of infantry and accompanying tanks to their successive objectives.

The D tank battalions are subordinated to the division commander. He determines the zones to be neutralized by the tank battalions or companies in the various phases of the operation and designates the infantry regiments or battalions of the first attack wave with which the tanks are to cooperate. The boundaries of the zones assigned to the two arms should follow the same natural lines.

The tank units are placed at the disposal of the commander of the infantry division as soon as he assumes control of the zone of action.

In certain types of combat (establishment of contact with the enemy, counteract, exploitation of gains), or if the width of the front or the subdivision of the zone of action calls for a decentralization of the command, the D tank elements are placed under the orders of the commander of a tactical group or infantry regiment.

**Chars de manoeuvre d'ensemble*; cf. THE FIELD ARTILLERY JOURNAL, September-October, 1937, p. 327.

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In a breakthrough operation involving a deep penetration of the hostile front, the normal width of the zone of action of the *D tank company* measures from 650 to 900 yards and corresponds to that of an *infantry battalion*. The width of this front may be increased to embrace the front of an infantry regiment, for the purpose of establishing contact with the enemy and executing minor counterattacks. However, this is not to be accomplished by unduly widening the zone of action of the tank platoon, but by expertly selecting their points of main effort and exploiting their maneuverability, with the view to employing the tank platoons successively on the various parts of the hostile front.

NOTE. In the future, the infantry division probably will include a group of three batteries of three or four self-propelled guns each. The battery of self-propelled artillery then will cover the D tank company (12 tanks) in the common zone of action of the tank company and infantry battalion.

MOVEMENT OF TANKS TO THE FRONT

A joint infantry and tank attack must provide for surprise effect.

Whenever possible, the tanks move up to the front at night. If the routes of approach are camouflaged, the tanks may use their lights and attain a speed of five MPH even on difficult ground. The rate of speed is reduced to that of foot troops in unknown terrain, where all lights must be extinguished.

In the daytime the tanks approach the front by long bounds, the companies moving up in echelon, with great distances between echelons.

The arrival of the tanks at the front must be concealed from the enemy by advancing at reduced speed (less than one MPH), or by drowning the noise of the tank motors by the sound of low-flying airplanes or artillery fire.

NOTE. Ordinarily, the opponent can clearly distinguish the sound of tanks in motion within a radius of two miles. This distance may seem too short to allow the enemy time to take preventative measures. It is necessary, therefore, to provide the divisions on the defensive with sound locator equipment, so that they may recognize the approach of tanks at greater distances. The sound may be picked up either from the ground, which is an excellent transmitter, or from the air. For picking up sound from the air, the same equipment may be used as that of the antiaircraft defense; this apparatus has an average radius of five or six miles and, in highly favorable conditions, will pick up sound up to 12 miles away.

TANK ATTACKS

It devolves upon the tanks to neutralize and, preferably, destroy those weapons whose fire blocks the advance of the friendly infantry. However, the tanks can accomplish this mission only by remaining constantly under observation and within effective range of those fire arms whose task it is to cover the tanks against the hostile antitank guns and artillery. This protection consists of the fire base organized by the heavy accompanying guns of the infantry and the self-propelled artillery, and of the box barrage of the division artillery which covers the front and flanks of the attacking units by direct support fire.

All D tank platoons initially employed leave their line of departure *simultaneously*.

This wave may *precede* that of the infantry or mixed units of infantry and accompanying tanks. The D tanks thus go into action before the infantry is exposed. Although covered by the fire base, these tanks are subject to hostile artillery fire. It devolves upon the artillery, therefore, to establish the range of the hostile artillery positions in advance and to deliver effective counterbattery,

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unless the hostile artillery is greatly inferior in numbers or taken by surprise so that it cannot adjust its fire.

Then again, the D tanks may leave the line of departure *simultaneously* with the infantry. This makes greatly for surprise effect. However, the friendly artillery then must provide all the covering fire for the D tanks during the most critical phase of their advance, the first thousand yards.

Finally, the tanks must leave the line of departure *after* the infantry, if the infantry has to seize an obstacle in the terrain which the tanks cannot negotiate without previous reconnaissance. This, too, calls for strong artillery support, generally consisting of rolling barrages and sweeping fire as well as covering fire.

The diagram accompanying this text serves to eliminate a lengthy explanation, by demonstrating how an attack with D tank support is executed.

In the course of the attack, it may be necessary for certain D tank platoons to operate in zones which, because of the conformation of the ground or the distance involved, are out of range of the covering fire of the infantry and artillery. If the tanks merely cross these zones, they must travel at a high rate of speed. However, if the tanks are required to neutralize these zones, their speed will suffer a considerable reduction; therefore, the tank platoons then must be covered throughout by *self-propelled artillery* or other tank platoons which take up position under cover and serve as an advanced fire base. The tank platoons charged with this covering mission must not leave their posts until properly relieved.

RESULTS OF D TANK EMPLOYMENT

The regulations of 1934 have this to say: The employment of the D tank causes no material changes in infantry tactics.

Its advantages are: Fewer means and a shorter preparation for the attack are

required; the continuous movement of the attack is accelerated; and more-distant objectives may be selected. In other words, the D tank facilitates the creation of a gap and may make possible a strategic breakthrough.

The D tank causes no change in the numerical strength of the artillery required by the armies.

As heretofore, it will be necessary to lend strong artillery support to large units charged with offensive operations, for the purpose of covering the tanks in action and, in many cases, also preparing their entry in action. This artillery fire will mainly consist of neutralization of hostile antitank guns, observation posts, batteries and command posts, as well as destruction of hostile communications. For the sake of surprise effect, the duration of the artillery preparation must be reduced to a minimum; consequently, as many guns as possible must participate in this preparation.

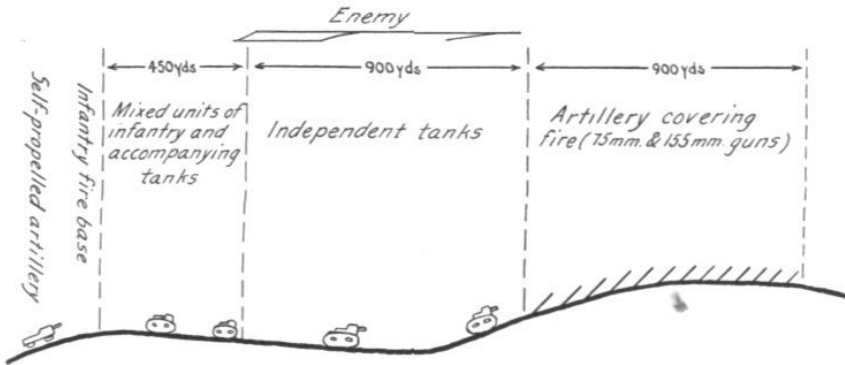
Economy in ammunition expenditure should be disregarded, for the heavier the artillery preparation, the more rapidly the attack will develop: moreover, the action of the D tanks will relieve the artillery of putting out of action many of the smaller targets which the artillery can reach only with difficulty.

CONCLUSIONS

The employment of D tanks as *independent tanks (chars de manoeuvre d'ensemble)*, a thousand yards in advance of the infantry, seems to be a complicated and dangerous maneuver. The neutralization effect obtained in this manner would be negligible. Even though two successive waves of D tanks were employed, the neutralization effect would hardly persist until the arrival of the infantry whose rate of advance in combat rarely exceeds 15 feet a minute.

Then there is the danger lest the effect of the hostile counteraction and the

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presence of antitank mines on the ground might cause delays and a reduction in the distances between the tank waves, with the result that the confused mass of tanks would present an extremely vulnerable target to the opponent.

The effect of covering fire by long-range artillery, which is difficult to direct, seems to be overestimated.

The tactics taught by present regulations may eventually undergo a fundamental change, upon the introduction of a numerically strong self-propelled artillery which is employed in advance of the tank attack, where it possesses a good field of observation and

can rapidly open accurate fire upon the hostile antitank guns with high explosive shell equipped with percussion fuse. It is possible that this modern weapon may bring about the abandonment of independent tank action and lead to the adoption of a single attack wave in which tanks closely cooperate with infantry, according to tactics that make allowance for the inherent speed of the tanks.

Such simplified tactics would largely make for a general surprise effect, the principal factor on which hinges the success of every attack that is executed in cooperation with tanks.

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Col. Benj. B. Hyer, USA-Ret, who died last November, commanded Indian Scouts and Apache prisoners at Fort Sill in 1899 and 1900 . . . FA pistol team of D. C. Reserves defeats teams of other arms with 94.033×100 . . . Sgt. John D. Airale, Btry D 10 FA, decorated at Fort Lewis, Wash., for gallantry June 26, 1918, in France . . . Staff Sgt. C. W. Lipscomb, 110th FA, wins regimental pistol club shoot . . . Christmas dinner for Hq Btry 15th FA included suckling pig . . . 1st Sgt. John G. Garies, 151st FA, wins annual regimental award for meritorious service . . . 82d FA offers to repair the old Butterfield Trail stage coach, and return it to city of El Paso . . . 54th FA Brig and 111th FA will train at Indiantown Gap this summer . . . 345th FA troop school sessions include "survey" for lieutenants, and "command and staff functions" for captains.

The New Instructions for Employment of Artillery in the German Army

THE July-August number of the *Rivista Di Artiglieria e Genio* (Italy) contains an interesting study of the 1937 German Instructions for the Italian army. These instructions amplify the provisions of the latest Instructions for the Conduct of Large Units (Truppenfuhrung) for all classes of artillery.

The fundamental principles of employment are mobility, elasticity, timeliness, and adequacy of fire; the utilization of modern technical developments; the proper use of specialists; and the prompt maneuver of fire or materiel in accordance with the commander's plan of action. All commanders, from chief of section up, are enjoined to seek superiority of fire on the enemy.

The various types of materiel are listed as follows:

Field gun and mountain gun (77-mm. and 75-mm.)

Medium and heavy guns (105-mm. and 150-mm.)

Light howitzers (105-mm.)

Heavy howitzers (150-mm.)

Mortars (210-mm.)

It is to be noted that the German artillery is relatively light and particularly suitable for war of movement.*

The ammunition is mainly shell with

* NOTE: The latest information as to the organization of German division artillery shows two regiments: One of three battalions of light howitzers (105-mm.); the other of two mixed battalions of 105-mm. guns and 150-mm. howitzers. All units are horse drawn, except for one motorized mixed battalion. The rate of march contemplated for motorized units is 15 to 20 miles per hour. In addition to the division artillery, each of the three infantry regiments has one infantry cannon company equipped with the 75-mm. mountain gun. In this study, the term "light artillery" refers to the 105-mm. howitzers and the term "heavy infantry weapons" includes the 75-mm. infantry guns.

percussion and delay action fuze. The ricochet action of shell is considered of particular importance. Against mechanized forces the ordinary shell is to be employed at the longer ranges and armor-piercing shell below 1,000 meters.

The usual form of fire contemplated and the maximum rates of fire are given as follows:

Field guns—8 rounds per minute, 180 rounds per hour

Light howitzers—6 rounds per minute, 180 to 220 rounds per hour

105-mm. guns—6 rounds per minute, 100 to 120 rounds per hour

Heavy howitzers—5 rounds per minute, 100 to 120 rounds per hour

Mortars—1 round per minute, 40 rounds per hour.

The artillery is organized into a general reserve, corps, and division artillery. The army has no organic artillery, nor does it generally retain any of the artillery assigned it from the general reserve.

An army artillery commander and staff are maintained in order to assist the army commander and to exercise general supervision over all the artillery with the army.

The corps artillery commander and staff may retain certain groupments for counterbattery and long-range interdiction missions, but in general such missions are handled by the division.

The first permanent organic artillery command is within the division, which is the main combat unit and to which all the artillery necessary for the proper conduct of battle is assigned. The organization of groupments of corps artillery is contemplated only in cases where the divisions would have to handle excessive amounts of reinforcing artillery.

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The fundamental artillery doctrine is rapid and effective aid to the infantry. Timeliness of fire is emphasized. Fire of sufficient density in immediate support is better than fire of maximum volume which arrives too late.

Artillery commanders must concentrate the fire of the majority of their batteries in support of the main effort. If the center of gravity of the action changes they must not hesitate to modify their development accordingly, notifying the commander of troops of the time required and of the temporary reduction in mass of fire. The maneuver of fire is based on the requirements of the commander's plan of action, not on the enemy's probable reaction.

Except in rare cases, there is no reserve of artillery held out. At times, a rolling reserve of ammunition may be retained.

Fragmentary orders are the rule, in order to obtain the necessary timeliness of artillery support. On the march, when contact with the enemy is imminent, all artillery commanders move ahead one echelon in order to expedite prompt receipt of orders.

The commander of the battalion assigned to the advance guard, together with his leading battery commander, accompanies the advance guard commander. In combat the commander of a battalion attached to the infantry places himself where he can best observe and direct his fire. In this case the infantry commander is responsible for communication with the attached artillery. In the case of artillery in direct support, however, the artillery commander is responsible for communication with the infantry. The command post of the division observation battalion functions as a center of information, receiving reports from the flash battery, the sound battery, the topographical battery, the aviation, and the various artillery observers. It is placed near the command post of the division artillery

commander. The command post of the commander charged with counterbattery and interdiction is also located near by.

The power of artillery is manifested in maximum degree by concentrations of observed fire.

Proper maneuver of fire requires:

Assignment of zones of observation and surveillance, indication of reference and check points.

Location of batteries (initial approximation by the batteries themselves prior to an exact survey by the battalion topographic section on data furnished by the division topographic section on data furnished by the division topographic battery) and of possible targets.

Preparation of firing data and registration.

Preparation of visibility and deadspace charts.

The battalion is the tactical unit of fire.

To facilitate command, battalions with the same or similar missions may form groupments under regimental commanders.

Close personal contact between infantry and supporting artillery commanders is indispensable. Their collaboration is evidenced by a complete plan of fire.

The 1/100,000 situation map is supplied to the artillery. In addition, topographic charts (1/25,000) are rapidly produced by the topographic battery for distribution throughout the division (command and staff; infantry, including battalion and heavy-weapons companies; artillery, including batteries; engineers; aviation). The photographic section is provided with means of restitution and reproduction and is able to prepare photographic charts (1/25,000) for the artillery within 24 to 48 hours.

Battery positions are to be chosen so as to take full advantage of natural cover from fire and observation. Natural frontages are 100-120 meters for

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light batteries and 120-150 meters for heavy batteries.

Artillery positions are, in general, protected by the infantry in the vicinity. Nevertheless, batteries must provide for their own protection, particularly against mechanized forces. Antiaircraft protection is organized on a battalion basis.

"When the pieces are put out of action or the ammunition exhausted, battery positions must be held and defended by machine guns and rifles. They constitute rallying points for withdrawing infantry as well as strong points for the support of counterattack."

Artillery signal communication is, in general, established in normal fashion from higher to lower units, to the supported infantry, and from units in general support to those in direct support. The surest and most complete installation is along the axis of the main effort. Means are held in reserve to meet changes in the situation.

The telephone is indispensable, radio being only a supplementary means of particular use between observers and the batteries.

Reconnaissance is emphasized as a most important duty of all artillery commanders. In the initial stages it is combined and directed by the division artillery commander, who has at his disposal advance detachments of one officer and two or three enlisted men per battalion.

These detachments work with the division reconnaissance group on definite missions as to the selections of positions and observation posts. They rejoin their battalions when their missions are completed.

Terrestrial observation is of capital importance. In close terrain or restricted sectors the flash battery and the battalions in direct support have priority in choice of observation posts. Battalion commanders are responsible for observation within their zones of action,

pushing forward advanced observers, as required. Axial observation is preferred.

