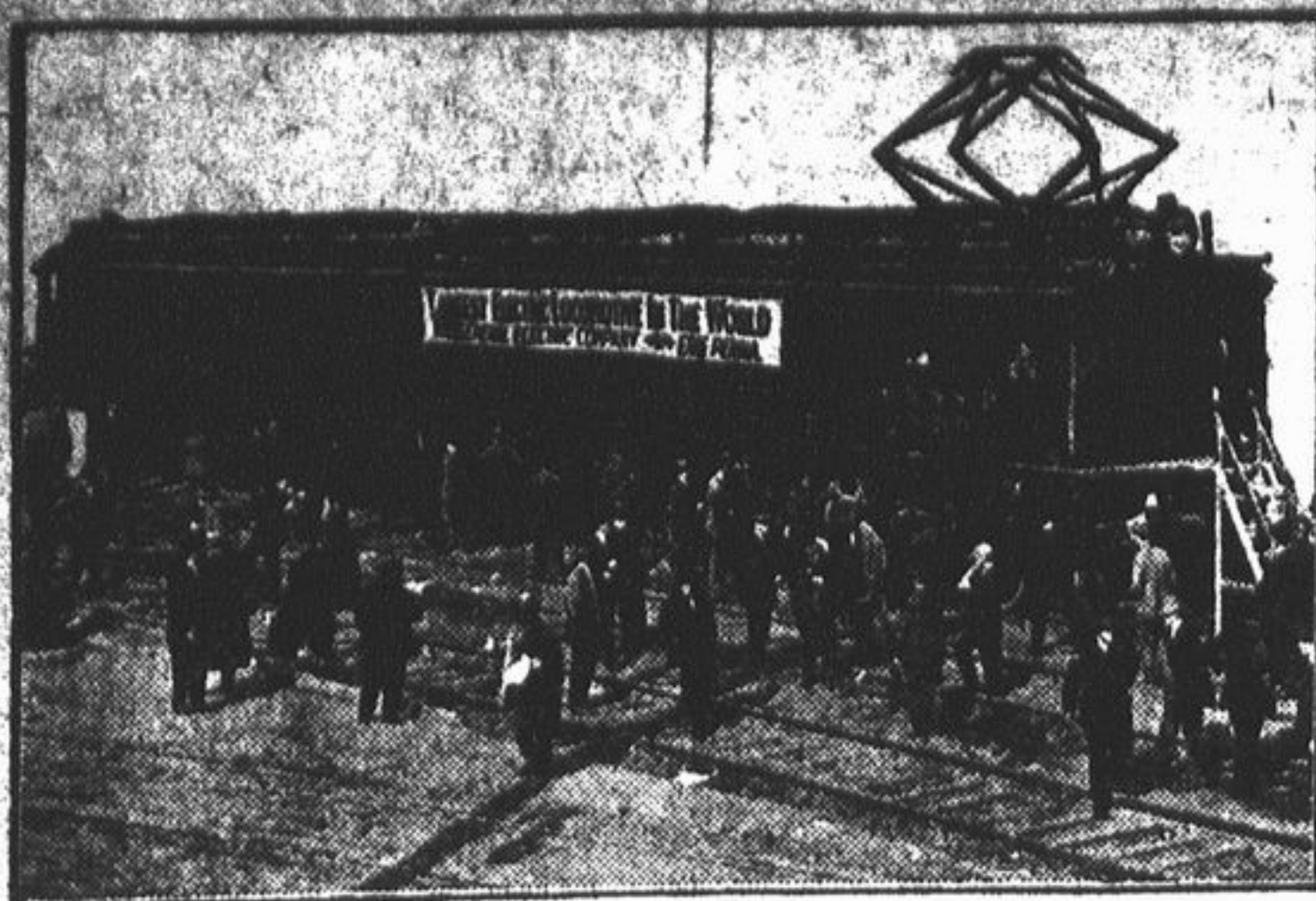


LARGEST ELECTRIC LOCOMOTIVE



SEE FINISH OF STEAM

RAILROAD MEN PUT THEIR FAITH IN ELECTRICITY.

Many Advantages Claimed for the Newer Power, Especially in Certain Sections of the Country—Some Arguments Advanced.

