

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

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1. THE FARMER'S ADVOCATE is published on the first and fifteenth of each month. It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners, and stockmen, of any publication in Canada.
2. TERMS OF SUBSCRIPTION—\$1.00 per year in advance; \$1.25 if in arrears; sample copy free. European subscriptions, 6s. 2d., or \$1.30. New subscriptions can commence with any month.
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9. LETTERS intended for publication should be written on one side of the paper only.
10. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve the Advocate, Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
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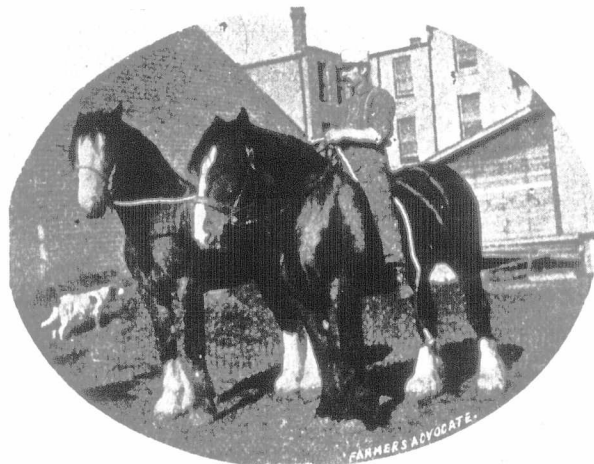
We appeal to the readers of the "Farmer's Advocate" in a matter of mutual concern. At this season of the year time is an important factor, but during the latter part of December, when the rush of renewal subscriptions is on and His Majesty's mails are overtaxed with the carriage of holiday literature and gifts, it becomes still more serious. During the year now nearly gone our first and constant aim has been to render our readers individually and the cause of agriculture in general the very best and most helpful service possible. The way in which the cordial appreciation of our readers has poured in by every mail has made our work a pleasure and has decided us to attempt still larger and better things for 1902, beginning with a magnificent Christmas number (to be issued on December 15th), which goes without any extra cost to all our subscribers. All new subscribers for 1902 are also entitled to a copy until the extra supply being printed is exhausted. We therefore confidently request the co-operation of all our old subscribers to facilitate our work at this busy season by promptly attending: 1st, to renewing. Do that without delay. RENEW NOW. Your subscription will be dated from the present date of expiry, so you cannot lose, and it will aid us and our staff wonderfully. 2nd, Along with your renewal, or by an early subsequent mail, can you not send us in one or more new subscribers, and in that way secure some of the valuable premiums we are offering? You may have some neighbors who would enjoy the reading of the "Farmer's Advocate" regularly, but who heretofore have not been subscribers. You may benefit yourself, them, and us by sending in their subscriptions for 1902.

THE WM. WELD CO., Ltd.,
London, Ont.

More About Horses.

A new feature of the "Farmer's Advocate"—which seemed needful to round out our bill of fare for the farmer and stockman—is the department, "Horses," running for several issues past, and which will be continued and still further improved, like the rest of the paper, in 1902. We are passing through a revival in horse-raising. The "horseless age" faddists have died a natural death, and the people love the horse now better than ever before. No ambitious modern city is now content without its annual horse show. It is gratifying to find that the new illustrated department in which horse subjects are classified and given special discussion has met with a most appreciative reception. Practical suggestions and letters are invited. In this issue a competent authority, "Whip," treats in a rational way the much-neglected subject of the winter feeding and watering of horses, and throughout future issues will deal with other topics of vital moment to every man who breeds, feeds or handles horses. In no other branch of stock-rearing in Canada to-day is there a greater need of an intelligent forward movement than in horse-raising, and we have a conviction that our new department is doing its share in that direction.

Amongst other good things in the address of President Frank H. Whitney, at the annual meeting of the Illinois State Swine Breeders' Association, was the following: "Get all the fancy points you can, but do not sacrifice size and quality to them. A strong back and loin, large heart-girth, and a good set of legs, are more to be desired than an ear that has just the proper proportion and shape, or a tail with the requisite number of white hairs."



CLYDESDALE STALLIONS EXERCISING.
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The Gravenhurst Free Hospital for Consumptives.

