

GOSSIP.

Pure-bred Shropshire rams, ewes and ewe lambs, also St. Lambert Jerseys, are advertised in this issue for sale, by H. E. Williams, Knowlton, Que.

D. C. Flatt & Son, Millgrove, near Hamilton, Ont., offer for sale twenty Holstein heifers, in calf to their main stock bull, Sir Admiral Ormsby, whose only four daughters tested so far averaged 26½ lbs. butter in seven days, as four-year-olds; also bull calves, by same sire, and four cows with big milk records. Messrs. Flatt announce that they will be at Toronto and London Exhibitions with a bigger and better show of Yorkshire hogs than ever before, which is saying a great deal.

The imported Hackney stallion, Terrington Lucifer [347], whose portrait appears on page 1383 in this issue, is owned by Mount Victoria Stock Farm, Hudson Heights, Quebec, near Vaudreuil Station. G. T. R. and C. P. R. He was sired by the champion, Copper King, and his dam by Goldfinder VI. He won in 1910, first at Sherbrooke, first at Montreal, first and grand championship at Dominion Exhibition, St. John, N. B. In 1911, first and championship at Eastern Ontario Winter Fair, Ottawa, and first and championship at Montreal Horse Show. His foals were unbeaten last fall at leading exhibitions, and he is for sale at a right price. Address, E. Watson, Manager Mt. Victoria Stock Farm, Hudson Heights, Que.

SOME COMING SHOWS.

- Canadian National, Toronto, August 26 to September 11.
- Central Canada Exhibition, at Ottawa, September 8 to 16.
- Quebec Provincial, at Quebec City, August 28 to September 5.
- Western Fair, London, September 8 to 16.
- Nova Scotia Provincial, Halifax, August 30 to September 7.
- Frederickton, N. B., September 16 to 23.
- Chatham, N. B., September 11 to 16.
- P. E. I., Charlottetown, September 19 to 23.
- Victoria Provincial Exhibition, Victoria, B. C., September 26 to October 1.
- Vancouver Exhibition, August 28 to September 4.
- New Westminster, B. C., September 26 to October 1.
- New York State Fair, Syracuse, N. Y., September 11 to 16.
- Canadian National Dairy Show, Montreal, October 2 to 7.
- Ontario Provincial Winter Fair, Guelph, December 11 to 15.

WESTERN FAIR, LONDON, SEPTEMBER 8th TO 16th.

The management of the Western Fair are progressing nicely with the work of preparation for the ever-popular exhibition, which will open this year September 8th. The grounds will be lighted with hydro-electric light, and will be a regular fairground. The machinery in the manufacturers' and implement building will be run by hydro power, and the exhibition of motors and dynamos will be well worth seeing. The butter-making contest will take place daily in the dairy building, where ample seating accommodation has been provided for the public to witness the competition and be comfortable. The demonstration of the care of bees will again be a feature this year, when the Government demonstrator, Mr. Pettit, will give practical illustrations of how to handle and care for bees. This is intensely interesting, and should be seen by all. It will be located near the dairy building. The exhibit of "Old Curiosities" in the main building will again be a feature this year. The exhibit will be in charge of Mr. W. Smith, and any persons having anything of interest should communicate with him at 1076 Dundas street, or the Secretary of the Exhibition. Everything loaned will be properly cared for and returned. Prize lists, entry forms, concession privileges, and all information on application to Secretary A. M. Hunt, at the general offices.

SALE DATES CLAIMED.

Sept. 7th.—At Union Stock-yards, West Toronto, Thompson Porter, 1520 St. Clair Ave., Toronto; Jerseys.
Oct. 11th.—Combination Sale of Short-horns, at Woodstock, Ont., H. J. Davis and others.
Oct. 17.—Gordon H. Manhard, Manhard, Ont.; Holsteins.
Jan. 2nd, 1912.—Joint sale of Holsteins, Haley Bros., Springford, Ont.; Rettie Bros., Norwich, and T. W. McQueen, Tillsonburg.

TRADE TOPIC.

NIGER WHEAT.—We have received from Wm. Rennie Co., Limited, of Toronto, a copy of their fall wheat price list, which many readers will be interested to secure. Featured in the list we notice the Niger wheat mentioned some weeks ago by a Kent County correspondent as being less affected by Hessian fly than certain other varieties. We do not find this particular merit claimed by the seedsmen, but they do recommend it as an excellent heavy-weighting and rust-proof variety. Other varieties, as Dawson's Golden Chaff and Michigan Amber, are also catalogued.

