



PREFERRED

Still the best for general use in wartime is the French type 75 which, although 40 years old in design, has been modernized by a split trail, above, which enables a greater range of fire.

crawl, and its shell is unnecessarily heavy, anyway. Better is the high-velocity one-pound missile of the long-barreled 37-mm. piece designed especially for the job, which goes right up with the troops and can see the lumbering enemy approaching.

Of dual usefulness is the .50-caliber machine gun, which hurls a stream of heavy slugs half an inch in diameter. It can be cocked back at high angle, to defend the front line against approaching airplanes, and it can be brought down to the horizontal again, to hammer away at approaching tanks. With armor-piercing bullets the .50-caliber machine gun is effective against light tanks at close and medium ranges.

Every soldier, of course, will carry his gas mask at the alert, as he learned to do during the first World War. The new American gas masks are both more efficient in excluding gas and more comfortable to wear than were the rather crude masks of those days. Then, a company or a battery was "neutralized"—virtually out of action for the time being—as soon as it had to put on its gas masks. Soldiers wearing masks can now breathe so comfortably and see so well that they are able to go right on firing. There are special masks with optically perfect eye pieces for artillery officers who must read and set delicate scale markings for proper range. And such officers' masks frequently are of the dia-

phragm type with a special mouthpiece so that commands can get out but poison gas cannot get in. Such masks are also of extreme value for the men of the signal corps who act as telephone operators at the front in wartime.

Gas mask canisters, holding the chemicals which neutralize the deadly effect of the poison gases, are more compact than ever before. Yet they hold chemicals that will combat more different gases and they have a longer "life" before need comes for replacement.

All around, then, Uncle Sam can look over the situation, if not with smug self-satisfaction, then at least with the knowledge that he is ever so much better off than he was in 1917, and knows what he needs to do to meet deficiencies that still exist.

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PSYCHOLOGY

Teachers' Marks Do Not Match Child's Achievement

ABOUT 33,000,000 children in the United States are now working for the first "marks" of the new school year.

Parents may have offered bribes or threatened punishments. Teachers may have encouraged the spirit of competition in an earnest effort to make those marks shining ones.

The two million puzzled first-graders who have never been marked before and

do not know that they will never be marked after school life is over may be wondering just why those symbols on the report card should be considered so extremely important.

Psychologists and educators are beginning to wonder, too. The school mark is so ancient an educational device that its origin is lost in the mists of antiquity. We can only guess who was the inventor of such a troublesome system.

That both teachers and parents should cease placing a high value upon it is indicated by recent research by Dr. Clarence Carl Moore, of the Colorado State College of Education.

"There is not," said Dr. Moore in a report to the *Journal of Genetic Psychology*, "a high degree of relationship between the marks that teachers assign their pupils at the end of a semester and the standing of pupils on either standardized tests of achievement or intelligence."

This conclusion was based on studies of the fifth and sixth grades in Glenrock, Wyoming, Branson, Colorado and Grover, Colorado.

The closest correlation between teachers' marks and actual achievement was in mathematics. Reading was next, language and literature third and social science fourth.

Dr. Moore urges that educators work out some new schemes for measuring the progress of their pupils and the efficacy of their educational methods.

Standardized tests of achievement should receive more study. "Some," he said, "are limited to a general survey of pupil achievement while others sample more definitely specific interests."

"However, most standardized tests of achievement do not sample adequately the fields of the pupils' specific interests to give an adequate picture of the whole child."

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METALLURGY

Russian Iron Deposit Will Yield Ore in 1940

AN EXTREMELY rich and large deposit of iron ore which contains about half of the total world iron resources will begin in 1940 to yield ore at the rate of 300,000 tons a year.

It is known as the Kursk magnetic anomaly because of the immense effect that it has on the magnetic needle.

The Kursk ore carries up to 67% iron content and the ore layers average 200 feet thick.

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