

variety of wheat. Some have better crops than others, amongst the farmers, of this wheat—and so with all other varieties. There is no reason to object to it as some writers do. Why, it is not ruinous to any farmer to sow part of his crop of it, and give it a fair trial. The millers brought it in at no profit to assist the farmers in getting it in quantities as early as possible; and the price is not ruinous. We know of fakes coming in our county, and not long ago, selling wheat from \$3.00 to \$5.00 per bush, and the farmers only taking their word for its quality—when this wheat has already been tried and quality known. SHIRK & SNIDER, Waterloo Co., Ont.

Training Young Collies.

BY ROBERT M'EWEN.

It would be far from an easy task to lay down suitable hard and fast rules governing the training of collies; in fact, they are neither necessary nor desirable, but some hints on the subject may lead owners to the exercise of a little reasoning, by which beneficial results may be obtained in the management of all stock, and collies in particular. Instinctively, each species of animal in a greater or lesser degree will exhibit the characteristic traits peculiar to it, or, in other words, will show those qualities which existed in a marked degree in its progenitors, else the recognized laws of breeding are astray. This applies to dogs quite as much as it does to horses, cattle, sheep and pigs, and the natural inference to be drawn is that any person requiring stock of certain qualities would select the produce of those sires and dams possessing them. It is just as reasonable for the farmer to expect assistance from his properly-bred collie as it is for the huntsman from his pointer or setter. The purchaser of a setter pup (except he has the leisure and opportunities of doing the work himself) customarily places it in the hands of a breaker, at an expense of from \$25 to \$50, before he undertakes to shoot over him. What does the farmer do? Too often simply nothing, and expects his *tyke* to do as it is bid without any instruction. A collie in Scotland is not considered thoroughly broken until it has been in training with a shepherd and worked daily for eight months or a year. In this country there are not the same opportunities, but full advantage must be taken of those at hand. A puppy is all the better of being taken when about 3 months old, and the more it is allowed association with the household, the more character and the sharper and brighter will it grow. It is sometimes maintained that a dog should never be brought into the house; that by so doing it is petted and spoiled. Of course, a dog can be (a child often is), but the one no more likely than the other. By its exercise the brain is developed and intelligence is produced, for a time escaping attention, the growth is so gradual, until some marked action is exhibited; and it must not be overlooked that while a collie must be built for a worker, he must also have brains. Instinctively, the collie is most devoted to his master, following him, if allowed (and he should be), into every room of his house, and at meal time he imploringly looks for a crumb from the table, which should not be denied him. Such little attention will inspire confidence and the grateful desire to do something by way of return. In this frame of mind, he is easily taught to be promptly obedient, to come to heel immediately when called, until gradually he becomes a well-trained dog and a most useful adjunct to the farm.

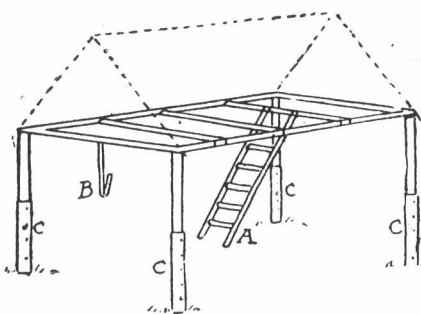
DAIRY.

Another Dilution "Separator."

Among the exhibits of dairy apparatus which we observed at the Toronto Exhibition was what was called "Hunt's Ventilated Cream Separator," which, it was claimed, would take out "all the butter-fat" from milk in from 20 minutes to one hour, without the use of ice, reducing the cost of making butter, making churning easier, and leaving a better quality of skim milk for the calves. The apparatus itself was simply a well-made tin can, with a side glass gauge at the top and bottom to show the depth of cream, and a hollow tube up the center. Half a dozen cans were exhibited, the diameters of which ranged from about a foot to over 20 inches. The ordinary shotgun can used by dairymen is about 8 inches in diameter. What was called the ventilation feature of the Hunt separator was only a hollow tin tube about 2½ inches in diameter, running up from the bottom through the center of the can, open at the bottom, and with a movable cap for the top, the band of which was perforated. We asked the young man in charge of the cans a number of questions about the process for which so much was claimed, and suggested that he should have an actual test of their cream-raising capabilities made at the dairy department of the show. He courteously replied that we could take a can and try it ourselves, and if it did not do what was claimed we could have it for nothing. We accepted his proposition. He picked out a can and gave us a cloth strainer for the milk and told us to dilute the milk with an equal quantity of water, and to put the latter into the can first, straining the milk into it, which directions we carefully followed out that very afternoon. The herdsman in charge of Messrs. W. W. Ogilvie's herd of Ayrshire cows kindly furnished us with milk taken fresh from the