Artillery aviation, balloons, and the division observation battalion are provided to insure distant observation and artillery information.

The observation battalion comprising a sound-ranging, and flash-ranging battery, a topographic battery, and a meteorological section, operates over a zone 8 to 10 km. wide and 12 km. in depth. The flash battery can operate within 1 to 6 hours, depending on the topographic data available. The sound battery requires 4 to 6 hours if data must be supplied by survey. However, single enemy batteries can be located for counterbattery within 1½ to 2 hours. The topographic battery carries out the survey operations necessary for the whole artillery, supplemented by the battalion topographic sections.

The combined action of artillery and infantry is essential in any form of combat. It is assured only by the close personal contact of commanders. It is facilitated by the close proximity of command posts, by the location of batteries in rear of the units supported by them, and by short and sure lines of communication.

One light battalion (105-H) ordinarily furnishes the direct support for a regiment of infantry. Groupments are organized where more than one battalion supports a single regiment.

Liaison detachments are sent out to the battalions whose action is most important. The heavy artillery battalions send liaison detachments to the corresponding light battalions in direct support.

Liaison officers must give all necessary information as to artillery support to infantry commanders whether asked to do so or not. They must also make known their location to all the infantry elements concerned. Contact with the commanders and observation posts of

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the heavy infantry weapons is particularly valuable.

A particularly interesting chapter of the regulations covers the employment of artillery with tanks. It stresses the necessity for combining artillery and tank action in order best to assist the attacking infantry. The matter of coordinating infantry and tanks is less important than that of harmonizing the action of tanks and artillery with the infantry scheme of maneuver. The combination must be elastic in order to utilize fully the tank's mobility.

In a meeting engagement the time for full development of artillery fire power will be lacking. The tanks must act at once, the artillery gradually. The fire from batteries initially in position will be employed against the enemy elements not directly attacked by tanks and shifted as needed to support the infantry moving forward in the zones of tank advance. Direct support of the tanks will depend on the number of batteries available and the conditions of observation. Neutralization of antitank weapons by fire and smoke is sought whenever the tank action will not be hindered thereby.

The artillery missions in a combined attack against an organized position will be counterbattery, timely fire on antitank guns, and fire on infantry heavy weapons. Prior to the attack, fire may be demanded to protect tank assemblies and deployments, to conceal their noise, and to aid in deception as to their zones of attack.

If the infantry and tanks are to jump off together, the artillery keeps up preparation on the enemy lines as long as possible, lifting as the tanks move forward, and forming a box barrage around the tank zone of maneuver. Protection of the flanks with observed fire is particularly important. Counterbattery fire is continued until the tanks enter the zone of enemy artillery positions.

The great difficulty of knowing just where the first tank waves are located may require reliance on a time table for lifting fire. The rigidity of a time schedule must be accepted in order to avoid delaying the tanks by the fire of their own artillery.

Penetration by the tanks must be followed by timely displacement of sufficient artillery to support the advancing infantry, as soon as the tank action terminates on any objective. Thus tanks replace artillery at the outset and are replaced by it as soon as their immediate mission is accomplished.

The vigor of the infantry advance must be sustained by alternate actions of tanks and artillery. During periods of tank assembly, the artillery acts; during artillery displacements, the tanks perform. Liaison between artillery and tanks is obtained by sending forward artillery liaison tanks, equipped with radio.

In addition to normal support, tanks require protection directed exclusively against antitank weapons. If their own heavy weapons are not sufficient, certain units of artillery may be designated for this duty. Such batteries take advanced positions, not firing prior to the attack. The first positions may be ahead of the line of departure, in which case the batteries are held limbered and ready to move forward. If possible, airplanes are assigned to this artillery for observation.

On the march the pieces at the head and rear of columns of light artillery are kept ready for fire against tanks. In case of mechanized attack on a column, the batteries fire from the road if possible. If not, they seek to clear the road and scatter. Failing this, they block the road with a vehicle, or otherwise, and defend the obstacle.

Continuous and systematic surveillance by batteries in position along the route of march is usually a waste of energy. If necessary, however, the most advanced element takes position and is

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replaced by another unit from the main body. At times, the long range heavy gun batteries (105-mm.) are pushed forward with the advance guards for this purpose.

Artillery is distributed in the march columns in accordance with its probable order of employment. The motorized units, including the observation battalion, march as a separate echelon or on a separate road, under the orders of the division commander.

A battalion of light howitzers is ordinarily assigned to the division advance guard. It marches usually with the reserve, but may detach a battery to march farther forward. When the division uses two roads the advance guard artillery moves with the principal column.

In a single column the horse-drawn units march behind the first regiment or battalion. Since the trot is rarely used by the heavy horse-drawn howitzers, they are often placed in front of the light units to facilitate rapid deployment.

The battalion combat trains consist of a light truck column and a horse-drawn column. The latter, accompanied by the second-echelon ammunition sections of the batteries, follows immediately in rear of their battalions. Upon deployment, all battery ammunition sections of the combat train move with their own batteries, giving the battery commander immediate and full control of his ammunition.

The artillery deployment in an attack should allow the concentration of observed fire of all light and heavy howitzers on the chosen decisive points and should also provide for effective counterbattery and interdiction throughout the enemy position. The deployment is made to fit the division commander's scheme of maneuver without awaiting further and more precise information of the enemy. Supporting and attached artillery must deploy close behind the infantry concerned.

After reconnaissance, artillery commanders, from the battalion down, issue fragmentary orders for the deployment of their units and then proceed to their command or observation posts. The battery commanders occupy themselves at once with the preparation of fire, while the executives move the guns into position. The regulations prescribe explicitly that the executive must always remain with the guns.

If a corps counterbattery and interdiction groupment is formed, the time at which it takes over such missions and the range limits between the division and corps artillery are prescribed by the corps commander. Division artillery may be called on to reenforce the corps counterbattery action. The corps groupment uses the division observation battalions for its adjustments.

The artillery supports the attack by firing mainly on the enemy infantry and artillery. Both must be covered throughout the action, although with varying intensity. Fire against other objectives is strictly limited. An artillery preparation is usually required against an organized position. After the preparation, rapid and effective supporting fire is necessary. This grave responsibility rests on the shoulders of the advanced observers.

The artillery must keep close to its advancing infantry and must not be deterred from moving forward by the fact that rear positions offer good possibilities of fire and observation. The displacement of single batteries of supporting and attached artillery on the initiative of battalion commanders commences as soon as the infantry has moved sufficiently far in advance, even though the limits of fire and observation have not been reached. In case of doubt, it is better to be too far forward than to run the risk of losing contact with the infantry. General-support and reenforcing artillery displaces under division orders, the heavy motorized batteries being

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pushed well forward to reach far into the enemy lines. Battalion displacement orders contain the direction of advance, the mission, the order and time of movement of each battery, the time for opening fire, the route, and the rendezvous point. The battalion commander moves forward, installs his leading battery, and immediately regains contact with the infantry commander.

In a meeting engagement, the rapid intervention of artillery is essential. Advance guard artillery goes promptly into action while the remaining artillery is advanced and deployed only as required to give consistency to the dispositions being made. The initial orders for deployment, fragmentary in form, will be completed as the situation becomes clearer. The division artillery commander seeks to keep as much as possible of his artillery in hand.

An attack against organized positions requires that the plan of artillery employment be accurately prepared. Reconnaissance and observation are conducted systematically. In general, zones of action are small and the number of reinforcing batteries large. This means a considerable deployment in depth, although on the offensive. Dispositions in depth are made within the whole artillery as well as within battalions. The supporting artillery is placed in two or more echelons, corresponding in inverse order to the infantry echelons for successive attacks. The light artillery supporting the main effort deploys in rear of its infantry regiment. Other units may be spread laterally. Initial deployments are made generally at night and with the greatest caution.

The plan of fire, made in conformity with the orders for the attack, contains: The time of opening fire, the battalion missions, the length of preparation, and prearranged fires.

The attack may be preceded by local action to draw enemy artillery fire. Counterbattery is particularly impurposeful, if sufficient ammunition is available.

Full exploitation of a success implies the use of artillery in the pursuit. Light horse-drawn or, better, motorized battalions are attached to the columns organized for direct pursuit. The heavy batteries fire until they reach the limit of their range and then displace forward on their own initiative. "All artillery commanders are enjoined to move their units forward in order to exploit a success."

Ammunition supply now becomes one of the main duties of the division artillery commander. If the enemy is able to check the advance, the artillery commander must get all his units in hand immediately to support a new attack.

"Defense is mainly a matter of fire."

Fire is begun by the artillery at long range, whenever possible. When the distance from the enemy permits, delaying tant. In this, the light howitzers are detachments with heavy infantry weapons and artillery, well supplied with ammunition, operate ahead of the selected defense position. Certain advance positions are often occupied by similar detachments, to maintain observation, to deny occupation by the enemy, and to conceal the real position. These act mainly by fire at long range and are withdrawn before close contact is gained.

In general, no artillery is detached with the outposts of the real position. The distribution in depth of the artillery corresponds to four distinct phases:

a. Artillery immediately in rear of the main line of resistance: single batteries at times ahead of that line; advanced observation in the outpost zone, and beyond. Missions: Distant action on enemy columns and the protection of advanced elements.

b. Slight echelonment in depth corresponding to the gradual occupation of

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the main defense zone; advanced observation.

c. Full echelonment of all the artillery for the immediate support of the main line of resistance; observation echeloned in depth behind this line.

d. Occupation of alternate and rear positions as the enemy advances.

Evidently only a highly mobile and rapidly maneuverable artillery could carry out such assignments.

Battalions are assigned to the support of particular sectors, but the division artillery commander must keep in hand a powerful mass of artillery.

During the approach phase every effort must be made to subject the enemy to artillery fire, but the final organization of the defense must not be disclosed. Hence, large use must be made of temporary positions, roving batteries, and even roving guns.

Just prior to the attack, a counter-preparation of all available batteries, together with fire from the heavy infantry weapons, should be directed on enemy assembly positions and lines of supply and reinforcement.

Tanks should be fired on as soon as possible, utilizing air observation on their assembly positions. Unobserved fire is ineffective. At the jump-off, the artillery fires to block zones through which the tanks must pass. As they advance, it shifts to their accompanying or supporting weapons and then to the infantry which follows. It employs direct fire against individual tanks which have penetrated into the position only when menaced by their action at close range.

Standing barrages (150 meters per battery) are prepared to check attacks at night and in smoke or fog.

In the delaying defense (*hinhaltender Widerstand*), a form of combat considered particularly valuable by the Germans, the artillery attacks at long ranges to cause losses, check the enemy

advance, and deceive him as to the character of the defense. The lines of defense are chosen to facilitate such fire. The broad fronts covered require a decentralization of the available artillery and its assignment to the most important sectors. A central group must be retained, however, for reinforcement and for counterbattery and interdiction.

During withdrawals, certain artillery units must remain in action as long as possible to cover the infantry and mask the rearward movement of other units. Battalion and battery commanders remain with their units. Single sections may be assigned to security detachments with the mission of resisting to the last without concern as to the loss of their guns.

The movement of artillery in retreat is conducted at the walk.

Rear guards should be strongly reinforced with artillery, particularly with long-range guns, to scatter and delay the advancing enemy columns. Mobile reserves of ammunition should be provided at suitable points. The artillery action should be centralized under an artillery regimental commander when possible.

At night and in fog or smoke, artillery action continues in the form of barrages and other prearranged fires. Adjustments by the observation battalion are possible and often more practical at night than in daylight. Night attacks require the most precise arrangements between infantry and artillery commanders and very definite orders as to artillery missions.

In fog or smoke, the sound-ranging battery may be utilized. The attachment of single batteries for the close support of infantry may be necessary.

Air observation is often useful at night if the observers are familiar with the sector and can identify their reference points.

Night firing from new positions presents no great difficulty if a day reconnaissance and preparation of fire have

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been possible. The data from directing batteries already in position can be utilized.

Without proper daylight reconnaissance and preparation, effective fire is extremely difficult. Single batteries can be placed near the roads at well known locations. The

greatest difficulty is the determination of minimum range.

The Instructions do not cover the employment of artillery in special situations (woods, villages, river crossings, and the like). These are to be included in a subsequent publication.

j. s. w.



WHAT IS IT?

This photo, reproduced untouched, was taken by Major F. A. Metcalf, 13th FA, of a 155-mm. howitzer of the 11th FA, at Schofield Barracks, T. H., with a Rolleiflex camera, set for exposure of 1/500th of a second.

It shows the piece fired, but not yet in recoil. The original photo, naturally clearer in detail than an engraving, shows, emerging from the muzzle, what would appear to be the nose of the shell. Even the enlargement in the upper right-hand

corner fails to suggest this. Could the ring be gas which blew by the rotating-band-and-rifling contact? Or is it the air in the bore ahead of the projectile, which, by the latter's passage, was forced out and made visible not only by its rotation but by the sudden condensation to which this pressure would subject it?

It is, at any rate, a most unusual photograph, of a type that could not be duplicated by design without the most delicate of timing apparatus.

Organization of German Division Field Artillery

Extracts from an Article by Captain F. L. Hvalkopf in the
Dansk Artilleri-Tidsskrift, June, 1937, Translated by Sgt.
Fred W. Merten, DEML

The German infantry division comprises:

- 3 infantry regiments;
- 1 antitank battalion;
- 1 reconnaissance battalion;
- 1 light field artillery regiment;
- 1 heavy field artillery regiment;
- signal troops; engineers.

The division artillery comprises:

- 1 regiment of light field artillery, horse-drawn (3 battalions of 3 batteries each), all batteries 105-mm. howitzer;
- 1 regiment of heavy field artillery, consisting of 2 battalions (one horse-drawn, the other truck-drawn) of 1 battery, 105-mm. gun, and 2 batteries, 150-mm. howitzer, each and 1 motorized battalion of 1 survey battery, 1 flash battery, 1 sound battery.

The infantry division does not organically include antiaircraft artillery.

The light horse-drawn battery consists of:

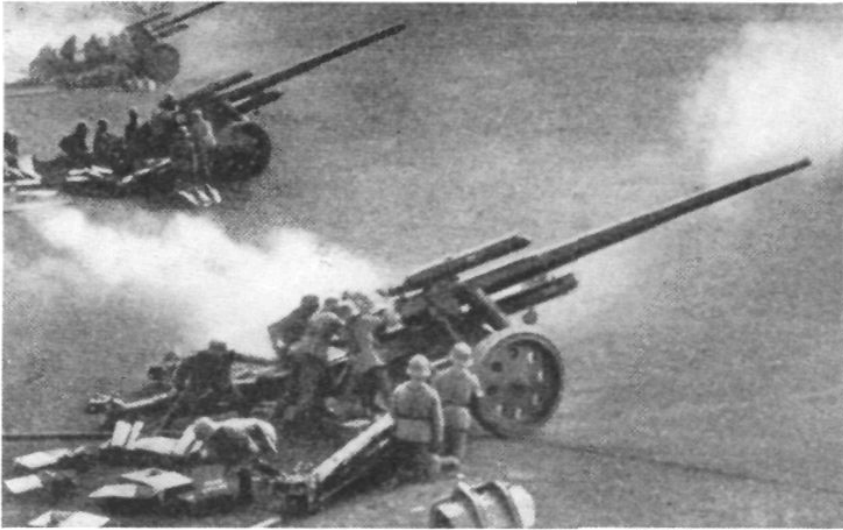
Battery headquarters:

- 1st Section: Battery commander, observation officer, mounted messenger, horseholder;
- 2d Section: NCO with binocular, NCO with aiming circle, signal officer, mounted messenger;
- 3d Section: 3 mounted telephone operators and 1 pack horse for telephone equipment, 3 mounted radio operators and 1 pack horse for radio equipment.

