

ers for the purity of the blood of the cattle so recorded. Thus for instance we have Durham herd-books, amounting to several volumes—Devon herd-books, &c. This circular refers particularly to Ayrshire stock.

There are now bred by the farmers of Europe and America several distinct *races* of neat cattle, and also several well established *breeds* of neat cattle, which we consider the results of long and judicious crossings from the several races, and herds have well marked distinctive characteristics. Each of them are valuable for certain specific purposes. It is an object for breeders to keep up the purity of the blood of whatever class they breed. In order, therefore, to aid them in this desire, a herd-book is a very excellent source to which they can refer in case of doubt whether any individual is of undoubted origin or not. Such records, while they give satisfactory proof to the honest inquirer, are also salutary checks to the knavish and dishonest who have no scruples in palming off upon the inexperienced or unwary a grade animal for a thorough-bred. Such instances are too common, but when there is a reliable herd-book of the race or of the breed they cannot work such mischief, at least to any great extent.

We call attention of those of our friends who breed Ayrshires to the circular, and take the liberty of advising them to aid the efforts of the association in their laudable and patriotic object.

KEENE, N. H., DEC. 1861.

DEAR SIR,—At a meeting of the association of the Breeders of Thorough-bred Neat Stock, held at Springfield, Mass., on the 6th of March, 1861, the undersigned were appointed a Committee to examine, approve and put in form for publication, Pedigrees of Ayrshire Cattle.

* The members of the society who wish to have the pedigrees of their Cattle published, will forward them to HENRY A. DYER, Brooklyn, Conn., who is Chairman of the Committee of Publication, accompanied by a fee of fifty cents, for each pedigree, before January 15th, 1862. Each member of the Association will be furnished with one copy of the Register gratis, and such other copies at cost of publication as he may require.

Having heard that you are a breeder of Ayrshires, we send you this Circular with the form of pedigree to be made out for each animal, hoping that you may feel inclined to assist in getting out a work so much needed in this country, before the difficulties which are now great shall become insurmountable.

If you own imported animals, we would request you to name the herd in Scotland from which they were selected, and the time of importation, with the importer's name, and such other matters of interest as you may consider worthy of communicating.

To secure insertion, it will be necessary to trace the descent of animals from unquestionable Ayrshire stock on both sides.

* Any person can become a member of this Association by forwarding two dollars and his name to the Secretary, H. A. DYER, Brooklyn, Conn.

FORM OF PEDIGREE.

Name,
Color and peculiar marking,
Calved,
Bred by _____ of
Owned by _____ of
Sire,
2d Sire,
3d Sire, &c., as far back as you can trace, or to an importation.
Dam,
2d Dam, &c., as above.
Give, if possible, the month and year of calving and of importation.

By following the above form you will aid the Committee in their labors very essentially.

Any information in regard to this subject will be cheerfully given upon addressing either of the Committee.

H. H. PETERS, Southboro', Mass.

THOS. E. HATCH, Keene, N. H.

LUKE SWEETSER, Amherst, Mass.

TO AVOID RUNNING OUT OF HAY.—Every farmer naturally has an aversion to running out of hay in spring before grass comes. No one desires to buy that which he ought to have raised, to keep his cattle from starving; and the only alternative, when short of fodder, namely, placing them on short allowance, is still worse. The farmer should know before he enters winter, whether he has enough feed for all his domestic animals.

To ascertain this, many resort to past experience, determining as nearly as they can, by guess—often a very vague kind of guessing. Those who have kept careful record of the number of tons consumed by a given head of cattle, or a certain number of horses, may determine more nearly. Where the cattle and horses have been weighed, and the aggregate weight of the herd thus determined, the estimate may be made with considerable accuracy. Some animals eat more than others for the same weight; a greater difference is occasioned by the severity or mildness of the weather, or the degree of shelter given from the cold; but as a general rule, a horse should have three per cent of his weight daily in food (hay or grain,) and cattle, which digest better, two and a half per cent. If the farmer has ascertained the number of tons of fodder he has deposited in his barn, he may now, if he understands arithmetic, determine pretty nearly, how his hay is likely to run, before grass time.

If he has no record of the amount of his hay, he may determine, very nearly, by measuring. First, by finding the length, breadth, and depth of the hay, he at once knows the number of cubic feet. Good solid timothy, the average of a bay 12 or 15 feet deep, will weigh a ton to about 500 cubic feet. If the hay is clover, it will require 600 or 650 for a ton; and if the hay is only 5 or 6 feet deep, add one-sixth more.

After determining the number of tons, and the whole weight of all his animals, he may at once know if he has enough. The result will, however, be considerably modified by causes which he has more or less at his control. Regularity in feeding will have its influence; good feeding-racks will prevent much