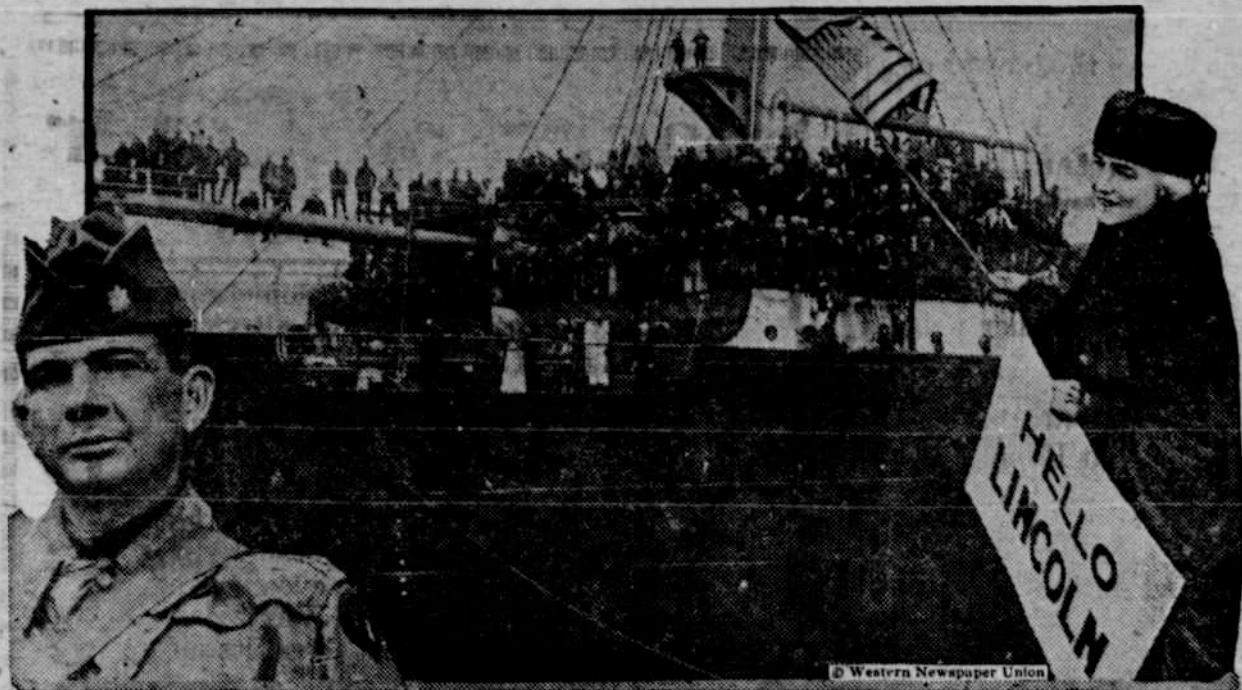


BOYS FROM THE PRAIRIES ARRIVE AT NEW YORK



The steamship Imperator docking at New York with happy troops from Nebraska, Kansas and Missouri. At the left is Lieut. Col. Levi G. Brown of the Three Hundred and Thirty-fifth Infantry, from Nebraska; and at the right a little gray-haired mother who went all the way from Lincoln, Neb., to welcome her son.

HOW UNCLE SAM FED HIS SOLDIERS

One Meal, on One-Man Basis for War Period, Cost \$727,000,000.

9,000,000 POUNDS DAILY

Doughboys Ate 800,000,000 Pounds of Roast Beef, Smoked 425,000,000 Cigarettes and Ate 300,000 Pounds of Candy a Month.

Washington.—"Soldiers who fought against Spain in 1898 lost in weight on an average of 22 pounds each; the average American soldier at the end of the fighting in 1918 weighed 12 pounds more than he did when the selective service act or his own volition brought him into the army."

Thus the success won by the army's subsistence branch in the great war is epitomized in chapters of the official war "material" history made public by the war department.

