AGRICULTURAL

Good Wagon Jack.

A correspondent of the Ohio Farmer thinks that the trouble with many wagon-jacks is that they are inclined to tip toward the end of the lever, if the ground is a little soft or uneven. Another fault is that it takes the greater part of a man's weight to raise a heavy wagon because the lever is made too short. In this wagon-jack the lever is made long. It projects a foot beyond the bolt, which is the fulcrum, at I. The advantage of this is that the lever does not have to be raised or lowered at I, for the front and hind axle. The base, E, comes well out beyond the end of the lever, A, so there is no tipping over the end of lever. With this wagon-jack one can

WAGON-JACK.

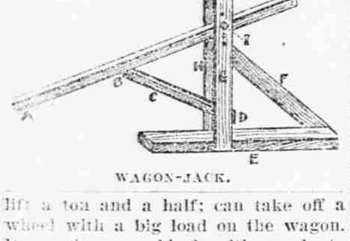
lift a ton and a half; can take off a wheel with a big load on the wagon. It requires no blacksmith work to make it. The only iron about it is a bolt at I, a bolt at D, and a strap-hinge at B. The rest is all wood.

When to Spray.

The first spraying should be done early in the spring before the buds open, and it must be done thoroughly. The second should be done after the trees are through blossoming, while the third may come in to twenty days later. The fourth spraying is due about three weeks later. A tree is sufficiently sprayed when the drops of the mixture are seen hanging from the branches and leaves. Many orchard trees besides spraying need a thorough scraping, as in the case of the elm trees. Then the brush and other waste matter, including all dead leaves and rubbish, must be removed from the grounds and burned. Do not leave it near the trees or in the roadway, for the eggs deposited therein will hatch in the spring. If there are dead trees or badly diseased ones here and there in the orchard cut them down and burn them. —M. Goldman.

Serves a Double Purpose.

The cut shows a hotbed that is built against the south side of the poultry house, serving all through the winter as a sunny scratching place for the fowls. These are shut out at the approach of spring and the hotbed start-



HOTBED AS A POULTRY RUN.

ed. About the time the plants are started the fowls will be getting out upon the ground, while all through the deep snows of winter they will have an exceedingly sunny space to run. Make the hotbed large enough to give sufficient scratching space. The room can well be utilized with early plants in the spring.—American Agriculturist.

The Bite of a Hog.

There is great danger of blood poisoning if a hog bits the flesh. There is no poison in the hog's teeth as there is in the fangs of a poisonous snake. It is rather the poison which comes from the saliva, as the hog is a very indiscriminate feeder and not at all cleanly. When a hog is made angry the amount of this saliva is greatly increased, and the danger is greater. Even a slight contusion from a hog's tooth should be promptly washed out with some antiseptic. Dilute carbolic acid, one part of the acid to 2,000 of water, is good and always a reliable antiseptic. Some should always be kept where it can be handily procured, to put on cuts or outside injuries received on any part of the body. It will greatly hasten their healing.

Early Weeds.

There are many different kinds of weeds and some of them start off early in the spring, almost before the frost leaves the ground. It is the early weeds that give the farmer the most trouble. If the land was plowed last fall cross plow it the coming spring, and then harrow or cultivate it as often as can be done until time to put in the seed. Every time the land is cultivated more weeds will germinate to be killed, and the more weeds that can be destroyed before the regular crop starts the fewer there will be to combat later on.

Making Clay Land Pay.

A rundown farm of any kind of soil is hard to reclaim, but if the soil be heavy it probably has much unused fertility, that only requires thorough working to develop. Almost all clay soils have a surplus of water, and they must be underdrained before any success can be made of them. It is a good plan, after laying a tile drain, to fill up half the depth of the ditch above it with loose stone. Through this the water will run into the tile, and each year, for at least ten or fifteen years, the area of drained soil on either side will be extended.

The Hull of Oats.

