THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

PUBLISHED WEEKLY BY THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

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L. THE FARMER'S ADVOCATE AND HOME MAGAZINE

THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday.
 It is impartial and independent of all cliques or parties, handsomely filustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and homemakers, of any publication in Canada.
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12. 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 Farmer's Advocate and Home Magazine," 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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LONDON, CANADA.

each farmer takes care of his own orchard and harvests the crop himself, relying mainly upon his regular farm help. Instead of corporation marketing, we should like to see co-operation; instead of hired managers, individual proprietors; and instead of capitalistic profits, an ampler revenue realized by the owner of the farm. Our experience furnishes reason for believing that extensive corporation control of orchards will not prove an ultimate success. On the other hand, it points to splendid opportunities for profit to the thrifty, enterprising man who will take care of the trees on his own farm. One hundred and thirty-one dollars net annual return per acre from apples easily heats wheat at \$2.00 a bushel, or timothy hay at \$40.00 a ton, and there are not a few orchards in the country where \$130.00 net annual return per acre might be realized, or even exceeded. Take care of the orchard, then, and do not lease it to any company for a nominal rental, especially on a lease which allows the company to back out any season it sees fit, but holds the farmer fast.

College Exhibits.

To make a success of an exhibition demands keen competition in the various classes of live stock which come before the judges, and, to insure the keenest of competition, it is necessary to have a large entry list and the individual classes well filled. There is strength in numbers just as much in the live-stock show as anything else, and yet it is not necessary to bring a large number of or scrub stallions, and all unsound and unsuitable inferior animals to the exhibition to make a strong show. It is large numbers of high-class individuals which add finish to the exhibition, creating and holding the interest of the breeders. feeders and spectators. It is the aim of all progressive stock-show managements to induce more breeders and feeders to compete year after year. One could not but notice, at the recent International, at Chicago, the large number of entries in many of the classes, and another point which

was equally apparent was the extremely highclass quality of the college exhibits in the fat classes, where these exhibits captured a large share of the prize money in competition with individual breeders and feeders. There is not the least doubt but that the College exhibits strengthened the exhibition, and much good was derived from them, but is there not a danger of continuous winnings by colleges, which have practically unlimited capital behind them, discouraging the individual feeder from exhibiting against them? True, if an individual succeeds in winning over these exhibits, the honor is so much the greater, but very often young or new exhibitors need a little encouragement to enter the arena, and they will usually hesitate about going up against such institutions as they believe the colleges to be.

Now, no one could wish to discourage the colleges competing. Far from it. Their stock this year was more than ever a feature of the great exposition. It is an educative feature, and contributes prestige to the colleges from a practical viewpoint. There are at present classes at the International open to college exhibits only, and it is just a question whether it would not be just as interesting and just as instructive to confine these exhibits to these classes, and allow the individual breeders a free hand in the open classes. It would not be wise to debar the colleges from winning championships. Let them compete against the individual for a championship, but allow the individual breeder to win his class. As it is now, the breeder is very often cut out of a first or second that he would otherwise have won, by a college animal. This would increase the interest and put things on a fairer basis.

We in Canada have now several agricultural colleges, and classes confined to stock from these would doubtless prove very interesting at our stock shows, and would be a good advertisement for the colleges. While not approving of their being allowed to compete in open competition with our individual feeders, we believe that they could bring out some stock which would be very useful in an educational way, and help the exhibitors, as well as themselves and the people generally.

HORSES.

County Horse Breeders' Club.

A study of the conditions at present relating to horse-breeding in Wisconsin, leads the celebrated veterinarian and horseman, Dr. A. S. Alexander, who has charge of horse-breeding at the State College of Agriculture, to conclude that the time has arrived when breeders in each county of the State should combine and co-operate. He considers that improvement in horse-breeding methods and achievements could be made more rapid and profitable by organized effort, which would make it possible to properly enforce the State stallion law, press for still more advanced legislation in the way of a rational lien seminate in each county, by means of township horse meetings and otherwise, a better understanding of the correct principles and practice of horsebreeding.