Signal platoon: 1 observation cart and limber drawn by 6 horses; observation group leader. The cart and limber carry 4 telephone operators, 2 radio operators and 2 range calculators; 4 telephones, 7-km. of heavy wire in 7 drums, 4-km. of light wire on 8 drums, 1 radio set, switch board and stool, stop watch, range calculating machine and drawing instruments, megaphone, tent and electric lighting equipment. 1 light telephone cart, and limber, drawn by 4 horses; telephone group leader. The cart and limber carry 4 men, including 1 telephone operator; 4 telephones, 7-km. of heavy wire on 7 drums, 4-km. of light wire on 8 drums, 1 radio set. Total signal equipment: 14-km. of heavy wire, 8-km. of light wire, 8 telephones and 2 radio sets.

Combat echelon: Battery officer, mounted messenger and air guard. 2 platoons of 2 105-mm. howitzers each, drawn by 6 horses (one of the platoon commanders carries an aiming circle); 1 carriage leader. 1st ammunition platoon: 2 sections of 2 ammunition carts each, drawn by 6 horses; 2 light machine guns. 2d ammunition platoon: 2 sections of 2 ammunition cars each, drawn by 6 horses, or 3 ammunition wagons, drawn by 4 horses.

Combat train: 1 field kitchen, 2 baggage wagons, 1 supply wagon, reserve horses.



—From Dansk Artilleri-Tidsskrift

GERMAN 150-mm. PIECES

Each battery carries 480 rounds of ammunition (4 limbers of 12 rounds each and 8 ammunition carts of 54 rounds each), that is, 240 rounds for each piece. The ammunition consists of high-explosive shell with percussion and double-action fuze, and smoke shell.

The heavy horse-drawn battery is organized like the light battery. The heavy FA battalion includes 1 battery of 105-mm. guns, drawn by 6 horses, and 2 batteries of 150-mm. howitzers, drawn by 6 horses. The battery carries 130 rounds of ammunition for each piece or a total of 200 rounds for each piece, counting the ammunition carried by the motorized battalion trains.

The heavy motorized battery consists of:

Battery headquarters: 4 touring cars, 1 motorcycle with side car, 2 observation cars, 2 radio cars, 1 telephone car.

Combat echelon: 1 touring car, 4 half-track vehicles pulling the 4 pieces of

the battery and carrying the gun crews, 4 ammunition trucks (vehicle mounted on 6 bogie wheels), 2 machine guns, 1 motorcycle.

The heavy motorized battalion carries 200 rounds of ammunition for each piece, the same as heavy horse-drawn artillery.

Battalion headquarters of the light horse-drawn artillery comprises:

Battalion commander, 2 mounted men, 1 touring car.

Signal platoon: 1 observation vehicle, drawn by 6 horses, 2 telephone vehicles and 1 radio vehicle, drawn by 4 horses each, 1 lead horse with wire unwinding apparatus, observation equipment. The signal equipment includes: 1 telephone center, 16 telephones, 44-km. of wire and 4 radio sets.

Survey section: 1 vehicle, drawn by 4 horses, with topographical and meteorological equipment.

Motorized ammunition train.

Battalion headquarters of the heavy

ORGANIZATION OF GERMAN DIVISION FIELD ARTILLERY

artillery has the same organization.

Regimental headquarters of both, the light and heavy field artillery, comprises: the regimental staff and signal and survey elements equipped with 4 vehicles.

Observation battalion:

Headquarters: 1 touring car, 1 motorcycle, 1 closed command car.
Survey battery: 1 touring car, 1 motorcycle, 2 command cars. Flash battery: 120 men, touring car, motorcycle, passenger cars carrying 4 or 5 men and equipment, 3 closed cars for: Fire observation, collection of information, reserve, and changes of position.

Sound battery: Touring car, motorcycle, passenger cars carrying 4 or 4 men and equipment, 1 car for the collection of observation results, 2 cars for the exploitation of

intelligence gained from observation.

Battalion and battery trains.

Effective strength:

Regimental headquarters: 1 regimental commander, 3 lieutenants, 1 sergeant-major, from 40 to 50 other noncommissioned officers and men. 36 musicians, about 90 horses.

Battalion headquarters: Battalion commander, 2 lieutenants, 1 sergeant-major, about 60 other noncommissioned officers and men, about 66 horses.

Battery: 1 captain, 2 lieutenants, 4 sergeants, about 10 corporals, about 10 privates first class, about 100 privates, about 80 horses.

In addition, the regiment includes administrative and technical personnel.



The November Recruiting News carries story and picture of Master Sergeant James Brought, 12th FA, Croix De Guerre, recently retired, who last year pitched his regimental team to victory. . . . PFC H. E. Beddall, Hq Btry 2d Bn 11th FA, was recently commended by Hawaiian Department Commander Hugh A. Drum for efficiency as conductor of a school bus, proving a man needs no conspicuous position to make his light shine.



The Heroes of the Berezina

BY JOSEPH MICHAEL LALLEY

If we cannot get across we will try what our pistols can do.

—Napoleon to General Caulaincourt, November, 1812.

BY all military logic, Hilaire Belloc thinks, the career of Napoleon I, and with it the French Revolutionary epoch, should have ended in the early winter of 1812 in the half-frozen marshes around the River Berezina, instead of two and a half years later in the green and gold lowlands of Brabant. Such, indeed, was the view at the moment of the *maréchals* themselves, men not given to inordinate pessimism in the face of odds. Nearly all were convinced that the game was up, and doubtless were looking to their pistols, too. Murat wanted the Emperor to abandon the *Grande Armée*—which name, by force of habit, they still gave to their rabble of half-animate cadavers—and to take a chance at being smuggled across the Polish border in disguise.

Even Ney must have considered the trap at the Berezina a far worse mess than the one from which that *maréchal* had extricated himself so brilliantly at the Dnieper. Ney was overheard to mutter in German: "If he gets out of this, he *must* have the devil in him."

That Napoleon did get out, though not without sacrifices that mark the high point of horror for the whole nightmare of the Retreat, is one of those supposed historical accidents, so fascinating to historians because they leave so free a field for conjecture. Why, for instance,

did Admiral Tschitschagov decide suddenly to abandon a position from which, at one point, he could with a single salvo have ruined Napoleon forever? It was a matter of much speculation among the French themselves, and one of them concluded that in a moment of mental confusion Tschitschagov, a naval man, supposed it impossible to do anything without a favorable wind. Napoleon boasted he had fooled the Admiral with a few smart stratagems. Tolstoi would have us believe the whole Russian strategy, from Malo-Yaroslavetz on, was to hurry rather than hinder the Grand Army's retreat. "Why direct military operations against an enemy who is running away as fast as he can?"

Absorbed in such puzzles, the historians have time to give only incidental admiration to General Jean Baptiste Eblé and his handful of *pontoniers*, who made possible the impossible by creating those military bridges of tragic celebrity. Almost every man among them, less than 400 in all, must have perished, and each must have known that the chances were more than one hundred to one that he *would* perish. Eblé himself died of exhaustion when the retreat reached Königsberg, but General Chasseloup-Laubat, who seems to have been a kind of second-in-command at the making of bridges, lived to become a peer of the Restoration and to vote against the death of Marshal Ney.

Little information about the life and

"The passage of the Berezina was truly wonderful."

—Jomini, *The Art of War*.

THE HEROES OF THE BEREZINA

career of General Eblé is to be culled out of the conglomeration of Napoleonic literature, but that little is most respectful. It shapes gradually, if dimly, into the portrait of a highly intelligent and ingenious artilleryman and engineer and of a singularly modest and dutiful soldier, frequently overlooked in the assignment of honors and titles, but rarely unobtrusive at the moment he happened to be needed. Colonel Theodore K. Dodge, author of a four-volume biography of Napoleon, credits Eblé with the invention of a new type of grapeshot and a contrivance for heating cannon balls in coast artillery, but neglects to give the sources of his information.

Over and above this, we know that Eblé was born in Sainte Jeanne de Rohrbach in Lorraine soon after the beginning of the Seven Years War, so that he was in his middle fifties—and, according to one authority, "prematurely aged and physically broken"—when he undertook his big job of saving Napoleon at the Berezina. He seems to have entered the army in early youth, probably some time before the end of the monarchy. The Revolution introduced a system of rapid, if often fatal, promotions, and at thirty-four he was already a brigadier of artillery in the Armée du Nord under Dumouriez. In another year he was commanding a division. In the Rhinish campaign of 1800 he commanded Moreau's artillery at the great victory of Hohenlinden. After the Peace of Tilsit he entered the service of the King of Westphalia, who made him minister of war and later commander of the royal guard.

He was recalled, however, by the Emperor for service in the Peninsular War, and it is during this period, especially in the Portuguese campaigns when he contrived some difficult passages of the Tagus, that he appears to have earned his reputation as a military



JEAN BAPTISTE EBLÉ
1755—1813

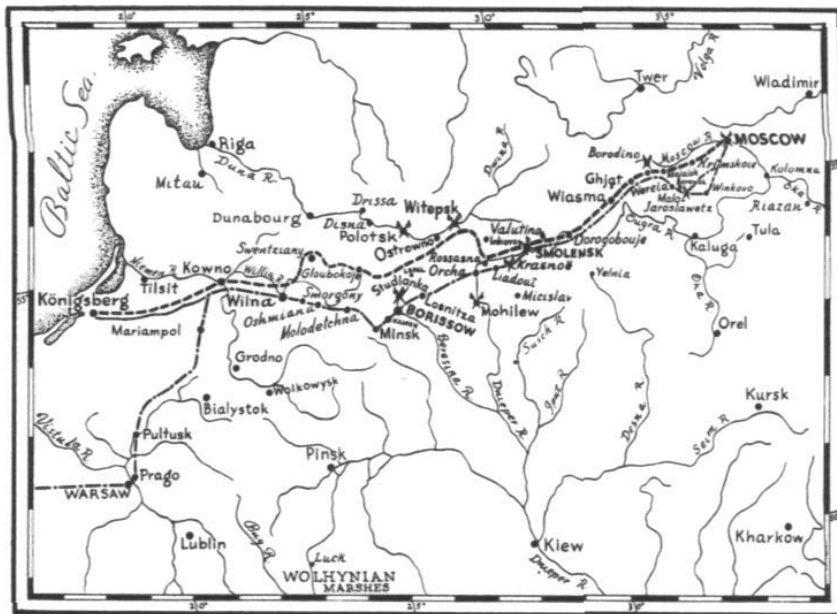
France's first Inspector-General of Artillery

engineer. At the beginning of the Russian campaign he was placed in full command of the *equipages de pont*, a staggering responsibility, as you will discover by looking at the map to note over how many successive streams it was proposed to transport what was originally a body of nearly a half million men, with their well-nigh interminable supply wagons, artillery, and herds of remounts. The passage of the Niemen, with which the invasion began, required three days and four nights over three pontoon bridges Eblé's men had thrown over the river in a few hours.*

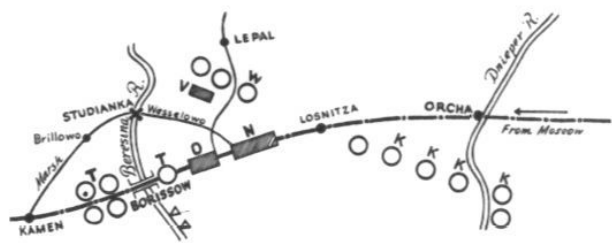
There are a few stories that give

*Only three corps d'armée and the Guards (about 225,000 men) crossed these bridges near Kovono. The Fifth, Seventh, and Eighth Corps under King Jerome were to move eastward from the Vistula below Warsaw. The plan was to catch the retreating arm of Prince Bagration in the pincers. It failed.

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MARCH TO MOSCOW----- RETREAT -.-.-.- BATTLES X



○-RUSSIANS { T - Tchitchagoff
 W - Wittgenstein
 K - Kutusof
 ■ - FRENCH { O - Oudinot
 V - Victor
 N - Main Forces
 X - Crossing ≡ - Bridge ← - Feints at Crossing
 Orcha to Borissoff about 85 English miles

—From "With Napoleon in Russia" by Armand De Caulincourt. Wm. Morrow and Co.

RELATIVE POSITIONS OF FRENCH AND RUSSIAN ARMIES JUST BEFORE THE PASSAGE OF THE BEREZINA, ABOVE: ROUTE OF THE ADVANCE TO MOSCOW AND OF THE RETREAT

THE HEROES OF THE BEREZINA

some inkling of Eblé's power to persuade men to the last possible ounce of effort. One concerns the morning after Malo-Yaroslavetz, when the Emperor came so near to being captured. Eblé helped to scare off the Cossacks by turning about some guns with his own hands and firing them with the aid of a common soldier, whose panic he dispelled with a shout of, "Comrade, please wait and help me with these!"

Séгур relates, rather casually, something almost incredible, yet certainly true: When the Retreat reached Smolensk an order was given for the destruction of all but the most absolutely necessary baggage and the transfer of all horses to the artillery. Eblé, fully anticipating his difficulties at the Berezina, protested bitterly, but with no success. Although little attention was paid to this or to any other order at the time, all that the still-obedient Eblé was able to salvage was a pair of field forges and a couple of wagonloads of charcoal. Thereupon—and this is the incredible thing—by some magic of personality he induced each of his men to encumber himself with a tool and several heavy iron clamps.

He did this at a moment when demoralization had reached the point where men could not be persuaded to retain their muskets, even for protection against wretches within their own ranks who were ready to murder for a morsel of horseflesh or a fragment of biscuit. And after Krasnoi even the Guards were giving in, and in those long stumbling herds of "spectres clad in women's furs, or dirty carpets half ruined by fires, and with bloody, rag-bound feet" could be seen general officers, regimental commanders, and privates all together, heedless of one another and of everything except personal survival.

Napoleon's original plan had been to attempt the passage of the Berezina over an existing bridge at the town of Borisov,

a sizable enough place to appear upon the general map. To conceal this intention from the Russians, however, the columns had turned from the high road, and were bearing slightly northwest through the immense evergreen forests. In the course of this march the fugitives were reunited with the two corps d'armée of Victor and Oudinot, numbering altogether somewhere between 30 and 35 thousand men, by comparison wonderfully fresh and well-equipped. But on the farther bank of the river, with perhaps 35,000 Russians, Admiral Tschitschagov waited to thwart the passage wherever it might be attempted. Somewhere above, along the east bank, and against the French right flank, lay Count Wittgenstein in about equal force; but Borisov was thought to be safely held by Dombrowski's Poles.

Soon after the junction with Victor and Oudinot the Emperor received the terrible news that some of Tschitschagov's forces had crossed to Borisov by the existing bridge, stormed the town and routed the Poles. Thus the Russians were in virtually complete possession of both banks of the river. At the rear and against the left flank moved the vast main army of Kutusov. The trap had closed around Napoleon and by every calculation it seemed inescapable.

Marshal Oudinot, however, attacked the Russians at Borisov and succeeded in forcing them back across the Berezina. But when he entered the town on November 23, the *maréchal* found the bridge so badly damaged by the Russians after their flight as to be beyond any possibility of repair. He learned of a ford somewhat downstream at a place called Oukoholda, but so deep as to be almost impossible. A little upstream there was a shallower ford, but approach was blockaded by a virtually impassable marsh.

