Lord Fairfax at the head of his herd for the past four years. Several cows and heifers of like breeding have also been added to his high-class herd.

In giving this somewhat lengthy discussion of the leading herds in the North American continent, an attempt has been made to show the blood lines that have been of great value in the development of the Hereford breed. Lack of space has made it necessary to omit many breeders who have done much towards advancing the case of the white face. It will be noticed that the bulls first mentioned have figured in the pedigree of every noted size to the present day. Standing out above all others of their time were Anxiety 4th and Garfield. These two great bulls with the assistance of Anxiety, 3rd, North Pole Lord Wilton, and The Grove 3rd, have been responsible for practically all of the great sizes which followed. It should be indelibly impressed upon the mind of every beginner that the first step on the road to success is the selection of a bull with the right individuality and breeding. In every instance the achievement of each breeder mentioned can be definitely attributed to the use of one or more outstanding bulls. Perhaps the greatest difficulty confronting the

man who has made his reputation through the use of one prepotent sire is encountered when an attempt is made to secure a successor. The work of the older breeders would indicate that the safest plan is to concentrate the blood of the sire then in service, by retaining his most promising sons from cows of outside breeding, rather than introduce an entirely different blood line.

Production of improved beef cattle is a never ending cycle, beginning with the leading constructive breeders who devote their skill and capital to the improvement of their chosen breed, with a view to supplying herd bulls of superior merit to the constantly increasing number of smaller pure-bred breeders. These smaller breeders in turn supply the growing de-mand for bulls of sufficient excellence to raise the standard of the steady stream of beef steers reaching the many live stock markets. All along the line the one driving ambition is to produce more marketable beef at least possible outlay of time, labor and feed. That this ambition has

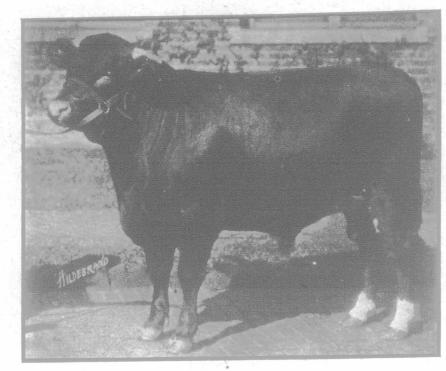
brought results in the Hereford camp during the past few years is evident at every turn. Just ask the old campaigners who are preparing for another battle in the arena; ask that army of young breeders making their first attempt "to get inside the money", or if one is still in doubt, put the same question to the man who judges the final results of all beef production—the man who bases his judgment on what he finds beneath the hide. Yes, rapid progress has been made, but the end is not yet. Herein lies the charm in live stock breeding an ideal closely approached, yet seldom, if ever, fully realized.

Shipping Pure-Bred Stock.

Breeders of pure-bred stock who have been shipping breeding animals to various parts of the country are conversant with rules, regulations and rates regarding the shipment of pedigreed animals. However, judging from the enquiries coming to this office, there are some breeders who are not familiar with shipping regulations. At the bottom of each pedigree is a shipping voucher, on which is a place for the name of the animal, its record number and age, and also room for the signature of the shipper. This slip when presented with and attached to the certificate is authority for the agents of the railway company to way bill at the reduced rates agreed to by the Dominion Department of Agriculture. The voucher is detached from the certificate and for-warded with the way bill. C. M. McRae, of the Live Stock Branch, Ottawa, writes as follows regarding the rates: "Pure-bred animals for breeding purposes are till shipped at half the regular standard tariff rate. This applies only, however, when in less than carload lots. Our experience has been that when more than five animals were put in a car it was cheaper to ship as a straight carload, and at the ordinary carload rate, which is, generally speaking, a ninth-class rate. The half rate does not apply on shipments under \$4.00. The new tariff which came into force last year reads: 'The minimum charge for any shipment will be \$4.00 per car, unless full tariff rate makes a lower charge. Pure-bred stock for breeding purposes can be shipped from Ontario to the West at the Subject's Effects rate; the minimum rate of the car is 24,000 pounds. Ac-cording to tariff 5 A, issued by G. C. Ransome, Secretary of the Freight Association, the rate from Montreal and Ontario points to Winnipeg is 40 cents per 100 pounds; toRegina 491/2 cents; to Saskatoon 501/2 cents; to Calgary 631/2 cents; and to Edmonton 631/2 cents. Certificates of pedigree of each animal must be supplied at time of shipment. Milk cows and heifers for breeding purposes can be shipped at the same rate, minimum weight of car 20,000 pounds, provided the shipper can supply a

