

new. Certainly the use of a free-hanging mute is new, though when it takes the form of a tin can or a silk hat it is surely no addition to orchestral elegance.

In the current jazz one hears piano figures that are ingenious, counter-melodies that are far from timid, and experiments in instrumental balance that are of interest to any composer. The harmony itself is at times varied and delicate. The blues formula—subdominant modulation with alternations of tonic major and minor—is simple and effective. The chromatic (or diatonic) succession of dominant ninths so dear to Franck and Chabrier has become popular, and the mediant or sub-mediant tonality offers a pleasing relief from the more obvious dominant. The Neapolitan sixth is quite common and even the “barbershop” chord, the augmented six-five-three, or German sixth, is some-

times used in a manner that is not at all crude.

These characters of jazz are partially supported by serious music and partially contributory to it. Skillful composers on higher planes snap up quickly any novelty that the makers of jazz invent. Union musicians play one night at the movie, and the next night with the local symphony orchestra. They bring a few tricks to the latter, and they take home a great many more. Orchestral and harmonic styles in jazz are still experimental and shifting. But the essence of the thing remains the fox-trot with a monotonous rhythm underneath. That rhythm shakes but it won't flow. There is no climax. It never gets anywhere emotionally. In the symphony, it would either lose its character or wreck the structure. It is exactly analogous to the hoochie-coochie.

## Military Science

### CAVALRY IN MODERN WAR

By G. A. MOORE

**D**ESPITE the general lay view that the vast development of mechanical and engineering devices in the late war made all the classical methods of warfare archaic and useless, the fact is plain that the chief structural ornament of that older warfare, the cavalry arm, remains intact, and that it will unquestionably find large and valuable employment in the next great struggle. Cavalry has survived the trench, the tank and the gas attack, it has survived the machine gun and heavy artillery, and it has survived the competition of the aeroplane. This is the mature opinion of all the outstanding commanders of the late war: Foch, Ludendorff, Joffre, Haig, Pershing, Diaz and Allenby.

Modern cavalry tactics were born during the American Civil War. There has been little change in them for sixty years, in spite of the new conditions that had to be faced in the Boer War, in the Russian-

Japanese War and in the World War. The mission of the arm remains practically what it was in Sheridan's day. It is still the chief source of information to a commander in the field—and information about the strength and disposition of the enemy is necessary to him, of course, before he can form his plan. The aeroplane, to be sure, has lightened the duties of cavalry in strategical reconnaissance. Before it was invented the cavalry often had to make long and difficult marches to ascertain where the enemy stood. The air service can now take a general view of a large area and locate all the larger and more conspicuous bodies of enemy troops. But the aeroplane cannot go into houses, and it cannot search woods, gullies and the many other places where considerable bodies of troops may be hidden. In cloudy weather and during storms and at night it is not of much use at all. The cavalry, however, can operate in all weathers and over any kind of terrain. It can get detailed information from points too distant for

foot troops to reach. Cyclists and automobiles cannot leave the roads, but cavalry can. The air service and the cavalry thus supplement each other; our American cavalry divisions all have aeroplanes in their organization. Team work between the two arms in reconnaissance gets the best results.

In modern warfare it is more important than ever to use the element of surprise. The enemy must be kept in ignorance of his opponent's plans and movements. The cavalry, by pushing out in force well to the front of its main body, acts as a screen behind which the higher command maneuvers. The vulnerability of cavalry has not been materially increased, despite the development of mechanical means of destruction. The formations are simply opened out. A regiment of cavalry, say, seven hundred men and horses, is still acting as a unit and in concentration if it is deployed in three fields adjoining one another instead of in one field. This slight change in tactics permits cavalry still to operate in large bodies. In protecting its own main body the cavalry first seeks out the enemy cavalry and, if possible, defeats it. This serves two purposes. The enemy gets little or no information and his opponent gets a great deal. The dramatic, swift and efficacious advances of the German armies in 1914 through France and Belgium, as General von Poseck, the present Inspector General of the German Cavalry, sets forth in "The German Cavalry in Belgium and France, 1914," were in no small measure directly facilitated by the efficient screening by their cavalry. General Allenby in his wonderful campaign in Palestine completely deceived the Germans and Turks by the use of his cavalry divisions, with the result that he moved several divisions of infantry from the one end of his line to the other without his opponents being any the wiser. Deceit is necessary in war, and the cavalry in this way renders a service to the basic arm, the infantry, which cannot become the function of any other branch of the service.