Meanwhile, one of his brigades commanded

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by General Corbineau, making reconnaissance up the river, on the west bank, had sighted a strong force of Russians and had withdrawn to the cover of the woods. There they encountered a Lithuanian, who was riding a horse with coat so wet as plainly to have just emerged from the stream. After some palaver, this man was induced to lead General Corbineau to the place where he had made his fording. It was only a few hours' march from Borisov and was known as Studienka. When Corbineau joined Oudinot he informed him of what he had found.*

There appears later to have been a warm controversy over the question of to whom the glory belonged for finally deciding upon Studienka as the place where the passage would be attempted. Mr. Belloc scornfully disposes of the whole dispute by pointing out that, given the same proportion of blunders by the Russians, the result would have been the same had the crossing been tried at any other of the places possible. Anyhow, Studienka has become a memorable name. Whoever made the choice must have made it quickly, for later the same day Corbineau's brigade, with a few pioneers and artillery of Oudinot's corps, returned to the ford and quietly took possession. They had orders to prepare for the construction of the bridges, but nothing much seems to have been done before Eblé's arrival there two days later.

In the hope of decoying the Russians from the bank opposite Studienka a desperate ruse was adopted. Some men of the countryside, known to trade in espionage with both sides, were rounded up and brought before General Lorencé. He questioned them closely about fords of the Berezina but pretended to be

dissatisfied until they mentioned the one at Oukoholda. Some of these prisoners he detained, ostensibly to serve him as guides; the others he turned loose at his outposts after requiring from them an oath they would meet him on the lower Berezina with a report of the enemy's movements. In this way, he hoped, precisely the right misinformation would get to Tschitschagov's headquarters. To give it some verisimilitude a force of about 300 effectives, and perhaps twice that many stragglers, was hurried to Oukoholda with instructions to go through the motions of collecting materials for bridges and to make as much noise about it as possible.

About nightfall of November 25 General Eblé arrived at Studienka. With him were three or four companies of pontonniers. Most of these men had seen Moscow, which meant that they now must have been pretty well broken with starvation and fatigue. Yet they were sustained by the knowledge that the fate of the whole army and the very person of the Emperor depended upon them. They fetched with them such meagre materials as Eblé had been able to save—a field forge, two wagonloads of charcoal, and six wagonloads of odds and ends, mostly iron tires from abandoned wheels.

Three hours later Marshal Oudinot arrived with the rest of the Second Corps, now the advance guard of the whole army, and put his artillery into position on the heights which command the Eastern bank of the river. Thereupon, General Eblé led his men down the slopes to the bank. They took with them the forge and one load of rusty iron. They began their work immediately, felling the lumber from the forest, forging bolts and clamps from the iron.

The Berezina, a brief and muddy but navigable stream, has its origin in the innumerable White Russian marshes above Borisov and empties into the Dnieper about 130 miles to the Southeast

*At the time the ford was found Corbineau's cavalry brigade, which had been detailed to the Bavarian division, was seeking to rejoin the main body of its corps.

THE HEROES OF THE BEREZINA

of that town. In the neighborhood of Studienka it is about a quarter mile wide, counting some of the marsh on the Western side. Beyond either bank the ground rises in fairly steep, pine-covered slopes to considerable height—a little higher, perhaps, on the western side than on the other. These heights on the west bank were now occupied by a division of Tschitschagov's army under General Tschaplitz, and those on the eastern bank, as we have been, by the advance guard of Marshal Oudinot. So close are the heights to the river that the pontonniers could work that night by the light of their enemy's fires, expecting that the sound of their hammers and axes would at any moment awaken his guns.

The stream was swollen by the thaw which had succeeded the ferocious cold of the past fortnight. Now the temperature hovered at about half a point above freezing, and when late that night the pontonniers waded out into the stream they found themselves in ice water up to their chins. A heavy gale had set in from the north, pelting their faces with fine particles of ice whipped up from the surface of the stream. Since human flesh and blood could not endure in such water for very many minutes together, Eblé was forced to divide his men into two gangs which relieved each other at quarter-hour intervals. Even so, a dozen poor devils died of drowning or chill within the first few hours. The bridge required the support of 23 sets of trestles (*chevalets*), and the first of these when put in place proved too weak and the work had to begin all over again. General Eblé reported that the bridge could not be finished that night and in all probability the work must be continued under fire on the morrow.

While Eblé's men continued this heroic suicide, the Emperor was restlessly pacing through the halls of some nobleman's villa, several miles downstream, around which the remnant

of his Guards had bivouacked for the night. He never doubted then that the passage would have to be forced in the morning, if it could be forced at all, at the price of a fearful battle. In this he must depend almost entirely upon the troops of Victor and Oudinot, and even these were already sorely demoralized from their short association with the pathetic fugitives from Moscow. It was here that Murat tried to persuade his brother-in-law the whole thing was hopeless and to fly while he could.

Long before daybreak the *maréchals* were peering anxiously toward the Russian lines, believing they would soon discern there Tschaplitz' division arranged for the attack on Eblé's half-finished bridge. But to their unutterable astonishment and delight the dawn showed them only the abandoned camp of the enemy and a glimpse of the last of his column disappearing into the south. Minutes passed before they were prepared to believe their eyes or to accept the confirmation of hearing what other eyes had beheld. Napoleon, receiving the news from Rapp and Oudinot, was long incredulous, but convinced at last, took full credit for his good fortune, exclaiming: "I have outwitted the Admiral." He also concluded, too rashly, that his Austrian ally, General Schwarzenberg, commanding the extreme wing, was moving in to support him.

Eblé's bridge, however, was yet far from finished and what were left of his pontonniers still struggled in the ice water, submerged to their necks and hampered in every movement by chunks of ice washed down in the current. The General was on the bank, shouting instructions and encouragement. There is a story that Napoleon, coming down to inspect the work, poured wine with his own imperial hands for the dripping, shivering men when they floundered ashore for materials, or for their

THE FIELD ARTILLERY JOURNAL

brief moment of relief. Though the story is doubtless untrue, it would have been a slight enough mark of the gratitude he owed them.

Still, one well-directed round of artillery fire from the opposite heights would be more than enough to undo everything the pontonniers had accomplished. And since it was impossible that Tschitschagov could be much longer deceived about what was taking place, it was merely a matter of time until he would return in force. There was some intermittent sniping from the Cossacks who covered Tschaplitz's rear and who appeared from time to time on the opposite bank. To put a stop to this some 50 of Oudinot's chasseurs, each with an infantryman *en croup*, swam or forded the Berezina. A raft knocked hastily together made about 20 round trips, transporting some 400 men to the other bank. The ease with which the river was thus crossed and recrossed while the pontonniers were still at work has led some critics to blame the subsequent ghastly happenings on panic alone. One has surmised that if Napoleon had only been willing to abandon the stragglers and sick, the passage of Oudinot's Second Corps, Victor's Ninth Corps, the Guards, and such others as remained under arms and discipline, could have been accomplished almost without loss. But it seems not to have occurred to the Emperor he should thus forsake the men who had served him so well at Smolensk, Borodino, Maio-Yaroslavetz, and Krasnoi, and whom he had led into so many successive miseries.

Meanwhile, around the embers of numberless bivouac fires behind Oudinot's lines was sprawled all this indescribable polyglot wreckage of the Grande Armée — French, Germans, Poles, Croats, Lithuanians, and some relics of Prince Eugene's brave Italian conscripts — the camp followers, and civilian refugees from Moscow.

Thousands, probably, were ambulatory cases of typhus or pleurisy. Few could detach themselves from their miseries, or from the animal lust for survival, long enough for a grateful thought for Eblé's brave fellows, dying to save them. One noncommissioned officer of the Guards has left us the description of a typical scene at these bivouacs.

"Near our fire was a man in full uniform. When I asked him why that was, he only laughed. It was the laugh of death, for he expired that night. A little farther away was an old soldier with two chevrons—that is, fifteen years of service. His wife was a cantaniere, and now he lay dying with his head in her lap. They had lost everything, carts, horses, baggage, two children who had died in the snow. Leaning on her shoulder was a beautiful girl of 14 or 15 years, sobbing bitterly, her tears falling and freezing on the dying father's face. . . . Whichever way one might turn and look the same scenes were taking place."

Yet those who were able to think at all must have known that in the bridging of the river lay the one remote hope they might ever see their homelands again, or ever again know the joy of tasting bread. Otherwise, the best they might hope for was that the Cossacks, after stripping them naked for the sake of a few verminous rags, might be compassionate enough to kill them. For, as regards provisions, the Russians were in almost as sorry a state as the French and to be made prisoner by them was slower but not less certain death.

Sometime between one and two o'clock in the afternoon of Wednesday, November 26, the surviving pontonniers drove their final rivet into the bridge at Studienka, and Oudinot's divisions began swarming across to reinforce the handfuls on the other side. But still the work of Eblé's men remained unfinished.

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Scarcely pausing at their fires long enough to bring back blood to their frozen fingers, they moved some 600 feet downstream to begin a larger and heavier bridge for the passage of artillery and supply trains.

Meanwhile, Victor had drawn in his lines to cover the eastern bank between Borisov and Studienka. The Russian attack anticipated from Tschitschagov on the west bank did not materialize until Oudinot's corps and other troops, all now under general command of Ney, were well enough established there to render it ineffectual.* But on the other side Wittgenstein's forces got belatedly yet decidedly in motion. What appears to have happened is that Wittgenstein, probably intending to attack the right flank of the Grande Armée along the Moscow high road, inadvertently marched almost entirely around Victor's contracting lines. Thus for two days he met nothing at all. On Friday, November 27, General Patlov's advance column of Cossacks rode into Borisov, just as the division Marshal Victor had left there as the rear guard of the whole army was beginning its retreat toward the bridges.

All day long that division, commanded by General Partouneaux, had beaten back the attempts of Tschitschagov's forces to cross the river into Borisov. But when the division at last evacuated the town, Wittgenstein, by a movement against Victor's flank, managed to cut it off from the rest of its corps. Partouneaux's men fought stubbornly inch by inch, seeking to reach Studienka by a roundabout movement, only to get lost and to find themselves floundering in marsh. By evil luck they had fallen in with a band of hysterical stragglers, who threw their ranks into confusion and told them falsely Marshal Victor had abandoned them,

* Marshal Oudinot was wounded in the fighting on the evening of November 27.

retreated across the river and burned the bridges. Partouneaux's men, their number now reduced by half, were utterly disheartened by this tale. Their general, after vainly exhorting the stragglers to help him fight, felt obliged to surrender. It was the first surrender of an organized body of French in the whole unhappy campaign, and it placed three general officers, several thousand comparatively well-clothed men, and numerous artillery in the hands of the Russians. Thus Victor's remaining divisions became the rear guard of the retreat.

In the late afternoon of November 26 Eblé had reported the completion of the second bridge. Such of the pontonniers as had yet a little life in them now lay along the bank, half delirious with pneumonia, yet still willing, at the order, to struggle to their feet and to wade again into the ice water for some repair. Such an order came at eight o'clock that night, when the artillery bridge broke down under the strain. It was three hours before they got it fixed. It broke again at two o'clock the next morning, and this time required four hours to fix. It broke a third time at four o'clock on the afternoon of the 27th, and was not repaired until six o'clock.

In the meanwhile, General Eblé, so far from resting, had been making a survey of the baggage, most of it belonging to the corps of Victor and Oudinot, though it still included some loads of incongruous plunder from Moscow. Eblé reported to the Emperor that to get all this stuff across the river would, over and above the strain upon the bridges, require the better part of a week. "Burn it, then," Ney advised curtly; but Berthier, prompted. Ségur says, "by the demon of the courts," urged that it be salvaged if possible.

The rest of the story is so well known and so harrowing that one hurries willingly

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over the details: How the successive breakdowns of the artillery bridge increased the congestion at the other bridge until all pretense of order vanished; how again and again the stragglers stampeded the bridge till the approaches were jammed with a horrible and hopeless confusion of humanity, horses, and guns; how those unhappy enough to stumble on the slippery, rough-hewn surface of the bridge under the ever-increasing momentum of the hordes behind them were instantly trampled into shapelessness; how the dying on the bridge clutched at legs in the onrushing crowd so that wretches were rolling in pairs into the river; how in the end neither troops nor guns could pass until Eblé's men could clear away the blockade of corpses. Nothing in hell, said a survivor, could possibly match the bedlam after the Russians at last closed in on Studienka and opened fire with artillery and musketry on the approaches. The shrieks of the dying and demented, he declared, drowned even the cannonades of both sides and the whistle of the gale.

Long after night had closed over that terrible Saturday. November 28, the last

of Victor's men, who had remained at magnificent sacrifice to cover the retreat of the stragglers until the last moment possible, tore themselves a path through the hysterical mass and crossed to the eastern bank. All night long, however, many thousands still struggled in insane confusion at the approaches; others too ill or too helpless to struggle remained along the eastern bank. Eblé, according to the anonymous author of a biographical fragment, had orders to destroy the bridges at dawn and for the first time in his life disobeyed an imperial command, waiting, in the hope of saving a few hundred more lives, until half past eight o'clock Sunday morning before setting the timbers ablaze. That act of insubordination, says this authority, does Eblé more credit than all his military exploits together. The sight of the flames electrified the crowd upon the bank, many of them women and children, rousing them out of their lethargy. There was a last stampede; hundreds strove to rush across the blazing timbers and when they could go no farther hurled themselves headlong into the river.



NINTH CORPS OF THE GRAND ARMÉE CROSSING THE BEREZINA BY THE UPPER BRIDGE, NIGHT OF NOVEMBER 28-29, 1812

THE HEROES OF THE BEREZINA

So ends the story of the Berezina and of Eblé's pontonniers. Probably theirs were among the 36,000 - odd corpses from the river and nearby marshes which the Russians reported they had collected and burned after the thaw of the following spring. Though it may be too much to say that the bridges had saved the army, which had yet the most frightful stage of the retreat in store, beyond question they had saved the Emperor.

A few weeks later Napoleon, bouncing in the carriage beside Caulaincourt on the flight from Warsaw to the Tuilleries, took a moment to ponder a reward for the work of General Eblé. He decided he would make Eblé Inspector General of Artillery and a baron of the Empire. But such honors could mean little to the old artillerist, for by then he was either dying or dead. His name is one of those on the Arc de Triomphe de l'Etoile.



Signal Corps Photo, from "The Reserve Officer"

BATTERY C. 6TH FA, FRANCE, SEPTEMBER, 1918

The Army Jitters

A BARRACK-ROOM BALLAD, WITH APOLOGIES TO KIPLING

"What makes the Gen'ral look so grim?"
asked Files-on-Parade,
"He wants to wear another star," the
Color-Sergeant said;
"He's got the Post policin' up," said Files-
on-Parade,
"The BG's gazin' at the stars," the Color-
Sergeant said.
"Instead of training troops for war, and
soldierin' as we should,
We're shining brass and cuttin' grass—
just so that he makes good;
They'll make him Corps Commander, yet,
and how we wish they would!
For the GENERAL seeks *promotion* in
the Army!"

"What makes the Colonel so severe?"
asked Files-on-Parade,
"He wants to be a Brigadier," the Color-
Sergeant said;
"He's writin' to his Congressman," said
Files-on-Parade,
"He sure is playin' politics," the Color-
Sergeant said.
"They say that he is el'gible to shed his
eagle's wings,
In hopes of pinning on a star, which ranks
for better things.
At boning files in Washington, the C.O.'s
had his flings,
For the COLONEL wants to *rise up* in the
Army!"

"What makes the Major look so sour?"
asked Files-on-Parade,
"Lieutenant Colonel's just the same," the
Color-Sergeant said;
"War College is what they crave," said
Files-on-Parade,
"SUPERIOR is what they need," the
Color-Sergeant said.
"Their ratings must be perfect plus or else
they cannot go,
And if they don't before too old, their
souls are filled with woe,

And Army hopes are blighted—or else
they think it so.
For the MAJOR wants to *rank up* in the
Army!