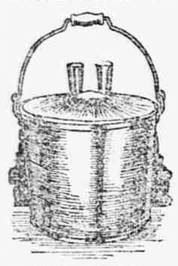
All who have fed oats know that there is the greatest difference in their feeding qualities. It is largely dependent on the character of the hull. It has been thought that black hulled oats had not only a greater amount of hull, but that it was also coarser and rougher than white hulled oats. But there are some comparatively new varieties with white hulls that are as coarse and rough as barley hulls. Most new kinds of oats originate in cold or at least cool climates. If they are also moist, as Ireland and Scotland are, the hulls will be large but not rough. The roughest hulled oats have their origin in Norway, Sweden and Russia.

Incubators for Early Chicks.

However resolutely a breeder may resolve to do without incubators, he cannot very well dispense with them if he wants the very earliest-hatched chicks. Any one who has tried to get a hen to sit steadily early in spring for sufficient time to hatch out the chicks will know that it is impossible. The broodiest hen after two or three days on the nest will probably leave the eggs and go to laying again. Yet it is necessary to have the chicks hatched early, so that they begin laying next fall before the cold weather comes, in which case most of them, if well fed and given a warm, light room, will continue to lay through the winter.

To Keep Milk Clean.

Wishing to keep my milk as clean as possible, says a Hoard's Dairyman correspondent, I got the tinner to make a cover for the pail, which I have found answers the purpose very well. The cover fits the pail closely, so as not to be easily jarred off, has a slightly convex upper surface and has two tubes about an inch and a half in diameter and three or four inches high extending upward. The tubes are placed about two inches and a half apart and about the same distance from the edge of the cover. The milkman holds the pail between his knees, with tubes of the cover on the opposite side from him, and milks with each hand directly into the tubes.



PAIL COVER.

Sunflowers.

In 1842 a Russian farmer named Bokareff conceived the idea of extracting oil from the seed of the sunflower. His neighbor told him it was a visionary idea and that he would have his labor for his pains. He persevered, however, and from that humble beginning the industry has expanded to enormous proportions. To-day more than 7,000,000 acres of land in Russia are devoted to the cultivation of the sunflower. Two kinds are grown, one with small seeds, which are crushed for oil, and the other with larger seeds, that are consumed by the poorer people in enormous quantities.—Farm, Field and Fireside.

Too Good to Be a Farmer.

The cause of the scarcity of agricultural students goes about as far back as total depravity. The trouble does not begin in the college, but in the kindergarten. Almost as soon as the boy goes into school he finds a schoolma'am who tells him he is too good a fellow to be a farmer. If he is bright he must go to college and be a minister. So he goes to a classical college, and in just about sixty cases out of 100 turns out a nonentity. It is to be feared that some of the teachers in the agricultural colleges exert the same influence as the schoolma'am alluded to.—Orange Judd Farmer.

Smallest Tree.

The smallest tree in the world is the Greenland birch. Its height is less than three inches, yet it covers a radius of two or three feet.

Sheep Shearing.

Cull out the poor rams.

Keep a good dip near at hand.

Arrange to sell your feeders early.

Have salt constantly before the sheep.

Be thoroughly posted on the market before shipping.

Culls which are not fat should not be shipped to market.

Don't feed corn but twice a day. Too much is worse than too little.

Be certain that there are not ticks or lice on the sheep.

Be sure that the water supply for the flock is out of reach of the frost, and is pure.

There should be a thorough inspection of the feet of every member of the flock, and the proper trimming should be done.

Care should be taken that sheep shipped to market are as even in size and weight as possible. Prices are better on even lots.

AGRICULTURAL NEWS

THINGS PERTAINING TO THE FARM AND HOME.

How a Big Tree May Be Felled in Any Direction—Keeping Cribbed Corn Clean—Digestibility of Corn and Cob Meal—Brief Farm Notes.

The chopper approaches the tree with a plumb-line; if the top does not lean more than two feet in the case of a large tree, or more than four feet in the case of a small one, he considers that he can fall it in any direction he may desire. He then views the ground, says William Adams in the Engineering Magazine, and selects the most promising "layout," and the undercut is made exactly facing it. The "undercut" usually extends about one-third through, and then the tree is sawed in from the back to meet it. When the two cuts are within six inches of meeting the saw is removed, and the tree is wedged up until the top passes the center of gravity, when it falls by its own weight, easily breaking the strip of wood remaining.