cow for the trial, and Mr. R. W. Stratton, an instructor from the staff of the Ontario Agricultural College Dairy School, who was present doing the testing with the Babcock test in the public exhibition milking trials, consented to test the whole milk and the skim milk after separation for us. The milk (19 lbs.), diluted as directed, was set for us. The hour so as to give the process full justice. The cream began to rise very soon, and its depth was well defined, as seen through the gauge, and what rose seemed to come up in about forty minutes. Being half water, the skim milk looked thin, which might lead one to suppose the separation was good, but appearances are deceitful. Mr. Stratton's test showed that the whole milk was of very good quality, containing 4.7 per cent. of butter-fat, but the skim milk test, after the full hour had expired, showed that no less than 1.2 per cent., or actually about one-fourth of the fat contained in the milk, was not taken out, a very serious loss, and one which no dairy farmer can afford. Good work on the part of any of the standard makes of centrifugal separators will not leave over .1 (one-tenth of one per cent.) of butter-fat in the milk. The claim that the skim milk (half water) from the dilution can was extra good for calves might be partly accounted for by the large quantity of fat left behind. Since the milk is to be diluted with an equal quantity of water, a dairyman would also require double the can space that he would for the ordinary deep setting, and have double the quantity of "half-and-half" skim milk to handle. From an agent's price list we notice that these so-called separators are made in seven sizes, quoted, retail, at from \$5 (for from one to two cows) up to \$10.50, according to capacity, which we look upon as pretty steep prices for tin cans. We did not hold the party in charge of the exhibit to his promise to give us the can, as the weather was too warm to carry it away, and the writer really could not afford to maintain such a costly and wasteful luxury, and would not be heartless enough to give it to anybody else, when they could buy a shotgun can for \$1, and do their own diluting, if they imagined there was any virtue in it.

POULTRY.



ROOSTS FOR POULTRY, WITH LADDER APPROACH.

Margins on Well Fattened Fowls.

In Boston market the highest prices are for what are called fresh-killed fowls. Some of these come to market alive by carloads, and if they are not in demand by the Hebrews and Chinese they are stored and killed and dressed about as the market needs them. Others are gathered up by parties who go with teams among the farms and villages to buy them up and take them home, where some give feed for days or weeks if they think it needed to fatten them for market, and these parties kill and dress their stock according to the demands of the market. The margin between what they pay for live chickens or fowls and that which the consumer pays for his dressed poultry in the market is enough to give a living to the gatherers and to the market-men, but often the gatherers add to it by putting more flesh on them, or on chickens more particularly, before they kill them. Many people sell poultry not much more than half fattened, though they get but small prices.

GARDEN AND ORCHARD.

Market Garden Notes.

Banking up Celery.—Forward celery grows freely; it is less tainted with blight than it is some seasons; it looks strong and vigorous. Care should be taken in earthing and banking up. Banking is often performed in a careless, rude way, but this is not congenial to the delicate stems, which appreciate gentle and patient treatment. Especially the first mould that is gathered to the stems should be placed there tenderly, not rammed into them so as to stifle the heart of the plant. Let the leaves be gathered up and held in one hand whilst the mould is packed up carefully, not too tightly at first. Later on, as the weeks roll by, the celery must be shut in closer till only the tops of the leaves appear above the bank of earth; it is often pushed in gently with a short piece of board. Great care is absolutely necessary, as etiolation or bleaching must be perfect, and the stalks should be perfectly white except about an inch and a half at the top. Provincial celery often comes to market rough and coarse, unfit for table in a raw state, consequently is only available for soup. As a rule, the Middlesex and Essex celery looks most

