

MILITARY SCIENCE

Movies for Soldiers

No Comedy, No Glamour in the Army's New Films; They Teach the Very Serious Business of War

By DR. FRANK THONE

SOLDIERS of the U. S. Army and National Guard are going to the movies in a big way nowadays.

No news in that? Sure, soldiers always have gone to the movies. *Les soldats Americains* vied for the privilege of escorting Mademoiselle to the cinema in Armentieres, until some inconsiderate Heinies dropped a big *obus* through the roof one afternoon and put the projection room out of action. . . . Or maybe it wasn't Armentieres, but some other town and some other Mademoiselle. Hard to remember; it was so long ago now.

But they're different movies nowadays, and no Mademoiselles. No pie-throwing contests, no cop-chase sequences, no modern glamour girls in these films the present-day doughboy attends. Not even a Mickey Mouse, although there are animated drawings. They're business films, deadly serious business—the business of modern war. No room for romance or comedy in that.

The Army now has a library of about fifty instruction films, covering all branches of the soldier's profession, from the elements of how to stand and salute and handle a rifle and march in close order, to the intricacies of machine guns and the recoil gear of heavy artillery. Some of the films are for new recruits (and their teachers), others obviously for soldiers further advanced in the special branches of their business.

For R.O.T.C., Too

There are of course several prints of all the more important films, so that instruction may go on simultaneously in many different places—all army posts and National Guard armories of any pretension have motion picture projectors nowadays. The films are also widely used in schools and colleges where military instruction is given to prospective young reserve officers. They are not available, however, for general public exhibition.

This great library of films will be used to the limit during the coming months, as an unprecedented recruiting campaign swells the ranks of the Regular Army to

the strength of 227,000 now authorized, with thousands more piling into the National Guard to bring it up to its authorized strength of 235,000.

Such an influx of new men imposes a tremendous job of teaching on the officers and NCO's—the biggest educational task faced in this country since the crowded days of 1917. And Service officers hope to carry it through this time with greater economy and higher efficiency, thanks in part to the new aids in teaching.

Preparedness

One prime underlying idea is that if the American forces are known to be thoroughly well armed and well trained there will be less temptation on the part of European powers to underestimate them and hence to think it safe to flout and provoke the United States.

In 1917, German generals considered American troops to be "about equivalent to Rumanians" in fighting power—and they had just finished trampling Ru-

mania into the dust. Had they been less mistaken then, it might not have become necessary for the AEF to teach them otherwise. The better prepared an army is known to be, the less likely it is to be compelled to use its weapons and its knowledge.

Made by Army

These military teaching films are not only of and for the Army, they are by the Army. The U. S. War Department maintains a "little Hollywood" at the Army War College in Washington, D. C., and two field production units constantly "on location" in important troop centers elsewhere.

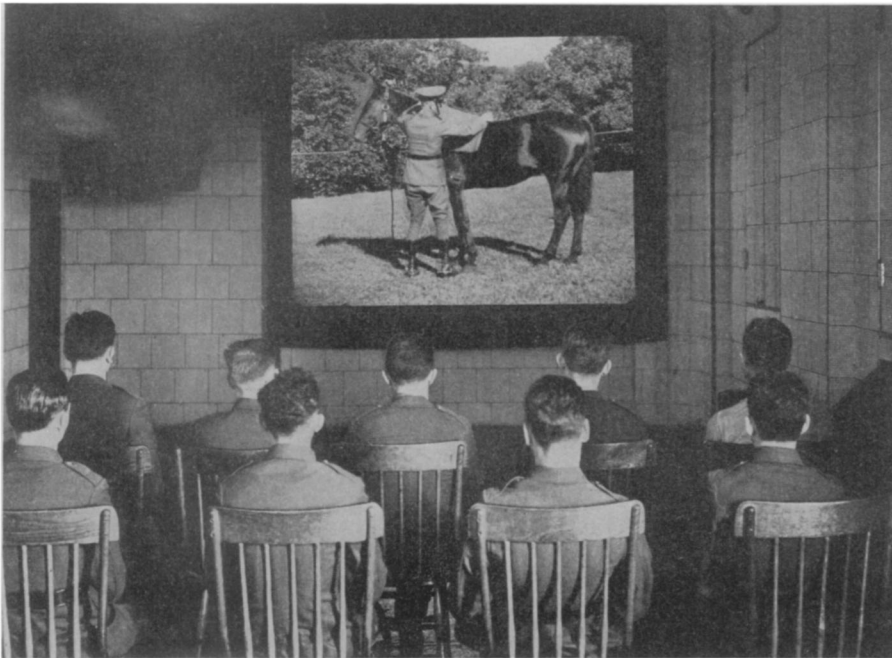
In direct charge of the work is Major R. T. Schlossberg, with headquarters in the War Department in Washington. Assisting him are several officers who took a special course of training in Hollywood to qualify for the task, together with a group of non-commissioned officers and enlisted men of the Signal Corps, and a number of civilian technicians.

