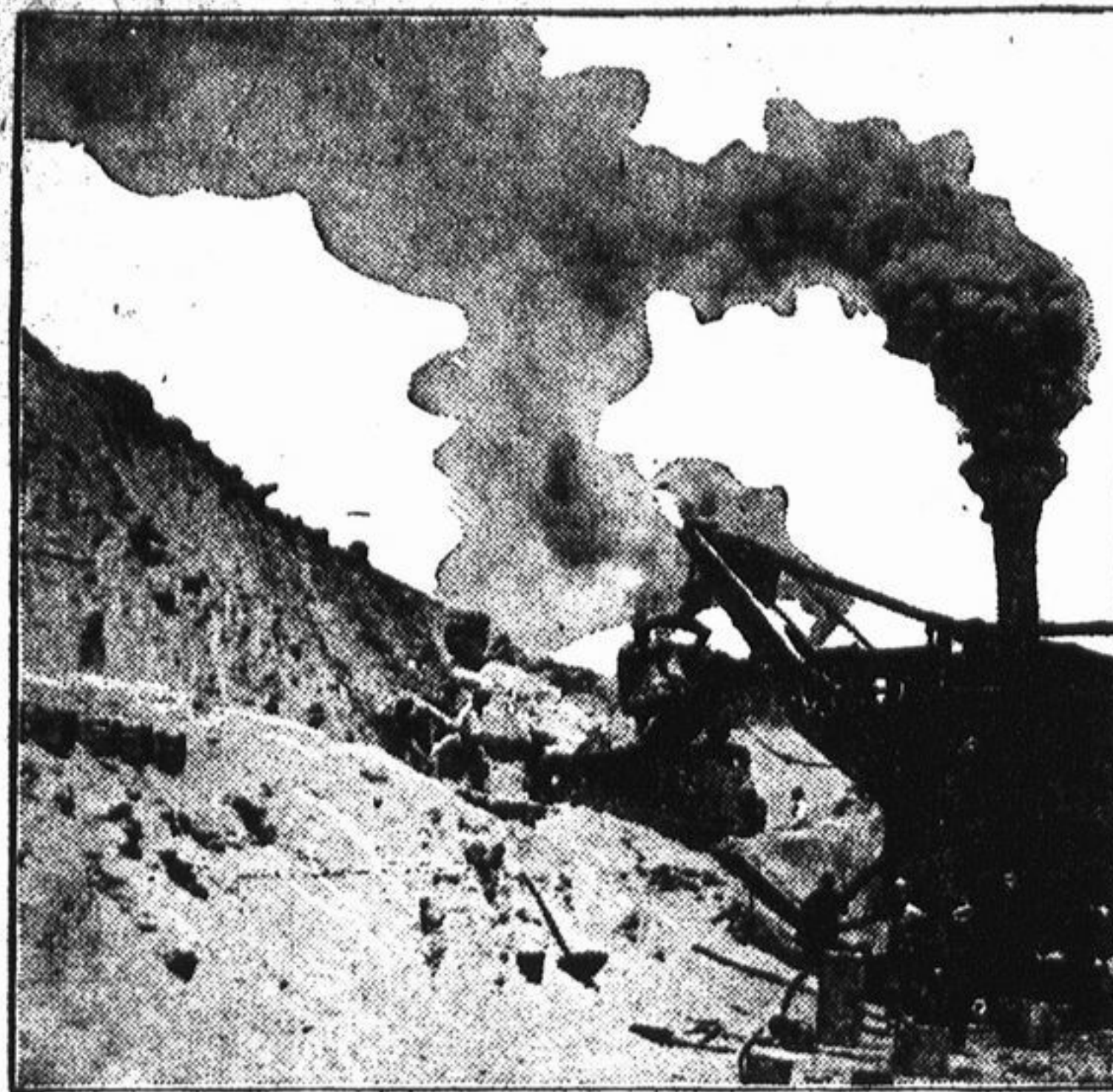


FEDERAL DEMAND HURRIES CONSTRUCTION



BUILDING RAILROAD ALONG MEXICAN BORDER.

