

**FLAX MILL AT ST. CATHARINES.**—The Novelty Iron Works, at the East end of the town, have been leased by Mr. Walter Arnold, and will be converted into a flax mill, the necessary change of machinery being now made.

**FLAX COTTON.**—A flax cotton mill is fitted up at East Toledo, Ohio, which is expected to consume 4,000 pounds daily of raw material, and produce 2,000 pounds of cottonized flax. Eastern satinnet manufacturers have agreed to take it all.

**THE CLYDESDALE STALLION "COMET,"** advertised in another column, was imported from Scotland in October last, by his present owner, Mr. Copland. He is of good pedigree, having been got by "Grey Comet" out of a Clydesdale mare by "Sir Charles Napier." Comet distinguished himself before leaving Scotland, as a prize-taker, and his owner has recently learned that out of 40 mares served by him last season, 38 have proved in foal.

In the December number of the proceedings of the Royal Horticultural Society, Eng., is a very interesting article by James Bateman, Esq., of Biddulph Grange, upon the proper treatment of Orchids from cool countries. It would seem that it has required nearly thirty years of failure to teach the simple lesson that an Alpine Orchid, growing naturally among lichens, and never exposed to a temperature higher than 75°, nor lower than 45°, will not thrive when subjected to the intensely-hot regime of East Indian Orchids.

The *Ayrshire Express* gives the details of a trial of considerable interest to old country farmers. Mr. J. Crawford ordered from Stephens & Co., of Glasgow, a ton of South American Guano, for which £7 10s. was charged. A sample of it was analysed and found to be worth only £4 per ton. Mr. Crawford refused to pay the price, and ultimately he and Mr. Stephens entered into an agreement to have the crop tested by other manures. That to which Stephens' guano had been applied proved very deficient, and Mr. Crawford persisted in refusing to pay the price charged. He was sued for the amount, and on the case being fully heard, the Court "found the pursuer liable to no part of the price, and assailed him with expenses."

**MR FARM OF EDGEWOOD.**—A very spicy book, full of country odour, common-sense, and flashes of genius. It is not a farm manual, yet it contains many practical hints that cannot fail to be of service to those actually engaged in agricultural pursuits. Its author, Donald G. Mitchell, better known as Ike Marvel, somewhat of a celebrity in the literary world, took to farming as a business without, it would seem, that tinge of the romantic, which generally spoils retired merchants, professional men, and literati for the prosy details of country life. He tells the story of his "farm experiences," "hinderances and helps," "profits and losses," in a very straightforward, yet genial way, and enlivens the narrative now and then with humorous touches and fancy sketches, such as make it a very agreeable, as well as useful, book.

**MICHIGAN AGRICULTURAL COLLEGE.**—This institution is now in full operation. Buildings costing \$60,000 have been erected, and a farm of 676 acres is attached to them. The State Legislature has endowed the College with a grant of 6,000 acres of unimproved land, worth now \$30,000, and sure to increase in value. By Act of Congress, public lands are granted to each State according to the number of its Senators and Representatives. From this source the College receives 240,000 acres of land, which, at the Government price, \$1.25 per acre, will bring \$300,000. The whole endowment therefore is at least \$330,000, which, at 7 percent, will give an income of \$23,100 per annum. This is a most liberal provision, and augurs well for the future of agricultural education in Michigan. The number of students in attendance during the session which closed in November last was 60. Each student is required to labour three hours a day on the farm or in the gardens. Some compensation is allowed, but daily work is regarded as part of the educational system, and is directed with special reference to illustrating the lectures.

Mr. S. J. Lyman of Montreal, is lecturing in the Eastern Townships on "Rural Taste,"—with a special reference to the preservation and planting of shade and ornamental trees. He proposes the organization of "planting bees," as an easy method of ornamenting streets and public grounds: by no means a bad idea.

**ROOT CROPS IN WHITCHURCH TOWNSHIP LAST SEASON.**—The Secretary of the Whitchurch Agricultural Society has forwarded us a printed schedule embodying the Judges' Report of the root crops in that township for 1863. Details are given of 18 fields of Swede Turnips, 2 of White Turnips, 6 of Carrots, and 2 of Mangolds. The largest crop of Swedes was raised by Mr. W. Story, and gave 1039 bushels per acre. Quantity, four acres; land, clay loam; manured in spring with 10 loads per acre of barnyard dung; ploughed once in the fall and twice in the spring; seed sown June 16, 1 lb. per acre; rows 18 inches apart, plants 11 inches apart; scuffled twice and hoed twice. The second best crop was that of Mr. Charles Brodie: 4½ acres, 968 bushels per acre. The third best crop was that of Mr. W. Swales; 4 acres, 827 bushels per acre. In White Turnips, only two patches of an acre each are reported, 763 and 703 bushels per acre. The best crop of Carrots was raised by Mr. Charles Brodie, 1085 bushels per acre. Quantity one acre,—land clay loam; ploughed twice in the fall and once in the spring; manured in the fall with 10 loads barnyard dung per acre; seed sown May 20, 1 lb. per acre; rows 18 inches apart, and 11 inches in the rows; scuffled twice, and hoed twice. The second best Carrot crop was that of Mr. George Lemons, 827 bushels per acre, soil sandy loam. The two crops of Mangolds were 1217 and 924 bushels per acre.

