

sustenance. They are not wintered over, except sometimes when there has been a flow of honey late in the fall, or if the colony is queenless, but make their appearance in this locality about at swarming time, though in some places, I am told, six to eight weeks before swarming, and stay about till nectar-gathering ceases. They are reared in drone cells, which are larger than worker cells, and emerge from the cells in about twenty-four days from the time the eggs are laid. As drones consume much honey, their production should be curtailed. F. A. STROSCHIN, Wisconsin.

## POULTRY.

### Danish Egg Circles.

The local branches of the Danish Co-operative Egg Associations are called "Circles."

Members are accepted on application to the officers of the "circle." They pay 13.5 cents each as a fee to the main association, and are under the laws of the "circle."

Members have to deliver all eggs produced by their hens—home consumption, setting eggs, and accidentally-found ones, excepted—in the manner and on the days decided on by the officers of the "circle." This obligation holds good for one calendar year at a time. No eggs older than 7 days may be delivered; no eggs of this rule, as well as the delivery of stale eggs, is punished by a fine of \$1.35, imposed by the directors of the co-operative association (main association), and may be increased to \$2.70. One-half of the fine goes to the main association, and the other half to the "circle" in question. The decision of the main directors—irrespective of that of the "circle" directors or of the egg-collector—cannot be appealed. In case of a suit for the collection of the fine, the party sued will have to pay the costs.

The eggs must be carefully collected every day, and in the hot season, twice a day at least. Artificial eggs only may be used as nest eggs, and the hens must be kept from the nests during the night.

Only clean eggs may be delivered, and they must be kept protected against the sun, rain and frost by the members, as well as by the collector.

The members may only deliver eggs to the "circle" from their own hens; transgression of this rule leads to a fine of 6.75 cents for the first time and 13.5 cents the second time per pound of any such unauthorized deliveries.

The membership list of the "circle" must show the number, the name and position of each member, and the number on the list must be the same as that with which he stamps his eggs. Changes in the list must be reported by the "circle" chairman to the main office. Every member receives—on payment of 5.4 cents—a rubber stamp with ink and pad. The number of the "circle," as well as that of the member, appears on this stamp, and each egg must be stamped plainly and neatly on the big end. The egg collector can only accept eggs which are clean and plainly and neatly stamped. The "circle" directors may temporarily refuse to accept eggs from a member, and a member may be expelled by a majority vote at a general meeting or by the main directors.

The necessary capital for paying cash on delivery of the eggs of the members is provided by a loan, the members of the circle becoming responsible for this loan, which is paid to the egg collector, who has to provide a satisfactory bond.

The eggs are paid for on receipt at "the price set by the circle" directors. Whatever more the eggs may net is only paid to the members after retaining a suitable amount for the working capital according to the views of the "circle" directors.

Notice of withdrawal is given to the "circle" directors, but only so as to take effect at the end of the business year. Withdrawn or expelled members have no claim on surplus reserve fund or other assets of the "circle," and they have to return their stamp without compensation, to the "circle" chairman. The board of directors of the circle consists of an uneven number of members, and they are elected at the general meeting. They take care of the business of the "circle" in the best manner possible, seeing to it that the eggs are delivered to the association in the condition demanded. The "circle" directors appoint and discharge the egg collector and other employees of the "circle," determine their compensation and supervise their work. The pay is generally 27 cents per 100 eggs for collecting.

The general meeting elects annually two auditors, who audit the year's account before the end of January the following year. The regular annual meeting is held in the first part of February, in time for eventual suggestions to the main directors, to be submitted to their chairman before February 20th. The "circle" sends a delegate to the general meeting of the main association. In case of an eventual dissolution of the "circle," any possible surplus—after settling all liabilities—is to be divided among the members in proportion to the eggs delivered by them during the last year.

Formerly, the main office (directors) printed the weekly quotations to be paid by the circles, but now they are mailed every week privately. The delegates from the circles at the annual meeting of the main association elect a "representation" of seven members, four of these, with a chairman from the board of directors, the former being elected for two years at a time, the latter for five years. An executive committee is formed by the chairman, the manager and one member.

Judging by a good deal of experience with patrons of co-operative cheese factories, so-called, and pork-packing establishments in Canada, perhaps the most troublesome snag in the foregoing regulations, which have proved so effective in Denmark, is the one in which the members of the Circles bind themselves to deliver all their eggs. Canadians will need to get over some of their go-as-you-please independence in order to make that rule effective. It is the crux of the situation, if a permanent business on that plan is to be developed. Pending co-operative organization, egg-producers, for their own benefit, should at once begin putting into effect the working regulations of the Circles regarding the gathering and care of eggs.

