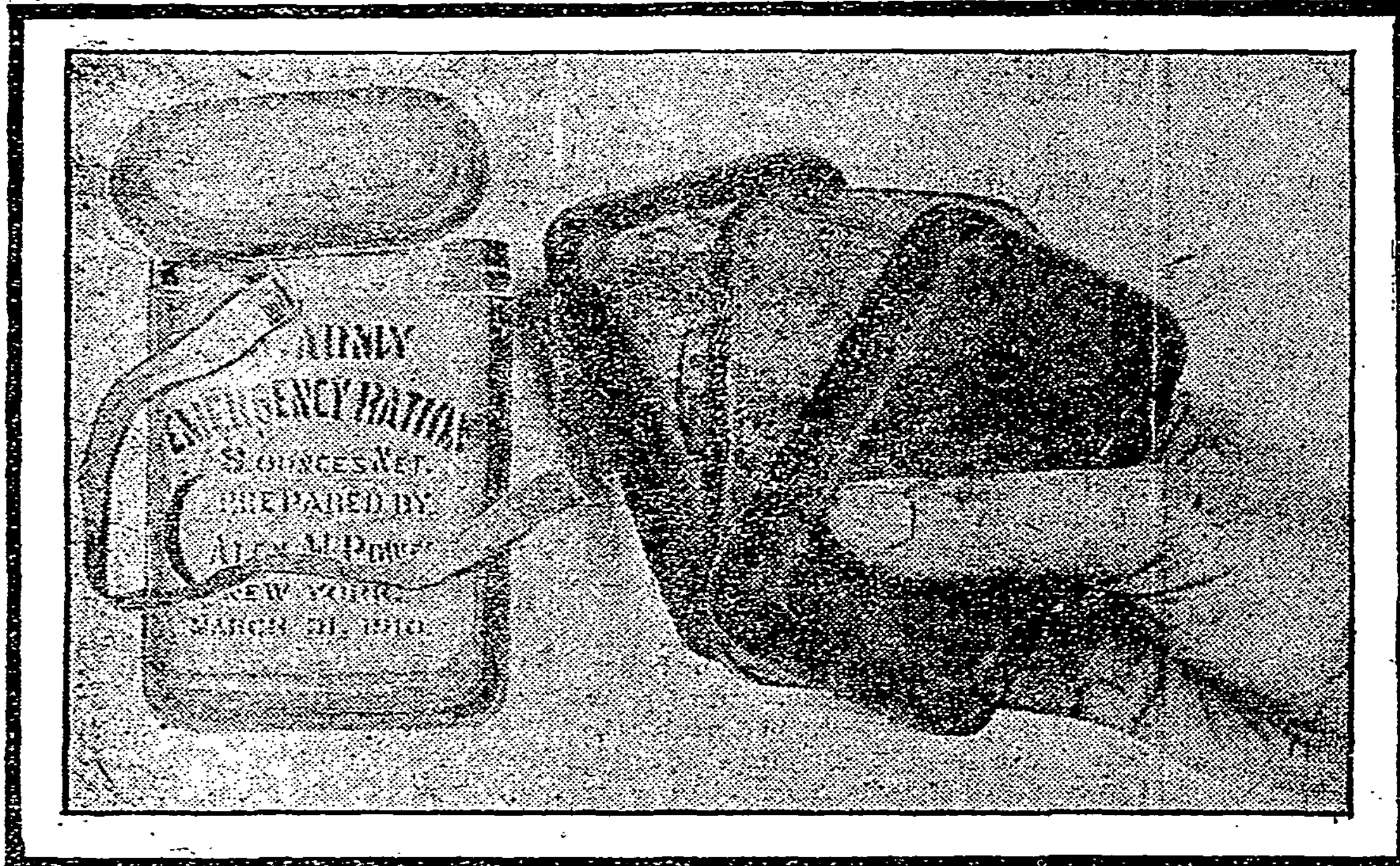


A DAY'S MEALS IN A CAN THE SIZE OF A CAKE OF SOAP



The New Half-Pound Emergency Ration and Its Three Meals.



The Old Ration and the New.

Commissary General Henry G. Sharpe Has Invented a New Half-Pound Emergency Ration for Our Soldiers.