"What makes the Captain so forlorn?"
asked Files-on-Parade,
"He pines to go to Leavenworth," the
Color-Sergeant said.
"The 'Old Man' wants his chance at
School," said Files-on-Parade,
"The Major, too, wants Gen'ral Staff," the
Color-Sergeant said.
"When Captain Smith was detailed to
Leavenworth last year,
Then Mrs. Jones at bridge declared *her*
hubby had no peer,
It was discrimination—or jealousy we
fear,
For the CAPTAIN has *ambition* in the
Army!"

"What makes the 'Looie' look so sad,"
said Files-on-Parade,
"The General's aide wants Service
School," the Color-Sergeant said;
"The 'Shavetail' studied at West Point,"
said Files-on-Parade,
"Sez-you! he oughta learn some more,"
the Color-Sergeant said.
"Unless he has the technique at Benning
or at Sill,
His prospects for the higher schools will
practic'ly be nil—
From 'shavetail' to the 'brass-hat,' they
must go through the mill,
For the 'LOOIE' wants to *climb up* in the
Army!"

"What makes the 'Non-Com' look so
glum?" asked Files-on-Parade,
"He wants some Grades & Ratings," the
Color-Sergeant said;
"He's wishin' for a WARRANT," said
Files-on-Parade,
"Or to get to be a MASTER," the Color-
Sergeant said.

THE ARMY JITTERS

"The Sergeant would be 'Top-Kick,' so he can have his say,

The Corp'ral wants another stripe, so he can draw more pay;

And so, too, with the 'Specialists'—and who would say them nay?

For the 'NON-COM' is *aspiring* in the Army."

"What makes the Private growl so loud?" asked Files-on-Parade.

"The 'Buck' has got the jitters," the Color-Sergeant said:

"He's thinkin' of the outfit," said Files-on-Parade,

"O yeah! he thinks it's gone to hell," the Color-Sergeant said.

"For trainin' of the soldier has developed into Schools—

The system's not upliftin' to morale nor Golden Rules.

Soldiers love their Service and believe me, they're no fools.

For the PRIVATE wants to '*hitch-up*' in the Army."

—*Private In Vino Victis*,
7th Grade (AWOL).

United States Field Artillery Association

IN accordance with the call of the Executive Council, the twenty-eighth annual meeting of the U. S. Field Artillery Association was held at the Army and Navy Club in Washington, D. C., on December 15, 1937. Major General Upton Birnie, Jr., U. S. Army, presided.

A quorum was present in person or by written proxy for the transaction of business.

The Secretary-Treasurer presented and read his annual report and financial statements, which are appended hereto, and made a part of the minutes.

The President had previously appointed Lieutenant Colonel Julian F. Barnes and Major Josef R. Sheetz to audit the financial statement of the treasurer. At the direction of the chair, the secretary read the report of the committee, which stated that the auditing had been performed and the financial statement had been found to be correct. A motion was made, seconded, and adopted, approving the report of the committee.

The chair stated that there were six vacancies in the Executive Council to be filled. These vacancies were caused by the expiration of the terms of office of Major General William S. Key, Oklahoma National Guard; Brigadier

General L. J. McNair, U. S. Army; Colonel Ralph McT. Pennell, FA; Colonel R. E. DeR. Hoyle, FA; Colonel Leroy W. Herron, FA-Res. and Colonel Hamilton Gardiner, Utah National Guard.

The Chair had previously appointed Colonel A. C. McBride, Lt. Col. F. A. Doniat and Lt. Col. Julian F. Barnes as a nominating committee. Colonel McBride, its chairman, read his report, which submitted the names of General McNair, Colonel Hoyle and Colonel Herron for reelection, and recommended, as new members, Colonel Edmund L. Gruber, GSC (FA); Colonel William H. Sands, 111th FA (Va. NG), and Colonel C. C. Haffner, 124th FA (Ill. NG), The opportunity being made available for nominations from the floor, and none being offered, it was moved, seconded, and adopted that the polls be closed, and that the secretary be directed to cast the unanimous ballot for the nominating committee choices.

The names of the new members, to serve for a period of two years, then were announced.

To its outgoing officers, Major General William S. Key, Colonel R. McT. Pennell, and Colonel Hamilton Gardiner, the Association wishes to express its sincere appreciation of their services.

THE FIELD ARTILLERY JOURNAL
ANNUAL REPORT OF THE SECRETARY-TREASURER

FOR YEAR ENDING NOVEMBER 30, 1937

Assets—Nov. 30, 1936:		
Balance, checking account	\$4,873.12	
Savings account	3,511.56	
Securities, <i>face value</i> \$24,250.00 (less \$1,900.00 written off*)	22,350.00	
	\$32,634.68 (less \$1,900.00 written off)	\$30,734.68
Assets—Nov. 30, 1937:		
Balance, checking account	\$3,274.60	
Savings account	3,583.29	
Securities, <i>face value</i>	24,600.00	
	\$31,457.89	31,457.89

GAIN

\$723.21

A detailed statement of receipts and expenditures for fiscal year 1937, as compared with fiscal year 1936, is as follows:

RECEIPTS

	<i>1936</i>	<i>1937</i>
Membership dues and subscriptions	\$7,385.79	\$8,067.11
Interest on securities	494.20	608.12
Interest on savings account	98.54	71.73
Books and magazines	1,137.36	1,003.17
Miscellaneous (\$1,000 Reed note matured 1936)	1,001.08	27.94
	\$10,116.97	\$9,778.07
Cash on hand Nov. 30, 1936		8,384.68
		\$18,162.75

EXPENDITURES

Printing and mailing FA JOURNAL	\$3,218.69	\$3,285.32
Office supplies	432.85	205.44
Postage, express, telegrams	204.13	214.56
Rent and telephone	400.14	470.78
Services	1,858.00	1,850.15
Authors, engravers, photographers	1,310.58	1,449.11
Books and magazines	865.81	859.32
Insurance, tax	27.56	49.00
Trophies	25.00	162.23
Donations	7.00	7.00
Miscellaneous: copyright, refunds, etc.	244.31	201.95
Government bond	2,250.00	2,250.00
Prize essay	300.00	300.00
	\$11,144.07	\$11,304.86
Cash on hand Nov. 30, 1937		6,857.89

\$18,162.75

Total receipts for year ending Nov. 30, 1937

\$9,778.07

Total expenditures for year ending Nov. 30, 1937

11,304.86

Excess of expenditures over receipts

1,526.79

*Depreciation of face value of securities, authorized by Executive Council in March, 1937.

UNITED STATES FIELD ARTILLERY ASSOCIATION

The excess of expenditures over receipts is due to the purchase, in June, 1937, of three United States Savings Bonds for \$2,250.00. Were it to be subtracted from the expenditures, the surplus of receipts over expenditures would equal the net gain, \$723.21.

To determine the operation of the JOURNAL with more clarity, the securities are customarily carried at face value in this statement. Many of them were purchased years ago, below par, and have since defaulted. Of the latter classification, the Theatre Realty \$1,000.00 Bond was sold in a reorganization last March, and the proceeds are to be paid over a ten-year period, and are expected to approximate \$750.00. The income from this source has been transferred to "Interest on Securities," and the face value of the bond written off. Another thousand-dollar bond, that of the Consolidated Gas Utilities, was exchanged, by court order, for one hundred shares of stock, par of \$1.00 per share. The corresponding writeoff for these two transactions is \$1,900.00.

It was reported last year that we held \$13,500.00 face value of defaulted securities, which were quoted at but \$2,075.00. We now hold but \$11,600.00 of these, quoted at \$2,061.25. We have, therefore, removed \$1,900.00 of artificial valuation of these defaulted securities, while their marketable sum declined but \$13.75.

Of our securities at par and above, meeting payments regularly, we have \$8,500.00 of face value, and, in addition, \$4,500.00 in United States Savings Bonds, which pay no interest, but are redeemable at any time plus interest, and ten years from now will be redeemable at par, \$6,000.00.

The face value of our paying securities, plus the market value of the defaulted securities, plus the savings bonds, plus the cash on hand, is equal to \$21,949.14, a gain in liquid assets of \$739.46 over last year. Memberships have increased by a net gain

of 93 to a new high of 2,602. Thus there is on hand \$8.435 per paid subscriber.

There are no outstanding bills of importance, save the one to the printer, which is customarily outstanding at time of annual statement.

It is the desire of the Executive Council that the JOURNAL be maintained on an even keel, putting the profits back into its operation. It is most difficult to avoid either a large deficit or a large profit. Promptness in paying dues is of great assistance in predicting the operating budget. For a time last August it appeared that a deficit would be incurred. However, \$481.00 of the net gain in assets is attributable to past-due accounts, extending over previous years, being received since that time. The rest of the net gain came from new memberships, obtained by a small but hardworking and interested group of officers, to whom the thanks of the Association is due for their efforts.

Perhaps interest would be stimulated by an explanation: It is relatively expensive to print 2,000 copies of the JOURNAL, but the cost per magazine decreases rapidly with each additional hundred. The JOURNAL, with 500 additional subscribers, could be made a much superior publication. Some of our members may properly feel that the JOURNAL, at fifty cents a copy, is an expensive magazine. But it cost \$.445 for each of the 17,700 copies printed since the last statement, and the membership fee is for inclusion in the United States Field Artillery Association, judged by any standard, a worthy cause. The bulk of those 500 memberships mentioned above, and yet to be attained, is still in the regular army.

The Secretary-Treasurer will be grateful for the comments, the suggestions, and the criticisms of members for the good of the Association and of the JOURNAL.

Respectfully submitted:

MICHAEL V. GANNON,
Captain, Field Artillery,
Secretary-Treasurer.

Firing on the Bell

BY CAPTAIN R. L. GERVAIS, FA

ONE of the additional duties of the Eleventh Field Artillery at Schofield Barracks, T. H., is to train and operate mobile seacoast artillery. The batteries designated for this purpose are equipped with 155-mm. GPF guns, tractor-drawn, and all the paraphernalia necessary to the well-regulated coast artillery team. A few years ago the superimposing of a complete battery of coast artillery, with bells, slide rules, service practice and missions, upon a battery of field artillery would have been considered impractical. Today, the field artillerymen of Hawaii ply their trade, cannon shooting, on land, sea, and air equally well.

In principle, the normal coast-artillery scheme consists of the bilateral plotting of a moving target at regular time intervals. Then the determination of that point on the projected course of a target where target and shell will meet. Zone fire is of no value on water-borne targets. The shell must hit the target or the fire is ineffective.

In order more clearly to visualize the set-up we will run through a few definitions: The *gun commander* in the coast artillery corresponds to our *chief of section*, the *gun pointer* to our *gunner*. When coasters refer to *Case I* pointing, they mean direct laying, the cross hairs of the sight on the target. *Case II* pointing is when direction is given the piece by means of the vertical hair on the target, and elevation by means of the quadrant or elevation drum. *Case III* pointing is indirect laying; the elevation is set off by means of a quadrant or elevation drum. The azimuth, Ah, *that* is the all-important word in the coast-artillery language. The azimuth is the *Y*-azimuth. It is determined

for all observer's instruments and guns and must be accurate to the "enth" of a mil. The panoramic sight used in the mobile seacoast differs from ours to the extent that the azimuth scale is movable. When the guns are laid the zero will be in the direction of the *Y*—North and not toward the target as with ours. This is a distinct advantage in that everybody speaks the same language. All observers orient their instruments by means of an accurately computed azimuth. *Base line*: This is a line of known length between two observation stations. *Directing point* is the position of No. 1 gun. *The time-interval*: The time-interval system consists of an electrical apparatus connected with the telephone net, which rings bells simultaneously at a prescribed time interval. The ringing of the bell indicates to observers the exact instant at which an observation is to be made and the exact instant at which the guns are fired. When the bell rings, the observer stops following the target for an instant and the reader at each station reads the azimuth. Everyone does something "on the bell"; it's the most fascinating part of the whole system.

Now suppose the seacoast to be defended has been under surveillance for some time. Preliminary reconnaissance activities are conducted in accordance with the time and personnel available. Finally, on "D" day the mobile seacoast batteries are ordered out. (The reconnaissance work is most important. A good job on this will save many a headache later on.) The ideal base line should have a length of approximately one-third to one-fourth of the range to be fired. It should be at about right angles to the direction of fire. The D.

FIRING ON THE BELL

P., or gun position, should fall within one-third or one-fourth the distance of either base end. The object is to obtain a good intersection of the arms on the plotting board. Very high OP's are not always an advantage. On some shores of the island of Oahu the OP's at the end of the base line must not be higher than 300 feet, because of the low cloud banks, especially at night. Upon completion of the reconnaissance, and when a set up has been determined which meets all requirements, the survey parties get busy. They accurately determine the coordinates of both base-end stations, the spotting station if not at the base ends, and the DP. The three points having been determined, the triangle is computed and set up on the plotting board.

While this is going on the battery is moving into position. The wire section is laying its 16 to 24 miles of wire and everybody is swinging to, like the newly arrived circus, 72 hours is the normal allowance of time to complete all preparations and installations. In case of emergency the battery could fire within a couple of hours, in shoot-from-the-hip style—*Case II*-pointing to you embryo CAC'ers. (A word here as to *Case II* pointing; the target is a *moving* target, the speed of which is from 4 to 40 knots per hour.) The gun pointer measures the distance on his sight (direct-laying) that the target will travel during the time of flight of the projectile. This angle, corrected for wind and drift, is set off in the opposite direction, and fire is commenced at the estimated elevation. The target is tracked by traversing the gun until the splash occurs. At the instant of splash the deviation is measured by the gun pointer and set off on the sight in the proper direction. This process is repeated after each shot until there is no deviation or deflection error. The range is bracketed as with field artillery. This procedure is quite effective for short ranges but difficult for

long ranges, because of the poor optical qualities of the present issue of panoramic sight. At the 17,000-yard range a low target is apt to be out of sight of the gun pointer, owing to the curvature of the earth.

Gun positions are selected on the edge of the shore line to obtain the maximum range. If beach concentrations are required, positions may be selected back from the shore about 1,000 to 1,500 yards, and up a couple of hundred feet, where a good field of fire can be obtained on all beaches to the front. The occupation of the gun position involves the construction of good solid platforms, usually of 4-inch planking, and good ground to seat the trail spades. When the battery sector is greater than 1,000 miles each platoon covers one-half, with overlap in the center. In some places Panama mounts are being constructed to permit all-around fire. When this is done the gun is slightly modified. The spades and connecting plates on the trail are removed and steel guide plates are bolted in their places. These plates fit over curved railroad iron, which is imbedded in a circle of reinforced concrete, anchored by steel hooks. A steel curb band surrounds the raised concrete inner circle and serves as a guide for the wheels of the carriage to prevent the trail plates from bending on the guide rail in traversing. Panama mounts are desirable where positions are fixed or semifixed. Ammunition pits are usually constructed about twenty yards to the left rear of each piece. The usual guncrew shelters are dug and camouflage precautions taken.

The battery commander's station should be located where he can control everything. If the telephone lines go out he should be able to reach the guns or plotting room with the megaphone. A desirable location is directly in rear of the guns in a tower or high point that will provide about 25 or 50 feet of elevation above sea level. This is to permit

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axial observation of the target and serve as an auxiliary base-end station. The BC equips himself with a small switchboard, observation instrument, a 20- or 30-foot rangefinder if he can get one, and a couple of operators. From this station he directs his base-end observers on the target, directs the plotting room and guns to commence tracking. At the proper time he gives the order to fire. When the enemy is present he studies their actions and characteristics. This applies to all OP's. During a target practice this station checks the azimuth for the guns. When the data do not check by some small amount, for reasons which cannot be conveniently corrected at the time, the BC gives an arbitrary correction to his plotting room.

The plotting room: This is established near the gun position, but far enough away so that the noise of firing will not

interfere with the detail. Here is the brain center where numerous men have telephone headsets strapped on, meanwhile operating mechanical gadgets.

