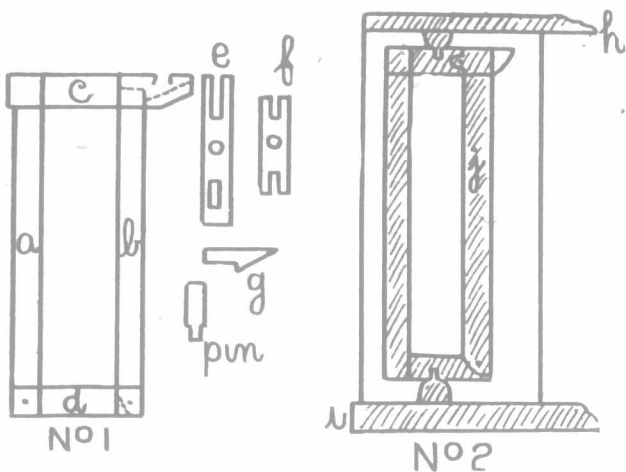


Stanchions.

I noticed in one of your last winter issues an article discussing the question of cow ties. I have tied with chains and stanchions, and have found that while the cows were more comfortable tied with chains, it was more difficult to keep them clean. While visiting a friend in the State of Michigan recently, I saw a



- No. 1.

  - a, 2x4 in. x 4 ft. 6 in.
  - b, 2x4 in. x 4 ft. 6 in.
  - c, 4x4 in. x 20 in.
  - d, 4x4 in. x 14 1/2 in.
  - e, top same as a.
  - f, bottom same as b.
  - g, fastener.
- No. 2

  - h, top piece 2x6 in.
  - i, bottom bed piece 4x4 in.

stanchion that was very comfortable and convenient, a drawing of which I enclose you. It is called the swivel stanchion. The animal can get to lick itself, and in a very comfortable position, and keeps clean. There were sixteen cows tied in this way, and they were very clean, and were making a great record in producing butter. The sixteen cows last year returned to their owner \$1,209 for butter alone, besides what the family of five used during the year. C. H. ROME. Lambton Co., Ont.

DAIRY

Cows and Cows.

Good dairy cows are worth more than they sell for, and poor cows less. The best cows are seldom offered for sale, hence the best and surest way to get good, profitable cows is to breed and raise them. We know what good sires bred from high record dams will do in improving the progeny of even common cows, and they will do still better on good cows.

Prof. A. H. Wheaton, a leading dairy expert, has been working out the cow value problem in definite figures. Basing his calculations on the prices of dairy products, Prof. Wheaton arrives at the conclusion that the values of dairy cows, measured by their buttermaking capacity, are as follows:

Cows that make 300 lbs. of butter, or less, have only beef value.	
Cows that make 325 lbs. butter	\$ 30
Cows that make 375 lbs. butter	40
Cows that make 425 lbs. butter	65
Cows that make 475 lbs. butter	110
Cows that make 550 lbs. butter	200
Cows that make 650 lbs. butter	875
Cows that make 900 lbs. butter	2,000

No one can afford to milk a cow that does not produce more than 300 pounds of butter per year. Whether the figures given are absolutely correct or not, there is certainly much in them that should stimulate dairymen to improve the quality of their cows, which can be done by weeding out the unprofitable ones, retaining the heifer calves, the progeny of sires bred from tested cows, and feeding these heifers moderately well, giving ample exercise at all seasons to avoid a tendency to put on fat rather than develop muscle, and a strong constitution.

When travelling in Europe J. Piermont Morgan likes to be approached by the natives in an easy, offhand manner, and his responsiveness amounts to actual affability. The other day a German took a seat opposite him in a railway carriage, and was much interested in the big, black \$1.00 cigar the financier was smoking. "Vould you mint gifing me one like dat?" he finally said. Although much astonished at the bluntness of the request, Morgan readily complied therewith. The German lighted the cigar, took a few puffs, and, beaming with good nature, said: "I vould nod haf droubled you; but I had a match in mine poggid, and I did nod know vat to do mit him."

The Cow Test at St. Louis.

Following is the record in the dairy-cow demonstration at the World's Fair, St. Louis, for the ten days, July 29th to August 4th, inclusive:

HOLSTEINS, 15 cows.—Total milk produced per cow per day, average of herd, 55.3 lbs.; fat composite test, average, 3.4 per cent.; total butter-fat produced per cow per day, average of herd, 1.88 lbs.; total solids not fat, per cow per day, 4.51 lbs.; total feed consumed, average per cow per day, 94.9 lbs.

JERSEYS, 25 cows.—Total milk per cow per day, average of herd, 43.9 lbs.; fat test, average, 4.5 per cent.; total butter-fat per cow per day, average, 1.98 lbs.; total solids not fat per cow per day, average, 3.86 lbs.; total feed consumed per cow per day, average 48.0 lbs.

SHORTHORNS, 25 cows.—Total milk per cow per day, average of herd, 36.6 lbs.; fat test, average, 3.5 per cent.; total butter-fat per cow per day, average, 1.31 lbs.; total solids not fat per cow per day, average, 3.13 lbs.; total feed consumed per cow per day, average, 44.0 lbs.

BROWN SWISS.—Total milk per cow, average, 45.8 lbs.; fat test, 3.5 per cent.; total butter-fat average, 1.62 lbs.; total solids not fat, average, 4 lbs.; total feed consumed per cow per day, average, 81.3 lbs.

GARDEN AND ORCHARD.

Strawberry Culture.

Would you kindly give me some information regarding strawberry culture, suitable for this district, Simcoe County, Ont.?

