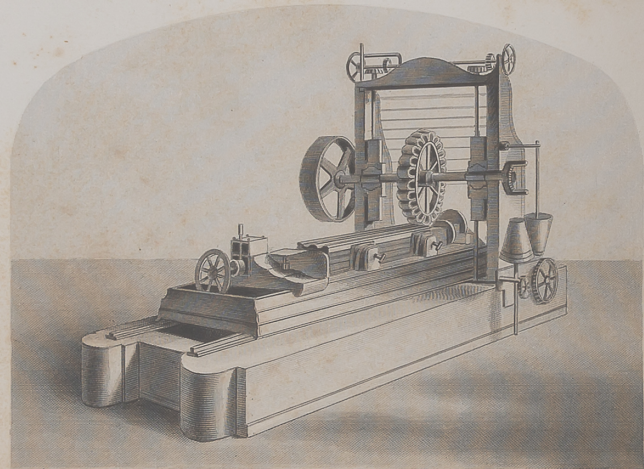


Engraved by G. Greenbach, from a Drawing by W. Tomlinson.

AMERICAN REAPING MACHINE.
INVENTED BY M'CORMICK, NEW YORK.



Engraved by G. Greenbach, from a Drawing by W. Tomlinson.

STONE-CUTTING MACHINE.
INVENTED BY R. EASTMAN — EXAMINED BY C. MOREY, BOSTON U.S.

turnips, coleworts, &c.; thus accomplishing fine and deep tillage, without bringing fresh earth to the surface-land, in preparation for barley and oats. The improvements upon this scarifier consisted in manufacturing it almost entirely of wrought-iron, and suspending the frame so that by means of a lever at each end, and corresponding catches, either side may be raised higher than the other, to suit sloping ground, or to allow one wheel to run in a furrow whilst the teeth penetrate the cultivated ground to a uniform depth. The teeth were also of wrought-iron, and were secured to the frame in such a manner as to allow of varying both their distances from each other, and the depth to which they are to penetrate, allowing also of setting them to suit surrounding lands. This instrument is said to effect a saving of time and tillage, improved cultivation, and involves a less expense in harrowing than under the general methods. The instrument obtained prizes at various agricultural meetings as well as at the Great Exhibition.

The Circular Saw-Bench and Hurdle-making Machine. — An ingeniously-contrived machine, invented by Mr. C. Burrell, of Thetford, Norfolk, was exhibited in Class IX., and was deserving of close inspection. It consisted of two parts. On one side was a saw-bench, with a circular saw to cut out the rails and bars. It had a bar with a parallel motion to guide the wood to the saw, and to gauge it to the proper thickness. On the other side were five boring-bits, set at any required distances, and fixed on the axes of cog-wheels, that are made to revolve by means of a pulley and driving-wheel. The rails to be morticed are placed in a long box in front of the boring-bits, and firmly held in the box by means of a clamp at the end. This box is made to slide forward by means of a lever, and a quadrant pinion and rack-motion attached to each end. When the lever is pulled towards the attendant, it moves the box with the rail close up to the boring-bits, which, upon being set in motion, instantly bore five holes through the rail. The box with the rail is then made to move sideways, when five other holes are cut through the same rail. The rail is then gradually moved back again, and the bits revolving cut out the intervening wood left between the two holes, and perfect the mortices. The edges of the bars are then cut with the machine, and they are ready for making hurdles.

The first place, however, among the agricultural machinery that was exhibited in the Crystal Palace, must be ceded to our Transatlantic cousins. In evidence of which we shall give a short account of M'Cormick's Reaping Machine, which has, for many years, been in constant use in all the wheat-growing districts of the United States; and, although numerous attempts have been made to introduce machines of a different construction, they have failed in every case—this possessing so many and great advantages over its competitors, not only in its manner of cutting, but also in the state in which it leaves the grain after it is cut. As a labour-saving machine, it has proved itself an invaluable aid to the already large number of agricultural implements in America; for, without its aid, it would be impossible to gather the crops of the western states. Why it has never before been brought under the notice of English farmers is strange, especially when, as is often the case, labourers have been so scarce. On trial in this country, it was perfectly successful; and so well were the jury, under whom it was tried, pleased that they awarded it the great gold medal. The machine has since been making a most successful tour throughout the various counties of England, succeeding everywhere to admiration. We may also add, that the cost of it places it within the reach of all who are engaged in farming operations.

Messrs. Ransomes and May, of Ipswich, contributed some very excellent specimens of their manufacture. A plough for two-horse draught, was especially deserving of notice. At the trial at Southampton it was shown that, by simply changing the mould-board, it would answer equally well for heavy or for light land; and, upon that occasion, it obtained the double prize of the Royal Agricultural Society. Several other ploughs