San Diego and Eastern railroad is constructing the last stretch of 80 miles of its road through the mountains in the extreme southern portion of California. It includes some of the most remarkable engineering feats ever attempted. The railroad parallels and in one place crosses the Mexican border through a tunnel. The road crosses the mountains at a 4,000-foot altitude and has 33 tunnels in the short distance of 18 miles.

Photograph shows one of the steam shovels working through decomposed granite.

LUXURIES ON RAIL

No Country Has Such Wasteful Passenger Service as Found in America.

NUMBER OF TRAINS REDUCED

Present Condition Is Relic of Old Days of Unrestricted Competition—Railroad President Was Absolute Monarch.

American love of luxury has no better example than the passenger service provided by the railroads of this country. Every one knows that American railroad trains are far in advance of those of any other country in comfort, and for long distances at least in speed also, but the traveling public does not always realize that the great multiplicity of passenger service provided between the important centers of population in this country is no less a luxury not enjoyed elsewhere and one which the stern needs of war may shortly make it necessary to forego.

It has long been held by some railroad managers that the interests of true economy demanded some reduction in the number of passenger trains and one of the first steps taken by the executive committee of the American Railway association, which is practically in control of the nation's transportation facilities for the period of the war, was to urge upon the various companies the propriety of arranging for a substantial reduction in passenger service, the New York Sun says.

Play Days of Railroad. The present condition is a relic, almost the last one, of the old days of unrestricted competition between the different companies. It is a survival of the days when rates were made in the traffic manager's office without supervision by federal or state commissions, when co-operation was undreamed of and each line considered that its duty lay in running as many trains as were necessary to care for all the traffic between any points which it served regardless of rival lines which were certain to share to some extent in the business.

Those were the palmy days of railroading, the days of brass trimmed locomotives, of sleeping cars fearfully and wonderfully decorated, when a division superintendent had the powers of a governor general and a railroad president was the absolute monarch, not only of all he surveyed, but generally of all the territory served by his company. Statistics had not yet begun to play a prominent part in railroad management. A soul satisfying name for the newest crack train was more important than the mere detail of earnings per train mile.

Too Many Passenger Trains. So it came to pass that when the day of the railroad came to an end, as the day of all things seems to do sooner or later, and much of the authority which had once vested in them began to be exercised by public service commissions in the several states, the abolition of passenger trains became more or less a political question. Any attempt to do away with one was resisted to the bitter end by every inhabitant of the district through which the gaudy flyer passed; it mattered not whether the particular object had ever been aboard the train or not. Public service commissions were often reluctant to fly in the face of public opinion, population increased, and not only did the unprofitable trains remain in service but there was a constant demand for more and more trains, frequently enforced by the

Weighting Locomotives. Engineers of a European railroad have built a machine for weighting locomotives that provide a separate scale for each wheel.

Women Clean Engines. Women who clean engines are a new arrival in the engineering world in Britain.

Women Operate Railroads. The railroads of France are practically operated by women.

specific orders of the state commissions. So arose the situation as it is today. Every important city in the United States is served by from three to ten times as many trains as are stipular centers of population in other parts of the world.

The traveler between New York and Chicago has at present the choice of 36 different trains—16 on the New York Central, ten on the Pennsylvania, four on the Lackawanna, four on the Baltimore and Ohio and two on the Erie. Should business or pleasure take him from New York to Philadelphia he is confronted with a selection of 42 trains on the Pennsylvania, 17 on the New Jersey Central and eight on the Baltimore and Ohio—67 in all. Even distant points like Jacksonville or New Orleans are the objectives of half a dozen trains every 24 hours.

Europe Is Wiser. In Europe in normal times the service offered between the important cities seems glibly in the extreme by comparison. London, Manchester and Liverpool, the three greatest commercial cities of Great Britain, all lie within a radius of 200 miles and are connected by half a dozen different lines, but the train service between them, though expeditious and convenient, is equaled by the facilities enjoyed by a score or more of the lesser cities of the United States.

