

Farm and Garden

PROTECTION FOR TREES.

Cornstalks and Wire Netting Shield Them From Vermin.

One of the most timely and useful bulletins seen in a long time is a recent pamphlet issued by the Ohio Experiment Station, Wooster, O. H. Ballou gives practical methods of protecting young trees from the attacks of mice, rabbits and other vermin. As all fruit growers know, these little animals often cause great loss by gnawing the bark from the base of the tree.



CORNSTALK PROTECTOR.

tree up. The damage is usually worse in hard winters, when the natural food of these animals is scarce. They have been known to work in open winters and to gnaw completely some of our best young trees. Mice are worse, as the hunter puts most of the rabbits out of commission. There is more damage done in such than in open ground, as the mice like to nest in the grass.

One of the surest ways to invite disaster is to leave a much closer around the trunk of the tree. The mice will work under it. If there is a bare space for a few inches around the tree there is usually little danger, for the mice rarely cross a bare place to work at the bark.

In an ordinary winter one finds a mound of earth or cool ashes almost a foot high at the base of the tree ample protection. With deep snow



WIRE NETTING PROTECTOR.

this often fails, as the mice sometimes work under the snow if there is a bare space. With rabbits, of course, this mounding will not answer.

Mr. Ballou gives a number of plans for protecting the tree trunk. His pictures are so clear that little description is needed. The object is to put something around the tree trunk which will keep the vermin away. If rabbits around this protection should be high enough to prevent their reaching over it when standing on their hind legs. Perhaps the simplest plan is shown in the first cut. Here ordinary cornstalks are used-cut to the proper length, placed around the trunk and tied with wire or string. Mice would gnaw their way through them, but they would be so tired from the effort that they would be unable to climb the tree outside the stalks.

Checkrein Abandoned.

When a horse stumbles he is far less likely to go down if his head is left free. In England, where they are far ahead of us in everything pertaining to horses, the checkrein has been abandoned, the last surrender being that of the artillery and commissariat trains of the British army, the change having been made by Sir George Burgoine, the late commander in chief, and he testifies to the beneficial results attending it.

INDIVIDUAL HOG HOUSE.

An Expert Breeder's Plan For Housing Swine.

A practical breeder says in regard to the housing of swine: The ideal of most men who grow hogs regularly and to the capacity of their farms is a large house that will accommodate all their sows at once. A majority of growers never reach this ideal. Those who do more often than otherwise find that they have made a mistake in building their ideal. I think that the construction of individual houses will prove very serviceable to the ordinary breeder. This house is 6 1/2 by 6 feet inside, 6 feet high in front and 2 1/2 feet at the back. It is roofed with shingles and is built for the front to be toward the south. There is an inside timber used as possible for framing purposes. The sills are cut from 2 by 6 inch stuff, two of them 6 feet long and two 5 feet 2 inches and spaced together so that the frame will be 6 1/2 by 6 feet. The two 6 foot sills are cut 6 feet long for back and front to rest the siding or weather boarding in. In nailing on the siding these two pieces are dropped about two inches from the upper end of the siding. Then when the rafters are set, four of them

TYPE OF THE HOLSTEIN.

Breeders Trying to Improve the Milk and Beef Form of This Breed.

With large size as the recognized predominant characteristic of the Holstein, aside from its beautiful black and white color markings, perfectly defined patches or spots, the next general definition relates to the general conformation of the animal. There are three different types, described as the milk and beef form, the milk form and beef form, says an expert breeder.

The average form of this breed and that toward which conscientious breeders are directing their efforts to maintain and improve is the milk and beef form.

The milk and beef type of the breed is especially strong in all vital particulars. The bones are due compared with the high and sharp chine of the extreme milk form. The loin and hips are broad and smooth and the rump is high and level compared with the angularity usually shown in the milk form. The twist is roomy and the thighs and hocks well apart. Passing forward, the shoulders are smoother and more compact than in the milk form, but of lighter weight than in the beef form.

