

HOW ARMIES OPERATE

USES OF ARTILLERY AND INFANTRY OF OLD WORLD FORCES

16,000,000 Men Available - The Scientific American Explains Many Details of the Great European Conflicts.

Articles on war, written by experts fill the current number of The Scientific American. The subjects include army supply methods, transportation of troops in vast numbers, hospital facilities on the field, Germany's big guns and naval chances, and destructive new machine guns.

The magazine contains an article on the composition of European armies. The numerical strength represented by the terms, brigade, division, regiment, army corps differ widely from those in the American army that they are almost meaningless.

The European regiment in full war strength about 3,300 men, under the command of a colonel. Three regiments form a brigade of 10,000 men, commanded by a major-general. Two brigades form a division of 20,000 men, under the command of a lieutenant general.

Total of 16,000,000 Men. The Scientific American has another article showing the stupendous number of men already under arms or available for the conflict.

And the while these 5,000,000 troops are on the fighting line, there are being gradually assembled at the various camps and equipped for the field as they may be needed, the 10,000,000 trained reserves—every one having spent two or three years with the colors.

In all the countries engaged in this war, except England, military service is compulsory. In England service is voluntary, the men enlisting for seven years, at the close of which they enter the reserve.

How cannon are used in an actual battle is a most interesting subject, dealt with in the magazine. In actual battle the guns of a battery are lined up, and one loaded caisson is placed next to each gun.

The object of howitzers is mainly to fire a heavier projectile with a lower velocity at a much higher elevation and longer range.

They are used in an actual battle in a most interesting subject, dealt with in the magazine.



HOW THE ROYAL FIELD ARTILLERY FIGHT.

This picture was drawn from the description given by a special correspondent in a despatch concerning the operations of the British troops at the front. He says: "A half battery in rather exposed position, was galling the Germans by the accuracy of its aim. Several batteries made an attack on it. One by one its guns were silenced. The men who had been serving them lay dead around. One man was left, he did his best. He would have gone on till he dropped, but an officer called him away. "And you can bet that he was mighty sorry to go."

embankment or pass over their heads. For this emergency a battery of howitzers is called into action. By reducing the charge the projectile may be started at a higher elevation which causes the projectile to fall to the ground in a much more nearly vertical path, and enables it to be dropped back of the embankment.

Supporting Advances. The object of field artillery is to support the infantry in its advances or its retreats. It aims to hit the part of the enemy which is most dangerous to the friendly infantry, and which would hinder its success.

As the infantry advances, the field artillery must be in readiness to fire over the advancing lines and attack parts of the enemy's troops, or must be able to move with lightning rapidity to any other position where its fire is needed or is more effective.

The infantry soldier is armed in all the countries with a rifle and bayonet. The rifle is the weapon upon which reliance is placed, the bayonet being used only as a last means, when in a hand-to-hand encounter with the enemy.

Probably every country has developed or is developing a semi-automatic rifle, which differs from the ones now in use in every army by the fact that part of the powder gases are used to open the breach lock, eject the empty cartridge, and reload the rifle—all of which operations are now performed by hand.

The opening of fire from the infantry will generally be delayed, until accurate aiming is possible, unless it is desired to cause the enemy to deploy its forces earlier, and although the bullets are effective at 1,500 to 2,000 yards range, the real

fighting will not begin until at such closer ranges.

Why Pay Board?



She: "The nights here are very cool, aren't they? Is your room warm?" He: "Yes, the landlord is making it very hot for me just now."

HONEYMOON TROUBLE

It was near the end of my honeymoon. Mary and I—back from our trip to Montreal and Quebec—had halted at a summer hotel in the Adirondacks.

"Let me row you around the lake," Mary suggested. "It's a bully day." Mary merely stared out of the window. "You—you'd better go by yourself, perhaps," she said, and bit her lips.

"I certainly won't!" I declared. "I'm no solo honeymooner. What's wrong, Mary? You haven't really been yourself since we got here."

Now tears always arouse a horrible sense of guilt in male humanity. For one thing, a man, unless his experience has been vast, is greatly inclined to exaggerate the cause of women's tears, and women cry sometimes as freely over a broken trinket as they do over the death of a friend.

The old garden is gone, but some of the old girls must be left. If so they will wonder how it has all come about that New York now exports instead of importing beauty.

On Monday the funeral of the late Andrew W. Hough, Hillier township, took place. Many members of the C.O.F.E. Society of which deceased was a member, were in attendance.

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