

oblique direction to the foot. Short upright pasterns are particularly to be avoided, for it is this malformation that to a near certainty produces that great curse, sidebones, and it also retards action. The hind legs should be straight, the hock broad in front and deep behind, the shank flat with well-developed tendons and short to the fetlock; the pastern is as important here as in front, and should be formed the same; and immediately below the hock the measurement should be at least an inch more than below the knee, whatever that may be, according to the size of the animal. The hind toes should stand square with the front ones, neither turning inwards or outwards, though the latter, if not excessive, is the lesser fault of the two. The hocks should go fairly close together when in action. The thighs should be round and full of muscle both inside and out, and well developed down to the hock. The head should be somewhat long, with a broad forehead, an indication of energy and courage; the ears rather long and thin, pointed rather forward; the eyes bright and somewhat prominent; the neck of medium length, rather too short than too long, and too thick than too thin, and moderately arched. The shoulders well let down into the chest and with a moderate slope (it is not necessary to be too oblique as in a hunter), encased with plenty of muscle, which will enable him to lean into the collar; the withers being low, the back will close in nearly level. The girth should be deep and the chest well developed. The back short and level, the loins wide and muscular, the ribs springing from it round, coupled up close to the hips, which should be wide. Carefully avoid short, flat ribs, but rather seek to get deep, round ribs and body; the animal has then what the "yokels" call a good cupboard, which means constitution, a most essential point in a cart-horse. Wide or ragged hips are a great sign of power; the quarters should be long and powerful, full of muscle and deep. The tail may be a trifle drooping: if set on too high, which many think a deal of, it is at the expense of thigh, which is then split up and thus loses muscle and power. The dock should be thick, stiff and strong; it is indicative of power and endurance. The mare should be long, low and lusty; from 15.2 to 16 hands high; short in the leg and measure from point of shoulder to full extent of thigh, longer than she is high, short in her back and long in her sides, and be as deep from withers to elbow as from elbow to ground. A horse thus made will deceive the eye as to its height, and it is points in its favor if it appears smaller and lower than it really is; this is a sure proof of symmetrical form. Hair on the legs is a characteristic of the Shire horse; it should be long and thin, finer on the mare than the stallion, and should grow from the fetlock to above the knee, and the same behind up to the hock. Hair, says Mr. Sexton, is an indication of bone and size, and hair is soon lost in the breed; if the breeder neglects it and uses stallions short of it year after year, he will soon be as short of bone as of hair. As walking is the pace of the cart-horse, it is important he should be a free, fast walker; if also he combines a good trotting action, so much the better.

The custom of overloading a stallion with fat cannot be too severely condemned, such a practice being extremely unfavorable to his procreative powers. A moderate condition, obtained by good food, with regular exercise of from three to five miles a day, according to the heat of the weather, will give far more satisfactory results in his offspring. Fillies that are well-grown and have been well kept, may be bred to the stallion when two years old, they are more likely to breed regularly if put at that age. Mares are usually

bred to the horse on the 9th day after foaling, and tried every three weeks after.

Mr. Robert Burgess, of Wenona, Illinois, the well-known importer of Shire horses, says that the 27th day from foaling is the proper time to breed a mare, and will much more surely get her in foal, and that after service on the 27th day the mare should be tried on the 9th, the 18th, and the 27th day following the service day. Occasionally a mare does not come in season; in such a case she should be twitched and bred to the horse, when she will usually come in season within a few days. The pregnant mare, during her term of gestation, can be kept at ordinary farm work up to the day of foaling, with advantage both to herself and her fetus, but she should not be used in carts. Backing or jerking is very objectionable; care should also be taken that she be kept well sharp shod during the winter. The period of gestation usually runs from 330 to 360 days. The appearance of wax on the teat is the ordinary sign of the approach of parturition. It generally appears a few days beforehand, but sometimes only a few hours. The bones also on each side of the setting on of the tail slacken, and subside considerably. When these symptoms appear it is advisable to place her in a roomy, well littered box, where she will be warm and free from draughts, and at the same time carefully watched.

(To be continued.)

AGRICOLA.

