

lady has recommended two or three others to come to us for fresh eggs, so that all of the customers that we supply, personally, have come to us instead of our having to go in search of them.

"We know for a fact that there is a great and constantly growing demand for strictly fresh eggs, but the demand is from individual families, and not stores or hotels. These individual families buy 'store' eggs because they can get no better, and if we wanted to extend our family trade we would do it by solicitation, or 'drumming' as it is sometimes called, just as almost every trade is gotten. The will to get the trade is the important thing. The old proverb tells us that 'where there is a will there is a way.'"

"The time to begin to establish such a trade is in the fall of the year, when eggs are scarce, and once it is started it will go on of its own momentum."

We would suggest that a trade of this sort once established would be more liable to continue and grow if the eggs are not permitted to become fertilized.

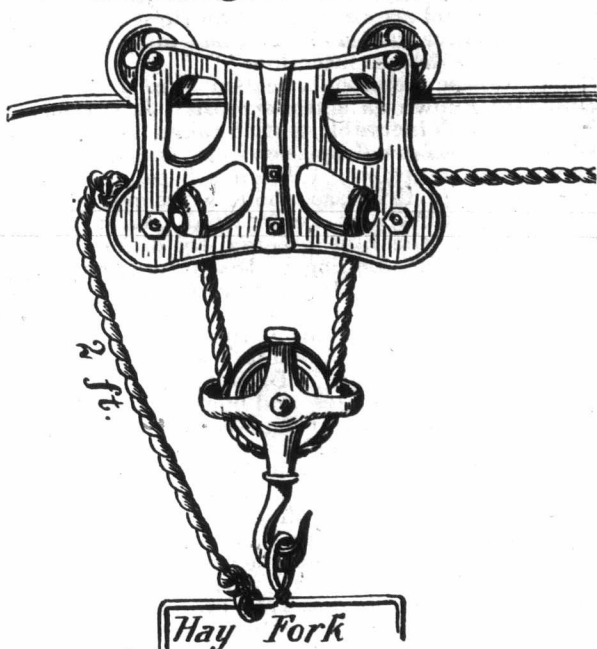
#### Corn Meal for Young Turkeys.

In ADVOCATE of June 1st I see J. J. Lenton says corn meal mixed would kill young turkeys. I send my method of feeding corn meal. I take two quarts of sour milk, one level tablespoonful of soda, same of salt; stir in corn meal same as for johnnycake, bake till done; when cold soak hard crusts in cold water till soft and see there is no hard pieces to choke them. At present I am using half second grade flour, half corn meal as above. Have 46 young turkeys doing well. I also feed hard-boiled eggs on rainy days when they cannot get out to pick. Boil eggs fifteen or twenty minutes. My son took the FARMER'S ADVOCATE three months on trial and it pleases me so well I enclose \$1 for a year's subscription. MR. CLOSK.

Huron Co., Ont.

#### THE HELPING HAND.

##### Increasing Horse Fork Power.



E. H. HOPKINS, Victoria Co., Ont.:—I have been using a hayfork since they were first introduced, and know that they are one of the greatest labor-saving machines on the farm. I found out that it required two horses, which were not always as handy as one, to lift a forkful from the wagon. I tried many different ways to overcome the difficulty and at last found out a very simple one. My first object was to get more power, which I obtained by bringing the stationary end of rope at car down to the fork, as per cut, which gives one-third more power, but in no place on the fork could I fasten the rope so that the movable pulley at the fork would be sure to enter the car properly; but by tying a knot, large enough not to run over the pulley at car, on the rope, about two feet from the end which is attached to the fork, you will get one-third more power just when you want it, when it is leaving the load and until it is about to enter the car; the knot then stops the end of rope which is attached to the fork and it enters the car as it ordinarily does. By this simple plan of tying a knot on the rope you get one-third more power and the fork leaves the load slower, which allows it to get a large forkful not liable to fall off. You can also use a rope that is worn so as not to be serviceable in the old way, but of course it will have to be longer the distance from the car to the fork on the wagon, but for a new one a smaller rope will do, so that it will not take any more pounds.