Where the surface of the ground is such that it is necessary for the butt and the top to strike the ground simultaneously, the stump is snubbed off at the undercut, which provides a slanting surface, so that the butt has no place to rest, and perforce slides to the ground. If the tree needs to be rolled off to one side, half the undercut is slanted, and a pile of chips is placed on the flat surface of the other half; the result never fails to manifest the efficacy of this device. Again, by leaving one side of the uncut wood between the undercut and the saw-cut thicker than the other, the tree may be drawn considerably away from its natural course.

To Keep Cribbed Corn Clean.

When Indian corn is stored in cribs for any length of time vermin will penetrate into it. There are several reasons why this is so. Many cribs are built too low on the ground. Rats and mice will quickly burrow into the soft, dry dirt beneath such a crib. Once there it is almost impossible to get rid of them. The spaces between the boards or rails of a corn crib are generally too wide. A space of about two inches will admit a great deal of dirt; besides, it is a wide open door for mice.

All cribs should be built at least six inches above the ground. It would be better if there was a space of a foot or more between the floor and the ground. This space should be tightly boarded up. No vermin could gain a permanent foothold beneath a crib thus built. The sleepers on which the floor rests should have smooth, even surfaces. The boards of the floor should be laid together as closely as possible. By doing this the farmer will help to rid himself of the grain worms and grain weevils which exist in large numbers beneath an imperfectly made floor. Instead of using six-inch boards on the sides of his crib, with spaces of two inches between them, the farmer who wishes to keep his corn free of mice and dirt should use four-inch boards, with one-half inch spaces between. If he builds rail cribs, some of the rails should be hewn at the ends. Closely woven wire netting or slats would be excellent to prevent the gnawing of the boards, besides preserving their usefulness.—Orange Judd Farmer.

Corn and Cob Meal.

A comparison of the constituent substances and their digestibility of corn meal and corn and cob meal will make the matter perhaps plain. Corn meal contains about 13½ per cent. of water, 1½ per cent. of ash, 3½ per cent. of fat, 9½ per cent of protein and 70 per cent. of starch, etc. Corn cobs contain about 10½ per cent. of water, 1½ per cent. of ash, 2½ per cent. of protein, one-half of 1 per cent. of fat, and 55 per cent. of starch, etc. It will be noticed that the corn meal contains nearly four times as much protein as the cob meal, and seven times as much fat. Of indigestible crude fiber the corn meal contains but 2 per cent., while the corn cob meal contains 30 per cent. It will be noticed, therefore, that there is nearly one-third of the cob meal that is indigestible, but it contains a fair proportion of digestible matter, however. The corn and cobs are ground together because greater digestibility is thus secured to both substances, while the mechanical action of the cob meal is considered an advantage.

Production of Eggs.

In winter the egg markets in the cities are never supplied with fresh eggs. Even in summer, when the prices are sometimes low, the cost of keeping the fowls is greatly decreased; in fact, on the farm the cost is barely noticeable, and the egg production steadily increases. It is a great mistake to select the best pullets and send them to market in the fall and early winter, and reserve the culls and old hens, and from them expect the egg supply during the winter. These fowls, if confined for a few days in a fattening coop, can be made ready for market, and then farmers can retain the true egg producers at home. Of course it is expected that every one will be humane enough to prepare warm and dry quarters for their poultry, besides see that they have a proper allowance of food and always a supply of fresh water, for in winter all domesticated members of the barn yard are forced to depend on man for proper care. Our farmers may not only supply our own markets, but provide eggs for export. It is said that the egg supply from our three largest egg-producing States is not sufficient to supply the New York market alone. If this be true, consider how small the egg production of this country really is. We should depend on ourselves, keep this amount of money at home and benefit our country. Poultry raising and the production of eggs pay. Not only should we be dependent on ourselves, but other countries should be dependent upon us.—Farm and Fireside.

Fighting the Gypsy Moth.