On the continent the contract is even greater. Between London and Paris, scarcely 200 miles apart, there run daily between the way only half a dozen through trains, a day and a night train on each of three routes. Between Paris and Berlin, a distance of 650 miles, traveling is a trifle difficult at present, but prior to August, 1914, an American who undertook the journey was generally astonished to learn that there were only two or three trains which made the journey without change, and that only one of those carried a sleeping car. Between the other continental capitals the same conditions prevailed.

STOP HABIT OF TRESPASSING

Natural Outcome of Guarding Tracks and Bridges by Armed Forces of United States.

The Railway Gazette predicts that a side issue of war conditions will be a decrease of the habit of trespassing on railroad property. This will be a natural outcome of the guarding of tracks and bridges by the armed forces of the United States for the purpose of preventing willful interference with transportation. There has always been great danger to trespassers on railway property. In the months of July, August and September, 1916, the number of persons killed in accidents resulting from the operation of trains in the United States was 2,781, and of these 1,512, or 54.4 per cent were trespassers. The number of trespassers killed was three times as large as the number of railroad employees who lost their lives in the same way. Yet trespassing persisted. It is highly probable, however, that the risk of danger from shooting will deter many from trespassing who were oblivious to the risk of danger from trains.

NEW MASTERS FOR RAILWAYS

Ninety-Five Independent Unco-ordinated Legislative Bodies Represent Government.

"American railroads serve 95 different masters. These are the 95 independent, unco-ordinated legislative and regulating bodies, representing the federal government and the 48 states," says a circular from the Guaranty Trust company of New York. And just think—only a few years ago these masters, or most of them, were taking orders from the railroads!

Lessen Smoke and Gas Evil. To lessen the smoke and gas in tunnels States railroads are equipping their locomotive stacks with lids to be closed when a tunnel is entered, steam being exhausted beneath the engines.

Price of Safety. Eternal vigilance, especially in the neighborhood of railroad crossings, is the price of safety, especially with vehicles. And this vigilance must be used on both sides.

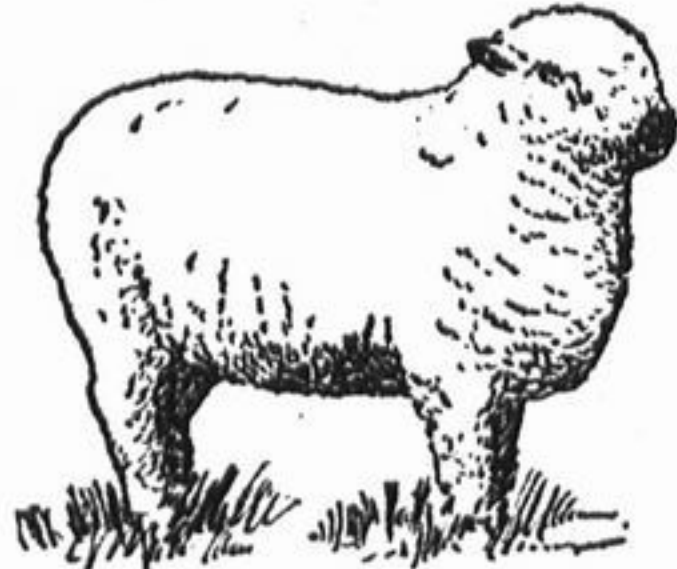
FARM STOCK

SHEEP PROFITABLE ON FARM

More Can Well Be Maintained in Addition to Live Stock That Are Already Kept Thereon.

(By W. F. BAIRD.)

While it is not my purpose to try to induce stockmen to abandon cattle and pork production and engage exclusively in sheep raising, I do claim that from ten to one hundred more sheep could be profitably maintained on a very large portion of our farms



Well-Bred Specimen.

In addition to the live stock that are already kept thereon. For a period of 25 years I have been engaged in general farming and stockraising where I now reside. I have been raising horses, cattle and hogs during this entire period, and for the last 16 years I have kept from 100 to 125 breeding ewes of the mutton type. I have endeavored to produce as good stock of all kinds as I could, and to keep them in the most profitable manner. I have found no other class of live stock more profitable in dollars and cents than the sheep. Aside from this fact, I find that I can now keep as much other stock as formerly in addition to the sheep.