A maneuver situation: Our inshore patrols have cleared our front owing to action of approaching hostile fleet. At 4:15 A. M., Major A, the groupment commander, calls Capt. B (CO Battery Gatley) on the phone: *Enemy hostile column of destroyers off Kahuku Point travelling from right to left. Your target second destroyer in column; report when on target.* Capt. B calls the observers at both base end stations and directs: *Enemy column off Kahuku Point travelling from right to left, target second destroyer in column, report when on target.* Observers immediately report on the target, as they have been observing the action of the hostile fleet



THROUGH KOLE KOLE PASS

FIRING ON THE BELL

since dawn. Then the command to all parties to "Commence tracking" is given. The readers at the base-end stations report the azimuth reading every twenty seconds (on each time-interval bell.) This report goes to the arm setters on the plotting board, who operate the steel arms and determine the point. Successive points are plotted every twenty seconds. The plotter with his rule draws a line in prolongation with successive points, determines a predicted point by measurement; then from the set-forward-rule operator obtains the time-of-flight distance, which is plotted. The azimuth and range to this point are measured and given to the operators on the deflection and elevation boards. (The deflection board takes care of the wind and drift and any corrections from the BC station.) The final result is telephoned down to the guns. The elevation board takes care of weather corrections and spotting-board corrections, this operator sending to the guns the net elevation. All data are sent by phone direct to the gun pointers and elevation setters on all four guns at the same time.

When the battery commander is satisfied that his battery is in order he reports to the groupment commander, *Battery Gatley on target*. The time from the designation of target by the groupment commander to the report of the battery commander is usually about one and one-half minutes. The tracking of the target is continuous, so that at any time upon the order of the groupment commander the target may be taken under fire. If neutralization fire is ordered ten rounds are deemed sufficient, using one gun or one platoon for the purpose of breaking up the formation. One good hit will do the job.

When the battery fires, the spotters, usually at the base-end stations, measure the deviation of the splash from the target. They report their deviations to their corresponding operators on the spotting board. The spotting board operators, by

means of movable arms, plot the shot in relation to the target. This error is determined as a percentage and set off in the proper direction on the elevation board (and sometimes the deflection board). In trial fire sufficient time is allowed for the correction to go clear through before the next round is fired. In fire for effect shots have to go out on every bell (every twenty seconds). From 15 to 20 rounds may be fired at this rate. Because of climatic conditions here in Hawaii the normal position of the replenisher piston is about 180-mm. If otherwise, firing may have to be stopped to bleed the gun.

The foregoing method of plotting is known as the horizontal-base system. Another important system is the vertical base. Then there is the self-contained-base system, which utilizes the rangefinder. The first and second systems are the most commonly employed. Normally each battery fires with its own base line, its OP's at the base ends. If any OP is shot out, blinded by poor weather conditions, or destroyers laying down a smoke screen, the report is made to groupment. The groupment commander then arranges for the base line of some other battery or a combination of base-end stations which will permit observation behind the curtain. For this purpose the vertical-base system is quite satisfactory. It consists of only one OP, usually located on a very high point. These stations very often are able to observe behind a smoke screen 15 miles farther down the coast.

The depression position-finder is the instrument that performs all the work of the vertical-base system, measuring azimuth and range from one station. Range-finding is done by measuring the depression angle. It is obtained by measuring the angle from the horizontal at the instrument to a line from the instrument to the target and by indicating on a scale the product of the co-tangent of that angle by the height of the instrument

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above the target. The height required for a reasonable degree of accuracy is approximately 10 feet for each 800 yards of range. It can measure to one one-hundredth of a degree. The eyepiece has a power of 15, and 2 to 3 degrees field of vision.

Tactics: The primary target of the 155-mm. GPF is the transport. Next comes the destroyer; then the submarine. No firing is conducted until ordered by higher headquarters. It may be assumed that the enemy fleet will stay off shore and out of range until a feint or point of landing is decided upon. Then a column of destroyers may appear, laying down a smoke screen as close to the shore as possible, about 5,000 yards. Behind this smoke screen the transports and auxiliaries come up protected by battleships and cruisers, to permit the transports, which are very vulnerable to artillery fire, to unload their troops. Here is the moment for which every good coast artilleryman waits. If his base-end observers can't see, he howls for the observers of some other battery. Prior to

this, there has been little or no sniping at targets by the 155-mm. GPF's. Once firing by shore batteries has commenced all positions are uncovered and the long-range guns of the battleships steal the show. Therefore it is important that the GPF mobile seacoast holds its punch for the moment the transports disembark their attacking troops. For night firing at water-borne targets, harbor-defense searchlights are used to illuminate the target.

Training: With the rapid turnover of personnel at Schofield the average man does about 18 months' service. Therefore training has to be continuous. Another problem is our inland location, Schofield being in the center of the island instead of on the coast. The training of men to fire on water-borne targets is a little complicated. The first thing we have to do is get to the coast, with slow-moving 10-ton tractors to pull our guns twenty miles.

So we brought the coast to Schofield. The division review field became our



"SO WE BROUGHT THE COAST TO SCHOFIELD"

FIRING ON THE BELL

ocean, the road at the end of the gun-sheds our coast line. Base-end stations were established on a 300-yard base line and our DP at the end of the gun-sheds. A tractor, carrying a flag on a pole at scale speed, became our enemy transport. To give the spotters something to do a splash detail of one corporal and two men was our ammunition. The data of our base line survey were "blown" up ten times. This gave a workable range on our boards. When a round or salvo was fired at the guns a signalman at the guns flashed "round on the way." The corporal of the splash detail on

the target tractor indicated the shot twenty seconds later by one of his detail momentarily displaying a white flag. The corporal varied the position of his men 10, 20 yards, and so on, front and rear of the target to give the round its probable error. This gave the battery all the mechanics of firing and served to keep the men interested.

If this system of firing of the coast artillery appears cumbersome and complicated to the uninoculated, in practice it works out very simply. We of the field artillery can profit by the methods of our brothers of the coast.

NATIONAL GUARD AND RESERVE SECTIONS

It has been suggested that perhaps the National Guard and Reserve members of our Association would be interested in having a portion of the JOURNAL pages set aside specifically for news of their activities. The JOURNAL, of course, belongs to all components, and its content is intended for all. Furthermore, it is not a news journal, and any such departments necessarily would be limited in space. However, it is thought that two pages for each department could be devoted to this

purpose and might prove of interest to those field artillerymen desiring to keep in touch with the activities of their associates in the same field. The question of manner of news-gathering and reporting has not been decided upon, and awaits a manifestation of interest by those concerned. The JOURNAL will be glad to receive comments from its readers on the merit of this proposal, and if enough favorable replies are received, steps will be taken to initiate the departments.

AUGUST, 1776

"1. This Day All the Regiments turned out to work at the new battery which was Visited by the Generals and a Number of other Gentlemen, who all highly approved of the work. At Sunset, one howitzer was fired on board a large gondola by way of experiment, the Shell broke in the air, one 13 inch Bomb was also thrown from the same Gondola on board of which were about 20 men, when the Bomb went off, the Mortar split & the upper part went above 20 feet high in the Air over the men's heads into the water & hurt no man. The piece that blowed off weighed near a ton, I was nigh & saw the men fall when the mortar burst, & it was a great wonder no man was killed.

"August 2 This morning I went early to Independent Point where we Charged the other 13 inch mortar, by way of trial, when she was fired she burst, just in the same manner (only this was on the land, & the other was upon the water) that the other did near about the middle of the whole length, so that we have no large Mortar here now, these 2 mortars* were carried from this place to Cambridge & brought back & went down to Canada & then back to this place, at an immense cost, although they were worth nothing."

*"One of these mortars was the famous 'Old Sow,' mentioned so often by Montgomery's Army." From the diary of Colonel Jeduthan Baldwin, Chief Engineer of the Northern Army (Continental) July, 1776 to July, 1777. Extracted from *The Bulletin of the Fort Ticonderoga Museum* for January, 1938.

Knox Trophy and Medal Winner

THE blue ribbon of all-around excellence in field artillery, comparable to the proudly borne Navy "E" on turret or stack, the Knox Trophy, has been won by Battery B, Seventy-Sixth Field Artillery, Fort Francis E. Warren, Wyoming, commanded by Captain John C. Cook.

The Knox Trophy is presented annually by the Society of the Sons of the Revolution in the Commonwealth of Massachusetts to that battery of the Regular Army Field Artillery which shall have the highest efficiency rating, this rating to be based on firing efficiency, tactical mobility, and proficiency in the use of Field Artillery means of communication.

The 1937 award was competed for among the following batteries, who were selected by the examining boards as the entrants from their respective posts and corps areas:

1st Corps Area—Ft. Ethan Allen, Vt.—Battery D, 7th FA.

2d Corps Area—Madison Bks., N. Y.—Battery B, 5th FA.

3d Corps Area—Ft. Hoyle, Md.—Battery C, 6th FA; Ft. Myer, Va.—Battery C, 16th FA.

4th Corps Area Ft. Bragg, N. C.—Battery D, 4th FA; Battery C, 17th FA. Ft. Benning, Ga.—Battery B, 83d FA.

5th Corps Area—Ft. B. Harrison, Ind.—Battery A, 19th FA; Ft. Knox, Ky.—Battery B, 68th FA.

6th Corps Area—Ft. Sheridan, Ill.—Battery E, 3d FA.

7th Corps Area—Ft. Snelling, Minn.—Battery F, 14th FA; Ft. Riley, Kans.—Battery B, 84th FA.

8th Corps Area—Ft. Sill, Okla.—Battery D, 1st FA; Ft. Sam Houston, Tex.—Battery B, 12th FA; Battery D, 15th FA; Ft. Sill, Okla.—Battery D, 18th FA; Ft. F. E. Warren, Wyo.—Battery B, 76th FA; Ft. D. A. Russell, Marfa, Texas—Battery C, 77th FA.

9th Corps Area—Ft. Lewis, Wash.—Battery A, 9th FA; Presidio of Monterey, Calif.—Battery D, 76th FA.

Hawaiian Dept.—Schofield Bks., T. H.—Battery D, 8th FA; Battery A, 11th FA; Battery A, 13th FA.

Panama Canal Dept.—Ft. Clayton, C. Z.—Battery C, 2d FA.

The Knox Medal, awarded annually by the same society for excellence as an enlisted student at The Field Artillery School, was won by Sergeant Glen L. Foote, Headquarters Battery, 6th Field Artillery Brigade, Fort Sheridan, Ill.

To the winners, who defeated competitors of the very first rank, the Field Artillery Association extends its congratulations.

"A free people ought not only to be armed, but disciplined."

—President Washington to the Congress, January 8, 1790.

Cav Mecz

BY AN OBSERVER

DURING the week of October 25-29, the Cavalry School left behind its famous jumpers, chargers, crops and spurs, and rode forth in reconnaissance cars of the Command and General Staff School into the bluegrass regions of Kentucky to observe the Mechanized Cavalry at Fort Knox.

The class was invited to see these machines close up, during the brigade transportation show the morning following their arrival at the Post. The huge parade ground was covered with vehicles of various types, representing twenty classes. It was obvious that great attention was still being paid to grooming. These machines fairly glistened in the sun and reminded one of the New York Motor Show. No horse had been given any more loving care. While the band played, the lucky contestants were awarded beautiful pennants in the colors of the 7th Cavalry Brigade.

The Riley Class had been warned that following the transportation show there would be a road review. Little did they imagine that these beautifully groomed machines were doomed to take part in, not only the road review, but all events scheduled for the demonstrations. Performance apparently rates appearance at this Post. The class assembled at the Civic Center and almost immediately an observation squadron of low-flying planes led the incoming brigade down the road in review before us. With a purr and rumble, vehicle after vehicle rumbled by in a fast closed-up column that made one wonder for a moment if he were not witnessing a hostile advance in China or over in Spain. As our eyes became used to the blurred moving machines we could make out individuals standing up in the

turrets, with football helmets, and saluting as they rumbled by. Then the type of machines changed slightly, and the half-tracks tracked by, with their carriers full of men and machine guns. About this time we heard the band strike up the caisson march, and sure enough, artillery batteries came rolling and half-tracking by, some in scout cars and others in trucks. In a moment the repair and service echelons were in view and then on their way. I looked at my watch and observed that this, our only mechanized brigade, with some three hundred vehicles, had rolled on, in one continuous stream, at thirty miles an hour, in just 22 minutes. Surely the old gray mare ain't what she used to be.

During the afternoon we were taken for a ride. At Riley the cavalymen take their obstacles sitting down, and in this case the technique of the seat and hands play an important part in the operation. In the ride within the machine, which has been substituted for the horse, the seat does not play such an important part. The rider must learn to take it standing up, and the finesse of his hands gives way to the ability to grip and to hold on for dear life. Helmet and goggles were substituted for crops and spurs.

Once settled inside the machine a lever is turned and away you go. The sensation may be likened somewhat to taking a ride in a roller coaster, shooting the chutes, walking through the haunted house, a barrel roll and other such Coney Island rides all at once. However, the ability to cover ground quickly and to get by, or through obstacles, is really something that must be seen from such a vantage point properly to evaluate, appreciate, or enjoy. A battle test for

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trained infantrymen will be their ability to withstand a charge of such fire-spitting furious monsters. One such ride and I was sold on the cross-country ability of the machine, but preferred the soft seat of my schooled mount.

Many troop tactical problems were then put on for the class observers. All this was in preparation for the big brigade problem which was to begin at 8:00 PM on the 28th, and end the following morning. During this time, the brigade would march approximately 175 miles to secure a river crossing against an advancing enemy, and finally attack at daybreak.

The weather had turned cold and crisp, with a wind of about 15-20 miles, as the brigade assembled with the head of the various major elements on roads near to and converging on the Civic Center. At exactly 8:00 the observation squadron led off, followed by the Reconnaissance Troop, Scout Troop, Advance Guard, Main Body, and Service Echelons. In a few minutes you could see a stream of red lights curving over the landscape for miles away. In a few minutes more they were gone with the wind.

During the long night, this column continued its uninterrupted march over hill and dale at approximately 25 miles per hour except for scheduled halts for purposes of refueling and maintenance. All the while a constant stream of information messages was received by the brigade commander from the air-ground net and from the reconnaissance echelons as to the movements of the enemy. Pertinent extracts were made

available to the troops. Information was received and orders disseminated by means of radio and motorcycles as an alternate means.

Finally, toward daybreak the situation had been unfolded and clearly developed, to the point where the brigade commander was able to determine upon the nature of the operations, an attack.

Later, the details of the plan of attack were formulated and orders were issued. Artillery reconnaissance officers were able to send back valuable and timely information as to positions. The battalion was posted in close-support positions during darkness, and all preparations made to open fire as soon as released. It is customary for artillery fire to be carefully coordinated with the fire of the machine-gun troop, the smoke of the howitzer troop, and the special requirements of the maneuvering echelons. Shortly after daybreak, the attack was begun, and in approximately a half hour the attack had swept beyond the ridge held by the hostile force. The artillery then covered the assembly of the cavalry regiments and later displaced forward for the next phase of the engagement.

In this incredibly short time, a modern battle had been fought and the foe vanquished. In this battle de luxe, cavalymen ride in machines that have been substituted for the horses. Although they still apply the same principles of their traditional role without change, the Old Gray Mare is not what she used to be; she is now riding with the Four Horsemen of the Apocalypse. Give her room.

●

"There is a rank due to the United States among nations, which will be withheld, if not absolutely lost, by the reputation of weakness."

—President Washington to the Congress, December 3, 1793.

Saint Barbara Day Celebration at Boston

NEW ENGLAND field artillerymen gathered at the Hotel Kenmore, Boston, to celebrate the annual "Le Jour de Sainte Barbe," December 4th.