The brisket is not so wide and low as in the beef form, and the chest is not so deep, but the width of the beef form through at the heart is closely retained. In the milk form the abdomen is usually swelling below, and the ribs are steep, but in the milk and beef form the ribs are wider spaced and the abdomen more truly held up, though no less capacious. The general



CHAMPION HOLSTEIN COW.

appearance of the bull is strongly masculine, but that of the cow is not so feminine than in the milk form. It may be further emphasized that the cow of the wide form, with shoulders moderately thick, deep and broad, crops well filled, barrel well rounded, loin and hips broad and full and quarters straight, wide and full. To this form of these cattle is due their extraordinary constitutional vigor or vital force, and it affects all their relations to their food, care and production. The milk and beef form is not accompanied with the angularity of appearance, the light shoulders and chest and the comparatively light quarters of cattle of the milk form.

KEEPING MILK UTENSILS CLEAN.

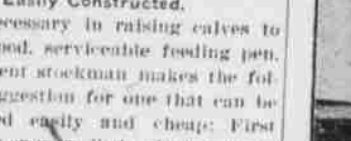
Discard the disinfectant and the disinfectant when the milk utensils are being washed. Wash them in warm water first, with plenty of some washing compound, and use a brush to do the work, but never a rag. Get into every part of them, after which rinse off with clean warm water, and then either put them in boiling water or pour boiling water over them. Stand the parts up so that they will drain and use no cloth to wipe them. The hot surface will dry them quickly, and they will be clean. Leave the parts in a sunny place if possible.

FEEDING PENS FOR CALVES.

Suggestion For One That Can Be Easily Constructed.

It is necessary in raising calves to have a good, serviceable feeding pen. A prominent stockman makes the following suggestion for one that can be constructed easily and cheaply: First make four or five little plank troughs of the size desired. Then nail together several boards to make a partition. This should stand higher than a calf and be a little longer. Make five of these partitions, all the same size.

Nail one of the troughs in position in convenient drinking distance for the calf from the floor, against one of the partitions. There should be at least six inch partition bounding in front of the trough. Nail the end of the trough against partition. Then nail another partition and another trough against that until all partitions and troughs are used. There should be a partition on each front end. This provides stanch and troughs for four calves. It may be made larger or smaller if desired. The stanch should be large enough to admit the calves without allowing them to turn around and high enough to prevent straining or interfering with their neighbors. This arrangement will prevent their sucking each other after eating, as they can be left in the stanch until the milk taste is out of their mouths. It is a good idea to halter break calves when they are small and easily held.



POSITION OF THE FEEDING PEN.

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A stockman says he has saved several valuable calves that were down with the scours by taking a tablespoonful of wheat flour and giving it tablespoonful every minute. He repeated this two or three times a day before feeding and diminished the feed one-half until the calf got well.

THE SWINEHERD.

Young pigs should be taught to eat early. Then one can gradually increase the grain ration and keep their development at a high standard.

Cheap Ration For Brood Sows.

A cheap and at the same time substantial ration for brood sows at the present price of feed is a mixture of half corn and half bran and shorts.

The Calf in the Pig's Tail.

The curl of a pig's tail is an indication of good health. When the curl begins to straighten out look for disease and give medicine or a change of food.

Good Feed For Hogs.

It has been shown by careful experiments that four and one-half pounds of potatoes when cooked are equal to one pound of cornmeal for fattening.

Get Rid of the Brutal Hired Man.

Watch the hired man when he is leading to the stock. If he is rough and brutal fine can well dispense with his services. For the animals will not thrive under his care.

THE VICIOUS STALLION.

Best Method of Breaking It of its Mean Traits.

A prominent breeder gives the following information regarding the handling of the vicious stallion. He says that much depends upon the man who takes care of the horse. Many leave him to the care of any one, and he is foisted with until he becomes incorrigibly mean.