QUESTIONS AND ANSWERS.

- 1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.
- 2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.
- 3rd.—In Veterinary questions the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.
- 4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

THE HYDRAULIC RAM.

Will you kindly explain, through the "Questions and Answers" column of your valuable paper, the principle and action of an hydraulic ram? Would it be possible to place an hydraulic ram under the ground if it were easily accessible?

W. D.

Ans.—The principle of the hydraulic ram is as follows: A machine is situated at a point below the supply of the water, and the water is carried to the machine through the supply pipes. This pipe must be laid on a slope not steeper than one to five or six. The water from the supply at the start wastes through an opening in the pipe, but almost immediately the rush of water through this opening raises into its seat a valve which closes the opening. This sudden cut-off produces a great pressure through the whole length of the pipe, and through the machine attached. This pressure opens a valve at the bottom of the dome or bell-shaped attachment, which is the principal part of the machine. The water rushes through this valve into the dome, partly filling the latter. When pressure is reduced by the escape of the water, the valve in the waste opening drops out of its seat and allows the water again to waste. The closing of the waste valve and the opening of the dome valve occur alternately in rapid succession, and with each alternation more water is forced in the dome. The discharge pipe passes from the bottom of the domes, and as soon as the water covers the entrance of this pipe the air in the upper part of the dome is imprisoned and becomes compressed more and more with each stroke of the waste valve. The expansion of this compressed air in the dome forces the water up the discharge pipe to a height considerably greater than the original head. The impulsive pressure given to the water by the sudden closing of the waste valve opens the dome valve against a considerable pressure above it, which a steady pressure would not be able to do. The impulsive action is the secret in the working of the hydraulic ram. It will be seen that a considerable proportion of the available water is wasted in the action of the machine. The machine makes use of the energy of the water supplied to raise to a greater height a small part of the water. The dome must contain air, which, by its elasticity, raises the water to the discharge pipe. Anything which removes the air from the dome will stop the machine.

The ram may be placed in a position provided there is proper drainage to carry off the waste water.

FALL CROP FOR GREEN MANURING.

I have a field that was in meadow this season. I plowed it very lightly directly the hay was removed, about July 15th, and have been cultivating at intervals since. I purpose skimming again cross-wise, and have been thinking of sowing a crop to plow down late in the fall as fertilizer. Have been considering buckwheat, rye, or perhaps rape. Is there any crop that would likely produce growth enough if sown August 20th, to be of sufficient value as fertilizer to justify expense, and if so, what kind of crop would you recommend, and how much seed would you sow per acre?

W. H. C.

Ans.—It is doubtful whether you would get a sufficient stand of crop sown as late as this to warrant the expense in connection with it. It would require considerable growth to be of any great service as a green manure, and leguminous crops are also more valuable for this purpose than buckwheat or the cereals. If you decide to sow any one of which you were thinking, it is quite probable that the rye, sown at about two bushels per acre, would give the best results. The growth of the crop depends largely, of course, on the amount of rainfall. Buckwheat is not of great value as a green manure, and the rape would not be likely to make much growth.

RENEWING MEADOW—VARIETIES OF FRUIT-BREAKING BRIDLE.

1. Have a meadow which is pretty well run out. How can I renew it without plowing, and what mixture would catch most easily on top of old sod?
2. What are the best varieties of plums and grapes for a heavy clay land in Kingston district? Give the best method and date for planting.
3. Give a few of the best varieties of winter apples; those that bear soon after planting, and mode for planting.
4. How is the war bridle for controlling vicious horses made?

W. W.

Ans.—1. Unless there is some particular reason to the contrary, we would advise breaking up the meadow this fall or next spring, manuring and planting to corn, roots or potatoes, followed by a grain crop seeded to clover, or whatever mixture you desire. This would be a more satisfactory method of renewing the meadow than to sow seed on it without breaking it up.

2. Some good varieties of plums are Abundance, Burbank, Moyer, Lombard, Bradshaw, Reine Claude, Monarch, Hudson River, Purple Egg. Good varieties of grapes are Concord, Worden, Niagara, Moore's Early, Lindley, Campbell's Early, Agawan, Delaware, Vergennes. The Concord may be a little late in your district.

Plum trees should be planted early in the spring, from 16 to 20 feet apart each way. Grape vines should be transplanted in spring. Set vines about 10 feet apart in continuous rows.

