

ROAD AND FARM IMPROVEMENT

TOAD IS FRIEND OF FARMER

Science Making Efforts to Show Tiller of Soil That Humble Batrachian Should Be Encouraged.

The toad is one of the greatest friends of the American farmer. Science has proven this to be true and is making great efforts to show the tiller of the soil how important it is that the humble batrachian be encour-



Farmer's Best Friend.

aged in every possible way to multiply and spread over the country.

This little chap who appears so lonely in the open field or in the rear of the stable, is one of the greatest bug fighters in the world. He is prowling around the grass after game and he gets it in vast numbers from the enterprising ant to the lazy slug that crawls slowly from beneath a damp stone.

It is estimated that over \$800,000,000 worth of crops are destroyed annually by insect pests. This great sum would be doubled if it were not for the toad and his allies, who keep up a constant warfare against the encroaching bug and worm, that are cheating the farmer out of his just profits as surely as the middleman is doing in the cities.

It is estimated that the average toad is worth at least five dollars a year to the farmer, as the creature during that period has destroyed insects and thus saved crops that are worth that amount. A large toad has been known to devour 100 rose beetles at a single meal. In the stomach of one toad, 75 myriapods were found; in another, 65 army worms and another 65 gypsy-moth caterpillars. At another post-mortem it was shown that the batrachian had just lunched upon 37 ants, 19 sowbugs, 3 spiders, 1 caterpillar and 10 plant lice. At another time one toad was seen to eat 35 large and full grown celery worms in three hours, while another accepted 86 flies, fed to him in less than 10 minutes.

EXHIBITS AT ROAD CONGRESS

Complete Demonstration of Government's Work on Public Highways Will Be Shown to Farmer.

An interesting exhibit at the American Road congress to be held next fall will be presented by the United States department of agriculture. Secretary Wilson of the department has authorized Director Logan Waller Page of the office of public roads to give a complete exhibit of the government's work on the public roads of the country, showing how improved roads hurt the farmer and how improved roads aid not only the farmer, but the consumer.

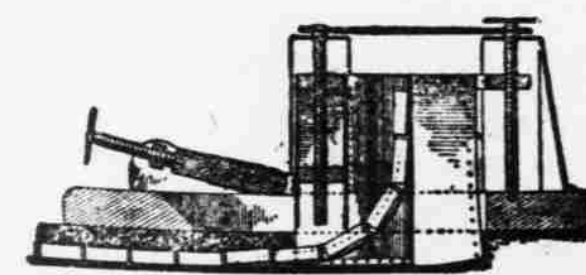
Four of the biggest associations which are working for the improvement of public roads are consolidating their forces in order to make the next American Road congress the biggest affair of its kind in the history of this country; they are the American Road Builders' association, the American Association for Highway Improvement, the American Automobile association and the National Association of Road Material and Machinery Manufacturers. All of these associations have previously held separate conventions. It is expected that farmers' associations and other associations interested in the improvement of public highways will likewise take part in the congress.

NEW MACHINE FOR THE FARM

Implement for Ditching and Distributing Tiles Has Been Invented by an Iowa Man.

In describing a ditching machine and tile distributor, invented by A. E. Hanson of Mason City, Ia., the Scientific American says:

This invention relates to the laying of pipes or hollow tiles in ditches, and its object is to provide a new and



Ditching Machine and Tile Distributor

improved ditching machine and tile distributor, arranged to readily form a ditch in the ground and to place the tiles or pipes into the bottom of the ditch for convenient forming of the tiles or pipes to form a line of such tiles or pipes. The accompanying illustration is a longitudinal central section of the machine and distributor.

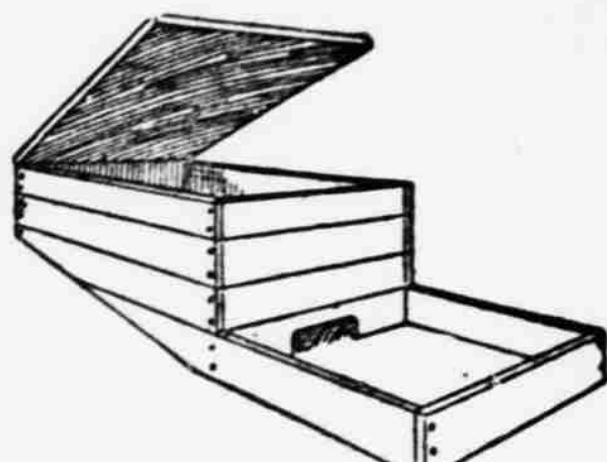
Plan of Rotation. A definite plan of rotation will help you build up the soil and increase the yield from year to year.