Colonel Frank Lowe, FA-Res, former President of the Reserve Officers Association, was the toastmaster at a dinner, and introduced the speaker of the evening, Colonel Frank Knox, 365th Field Artillery. Colonel Knox, well-known Chicago newspaper publisher, and running mate of the Honorable Alfred Landon in the 1936 presidential campaign, made a vigorous address advocating the "recasting" of the National Defense Act, a measure in whose drafting and passage he had taken the leading part.

In the course of his remarks he stated: "Ten years ago we had both the officers and personnel, and, in a large measure, the supplies needed for three million men. We do not have that now [he was speaking of age taking its toll of these experienced in combat]. And so I rise to ask the question: Should not the plan be studied in the light of present conditions and be recast into a plan suitable and practicable in 1937? A further reason that argues for a recast plan is that experience since the World War has been toward smaller units and more mobile units. . . . I urge the necessity of smaller units that can be organized immediately. . . . The regular army should include both permanent and reserve officer personnel and should be one organization. The reserve officer should be assigned and trained with a regular unit. I needn't dilate to men of your service on the advantage it would be to have an opportunity annually to serve in active duty with a regular unit. There is no better training in the world, and I have been through it."

Regular army units from Fort Ethan Allen, the National Guard and Reserve

brigades and regiments from six New England states, were represented at the meeting, whose assembly place was decorated with the massed standards of the units represented. The guest list included Major General Fox Conner, First Army; Major General Daniel Needham, 26th Division; Major General Maurice B. Payne, 43d Division; Colonel B. F. Miller, 7th FA; and Colonel R. E. deR. Hoyle, Executive for the Chief of Field Artillery. Committees on reception and arrangements listed Colonel G. W. Langdon, 389th FA, Lt. Col. L. W. Hilliard, Hq. 172d FA Brigade, Lt. Col. W. M. Minot, 389th FA, Maj. A. A. Blondin, 365th FA, Maj. D. M. Libby, 303d FA, and Maj. V. A. St. Onge, 389th FA.

The Field Artillery Units and their commanding officers joining in celebrating the Feast Day included:

7th FA—Col. B. F. Miller, Ft. Ethan Allen, Vt.

51st FA Brig.—Brig. Gen. Roger W. Eckfelt, Cambridge, Mass.

78th FA Brig.—Brig. Gen. Harold R. Barker, Providence, R. I.

101st FA—Col. Warren S. Keith, Brockton, Mass.

102d FA—Col. William F. Howe, Weston, Mass.

103d FA—Lt. Col. Francis W. Rollins, Providence, R. I.

152d FA—Col. Herbert L. Bowen, Bangor, Me.

172d FA—Col. John Jacobson, Jr., Manchester, N. H.

192d FA—Col. Otto H. Schroeter, New London, Conn.

301st FA—Col. Francis T. Colby, Hamilton, Mass.

302d FA—Col. Jonathan A. Harwood, E. Greenwich, R. I.

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303d FA—Col. Frederick E. Gignoux,
Portland, Me.

355th FA—Lt. Col. Theodore Crane,
New Haven, Conn.

356th FA—Col. Ralph H. Whitney,
Worcester, Mass.

364th FA—Col. John A. Twatchman,
Greenwich, Conn.

365th FA—Col. Frank Knox,
Manchester, N. H.

388th FA—Col. Henry O. Silsbee, E.
Lynn, Mass.

389th FA—Col. Geo. W. Langdon,
Haverhill, Mass.

390th FA—Col. William H. Eaton,
Pittsfield, Mass.

THE ARMAMENT OF THE CZECHOSLOVAKIAN ARTILLERY

	No. of guns	Caliber and model	Elevation	Maximum range
Light and horse artillery	768	80-mm field gun M.17	0-45	10,000-m
		80-mm. field gun M.30	0-85	14,000-m horiz. 10,000-m vertical
		100-mm. field how. M.14-9	0-55	13,500-m
Mountain artillery	60	75-mm. mtn gun M.15	0-45	7,000-m
		100-mm mtn how. M.16-19	0-75	10,000-m
Medium artillery	504	105-mm gun M.35	0-80	19,500-m
		150-mm how. M.14-16	10-75	9,000-m
		150-mm how. M.25	10-80	12,000-m
Heavy artillery	216	150-mm gun M.15-16	0-70	22,500-m
		240-mm gun M.16	0-65	36,600-m
		150-mm how. M.15	15-70	12,000-m
		210-mm mortar M.18-19	35-75	13,800-m
		305-mm mortar M.16	40-70	12,600-m
Antiaircraft artillery	120	90-mm AA gun M.12-20	(stationary gun)	18,000-m horiz. 12,000-m vertical
		83.5-mm. AA gun M.22-24	(stationary gun)	16,000-m horiz. 12,000-m vertical
		76.5-mm AA gun M.33		14,000-m horiz.
		66-mm AA gun M.35-36	(subject to test)	11,000-m vertical 18,000-m vertical

—From *Wehrtechnische Monatshefte*,
December, 1937.

Fall Hunter Trials at Field Artillery School

THE annual fall hunter trials at the Field Artillery School brought out a large field—and a 15-page program. In it were many familiar names, and, of course, many new ones. Every Field Artilleryman, says the legend, goes to Sill three times, and those who have yet to complete that course of treatments may expect to find many old equine as well as human friends on their next visit. Perhaps the pangs of nostalgia afflict many who will come across the name of gallant old Peat Moss, General Cruikshank's favorite mount, who, under the riding of Mrs. P. R. M. Miller, joined with two other well-known timber-toppers (Dancers Merrylegs—Mrs. John F. Fiske up; Joe Cannon—Mrs. T. J. Counihan up) to take second place in hunt teams, an event captured by Lts. V. B. Barnes, M. W. Brewster, and D. E. Beach on, respectively, Andagibbon, Xyldegrey, and Son of K.

Then there are Missile, Aladdin, Virginia Navarre, and Dryad, who finished in that order in the class for open hunters under Lts. Watson, Harris, and Brewster, and Capt. W. A. Samouce, the youngest of their mounts 8 years old; in the same class, Pappy Weeks and Drummer Boy, capable oldsters. And in The Ratcatcher, who should appear in front but Bombardier (Lt. P. H. Draper),

with other veterans in the same field, such as Gaunt, Snow, Trooper, and Santee.

Agate, under Mrs. A. E. Kastner, captured the Ladies' Hunters class, and his rider also took 4th place, but with a mere colt of 9 years, Jackstraw; with Havana and So Big and Grey Eagle not placing, but in there galloping, just the same.

In the Hunt Teams event, and ridden by Captain L. J. Stewart, was Honolulu Tomboy, whom Captain E. Y. Argo used to display to Olympic crowds. (Honolulu Tomboy and her ilk are "whom" in this book.) Oldsters Bumper Lass, Miss X, and Unknown also showed their paces in this class. (The latter is recalled as the 1931 remount-training assignment of Capt. S. H. Fisher, now in Peiping, and probably experiencing less excitement than before he subdued the now-ten-year-old gelding. The story has it that the name commonly agreed upon for the new remount would not quite do—so they named him after his ancestry.)

The judges were Col. C. P. George, of Fort Sam Houston; Colonel G. M. Peek, FA, of Kansas City; Lt. Cols. N. B. Briscoe, Cav., K. G. Eastham, Cav., and W. M. Grimes, Cav. (the first two from Ft. Leavenworth, the latter from Ft. Riley), and Major E. M. Daniels, QMC, of Fort Reno.



Master Sergeant Sefton G. Casner, 83d FA, and 1st Sergeant Thomas Lyche, FAS, retire . . . A of the 13th wins regimental boxing trophy, F of the 8th duplicates in its own regiment, and B of the 83d wins over other battalion basketball teams.

Reviews

THE COMMAND AND GENERAL STAFF SCHOOL QUARTERLY.

The December, 1937, number of this valuable publication included 350 pages, and numerous maps and charts. The up-to-dateness and comprehensiveness of the survey are attested by the table of contents, which follows:

The Japanese Attacks at Shanghai and the Defense by the Chinese, 1931-1932—An original military study; Military News Around the World; Abstracts of Foreign-language Articles—This section contains abstracts of important articles from foreign military periodicals; the remaining articles for each magazine are listed; Book Reviews; Library Bulletin—This section lists books, recently accessioned, which are of particular significance; Academic Notes, C. & G.S.S.—Reprint of current school material, which affects instructional procedure or tactical doctrines; Directory of Periodicals; Catalog of Selected Periodical Articles—A systematic review of the contents of selected military periodicals. Foreign-language periodicals are digested to a degree to furnish an adequate idea of contents and significance; Readers' Guide and Subject Index—All subject-headings are arranged in alphabetic sequence and can be consulted like a dictionary; Supplement to Military News Around the World.

ASSIGNMENT IN UTOPIA, by Eugene Lyons. Harcourt, Brace and Co. \$3.50.

This book is the confession of an American foreign newspaper correspondent. Therein lies its value for the reading public. Eugene Lyons was the United Press representative in Moscow for six years, from 1928 to 1934. Before that he had been active in the radical movement in these United States—thus he was well

known in the "parlor pink" circles as well as in the more realistic milieu of the Communist Party. Although he was not a member of the Communist Party, apparently, as far as convictions and belief are concerned, he was a Communist. He spent 14 months in Boston working for the defense of Sacco and Vanzetti, and published a book called "The Life and Death of Sacco and Vanzetti." At the time of selection by the United Press as their Moscow representative, he was employed by the so-called Soviet Official Press Agency, TASS. The selection of a representative with his background by one of the two leading press associations to supply their members with news from Russia is a sufficient commentary as to the reliability of foreign news in the American press without further amplification.

The author relates in somewhat boring detail his enthusiasm upon receiving his appointment. The remainder of the book is devoted to his disillusionment with the Soviet Utopia. His reactions to the great political farce-tragedy, as unfolded during his six-year tour in Moscow, are interesting from a psychological viewpoint. His term in the Soviet paradise covered the closing days of N. E. P. and the inception and end of the "Piatiletka" (Five Year Plan). It included such details as the Shakhty Sabotage Trail, that known as the Ramzin Affair, and that of the Metro-Vickers Company English employees. Nothing is revealed in this volume which will surprise or be news to any competent, impartial, and unbiased observer of Russian affairs. Its contents will not affect in the least the opinion of a single apologist for the Soviets, nor of any of the "Parlor Pinks." "Communists," "Near Communists," nor any of the host of American pseudoliberals. Neither will

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it have any influence on the minds of those dyed-in-the-wool conservative and eternal optimists who live in hope that the Soviet system of dictatorship will blow up and the "good old days" return. But it shows plainly the low value to be placed on the vast bulk of foreign news dispatches in the American press for use in forming an opinion on political, social, or economic affairs in the countries concerned. The following passage—which, alas, is all too true—covers this subject in full:

"Americans who suppose that editors are inclined to cheer their correspondents in the fearless pursuit of truth have a naively idyllic view of modern journalism. They forget that the principal commodity of the newspaper is news, not truth, and that the two do not always coincide. A newspaperman with a reform streak will soon be out of a job. The correspondent who gets himself expelled or even disliked for talking out of turn puts his employers to great expense and, more important, endangers their source of information."

Unfortunately, as brought out so clearly in this (Mr. Lyons' book), the last word of the above quotation should have been misinformation or, perhaps, propaganda.

However, those readers who have not already formed an opinion relative to Russia and the Soviets, if such exist, should find this book of great value and interest. It contains many passages which paint better pictures of the subjects under discussion than many dozens of volumes which have been written since October, 1917.

In describing his first impressions of Moscow, the author mentions the statue of the great Russian poet, Pushkin, which has stood opposite the Strasnoi Monastery (now the Antireligious Museum) on Moscow's principal street since 1880, and says: "Nothing can surprise him any longer. Once there were self-important officers with their shoulders squared off by heavy epaulets,

uniformed civil servants, ragged peasants; now the officers were no longer epauletted, the civil servants carried brief cases, the peasants were still ragged."

In philosophizing about the Five Year Plan, its results, the hardships resulting from forced collectivization of agriculture, the regimentation of Soviet-planned industry, and the propaganda emitted to work up enthusiasm among the people, he says: "Without hesitation, they doomed millions to extinction and tens of millions to inhuman wretchedness in mystical delusion of their divine mission (They called it 'historical' instead of 'divine') . . . Have only the unborn generations a right to happiness, so that the anguish of the living generation is a trifling investment for its great-grandchildren? The logic of that 'investment' turns mankind into a donkey following the carrot hung before its nose, but always out of reach."

In discussing Stalin and his position in Russia, the following line speaks volumes: "Twelve years after the dethronement of Nicholas the Last, Holy Russia had a Little Father once more—too distant for personal love or hate, an invisible force to be flattered and propitiated."

The tourists apparently were a great trial to Mr. Lyons, particularly those with Left leanings. In telling of an experience with one of the ordinary variety who, using the author as an interpreter, told a Russian woman waiting in a queue outside a bakery to secure her bread ration, that she found the life in Russia interesting and received the reply that it was interesting to watch a house burn, but that the Russian people were in it, he says: "That resentment was not exceptional. Even functionaries whose business it was to propagandize the tourists privately despised them for their complacent gullibility. Americans and Englishmen and Germans who raised a row because there was no toilet

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paper in their rooms were eloquent in justifying hardships for Russians. They were prepared to see the Five Year Plan through to the bitter end if it killed the last Russian in the land."

He was especially irked by the "Parlor Pinks": "The most insufferable of the breed were the twittering American intellectuals of the Left. At the drop of a hat they were ready to argue solid facts out of existence . . . Their smiling denials of things recorded and admitted by the Soviet Government itself sometimes goaded me into telling them more of the facts than I intended."

He repeatedly takes cracks at the "Parlor Pinks" in the U. S. A. who not only see no evil and hear no evil of the U. S. S. R. but glorify and praise it to the skies, particularly for the Russians. In describing a dinner he attended in New York called a "We-Have-Been-to-the-U. S. S. R. Dinner" he says: "Had the fabled visitor from Mars stumbled upon this little party, he would have carried back an account of a curious country called the U. S. S. R., devoted largely to lovely day nurseries, free abortions, new architecture, and teaching peasants to read . . . The Soviet officials present must have blushed for the monumental simplicity of these Americans. They, mind you, were not ruthless Bolsheviks wielding their 'sword of destiny,' let the heads fall where they may, but effervescent outsiders who mistook the heads for croquet balls."

The disillusionment of Mr. Lyons, erstwhile Communist, is not sour grapes. One wonders as he heaps vitriol and venom upon his former comrades, if it is merely a case of a young radical growing up into a hidebound conservative as so often is true. At the end of his book he settles this question, however, by stating that the great Russian experiment will be of value to history chiefly as an object lesson in "how not to make a revolution"

and follows with a rededication of himself to the idealisms of socialism.

This book is well worth reading by those interested in world events and the current political, social and economic scene. Those who consider the so-called Capitalist System worthy of defense should find plenty of ammunition in it, for the author shows clearly, to his own satisfaction at least, that the great experiment in socialism, hailed so enthusiastically by him and his contemporaries a few short years past, has deteriorated quickly into something entirely different. In short, it appears that the Fascists have stolen the Socialists' thunder. Perhaps that is what irks him.

—E. YEAGER,
Lieutenant Colonel, FA.

ARMY MESS MANAGEMENT SIMPLIFIED,
by Major E. A. Hyde, FA, Standard
Printing and Publishing Co.,
Huntington, W. Va. \$2.00.

Major Hyde, who freely acknowledges his use of Government publications in his preparation, has written a book which should be a boon to harassed mess officers and new mess sergeants. Its 197 pages of instructions, recipes, and record forms would appear to cover the subject pretty thoroughly. It is written simply and to the point, as witness this extract: "The greatest fault to be found in messes is waste of food. The next is over-cooking, also preparing the meal ahead of time."