3. A few good varieties of winter apples are Baldwin, Northern Spy, Rhode Island Greening, King. The Wagener is an early bearer, as is also Ben Davis, but the former is a poor tree, and the latter is of poor quality. Fameuse is a good dessert apple, and if you wish a fall variety, there is none better for your district than McIntosh Red. Of course, the Northern Spy is not an early bearer. Some advise planting Tolmans and grafting to Spy. Plant about 40 feet apart each way, as early in spring as possible.

4. We believe the bridle known as the war bridle is a Western bridle. It is a rope bridle. There are various forms of rope bridles for breaking horses, and just which form is known as the war bridle we cannot state. One form of these can be made as follows: Take a ½- or ¾-inch rope about 15 feet long, make a loop in one end, and slip this loop on the horse's lower jaw and bring it over the middle of the neck from the off side, and pass down through the loop on the near side, bring up to lower corner of cheek bone on near side, and hold it there, passing the slack under the upper lip and over the upper jaw from the near side, bring over the neck just behind ears from the off side, and then through the loop held on the near cheek. Don't fasten, but hold the long end in your hand. The severity of this bridle will break most vicious horses.

DETERMINING BUTTER-FAT.

How many pounds butter-fat from 364 pounds cream, at 26-per-cent. test, and 254 pounds cream, at 30-per-cent. test? How do you tell number of pounds of butter-fat?

J. C.

Ans.—Three hundred and sixty-four lbs. of cream, with a 26-per-cent. test, contain 94.64 lbs. of butter-fat; 254 lbs. of cream, 30-per-cent. test, 76.2 lbs. butter-fat. This is simply a matter of simple figuring of percentages. In the first case, it is 26 per cent. of the 364 lbs., and in the second, 30 per cent. of the 254 lbs. A pound of butter-fat is usually reckoned to produce 1½ pounds of butter.

DAHLIAS NOT BLOOMING.

Why are dahlias not coming out in bloom right? They were planted about the middle of April. There were frosts afterwards, but they grew up very rank and looked fine until they began to bloom, and as soon as the blossom would come out it would die away.

E. W. B.

Ans.—There are a great many reports from different places that dahlias are not flowering well this season. The extreme heat and drought that we have had this summer has no doubt had something to do with it, as in some instances where the plants have been slightly shaded, they have flowered very well. I would advise giving the plants sufficient water to keep the soil well moist, and spray them overhead with water every day or two. The surface of the soil should be kept well stirred. This is often better than giving too much water at the roots.

WM. HUNT.

AYRSHIRES AND HOLSTEINS.

I intend starting the breeding of some pure-bred cattle, and have Ayrshires or Holsteins in view.

1. Which of the two breeds would be the better for the cream business, and to raise a few young steers for home beef, considering the cows to be turned off for beef also?

2. Have there ever been tests made of the two as to the profit, according to the amount of feed consumed?

3. Please give main characteristics to look for in Ayrshires.

W. B. C.

Ans.—1. Which will prove the most profitable for the cream business does not depend so much upon the breed as upon the individuality of the animals. Cows of either breed may be selected which will give very satisfactory returns, while each breed also has its unprofitable individuals. If in selecting the animals for your foundation stock you are careful to purchase nothing but animals with good records, it matters comparatively little which breed you choose. As far as raising steers for beef production is concerned, you must remember that the highest type of dairy animal usually is not highly satisfactory as a breeder of calves suitable for the best beef production, but the Ayrshire, being a hardy animal, and not so extreme in dairy type as the Holstein, would likely produce calves more suitable for this purpose than would the Holstein. This is one of the strong points which breeders recognize in the Ayrshire. Some Holstein calves might prove good feeders, but neither breed would prove as satisfactory for this purpose as some of the beef breeds. The Holstein cows would be larger, but otherwise would not likely be so suitable for beef as the Ayrshire.

2. Breed tests can never be relied on as being a representation of the entire breed. They are simply tests of individuals, and it is not possible to get such tests which would be a true representative comparison of the breed as a whole.

3. Select animals showing strong constitution and large capacity for consumption and production, with great spring of rib, straight top and underlines, and, above all, a large, well-developed, capacious, well-balanced udder, not fleshy or flabby, with the teats well placed, and the milk veins long, large and tortuous. Get as much size as possible, combined with good quality. A large percentage of white is in favor with present-day breeders, but the color matters little if the cow has indications of being a producer. The head should be slim, and the face rather long, with well-set, prominent horns. The dairy wedge type should be prominent, with a very fine, sharp shoulder, and plenty of width in the hind quarters.