### Geese and Goose Eggs.

Editor "The Farmer's Advocate":

In your issue of March 31st I noticed an inquiry as to keeping goose eggs, and making a nest, so will give my experience, hoping it will be of benefit to someone. Geese should be mated in the fall, and, if warmly housed, will start laying in March. Care should be taken not to feed too much grain, as they will be too fat, and the result will be weak shells and weak goslings.

For nests, turn a barrel on its side, or a box in a corner, where the stock cannot tramp them, and let the goose hatch where she lays. Leave

the first egg in the nest, and mark it with a pencil, and leave it for a nest-egg—the first egg seldom hatches, anyway—and gather the rest of the eggs as soon as laid, to prevent them from being chilled. Put them in a box or basket in some cut straw or bran in the pantry, or any place where they will not chill, and turn them once a day until they are to be set. I generally set the first clutch of eggs under hens, and, when the goose wants to hatch, shut her up for a few days, and she will lay again; set her the next time. When she has the nest well feathered, she is ready for setting. L. A. L. Lambton Co., Ont.

Editor "The Farmer's Advocate":

In reply to R. C. M.'s inquiry, how to keep goose eggs until the goose sets, I have always had very good luck by putting them in a basket, with a piece of cloth between each to keep them from touching, and turn them over every other day. In regards to the nest, put some straw in the pen, hollow out a shallow hole, and the goose will do the rest. SUBSCRIBER.

## GARDEN & ORCHARD.

### The Spray Outfit.

Lightness, ease of manipulation, and efficiency, are three of the essential points in a spray outfit. Most of the orchards of the Annapolis Valley are too small to render a power sprayer necessary, so the hand-sprayer, with a 40-gallon cask, is the one most in evidence. These are carried around the orchard in all sorts of ways, from being mounted on stone-boats, with one horse dragging them, to large, four-wheeled farm wagons and two horses.

At Belvoir we have developed or evolved a contrivance of which we grow fonder with experience. Some idea may be gained of it from the accompanying illustration. The overseer on the horse's back is not always necessary, but the whole thing is so compact that it can be put "in a nutshell."

Beginning at the horse, we have a wire muzzle over the nose, to keep him from moving about eating grass or ends of limbs. This is better than a check, since it admits of more freedom of movement of the neck. A rug, made of a couple of bran bags ripped open, and sewed together, covers the whole horse and harness. The cart has a drop-axle. This allows the outfit to go under any limb that the horse can get under. Another advantage of the low axle is that, swinging, as it does, below the line of wheel centers, there is less tendency to tip forward or back, there is less strain on the girths, less annoyance to the horse and man on the platform, and is steadier in every way than a high cart with a straight axle. The wheels are 54 inches high, thus going over rough land more easily and steadily than smaller ones, while the 3½-inch tires are good for soft ground.

The cask in this case holds 60 gallons, but a 1,200-pound horse can handle an 80-gallon cask easily enough. Of course, the larger the cask, the less time wasted refilling, and travelling from the house to orchard, etc. The cask is surrounded by a two-foot-wide platform, extending to the wheels. Standing on this platform, the operator is almost four feet from the ground, and he can walk all around the cask, or stand on top of it, if necessary. For trees less than twenty feet in height, I prefer to stand on the ground, since I can walk around the tree, and do a more thorough job than standing on the platform. In any rig I would only use the platform for trees too high to reach from the ground. The guards on the edge of the platform serve the double purpose of steadying the operator while on the platform, and keeping the hose off the wheels while walking around the tree. They also keep the hose from being drawn under the wheels when the team moves head. I have tried all lengths of hose, from 10 to 25 feet, and I consider the most convenient length with such a rig is about 15 feet. This is enough to get around any tree, for you can only spray little more than one-half a tree at one time, on account of wind, and more would be getting under your feet. I consider a wide-spread Y, with two nozzles, sufficient for this size outfit. As the spray leaves the nozzle in the form of an inverted cone, if the nozzles are parallel, or nearly so, the inside spray tends to meet or condense, and lose force, and thus waste, while, if the direction of the nozzles is widely diverse, this waste is not as likely to occur.

Annapolis Co., N. S. R. J. MESSENGER.



A Nova Scotia Spraying Outfit.