At the suggestion of the Pepartment of Horsebreeding of the College of Agriculture, the Dane County Horse-breeders' Club was organized at the Dane County Fair, Madison, Wisconsin, September 21st, 1911, with a charter membership of forty-one men interested in horse-breeding. objects of such a club may be set forth as follows:

1. To work for the betterment of horse-breeding and co-operation among horse-breeders in the county.

2. To encourage the general use of sound,, individually excellent, pure-bred stallions, sound and suitable brood mares, a correct system of gradingup, and better methods of feeding horses.

3. To encourage the ownership of pure-bred mares and the home production of pure-bred stal-4. To discourage the use of grade and mongrel

stallions. 5. To regulate matters pertaining to service

fees, and facilitate the purchase and sale of breeding animals.

6. To eact the observation and enforcement of the stallion law.

To arrange for the holding of meetings in each township, the distribution of educational literature recarding hore-breeding and managenent, and for the exhibition of representative stock at the county fair and elsewhere.

The organization proposed is simple, the of-

ficers, comprising a president, a vice-president for each township, a secretary-treasurer, and an executive committee consisting of the president, the secretary-treasurer, and three other elected members. Membership would be practically open to anyone interested.

The Aristocratic Horse.

As a means of wholesome outdoor pleasure, the horse is never likely to be displaced either by motors on the earth or in the air. From this point of view, the following from the Rider and Driver confirms the forecast, entitled, "The Future of the Horse," in last week's "Farmer's Ad-

"The fashionable folk of London, Paris, Berlin and other European cities have returned to the use of the horse for social functions, pleasure driving and riding. All the crowned heads and court officials and nobility have adhered to the horse as a mark of distinction from the less discriminating crowd of people, and their example has been followed by persons of aristocratic preferment. does not follow, of course, that these personages have discarded the automobile; both horses and machines are used in the same way that clothing is worn appropriately to occasion-mufti for undress or semi-sporting affairs, full dress for the higher social incidents, and the travelling suit or country tweeds when going a distance or into the country. The horse is the full-dress and pleasure medium, while the automobile serves as an affair of utility. Hyde Park in London, and the Bois in Paris are thronged with horses. The bridle paths of Central Park are overcrowded and inadequate, owing to the enormous popularity of equestrianism. Unfortunately for our driving pleasures, the automobile monopolizes the drives of the Central Park, and keeps the horses away. it not for this, the East Drive Parade, which was one of the great attractions of New York a few years ago, would be again in vogue. We shall hope to see it restored when the people realize that the Park drives are not necessary for automobiles. In a recent interview, published in the New York Herald, Mr. Alexander Gemmell, of Scotland, said: 'The day is not far distant when fashionable New York will again be seen behind a pair of spanking horses, just as fashionable London now prefers to shop in Bond Street and drive in the Park behind a pair of high-steppers, rather than be unrecognized in a motor car, and so follow the fashion set by King George and Queen Mary, who will not allow their guests to attend the royal levees in motor vehicles.

LIVE STOCK.

The Tuberculosis Germ.

From the recently-issued, popular bulletin preparel by the International Commission on Control of Bovine Tuberculosis, we quote these interesting notes about the nature, reproduction and attack of the tuberculosis germ:

THE TUBERCLE BACILLUS.

germ of the disease, the tubercle bacillus. is a tiny, slender, rod shaped body. Several thousands of them placed end to end would be needed to measure an inch, so that they are quite invisible to the naked eye. A powerful microscope is needed to see them.

Once the bacillus has gained lodgment inside the body of an animal, it begins to grow and multiply. It gets longer, and, when full-grown, divides crosswise, making two out of one. Each of these goes through the same process, the two become four, the four eight, the eight sixteen, and so on, indefinitely.

This multiplication takes place quite rapidly when conditions are favorable, a few hours only being required for the birth of each generation. Nature, however, does not permit this process to continue long without offering some resistance. The forces of the body are roused to action, and a battle begins between the tissues of the body and the army of the invaders.

The first line of defence is composed of the white cells of the blood, which hurry to the scene of action and endeavor to destroy the invaders by eating them up. Sometimes they are successful. and the bacilli are destroyed, the infection checked. Often they fail in their object and are themselves destroyed, and the multiplication of the germs continues.

The second line of defence is found by the cells of the tissue invaded by the germs. These cells arrange themselves in a circle around the germs, and try to form a living wall between them and the rest of the body. This barrier gradually becomes thicker and thicker, and forms a little hard lump or tubercle, from which the disease gets its name. If this wall is complete and successfully