The food problem of an army of 3,700,000 Americans is visualized in the history by considering the force as a single man and the entire war period as one dinner hour. Articles comprised in the army ration, assumed these tremendous totals:

Roast beef, 800,000,000 pounds; bacon, 150,000,000 pounds; flour (bread), 1,000,000,000 pounds; butter, 17,500,000; oleomargarine, 11,000,000; baked beans, 150,000,000 pounds; potatoes, 487,000,000 pounds; onions, 40,000,000 pounds; corn, beans and peas, 150,000,000 cans; tomatoes, 190,000,000 cans; prunes, peaches and apples (for dessert), 107,000,000 cans; sugar, 350,000,000 pounds; coffee, 75,000,000 pounds; evaporated milk, 200,000,000 cans.

The bill for this "meal" amounted to \$727,000,000 to December 1, 1918, the per capita cost having risen from 4 cents in 1897 to 48 in 1918.

9,000,000 Pounds Daily. At the time of the armistice, American soldiers in France were consuming 9,000,000 pounds of food daily. Moving this stupendous quantity over the 3,000-mile communication was the principal obstacle to be overcome. This and the necessity for conserving cargo space led directly in the later months to the shipment of dehydrated vegetables to the American expeditionary force.

"The problems were solved only by the assistance of the American food industry," the report says, and while instances were found of food specifications being violated, these are declared to have been very few and in most instances not intentional.

The emergency ration of the American soldier, designed to be used only in cases of extremity, was perfected during the war to consist of three cakes of beef, prepared with a bread compound of ground cooked wheat, each cake weighing three ounces; three one-ounce cakes of chocolate, three-fourths ounce fine salt, and one dram black pepper.

A special ration was designed for

Victory Cathedral as World War Memorial

Seattle, Wash.—The part which Northwestern soldiers played in the world war will be commemorated here by the erection of a victory memorial cathedral to cost almost \$1,000,000. It is proposed that the 12 windows in the cathedral shall be in memory of the heroes of the allied nations which have made the supreme sacrifice. These nations include England, France, Belgium, Italy, Canada, Greece, Russia, Serbia, Portugal, Japan and China. Bronze tablets will contain the names of Northwestern men who entered their country's service, and battle flags will be hung from the Gothic rafters.

the use of invalid soldiers, including potted chicken, dried eggs, puddings, etc.

Importance attached to the supply of fresh coffee for the men is evidenced by the decision to ship the bean in the green form and have it roasted near the front. This led to the invention of portable roasters, capable of handling several tons a day.

"Nothing that tobacco has established its claim to a recognized place in the soldier's life," the report says probably 95 per cent of the American expeditionary force used the weed in one form or another. Monthly shipments averaged 20,000,000 cigars and 425,000,000 cigarettes.

The soldier's sweet tooth was satisfied by a monthly shipment of 300,000 pounds of candy during the early part of the war, but this was increased in November, 1918, to 1,373,000 pounds, and the following month the war department made candy a part of the regulation issue, one and one-half pounds being issued to each man every month. A close companion in popularity was chewing gum, more than 3,000,000 packages a month being consumed.

Voice Is Made As Loud As Cannon

No Trick at All to Magnify Sound Five Million Times.

WIRELESS EXPERT TELLS HOW

Ticking of Watch Can Be Amplified—Until It Sounds Like Breakers on an Ocean Cliff—In Practical Use.

San Francisco.—A man's voice can be made as loud as the cannon's roar; it can be heard two or twenty miles. The ticking of a watch can be amplified until it sounds like breakers on an ocean cliff.

"It's no trick at all to magnify sound four or five million times, or indefinitely," said Tom Lambert, a wireless telephone engineer. "All that is needed is to connect a number of vacuum valves in multiple with a wireless receiving set, and the thing is done. At the first receiving contact a voice will be normal. Cut in one vacuum valve and it is raised seven times; thereafter it squares itself—seven times; thereafter it squares itself—seven times seven to forty-nine for the next vacuum valve, and forty-nine times forty-nine for the next, and so on."