Some of my fields produce twice as much grain as formerly, and my grass lands are much more productive than they were. There is no great mystery connected with the care of the farm flock, but there is more to do than to purchase a flock and turn them out to shift for themselves without proper attention and shelter, if one expects to add to his bank account. Costly barns are not a necessity, but some sort of a shed that will keep them dry is needed. Let your roofs be constructed of shingles, boards, iron or any material that will keep off cold rains, sleet, etc. I prefer a shed extending east and west, open or partly so on the south side, so arranged that it can be



Prize Mutton and Wool Sheep.

closed if bad storms occur. Give plenty of pure air, a dry place to lie down, and all the sunshine possible, thereby adding to the comfort and thrift of the flock and the profits of the owner.

HARVEST CROPS WITH SWINE

Results Given of Experiment Conducted by Ohio Station—Best Gains Made on Clover.

In tests made by the Ohio station three lots of pigs were fed 30 days as follows: Lot 1, ear corn and clover; lot 2, allowed to hog down; and lot 3, ear corn and rape pasture. In addition all lots were fed approximately one-fourth pound of tankage daily per pig. The respective lots made average daily gains of 0.82, 0.57 and 0.75 pounds per pig, and consumed, aside from pasture, 2.66, 6.34, and 2.91 pounds of feed per pound of gain. Lot 2 was then put in with lot 1 on clover and lot 3 remained on the rape, where the pigs were fed for 28 days. The pigs on clover made an average daily gain per pig of 0.75 pounds, consuming 3.64 pounds of feed aside from pasture per pound of gain, and the lot on clover, 0.87 pounds gain, consuming 3.16 pounds of feed per pound of gain.

PEDIGREE OF DIRECT VALUE

Gives Record of Ancestors of Animals for Five or Six Generations—"Like Produces Like."

The pedigree of an animal is a record of its ancestors, or family. The ordinary pedigree usually shows the ancestors for five or six generations. The value of the pedigree lies in the fundamental law of nature that "like produces like."