delicate, consequently commands a higher price. **Drilling.**—Transplantation has recently and often been alluded to in these notes—naturally so, as much of the gardener's time is occupied in setting out during several months out of twelve. But while transplanting is a great duty with the gardener, time and labor may be economized, both of which are important, by a judicious use of the drill. Where farmers in the country turn their attention to garden work they have often unlimited land at their disposal. Then the utilization of a light "economic" drill is invaluable, because the crop can be put in the field exactly where it is intended to stand and mature. Broccoli, coleworts, lettuce may be drilled in with advantage in a dry summer, as the seed is more likely to germinate when quickly laid in a trifle deeper with the coulter of the drill than when sown on the surface, and brushed in with a pair of harrows. Again, when the seedlings are of a size to transplant, there may be a drought, there may be tightness of labor, but these obstacles cause no difficulty if the plants are in the very place where they are to stand. Liberal hoeings are required to loosen and stir the ground, while the use of a horse scarifier, if the width of the rows permit such treatment, is valuable. It is not certain that crops always thrive better after the drill, as sometimes the soil settles down tight around the roots, and the ground becomes solid; whereas, in transplanting, an additional plowing intervenes in the summer, which does much to maintain the land in a tender, loose, porous, fertile, lively condition. When the field settles down, after heavy rain, in a firm, stiff mass, the roots of the plants are bound, hampered and confined—the rain runs off into the furrows and watercourses, instead of soaking into the soil to the benefit and nourishment of the herb.

Thus drilling will not supersede transplanting; but dry seasons and shortness of labor tend to increase the use of the drill, and widen its popularity. Again, drilled crops are more simple to thin and space than broadcast crops. When skilled labor is scarce, this is another inducement to use the drill, which is more and more in request on a garden farm. Twenty-five years ago most of the crops were sown broadcast, but a great change has come over the scene of late. Formerly cereals, mangel, vetches, clover, thousand-headed kale, peas, lucerne, etc., were drilled; to-day we see onions, carrots, coleworts, parsnips, spinach, lettuce, etc., frequently put in by the same implement.

Naturally, seeds of such varied size, weight, substance, character, form, need a great many changes to suit the changing circumstances in the direction of cups, barrels, levers, etc., and scope is given to the ingenuity of manufacturers in this respect. Good drills are now obtainable at various prices, ranging from £5 to £6 up to £30, according to size. Every large gardener should have one of each size, a small machine to drill in 2 acres with a pony, and a larger drill to sow 12 or 13 acres in a day with two light horses.—*Agricultural Gazette (Eng.).*

The Beautiful Tulip.

BY JOHN R. PETTIT, WENTWORTH CO., ONT.

Those who are desirous of having an attractive display of early flowers next spring must make preparation this fall, and the time will soon be here when this work will have to be performed. The majority of farmers do not care to devote a great amount of time to the cultivation of flowers, and those who desire a display of bloom often look to those flowers needing the least care and cultivation. Such flowers are found in the bulbous class, and the hardy spring bulbs are the most satisfactory of all.

Of the so-called hardy bulbs, there is, in all probability, no other that gives the satisfaction as does the tulip. For beautiful forms and dazzling brilliancy of color it is far in advance of all other spring flowers, and nothing can equal its gorgeous appearance in whatever position it may be placed.

There are many classes of tulips, of which a few of the most distinct are: (1) Byblomens, (2) Bizzares, (3) Sweet-scented, (4) Parrot, (5) Darwin, (6) Gesneriana, (7) Single Early, (8) Double Early, (9) Variegated Foliage, (10) Duc Van Thol. These different classes have their characteristics, and there are most beautiful varieties in them all. While this is true, the very finest are to be found in the "Single Early," "Byblomens" and "Bizzare" classes.

Tulips are of very easy culture, and when the bulbs are once secured they will last a lifetime, not only giving regular yearly bloom, but also rapidly increasing annually. They will thrive in any kind of soil, even hard clay. While this is a fact, they will give much more satisfactory results if care is exercised in the selection of their location. They thrive best in a rich, deep sandy soil. This should be well spaded up and made fine before the bulbs are set. They should be planted four inches deep and from four inches to six inches apart, according to size of bulb. The bed should be slightly raised above the surrounding soil, so as to keep water from settling about the bulbs and roots.

Some people lift their bulbs every year. This is a mistake, for besides the annual labor in connection with lifting and re-planting, they will not give as fine flowers or multiply as rapidly. A spot should be chosen so they may remain unmoved for at least three or four years, then be lifted, the clumps divided and then re-planted.

Tulips should be planted in the fall, and as soon after September 1st as possible. While they may