All the photographic, studio and laboratory tricks in the Hollywood repertoire are used by these Army film mak-



NOT HOLLYWOOD STUFF

This is the real thing. Army camera men filming the firing from a machine gun nest.



INSTRUCTION

First lessons in riding can be given in a movie theater—its easier on both "rookies" and horses.

ers: straight shots, lap-dissolves, slow-motion, lifelike models, animated drawings. Any combination of these devices is used that promises to get the idea across most effectively.

Some of the work with models and animation is startling in its realism. In the recently completed film on first aid in the field, a soldier is first shown with what purports to be a bad wound in his upper arm. A partial view of arm and shoulder of the living subject dissolve into an exact model done in wax, with the arm bared. A concealed pump spurts what seems to be blood out of the wound with the rhythmic jets that warn of a severed artery. Experienced officers have confessed that the sight has made them giddy, though they knew that the arm was wax and the "blood" only catsup. The film goes on to show how to save a life by the use of tourniquet and compress applied at the right spots.

Use Celluloid

In preparing the animated drawings, the now familiar device of moving models of transparent celluloid, with cutout parts that change position, is effectively employed. For some things, notably the action of artillery recoil systems and other complex mechanical contrivances, animated drawings are the only practical way to show in detail how they work.

One of these films would be of unusual interest to World War artillery veterans. It shows exactly how the recoil mechanism of the famous French 75-millimeter field piece operates. That was kept a closely guarded secret, even from the men who used the guns, back in 1918.

Thorough

One thing that never fails to strike the critical observer, on first view of one of these films, is the patient thoroughness with which every point is developed. They are quite unlike ordinary entertainment films in this respect. The latter of course must aim at swift action: a quick suggestion, a partial development of an idea, is often sufficient for their purpose; the spectator's own mind supplies the rest.

Not in these Army instruction films, however: any neglected detail, any glossed-over point, might cost the soldier his life in a critical action, might mean the crippling of a great gun or an airplane or a tank. So every point is shown in full detail, while the explaining voice of the instructor flows steadily and authoritatively alongside it on the sound track. It is an amazingly good job of pedagogy: makers of films for school and college use could very profitably study these martial movies for helpful suggestions in method.

The step-by-step thoroughness of instruction appears to especially striking advantage in the animated-drawing films. These always start with the complicated apparatus stripped down: the empty cylinder of a recoil mechanism, the bare frame of a machine gun. Piece by piece, as if an invisible hand were assembling the mechanism, the various parts appear. As each one flashes into view, a pointer rests on it, the voice from the sound track tells what it is and on what principles it operates. Then the next part appears, with the next stage in the explanation.

Good Students

The new generation of soldiers comes well prepared to get maximum advantage of this type of instruction. The average recruit of today has had high school training, and most high schools nowadays have motion picture projectors.

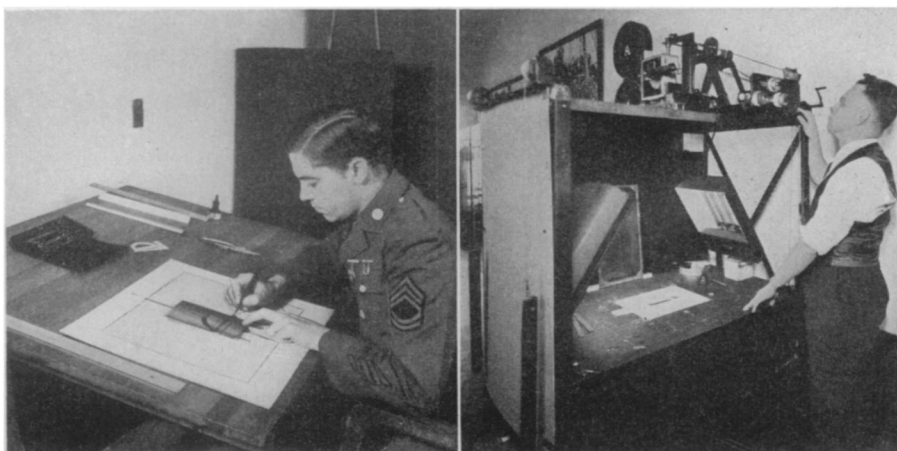
There is a great variety of subjects available in the Army's film library. In addition to "close-up" instruction in the operation of the principal weapons, there are also films showing the proper handling of troop units in the field: a battery of artillery on the march and in action, machine guns employed in both attack and defense, infantry crossing a deep stream without the aid of a bridge, infantry going into action, the work of the Signal Corps, how the Medical Corps takes care of the wounded, the possibilities and limitations of tanks and other combat vehicles, etc. There are also several films contributed by the U. S. Bureau of Mines, on such subjects as gasoline engines and the avoidance of carbon monoxide poisoning.