H. E. T.

Answered by H. S. Peart, Ont. Agr. College, Guelph.

The best time to plant strawberries is undoubtedly the spring. Fall planting may, however, be practiced, but for your section I would not recommend it. Fall set plants do not develop sufficiently to guarantee a good crop next year, and the trouble of attending to them for the extra season is very great. The ground



"Comrades."

Ivy daughter of W. E. Cameron, Strathroy, Alberta, N.W.T.

should be thoroughly prepared in the fall, and, if possible, should have been used for a hoed crop the previous year. Manure well with stable manure, which is far superior to any of the commercial fertilizers. In the spring cultivate as soon as the ground is fit, and continue cultivating at least once a week until the first or second week in May, when the ground should receive its final cultivation, and if at all rough should be rolled in order to make the surface smooth. Set the plants in rows four feet apart, the plants from eighteen to twenty-four inches in the row, differing somewhat with the variety.

The most convenient method of planting is: Let one man take a stiff spade, thrust it down about six inches, press from you and then towards you, leaving a cleft. Into this cleft let another man or boy place the plant, with a slapping motion, so as to spread the roots out fan-like; remove the spade, and let both men press the cleft together firmly with the feet. To test if the plant is firmly set, take hold of one leaf and give a little jerk. If the plant pulls out, it was not set firmly, but if the leaf breaks off you have made a good job. In setting, care should be taken not to cover the crowns, as from the crown comes all new growth. The blossoms should all be removed the first season, in order to give the plants a good start.

Strawberries are usually marketed in quart boxes, and these boxes are shipped in crates, usually holding from twenty-four to twenty-seven boxes. Where a good local market can be secured, the most money can be procured by selling direct to the consumer. Where the demand at home is limited, sales may always be made through commission merchants in the larger cities.

Some of the best commercial varieties for your section would be Williams, Warfield, Senator Dunlap, and

Parson's Beauty. Plants of these varieties may be procured from nearly all the growers in the fruit districts, or from nurserymen advertising.

Thick-neck Onions.

Will you kindly tell me the cause of "thick-neck" in onions? I have a patch of two or three varieties, grown on light sandy soil, of fair quality, kept well worked, and fertilized with a mixture of "vegetable" fertilizer, muriate of potash, ashes, and a little salt. They have grown luxuriantly, especially the tops, but now look (though it is, I suppose, full early to judge) as if the larger proportion of them were going to be stiff-neck. Will you please favor me, at earliest moment, by suggesting what course would be best for me to take. I have just rolled the tops down on part of the patch. Ought I to have done this earlier? Or is there any other possible remedy? Can thick-necks be utilized in any way? Any light you can throw on the subject would be greatly appreciated.

F. P. W.

It is generally supposed that the "thick-neck" or "scallion onions" are due to improperly-selected seed; that is, seed taken from late maturing and thick-necked bulbs, although in some cases it is possible that it may be due to the soil being excessively rich in nitrogen. There is, of course, no remedy. The only thing that can be done is to be careful to sow the very best seed obtainable. It is doubtful, however, if it is not now too early to judge the character of the crop, as the onion bulb often forms considerable neck at first, and develops a good-sized bulb later on in the season. The practice of rolling down the tops is of little or no use, as the bulbs must be allowed to mature before the top dies down. The best plan is to thin out the thick-necked onions for immediate use, and allow the others to mature in the ordinary way. It is well to allow most of the tops to die down before the onions are pulled, and then allow them to thoroughly dry before removing tops and storing for winter use.

H. L. HUTT.

Scurfy Bark Louse.

Prof. H. L. Hutt, Ont. Agr. College, Guelph:

1. Enclosed find bark of apple tree just died. Is this San Jose scale, bark-louse, or what?
2. I have a dozen grapevines, different varieties; two years ago one vine began to go back, leaves shrivelled up, almost like peach-curl leaf, fruit was scabbed and bad. Last year vine next to it became similarly affected; this year four of the adjacent vines are bad. Leaves are either yellow or very dark and shrivelled. What is the matter?
3. What are the large spotted beetles that trouble grapevines in the late summer, beetles about 1/2-inch long and 1/4-inch across? J. W. H.
1. The specimens of bark submitted show that the trees are infested with the scurfy bark-louse, which is evidently quite numerous, and will more or less seriously injure the trees, although I would hardly expect it to kill them outright in the way you describe. I think it is quite possible that the trees may have suffered from winter-killing, as many trees have died from that cause this spring, particularly trees which have in any way been exhausted either by ravages of insect enemies or by bearing too heavy crops of fruit. The trees with bark-louse should be thoroughly sprayed with whitewash during the winter. An economical formula for the preparation of this wash is one pound of fresh lime per gallon of water. This should be applied soon after the leaves fall in the autumn, and it is well to make a second application soon after the first has well dried. This loosens all scales, so that they are blown off with the winds, although it does not destroy the eggs under the scale, and for this purpose it may be necessary to repeat the spraying one or two seasons until trees are clean.
2. It is impossible to say definitely just what is ailing your vines, without knowing more of the particulars. It may be that the vines are affected with a disease which seems to be becoming quite serious in some sections, although the cause of it is as yet a mystery. Vines affected usually have a sickly yellow appearance, and the fruit does not properly develop. The vines may linger on for two or three years, then finally die. It acts something like that mysterious disease known as the "Yellows" in the peach, and as yet no remedy has been found for either of them. The best plan is to dig out the affected vines as soon as they show signs of the disease.
3. The large beetle you describe is no doubt the Spotted Pelidnota (Pelidnota punctata), which in the adult stage feeds upon grape foliage. The larva is