

was £252, paid for the splendid Ballindalloch-bred bull, Edric 9110. He was bought by Colonel Smith Grant, of Anchorachan, and goes to the head of his noted herd. Mr. Ralston, for Lord Strathmore, was runner-up, and several of the leading breeders tried to buy him. He is a grand bull and uncommonly well bred. Lord Strathmore succeeded in buying the beautiful cow, Elena of Naughton, at 76 gs., or within 4s. of £80. Her two-year-old daughter, Elena II., made 73 gs., and yearling heifers made as high as 64 gs. and 62 gs. The details of the averages are interesting. Twenty-seven cows made £34 6d.; 6 two-year-old heifers made £42 10s. 6d.; 12 yearling heifers made £32 9s. 3d.; 16 heifer calves made £25 15s. 9d.; 4 bulls made £37 13s. 6d.; and 14 bull calves made £19 13s.

The last sale of this week was held at Blink-bonny, near to Cupar, Fife, when 63 head of black cattle, the property of Mr. R. T. Inglis, were sold by Mr. Fraser at an average of £19 11s. A capital trade was experienced, and considering that the herd is only five years old, this is all the more complimentary to its enterprising owner. Twenty cows drew £23 16s. 8d.; 26 calves drew £15 5s. 9d.; 9 two-year-old heifers made £20 10s. 3d.; 5 yearling heifers made £17 12s. 10d.; 4 bulls made £24 18s. 9d.

Scottish Sheep Sales.—Satisfactory as has been the trade in cattle, the great feature of the week has been the prices paid for Blackface and Shropshire rams from the crack flocks in Scotland. Mr. David Buttar, Corston, Coupar-Angus, was not the pioneer breeder of Shropshires in Scotland, but he has been the most enthusiastic, and his average for rams has increased year by year. This year his average is £4 better per ram than it was in 1895, and he sold 55 rams at £13 11s. 8d. each, the highest price being 51 gs., at which price the second prize shearing at the recent show of the H. & A. Society went to Mr. Naper, Lougherew, Ireland. Mr. Alfred Mansell gave 50 gs. for another, and took him back to Shropshire—a great tribute to the merits of Mr. Buttar's sheep. Mr. Buttar also sold 11 uncatalogued rams, unprepared for sale, at £7 6s. 1d. each, and 40 gimmers at 56s. 10d. apiece. The Blackface sales have eclipsed all previous records. From the famous flocks of Messrs. Archibald, Overshiels, Stow, 60 rams have been sold at an average of £18 12s. 10d., one of them, a two-shear named Laban, which stood champion at the H. & A. show, being bought by Mr. R. Sinclair Scott for £150; and another, a beautiful shearling, never exhibited, by Mr. J. MacAlister Hall, of Killeen, at £105. Mr. Charles Howatson, of Glenbuck, who has a much smaller flock, sold 20 shearling rams at an average price of £31 16s., the highest prices being £120, paid by J. A. Gordon, of Arabella, Ross-shire, for John Knox, the first prize shearling at Edinburgh and the Highland Society, and £95 paid by Mr. Munroe Ferguson, of Novar, M. P., for a fine ram by the H. & A. S. champion of 1894. Another crack flock is that of the Messrs. Cadzow, at Borland, Biggar. They sold 20 at an average of £20 4s. 3d., their highest price being £105, paid by Mr. Peter Fisher, Braes of Ardeonaig, Perthshire, for Kruger, the fourth shearling at Perth. This took place at Lanark. At Edinburgh they sold other 25 rams at an average of £14 8s. 2d., one of them drawing £90. Altogether the week has been very exciting, and its lesson is that for first-class animals almost any price can be obtained, while for medium quality there is next to no demand. "SCOTLAND YET."

Sept. 5th, 1896.

The Rinderpest in South Africa.

That terrible bovine scourge, the rinderpest, bids fair to become a far more serious danger to the Transvaal than was anticipated. From a private letter, we have received information that some 60,000 oxen have already died. There is naturally great alarm amongst the farmers or burghers at this state of affairs, and the Government is doing everything possible to stop the spread of the disease. It is a sorrowful prophecy to make, but little doubt exists now that this terrible bovine epidemic will not cease until there are no more oxen left to fall as its victims. Poverty, misery, and starvation will come in its trail, and more than ever will the farmer realize how much he depends upon his animals. Our correspondent ventures this prophecy: "As sure as the sun shines over this prosperous country, the effects of the rinderpest will leave the farming population poverty-stricken. Within the next few years, what with the protracted seasons of drought and the army of locusts, the district residents will be reduced to a condition which their worst enemies could not wish them." Upon both sides of the border strong patrols of police are posted to enforce in the most stringent manner the conditions of the system of quarantine. The Natal Government decided to fence in the whole of the Transvaal border as a precautionary measure against the disease.