Two or three of the films are World War veterans, dating back to 1917-18; they cover subjects that have not changed materially in 20 years, like the construction and use of shrapnel projectiles. The great majority, however, were made in the last few years, and give the latest

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NO MICKEY MOUSE

Army artist (left) working on animation drawing for a film of submarine mines. At the right is a Signal Corps camera in action, making an animated drawing.

word in the construction and use of weapons, field tactics, and the auxiliary services in the Army.

The earlier films, as might naturally be expected, are silent, but all the newer ones have sound tracks. All are available in the standard 35-mm. width, and a good many of them in the 16-mm. size as well. The newest ones come in editions fitted for the recently perfected 16-mm. sound projection apparatus.

In producing these films, the Army has again shown its capacity for getting large results out of modest resources. The building in which they are made, at the Army War College, certainly has nothing of the expansive, flamboyant atmosphere of Hollywood about it. It is an ordinary-sized brick structure, not suggesting by its rather ordinary exterior the close-packed hive of industry within.

There certainly isn't any waste space. All the rooms are carefully allotted: drafting rooms, photographing rooms, developing rooms, a few small offices. Yet there is no sense of crowdedness, rather of compactness; one gets the feeling that this is the work of men trained in dealing with equipment that may have to be packed on muleback, or in a caisson, or loaded in a tarpaulin-covered truck.

Storage is in a specially built, well-constructed brick vault building. Here are kept also many thousands of feet of now priceless film that record some of the most stirring events of 1917-18. It is a veritable storehouse of recent military history.

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perspiration indicating how much bodily energy is mobilized in reacting to the displacing stimulus," Dr. Freeman pointed out.

Measurements of the perspiration in the palms of the subject's hands as taken with an electrical device during a resting period prior to the electrical jolt, during the shock and after the current is turned off, are Dr. Freeman's measuring stick. The same machine that delivers the shock is used to record the subject's "recovery quotient," the R. Q., the time it takes for the sweating to return to the normal or pre-shock level.

"Neurotic persons have a much slower R. Q. than do normal individuals," Dr. Freeman announced. "What holds for the simple startle stimulus is also apparently true when the persons are placed under more serious mental strain and emotional conflict."

Subjects having long recovery times tend either to lie virtually inert after the shock or they squirm to excess, it was found. Dr. Freeman said that this might differentiate the maniac type from moody persons who brood for long periods and bottle up their emotions. Both are neurotic because of inability to find physiologically adequate motor outlets for the emotional strain, he asserted.

Less neurotic individuals frequently react merely by throwing out their hands and shouting some expletive of surprise, the psychologist reported.

"They recover equilibrium immediately following this adequate discharge of their emotional load and are ready for other displacing stimuli," Dr. Freeman concluded.

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Florida will investigate its chances of successfully growing paprika, which is now imported from Europe—about \$2,000,000 worth a year.

PSYCHOLOGY

Emotional Stability Determined By Aid of Electric Shocks

Measurement of Perspiration in Palms Reveals How Long It Takes to Recover From Such a Sudden Strain

SHOCKING persons into cold sweats in the hope of developing a simple, but scientific, measuring stick to determine how much emotional strain a person can take without danger of "cracking up" is the work being carried out by Dr. G. L. Freeman of Northwestern University.

Dr. Freeman is stimulating the higher

nerve centers of human "guinea pigs" with electrical shocks and then carefully measuring their sweat excretions to learn how long it takes them to get back to the normal balance of a relaxed condition.

"If unexpected, the electrical jolts create emotional strain or startle and stimulate the sweat glands, the amount of the

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