To the Editor "Farmer's Advocate":

Sir,—The main building of the Gravenhurst Free Hospital for Consumptives is nearly completed, and only a small amount of money has been received for furnishings. By the rate appeals are coming in, we must increase the number of beds without delay. Certainly this free hospital is the country's most pressing need. Nearly every mail brings distressing requests for help from clergymen, mission workers, and from the consumptive poor. A poor widow wants to be cured for the sake of her little boy; a laborer's wife pleads for her young daughter, her boy and her two-year-old baby; a father with a large family of little children wants to be cured for his family's sake; a mechanic and his wife are today consumptives, and unless help comes soon six children will be orphans and homeless; a young, heroic girl, struggling to earn a living for her mother and herself, is now a consumptive and destitute; a young man giving his life to support an invalid mother and sister finds himself a victim of this terrible scourge. These are only a few of the heart-breaking appeals for help. We are dependent absolutely upon the generosity of benevolent people to provide for these sufferers. We ask the substantial assistance of your readers in this hour of need. Subscriptions, money orders, cheques, etc., for this urgent charity may be sent to The National Trust Company (Limited) Treasurer, 22 King St., East, Toronto; or to the undersigned.

Yours sincerely,

WALTER JAMES BROWN, Secretary,
National Sanitarium Association,
157 Bay St., Toronto.

HORSES.

Feeding and Watering Horses.

Many of the diseases of the digestive organs of the horse are caused by errors in feeding. Comparatively speaking, the horse's stomach is a very small organ, having an average capacity of but from three to three and a half gallons, and as a very important part of the process of digestion—viz., what is called chymification, or the conversion of the food into chyme—takes place here, it is necessary that intelligence be exercised in feeding in order to preserve health and comfort. Chymification is performed by the action of the gastric juice (a secretion of glands in the lining membrane) on the contents of the organ. This juice is slightly acid, and during digestion is secreted in large quantities. It acts upon the nitrogenous and saccharine portions of the food, rendering them fit for absorption, while the starchy matter and fat pass unchanged into the small intestine, to be there acted upon by the secretions of the liver and pancreas. In order that the food may be acted upon in a normal manner by these juices, it requires to remain in the stomach for considerable time, and if anything interferes with digestion either in the stomach or intestines, such as undue excitement, violent exercise soon after a meal, an over-distention of the walls of the organ by an overfeed, the forcing of the undigested material out of the stomach by a large quantity of water being introduced therein, etc., etc., the comfort and health of the animal must suffer.

Horses should be fed at regular hours. Regularity in feeding is more important than is generally thought. All food given should be of good quality. For horses not doing much work, the food need not be of an expensive sort; rough or coarse food answers very well in such cases, but the quality should be good; dusty or musty food of any sort should not be given. The quantity of grain given should be in proportion to the amount of labor the animal is required to perform. The somewhat popular opinion that a horse should be fed a given ration of grain, and that the same whether working or idle, is entirely wrong. The function of food is to supply nourishment to the tissues, and the amount of nourishment depends upon the waste taking place, and it goes without saying that the waste or consumption is less in an idle horse than in one that is working; hence the amount of food, especially grain, should be correspondingly less. Even to idle horses a sufficient quantity of coarse food, as hay, or its equivalent, should be given to prevent hunger. The quantity of hay required in 24 hours is said to be one pound for every hundred pounds of the animal's weight, but experience tells us that we cannot lay down any fixed rule in this matter, but each horse should be given according to his peculiarities. As a rule a horse will take rather more than this with safety. The appetite as well as the digestive powers of horses differ materially, especially in regard to coarse food. The common practice of keeping hay in the manger or rack before a horse all the time cannot be too highly condemned. An animal should not have placed before him at once more food of any kind than he will eat with a relish, say in an hour or at most an hour and a half. After the lapse of this time, unless the horse be taken out, any food remaining should be removed, and then he will have an appetite for his next meal; while if he be left standing with the hay before him, he will keep nibbling at it, tossing it out of the manger with his head, tramping on it, etc., thereby rendering it foul and unfit for himself or any other animal, and he will not have the necessary appetite for his next meal that is essential not only for enjoyment, but in order that he may receive the full benefit of the meal. The stomach requires rest as well as the muscles, and if more or less constant eating takes place, the organ is kept in a correspondingly active state, and hence will not perform its functions in a satisfactory manner. Not only is it better for the animal to receive a limited supply, but there is much less waste. I find that horses that are used for driving or riding purposes do better when fed hay only twice daily, receiving nothing but a grain ration at noon. For horses used for slow work, it is probably wise to feed hay three times daily. The quantity of grain to be given depends, as before stated, upon the amount of work performed. For a horse of 1,200 lbs. or thereabouts, doing ordinary work either on the road or in the field, a gallon of oats at a feed is considered about right; for smaller or larger animals the quantity should be less or more, according to size. I think it will be generally admitted that oats give better results than other grains. When expedient, I also think that better results are obtained from crushed or chopped oats than from whole. Still, other grain, as barley, rye, corn, or even wheat, ground and mixed with the oats in fair proportions, give good results; but oats, where obtainable, should be the basis of the grain ration for working horses. Besides hay and grain, a horse should have at least one feed of bran, either dampened or dry, each week. Some feed

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