In that state a stallion is not worth a dollar. The remedy is heroic so far as the horse is concerned, though really very simple. Take a good revolver not less than 38 caliber, abstract the bullets from the cartridges and supply



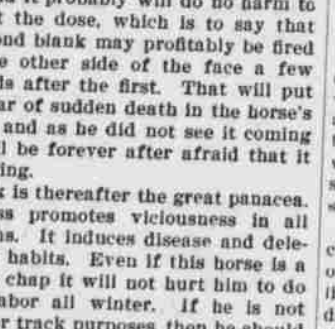
A THOROUGHBRED STALLION.

an extra wadding; then when the horse approaches with evil intent fire the wadding directly in his face, taking care, of course, to miss the eye. This will bring him to time sure. Then hitch him up and make him work every day of his life. There is no use trying to beat really vicious stallions into submission. That usually only makes them uglier, and they will eventually watch for an opportunity to get the handler foul. The blank shot in the face cows them for good and all, and it probably will do no harm to repeat the dose, which is to say that a second blank may probably be fired on the other side of the face a few seconds after the first. That will put the fear of sudden death in the horse's chest, and as he did not see it coming he will be forever after afraid that it is coming.

Work is therefore the great panacea. Idleness promotes viciousness in all stallions. It induces disease and deleterious habits. Even if this horse is a speedy chap it will not hurt him to do light labor all winter. If he is not used for track purposes, then he should be made to work in the harness just like any other horse on the farm. Naturally it takes nerve, precision and good judgment to apply this course of treatment, but it is so absolutely efficient that it is worth taking the utmost pains with. Most stallions love fights, but all are deadly afraid of the flash, the sting and the noise of a blank shot, so much so indeed that they will always be watching for the similar application. It is the best possible lesson a mean horse can have.

Pumping by Wind Power.

The speed of a windmill depends on the angle the wheels are placed at with reference to the wind. If a slow, steady motion is desired the sails must



WIND POWER PLANT.

be set at a steep incline. Such sails must be long and narrow and set closer together. In pumping from a deep well the angle of the sails of the windmill is such that the wheel will revolve the same number of revolutions a minute that it is desired to operate the pump. This makes it possible to connect the mill directly to the pump without the gearing necessary where a high speed is employed in operation of the pump. While the low speed means less water pumped, it greatly lengthens the life of the mill.

In the illustration the windmill, tower and tank are combined in a rather ornamental structure. When the well is located on high ground as compared with the ground where the water is to be distributed the tank may rest upon the surface, as shown, and the windmill frame be constructed overhead. When the mill is to be located on lower ground the water tank may be placed midway on the windmill frame, as shown, and the pump directed into the tank. To avoid danger of breaking the bottle the water should be warm at first. Replace the warm water slowly with cold water. After cooling, milk should be in all cases be held at the lowest available temperature.

Home Pasteurization of Milk.

Milk is most conveniently pasteurized in the bottles in which it is delivered. To do this use a small pan with a perforated false bottom. An inverted pie tin with a few holes punched in it will answer this purpose. It will raise the bottles from the bottom of the pan, thus allowing a free circulation of water and preventing bumping of the bottles. Punch a hole through the cap of one of the bottles and insert a thermometer. The ordinary floating type of thermometer is likely to be inaccurate, and if possible etched on the glass should be used. Set the bottles of milk in the pan and fill the pan with water nearly to the level of the milk. Put the pan on the stove or over a gas flame and heat it until the thermometer in the milk shows not less than 150 degrees or more than 155 degrees F. The bottles should then be removed from the water and allowed to stand for twenty to thirty minutes. The temperature will fall slowly, but may be held more uniformly by covering the bottles with a towel. The punctured cap should be replaced with a new one or the bottle should be covered with an inverted cap. After the milk has been held as directed it should be cooled. To avoid danger of breaking the bottle the water should be warm at first. Replace the warm water slowly with cold water. After cooling, milk should be in all cases be held at the lowest available temperature.