As showing how formidable a pest the gypsy moth is to contend with in Massachusetts, it is stated that 2,070 nests were found on a single tree, each of which had between 500 and 600 eggs. This one tree was carrying through the winter a prospective increase of 1,035,000 caterpillars in a single year. Strong colonies, if undisturbed, will kill most deciduous trees in two years, and evergreen trees in one year. They not only destroy the first foliage, but continue their ravages as the trees put forth new foliage, until the last of July. Gen. Lawrence, of Medford, spent in one season more than $3,000 in the effort to protect the trees on his own premises, but failed and was obliged to call on the State employes. It is urged that the battle against this insect is not for the protection of Masachusetts alone, for if the work should be discontinued, and the moth is allowed to increase along the highways and railroads, the inevitable result will be to carry into other States the most dangerous and destructive insect pest ever introduced into this country.—Hartford Times.

Experiments with Lime.

Experiments made with lime at the Rhode Island station show that lime gives wonderful results on clover and grass, even if it has been well treated with fertilizers. Beets also respond readily to lime, and the gain is remarkable where lime was used. The experiments were made on plots treated alike in every respect, except that air-slaked lime would be used on one and left out for the other. On one plot the yield of beets was doubled compared with the one unlimed, and on another farm the yield of beets on the limed land was over nine times as much as on the other plot. The experiments demonstrate conclusively that lime will largely increase the yield of a beet crop, and on all clover and grass plots the increase was very marked. In cases where land for oats was limed the results were also good. The use of lime should be more general, in the face of the results obtained, whether the soil is heavy or light, as the cost was but little, comparatively. Food grown on limed land is probably better relished, and if the land receives fertilizers or manure the results are lasting.

Potatoes in Orchard.

The potato crop is probably the most exacting in its requirements of labor at special times of any that the Northern farmer can grow. In cultivating, destroying bugs and harvesting a little delay involves the loss of everything that has heretofore been done. All these operations are going on while labor is needed in cultivating corn. Hence farmers who make a specialty of one crop cannot well grow the other extensively. A large orchard in bearing also interferes with success in growing potatoes. The harvesting and marketing of one is pretty sure to be nearly simultaneous with that of the other. It was the practice of a shrewd farmer who owned a large apple orchard to wait until his apple trees blossomed before deciding whether to plant largely of potatoes or not. He had learned by experience that the two crops greatly interfered with each other, and often made one or the other of them unprofitable.—Hartford Times.

Seedless Fruits.

A good many varieties of fruits have been grown so long from cuttings that they have become seedless. We have now apples and pears that are almost seedless, specimens frequently being found that are altogether so, and seedless grapes and oranges are not at all uncommon. The banana has no seeds, or at best only rudimentary ones, and the pineapple is a seedless fruit. All this must have taken long years of selection, whether it was done intelligently or by chance, and all seedless fruits are valued because they are usually of superior sorts.

A story is going the rounds that a melon grower has discovered a method of producing seedless melons. This is to cover the joints of the vines until roots start from them, and then cut them off at the roots, leaving the secondary roots to support the vine. This sounds quite nice, and the only trouble with it is that it isn't true. If we could produce seedless melons in this way it would be a valuable discovery, but having been tried it was found that the melons had the usual number of seeds, as usual in the sweetest part of the melon.—Farmers' Voice.

Keeping Apples.

The proper temperature for keeping apples is as nearly 35 degrees Fahrenheit as it is possible to keep it, and in order to maintain this it will often be necessary in this climate to provide a separate place for storing the fruit, as the average cellar under the dwelling house is wholly unfit for this purpose. If the cellar consist of several compartments so that one can be shut off completely from the others and the temperature in this kept below 40 degrees, it will answer the purpose very well. If this cannot be done, a cheap storage house may be built in connection with the ice house, by building a room underneath, having it surrounded with ice on the sides and overhead, with facilities for drainage underneath, keeping the air dry by means of chloride of calcium placed on the floor in an open water-tight vessel, such as a large milk crock or pan. In this way the temperature may be kept very near the freezing point the year round, and apples may be kept almost indefinitely.—Farm Journal.

Man claims to be lord of all creation, but when a savage bulldog chases him he fails to act the part.

GOOD ROADS

Crude Oil on Country Roads.

Major M. Meigs, a civil engineer of Keokuk, Iowa, made a short address at the session of the Missouri Good Roads Association, which in the opinion of many was the most interesting part of the day's work. He opened a new field of investigation, and proposed experiments in securing good roads along a line practically unknown outside of a few localities in the East. It is his opinion that the use of crude oil may prove a panacea for bad roads in localities where road material is hard to obtain.