"Do not put off until to-morrow what can be done to-day," was considered the best of advice by the boy who said to his mother: "Then let us eat that pie you are saving for to-morrow." Another example of its soundness is in not dividing a colony of Italian bees one day, when it is known it should be done, and they take French leave the next day. On such occasions they do not generally stop to inspect the various kinds of shrubbery in the lawn near their old home. Our bee editor will tell you how to divide colonies.

#### APIARY.

##### No 6.—Increase, Restocking, Queen Rearing.

BY A. E. HOSHAL, LINCOLN CO., ONT.

A common mistake with young beekeepers is that of attempting a too rapid increase of their colonies. Hand in hand with this often goes another mistake, namely, that of attempting to work their apiary and make it pay without a complete outfit for each colony. Beekeeping cannot be made to pay without such an outfit, and this will cost from seven to nine dollars per colony, an amount twice if not three times as great as what is generally supposed. When starting into beekeeping never invest more in it than you are willing to lose, and having done this, never think of increasing your stock unless you have actually realized from it sufficient to pay for the complete outfit and other expenses in connection with your increase. If this is strictly adhered to the beginner will not, even in the best of seasons, be able to more than double his colonies. Taking one year with another, especially when working for comb honey, the increase obtained through the swarming will be found to be all if not more than he can afford to keep.

There is as much difference in the honey gathering qualities of bees as there is in the milking qualities of cows. In apiaries where careful selection and breeding have not been attended to, it will be found that with the same management some colonies are producing twice and three times as much as others. As early in the season as possible, and not later than the first week in July, every colony that is not giving satisfactory results should be noted and all such stock done away with through requeening from the best colonies before the close of the honey flow in July.

Queen rearing is a branch of apiculture by itself, and to explain it thoroughly so as to be understood would require a small volume. However, the following is possibly as simple and practical a way of raising queens as any for the beginner as well as many others.

At the beginning of the honey flow in June select for queen rearing one or more colonies, according as required, of the best bees in the apiary and work these for comb honey. As a result of being worked in this way they will almost always swarm. Six days after any such have swarmed, if its hive be opened and the brood nest examined it will be found to contain from eight to fifteen or twenty finely developed queen cells all ready for use and which will hatch in from one to five days. Now, carefully remove any of these cells which are sealed by cutting out a little bit of the comb to which they are built, being careful not to cut or bruise them, and at once proceed to give them to those colonies which you wish requeened and which must have had their queens removed one to three days previous to this. After removing one of the combs from the center of a hive which you wish to requeen, cut a hole in the center of it of such size and shape as to fit the bit of comb to which your queen cell is attached, and insert it into it in such a manner that the queen cell will be in a natural position, pointing downward, like what it was where built. In due time this cell will hatch and the young queen mate and commence laying. If in three to four weeks you open this hive and find that it contains brood you know that all is well and that your colony has been requeened, even though you may not see the queen.

In carrying out the above it is necessary to carefully observe the following: (1) Should a colony into which you are inserting a queen cell contain capped queen cells of its own these must all be destroyed, as some of these may hatch before the cell which is being inserted does. (2) Never use a queen cell before it is capped. (3) A queen cell which has ever so small a hole in it will be destroyed by the bees. (4) Rough handling, chilling, or much exposure to the hot sun, will kill the inmate of a queen cell.

##### How to Avoid Bee Stings.

There is no doubt at all but a great many more people would keep bees were it not for the fear of being stung. We grant such a fear is quite excusable in some people, who, when they receive a sting, swell up tremendously and become very sick. This, happily, is not the rule. Most of people with a little precaution and understanding of the bees need not forego the pleasure of so healthful a luxury as honey from their own hives.

It is generally believed that bees will sting some people more than others. This is only true in so far as the bees notice a difference in behavior in different persons. Quick motions under almost any circumstances are quite liable to arouse the bees and cause them to sting, but under ordinary circumstances, if one's motions are regulated to their whims, he will get along with few or perhaps no stings.