Time is a very important element in war. It is necessary to get there first. The cavalry, while it is yet far in advance of the body which it is protecting from attack and observation, seizes important points such as railroad centres, bridges and fords, repairs any damage which has been done by the withdrawing enemy, and if necessary fights the enemy for the possession of these points, holding on until its infantry can come up and take the ground over. This work enables the main body to make an uninterrupted advance. The Germans at the beginning of the World War utilized their cavalry for this purpose to the maximum, and their rapid and steady march on Paris was greatly aided by its work.

On account of its mobility and fire power, and in no small measure because of its historic morale, cavalry is peculiarly adapted to withstanding superior numbers of enemies for short periods of time. This attribute of the arm makes it possible for it to seize important points boldly, relying on being relieved in the near future of the onus of their defense. It is unavoidable many times in such cases that the cavalry should sustain heavy losses. But when the opposing armies draw sufficiently near to one another, it retires to the flanks or rear, and is then used as a part of the mobile reserves. Because of its mobility, which is its prime characteristic, it can move quickly to one flank or the other, or it can be used to fill a gap made by the enemy in the lines. In these circumstances it is frequently used to relieve hard pressed infantry, or to hold a critical point until the arrival of the infantry. But its greatest function is to await a gap in the enemies lines and to push through it. It then takes the lead in exploiting the success, riding down all stragglers in its path, striking at the communications, reserves and supply depots of the enemy, and pursuing him without mercy until his defeat becomes a rout.

The British commander, Field Marshal Haig has said, "Frequently when it was impossible to forward other troops in time,

our mounted troops would fill gaps in the line and restore the situation." Marshal Haig was speaking of the labors of the II (French) Cavalry Corps in the region of Luneville in the summer of 1914. In commenting on the work of cavalry in the war this same commander remarked, with respect to the German drive in March, 1918: "The absence of hostile cavalry at this period was a marked feature of the battle. Had the German command had at their disposal even two or three well trained cavalry divisions, a wedge might have been driven between the French and British armies." In the opinion of many American military authorities, if we had had enough Cavalry in the Meuse-Argonne operation, both at the beginning of that action and in its later aspects, the force would have been able to push through and effect important results. Likewise, many believe that a body of cavalry going through to Sedan on November 1 would have cut off much of the German force to the West. The Italian experts, in their analysis of the future rôle of cavalry in war, have decided that "the resolute man on horseback" will remain one of the most decisive factors. Undoubtedly the smashing victory of the Italian cavalry over the Austrians at Vittorio Veneto in October and November, 1918, helped them to arrive at this conclusion.

The most brilliant example of the use of cavalry in the World War was that offered by General Allenby in Palestine and Syria. The Turks had a line across Palestine facing south, with their right on the Mediterranean. To tell the story in a few words, the British broke the line along the sea. Several divisions of cavalry hurled themselves up along the coastal plane, riding down and through all opposition, turned to the right, placed themselves across the roads leading northward, and captured or destroyed whole enemy armies, the infantry coming on behind and doing the final mopping up. Three British cavalry divisions rode from Jaffa to Damascus, two hundred miles, in twelve days, over

streams, mountains and sand, in a climate unsuited to Europeans, and during this wild yet orderly and thoroughly planned ride they managed to capture 60,000 prisoners, 140 pieces of artillery and more than 500 machine guns. These cavalrymen had a habit of charging entrenched infantry, against all the canons of war, but the losses to the three divisions were only 125 killed, 365 wounded and 43 missing. It took but 20,000 horsemen to do this job.