He said his attention was first directed to using oil on the highways by reading a newspaper clipping from a Pennsylvania town. It seems that a leaky oil pipe near the town in question was responsible for the discovery. This pipe was near a place in the road that was invariably impassable during the season of spring and fall rains. When the leak occurred in the pipe the ground became saturated to some extent with oil, and very soon it was noticed that the mud dried up and the surface of the earth became hard and remained so. It appears that so notorious was this piece of bad road that the effect of the oil on it became a matter of so much comment that presently the experiment was repeated in other localities, and with the same effect.

Major Meigs said that he sent a letter to the officials of the Standard Oil Company and asked them to furnish him some crude oil for experimental purposes. They forwarded a tank containing 130 barrels, with their compliments and wishes for success. Some eight barrels of this oil have been used on a notoriously muddy road near Keokuk with most satisfactory results.

Major Meigs said that it was no trouble anywhere to keep dry roads in good condition at minimum expense. Oil will prevent the earth from becoming wet by forming a waterproof crust. So far as he has carried on experiments, a barrel of crude oil is sufficient for a strip of road 100 feet long and 12 feet wide. The cost of the oil at the wells is about 90 cents a barrel. No other material, he said, is so cheap, and no other will prove so effective. In conclusion, he said that he would send oil free to all wishing to make experiments if they would pay the freight.—St. Louis Republic.

Evils in Roadmaking.

A very common evil in roadmaking is the use of bad materials. Nothing is more common than to scrape a fine, rich, mucky top soil into a high ridge, called a "turnpike," and on which wagons are expected to travel. The material thus scraped into a deep mellow bed would be very fine for the growth of corn, potatoes or white turnips, but it makes the most intolerable roads. When the rains soften it the wheels cut into it to a depth of one or two feet, according to circumstances, and if the horses are able to get through it safely with an empty wagon at the rate of one mile an hour it is not infrequently quite as much as they can easily perform.

Road Repairing.

Road Inspector Thomas Malley, of Morris County, New Jersey, says that "the scheme of pouring screenings on a road to repair it is very expensive and utterly worthless. The first hard rain carries away the screenings or they grind up and are blown away in the first dry spell. Experience shows that until a road needs three-quarter inch stone it needs nothing. With this size stone as a basis, a little binder and screenings, all well rolled, will make the road as good as new."

Comic Pictures in Old Egypt.

A German savant, Emile Brugsch Bey, in Zeit. Aegypt., describes a comic papyrus, unique of its kind. The artist painted burlesque scenes in which cats and rats conduct themselves in a human fashion, and the manners of cats are attributed to rats, and inversely. In the first scene, a rat, attired as a grand dame, is served by a cat that is clothed as a slave and is presenting a mirror to the mistress. In the next scene a rat has the traits of a young Egyptian dandy, and an obsequious cat, having shaved him, places on his head a huge peruke. In the third sketch, a cat cradles in her arms a young rat in the manner of a nurse. Mr. Brugsch thinks the artist lived in the period of the twenty-second dynasty.

Shaving a Pursued Bandit.

"I shaved Jesse James, the once noted outlaw, down in southern Kentucky a long time ago," said an old gray-haired fellow on the train the other day, "when the man's life wasn't worth a penny. Jesse rushed into my little country place, down in the Red River country, one day in the later part of December and asked me if I wouldn't shave him while he looked after his Colt's revolvers and watched the door. I was not a barber by trade, but those persuaders Jesse had induced me to try my hand with a new Wade & Butcher razor I took out of my showcase. As I shaved, the man of iron nerve sat with a cocked pistol in each hand and told me in a few hurried words that a posse was pursuing him bent on capturing him, dead or alive, on the charge of robbing a bank at Russellville, a crime, he averred, of which he was not guilty. He wanted his beard shaved off that he might fool his pursuers if they should happen to catch up with him. I finished the job of scraping. The much-wanted individual thanked me, and, mounting a horse which had been hitched in the rear of my store, bade me good-evening and rode away. I didn't know for certain who my visitor was, although I suspected it, until the next day, when I heard that a man in the neighborhood was telling that he had seen the elder James the afternoon before. I suppose that was the last shave Jesse James got in Kentucky, and I have never seen him since."—Louisville Post.