Railroad men are looking forward to the time when electric engines will supplant those of steam equipment. Especially is this the expectation on mountain divisions containing long, steep grades, and close to natural water power sites. The electric engine can pull a heavier load because of its superior number of driving wheels. One of the electric engines weighs 260 tons and pulls a train of 2,500 tons up a 1 per cent grade. A double header will drag the same load up even a 2 per cent grade.

The engineers have calculated that the electric engine has these advantages as compared with the steam equipment:

It operates with the highest efficiency in the coldest weather, when steam locomotives often freeze. It returns by "regeneration" a large part of the power used in running up hill during the corresponding run down hill. It requires inspection only once in every 2,000 miles of travel, whereas the steam locomotive must be overhauled at the end of each division.

It uses no coal, requires no water and has no ashes to dump. It carries no tender and has no boiler and will run indefinitely at a uniform rate of speed.

It reduces roundhouse tinkering to the minimum and handles uniform tonnage irrespective of weather. It does away with fuel trains and clears the tracks for traffic that pays dividends.

The best steam locomotive has to be overhauled after running 100 or 125 miles, whereas the immunity of the electric engine from this necessity is a heavy advantage in operating efficiency.

A steam locomotive waiting at a division point consumes 80 per cent of the fuel it uses in actual service, whereas the electric locomotive when idle consumes no power. The freeing of the track from fuel trains is an element of the highest importance, especially in mountainous country where double tracking is often impossible.

Tipperary Wins. Four-year-old Evelyn, whose home is in Crawfordsville, had missed practice for the Children's day exercises. Nevertheless, she was there on Sunday to take a part.

When the little folk took their places on the big platform Evelyn managed to occupy the central position. At the sound of the organ all the children's voices burst forth in song. She listened eagerly in an attempt to catch the tune, but to no avail. A second of a singing voice and a song spirit, she desired to use the former. Valiantly she stepped forth from the line and in a high key began "It's a Long, Long Way to Tipperary." A neck-and-neck race ensued, "Scatter Sunshine," ensemble being outclassed by the swift-stepping march song sung by our little girl.—Rehoboth Sunday Herald.

Railroader's Life Short. The working life of the average locomotive engineer is only eleven years and seven days, according to figures collected by the insurance department of the Brotherhood of Locomotive Engineers, a co-operative association, which carries insurance for its members amounting to \$145,000,000.

For the last ten years the engineers' insurance fund paid out for accidental deaths incurred as a result of service nearly \$5,000,000. It has recently been calculated that out of every 100 men who start as firemen only seventeen become engineers, and that out of every 100 who finally become engineers only six become passenger engineers.

Swinging Semaphore Displaced. The swinging semaphore on the railroads is being displaced and electric lights indicating the semaphore positions are being used. Instead, the letter are more plainly visible.

New Use for Locomotive. Apparatus by which a locomotive can be utilized as a vacuum-cleaning machine has been invented by a German railroad man.

Seems Her Fault. "You used to say you would never live of hearing me talk." "That was before we were married, wasn't it?" "Yes." "Well, in those days I had no idea you would ever be able to talk about so many disagreeable subjects."

Voices of the People. A Pittsburgh educator has figured it out that only one out of every 25,000 Americans thinks "The rest are wrong."

Shifting the Blame. Office (severely)—Is this rifle supposed to have been cleaned? Private—Well, no, yes. But you know what those damned girls are for.

Causes of Sore Shoulders. If the horses' shoulders get sore it's a sure sign of wrong treatment. The collar may not fit, the draft may come too high or too low, the trouble may lie in a chronic irritation of the shoulders. Whatever the cause, search it out and remove it.

Grooming Work Horses. Some farmers think it a waste of time to groom work horses in order to make them look neat and shiny, and would rather leave them in their natural state.

FARM ANIMALS

WHEN CHOLERA IS SUSPECTED

Take Temperature of Apparently Healthy Animals—Make Post-Mortem Examination of Dead Hog.

When a disease that is contagious appears among hogs, spreading more or less rapidly, is quite uniformly fatal, and is accompanied by a high temperature, it is quite safe to assume that it is cholera.

Where cholera is suspected, it is well to get a thermometer and take the temperature of a number of those that are apparently well. The normal temperature is from 101 to 103 degrees in winter and about 1 degree higher in summer. If cholera is present, the temperature will be found as high as 105 to 108 degrees.

Make a post-mortem examination of a hog that has just died and examine the kidneys for small, dark red spots resembling those on a turkey egg. Look for small red spots along the small intestines and somewhat larger ones on the lungs. The lymphatic glands, which are found in the flank, along the intestines and between the lungs, and which are a light amber color in health, will be found congested and varying from a pink to a very dark color.