veterinary certificate to the effect that the animals are all sound and healthy." From the foregoing it will be seen that every effort is made to make the shipping of pure-bred stock as easy as possible for the shipper, as well as for the purchaser.

Wen as for the purchaser. Even when shipping cattle but a short distance it is advisable to bed the car liberally and also supply the animals with feed. The scheduled time for the trip may be only a few hours, but one never can forecast delays, consequently it is well to make provisions which will tend toward the comfort of the animals in transit. When several animals are being shipped it is advisable to tie them in the car, and the feed may be placed within their reach. Where the animals are to be shipped much over one hundred miles an attendant must accompany them, in order to feed and water. As a rule, shipping is done in a box car, in which there is no ventilation unless the doors are left partly open. Care should be taken that sufficient ventilation be supplied. Only recently we saw a number of high-class animals in a car where this precaution had not been taken and when the door was opened they were all steaming, and some appeared about ready to collapse from the heat and



Rodney. Shorthorn bull selling for \$20,000 at Chicago, U. S. A.

stuffiness of the car. It is very little trouble to nail a slat from the door to the side of the car so as to hold it open far enough to let in fresh air and yet not far enough to allow the animal to get out should it get loose in the car.

It is courtesy on the part of the shipper to make the transfer of certificate of the animal to the new owner at as early a date as possible. Some breeders are delinquent in this matter, and it causes considerable annoyance to the new owner. It does not require any more time or work to fill out the application for transfer within a few days after the shipment of the animal than it does if there is a delay of several weeks. Sometimes the shipper is not altogether to blame for the transfer being slow in coming through, as they are sometimes held up at the Records Office. This is due to no fault of those in charge of the office, as pedigrees coming from all over the Dominion must entail a considerable amount of work and undoubtedly each is dealt with in the order in which it is received.

When registering an animal, or applying for a transfer, care should be taken to fill in all the information asked for, as this will facilitate matters and prevent undue loss of time which is occasioned if the papers have to be returned for fuller information.

THE FARM.

Our Scottish Letter.

This is the second last day of June, and in the east of Scotland farmers are in the middle of hay-making. This is unusually early, and it pretty well means that the crop is none too heavy. In the west a good deal of rain fell during May and June, but the country over the general complaint is an absence of moisture. The turnip crop is to be a failure in many parts of East Lothian, and unless there comes a change soon it will be a failure all over the country. Re-sowing was very common-one farmer having to resort to this not once or twice, but five times, and withal a braird that is satisfying has not appeared. In view of the admitted shortage of concentrated feeding stuffs, and indeed the certainty that such feeding stuffs will not be available during the ensuing winter, the outlook is rather disconcerting. There is a shortage in everything that means success in agriculture -- in labor, in manures, in feeding stuffs, and in both hay and roots, and unless we get genial rains almost immediately it is hard to tell what the issue may be.