DON'T SELL BREEDING STOCK

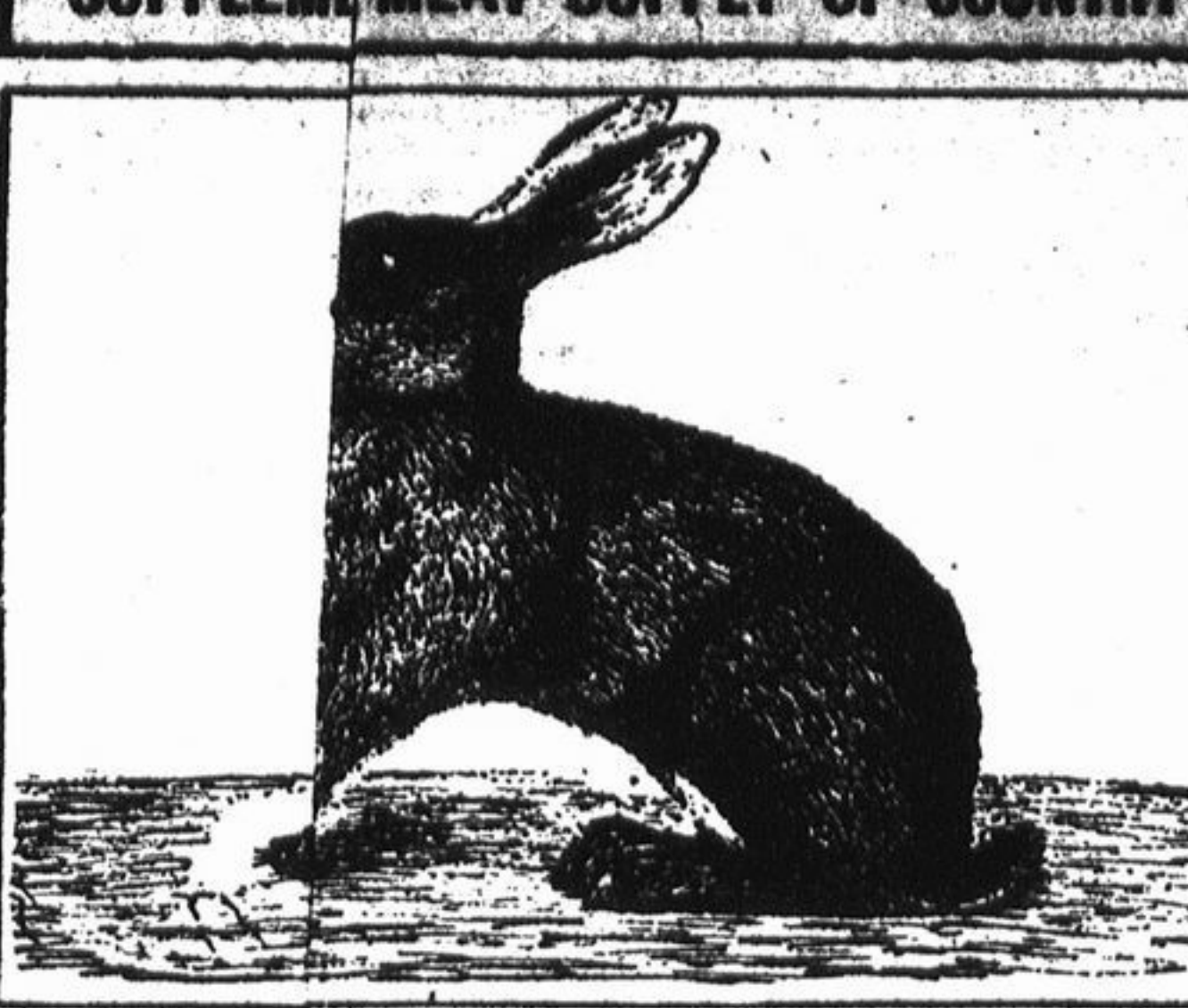
Fancy Prices Offered for Brood Sow or Cow Should Not Tempt Farmer at This Time.

Don't let the temptation of high prices now being offered for live stock or undue fear of the prices asked for many popular breeds mislead you into selling a breeding cow or a brood sow that will drop the golden calf or litters.

Pushing Swine Industry. Less crossing of breeds is responsible for fewer spotted swine than were common several years ago. One breed to a farm and one standard—the best—are pushing the swine industry ahead.

Handling Colt and Mare. Before letting the colt to the mare at mealtime, partly milk out the udder. In hot weather let the mare rest and cool off a few minutes before the colt sucks.

SUPPLEMENT MEAT SUPPLY OF COUNTRY



BELGIARE IS VALUABLE SOURCE OF FOOD.

(Prepared by the States Department of Agriculture.) The meat supply country may well be supplemented by the United States dept of agriculture point out, by that of rabbits by youths and adult engaged in military or other at service, or in regular industry employment. These animals have proved a valuable source of Europe during the present in the United States they might be raised in back yards of cities and as well as on farms.

The Belgian breeds rapidly, matures quickly, gives a palatable and highly nutritious meat. The cost of production than that of any other meat, raising poultry. The supply can be increased within a few months requiring space that may be for the production of crops, and experience has demonstrated that meat can be produced in quantities at a cost of about six pence; and by utilizing lawns and other

SPRAY POTS TO AVOID BLIGHT

Prompt Spray Bordeaux Mixture Will Stop Cases of Blight.

(Prepared by the States Department of Agriculture.)

Potato late blightous disease, capable of causing total destruction, has appeared several states from Maine to New York and West Virginia, according to the United States department of agriculture. The blight occurred at year and reports show that more prevalent than usual. Wipe fields the blight is already control, prompt spraying Bordeaux mixture will in most still be effective, the specialist. Unless potato growers thoroughly with the Bordeaux mixture fear that the large potato crop has been promised will not be as late blight, if uncontrolled, of reducing the national crop rate of 2,000,000 bushels per

To produce crop the tops must be kept till frost as the tubers increase most rapidly during the last of the season. The late blight tops and causes the tub in the ground. The blight strikes centers in the field where potatoes were planted. Brood develop on the leaves and a mildew appears on their under frequent rains and warm, sunnier furnish ideal conditions development of the blight which the foliage blights rapidly hang blackened and dead tubers begin to rot. Dry and other on the other hand tends the progress of the blight but should spray immediately trust their crops entirely to fate in weather conditions.