A HALF pound of grub a day for a hard-worked soldier sweating in the trenches! Dinner, two and two-third ounces after a forced march, when he is footsore and weary!

Twenty-four hours' meals, all packed snugly in a tiny can, about as big as Bridget's slab of kitchen soap!

Such is the invention of Gen. Henry G. Sharpe, Commissary General of our army—the busy officer who thrice daily feeds the 88,000 hungry mouths of our soldier boys.

He is the first inventor you ever heard of who hopes that there will never be any demand for the prize fruit of his genius. And this is because this invention is an "emergency ration," whose use would mean, in the first place, war—which Gen. Sherman rightly defined as "hell"—and, in the second place, an unfortunate emergency of war, resulting from a cutting off of the supplies of an army in the field.

The sky-blue can which holds an emergency breakfast, dinner, and supper, all within its tin shell, is four and three-quarter inches long, less than three inches broad, and an inch and a quarter thick. You can wear one in your hip pocket without arousing the least suspicion that you are bearing refreshments less proper and polite.

War breaks out, say, with the Japs, the Germans, or the bloomin' British. Each Yankee brave in khaki has one of these cans of first-aid-to-the-empty dropped into his haversack, where it keeps fresh for months, and where it must be regularly accounted for at inspection until falls the unhappy day when the enemy cuts off the commissariat and the pabulum fails to show up.

Then each boy in drab, squatting by the good camp fire, grabs the loose end of the blue bandeau entwining the head of his can and gives her a twist. It works after the principle of the tin ribbon around the fragrant sardine can—only it really works.

From the package fall three slabs of something very like the brown cakes of chocolate that small children buy from train butchers and with which they delight to crumb up the plush seats of the passenger coaches.

The hungry soldier may draw but one slab. From this he removes the tightly pressed wrapper of figured tin foil, and so he sits down to supper. The other two cakes must be put back in the can and saved, one for to-morrow's breakfast and the other for to-morrow's dinner, if need be.

If his palate does not take to his compact meal in this dry form he can, with knife or bayonet, scrape his slab over his tin cup and boil the scrapings three minutes in the cupful of water, thus brewing a hot beverage which in chill weather would undoubtedly be preferred to the cold, dry fodder.

I was treated to a sample bite of the new emergency ration by Gen. Sharpe—and one bite, you must remember, is equal in nutriment to one full course at one of President Taft's state banquets. Taking the general's advice to spoil my knife and spare my teeth, I hacked off with my trusty blade a square inch fragment which compensated me for the pie and cheese end of luncheon which, in my haste to meet the General, I had just foregone.

It tasted much like the popular brands of milk chocolate, but not so sweet. Chocolate—which French tourists have long esteemed as an emergency travel ration—is the base of the compound.

The exact constituents are:

	Per cent.
Chocolate liquor.....	47.17
Nucleo-casein	6.88
Malted milk	6.88
Desiccated eggs	20.64
Sugar	13.76
Cocoa butter	3.66
Moisture (not over).....	3.62

Chocolate liquor is the trade name of

the oily paste obtained when the roasted seeds of the cacao tree are ground. A half of the natural contents of these seeds is the vegetable fat known as "cocoa butter," and it is sad but true (the General and Dr. Wiley have had their heads together over all of these matters) that the chocolate manufacturer lays aside much of this most nutritious constituent of his food product because, when sold separately as a cosmetic, it demands a much higher price than when left in the chocolate. So as a precaution against the loss of this excellent form of nourishment the Commissary General demands, in his specifications, the exact proportion of cocoa butter which must be present.

You are probably wondering also what "nucleo-casein" is. Casein itself is what we might call the lean of milk. It is the part left after the water and fats have been taken out. Cheese made from skim milk is almost pure casein. Reduced to powder, this valuable muscle-forming constituent of milk becomes "nucleo-casein." And "desiccated eggs" of course means nothing more nor less than dried eggs.

Thus you have about the most nutritious foods that nature affords—milk, eggs, chocolate, malt and sugar—deprived of water and other unnecessary portions, the whole mixed together and pressed into cakes so dry that less than one-twenty-first part of them is moisture.

Doesn't tempt you, you say? No, not now, but if you had been on a hard hike of it all day and there was nothing better, it would go reasonably well, especially when seasoned with the assurance that it contained the glue that sticks body and soul together and the stuff that will drive the wolf slinking from the door.