The Breeding of Royal Herald.

To the Editor FARMER'S ADVOCATE:
SIR,—In report of Royal Show of England by "Scotland Yet" he gives dam of Royal Herald (champion bull) as by a Cruickshank bull—King Stephen. I find by report in *English Live Stock Journal*, dam was by King Stephen 46559, bred at Warlaby, sire King David 43117, dam Royal Dame by Royal Hainaby 38041, dam Royal Maiden by Royal Benedict 27348, etc.; all bred at Warlaby. I cannot see where Cruickshank breeding comes in. Perhaps "Scotland Yet" could explain.
A CONSTANT READER.

FARM.

The Root Harvest.

To the Editor FARMER'S ADVOCATE:

SIR,—We commence in time to have the roots all safely housed during October. The carrots and mangels are usually lifted first. These we pull by hand and load directly on the wagons, tops and all, to be taken to the root-cellar or pit, where they are topped as taken from the wagon. The roots are less liable to break when handled in this way and can be piled into the wagon very conveniently, and are just as easy to top at the root-cellar as in the field. When the tops accumulate they are loaded on the empty wagon and taken out on a sod field and scattered there for the stock to eat up as they require them. We usually twist the tops off by hand, though the roots keep just as well when topped by a sharp knife or other implement, so long as the crown is not injured. If roots have to be pitted, we prefer to leave the mangels out, as they are usually the best to be fed in the spring, and they may be covered over completely once the cold weather sets in, not requiring ventilators like turnips.

The turnip crop we top and lift with the hoe. Our plan is to take two rows at a time, cut and draw the tops to the one side and the roots to the other. The roots in the next two rows are then drawn over beside the last two, thus leaving the roots from four drills in the space between the second and third rows. When loading, the wagon is driven between the rows of turnips and loaded from both sides. We use the ordinary manure forks, four or six tined, both for loading and unloading turnips. Many of the turnips in this section are topped with the hoe and then harrowed out with the ordinary spike harrow. When lifted in this way they have all to be loaded by hand.

For hauling a root crop a wagon with low wheels is a great improvement, and saves time and much unnecessary labor. An extra pair of low wheels to put on the front axle and using the ordinary front wheels on the hind axle is all that is required. For an outlay of about ten dollars any farmer can thus have a wagon that will save him much unnecessary labor in nearly all his farm work.

Bruce Co., Ont.

JAS. B. MUIR.

Taking Off the Root Crop.

To the Editor FARMER'S ADVOCATE:

SIR,—The method of harvesting our root crop is of very great importance. In whatever way we accomplish it we necessarily have a considerable amount of labor, and our experience has taught us that the method entailing perhaps the least labor is not after all the most profitable. We have tried a great variety of ways for getting our turnip crop together, generally seeking to shirk a part of the hand work. We have knocked the tops off with the hoe, and then harrowed them out of the ground. By this plan we perhaps have the least amount of hand labor, and under one condition it is not so very objectionable. If the tops are off and there is a good sharp frost sufficient to make the ground quite hard around the roots, then put on the harrows, with a good smart-walking team, very early in the morning, so as to have the roots thoroughly harrowed out before the ground begins to soften. In this way very little earth adheres to the roots, and, consequently, little loss from overheating in pit or roothouse. When harrowed out with the ground around them soft so much earth remains on the roots that we have had serious loss from rotting because of the soil closing up the spaces around the turnips, preventing the free circulation of air.

Some very successful turnip-growers claim complete satisfaction when they put the harrow right on the turnips as they grow, without topping at all, when the ground is frozen as described, and maintain that the stem part of the top remaining on the turnip keeps quite as well as the bulb itself, and is so much addition to the food preserved. With this latter plan we cannot claim any degree of success. To the harrowing of the roots as described there is always the objection of having the bulbs and tops all mixed together while gathering the turnips. To avoid this we have pulled and topped by hand two rows out of every six, dropping the tops only in the space made, then topping with the hoe the four remaining rows, these tops also going into the space made by pulling two rows; then harrow out the four rows not pulled. This way gives room for the wagon to load from both sides without driving over the roots, and the tops and bulbs are completely separated. Then we have topped and pulled them with the hoe, but it is difficult to take the roots from the ground with the hoe without frequently leaving a portion, thus causing too much waste. After trying these and various other methods, we have gone back to the old way of pulling by hand and with knives made for the purpose (a piece of an old scythe properly put in handle answers first-rate) knocking the small roots and top off at two strokes, the turnips dropping to the right and the tops to the left, four rows going into one. By this method we have them convenient for hauling, free of earth, for pitting or housing, and they will go in smaller space than when harrowed out. We have not had any trouble from frosts in pits when covered with a good coating of straw and about six inches of earth. When in a very much exposed place we

sometimes put a light coating of rough manure over all.