FOR A GIRL.

Odd Features of a Boudoir for "Sweet Sixteen."

A charming room fitted up recently by a clever mother for her 16-year-old daughter has several odd features. One of these is an alcove where a big bath-tub, a regiment of sponges, crash towels and brushes are drawn up in battle array. In one corner is a gymnastic apparatus and on the floor stand a pair of Indian clubs. This is the "health corner." In a narrow gold frame, hung near the dainty dressing table, are the following "Rules for Beauty" in fancifully illuminated text:

"Beauty is only skin deep. Don't use patent creams and washes.

"Never sleep on a high pillow unless you admire a double chin.

"Breathe from the diaphragm, inhale deeply, keep the mouth closed and hold the chest well up, if you would secure a high chest, broad shoulders and a slim waist.

"Walk from the hips, and bear in mind that the American woman's greatest sins are a wobbling walk and a shrill voice.

"Beauty does not come in a day.

"The secret of beauty is good blood, excellent digestion and a clear conscience."

These wise and quaint precepts were laid down by the family physician, who knows a good deal about the soda-water-loving and caramel-eating age of 16. —New York Commercial Advertiser.

Where Missing Laundry Goes To.

"Dishonest household servants cause the laundries no end of trouble," remarked an employe of a down-town concern. "It's a common thing for them to annex a few shirts or collars, and now and then a stray handkerchief from the supply of their employer, and when the shortage is discovered it is generally charged to the laundry. Lots of times we know perfectly well that the things claimed were never sent in, but pay for them rather than have a row and lose a good customer. A lady of this city lost several fine lace handkerchiefs about a year ago, and insisted that they were sent to the shop but never returned. She was perfectly sincere, and the bill was paid. Last week the handkerchiefs turned up. They were sent in with a bundle of things from another part of the town, and when we came to trace them we found they had passed through four different hands. The original thief was a mulatto maid servant who had disappeared. On another ocasion a gentleman lost several collars, and was very angry. He said he was continually losing articles that way, and brought his negro porter along to prove that they had been sent in. The manager was about to hand over the value of the linen when he happened to notice that the darky was wearing a very handsome collar, and told him to take it off. He protested vigorously, but it was secured, and proved to be one of the lot. The rest were found in his trunk.

Music Hath Charms.

A couple of sailors, returned from a long voyage, strolled into the bar parlor of a public house near the docks.

Above the rumble of the traffic in the street could be heard at intervals a harsh, unmusical voice.

After listening intently for a moment one of the sailors turned to his companion and said:

"Eh, Jack, lad; it's a long time since we heard that song."

"What song?"

"The one that fellow's singing in the street—'The Light of Other Days.'"

"Stow it!" ejaculated the other gruffly. "That fellow ain't singing 'The Light of Other Days' at all, man. I've been listening to him. He's a-piping 'The Banks of Allan Water.'"

Each sailor was certain he was right, and, with characteristic contempt for money, a wager was made—a month's wages depended on the result.

"Here, Tommy!" called out one of the men to the little son of the landlord, "run out and get to know what that fellow's singing."

Tommy departed on his errand, which did not take many minutes.

"Well," demanded Jack when the youngster returned, "which of us is right?"

"Naythur," replied Tommy, grinning. "The feller's not singing. He's hawking fly-papers!"—Answers.

Potatoes Betray Nationality.

One of the easiest ways to tell the nationality of the persons living in any locality is to go into a grocery store. It's not necessary to look at the name of the grocer. A glance at the potatoes in stock will be sufficient.

If the grocer is supplied with potatoes of the largest size, any one of which is a meal, it is certain that he deals exclusively with Irishmen. They like their Murphies large. If the potatoes are small their consumers are Frenchmen. They think a big potato is indelicate and does not look well. Germans insist on having their potatoes of medium size. They can't stand them either too large or small. Americans and English don't care what size they are, as long as they are good.

The Voice of Caution.

"She's pretty enough to bite."

"Yes, but there's lead poisoning in all those face preparations."—Cleveland Plain Dealer.

Professional wrestlers are speculators for a fall.