Where the services of a qualified veterinarian can be obtained, he should be called to make a post-mortem and to give serum.—Department of Animal Pathology, University of Nebraska.

SYSTEM OF FLOCK NUMBERS

Ear Notches Serve as Identification at All Times—Also Used With Cattle or Hogs.

(By C. S. ANDERSON, Colorado Experiment Station.)

In most flocks of sheep, especially of purebred animals, it is advisable to use some system of flock numbers aside from the registry number. It is easy for an ear tag to be lost out, but a good system of ear notches serves as an identification at all times.

The system used at the Colorado Agricultural college is one which can be recommended for small flocks. One notch in the base of the lower part of the left ear, 1/2 two notches at the same place represents 2; one notch in the lower and one in the upper part, 4, and one notch in the point of the left ear 5; one in the point and one in the base, 6; one at the point and two on the base, 7; one on the point and one in the upper part, 8; one in the point, one in the base and one in the upper part, 9. The right ear represents the ten, number ten occupying the same position as number one on the left ear. In breeding ewes certain markings such as holes in the middle of the ear can be used to designate the year of birth.

The system is only applicable to the small flocks of about a hundred sheep. If one wishes to mark a larger flock, there is a more complicated system by which sheep numbering up to 10,000 may be earmarked. It is not commonly used. These systems can also be applied to the marking of cattle or hogs.

Production of Live Stock. Not Keeping Pace With Increase in Population—Manure Needed to Maintain Soil Fertility.

In raising live stock the successful farmer fully appreciates the value of good breed, proper care and scientific feeding. If any one feature is neglected the full value of the feed is not secured. The production of live stock is not, nor has it been for several years, keeping pace with the increase in our population and the demands from abroad.

Western ranges have been developed into farms so well satisfied with the high price obtained for corn, hay and other products that they have not bothered with live stock. Because of the increasing demand for meat at home, and the deficit abroad partly because of the war, manure will command a very attractive price for many years to come.

Another reason why stock raising should not be neglected is because the manure from the live stock is indispensable in maintaining the fertility of the soil.

Cause of Ropy Milk. Ropy cream or milk is caused by a germ. The germ may come from a dusty stable or a stagnant pool of water through which a cow has waded. The difficulty may frequently be remedied by thoroughly scraping the dried manure from the barn and then whitewashing the interior, and by a thorough scalding of all pails, cans, and the separator.—R. M. Washburn, University Farm, St. Paul.

Simplify Work at Farrowing. Having the pigs farrowed as near one time as possible greatly simplifies the work of feeding and caring for them.

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SECURING EGGS DURING WINTER SEASON



Well-Arranged Colony Houses on Poultry Farm.

A good poultry house is what you need, Mr. Farmer, if you are going to have plenty of eggs to sell this winter.

Some farmers feel that winter eggs are too hard to get to make it worth while to try to produce them. This is a mistake, according to R. M. Sherwood, poultry specialist in the extension division of the Kansas State Agricultural college.

"If one has a good poultry house," commented Mr. Sherwood, "he should have little trouble. Early matured pullets properly housed and fed

so that the fowls cannot roost on them. This is necessary in the production of a good grade of market eggs.

CARE AND FEEDING OF FOWLS

Birds Which Have Been Developed by Careful Attention Degrade Quickly When Neglected.

Poultry raising shows us that progress is made in two ways—by inheritance and by care in the development of the offspring. Or, in other words, a character which has developed in an animal, even though it was not apparent in its parent, is likely to be transmitted to its offspring. It is for this reason that close attention and great care should be given to the subject of care and feeding of fowls, for fowls which have been developed by careful attention will quickly degenerate when neglected.

Our knowledge of these things leads to the formulation of some general rules which should be studied and observed.

1. The land fowl should be made to "scratch" or "pick" or "tear" its food.

2. It should be kept dry. 3. Its feed must consist of animal, vegetable and mineral matter, with sufficient water to moisten it. 4. Its reasoning powers being small, man must assist it by placing feeds before it.

The waterfowl should have access to running water. I know this is an opposite opinion to that of a famous duck raiser, but waterfowls for breeding purposes will thrive best when they have free access to running water.