This reviewer confesses he was impressed with the single "errata" note: "On page 29, in the recipe for Turkish Stew, 2 tablespoons of cayenne pepper should be substituted for 12 as written."

Or multiply everything else by six.

THE STORY OF THE CONSTITUTION.

THE JOURNAL has received from the Honorable Sol Bloom, United States Representative from New York, and Director General of the United States Constitution

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Sesquicentennial Commission, its publisher, a copy of this recently distributed volume, without which no American library is complete. An extract from its introduction summarizes the contents:

"For those who are interested in the changes which the Nation has undergone while under the rule of the Constitution, there are a series of historical maps, and a short sketch of national development to be read in connection with the maps. Pictures are given of the men who signed the Constitution and thumbnail sketches of their careers. Also there are various tables of dates of ratifications by the States of the original Constitution, of later admission of States, and of territories and dependencies; as well as an explanation of when the various amendments went into force. A series of Questions and Answers gives information on many details of the making and operation of our Government. Among the many valuable state papers of the Nation two are most intimately connected with the Constitution. These are the Declaration of Independence, which opened the way for it, and Washington's Farewell Address on keeping in the path. It is fitting, therefore, to include these in a book which is itself a fingerpost. The Supreme Court of the United States has been called "a continuous constitutional convention," which statement, even if considered an exaggeration, correctly marks the importance of the court in our constitutional history, and the interest which centers in the eleven men who have been the Chief Justices. Portraits and sketches of these judges are included in this volume. An index binds the contents together; and to stamp the character of the whole, a reproduction and short history of the Great Seal close the work."

MILITARY HISTORY OF THE WORLD WAR,
by Girard Lindsley McEntee, Colonel,

USA-Ret. Charles Scribner's Sons.
\$7.50.

The JOURNAL carried a review of this extraordinary work in its last number. For the inadequacy of this review we now apologize. Then, the volume itself had not been received in this office, and the review made available to the JOURNAL did not come close to reflecting, for the military student, the value of this work.

The price—seven dollars and a half—is a lot of dollars; but this is a lot of book. It is 8 by 11 inches, practically letter-size, and the courageous departure from conventional format is especially distinguished in its enabling the large maps and diagrams to attain close liaison with the reading matter pertaining thereto, no minor consideration. Usually, an attempt is made to achieve this by the use of fine print, but this book is printed in 12-point, a fifth larger than the size in which these words appear.

There are 459 maps and diagrams, and 565 pages of text, exclusive of bibliography and index. No major phase of combat anywhere throughout the world during those war-torn years, 1914-1918, is overlooked. For example, there are, illustrating the military and naval features of the Dardanelles campaign, 21 maps and diagrams, each of them larger than could be accommodated within the page size of this JOURNAL. They are not reproductions from other sources, but were obviously designed (many executed by the author) for this book, and are remarkable for their focus of attention on the influential portions of the terrain and the operations, to the exclusion of immaterial details.

Nearly every officer has, in his library, some favorite work on the war, or on one of its operations in which he is particularly interested. It is a safe forecast that in this history he will find new light shed, not only on the battle or battles, but on the intimate relation between one and another, be they adjacent,

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or on far-separated fronts. This is the stuff to feed the troops, for it is matter but dimly guessed at, in most cases, in the war histories written for the general reader.

This issue of the JOURNAL carries an authoritative Yugoslavian account of the Battle of Belgrade. Let us see what Colonel McEntee's history does about that operation: In the first place, seven large illustrations of the Austro-Serbian situation in 1915 are presented, and five pages of text. There is commentary for you.

Nor does the book halt with mere strategic plan and tactical discussion. There are graphs and diagrams illustrating pre-war mobilization plans in Europe, railroad nets, naval geography, naval dispositions, time schedule of land battles, six illustrations on Jutland, the supply and logistics problems and solutions of the AEF, and many more of the same.

What are Colonel McEntee's conclusions and interpretations? We haven't read far enough—and anyway, what difference does it make? This is not a book on second-guessing the war; it is a monumental work of reference without which any officer will be handicapped—lacking it, to put one combat beside another and evaluate each, he would have, not only to consult the extensive bibliography and documents listed, but to

possess the sure touch with which the author has extracted this three and a half pounds of grain from tons of chaff. At something like \$2.15 a pound, it is still cheap.

TOMORROW THE ACCOLADE, by Janet Dietrick. Doubleday Doran & Co. \$2.00.

Fiction ordinarily is not reviewed in these pages, but perhaps there is sufficient to justify this exception in the case of a product of the author of "Parade Ground."

This is the story of a pair of Army juniors, who married, and perhaps lived happily ever after—but certainly not until the events described in the book had been filed under "completed business." The background of garrison life is as authentic in its minutiae of detail as one could ask, a really extraordinary listing of shop talk, in both genders.

Against it move some—to say the least—odd characters. Strangely enough, now and again a soldier speaks and comes to life, but the author. Army daughter herself, is a little less-successful with the commissioned personnel. The pattern of their plays is so complicated a set of double spinners and fake reverses that not only is it difficult, at times, to know who has the ball, but to be sure the club really belongs in our conference.

If you liked "Parade Ground" you will enjoy "Tomorrow the Accolade."



Brigadier General Daniel Van Voorhis and his Seventh Cavalry Brigade, Fort Knox, entertained Senators Matheu M. Nealy, Lewis B. Schwellenbach, Harry S. Truman (Colonel, FA-Res.), Joseph J. Guffey, Sherman Minton, and the Honorable Marvin McIntyre, Secretary to the President, at an inspection and review last month.



THANKS TO THESE—

The acquisition of MR. PETER B. KYNE for the current number is something we—meaning staff and readers—may plume ourselves upon. One of the most popular writers of fiction in this country, Mr. Kyne will be long remembered for his "The Artillery Mill at Old Fort Sill," a *Saturday Evening Post* story which appeared in late 1918. It described his student experience at the School of Fire (now The Field Artillery School) and his regret at being promoted to major, "away from command of a battery." Mr. Kyne began his soldiering with the Philippine Insurrection. The creator of "Cappy Ricks" has always spoken our language—and with the correct accent. We have been promised more from his pen.

The Charles E. Van Loan, whom Mr. Kyne mentions, was a celebrated contributor of racing stories to *Collier's*, and of "Uncle" Bill Naughton the tale is told that when he was dictating to his telegrapher the details of the Jeffries-Johnson fight of 1910, and said: "On the ropes, Johnson lands a light left to Jeffries' jaw." Johnson grinned at him and said, "Make it three, Mr. Naughton," thereupon landing two more.

Captain GORDON GORDON-SMITH, attache of the Royal Yugoslav Legation, it

at present in Belgrade. He was a war correspondent in 1918, following the fortunes of the great Serbian retreat, and is the author of that well-known work, "From Serbia to Jugoslavia."

Captain C. R. GILDART has been introduced on this page before. We consider his "Symphony" a masterpiece of rhyming and assonance.

General FREDRIC CULMANN, French Army, is an old and valued contributor to these pages.

Captain ROYAL L. GERVAIS is assigned to the land-, air- and sea-shooting 11th Field Artillery, Schofield Barracks, T. H.

Mr. JOSEPH MICHAEL LALLEY is the book page editor of the *Washington Post*, frequent contributor of special articles to its editorial page, and former Baltimore newspaperman.

Private VICTIS is still AWOL. We suspect that is not his right name.



Some Forward Observations



THE NEW DRESS in which this JOURNAL appears is the product of many co-workers. Sergeant William H. Brown, CAC, executed the cross-cannons on the rear cover, and the medallion on the front. The medallion follows the design of the Field Artillery Association Medal, which was devised by Captain Rex Chandler, with some suggestions by Captain A. S. Bennet. And certainly Messer Palma Vecchio, from whose altar piece, done more than 400 years ago, the central figure was taken, should be credited with an assist. The red cover is a departure from the practice of many years, but the first copies of the JOURNAL appeared in white with a red border, so there is precedent for the change.

THE JOURNAL is not prepared several issues in advance of publication. Within the limits of its bimonthly appearance it strives desperately, if not always successfully, to stay somewhat abreast of the times. Thus the contents of a succeeding issue cannot be forecast in detail. However, it is hoped that the next number can include the prize-winning essay, and another story by Mr. Peter B. Kyne. Some other projects for succeeding issues include the prize-winning thesis at the Field Artillery School, an article about Molly Pitcher—artillery heroine too little known—and perhaps an article, "So You're Ordered to Washington?" which will attempt to orient newcomers to the city so far as rents, taxes, schools, transportation, utilities, and procedure are concerned.

As to the last, it may be felt that it will have but limited application, but, after all, you never know—you know.

A literary agent recently sent the JOURNAL a fiction story by a writer with a really big name. It would have looked well on the cover. The story was good, as military stories for the general magazines go, and it is probable that military readers who encountered it in a general magazine would have ignored its technical imperfections. But not in the JOURNAL, we think. So it was returned—not without pangs.

THE 124TH FIELD ARTILLERY, of Chicago, commanded by Colonel C. C. Haffner, Jr., moves up beside the 111th Field Artillery, Virginia (commanded by Colonel Haffner's colleague on our Executive Council, Colonel William H. Sands), in attaining 100-per cent membership in the Association. Colonel Haffner reports the acquisition of 45 new members. Next issue, we hope to include a picture of the 124th's regimental crest.

For the time being, let the silhouettes on page 77 represent these respective regiments of 75-mm. guns, the 111th being truck - drawn, and the 124th horse-drawn. The illustrations were done by Mr. H. S. Parker, son of Lt. Col. Edwin P. Parker, FA.

THERE IS an odd shyness about several military men we know, with regard

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to writing. It appears that there is something unsoldierly about writing, and that they would just as soon escape its stigma. This is a great pity, for if another profession can be named, in whose practice the use of the written language, with all its aids and appurtenances, including punctuation, may mean more to more people, you may wire its designation to us collect. Battles have been lost and the course of nations changed by poorly written—even if brilliantly conceived—orders. Careless proofreading, too, plays its part.

The classic in this line is the linotyper's stock joke. His machine casts a line at a time, and occasionally, when a line has been recast to correct one error, another mistake creeps in, as:

"The Bugle greatly regrets its inadvertent reference, last week, to our esteemed fellow-townsmen, Colonel Spot-tiswoode, as a 'battle-scared veteran.' What we meant, of course, was 'bottle-scarred'."

●

ONE OF several advertising propositions occasionally unloaded on this desk addressed to "Mr. F. A. Journal" makes a touching appeal:

"Dear Mr. Journal:

"We want YOU to join the thousands of Washingtonians who have been dealing with us for 49 years, because you are the type of person we'd be proud to call a customer and friend."

●

MAJOR J. F. BRITTINGHAM, more in sorrow than in anger, mentions that the mail now addressed to him at Fort Bragg, where the roster printed in the November-December number had him, will reach him quicker if sent to Fort Benning, Ga., where he is stationed with CCC district headquarters.* Will any others whose

coordinates were erroneously reported please move back to where we claimed they were, and save us further embarrassment?

●

THE ARMY AND NAVY Register of January 1st included a letter to the editor (from Major General C. E. Kilbourne, USA-Ret, the Superintendent of Virginia Military Institute) whose contents should be given the widest dissemination, and are reproduced below:

"The death of Newton D. Baker is a blow to the nation and to the Army. All know how we feel toward him. Possibly some do not know how he felt toward us. I quote, therefore, an extract from a letter he wrote me shortly after the Baker committee on air corps concluded its work:

"The Regular Army taught me two great lessons—one about itself and one about life in general. As to itself, it taught me that the Army speaks the truth, and the more I live in this shifting and evasive world, the more I set store by that primitive, primary, and indispensable virtue. Out of it, I think, almost all other virtues necessarily spring, and, as a consequence, whenever I come in contact with Army men, I expect to find and do find the qualities of candor and courage, which are more refreshing than a long vacation in a pleasant place. The other thing the Army taught me was the value of loyalties. Nothing has been more satisfying in my life than the constant exhibition of enduring loyalty to me which has come from members of the Regular Army after all these long years of separation from responsible contact with the Army and its affairs. Your reference to it touches me afresh with a sense of its kindness and value."

"This statement, from a truly great soul, should prove an inspiration to all ranks."

Amen.

And to the late great wartime Secretary, "a long vacation in a pleasant place."

* Per S.O. No. 200, Hq Fourth Corps Area.

MILITARY BOOKS

Following is a list of books on military subjects which are recommended for their professional value as well as interesting content:

	<i>Price</i>
	<i>(Domestic postage included)</i>
FIELD ARTILLERY: The King of Battles— <i>Maj. Gen. H. G. Bishop</i>	\$1.00
THE AMERICAN ARMY IN FRANCE— <i>Maj. Gen. James G. Harbord</i>	5.00
WITH NAPOLEON IN RUSSIA— <i>Gen. de Caulaincourt</i>	4.00
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R. E. LEE— <i>Freeman</i> (4 vols., each)	3.75
A MODERN MILITARY DICTIONARY— <i>Col. Max B. Garber</i> —Cloth	2.50
—Leather	2.75
INFANTRY IN BATTLE	3.00
THE INFANTRY BATTALION IN WAR— <i>Lt. Col. Walter R. Wheeler</i>	3.00
CAVALRY COMBAT	2.50
MILITARY HISTORY OF THE WORLD WAR— <i>Col. G. L. McEntee</i>	7.50
GENERAL VON STEUBEN— <i>Brig. Gen. J. M. Palmer</i>	4.00
THE SIEGE OF ALCAZAR—(<i>McNeill-Moss</i>)	3.50
ARMY MESS MANAGEMENT SIMPLIFIED— <i>Maj. E. A. Hyde</i>	2.00
THE CAISSONS ROLL— <i>Hanson W. Baldwin</i>	2.50
THE LOST BATTALION— <i>T. M. Johnson and Fletcher Pratt</i>	3.00
IF WAR COMES—(<i>Dupuy and Eliot</i>)	3.00
SOLDIERS OF DARKNESS (Combat Intelligence— <i>Gowenlock</i>)	2.75
EUROPE IN ARMS (<i>Liddell Hart</i>)	2.50
THE UNITED STATES ARMY IN WAR AND PEACE (<i>Spaulding</i>)	5.00
ITALY'S PART IN WINNING THE WORLD WAR— <i>Colonel G. L. McEntee</i>	2.00
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COMBAT INTELLIGENCE— <i>Schwien</i>	2.00
VERDUN— <i>Pétain</i>	4.00
REMINISCENCES OF A MARINE— <i>Lajeune</i>	4.00
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ULYSSES S. GRANT— <i>McCormick</i>	5.00
AMERICAN CAMPAIGNS (2 vols.)— <i>Steele</i>	10.00
ROBERT E. LEE, THE SOLDIER— <i>Maurice</i>	4.00
FIFTEEN DECISIVE BATTLES— <i>Creasy</i>	1.00
ORDEAL BY FIRE— <i>Pratt</i>	3.00
OFFICERS' MANUAL (Revised)— <i>Moss</i>	3.00
OFFICERS' GUIDE, 1930	2.75
ARTILLERY TODAY AND TOMORROW— <i>Rowan Robinson</i>	2.00
SOME ASPECTS OF MECHANIZATION— <i>Rowan Robinson</i>	1.50
THE FELLOWSHIP OF THE HORSE— <i>Lt. Col. Goldschmidt</i>	5.00
LIFE OF GRANT— <i>Fuller</i>	5.00
HORSE SENSE AND HORSEMANSHIP— <i>Brooke</i>	5.00

A reduction of 10% will be made to JOURNAL readers who purchase any of the above books through the U. S. Field Artillery Association.

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