

rose work, mouldings, etc. This sort of wood, without pores, sap, fibers, and knots, is capable of being worked with the saw, the gouge, the rasp, and the lathe. It can be polished, if need be, though this operation is reserved for the thick black varnish that is applied to it in several coats, with an intervening stay of a night in a very hot, air-heated, drying room. When it comes from the latter the varnish is very hard, and is free from blisters and cracks. It is possible that many of the objects that are offered to us as being finished with Japan or Chinese lacquer are merely impregnated and covered with a mixture of gum copal, bitumen, tar, resin, and other hydrocarbons impregnated with lamp-black and color in certain proportions. The baking is the important point. When this operation has been too greatly prolonged, the varnish scales off and cracks; and when it has not been carried to a sufficient extent, the surface remains sticky. It is not necessary, then, to exceed a certain temperature always higher than 100°. This moulded and pressed paper can be easily turned in the lathe, and made into light and indestructible balls and beads or be fashioned into inkstands, caskets and cylinders.



Reward.

If farmers, who have discovered ingenious methods in connection with their work which would be of use to their fellow farmers, will write us and describe the same, furnishing a sketch when practicable, we will reward them by publishing them over their names, with an illustration when possible; and further, when we consider the plans or ideas advanced have special merit we will remit them amounts varying from 75c to \$5.00, in proportion to our estimate of their value to our readers.

It is claimed that if a screw persists in becoming loose, and it is taken out and soaked in salty grease it will rust and won't come out of the wood again. Try it.

You should have plenty of time these winter evenings to sit down and write us something you know, which would be beneficial to your brother farmers. Let us hear from you.

THE *Rural New Yorker* says that experiments made by Prof. E. M. Shelton, of the Kansas Experiment Station, give evidence that grazing wheat either in the fall or spring, does not lessen the crop of grain, while the product of straw seems to be increased.

HERE is something worth experimenting upon. The *American Agriculturist* says if a teaspoonful of clean wood ashes is given every third day to horses in their feed they will very rarely need "condition powders." The same amount given to cattle will have good results. Cattle and swine are frequently seen licking ashes where rubbish has been burned. The ashes given to hogs may be mixed with their salt. Ashes correct acidity of the stomach, and destroy some intestinal worms. Wood ashes are a valuable fertilizer for all crops, but especially for orchard crops. They contain all the mineral elements required by plants. The fine condition and peculiar proportion of their ingredients make their real agricultural value greater than the value computed from chemical analysis. Coal ashes are comparatively worthless, but wood ashes should never be thrown away.

A GREAT deal has been written about ensilage, and as there are still many farmers who doubt its efficacy, we shall be glad to publish the opinions of those who have fed their stock with it. Experiments made at the Wisconsin Experiment Station drew forth the following conclusions:—Ensilage vs. corn fodder for milk production: 1. The milk produced during the ensilage period was poorer in composition as regards total solids and casein, while the percentage of fat in the milk was smaller

in one case and larger in the other than was that produced in the corn fodder period. 2. The quantity of milk given decreased during the ensilage period. 3. Considering the quantities of milk solids, milk fat, and casein produced by one pound of digestible matter in the ensilage ration and in the corn fodder ration, we find practically no difference in the nutritive effect of the two rations, only that the ensilage ration produced a somewhat thinner milk. Water in the fodder is not the same as water out of the fodder. There is a difference, but as yet we are left in the dark as to the cause of the difference."

Live Stock.

ONLY healthy cows produce good milk. They must never be heated, or in any way misused or unduly excited.

Put the colt you are breaking by the side of a fast-walking horse; it will give it a good start toward becoming a fast walker.

In providing shelter and stalls for horses allow five feet in width per animal where they are tied up, and three and a half feet for cattle.

A PROMINENT dairy authority states that if one will draw from a cow in a close stable some milk into a saucer, leave it there exposed to the odor for a short time, and then attempt to drink it, he will discover what a foul-smelling fluid it has become.

HERE is the Arab test of a good horse, which every farmer can apply. It is simply to observe your horse when he is drinking out of a brook. If, in bringing down his head, he remains square without bending his limbs, he possesses sterling qualities, and all parts of his body are built symmetrically.

At this season of the year animals need warm stables, dry platforms, and plenty of food and drink. If good profits are expected stock should be well looked after, both in feeding and in other respects. Cows made comfortable will winter on a much poorer ration and come out in spring in much better condition than those fed highly but not cared for properly.