LIVE STOCK

COMPEL HORSE EAT SLOWLY

Habit of Bolting Food by Animal May Be Remedied by Constructing Self-Feed Box.

If your horse has the habit of bolting his feed you can easily remedy it by making a self-feeder on his feed box, says the Iowa Homestead. The accompanying illustration shows how a feeder may be made similar to a poultry feed hopper. The contrivance may be made of inch boards large enough to



Self-Feed Box.

hold one feed. The horse can get the grain only in small quantities and so cannot eat it more rapidly than he should. The bottom must be made with enough slant to insure all of the feed coming out in the trough.

MAKING FIGHT ON HOG LICE

Excellent Remedy Is Lard and Kerosene Oil, About Equal Parts—Will Not Injure the Skin.

(By A. J. LEGG.)

It has been a continuous fight with me against the hog lice. When I think I have them killed out some neighbor brings a lousy sow for breeding and as a result there are plenty of lice left to stock the entire herd. Then I have to make a fight against hog lice again.

If the sows have only a few lice when the pigs are farrowed the entire litter will soon be polluted with lice. I have seen numbers of half grown lice on the pigs before they were a week old.

Last spring I mixed hog's lard and kerosene oil, about equal parts, and greased the sows with it about ten days before they were due to farrow, then in a few days I went over them again with the grease.

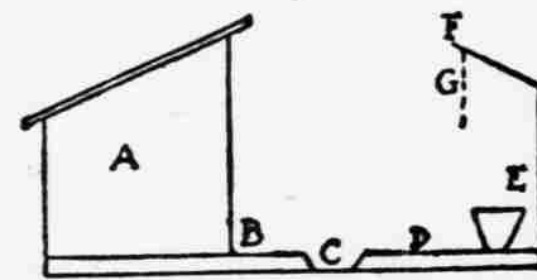
This killed the lice out so there was not a louse found on the pigs from the time they were farrowed until they were weaned.

Either the kerosene oil or the lard will kill the lice all right, but the kerosene by itself will irritate the skin and will soon evaporate while the lard will stay on the hogs for several days. This mixture will not injure the skin.

MODEL PEN FOR THE SWINE

Feed Trough Has Swinging Gate, Which May Be Dropped While Feed Is Being Prepared.

This model pig pen should be located on level ground, built cold-tight on three sides and facing the south, writes Carroll Murray of Wadnams, N. Y., in the Missouri Valley Farmer.



Cross Section View.

Explanation: A, shed; B, platform; C, driveway; D, feeding platform; E, trough; F, swinging gate.

It is 12 by 15 feet in size, with a platform (B) of heavy material built about 12 inches from the ground and extending 8 feet beyond the shed. Another platform (D) 10 by 12 feet, serves as a place for the pigs to stand while feeding. The litter from the two platforms can be scraped down to the earth part (C), and a wagon driven through to haul it out. The gates at each side of the pen are divided to drive through. The feed trough has a swinging gate (F), which may be dropped to position G to keep the pigs out while the trough is being filled.

Action in Light Horses.

Action is extremely important in light horses. It should be straight and true. At the trot it should be what is known as the straight line trot, no wabbling from one side to the other, or swinging the feet. The action from behind should be straight, the feet picked up smartly, hocks well flexed and the feet of both fore and hind legs at each step placed immediately in front of the former position.

Alfalfa Better Than Clover.

As a food for all kinds of live stock, alfalfa has been found the "king of forage crops." It is rich in protein and well adapted for the use in a feeding ration with corn. It makes excellent hay, and is more digestible than most forms of rough feed. Numerous feeding records show that it is worth fully a half more than clover hay, and many feeders claim it to be almost equal to such materials as wheat bran.