"I mean volume of sound, not power of transmission," explained Lambert. "In a test recently a phonograph was connected with an amplifier at midnight, and we were lifting it up gradually to supply all San Francisco with song and amusement, when the police urged us to desist."

Grand Stand Hears Watch Tick. "In the stadium at Golden Gate park the ticking of a watch was made audible all over the grand stand while an athletic meet was in progress. Capt. Robert W. A. Brewer, an experimenter, moved off 2,000 feet and spoke quietly to his dog, and the dog couldn't be held. A wireless station which I am not permitted to name recently received a telephoned message from Europe, and through its amplifier startled duck hunters in the marshes eight miles away."

Mr. Lambert exhibited one of the vacuum valves. Its exterior resembled an ordinary 16-candle electric light bulb. Through the glass, however, could be seen electric winding that was dissimilar. Around a filament was wound convolutions of wire called a "grid." Above the grid was an encircling metallic plate. The current passed through each in the order described. The incoming wireless sig-

Economies Effected.

Interesting statistics are given of economies effected in changes in design. For instance, elimination of lugs and eyelets in trousers saved \$17,000,000, and the redesigning of the coat cut the cost of this garment \$5,000,000. Expert cutting reduced the consumption of cloth 23-100 of a yard, and saved 2,300,000 yards on the total order.

Innovations resulting from shortages in material included the substitution of American dyes for the German product and the use of vegetable "ivory" in button-making.

The activities of the quartermaster corps (afterward taken over largely by the bureau of purchase, storage and supply) included also the furnishing of hats, shoes, boots, fuel, oil, paint, tools, harness, and harness equipment, and even music. Prominent composers volunteered for the work of selecting a "balanced ration" of jazz and more restraining orchestration for the army bands.

To give the American aviator the surest fuel possible, the department took over every drop of "25.7 degree fighting naphtha" and confined its use to the service of planes actually on the front.

nals travel down the aerial wire to the tuning set and then to the vacuum valve, which is a "detector," or receiver.

For practical purposes the vacuum valve has its use, as in warships, where the wireless telephone speaks its message through a horn to several officers instead of to one using earpieces. It can be availed of to address audiences.

The wireless telephone is wonderfully extending the field developed by the wireless telegraph. Any wireless telegraph receiving set is equally good for receiving telephoned messages. The transmitting instruments, of course, are different.

Every airplane possessed by Uncle Sam and all United States warships are equipped with wireless telephone apparatus. These sets on warships are efficient at least 20 miles.

INVENTORS HELPED WIN WAR

Patents, Long Held Up, Are Now Being Allowed—Come From All Sections.

Washington.—The latest war secret to leak out is how friendly inventors all over the world gave to the United States their ideas for death dealing machines for the destruction of Germany.

A companion secret is how all these ideas were kept from the enemy by the "seven serious Sphinxes" of the patent office. This was a board of seven men, of unquestioned loyalty and sworn secrecy, empowered to examine and withhold patents on war machines until the war was over and meanwhile turn ideas of promise over to the government.

More than 2,000 devices which it was thought might be of value to the United States or the allies were passed upon and 200 were important enough to get before military authorities. Some of them, it is said, helped win the war. The ideas came from England, France, Switzerland, Hawaii, New Zealand, Australia, Mexico, Spain, Italy, Russia, Poland and one from Germany. Of course, a larger number came from within the United States. Now that the war is over the patents are being allowed.

Exit the Towel.

Spokane, Wash.—Exit the roller towel; exit the paper towel; exit the individual towel—in fact, exit all towels. Step on a pedal and release a tropical hurricane on the hands and face. That's the way it's being done at Spokane's largest hotel. The drying machines are operated by electricity.

