

the French cattle lie in this presence of our Shorthorn mettle.

Of our other English breeds, there was only one pure French specimen, and that an exceedingly good Hereford. Now for a word or two concerning the native breeds, which are divided into large and small, workers and non-workers, those raised for their milking, and those for their beef-producing properties. It will only be necessary now to dwell on those which are not due to slight local circumstances, but to those which appear to have a permanent character and a pliable frame.

The Normand or Cotentin extends over five or six departments of the north-west. Two circumstances have contributed to its development—the superiority of the Paris market, and its exemption from work. The small breed yields Isigny and Gournay butter, and the other the meat for the French metropolitans.—This breed produces about one-fourth the meat consumed in Paris, and about as much more consumed locally; or, annually, about 100,000 fat beasts. The bovine population of these departments should be taken at one million head, including 500,000 cows, = 1 head to $7\frac{1}{2}$ acres. The departments round Paris have no special breed, the Cotentin has spread there. It is a red or brindle, bony race, but is capable of improvement with the short-horn. One of the gaunt specimens here stands 5 feet 7 inches; in length, to horns, measures 8 feet 6 inches, and in girth, 9 feet 1 inch; weighs 216 stones, age 7 years 2 months; his ribs being barely covered with coarse flesh, such as one so often gets at the Paris restaurants. Crossed once with the Durham, the size above is reduced, and we get a result like the following: five feet in height, 7 feet in length to horns, 8 feet 6 inches girth, weight 150 stones, age 48 months. Where the Normand has been crossed frequently with the Durham, as is the case of two or three of the cows shown, these results are animals fit for one of our Christmas shows.

The most hopeful native breeds, however, are the Charolaise and Limousin. The Charolaise is a large, expansive, mouldable white bullock, with jutting shoulders, a dropping back, great massive rumps, ungainly set of tail, heavy bone, narrow chest, and mild expressive face. These occupy, with the Lorraine and Comtoise races, the twenty departments, which form the north-eastern angle of France, and contain 2½ million head. When all the country beyond a radius of 50 miles of Paris was considered a *terra incognita*, the Charolaise was mainly used for work; but now that the limits of this radius extend, it is being known more for the value of its flesh than for its patience under the yoke. It has, perhaps, owed its immediate development to its neighbourhood to Lyons; it has extended through Nivern and Berri, and now furnishes to the Paris Market nearly as much weight of meat

as the Normand. The measurements are as follows: height 4 feet 10 inches; length to horns 6 feet 8 inches; girth 8 feet five inches; age 48 months; weight 900 kilos. The cross with the short-horn reduces the exaggerated defects, gives width to the chest, contracts the shoulder points, sets the tail right, and corrects the drooping rump. Great things are to be done by means of this mixture of blood, and also by infinite pains in the selection of parents without it.

The Limousin comes from the volcanic centre departments. It is one of the working classes; but when taken from the yoke and treated liberally, it becomes a most valuable meat producer. There is much resemblance in form to the Charolaise; but it is rather large, and of rich cream colour. The elbows are out in some cases about 8 inches, and give the animal a deformed look. Paris consumes annually about 20,000 Limousin beasts, of which two-thirds come directly from the provinces, and the rest after having passed through the hands of the grazier of La Vendee and Normandy. This is the main meat production of the breed; for the country whence it comes, the folks are too poor to eat meat. Though very good meat are obtained by admixture of the Shorthorn blood, it is thought that without any change this sort nothing would be easier than to triple the production of meat by a better system of culture, by irrigation of meadows, and drainage. The Limousin is much larger than the Charolaise—in height 5 feet, in length to horns 7 feet 11 inches, girth 8 feet, age 48 months, weight 154 stones. The Shorthorn performs the same ameliorative work as in other cases: the back straightens, the cavity heart expands, and the skin mellows. The Limousin is in many cases a better animal than the pure aristocrat. Next in order are the Garonnaise, Bazadaise, and the Sarladaise, which generally reminds one of the saying of an acute French farmer: "We excel in producing bullocks for the racecourse, and horses for the butcher." Some of the great red Salesian breed is inches higher behind than they are in front (6 to 5 ft. 9 in.), and their spines hang like a suspension bridge between the two piers, in a great sinclinal curve: these have as yet no temporary uses. The Manceau is a more useful thickset breed, and produces a valuable cross with the Durham. We have yet to mention the Charolaise, the Mancelle, the Aubrac, the Périgord, Flanders, and Nivernese, but must reserve them for some future occasion. The micropic Breton, also, covering so much space in the west, now that the Ayr and Durham are established, is likely to become very important, because of its quick feeding properties, and singular ability to make the best of a poor pasture. The native race and its crosses are represented.