THAT pumpkin seeds are injurious to stock is known to many who do not suspect the reason. They are strongly diuretic, and cause such flow of urine that the animal is weakened. They make fowls grow light and stop the production of eggs whenever hens eat them freely. Fed to cows the pumpkin with its seeds does not do half the good it will if the seeds are removed. — *American Cultivator*.

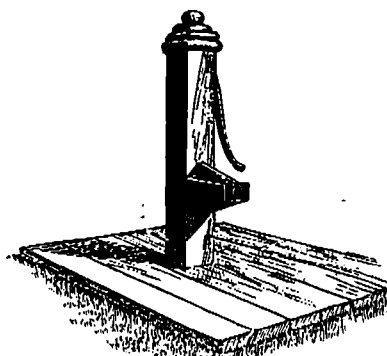
THE question comes to the stock-raiser, how shall I lessen the cost of producing calves? One way is to feed new milk almost wholly at the start. Give it to the young animal fresh from the cow, but never let it suck. Feed it well when young, at three or four weeks lessen the quantity, and at two months gradually wean it. In the summer season the calf will do well if weaned at less than two months' old. In winter, skim milk, after two months, will help calves a great deal. They develop naturally and easily, learn to take care of themselves, growing fairly well. The green feed does most good to an animal when it is three or four years old. — *American Agriculturist*.

BREEDERS of fine cattle and every stock feeder should know something of the relation of plant to animal life, both being dependent on each other. Want of knowledge of the principles of the science of stock-breeding, even when superabundance of feed is at our disposal, often results in a serious loss and waste of valuable material. To successfully prepare a show herd, in order to be in a condition so as to appear to the best advantage, requires not a little knowledge in the science of feeding live stock. The herdsmen and stock raiser who follows the stereotyped custom of feeding all

from and by the same composition of rations will fall miserably short in results, not only in the average appearance but in the thriftiness and ultimate results of a profitably prolific herd. — *Live Stock Indicator*.

THE *Breeder's Gazette* says the "common cow" is abused simply because she is a "scrub," which fails to pay a reasonable interest on the investment in herself, and her keep. If the common cow can give as good an account of herself at the pail and butter tub as the grades of the improved dairy breeds, which are within the reach of even the commonest farmer, no one has words of abuse for her. It is because she cannot do this that relentless war is waged upon her. It is because she has times without number, been demonstrated a comparatively—oft-times an absolutely—profitless machine for the performance of the duties demanded of her that she is told to "go." It is because a cow can now be produced at a cost but little enhanced that on the same keep will far surpass her in the out-put of valuable products that she has "got to go." If the common cow was fed, cared for, and culled as those cattle are which such writers delight to call "fancy," in something less than half a century she would cease to be a "scrub."

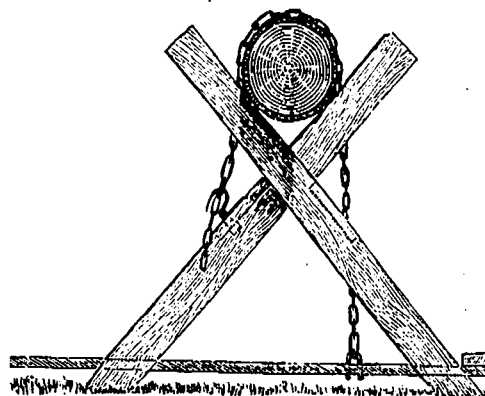
A Trough Under a Pump Spout.



CONVENIENT TROUGH.

WHEN the pump stops, the water will drip for some time from the spout; and when the person is in a hurry, he at once removes the vessel he has been filling, and allows the dripping water to fall near the pump. The consequence is a slippery platform and muddy ground all around. But this can be avoided by a trough under the spout, like that shown in the illustration. It does not interfere with filling the pail and will catch all the water that drips. It is connected with the well by a box reaching through the platform or it may connect with the pump box. — *American Agriculturist*.

An Improvement on the Saw-Buck.



J. S. Mallory, of Fairfield Co., Conn., sends us a scheme for simplifying the use of the saw-buck. The illustration represents an improvement on the saw-buck which is found very useful in sawing wood for the stove. Instead of the sawyer holding the stick down by placing his knees upon it, he passes a chain over it, attached to a pedal upon which he places his foot, thus holding the stick firmly in place. One end of the chain is fastened into a hook screwed into the brace, so that the chain can be adjusted for any sized stick. — *American Agriculturist*.