## Veterinary Department.

THERE is obviously a very intimate connection between Veterinary science and Agriculture. The stock on a farm, whether kept for the profit to be made out of their growth and increase, or for the work they can accomplish, form an important and often an anxious charge. All animals are more or less liable to disease, and as they are incapable of attention to their own wants when disordered, they must depend upon the nursing and care which man is able to bestow upon them. In order to the intelligent treatment of disease, a knowledge of the anatomy and physiology of the animal tribes is necessary, and an acquaintance with the symptoms and modes of curing the various maladies to which they are subject. Much advantage may be expected to accrue from the co-operation of the farmer and the veterinarian. As an example, in illustration, we may refer to the recent outbreak of small-pox amongst the flocks of sheep in several parts of England. On the recommendation of the veterinary profession, the owners of stock in the district affected, combined, and used the proper measures to prevent the spread of this disease, and were successful. In various other contagious diseases, the veterinary profession have been the means, in a great measure, of preventing mischief by checking their prevalence; for instance, glanders in the horse—a disease at one time very common in England, and on the continent of Europe. Horses to the value of thousands of pounds were annually destroyed in consequence of having become affected by this incurable and loathsome disorder. When found to be incurable, the late Mr. Percival, and other eminent veterinary surgeons, were indefatigable in their exertions to find out the exciting causes, and in the majority of cases, traced its origin to impure air and insufficient nourishment, combined with hard labour. Although glanders is a contagious disease, not one case in five occurs from that cause. It is generally brought about by the way already mentioned. Having found out the exciting causes of this terrible affection, they were the means of its prevention by adopting a simple, yet effectual, mode of treatment, viz., by attending to the proper ventilation of stables, allowing a sufficient supply of food, and keeping the animal in a high state of health.

Not only is it the province of the Veterinarian to direct the Agriculturist how to prevent disease arising from mismanagement in his stables, but it is equally his duty to endeavour to prevent diseases being bred with an animal; in other words, to check hereditary tendencies to disease. On this subject we shall have somewhat to say in our next.

## Injury to the Fetlock Joint of a Horse.

On the night of the 29th Oct. last, the writer was called up to attend a horse who had that evening run away and was severely injured. On examination, we found the hind-legs very much bruised, the fetlock joint of the near hind-leg being lacerated, and one of the back tendons severed. After cleaning out the wound with tepid water, we brought the divided edges together by means of the metallic wire suture, and ordered fomentations of hot water to be constantly applied for several hours.

On visiting our patient next morning, we found him much fevered, and also so stiff that he could not move about in his stable. Gave a dose of laxative medicine, emptied the rectum of its contents by an injection of soap and water, and restricted his food to bran mash; also, continued the fomentations. We now determined on placing him in slings, but, from the construction of the stable, this could not be done.

November 3rd, he was so weak as to be unable to stand. Lay down, and remained in the same position for two days. On the 5th, after administering stimulants, he was enabled to get upon his feet again. The wound was now discharging matter freely, and along with it, a mixture of synovia from the sheath of the ruptured tendons. Poultices made of flour and oatmeal were now used for several days, granulations began to spring up, and the discharges somewhat abated. By this time he had in a great measure regained his appetite, and slowly and gradually continued to improve. Nourishing and easily-digested food was given, and the parts daily washed and dressed with astringent lotions. By the third week the granulations were very unhealthy, and caustics and astringents had to be freely applied. The above treatment was continued for several weeks, changing occasionally the application. The tendon became united, and the wound gradually healed over. By the end of December he walked four or five miles, and is now as well as ever.

## Shoeing Horses

W. JONES, a veterinary surgeon of London, gives the following simple rules for shoeing horses:—

"1st. After having taken off the old shoe, shorten the toe, and remove all the dead and loose parts of the hoof. Do not cut the sole or pare the frog, except when the foot has received an injury from a nail, or otherwise, when it must be cut out.

"2nd. Let the shoe be of equal thickness, or rather thinner at the heel. The ground and foot surface should be perfectly level. The shoe should be light on the heel. Too many nails are objectionable, and these should be kept as far as possible from the heels.

"3rd. For the hind feet there is no objection to calkins, though they are of doubtful benefit. Horses travel better without them. The hind shoes are made thicker at the toes than at the quarters, the nails also can be put closer to the heels without causing inconvenience.

"4th. Side clips should be avoided, they destroy the hoof; the same is the case when the nails are too close together. The feet should never be rasped, as it destroys the enamel of the hoofs, renders them brittle, and causes sandcrack, and consequently lameness.

"5th. Expansion is a fatal error which has led to many abuses in shoeing, such as paring off the sole and frog, rasping off the hoof, &c. The elasticity of the foot, which is, however, very limited, exists only in the upper part of the hoof, principally round the coronet. On the lower part and the toe it is nil."

"**LAMPAS**" IN HORSES.—The horizontal bars in the roof of the horse's mouth are undoubtedly intended to aid the animal to retain food in the mouth while it is being masticated. They are abundantly furnished with blood vessels and nerves, and are therefore very sensitive. When colts are teething, the disturbance of the adjacent parts sometimes causes these bars to be inflamed and swollen. Then the animal cannot eat without pain, and uninformed persons have ascribed the apparent falling off of appetite under such circumstances, to a disease named "Lampas." To remedy the supposed ailment, it has been recommended and is still practised in some localities, to burn out the swollen bars with a red hot iron made for the purpose. The operation is an unnecessary and injurious cruelty. The portion of the mouth thus destroyed, can never be replaced, and thus the power of perfect mastication is impaired. The only surgical operation allowable in cases needing assistance, is to lance the inflamed parts, the same as a physician would treat the gums of a child in case of difficult teething. This can easily be done with a sharp pen-