Aviators, aeronauts, campers, hunters, and explorers—to whom news of it lately leaked out in some way—are already writing to Washington to learn where they can obtain these little cans. The bird-man, finding himself landed in some isolated desert waste or forest fastness, miles and miles away from the nearest habitation,

would look well upon a pound or two of this stuff distributed among his pockets.

During the civil war the Union troops had their marching ration of pork or bacon, hardtack, coffee, and sugar, but a regular emergency ration for the American soldier was unknown until 1894 when Gen. Sharpe, then a young Captain of regulars, was one of the pioneer experimenters, working to fortify our troops against possible starvation during the stress of war. Finally, in 1896, there was adopted the first emergency ration, in which were embodied some of his ideas. It contained hard bread, pea meal, bacon, coffee, saccharine, and tobacco. But in the haste of preparation for the Spanish war only paper was supplied to wrap it up in, and, being never quite ready for the haversacks of the men, it never served its purpose in that struggle. Then, in 1901—before Gen. Sharpe was put in charge of the commissariat of the whole army—the emergency ration which the newly invented one is designed to replace was adopted.

How much more compact is the new one than that now in use the accompanying photographs show. The old one is in a can half again as heavy, as long and as thick as the new one. To be more exact, it measures six inches in length, and nearly two inches in thickness, and the food inside the can weighs twelve ounces, whereas that of the new one weighs only six. And the contents of the old emergency ration are: Cooked wheat (dried and outer bran removed,) six ounces; desiccated meat, salt, pepper, and ground flour, three ounces; chocolate and sugar three ounces. The cooked wheat and meat are mixed and pressed into three three-ounce cakes, while the chocolate and sugar mixed (equal parts) are in three smaller cakes, of an ounce each. The bread and meat cakes are to be either eaten dry, stirred into cold water, or boiled, and the chocolate eaten dry or boiled.

Any chocolate manufacturer can turn out the new ration in time of war, and if such an emergency presented itself all of the country's big firms engaged in that business would probably set to work at once pressing the little slabs.

The new one is the most compact emergency ration now supplied by any army of the world, except the British, whose soldiers are provided with a little tin box about the size of a good-sized can of sardines and containing only six and a

half ounces of chocolate and proteids (such as the lean of meat, gluten of wheat, casein of milk, white of eggs,) compressed into one solid cake grooved so as to break into three bars, one for each meal. This keeps perfectly for five years, but has only three-fourths the food value of Gen. Sharpe's new emergency ration.

Compared with these, the German "iron ration" provided for emergencies looks tremendous, consisting as it does of five separate packages—a cylindrical can containing a half pound of meat, a square tin inclosing five and a half ounces of pea meal, (to be made into soup,) a small tin of coffee, a queer, little woolly bag of salt, (big enough to hold an apple,) and a cheesecloth bag of zwieback (hard bread) made into a nine-ounce loaf. The total is a pound and a half, or three times as much as provided in Gen. Sharpe's new ration.

The French soldier's "reserve ration" weighs a trifle over a pound and a half, and consists of ten and one-half ounces of canned meat, an equal weight of "war bread," about three ounces of sugar, an ounce and a quarter of coffee tablets, an ounce and three-quarters of canned porridge, and two and one-fifth ounces of brandy. Part of this would be carried in the knapsack and part in wagons following the troops.

A sample Japanese emergency ration which Gen. Sharpe has in his office, together with specimens of the others described, includes two packages—one a can containing thirteen and one-half ounces of meat, preserved with the juice in which it has been cooked; and the other, a square bundle neatly wrapped in yellow oil tissue, which contains three little pure white cheesecloth bags, containing one-seventh of a quart of rice, which has been dried, steamed, and crushed. And under the same cover is a little cube of salt.

Emergency rations for horses have been adopted by the Germans, and are being experimented with by the British. That provided for the Kaiser's war horses consists of about thirteen pounds of oats and three and one-third pounds each of hay and straw. That which the English are testing is a compact mixture of carrot, fresh raw meat, currants, sugar, and cocoa leaf.

As soon as he completes some elaborate experiments purposed to thoroughly test its keeping qualities Gen. Sharpe will finally recommend his new emergency ration to the Secretary of War for adoption by the army.