As an preventive of late blight Bordeaux has proved its value for. Every grower from Maine to New York and south to Virginia is spray at once and repeated.

How to Mix Mixture. Home-made mixture is best. Use

Blue-stone (copper) 4 pounds
Sulphur 4 pounds
Water 50 gallons

Prepare it sulphate by suspending it in sack just below the surface of gallons of water in a cask. When the sulphate is which requires three or four remove the sack and stir in barrel enough additional water exactly 25 gallons of solution.

Prepare by slaking it slowly and then a clean barrel, strain, and add additional water to may 25 gallons of lime milk. Pour the ingredients together into another or better directly into the barrel. If it will hold 50 gallons. If important to stir the mixture thoroughly and to strain both before they are combined, use clogging of the spray nozzle. Use copper or by strainer of 18 meshes to Do not put copper sulphate mixture into tin or iron use wood or copper contact the Bordeaux as

Poultry. The best to enter poultry keeping is that it may be in a small way with a capital and gradually it provides a good livelihood.

In Yield. Cows in milk if water is not enough. When in full flow of milk, it is claimed, 50 per cent of water than when dry.

vegetation that would otherwise be wasted, the cost can be made even lower.

The Belgian and Flemish giant rabbits are recommended for meat production, as the ordinary tame rabbit is smaller and develops more slowly. Stock of Belgian hares may be bought from breeders in nearly all the states at \$1 to \$3 each. They may occasionally be had from pet stock dealers. Fancy pedigreed stock is not required for meat production.

Rabbits are easily kept. They eat hay, grass, lawn cuttings and green vegetation of many kinds. Females should be allowed to breed when eight or ten months old, and during the year should raise four litters of about six young each. Well fed, the young reach marketable size when three to four months old and average from five to six pounds live weight.

The department of agriculture has published a bulletin on raising rabbits which will be helpful to those who wish to engage in this pursuit.

needed and apply at once. It is never so good after it has settled.

Where poisons such as arsenate of lead are to be combined with Bordeaux mixture, add the poisons after the two solutions are mixed. Then stir well.

Stock Bordeaux Solution. Those who use Bordeaux mixture frequently and in quantity will find it convenient to keep concentrated stock solution on hand, as these keep indefinitely if the water which evaporates is replaced.

Build an elevated platform to hold the barrels. The night before the day you wish to commence spraying, suspend 50 pounds of copper sulphate to dissolve in a 50-gallon barrel of water. Sift 50 pounds of lime in another barrel. Add water to make 50 gallons of lime milk. When Bordeaux mixture is needed, stir both stock barrels well and take four gallons from each stock barrel. Dilute the copper sulphate in one barrel by adding enough water to make 25 gallons. Dilute the lime milk in another barrel by adding enough water to make 25 gallons. Stir each thoroughly. Combine the two as in previous directions. Thorough agitation is essential in making good Bordeaux mixture.

PORK IS PRINCIPAL MEAT OF AMERICANS

Hog Is Most Important Animal to Raise for Meat and Money—Consumes By-Products.

(From the United States Department of Agriculture.)

The quickest and surest way of supplementing the meat supply next to the raising of poultry is by raising hogs. The United States department of agriculture points out. The hog is the most important animal to raise for meat and money. He requires less labor, less equipment, less capital, makes greater gains per hundred pounds of concentrates and reproduces himself faster and in greater numbers than any other domestic animal. As a consumer of by-products the hog has no rival. No other animal equals the large hog in its fat-storing tendency. The most satisfactory meat for shipping long distances on train, boat or wagon, and for long storage after reaching its destination is mess pork.