other "The Women's Land Army." By the former it is other The women's Land Army. By the former it is hoped to enroll men for agricultural work who are over military age, and men within the military ages but not yet called up. These will be enrolled for a definite period. In the former category will be included men who in their youth or early manhood were engaged in period or gardening or men who had retired from who in their youth of early mannood were engaged in agriculture or gardening, or men who had retired from active duty but are willing in their country's extremity to go into harness again. The writer belongs to the former category, and he would gladly volunteer if the duties which he presently performs could be performed by another; but what appeals to him most as a difficult by another; but what appeals to him most as a difficulty in the case of such persons is the softness of their muscles and physique generally. A man who has rarely handled for fully forty years any implement heavier than a pen is not very "fit" for manual labor. Still, there are many engaged in brain work who have kept themselves "fit and here is a golden opportunity for them to distinguish themselves in regions of activity more beneficial to the country than those of sport. The National Service Department are dealing leniently with those in the second category. If they have not already received their calling-up notices and have not been finally re-fused exemption by their tribunals and have actually begun work in agriculture they will not be interfered with until harvest is over. A similar concession has been made in respect of those within the military ages who have not been called up. If they have not actually joined the colors they are granted immunity until after harvest. These concessions are the result of a loud outery on the part of agricultural organizations to the effect that the ranks of the land workers were being so depleted that unless a halt was called to the combingout process the crops grown on the 4,000,000 additional acres which have been sown and planted would never be reaped. Along with, this great accession to the arable area there is a loss to the agricultural interest of 200,000 male workers. To what extent the volunteer force and the other concessions may minimize difficulties remains to be seen. It must, however, be admitted that hope chiefly lies in the Women's Land Army. This body of female workers is being organized through the agency of Women's County War Committees. A conference of representatives from these bodies was held this week in Edinburgh, and no one who attended can have failed to be impressed with the business capacity and relevant brain application of those who took part. We are persuaded that no equally largely attended body of men could have got through the amount of business which these women overtook, and withal applied their minds to the real problems with greater cogency and practical results. The four great difficulties which have to be faced in connection with the enrolling of this Women's Land Army are housing, domestic arrangements, the lack of sufficient training, and the reluctance of many farmers to accept the labor and the reluctance of many farmers to accept the labor of these women in lieu of that of men. The housing difficulty is very real. The appeal is to women of a higher social grade than those from which field workers under normal conditions are drawn. Such women must be housed in accordance with sound views of moral reserve and decency. Even although the ordinary "brothy" should be depleted of its male inhabitants, in too many cases it is a filthy place which requires thorough cleaning out and disinfection. Complaint was made of the unwillingness of farmers in some cases to undertake any responsibility in respect of such things, but one might hope that such cases are rare. The domestic arrangements also in respect to cooking of food, etc., are also sometimes difficult to adjust, but one has the feeling that there is a lack of appreciation of the cardinal facts of the present situation on the part of those who make much of such difficulties as these. A much more serious difficulty is that arising from lack of training. Undoubtedly no woman can, with three weeks' training, become an expert farm hand. This is especially true of such operations as milking, but patience perseverance will overcome difficulties even here, and farmers who object to learners spoiling their cows must bear with learners in order to have proficients. Mention was made of one public-spirited country gentleman who keeps a certain number of Jersey cows, quiet and tractable, for the very purpose of utilizing them to train milkers. Such lines of action entitle men to national recognition. The innate conservatism of the farming class is responsible for many difficulties. Speaking generally, the objections to women workers of the type referred to comes from those who have never given them a trial. Those who have done so, in general, admit what is common experience that the more intelligent and better educated a woman is the more readily does she adapt herself to the duties connected with field and dairy labor.

Regarding labor shortage, two movements have been inaugurated which may afford some measure of relief. One is called the "War Agricultural Volunteers," the

On the second day of the Women Conterer had a feast of fat things connected with Women's Rural Institutes. These have been known in Canada for some time, but the movement started in Scotland only one year ago. It has made quite a good start, and in the first year of effort fully thirty Institutes with a membership of over 1,300 have come into being. good many of these found their nucleus in the local war work committees, and one extremely fruitful form of activity is the gathering of sphagnum moss on the moor lands for hospital dressings of wounded men. The Institutes, we think, have come to stay. There is a fine, healthy tone about them .The inaugural meeting hold oractly in the inaugural meeting held exactly a year ago in Edinburgh was addressed by a Canadian lady, Mrs. Watt, who hailed from British Columbia Line of the second s Columbia, but holds office in England as organizer. She made a stirring speech, not forgotten by those privileged to hear it. This year we had another Cana-dian lady. Mice Curet dian lady, Miss Guest, who is also an organizer in England, conveying the greetings of the English In-stitutes to us. We do not know whence Miss Guest