Only within the past few years has an adequate value been placed upon skim milk, yet it is a well known fact of chemistry that it contains virtually all of the casein protein of the whole milk, the butter fat removed in the cream being carbon and water. Practically all of the food value of skim milk may be removed in the shape of cottage cheese, also known as "cheesecake." The following recipe for making this appetizing food is recommended by the Nebraska Experiment Station: Allow the skim milk to become sour and curdled, then heat to 90 or 100 degrees F. to about thirty minutes. After it has reached the desired temperature remove the vessel from the stove and allow curd to remain in hot water for about fifteen minutes. Then remove whey by pouring the curd into a cheesecloth bag and squeeze out as much whey as possible. The texture—hardness or softness of the curd—depends upon the temperature to which the milk is heated and the longer the curd is allowed to remain in the whey the harder the curd will be. Adding to the curd about one-eighth its volume of cream greatly improves the flavor of the cheese, together with sufficient salt to season.

State Supports Good Road Cause.

The state of Rhode Island has taken to about \$250,000 so far this year for automobile registrations. The money goes into the fund for repair and maintenance of roads.

GASOLINE PLOW HORSE.

Harmer Also Does Harrowing With Homemade Tractor.

Harry H. Krom of Ontario county, N. Y., has made a gasoline plow and harrow by mounting a motor on some old blinder trucks. He says of it: "The cut shows the tractor at work harrowing in the orchard. It weighs 3,815 pounds. It is equipped with a two-cylinder double cylinder motor of the two-cylinder type. It draws two three-horse spring tooth harrows when set about as deep in the ground as they will go at the speed of one and one-half miles per hour, covering about two acres per hour. As we



GASOLINE HORSE.

have quite a good deal of fruit on our farm, the principal work of the tractor has been just as shown in the picture, excepting that part of the time he harrowed used in a four horse double disk, heavily weighted with large stones. We find the machine very advantageous for this work, as it goes readily and does not work to one side or the other, so that you can keep the harrow right to within two or three inches of the trees without the danger of barking them.

"We use the machine also in a great many other kinds of work. It hauls a two bottom gang plow (fourteen inch bottom) seven inches deep at the same speed, and with the steering arrangement we have I think we can turn around on as narrow a headland as the horse can—can turn it in a circle a very little larger in diameter than its length. We grind our own feed, using the engine to run the mill. Our mill is not very large, with this amount of power we grind thirty bushels per hour. The tractor is very handy for pulling out brush and young saplings off fence rows; also for dragging off bowlders, as it is so much more powerful than a team of horses. It has the best wire fence stretcher we have ever used. You can draw wire up to any tension you choose and set the brake and the wire is held taut.

"We have never kept accurate account of the fuel used when plowing or harrowing with the engine, but I believe it averages about \$1.50 worth per day, which we do not consider much when it is taking the place of two teams of horses. From the use we

LOADING A MANURE SPREADER.

can do this? In many instances it may be set where the stables may be cleaned directly into it, thus saving one handling of the heavy, disagreeable stuff and the time required.

Under these conditions the daily spreading and closer conservation of this valuable matter are made a habit, which in itself is an inestimable acquisition. The saving in manure value is estimated at fully one-third the total amount made where drops and absorbents are employed, as they are on every farm. This amounts to at least \$5 per cow per year. All other farm machines are used only four to six weeks in a year, while the spreader is paying for itself the year around. The boy who is not strong enough to spread manure in the old way may easily put on the horses and by the use of the machine do this heavy work before going to school in the morning, and he can do it better than the strongest man with a fork. Then there is the advantage of having the fertilizer spread fine as well as evenly. The farmer who doesn't own and use a manure spreader is behind the times and is in a losing race.

"The Fool and His Pipe."

The surest test of atrophy of the thick tank is to see a man light a cornucopia pipe in the haymow. This indicates a brain expansion that would make a bullock shed tears. Many a man has had a bright red nose with twelve foot posts laid low in the dust because some fathead with the intellectual reach of a flank steak mistook the haymow for a buffet dinner. The man who retreats to the classic confines of a box stall to be cured of "the makin'" ought to be kicked in the tobacco habit by being kicked in the epiglottis by a blind mule—Kimball's Dairy Farmer.

Loosening a Tight Nut.

When a wagon wheel nut has become so set that it does not yield readily to the wrench, catch the end of a stream of hot water on the nut from the spout of a teakettle. In a few minutes the nut can be turned off with the fingers, says Farm Journal.