Pork finds ready sale because packers have discovered many ways of placing pork on the market in attractive and highly palatable form combined with most excellent keeping qualities. There is no other meat from which so many products are manufactured. Very near 50 per cent of the total value, in dollars and cents, of the meat and meat products slaughtered in the packing houses of the United States is derived from the hog. Our country leads by far all countries in the production of meat and meat products. Three-fourths of the world's international trade in pork and pork products originates in the United States in normal times, and the war greatly has increased this proportion. According to the estimates there was an increase of 9,580,000 hogs between 1910, the census year, and 1916, inclusive. The increase at the end of 1915 was 3,148,000 over the preceding year, while it is estimated that there was a decrease at the end of 1916 of 313,000 hogs compared with 1915.

Keep Out Cut Worms. Tin cans make good protectors to keep the cut worms away from the tomatoes and cabbage.

Plant Seeds of Rust. Fall rains plant the seeds of rust which are harvested by the manufacturers of farm machinery.

Butter Flavor Defects. The most common defects in flavor in butter come from cream standing too long before churning.

She—What would be the way? Any judge would acquit you.

Small Game.
"Your son is a great fisherman, isn't he?"
"Calls himself such. He's just back from vacation. Caught a bunch of mealy trout when he might have caught an hearse."

No Blacker.
Witty One—Corporal Strutt enlisted in April. He's the most patriotic recruit I've met.
Pretty One—How's that?
Witty One—He's highly insulted because his father sent him some money by draft.—Town Topics.

Nine out of ten men whose names are signed to a petition couldn't tell what it is for.

Another great invention ought to be a time-lock that will shut up the mechanical music at 10:30 p. m.

What sort of a dinner was that of the "meatsters?"
"I guess it was a la cart one."

A Message to Mothers

YOU know the real human doctors right around in your neighborhood! The doctors made of flesh and blood just like you; the doctors with souls and hearts; those men who are responding to your call in the dead of night as readily as in the broad daylight; they are ready to tell you the good that Fletcher's Castoria has done, is doing and will do, from their experience and their love for children.

Fletcher's Castoria is nothing new. We are not asking you to try an experiment. We just want to impress upon you the importance of buying Fletcher's.

Your physician will tell you this, as he knows there are a number of imitations on the market, and he is particularly interested in the welfare of your baby.

Canada's Liberal Offer of Wheat Land to Settlers

is open to you—to every farmer or farmer's son who is anxious to establish for himself a happy home and prosperity. Canada's hearty invitation this year is more attractive than ever. Wheat is much higher but her fertile farm land just as cheap, and in the provinces of Manitoba, Saskatchewan and Alberta

100 Acre Homesteads Are Actually Free to Settlers and Other Land Sold at from \$15 to \$20 per Acre

The great demand for Canadian Wheat will keep the price. When a farmer can get near 40 for wheat and raise 20 to 25 bushels to the acre he is bound to make money—that's what you can expect in Western Canada. Wonderful yields also of Oats, Barley and Flax. Farming in Western Canada is truly as profitable as grain raising in any other country.

The excellent grasses, full of stations, are the only ones required either for beef or dairy purposes. The weather is moderate, the soil is rich and well watered. There is an unusual demand for farm labor in the West. Write for literature and prospectus at once. Write for literature and prospectus at once. Write for literature and prospectus at once.

C. J. Brewster, Room 419, 112 W. Madison Street, Chicago, Ill. 107, Washington, D. C. Canadian Government Agents

SHAKESPEARE AT THE FRONT

Famous English Actress Declares Every Performance She Gave for Soldiers Was a Joy.

Miss Lena Ashwell, the distinguished London actress, who has been giving a number of dramas and Shakespearean plays to soldiers at the front, was eloquent upon her strange and wonderful auditory. "No Tommy in stokes, as a West end audience is," she remarks. "Every performance was a joy."

The Tommies show their devotion in all sorts of ways. Some Tommies, hearing she was coming, built her scenery out of odds and ends of canvas and wood, painted red and yellow, exactly like the framework of a Punch and Judy show. Another group of men, working with the forage supplies in Rouen, on the railway side, where there are scarcely any blooms of any sort, managed to get her a little tight bunch of flowers, arranged with a bit of paper like an old-fashioned bouquet. Still another devoted group gave her a little box of silver, beautifully chased.