On October 1 the Fifth Cavalry Division left Damascus, arriving in Aleppo twenty-five days later. Another division accompanied it. Together the two marched 367 miles and captured seven times their own strength—a bag of 23,000 prisoners and 20 pieces of artillery. In thirty-eight days the Fifth Cavalry Division rode 567 miles, fought the enemy eight engagements, and with losses of only 39 killed, 160 wounded and 9 missing, garnered in 11,000 prisoners and 38 field pieces. General Allenby said in 1920, "I have been a cavalry officer ever since I joined the Army in 1882, and I have never felt more confidence in the future of our arm than I do today. . . . Recent inventions and appliances affecting the conditions of war, far from lessening the power and scope of cavalry, have added thereto . . . Cavalry can adapt itself to any condition . . . and will fit its tactics to any country . . . The cavalry leader . . . will again and again find his opportunity to go in with the cold steel."

When the infantry must retreat or withdraw, the cavalry is used to protect its backward movement. Again because of its mobility and fire power, it holds one position after another, compelling the enemy in his pursuit to deploy from a column formation to a fighting formation, thus delaying the pursuit, and as soon as this has been accomplished it mounts again to seize the next good point for defense. The French and the British in 1914 very frequently used their cavalry in this way.

In guerilla warfare cavalry becomes the

basic arm. A good example of this was offered by the Pershing Expedition into Mexico in 1916. Foot troops cannot find enemy irregulars. But cavalry, with its superior fire power, can, and it can whip them after it catches up with them. In our regulations raids are defined as "isolated and independent operations, conducted with secrecy, by rapid marches, usually avoiding general engagements. Their objects are various, but operations against

the enemy's line of communications and depots and sources of supply are most usual." Our cavalry division is therefore organized to act independently, and that fact distinguishes it from the other auxiliary branches. Cavalry is exactly suited to raiding and once its own air service has attained to supremacy in the air it can brave all the other means of communication cut loose from its base, and boldly risk all for a great prize.

## Printing

### THE BOOKS OF DARD HUNTER

BY NELSON ANTRIM CRAWFORD

**I**N the entire history of printing Dard Hunter, of Chillicothe, Ohio, is the first and only man to have made books wholly by his own labor. He made the paper and the type, he set the type, he made up the pages, and he did the presswork. Hunter has produced three such books: "The Etching of Figures," 1915; "The Etching of Contemporary Life," 1916, and "Old Papermaking," 1923.

Like so many other good craftsmen, he comes of a family of craftsmen. For four generations the Hunters have been printers. Dard Hunter's father maintained a commercial print shop and at the same time operated a private press. On holidays and in his spare time he worked at a little hand press, turning out books which he himself had written. This example was not lost, and Dard Hunter became a printer, too. He worked for a while in his father's establishment and then turned to book design. For seven years, from 1902 to 1909, he was employed in the Roycroft shops, run by Elbert Hubbard. There he designed 150 volumes. They are the most attractive of the books produced by Hubbard. "Rip Van Winkle," the first of them, is regarded by many printers as the best piece of printing ever done in the Roycroft shops. At this time those shops were using more imported handmade paper than all other

American shops combined. Hubbard himself, however, was no artist and though Mr. Hunter feels kindly toward him because of his courtesy and generosity, he admits that the books which he designed in those days "should all be repulped and made into packages for shredded wheat or wrappers for soap."

Dissatisfied with the rigidity and lack of individuality which he found in American printing, and attracted by the quality of European handmade papers, Mr. Hunter went abroad. He studied hand paper-making processes in Italy and mould construction and watermarking in London. In Vienna he studied type design under the noted Rudolph Elden von Larisch, director of type design in the Austrian Government Printing Office. He also worked in the Graphische Lehr und Versuchsanstalt, the oldest school of graphic arts in the world. Then he formed a connection with the Norfolk Studio in London, and there he designed catalogues and other advertising matter for British firms. Practically all the English catalogues of automobiles for the year 1910 are of his design.

But such work was not satisfying. In Europe he saw the typography, the presswork, and the paper of 400 years ago. His work, he realized, was inferior. At the same time, he felt that even if he should go back to the methods of the old printers, buying handmade paper and then printing upon it with type designed by himself, he