HOW ARMIES OPERATE

USES OF ARTHLERY AND INFAN-TRY 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, nospital 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 so widely from those in the American army that they are almost mean-

ingless. 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, commended by a major-general. Two brigades form a division of 20,-000 men, under the command of a lieutenant general. Two divisions constitute an army corps of 40,000 men, commanded by a general, and three army corps form an independent field army, fully equipped with cavalry, artillery, commissary, engineers, and medical department of a total strength of 120,000 men. There are variations from these totals as given, but they are not great, and the foregoing estimate of the strength of the various units if applied to the number of divisions, brigades, army corps, &c., mentioned in the dispatches will give a closely accurate estimate of the number of troops en-

Total Of 16,000,000, Men. The Scientific American has another article showing the stupendous number of men already under arms whole fighting strength of trained heads. For this emergency a battery closer ranges. men in the nations involved numbers of howitzers is called into action. By something like 16,000,000. It is reducting the charge the projectile shown that there are facing each ot- may be started at a higher elevation her on a 250-mile battle line, reach- which causes the projectile to fall to ing from Antwerp, Belgium, to Bas- the ground in a much more nearly le, Switzerland, approximately 2,- vertical path, and enables it to be 500,000 men, about equally divided dropped back of the embankment. between the allied French, British, and Belgians, and the allied Germans and Austrians. These repre-

Germany and Austria, Germany has gerous to the friendly infantry, and massed some 600,000 of her second which would hinder its success. Since line of reserves, and Austria is mov- the enemy's artillery would do the ing to her own northern frontiers, same thing, it is evident that a moand to the assistance of Germany in dern battle will generally begin with Alsace and Lorraine another 460,- an artillery duel, and that whichev-000 men. Russia has announced that er side is able to silence the other her mobilization is complete, which side's artillery will have a tremenmeans that she is moving down up- dous advantage. In fact, until the on the German and Austrian fron- enemys' field artillery is silenced, an tiers her standing army of over 1,- advance of the infantry would. be

And the while these 5,000,000 As the infantry advances, the field troops are on the fighting line, there artillery must be in readiness to fire are being gradually assembled at the over the advancing lines and attack various camps and equipped for the parts of the enemy's troops, or must cool, aren't they? . Is your room field as they may be needed, the 10,- be able to move with lightning ra- warm? 000,000 trained reserves -every pidity to any other position where one having spent two or three years its fire is needed or is more effective it very hot for me just now. with the colors.

service is compulsory. In England loaded with shell and shrapnel. sent to strengthen the allies.

Compulsory service, or conscrip- has driven back the enemy's lines. hours.

for training, with his corps twice for ly. the Landwehr for five years, in bayonet. The rifle is the weapon up- "Great Scott!" I exclaimed, thor-32 he passes in to the "second ban," when in a hand-to-hand encounter I've done, Mary?" where he remains till he is 30. He with the enemy: now passes into the first ban of the Probably every country has deve- rible sense of guilt in male human-Landsturm, where he remains until loped or is developing, a semi-auto- ity. For one thing, a man, unless his forty-fifth year. The second ban matic rifle, which differs from the his experience has been vast, is don stage marks a change in our ex-

Uses Of Artillery.

dealt with in the magazine. caisson is placed next to each gun. a great increase in the rate of fire ally convinced that his sex in gener-The entire battery is behind cover, can be accomplished. and generally cannot see the targets. The opening of fire from the in- ticular. This brings him logically to The fire is directed by each gunner fantry will generally be delayed, un- the sterm conviction that, for all aiming on a designated aiming point | till accurate aiming is possible, un- he's forgotten it-with the care-free with an instrument set at a given de- less it is desired to cause the enemy habit of men-his offence has been flection, so that the gun will actual- to deploy its forces earlier, and al- atrocious. The tears have been effecly point at the target. This deflect though the bullets are effective at lively done for him. tion is calculated by a triangulation 1,500 to 2,000 yards range, the real By dint of much gentle question method by the battery commander, who is some distance away from the battery either on elevated ground, on a ladder, or in a tree. The Ger- FEEL FINE! KEEP BOWELS ACTIVE. tion is to measure the angles by means of instruments thereby at tempting to make the first shots effective to make darwtdtrdadtrdartd fective, while the tendency of the French system is to estimate the first deflection, fire quickly, and by observing the shot make necessary aches, how miserable and uncomfort- gases and constipated matter which is corrections for succeeding shots, able you are from constipation, indi- producing the misery. A Cascaret toranges are obtained by base range finders, which are accurate within bowels-you always get the desired re- ing-a 10-cent box keeps your head 200 yards for 5,000 or 6,000 yard sults with Cascarets.

The object of howitzers is mainly dizziness, nervousness, sick, sour gassy bully for months. to fire a heavier projectile with a lower velocity at a much higher elevation and longer range. Assume, for instance, the enemy's infantry intrenched behind embankments. With a high velocity the trajectory of the projectile for a given range is very flat, so that the troops would be able to sit, behind the cover, and have all projectiles either strike the



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."

HONEYMOOM TROUBLE

been youself since we got here."

Now tears always arouse a hor-

STOMACH SWEET AMD HEAD CLEAR

CASCARETS WORK WHILE YOU SLEEP

clear, stomach sweet, liver and bowels

No odds how bad your liver, sto- stomach. They cleanse your Liver

mach or bowels; how much your head and Bowels of all the sour bile, foul

gestion, biliousness and clogged-up night will straighten you out by morn

They end the headache, biliousness, regular, and you feel cheerful and

Supporting Advances.

The object of field artillery is to sent the standing armies, the flower support the infantry in its advances of the national troops engaged. for its retreats. It aims to hit the To the east, along the borders of part of the enemy which is most dan practically impossible.