TREATMENT OF FLESH WOUND

Method of Value to Every Owner of Stock is Given by Prof. G. H. Glover of Massachusetts.

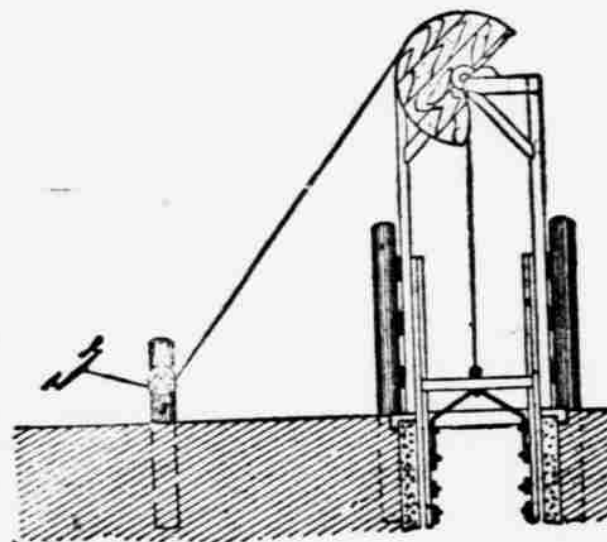
The following treatment of flesh wounds by Prof. G. H. Glover of Massachusetts is of value to every owner of stock, as he is a recognized authority. The ordinary wound will heal if not interfered with. This interference may be from germs, parasites meddling with the wound, on the part of man or the animal itself. The first thing to do, of course, would be to stop the hemorrhage. This can be accomplished by a tight bandage of clean, white muslin applied either over the wound or above it. A thread may be run under the artery by using a needle and tied. Do not use flour, dirt, cobwebs or anything of that sort on the wound; they are unnecessary and may produce dangerous infection. Having checked the bleeding remove the clots of blood and cut off the ragged edges of tissue with clean shears. A pan of antiseptic solution should be provided, and one of the best antiseptics on the farm is creolin. Add a teaspoonful of this to a pint of water that has been boiled and use it on the wound two or three times a day. Place the knife, shears, etc., in this solution and wash the hands before beginning to dress the wound.

See that there is good drainage from the wound and do not tie the wound up with covering of any kind. In about one week it may be well to change to dry dressing. In the meantime it will be well to get in communication with some skilled veterinarian who will advise you in the case from time to time. I do not mention sewing up the wound for the reason that in ragged cuts it is better not to do so. Remember that the principal thing is to get the wound healthy at the start and then it will heal with very little interference.

OPERATE CAGE DIPPING VAT

Crate is Raised and Lowered by Use of Team of Horses—Illustration Explains Itself.

One of your readers desires information as to how to operate the cage in the dipping vat I recently described in your columns, writes L. W. Chase



Cage Dipping Vat.

of the University of Nebraska in the Breeder's Gazette.

The accompanying illustration will make it clear. The crate is raised and lowered by hitching a good horse or team to a rope which passes from the top of the drum down through an auxiliary pulley and from there to the clevis for the singletree or double-tree. The auxiliary pulley can be the regular floor pulley for the hay fork rope. After the rope passes through the pulley the team may travel in any convenient direction.

Buy Feed or Sell Pigs?

A good many are asking what they are to feed their pigs, this season, with corn at 80 cents a bushel and middlings \$1.75 per cwt. and prospects of going still higher. For the man who has pigs and no feed, we think it would be about the most reasonable thing for him to sell his pigs to some man who has feed, and save himself the drug-gery of carrying the food to them and the risk of losing good money in the process. It is the opinion of the writer that even with pork abnormally high, there is no money to be made just now by feeding hogs on a ration that must all be purchased at current prices.

LIVE STOCK NOTES

Cooking food for animals seldom pays.

The stallion should show lots of masculinity.

One hundred acres will carry forty head of live stock.

Shear the sheep before their wool gets to be a burden.

If you haven't a hog house, prepare to build one next fall.

You can't be too particular in picking sties for your herds.

Many stallions are used too much to produce a large per cent of colts.