It will soon be recognized that bees are crosser on cool days after a rain or a day following a sudden stoppage of honey flow than usual. At such times one ought to have the smoker ready to give them a good volume before and during a disturbance of their colony. It is well to blow a little smoke into the entrance, then pry up the top and send a stream of smoke into the crack, then remove the cover and puff in a little more smoke between the racks. If the bees show a quick, nervous movement, standing up high on their legs, bobbing their bodies quickly one way and then the other, a few

more light whiffs will readily subdue them. When the racks are to be examined they can be pried apart with a screwdriver with one hand, while the smoker is held in the other. Upon any indication of fight a little smoke will drive them down, when the first frame can be cautiously but deliberately removed. The movements from now on should be deliberate but watchful. To one who is accustomed to handle bees, there is a certain indescribable action on their part that shows when they are ready to sting. A little smoke at the right time takes the fight all out of them.

It may be asked, Are the veil and gloves not necessary when the smoker is wisely used? These can be dispensed with, but it does not pay. When a bee stings an odor arises which arouses other bees to fighting action, and when a sting is prevented by the protection of veil and gloves, a decided advantage has been gained. When, however, a sting is received, it is well to walk away at once until the odor has passed away. An application of liquid ammonia, baking soda or some other strong alkali will do much if applied immediately after a sting to counteract the formic acid injected by the bee.

#### ENTOMOLOGY.

##### Notes on the San Jose Scale.

To the Editor FARMER'S ADVOCATE:

SIR,—The announcement that the San José scale has appeared in Ontario has created much alarm among fruit growers, and at present our Governments, both Dominion and Provincial, are ascertaining all they can regarding its presence and how best to act against its further distribution. It is not surprising that we should view with alarm the presence of this most serious insect.

A single female that has wintered over may be the progenitor of three thousand millions in a single season. Young trees infested perish in 2 or 3 years. It can feed on a host of plants, including our most valuable sources of fruit, and it is so minute that it can be detected only by a well-trained observer; besides, it usually resembles the bark upon which it is located, and may be upon stem, twig, leaf, and fruit.

It is readily introduced by nursery stock and the fruit from infested trees.

Although first observed in 1893, already it has been found in nineteen of the Eastern United States and four localities in the Province of Ontario. It came from the San José Valley in California, and is claimed to have been distributed by nursery stock from the State of New Jersey, firms in that State having imported it from California in 1896-7, and distributed infested stock in 1899-00; in 1890 Prof. Comstock gave it the name *Aspidiotus perniciosus*. It may be distributed by birds, insects, scions of infested trees, infested trees, fruit, and even wind.

As the insect has but a short life of active movement, only a few hours, or at most a day or two, when it settles down and feeds upon the sap of the infested plant, it consequently can do little itself to aid in its distribution. It must largely depend upon such means as those referred to above.

Its general appearance upon infested twigs is that of a grayish, slightly roughened, scurfy deposit, and sometimes even appears as if ashes had been sprinkled upon the twigs.

The scales of the females are round, with a small nipple in the center, and is one-twelfth to one-twentieth of an inch in diameter. The color varies from a light gray to a darker shade, often much the same as that of the bark. The male scale is quite oblong, with the nipple at one end. In summer infested twigs may show orange colored larva, snowy white young scales, and old brown or blackened scales. Affected fruit, especially pears, may show an encircling band of reddish discoloration around the edge of the female scales. The females nearly fully grown winter beneath the scales, and about June commence to bring forth living young, continuing this for about six weeks, producing in the meantime 100 to 500 insects. The young attach themselves to the plant a few inches from their birthplace, and during their sedentary life absorb the juices of their host. Females become legless, wingless, and without eyes; but the males retain their legs, eyes, and have wings, so that they are comparatively active on reaching maturity. The young mature in about five weeks, and produce young about six.

So far the most efficient remedy is the use of whale oil soap—two pounds in one gallon of water. Apply this in the fall just as the leaves drop off, before the scales harden, and again in spring just before the trees bloom. Some prefer a weaker solution in the fall—1 pound to 1 gallon of water—then just before the buds swell in spring the stronger solution—2 pounds to 1 gallon of water.

As the insects are being continually produced during summer, spraying is of little use unless followed throughout the season; but there is no doubt that every time you spray with kerosene emulsion (9 parts water) or whale-oil soap (1 pound in 4 gallons of water) after the insects are on the move many thousands will be destroyed.

Most reliance is placed upon fall or winter treatment.

At present the following suggestions are worthy of consideration:

1. Regard with suspicion orchards set out within the last six years with trees from infested States, and examine carefully for this scale.