

# Uncle Sam's New School for Gun Experts at Springfield Armory.

By Frank G. Carpenter.

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SPRINGFIELD, Mass.—The great war of today consists of killing man by machinery. This letter has to do with some of the deadliest machines used in battle.

It is a war of mechanics. This letter has to do with training the experts who show the mechanics how to handle the machines.

It is a war of inventions for the spreading of death and destruction. This letter has to do with the most modern of such inventions and the man who created it: a man who ranks to modern gunnery as Edison ranks to electricity and Bell to the telephone.

The letter is about the machine gun, and especially the new Brownings, and the man who invented them. It also tells about the new school which Uncle Sam has created to train teachers to show our soldiers how to use the guns in the field.

I shall take up first the story of the new machine gun inventor. His name you will not find in the American Who's Who, or in any media. It will be found in the inventor of nearly all the Winchester rifles from that of 1873 to that of 1906.

He is the man who perfected the Stevens repeating shotgun, and who invented the Remington auto-loading rifle. He is the originator of the Colt automatic gun, which is used in many of the armies, and the designer of the Colt automatic pistol, of which more than 1,000,000 are in the hands of the world.

More than all, he is the inventor of the new machine guns which we are now making in quantities for our men in the field, and of the Colt automatic gun, which will shower from above death and destruction at the rate of 1000 shots to the minute.

The name of the inventor is John M. Browning. He comes from the desert highlands of Utah, and his home is at Ogden, only a gunshot or so from Salt Lake City. He has been in the employ of one kind or another in his laboratory there since he took out his first patent in 1870.

He has been in the employ of the Winchester single-shot rifle, and he made 800 of those rifles in his little shop there from forgings shipped in from the East. A little later he was bought by the Winchester Company, and since then the Winchester rifle has been known all over the world.

After the Winchester rifle, he went to the Remingtons and Colts. He created the Remington auto-loading shotgun, and has secured in 1914 by the King of Belgium a patent on the factory of Liege had reached to 1,900,000 in 1914.

Among the greatest assets we have in the war.

I understand that Mr. John M. Browning is now in Connecticut, where he spends a great deal of his time at the various factories, supervising his inventions. He is not easy to meet and his modesty is such that he is not known to many of the people.

But you can see him at the Springfield Armory, where he is in charge of the machine gun department. He is a man of a total income of \$500,000 a year, but for only a little more than one-half that sum. The actual price named was \$1,000,000, or as much as he might have collected in his space.



Firing the Guns on the Range.

also sold some guns to the Germans at Munich, and was paid for them in silver. The bags were so heavy that they almost broke down his carriage on the way to the bank.

Other guns of the Gatling type were invented and then came the automatic and semi-automatic guns which are now divided into two classes. One of these is operated by the gas of the explosion acting upon a piston much like the gas from the cylinder of an automobile. This gas feeds in the cartridge and fires the gun as long as the trigger is kept on the trigger, sending forth bullets at the rate of 400 and upward per minute.

In this class are the Colt automatic gun and the heavy Browning and also the Hotchkiss and Yamamoto, invented by a Japanese, as well as the Benet-Mercie, which has been used so largely in our Army and Navy.

The other class of machine guns consists of those operated by the recoil of the barrel when the piece is fired. This includes the Maxim automatic gun, the Maxim-Nordenfeldt, the Driggs and others.

The Lewis automatic machine gun, many of which are used by the allies in Europe, was invented by Colonel I. N. Lewis of the Coast Artillery. It is a light air-cooled gun of the gas type fed from a magazine. It weighs 26 pounds and can be handled by one man. Some of the Lewis guns were used on the Mexican border in the Summer of 1916.

A number of machine guns have been used by the United States Army, and

the contracts awarded for the heavy Browning are for more than \$50,000. The Benet-Mercie automatic machine rifle has been in the hands of our troops since 1909. It was the first automatic machine gun light enough to be portable.

It is necessary that the thousands of our soldiers who will handle machine guns should understand all about them. They have to know how to put the guns together, and take them apart, and they must know thoroughly their operation, including the forward and backward movements and what each part plays in the gun.

In order to teach the soldiers, the Government has to train experts who can be sent to the various cantonments and to Europe to instruct and train machine gunners there. For this purpose there has been established here at Springfield what might be called a normal training school for machine gun experts.

The idea of establishing this school arose during our troubles in Mexico. When Villa and his band raided Columbus in 1914, the troops there had no idea of the use of machine guns. The light Browning can be handled by one man and it will be one of the chief arms used by our soldiers in going over the border.