Horses, cattle, hogs and chickens are dirty if they are not handled in an intelligent manner.

The Ohio experiment station has found that rape is one of the very best forage crops for hogs.

Sell your wool on a rising market. Nine times out of ten you will miss it if you try to keep it for something better.

Pigs fed on dirty, musty floors, are apt to contract lung trouble through inhaling dust, chaff and other clogging material.

Dock every lamb, ewes when they are from eight to fourteen days old, and ram lambs from five to seven days after castration.

People with a prejudice against sheep claim they are dirty. This is quite true if they are handled in such a way that they cannot help it.

POOR ROADS ARE EXPENSIVE

Only 7 Per Cent of 2,100,000 Miles of Public Thoroughfares in This Country Are Improved.

There are 2,100,000 miles of public roads in this country. Only 150,000 miles, or 7 per cent, are improved. All the rest can be fairly described as bad roads. The waste of our natural resources, reckless as it is, is nothing compared to the money waste brought about by this condition of our highways.

It costs the French peasant an average of 12 cents a mile per ton to haul his produce to market. It costs the American farmer an average of 25 cents a mile per ton, or 100 per cent more than the Frenchman. During the year 1905-1906 hauling of farm produce to shipping points amounted to between forty and forty-five million tons weight. The average haul was 9.4 miles. If the farmers could have done their hauling over French roads, instead of their own inferior ones, they would have netted \$58,900,000 more on their crops.

But all the hauling to shipping points is not done by farmers by any means. The interstate commerce commission tells us that in all something like 250,000,000 tons are hauled for shipment every year. The willingness to move this immense volume of freight over poor roads, as against good roads such as France enjoys, costs the country a cool unnecessary \$305,000,000 a year.

These figures and facts come from the office of Logan Waller Page, the United States director of public works.

USEFUL AS GRASS CATCHER

Device Fastened to Back of Mower Makes Use of Rake Unnecessary—How It Is Made.

A rake will be unnecessary to the man who mows grass with the device shown here attached to the back of the mower. This is the invention of a Minnesota genius, and it is said to leave a clean sward in the wake of the lawn mower, catching the loose grass that flies up in the rear before it has a chance to fall again. The apparatus is made with a galvanized steel bottom and heavy duck slides and is easily detached and emptied when it becomes full. Two hooks are fastened at the ends of the roller of the mower and circular wire pieces fit



Handy Grass Catcher.

over these at each end of the catcher. A third piece of wire hooks over the handle of the mower to keep the scoop in position. Another wire contrivance comes with this device by means of which the catcher can be made wider or narrower or in some other way adapted to the size of the mower.

Manure and Silage Corn.

Twenty tons of corn silage an acre were harvested last fall by George L. Hyslop of Ohio. He uses it for fattening catling and hogs. The most interesting thing about this yield is that it is the result of proper utilization of barnyard manure. The manure shed has an important place on the farm.

Good Roads & Farm Notes

Weeds multiply from year to year. Weeds are easily killed if attacked when quite small.

Reading good farm papers will interest people in better farm conditions.

One of the worst pests with which the grower of onions has to contend is the onion maggot.

Fall plowing of field areas will often be of service in controlling cut worms that are affecting field crops.

Rotation allows or assists Nature to repair her waste places and incidentally facilitates the war with weeds.

Different crops for different years on the same soil will produce the variety of elements which insure fertility.

The grain grower should have the cows freshen in the fall, in order to provide an income while the fields are idle.

A border of nasturtiums or some of the late foliage plants all around the vegetable garden produces a fine effect.

Do not be afraid to apply air-slaked lime to the cabbages with a blow gun. It will destroy the worms on the head of the cabbage.

A garden cultivator does much better work than a hoe. It is easier, quicker and keeps the soil in much better conditions.

We cannot bring rain when it is needed, but we can keep the cultivators going during the worst drought that ever happened.

Outside of the Democratic office-holders and office-seekers, the Democrats are just about as anxious for Roosevelt as any of the rest of us.—Clinton News-Dispatch.

If Mr. Watts is going to boss the State Chairman, the Democrats might as well hold another meeting and elect him chairman and be done with it.—Clinton News-Dispatch.

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