Insects Cause a Billion Dollar Loss Yearly, Says Agricultural Department

Destructive insects in the United States have a food bill of \$1,000,000,000 annually, according to department of agriculture figures. That amount is lost each year because of insect depredations on various farm crops and fruits. In addition to this, there is a large loss to live stock from such pests as biting flies, parasitic flies, ticks, mites and so forth.

In 1916 destructive insects caused a loss of \$430,204,300 in cereal crops and were responsible for a loss of \$116,230,500 in hay crops. The insect damage to the tobacco crops was \$16,900,800 and in vegetables \$199,412,600. They caused a loss of \$8,436,800 in sugar crops and a loss of \$141,264,300 in fruit. The loss caused by them in all other crops was \$29,649,700.

It has been found that vegetable and fruit crops suffer most heavily from the ravages of insects and a 20 per cent loss in vegetable crops and a 30 per cent loss in fruit crops is probably a minimum figure for these two.

A further study of this question has revealed the fact that in 1916 the chinch bug alone was responsible for a loss of \$60,000,000. The grasshopper caused a loss of \$50,000,000 and the Hessian fly was charged with being responsible for \$40,000,000 slump.

In addition to the direct losses in growing crops, forests and live stock, insects are responsible for depredations on stored grain, other farm products and household supplies. All these have brought the total annual loss from insects in the United States up to \$1,000,000,000.

Rat Skins Make Leather Suitable for Some Kinds of Gloves and Mittens

There is not enough leather to go round. Fish skins are susceptible of tanning, and there are rat skins which make good leather, large enough for many purposes. They would do for some kinds of gloves and mittens, says the Little Journal. They may be sewed together to make cloaks and other garments, and they are not too small to be available for parts of boots and shoes. The general rule as to leather is that the thicker the fur is the poorer the hide and vice versa. According to this, rat hide would produce superior leather.

Somewhere with the gift of guessing computes that there are 100,000,000 rats in this country, and the damage they do would feed a good sized army. It would take at least 5,000 skins a day to supply a small modern tannery. Nobody wants the rats; they belong to anybody that can catch them. That is the only problem—to catch them and skin them, and then deliver the goods.

SCRAPS OF HUMOR

Some Hope.

"Cholly, do you ever intend to quit smoking cigarettes?"
"Deah boy, why should I?"
"Because if you don't they will kill you."

Bill Rendered.

Dalton—You should pay more attention to your personal appearance, old chap. Remember that clothes make the man.
DeBroke—Yes, but for me the man refuses to make any more clothes.

A Quid Pro Quo.

"Why do you women go to bargain sales to get something for nothing?"
"Why do you men go to poker clubs to do the same thing?"

No Escape.

"Ah, laws. They prate of the time when dreams come true. Before I was married I used to hope every day I'd meet the lady before the day ended."

"And now that you are married?"
"I gotta meet her. Can't get away from it."

Dashing Joy.

Mabel—George gave me such a lovely diamond engagement ring.
Muriel—But he'll want you to give it back to him when he gets engaged to another girl. He always does.

Very Likely.

"My policy is never say die."
"But you'll change it quick enough when your hair begins to turn gray."

His Place.

"What place does that queer fellow fill in his mechanical business?"
"Oh, I guess they use him anywhere they need a crank."

Misunderstood.

"Our salmon are nice and fresh, mum."
"Er—have they roes?"
"Well, yes, mum, the price is a bit higher."

How One Man Made Back Yard Help Feed the Family Last Summer and Winter

"How much can the back yard do to supply the table?" asks Alfred Westfall of the Colorado agricultural college, and then he answers his own question by telling what he did in his back yard last year: "I am not trying to tell a bear story. Others have raised better gardens than mine was last year. I merely want to show what an amateur who has only a limited amount of time to spend in a garden can do."

"My garden is 60 by 110 feet. The soil is clayey. The garden was prepared and handled in the usual manner with not more than average care. It supplied a family of three with fresh vegetables all summer besides what it produced for canning."