HUMS FROM THE HIVE.

Every beekeeper needs one or more books on bee culture. Look well after your bees and don't let them swarm if you expect to get any honey.

Don't wait until your bees get to swarming to order hives. It's better to keep them from swarming. Hives should always stand level side by side when comb building is being done so the combs will come down even with the bottom bar of the frame.

Bees like to work better probably than any other living thing on earth. A room for a few hives of bees on every farm. Fruit, poultry and bees make a splendid combination.

Every beginner should paste a label on the front of each stand, wholly for his own benefit, which should read: "Leave this hive alone. Nothing will more disturb a swarm of bees and interfere with the economy of the hive than to be constantly opening it and lifting out the frames."

A smoker lying on his side will not consume as much fuel as when standing upright. Therefore when you do use him use him in this position. Blow into the bellows and let the smoke come down and placing a box or live body and cover over it.

SILOS ARE NECESSARY.

They Are a Valuable Asset in the Dairy During Winter Season.

Those interested in silos will find a valuable lesson in the following article by an expert dairyman:

The best dairyman in my neighborhood built a silo last fall and now he says he does not see how he got along so long without one. There had been silos in the community, but to him they seemed something of an experiment. The cost of building seemed so before him. He had been too busy to give much attention to the success of his neighbors, and the prospect of losing his feed kept him in dread. But one season's experience showed him that a silo is a necessity. No dairyman can afford to do without silos for winter feed.

In the first place, one can get more feed stuff from a given piece of land in corn than in anything else, and good land is a favorable season one may get very little except from two to thirty tons of the best feed per acre plus silage and corn or peas or sorghum and peas.

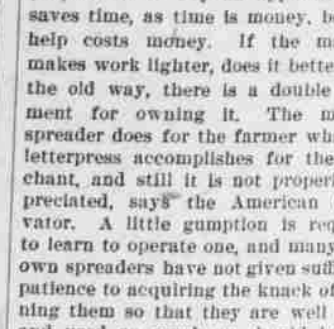
Now, the silo is the means for saving every pound of this vast amount of feed in the best manner.

Farm and Garden

A MACHINE THAT SAVES.

Manure Spreader Is a Conservator of the Farmer's Time and Money.

Any machine that saves time is welcomed in a commercial house or bank. Any business man will listen to a proposition to buy an appliance that saves time, as time is money, because help costs money. If the machine makes work lighter, does it better than the old way, there is a double argument for owning it. The manure spreader does for the farmer what the letterpress accomplishes for the merchant, and still it is not properly appreciated, says the American Cultivator. A little gunpoint is required to learn to operate one, and many who own spreaders have not given sufficient patience to acquiring the knack of running them so that they are well liked and used as much as should be the case. Most persons have never considered the saving made by this machine. It will distribute a load of manure, coarse or fine, in three to five minutes. Where are the two men who



LOADING A MANURE SPREADER.

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Hay Fever and Asthma.

Bring discomfort and misery to many people but Foley's Honey and Tar gives ease and comfort to the sufferer. It relieves the congestion in the head and throat and is soothing and healing. None genuine but Foley's Honey and Tar in the yellow package. For sale by Conrad Stafrin.

Old man Grant of the Big Elk country.

has had a magnificent black bear hide on exhibition in Corvallis. It measures more than six feet from tip to tip, and when open measures a like distance across. The animal had to be shot three times.

Malheur county has begun a systematic improvement of her county roads and from reports the result is very satisfactory.

The county court has invested in some modern road building machinery and finds the investment a good one.

Must be Above Suspicion.

Kidney and bladder ailments are so serious in their consequences, and if unchecked so often fatal that they remedy offered for their cure must be above suspicion. Foley Kidney Pills contain no harmful drugs, and have successfully stood a long and thorough test. For sale by Conrad Stafrin.

Snow is now all gone on the route to Crater Lake, to its rim.