Importation of Galloways,

The first lot of imported cattle through quarantine at Quebec this season consists of 40 Galloways for Mr. McCrae, Guelph, and 2 imported for Harold Sorby, of Gourock, Ont. This shipment left the Clyde in the Allan steamer Carthaginian, 13th August, 1887. They had a good passage and were all landed at quarantine ground, Point Levis, in good order. Owing to their being the first lot this year they were detained longer in quarantine than the regular time and were only released last month, December. Mr. D. W. McCrae's herd consists of 4 yearling bulls, 4 bull calves, 3 three-year-old heifers with calves at foot, 20 two-year-old heifers and 6 yearling heifers. They were selected and shipped by Mr. James Biggar, Grange Farm, Dalbeattie, and are from the herds of Jas. Cunningham, Tarbreoch; R. & I. Shennan, Balig; Earl of Galloway, Garliston; Alex. McCowan, Newtonairs; A. McConchie, Mains of Penninghame; Wm. Tod, Glenree, Arran; S. T. Clark, Howick; Thos. Biggar & Sons, Dalbeattie, and others. The two-year-old heifers are the feature of the lot and are the largest and heaviest at their age that Mr. McCrae has ever imported. The difference is quite marked and shows that of late years the point of size has been receiving marked attention among Scotch breeds. The sires represented in this herd are among the best in Scotland. Crusader (2858), winner of the Champion cup at the Centenary Show of the Highland Society at Edinburgh, 1884, is represented by six animals. A very good likeness of Crusader forms the frontispiece to the second volume of the American Galloway Herd Book. Harden (1151), winner of first prize at Carlisle, Dalbeattie and Alnwick and also at Glasgow Highland Society in 1882; also winner of Champion cup at Alnwick, for best animal in Polled Angus or Aberdeen and Galloway classes, with many other prizes. His portrait by Gourlay Steel, R. S. A., adorns the H. & A. Hall at Edinburgh, and a wood cut copy is in 4th vol. of Scotch Herd Book. Scottish Borderer (669), another very celebrated bull bred at Drumlanrig and for many years at the

head of the Earl of Galloway's herd. He is not only a prize-winner, but has sired a large number of first prize animals. Other sires represented are, Corporal (1838), of the stately family of Balig, Marksman of Drumlanrig (2632), a winner at the H. & A. Show in 1884; Earl Salisbury (1789), and Sir William (1787), both bred by the Duke of Buccleuch at Drumlanrig; Mackintosh 3d (2646), Charmer (3336) and several others. The best animal in the shipment is Countess of Annandale (9486), by Crusader (2858). She is the largest and heaviest of the two year old heifers and has fine moulded form, showing a good deal of her sire's figure.

Mr. Sorby's lot are a pair of young bulls of good form and breeding. Altogether, the shipment will add largely to the credit of the Galloways in Canada.

Stock Raising in Michigan.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—As I have never read anything in your paper from this part of the country, I thought it would not be out of place for me to write you a few lines telling you about farming in Michigan. Our principal grain crop is wheat. Most of our farmers who own one hundred acres of land calculate to have from forty to fifty acres of wheat per year. For the past few years the price has been so low that it scarcely paid the cost of production; still there is nearly as much raised as ever. We also raise a great deal of corn, and it is used mostly for feeding stock, as we grow no roots—that is, turnips and mangolds. We grow a good many oats but very little barley, and no peas at all. Michigan is known as a great stock State; nearly all the different breeds of cattle can be found here, especially the Shorthorns, Herefords, Holsteins and Jerseys, but more of the Shorthorns than all the others combined. The various breeds of sheep are well represented, especially the Shropshire and American Merinos; more of the Merinos than all others combined. The Merino ewes crossed with the Shropshire rams produce a fine mutton sheep, the lambs selling at three dollars per head when six months' old, and when well fattened will bring from five to six dollars per head in February or March. The various breeds of swine can all be found in our State, the Poland China and Chester Whites being the favorites. A cross of those two made an extra good market hog, as the Chesters are somewhat larger than the Poland Chinas, so this cross makes a pig that will mature early, and is of good size.

When writing about stock I must not forget the horse department, as that is one of our main items. The Norman-Percheron, Clydesdale, French Coach, and the trotting or roadster class, are all represented, but more of the trotting class than all others.

I think the LIVE-STOCK JOURNAL is one of the best stock papers published, and the price is low. Wishing you success, I remain,

Marshall, Mich.

An Interesting Letter from Alderman Frankland.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

DEAR SIR,—A busy week previous to yesterday (Sunday), for I was engaged changing two hundred fat hogs for three hundred lean. You will observe, no doubt, a want of forethought or watchfulness amongst our feeders. When sheep became plentiful in England and prices lower, Canada settled down almost at once to the thought that they were no longer wanted, and the numbers at once decreased, so that to-day those farmers who have them are reaping a good harvest. The same may be said of pigs. I have just sold to the Ottawa district a large number of hogs, slaughtered for me by W. Davies & Co., for \$7 per hundred, and I am replacing them by small lean ones at \$5.25, and no doubt cattle (fat) will average \$5 for export, beginning in April.

The last Council meeting for 1887 met last Friday night at seven and closed at two A.M. To-day the new Council meet especially for organizing; that is the reason I have left my bed to write you and a dozen others to whom I owe letters. For I have great responsibilities just now—doing a large business.