"There was rhubarb. Six quarts were canned. We had green peas from the first of July to the last of September and canned ten quarts. There was an abundance of string beans. We canned 27 quarts. We also had a generous supply of lima beans. We had fresh tomatoes for a month. After that we pulled the vines and hung them in the cellar and had tomatoes until Thanksgiving. Besides, we canned 20 quarts. There was sweet corn for the table and eight quarts to can. We had enough pumpkins to supply us for the winter, and our neighbors as well. There were 85 pounds of carrots, 50 of turnips. There were beets, cucumbers, onions, radishes, lettuce, cabbage, cauliflower and Hubbard squash. Eleven quarts from this miscellany were canned and the rest stored in a back-yard pit for winter use."

"We had the finest kind of fresh vegetables all summer and went into the winter with 77 quarts on our shelves and well provisioned with those that will keep fresh."

Mother's Cook Book.

She was so skilled and perfect In the art, everything Her fairy fingers touched Seemed like ambrosia.

Sweet lady, tell me, can you make a pudding?

For the Sweet Course.

A dainty sweet makes a good finish for a hearty meal when a heavy dessert would be entirely out of place. Often a mouthful or two of some little sweet is sufficiently satisfying, but if omitted the meal seems unfinished. Cream puffs made the size of walnuts and filled with any desired filling; either sweetened and flavored whipped cream, ice cream or chocolate filling are good. Stuffed dates, prunes and figs are all easy to prepare and usually well liked.

Small balls of well-seasoned cottage cheese, of cream cheese, garnished with a cupful of jelly or a bright red cherry, served with a cracker, will make a pleasing dessert.

Frozen Cheese With Figs.

Mash two good-sized cream cheeses and beat in a half cupful of stiffly whipped cream; sweeten to taste and bury in ice and salt after packing in small baking powder cans. When ready to serve cut in slices, make a depression in the center and drop in a rich preserved fig with the stem end up.

Apples With Almonds.

Core and peel firm, good-flavored apples and cook in sugar and water until nearly tender. Remove from the sirup and decorate with quartered almonds blanched. Fill the apples until they look like a small porcupine. Place in oven with the sirup poured around them and cook until the apples are soft and the almonds brown. Dust with powdered sugar and serve hot or cold with cream. Care should be taken to remove the apples before they lose their shape.

Maple Parfait.

Beat four egg yolks lightly and pour one cupful of hot maple sirup very slowly over them, cook until thick, stirring constantly; add a pinch of salt. Cool and add a pint of whipped cream and the stiffly beaten whites of the eggs. Let stand in a mold packed in ice and salt three hours.

Mousse Marron.

Cook together a half cupful of sugar and a fourth of a cupful of water five minutes, pour over the stiffly beaten whites of two eggs, dissolve a teaspoonful of gelatin in one and one-half tablespoonfuls of boiling water and add to the first mixture. Set this in a pan of ice water and stir until cold. Add 1½ cupfuls of cooked chestnuts; fold in the whip from a pint of cream and flavor with a half teaspoonful of vanilla.

Delicious little cakes are made of small round crackers with a marshmallow on top, then put into the oven until the marshmallow is melted or puffed and brown. These are called marguerites.

Maple sirup heated until hot and served over vanilla ice cream, with or without nuts, makes a most popular sundae.

The Path to the Ridiculous.

The necessity of saying something, the perplexity of having nothing to say, and a desire of being witty are capable of making even the greatest writer ridiculous.—Voltaire.

GOOD CROPS FOR PRODUCING PORK

Industry in Irrigation Country Subject to Periods of Expansion and Depression.

LACK OF KNOWLEDGE NOTED

Department of Agriculture Has Been Making Observations in Its Western Projects on Utilization of Field Crops.

(Prepared by the United States Department of Agriculture.)