The Men Put the Guns Together Blindfolded.

efficient gun expert, I have visited the school in the United States arsenal and watched the gunners at work. I have seen them experimenting in the shooting gallery and have seen them blindfolded, taking various kinds of guns apart and putting them together again without once removing the bandages from their eyes.

These schools were organized by Captain J. S. Hatcher, who has now reached the rank of Major. He is perhaps the best-informed man on machine guns and gunnery in the United States service. He has written a textbook on machine guns, and is considered an authority in connection with them.

He acted for a time as the head of the Harlingen school, and then came to Springfield to take charge of the school opened here just after the war was declared. His first class consisted of twenty civilians, chiefly machinists from the factories and arsenals of New England.

The most of them have since gone to France as machine gun experts. The second class comprised about fifty volunteers from the Massachusetts Institute of Technology. They have also furnished many machine gun instructors for our soldiers in Europe.

Many other students have been enrolled. The course of instruction takes about seven weeks, and there is a regular procession of would-be machine gunners coming in from and of trained experts going out to the camps. No man is graduated without he can prove his efficiency as a machine gunner.

To show you what it means to be an

efficient gun expert, I have visited the school in the United States arsenal and watched the gunners at work. I have seen them experimenting in the shooting gallery and have seen them blindfolded, taking various kinds of guns apart and putting them together again without once removing the bandages from their eyes.

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## Modern Poultry Culture

rarely take shelter in the henhouse. An open shed containing high perches should be provided if trees are not available.

**Success With Guinea Fowls.**  
The guinea fowl, sometimes called the Gallina or Pintado, is not kept on farms so much as its merits warrant. It is as good for giving alarm at night as any game bird.

**Care of Geese.**  
With regard to the management of geese little need be said. Not more than four should be allowed to a pond, and a house eight feet square will do for this number.

**Ducks and Geese.**  
Where farms have plenty of water ducks and geese can be profitably added to the poultry flock. They are water fowl, though they can be raised on land.

**Managing Turkey Chicks.**  
For six or eight weeks turkey chicks are delicate. They should be kept from wet grass and rain storms.

**His Girl.**  
The day you went away to France I came back with the streets alone With burning eyes and feet that dragged.

**HOUSEBOAT ON THE STYX**  
(Continued From First Page.)  
and is about to be struck down, when Albert of Belgium leaps into the midst of the fray, followed by St. George and Garibaldi.

incubation is about 28 days. Ducklings require stimulating food. A good ration is cornmeal well mixed with sour milk or boiled meat.

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Siegfried and his Dragon breathing deadly gases and the deadly dragon of Bosphorus, their beaks dripping with the blood of Armenian Babies, seems to be getting the upper hand.

**Save the Meat—**  
Rice and Cheese Bundles—1½ cups of cooked rice, ½ cup of grated cheese, 6 large cabbage leaves, 1 cup of pepper, paprika, 1 tablespoonful vegetable fat.

**Save the Sugar—**  
Company Pudding—1 cupful rolled oats, 1 cupful cake crumbs, 2 teaspoonfuls soda, 1 teaspoonful baking powder, 2 cupfuls buttermilk, 1 egg, well beaten; 1 teaspoonful salt, ½ cupful chopped dates or figs, ½ cupful top milk, 2 bananas, 1 tablespoonful powdered sugar.

**Save the Fat—**  
Sweet Green Pepper Jelly Salad—One tablespoonful granulated gelatin, ¼ cupful cold water, 1 cupful liquid in

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## RECIPES THAT SAVE AND SERVE

**WOMEN** readers of Good Housekeeping have sent in recipes they have originated to save meat, sugar, fat and wheat. These are printed in the current issue and among them are the following:

**Save the Meat—**  
Rice and Cheese Bundles—1½ cups of cooked rice, ½ cup of grated cheese, 6 large cabbage leaves, 1 cup of pepper, paprika, 1 tablespoonful vegetable fat.

**Save the Sugar—**  
Company Pudding—1 cupful rolled oats, 1 cupful cake crumbs, 2 teaspoonfuls soda, 1 teaspoonful baking powder, 2 cupfuls buttermilk, 1 egg, well beaten; 1 teaspoonful salt, ½ cupful chopped dates or figs, ½ cupful top milk, 2 bananas, 1 tablespoonful powdered sugar.

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which asparagus is cooked, 3 or 4 stalks of cold boiled asparagus, ½ teaspoonful celery salt, 1 teaspoonful salt, if needed; bay leaves, parsley, ¼ cupful mayonnaise, 3 small, sweet green peppers.

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