But what she treasures most is a lucky bean. The young soldier who gave it to her stood grasping her hands in the dark, saying blunderingly that he had been eleven months in the trenches and that she could not imagine what it meant to him to see a lady, much less hear her speak; that this bean had been all over the world with him and had brought him good luck—he hadn't been wounded yet—and now he wanted her to have it. The boy was simply giving her everything. No wonder she set his bean in the best of gold and wears it always.

CUTICURA IS SO SOOTHING

To Itching, Burning Skin—It Not Only Soothes, but Heals—Trial Free.

Treatment: Bathe the affected surface with Cuticura Soap and hot water, dry gently and apply Cuticura Ointment. Repeat morning and night. This method affords immediate relief, and points to speedy healing. They are ideal for every-day toilet uses. Free sample each by mail with Book. Address postcard, Cuticura, Dept. L, Boston. Sold everywhere.—Adv.

An Elegant Translation. A Boston girl who had been taking her first lesson in bicycle riding expressed her satisfaction at home at the result of the experiment. "The man said," she repeated, "that I had made most satisfactory progress for a novice."
"Why, did he really say that?" was the surprised query.
"Well, no," answered the Boston young woman, after a moment's reflection. "What he did say was, 'You'll do fast rate for a new beginner!'"—Christian Register.

Uruguay has 22 meat-packing plants.

MURINE Granulated Eyeballs.

University of Notre Dame

NOTRE DAME, INDIANA
Offers Complete Course in Agriculture
Fall courses also in Letters, Journalism, Literary Science, Chemistry, Pharmacy, Medicine, Architecture, Commerce and Law.

No Cause for Alarm. The other Monday afternoon a woman rushed excitedly down an alley in the poor quarter and, stopping at a house, knocked loudly. Receiving no reply, she knocked a second time. Still no answer.
A third time she knocked, and then a window flung open and a woman whose appearance betrayed signs of a sudden awakening leaned out. "Well, what is it?" she asked.
The woman below looked up and proclaimed with bated breath: "Mrs. Skinner, yer 'usbend's got his days!"
"Dear, dear me, Mrs. Jones," was the reply. "Is that all? How yer did nerve me! I thought it was that scarecrow after the rest again."

Certainly Does. "Did you see where the first prisoner taken by an American in the trenches weighed 220 pounds?"
"That certainly lent weight to the incident."

The man who can extract olive oil from cotton seed should be able to gather figs from thistles.

A GUARANTEED REMEDY FOR HAY FEVER—ASTHMA

Your misery will be relieved by your cough without any question of time by the use of one of Asthma, Hay Fever, and Cough Remedy. It is a guaranteed relief and is the only one that cures the attacks of Asthma and Cough.

DR. R. SCHIFFMANN'S
ASTHMADOR
AND ASTHMADOR CIGARETTES
positively give INSTANT RELIEF in every case and are guaranteed to cure Asthma, Hay Fever, and Cough. They are the only ones that cure the attacks of Asthma and Cough. They are the only ones that cure the attacks of Asthma and Cough. They are the only ones that cure the attacks of Asthma and Cough.

YOU CAN SERVE YOUR COUNTRY
in no better way than by selecting Non-ferrous metals in making up their fruit baskets. Every one is going to plant berry bushes, grapes, apples, etc. this Fall or next Spring.
We want the services of a capable person your action to take orders. The pay is liberal. Work is convenient. Any time is a good time to call on us. Write for literature and prospectus at once. Write for literature and prospectus at once. Write for literature and prospectus at once.

Every Woman Wants
Partine
ANTISEPTIC POWDER
FOR PERSONAL HYGIENE
Disinfects in water for a few minutes. Kills germs, bacteria, and all other objectionable organisms. Recommended by the U. S. Army, Navy, and Coast Guard. Write for literature and prospectus at once. Write for literature and prospectus at once. Write for literature and prospectus at once.