

principles on which the breeding of stock of all kinds should be conducted. Were it not so, we should not see the purchases of bulls and other male animals varied as to races and breeds in such a loose fashion.

Every man who begins to establish a herd of cattle, whether for milk or meat; every man who lays the foundation of a flock of sheep, whether chiefly intended for the production of mutton, or for the production of mutton and wool; every man who begins to breed pigs, whether for small pork or for bacon hogs; each and every one of these must, at starting, have formed in his mind some idea of what he wants to produce.

When, in 1700, the Collings aimed at the improvement of the cattle of the Northern counties of England, did they resort to a violent cross of these with the then leading breed, the "Longhorns," as improved by Bakewell? By no means; they began their work by "selection"; picking out the best specimens of the "Teeswaters," they bred from them, and from them alone, choosing in the males such as possessed those points that were likely to correct the faults that were most prominent in the females with whom they were associated.

Mr. Thomas Booth, too, in or about 1790, got his herd of Shorthorns up to their well known pitch of perfection in the same way. The principle on which these early improvers of stock went is the often quoted one; that "like produces like." (We may, perhaps, be forgiven for mentioning that the well framed cows in which Mr. Booth laid the foundation of his herd were bred by Mr. Broader, of Fairholme, Enderby, a tenant of the Editor's gt. grandfather).

"In and in"—"crossing."—Bakewell, the earliest of all improvers, after he had established the type he set out in search of, could never be tempted to make use of a strange animal, however enticing might be its form or quality.

Mr. Booth's reply to the advice of a friend of the writer's, who had advise him to introduce foreign blood into his herd, was conclusive: I will, if you will tell me where to find as good.

The Collings, too, put near relations together: Bolingbroke and Phoenix were brother and sister on the sire's side, and nearly so on the dam's side. They produced the bull Favourite, and he, put to his dam Phoenix, so nearly related to him on the sire's side, produced young Phoenix; she, in turn was put to Favourite, and she, being his daughter and "more than sister," produced Comet, the first thousand guinea bull!

Of course, all this in-and-in breeding was only carried on by these great stockmen so far as to create a fixity of type; they then continued the breeding within the limits of their own herds, but extended gradually the lines of blood, until, as Jonas Webb, of Babraham, the great South-down and shorthorn breeder told us (in 1852): I never put ram and ewe together nearer than sixth-cousin.

And now that we have seen how carefully the great originators of our grand herds of shorthorns proceeded in the formation of their splendid stock of cattle, we ask if this example of theirs has been followed by the general run of breeders in this country. Many years ago, we wrote, in this periodical, the following words:

"It is not the introduction of one bull that will cure the defects of a whole parish of "runts," that when "fat," as they are called, will die in many cases 280 lbs. to 300 lbs. the carcass. The improvement must be kept up for years by the introduction of pure blood, and we must confess that we do not see much hopes of the necessary capital, enterprise, and skill in this province."

Of course, what we wrote of cattle for the production of butcher's meat is equally true of cattle for the production of butter and cheese.