"Gum shoe" farming for ham and bacon production does not presuppose web-footed hogs. It merely means that irrigation as practiced by some western farmers involves conservative use of moisture for production of forage crops which may be harvested directly in the fields by the porkers. The swine industry in the rubber-boot country has been subject to periods of expansion and depression. One cause is lack of knowledge as to the possibility of using certain irrigated field crops, and as to the value of these crops when measured in terms of pork production. If full advantage is taken of the wide range of feeds available to swine growers on irrigated lands, pork production can be conducted more extensively, and with more assurance of success.

Irrigation farmers interested in pork production have had to rely on results obtained in nonirrigated sections, and applied to localities where web-footed crops grow. This lack of definite information was especially noteworthy in the case of field crops, which in other sections of the country are pastured by hogs or hogged off. Hence, since 1912 the department has been making observations in its western irrigation projects on the utilization of irrigated field crops as hog pasture. These investigations include pasture tests with 149 lots consisting of 3,795 hogs pastured on alfalfa, sweet clover, field peas, and milo.

Alfalfa Needs Supplementary Ration.

Pasturing alfalfa with hogs has been demonstrated a satisfactory method of utilizing the forage, and one of the cheapest ways to produce pork. However, to obtain satisfactory results, the alfalfa pasture must be supplemented with some carbonaceous feed, such as a 2 per cent ration of corn, barley, milo, wheat, or shorts. Under such conditions one good acre of good alfalfa pasture will produce, with reasonable surety, about 2,500 pounds of pork a season. Exceptional gains, as high as 4,292 pounds an acre, were reported in the case of one lot of hogs pastured on alfalfa, and given a 3 per cent supplementary ration of corn. Naturally the gains on alfalfa depend on the size and quantity and quality of the supplementary feed. It is poor policy to try to make pork on alfalfa pasturage alone without supplementary feed.

Hogs on alfalfa pasture, supplemented with about a 2 per cent ration of corn, barley, wheat shorts, or milo, will consume from 250 to 350 pounds of grain for each hundredweight of gain. In general the grain requirement increases as the hogs get larger. The feeding values of corn, barley, shorts, and milo as supplements to alfalfa pasturage are so nearly identical that the choice among these side dishes should depend on prices, cultural adaptability, and general economic conditions. Where the grain is to be grown by the swine raiser, preference usually is given to corn, barley, and the grain sorghums, depending upon the adaptability of these crops to local conditions. An acre of good alfalfa pasture supplemented with a 2 per cent ration of grain will support 2,500 pounds of hogs during the entire growing season. The carrying capacity of alfalfa pastures increases rapidly with greater grain allowance, and it varies somewhat during the growing season with the rate of crop growth.

According to specialists of the United States department of agriculture an acre of good alfalfa pasture, if supplemented with a 2 per cent ration of corn, or barley, will support six to eight sows and 50 to 70 sucking spring pigs for about 80 days in early summer, during which the pigs should gain from 25 to 30 pounds apiece.

Sweet Clover Often Valuable.

A few tests have been conducted to try out the value of sweet clover as hog pasture, and the results have proved that this crop cannot be regarded as a rival of alfalfa. However, on soils which are too wet or too salty for alfalfa, the irrigation farmers find sweet clover a valuable forage crop. Rubber-boot farmers are coming to appreciate hogged-down corn and field peas as a desirable combination for pork production, in that it saves labor, produces satisfactory gains in the hogs, and adds manure to the soil. Extensive tests of "hogging corn" reported in the bulletin show gains of from 183 to 1,048 pounds an acre of corn when no supplementary feed was provided, and from 335 to 1,377 pounds an acre where the corn was supplemented with other feed. It is estimated that in these tests an average of about 450 pounds of corn was required to produce 100 pounds of gain when no supplement was used, as compared with an average of 409 pounds when the corn was not in combination with forage, late alfalfa pasture, or rape. Alfalfa pasture is preferable as an adjunct to hogged-down corn on irrigated lands, because of its cheapness, relative abundance, and reliability.