IMPORTANCE OF PURE WATER

Hens Soon Learn to Enjoy Fresh, Cool Drink, Just as Human Beings Do—Improves the Egg.

Eggs are made up of what hens eat and drink and their taste as well as general appearance can be changed in a few days by such foods as onions, garlic, fish, stagnant, muddy water, etc. As the average egg is about 80 per cent water, the importance of plenty of pure, fresh water is very evident. The mudhole beside the tank where the other stock are watered or the wallow in the hog-lot are not "all right" for the hens, though they may drink it and live for a long time when forced to by the absence of a drinking place of their own. But hens will soon learn to enjoy a fresh, cool drink just as human beings do. The square five-gallon tin can, in which much kerosene is sold, split in halves the long way will make a pair of nice drinking places, that if set in the shade and cleaned daily, are very good and in some places very cheap.

The main essentials of these water fronts should be tightness, lightness, easy cleaning, and not over five in height when full.

Guaranteed Eggs. "Guaranteed eggs" are those laid by fowls judiciously fed on the purest of food, kept in the cleanest of houses and always put on the market in a fresh condition.

Make Hens Work for Grain. Much benefit is likely to result, without any possible harm, if the hens are compelled to work in clean litter for their grain at all seasons.

Infertile Eggs Best. Infertile eggs will withstand marketing conditions much better than fertile eggs.

FIXING UP WINTER QUARTERS

Poor Roofing Means Leakage and Dampness, Which in Turn Bring on Troublesome Diseases.

The first thing in preparing winter quarters for poultry is to clean up, both inside and out of buildings. The first point of attack is the hen-house. See to it that the roofing is good. Poor roofing means exposure to cold, rain and dampness, which in turn bring out fatal diseases. Plenty of light and ventilation should be provided for. If necessary, cut out part of the south wall of the poultry house, cover this with wire netting, over which place canvas. This arrangement provides for plenty of air and sunshine.

A liberal coating of whitewash sprayed into every corner, crack and crevice in one of the best preservatives that can be used. By the use of whitewash thorough cleanliness can be established. Disease germs can be killed and pest flies prevented. If half a pound of fish glue be dissolved in a

water and added to each pail of whitewash, the wash will stick almost as good as paint for inside work. All accumulation of dirt, dust, spider webs and filth must be removed if best results are to be secured from the fowls.

The floor, whether it be of board, stone or dirt, must be thoroughly cleaned and provided with good litter. Perches should be made removable and at the same distance from the ground, about 2 1/2 feet. Too high perches cause huddling among the fowls. The perches should be painted thoroughly with a liquid lice killer and then sprayed with whitewash.

A sufficient number of clean, roomy nests should be provided. Four nests for every 12 hens is best. Feeding troughs, hoppers, drinking fountains, grit boxes and dust baths should all be provided clean and as sanitary as possible.

Fresh manure or gravel is absolutely necessary to the comfort of the hens this winter. Cover wooden or cement floors with fresh manure, straw and sawdust. Fresh manure will have a long season of utility.

DAIRY

PROPER TIME TO FILL SILO

Begin Operation Soon as Corn Has Reached Right Stage for Fodder—Let the Silage Settle.

(By J. G. WATSON, Missouri Experiment Station.)

Don't wait too long to fill the silo. Begin as soon as the corn is right for fodder. The kernels should be in the dough stage but dented and the lower leaves turning brown. Let the corn mature as much as possible without becoming so dry that water must be added to make the silage pack solidly and ferment properly.

Cut into pieces half to three-fourths of an inch long to make them pack well and to prevent waste in feeding. This takes more power but is worth it. Pack well with concrete tampers, keeping the silage higher at the wall than in the center.

Fill slowly, if possible letting the silage settle a day or so at a time. This makes it keep better and increases the amount the silo will hold. This amount may be still further increased by using woven wire to hold more silage at the top. It will gradually settle into the silo but tends to spoil while doing so. If more silage is added after such settling, take out the spoiled layer at the top.

If caught by frost, the corn for silage should be cut before it dries out. After that, add water. The corn may even be shocked to put in at a more convenient time or to refill the silo if enough water is added. The experiment station has published bulletins on shock corn for silage; silo building; and silage for horses, mules and steers.

KEEPS OUT DIRT AND FLIES

Sanitary Device, Invented by Texan, Closes Aperture in Bucket During Milking Operation.