We find that carrots keep much better and more wholesome in a pit than in a roothouse.

We harvest our mangels altogether by hand. In pulling, grasp the top, being careful to gather the dead leaves as well as the green, pull them, and by a little jerk the weight of the mangel will separate the top from the root, the roots dropping four rows in one, with the tops separate. A good workman will use both hands, pulling two rows at once, and will get over a lot of ground in a day. A piece of soft calfskin fitted over the thumb and first finger will prevent bruising of the hand by the dead leaves. We generally pull in forenoon and draw to roothouse in the afternoon, always trying to avoid having any pulled remain over night in the field, because a very slight frost injures mangels seriously. When not pulled the tops protect them. But mangels should be gathered and under cover by October 15th, and when handled with ordinary care keep much better in the spring than turnips. We have had them keep perfectly sound in our roothouse for two years. In pits they require double as much covering as turnips. Maple Lodge.
A. W. SMITH.

Harvesting Mangels and Carrots.

To the Editor FARMER'S ADVOCATE:

SIR,—We do not grow roots very extensively in this locality; in fact, no turnips are grown. Perhaps it is because corn and beans are grown so surely and abundantly that we are kept in all the work we can handle.

The mangels mainly grown are the Globe sort, which we pull by hand, twist the tops off, and place in piles. If they are left in piles over night, and the weather looks unfavorable, we cover them with mangel leaves or straw, throwing on a shovel-ful of earth here and there to hold it; but, when possible, we prefer pitting them at once. This is rapidly performed by two men with a team and wagon.

In harvesting our carrots, a team and a plow is used. The horses walk one on each side of the row, and the landside of the plow is run as close to the carrots as possible without bruising them. This throws the earth from them, and it is then an easy matter to pull them and wring or cut the tops off. Four rows are thrown into one windrow, the wagon is driven between, and a windrow is loaded from each side.

They are quickly unloaded by shoveling them into a chute leading into our underground carrot-cellar, in which we have kept them in good condition until the following June.

Kent Co., Ont.

W. A. MCGEACHY.

Harvesting the Turnip Crop.

To the Editor FARMER'S ADVOCATE:

SIR,—We have tried many ways, but the one practiced for a number of years, which we now consider ahead of all others, being very quick and easy on the back, is as follows:—

First we clip the tops off with a hoe ("be sure and have it sharp"), walking between two rows and clipping the tops to the center.

We then take the moldboard off a plow that has fairly long handles and put on a point with a sharp share about fourteen inches wide, made specially for cutting off the roots. With a good walking team a man can in this way plow out four acres a day.

The crop is then practically on top of the ground, and we drive along straddling two rows and throwing in two rows each side of wagon. If a little dirt clings to them knock them together. Haul to the barn with loose box or dump-cart, dropping the roots first on the floor and then throwing them into the cellar. This is a humane way of handling the turnip crop.
J. D. T.
East Middlesex.

Three Stages in Turnip Harvesting.

To the Editor FARMER'S ADVOCATE:

SIR,—There are three stages in the work of taking off a crop of turnips as practiced by the best farmers of this neighborhood.

1st. Plowing up.—An old-fashioned iron plow is the kind preferred. The moldboard is taken off and a point which has a piece welded to the wing to make it cut wider is used. The horses go one on each side of the row to be plowed up; the plow is so held that the root is cut off at the right place; the turnips, if moved at all, are thrown to the right. Two rows are thrown together, or, rather, moved a little towards each other. Five acres can be done in a day. Morning is the best time to plow, as then the dew is brushed off, making it more pleasant for those who take off the tops.

2nd. Topping.—A piece of old scythe, or, better, a knife made for the purpose, is used. Two rows thrown together are taken at once, the turnips put in the space to the right, the tops dropped between the feet. Returning, the two drills on the other side of the row of turnips now begun are also put into it, making four drills in a row. The rows are then a convenient distance apart for hauling. No roots are taken off except they have been missed by the plow. What dirt adheres is shaken off in the hauling. An acre a day is about right for a good man.

3rd. Hauling.—A wagon-box holding 40 bushels, and that can be dumped like a gravel-box, is about right. The wagon is driven between the rows of turnips, they are thrown in from each side by hand,