"Foley Kidney Pills Have Cured Me." The above is a quotation from a letter written by H. M. Winkler, of Evansville, Ind. "I contracted a severe case of kidney trouble. My back ached and I was unable to do any work. I lost all strength and ambition; was bothered with dizzy spells, my head would swim and specks float before my eyes. I took Foley Kidney Pills regularly and am now perfectly well and feel like a new man. Foley Kidney Pills have cured me." For sale by Conrad Stafrin.

Elks will build a \$45,000 temple in The Dalles.

Those Pies of Boyhood.

How delicious were the pies of boyhood. No pies now ever taste so good, what's changed? The pies? No, it's you. You've lost the strong, healthy stomach, the vigorous liver, the active kidneys, the regular bowels of boyhood. Your digestion is poor and you blame the food. What's needed? A complete toning up by Electric Bitters of all organs of digestion—Stomach, Liver, Kidneys, Bowels—Try them. They'll restore your boyhood appetite and appreciation of food and fairly saturate your body with new health, strength and vigor. 50c at all druggists.

Legal blanks for sale at this office.

A Frightful Wreck.

of train automobile or buggy may cause cuts, bruises, abrasions, sprains or wounds that demand Buckle's Arnica Salve—earth's greatest healer. Quick relief and prompt cure results. For burns, boils, sores of all kinds, scalds, chapped hands and lips, sore eyes or corns, its supreme. Surest cure. 25c at all druggists.

Legal blanks for sale at this office.

Work 24 Hours A Day.

The busiest little things ever made are Dr. King's New Life Pills. Every pill is a sugar-coated globe of health. They change weakness into strength, languor into energy, brain-fog into mental power, curing Constipation, Headache, Chills, Dyspepsia, Malaria, 25c at all druggists.

Legal blanks for sale at this office.

Beware of Ointments for Catarrh that Contain Mercury.

as mercury will surely destroy the sense of smell and completely derange the whole system when entering it through the mucous surfaces. Such articles should never be used except on prescriptions from reputable physicians, as the damage they will do is ten fold to the good you can possibly derive from them. Hall's Catarrh Cure, manufactured by F. J. Cheney & Co., Toledo, O., contains no mercury, and is taken internally, acting directly upon the blood and mucous surfaces of the system. In buying Hall's Catarrh Cure be sure you get the genuine. It is taken internally and made in Toledo, Ohio, by F. J. Cheney & Co. Testimonials from Sold by druggists. Price, 75c per bottle.

Take Hall's Family Pills for constipation.

KILL THE COUGH AND CURE THE LUNGS.

WITH Dr. King's New Discovery.

FOR COUGHS, COLDS AND ALL THROAT AND LUNG TROUBLES. GUARANTEED SATISFACTORY OR MONEY REFUNDED.

A Golden Wedding.

means that man and wife have lived to a good old age and consequently have kept healthy. The best way to keep healthy is to see that your liver does its duty 24 hours out of 24. The only way to do this is to keep Ballard's Liver and Kidney Pills in the house and take them whenever your liver gets inactive. 25c per bottle. For sale by Conrad Stafrin.

Ballard's Snow Liniment Cures It.

Mr. C. H. P. Corneille, Turner, Ore. writes—My wife has discovered that Ballard's Snow Liniment cures "Poison Oak Poisoning," a very painful skin disease. She not only cured a case of it on herself, but on two of her friends who were poisoned by the same tree. Price 25c and \$1.00. For sale by Conrad Stafrin.

Boogie river valley's surplus fruit crop will certainly be more than 1000 carloads.

Medford Mail-Tribune: A thousand cars of fancy apples and pears from the Rogue River valley this year—or half the output of all Oregon apples and nine-tenths the output of pears.

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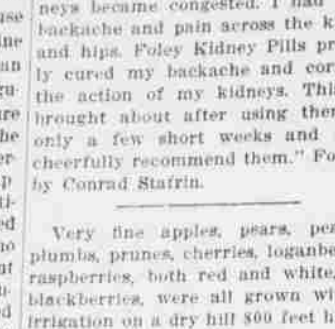
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