A milk pail which tends to prevent the unnecessary contamination of its contents by flies and dirt has been invented and patented by a Texas ranchman. Instead of being open and therefore a catchall for filth, as is the ordinary bucket, the device is provided with a cover having a funnel-shaped opening in the middle. A sanitary sleeve with slits for the insertion of the hands is fixed to this, so that the aperture in the bucket is entirely inclosed during the milking operation.—Popular Mechanics.



Sanitary Sleeve With Slits.

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TRAMP SILO WHILE FILLING

One or Two Men Needed to Give Silage Such Compactness as Will Insure its Proper Curing.

The importance of tramping while filling is one that must be given consideration. In a silo at least one or two men are needed in order to give the silage such compactness as will insure proper curing. The outside or near the silo wall should be kept the highest and made in the most compact condition. This will prevent spoiling, which is so very frequent in poorly packed silage.

If the silo is filled quickly and poorly tramped, there will be a large amount of settling. Where a farmer owns his own outfit it will pay to allow this settling to take place for one or two days and then fill up the silo.

Keep Only Best Cows. The right kind of a cow will have profitable cows. The kind of breed does not matter so much. There are good and poor cows in all breeds, but the good business man will weed out the poor of any breed and keep the good.

Carbolized Vaseline for Teats. For use on teats carbolized vasoline is somewhat superior to plain vasoline, as the small amount of carbolic acid in the mixture has antiseptic qualities that tend to prevent infection.

Milking Machine a Success. The milking machine is proving to be a success, but it must be properly handled. Anyone who cannot succeed in getting his own cows properly milked by hand should try the milking machine.

Hard, Heavy Work. Cutting corn for ensilage is hard, heavy work. Do not go at it hammer and tongs. There are more years coming, and we want to be here to enjoy them.

God and Insects. To guarantee against insects, do not follow a grass seed with such a grain crop as corn. It is well to keep the land fallow for a time.

Neighboring White Dry. During the slight or hot weeks that cows go dry their feed should be closely watched. But highly carbonaceous roughage, such as straw and cornstalks, is not good at this time.

Resistant to Sins. Bacteria who breed and fatten and with have a long period of activity.

Successful Crops and Help the Railway

The successful crops of the period of the wheat crop of Canada for 1915 have not quite met the expectations of an average year. Three western provinces produced 25 bushels per acre, a portion of that area was square miles in which the crop was not good and the yield of the American farmer who was placed under cultivation had been holding for five or six speculative purposes and prices, says that he made the land out of this year's crop. No doubt, others, too, who in the advice of the Department of Interior to cultivate the land, have done as well.

But the story of the great crop of Manitoba, Saskatchewan and Alberta produced this year is that the railway men have been holding for five or six speculative purposes and prices, says that he made the land out of this year's crop. No doubt, others, too, who in the advice of the Department of Interior to cultivate the land, have done as well.

The C. P. R. earnings for the week of October showed an increase of \$762,000 over last week, the being only \$310,000 below the earnings of the corresponding week of 1913, when the Western wheat made a new record for that year, increase in C. P. R. earnings for corresponding week of that year only \$381,000, or less than half of the increase reported this year.

grain movement in the West in the past two weeks has taxed the sources of the Canadian route never before, despite their increased facilities. The C. P. R. is handling 600 cars per day, a new record. G. T. R. and the C. N. R. are also making new shipment records. The day the W. Grant Morden, of the Canada Steamships Company, the freighter of the Canadian fleet on Upper Lakes, brought down a cargo of 476,316 bushels, a new record. Canadian shipping records are being broken in all directions.

largest Canadian wheat harvest through the port of New York is reported for the week ending October 18th, when 248,000 bushels of the new crop landed in New York. 1,265,791 bushels have been shipped for England, France and Italy. It is over half as much as was shipped of American wheat from the same port in the same period. And, he is reported, Montreal, not New York, is the main export gateway for Canadian wheat. New York was the main competitor with Montreal.

Many a man's future has been spoiled by his wife's social ambition.

Woman as well as man should be able to hold her own in the social arena. It is a social ambition that is the cause of many a man's ruin. It is a social ambition that is the cause of many a man's ruin.

There's no peace for the world's peacemaker who butts in.

Dr. Pines' Pills are best for the bowels and stomach. One little Pill is a lifetime claim for a healthy body.

Boredom only means lack of a path.

"I took your Compound and have a strong baby."—Mrs. John Mitchell, Mass., N. Y.

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