IMPROVEMENT IN THE BREED OF HORSES.

In former articles we have shown or endeavoured to show, a few of the general principles of horse-breeding; the advantages resulting from breeding to pure blood on the sire's side, whatever the quality of the dam; the points of the symmetry and strength most desirable, and, indeed necessary to the parents on both sides, and on which side more particularly; the necessity for perfect structural and constitutional soundness and health, on both sides, and for the absence of hereditary vice of temper; and, lastly, the state of health to be aimed at in the dam, as well previous to her being taken to the horse as during the period of her gestation, and the means to be taken to obtain and preserve that condition of health, or, as it is usually termed among horsemen, *condition*, emphatically. We shall now proceed to show a little more particularly what are the improvements to be obtained in different varieties, and how this improvement is to be produced; for it is very certain that the same horse will not answer for every kind of mare, but that, on the contrary, for very different styles of dams different sires will be required to produce equal results in the progeny. Now, it may be stated generally that the ordinary objects of breeding-up are twofold. One, and the most common and most feasible, is from an entirely cold stock, we will say, for example, the Cleveland Bay, or the nearest approaches to be found to it in this country, the Conestoga cart mare, namely, or the larger Vermont draught mare. We do not speak in this connection of the Morgan, or the Canadian, or the Norman—some mares of which last stock have been recently imported into this country—since all of these have some strains, more or less distant, of thorough blood,—to raise a progeny improved in spirit, speed, lightness of action, endurance of fatigue and courage, by stinting mares of that stock to blood horses. This is the simplest of all the ends to be attained, and can be almost certainly accomplished, by sending the mare—taking it for granted that she is sound and generally well formed—to any thorough-bred horse, provided he also is sound, well shaped and free from vice. Any such horse will, more or less, improve the progeny, both in blood and in the form, structure and strength of the bones, both in frame and spirit, without any especial reference to the particular strain of thorough blood from which he himself comes, so that the strain be not tainted with hereditary disease. In the second, and third, and yet more in later generations, when blood has been introduced and the dams as well as the sires have some mixture of a pure lineage, it is more requisite to look to families, since some families notoriously cross well with others, and some as notoriously ill. Of course, it is better that the sire, where it is possible, should be of a racing stock that is famous for courage and stoutness, such as any of the stock which trace remotely to Herod, Cade, Regulus, Eclipse, or others of known fame: but thus far it is not essential, or a *sine qua non*, since every blood horse, even if—as Sir John Fenwick said in the reign of Charles II—he be the meanest hack that ever came out of Barbary, is so infinitely superior in courage, stoutness and quality, both of bone and sinew, as well as blood, to the best cold-blooded-mare that ever went on a shodden hoof, that he cannot fail to improve her stock, whatever may be his comparative standing among racers. All therefore, that the breeder has to do in this instance is to satisfy himself that the horse is *really thorough-bred*—that is to say, traceable on both sides of his pedigree to English stud-book race-horses—and that he has the virtues and has not the defects of form which have been previously subjects of discussion. Next to this there must be an harmony in the size, and, to some extent, in the forms of the animals. The putting small mares to gigantic horses, or colossal mares to ponies, in order to give size to the offspring, will never answer, but on the contrary will result in the production of rickety, malformed produce. The mare as it has been said may be with advantage something larger, longer and more roomy than the horse, but not too much so. We should say a mare of sixteen hands and proportionate strength should never be put to a stallion under fifteen hands, and from that up to fifteen and one inch; nor a mare over sixteen hands to one short of fifteen and a half, up to sixteen hands three. Still less should little mares be put to tall horses, or low mares to leggy horses, in order to give height. If the brood mare be low, but long and roomy, it is no bad fault; but the way to give size to the progeny is to select, not a tall or leggy horse for the stallion, but one of singularly perfect symmetry, not much higher than the dam, though an inch or two inches will do no harm, provided he be not long in the legs, especially from the knee downward, short backed, close coupled, and generally strong built—particularly so in those points where the mare is too much defective. We stated above that there is no greater blunder than to breed from an animal rickety and defective in one point to another perfect in that point or even unduly developed in it, with the expectation of curing both defects in the progeny. This rule, however, is to be understood with some margin. That is to say, it is to be held absolute only where the defect in the mare or the horse is so