A battery of field artillery is a tac-In all the countries engaged in tical unit composed of from four to this war, except England, military eight guns, and ammunition wagons

service is voluntary, the men enlist- While it is probable the success of ing for seven years, at the close of a battle will depend to a large exwhich they enter the reserve. The tent on the suport of the field artilmy corps, or 120,000, have been fantry, which in practically every trip to Montreal and Quebec - had, it into a mortal affront. landed on the continent and form case must decide the final issue. The halted at a summer hotel in the Adibeen called to the colors, and will be destroy the enemy's artillery, but a the window, and the boats rocking isn't always personal. Surely, battle is never won until the infantry by the shore had tempted me for may sometimes admire beauty

tion, as practiced in the German ar- The usual mode of advancing for Let me row you around the lake ful picture or a beautiful statue. It's, my, where it was first fully deve- the infantry is to deploy them in a Mary," I suggested. "It's a bully the human's instinctive love of bealoped, is broadly representative in line with a long interval between day. its operation of the practice in all each soldier. This, naturally, is for Mary merely stared out of the win the purpose of offering a smaller dow. Actual service in the German ar- target for the enemy. It makes it "You-you'd better go by yourmy begins at the age of 20. The more difficult, however, for the lea- self, perhaps." she said, and bit her tiful than the copper hair of the young man joins the colors, and re- ders to keep as good control over lips. mains with them three years. He the men, and for that reason one of "I certainly won't!" I declared. It was that or more tears. then passes to the reserve for four the objects of field artillery is to "I'm no solo honeymooner. What's

then drafted into the "first ban" of all the countries with a rifle and into tears. which he is given two trainings last- on which reliance is placed, the bay- oughly bewildered. "There certainly ser. ing from eight to fourteen days. At onet being used only as a last means, is something wrong, is it anything

of the Landsturm consists of men ones now in use in every army by greatly inclined to exaggerate the who have had no military training. | the fact that part of the powder cause of women's tears, and women, gases are used to open the breach cry sometimes as freely over a bro- crop. lock, eject the empty cartridge, and ken trinket as they do over the How cannon are used in an actual reload the rifle-all of which opera- death of a friend. For another, battle is a most interesting subject, tions are now performed by hand thing, having heard from feminine With a semi-automatic rifle the ma- lips that most of the lapses in the In actual battle the guns of a bat- gazine can be emptied without mov- universe are the result of male stu-

or available for the conflict. The embankment or pass over their nighting will not begin until at much ing, I elicted from Mary the alarming fact that I had admired a girl's hair while we were driving up the mountain in the lumbering old Why Pay Board?

> To be truthful, I'd nearly forgot- Cakes en my casual remark. "Don't you remember," reminded Mary, looking away. "You said her hair shone like beautiful copper in he sunlight." "Why, so I did," said I at last.

But, Mary, I never saw such hair on a girl in my life. And such quan-"It was, most likely pounds and pounds of false hair!" cried Mary, very white. "Oh Peter!" The last was a wail, and Mary began to cry again. And then-stupid dolt; I be-

gan to see Mary was jealous and,

trivial as the cause had been, she had nursed it into flame. "Mary," I said, after an hour's petting had brought her again to a subdued good humor, "do you honestly mean that you don't expect me ever to admire another girl's beauty "I-I don't like to hear it. Peter'

she admitted. "At first it simply made me furious — and then it made me cry. Would you like me to say He: Yes, the landlord is making that some other man was awfully handsome?"

"Why not?" I asked in some astonishment. "Certainly, I'm not fool enough to think I'm a prize winner in appearance and that you will keep your eyes admirally on my face into a mortal affront!

"Then you think I'm a fool!" war strength of the English army is lery, it is certain that the principal . It was near the end of my honey- flashed Mary. Women pounce upon 156,000 men, ond of these, three ar- and most important arm is the in- moon. Mary and I-back from our a man's careless diction and twist "Goodness, no!" I protested,

part of the allied army. The whole cavalry may be the first to be drawn rondacks. There was a lake dotted "Mary, do be reasonable. It's this of the reserves. 476,000 strong, have into the battle, and the artillery may with snowy lillies almost beneath way. Admiration of a beautiful thing others, just as we admire a beauti-

> utiful things." But Mary couldn't see, and before I was through I had lied gallantly and told her her hair was more beamaid in the stage-when it wasn't.

Why, oh why, does a man's imperyears, during which he is called out make the enemy's troops deploy ear- wrong, Mary? You haven't really sonal admiration of another woman's beauty fire his wife to antagona period of about six weeks. He is . The infantry soldier is armed in To my consternation Mary burst ism and jealousy? I can't for the life of me see Mary's viewpoint. - Leon Dalerymple in the Danville Adverti-

> Exporting Beauty. The appearance in New York of a theatrical agent seeking a hundred port and import trade not without interest beyond that of the peach

It is just 50 years ago that an enterprising New York manager put a thrill into Niblo's garden by an importation of beauty from London. It had no native article of the kind. tery are lined up, and one loaded ing the gun from the shoulder, and pidity and clumsiness, he feels mor- The importation was one of the most notable successes in the double al is implicated -and himself in par world of commerce and of art. The "British Blondes," as they were called, took not only the town but the country, and gray haired men can still recall the once magic natives of Lydia Thompson and a golden haired galaxy of others less famous but not

less lovely. 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. Would Lydia Thompson and her agsociates charm the New Yorker of ta-day as they did his grandfather? Who knows? We buy old pictures and statues from Britain, while Britain gets the living beauty of heiresses and chorus girls from us. Which has the favorable balance of the trade, - New York Herald.

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

The canning factories are running at their full capacity handling the splendid crops of corn and tomatoes with which Prince Edward county is

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