

ancestors, as we are informed, adopted the barbarous practice that prevailed at one period in Ireland, viz., that of fastening their horses to the plough by their *tails*! This absurd and cruel custom prevailed so extensively in the latter country, that an act of parliament was passed in 1634, to put a stop to it. The 11 & 12 Car. II., ch. 15, entitled, "An Act against Ploughing by the Tayle, and Pulling the Wool off Living Sheep," declares, "that in many places in this Kingdome there hath been a long time used a barbarous custome, of ploughing, harrowing, drawing and working, with horses, mares, geldings, garrons and colts by the taile, whereby (besides the cruelty used to the beasts,) the breed of horses is much impaired. And also, divers have and yet do use the like barbarous custome of pulling off the wool yearly from living sheep, instead of clipping or shearing of them." It is then enacted, that such practices shall be illegal, and punishable with fine and imprisonment. We have seen the statement of a recent agricultural writer, whose name we do not recollect, that he had himself witnessed this wretched practice, and that it obtained in some parts of Ireland, notwithstanding the statutory prohibition, till within a few years.

Jethro Tull, the father of horse-hoe husbandry, and one of the earliest English writers upon practical agriculture, made considerable improvement in the plough, as well as in various other agricultural implements. He lived about a century and a half ago. After making some researches into the history of the plough, he came to the conclusion that it was "found out by accident and that the first tillers, or ploughers of the ground were *hogs*!"—However the question of priority in ploughing, as between the *quadruped* and *biped* may be determined,—the one a natural, and the other an artificial workman, we cannot admit that there is any necessity for supposing the discovery of the plough to have been accidental. We might as well suppose that the spade was discovered by accident. When Adam was turned out of the Garden of Eden, and found himself obliged to till the ground, he probably began by digging; and the sharpened piece of wood, which mere instinct must have taught him to prepare and use in the operation, was, no doubt, the true original of the modern spade. The crooked piece of wood, which we find represented in old drawings as the plough of the early Romans, stands in the same relation to the perfect implement in use among us. The improvements in the plough have been gradually made, though within the last hundred years it has advanced further towards perfection than in all the previous period, up to the time when the hog's snout resembled it in form and equalled it in efficiency. The first im-

provement of much note in England "was," says the author of *British Husbandry*, "that of a light swing plough, invented upwards of a century ago in Yorkshire, whence it obtained the name of the *Rotherham* plough, and was very generally employed throughout that county and many parts of England." It was much lighter and more neatly constructed, and turned a cleaner furrow and with less resistance than any previous plough. This was "the only one worked with a pair of horses abreast, until the year 1764, when Mr. James Small, a Scotch mechanic and farmer, in Berwickshire, improved upon it by inventing the iron mould-board," and eventually "the whole machine has been formed of metal. He thus, although no mathematician, made such progress in perfecting the construction upon sound mechanical principles, that his swing ploughs are now universally employed with a pair of horses, and whip reins without a driver, and, on an average of soils, plough an acre a day with ease." Small's plough has been much improved by others, especially by Mr. Wilkie. "There are now," says Johnson (*Farmer's Encyclopædia*, 901), "a great variety of excellent forms, the best of which, for general purposes, is in Britain what is called the Scotch plough, and in Scotland the improved Scotch plough." We shall refer more particularly to the several kinds, and to the principles on which the best are constructed, in our next number. In the third number we shall probably conclude our remarks on this subject, by an exposition of the principles of *ploughing*, and the true object of ploughing matches, with reference particularly to the points involved in the challenge by our American neighbours of the State of New York, and the discussion relative thereto, which is already before our readers.

The cut at the head of this article requires a remark or two before we conclude. This cut is a correct representation of the patent prize plough of Ransome & May, the celebrated implement makers of Ipswich, England. It is constructed with all the latest improvements, and is said to be unequalled for the excellence, and ease to man and beast, with which it performs its work. It is adapted to the cultivation of the ordinary English soil, and may be used with wheels, as seen in the cut, or without them, as a common swing plough. It is made wholly of iron, except the ends of the stils or handles. We have presented a cut of this plough to our readers chiefly to exhibit an important improvement in the construction of the beam, which we think might be adopted with great advantage in the iron plough of this country. The iron beam was objected to in England, according to Mr. Youatt, because it twigged, or vibrated, and occasionally