

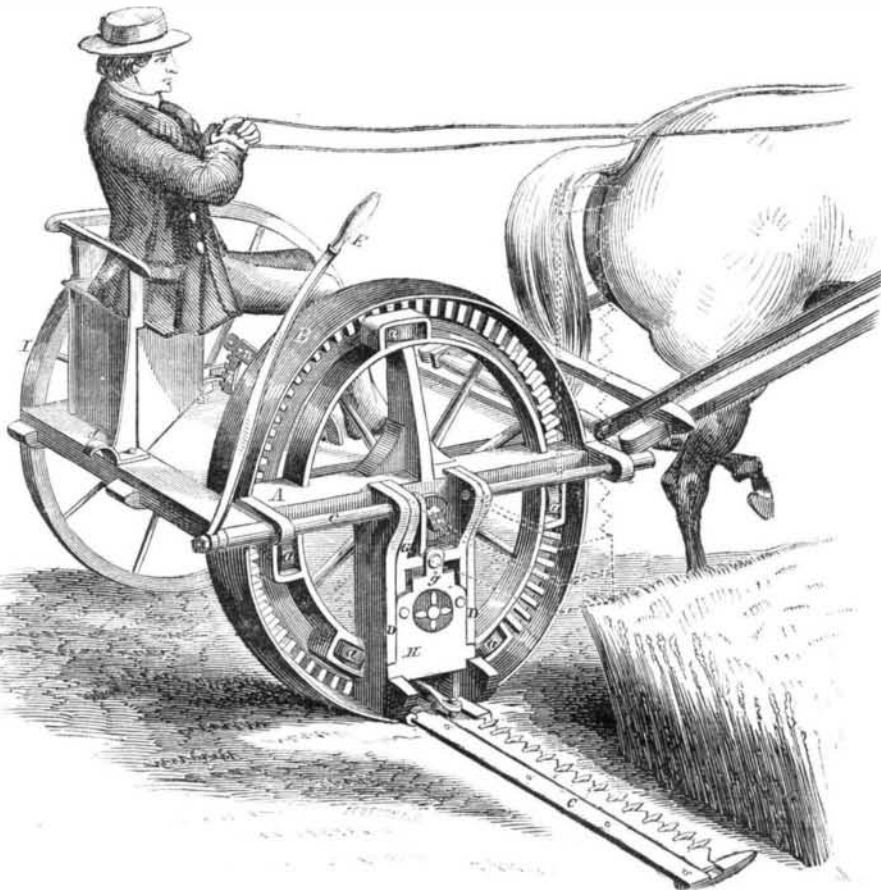
IMPROVED HARVESTER.

The accompanying illustration represents a moving machine or harvester in which the several arrangements for imparting motion to the cutter, for adjusting its height, and for turning it out of the way when not in use, are of an entirely novel character. It belongs to that class of machines which have vibratory cutters, and will be readily understood by examining the cut.

The circular frame-work, A, which supports the cutter

cular frame, A, it is held in place by the latch, H; in turning the frame, G, up, this latch is lifted out of its catch by means of an arm, r, on the end of the rod, e, which is bent back and presses one end of an elbow lever, the other end of which passes loosely through the latch, at g.

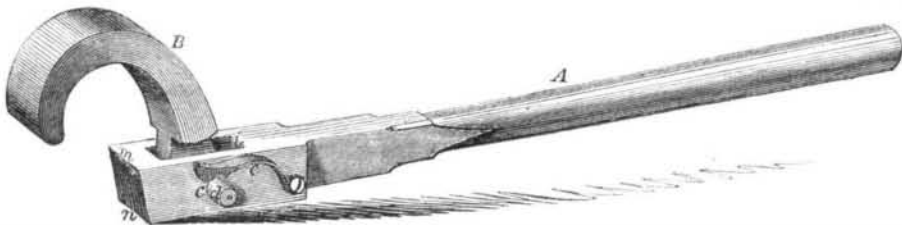
The axle of the carriage is made in two pieces, the piece, n, which has the driving wheel and frame, A, at its end, being bent so as to pass up through a slot in the

**LUTHER'S IMPROVED HARVESTER.**

with its driving parts, is secured to the end of the axle outside the driving wheel, B, friction rollers, a a a, being interposed to allow the wheel, B, to revolve easily inside the frame, A. Motion is imparted to the vibrating cutter, C, by means of a small pinion which meshes into the gear on the driving wheel, the shaft of the pinion having a crank which works the small rod, e. The cutter is attached to the frame, G, which is hinged upon a rod at the top, and may be turned up into the position shown by the dotted lines, by bringing down the lever, E, under the catch, d, and thus removed out of the way of obstructions when the machine is being taken to and from the field. When the frame, G, is dropped back into place, between the two uprights, D D, of the cir-

floor of the carriage, and having the curved rack, h, attached to its opposite end. This piece of the axle is joined by a hinge near the wheel, B, to the end of that piece of the axle which carries the wheel, I, at its opposite end. The rack, h, is held in place by a spring catch, and may be raised or lowered at pleasure, thus inclining the frame, A, and cutter, C, to adjust the latter to cut the grain or grass at such height as may be desired. This adjustment is easily accessible to the driver as he sits in the seat, L.

The patent for this invention was obtained through the Scientific American Patent Agency, June 7, 1859, and any further information may be obtained by addressing the inventor, H. H. Luther, at Warren, R. I.

**SMITH'S PATENT PIPE-NIPPERS.**

The annexed cut represents an improvement in nippers for grasping and holding or turning cylinders, whether solid or tubular, particularly designed for gas-pipe; it was invented by a practical mechanic, and is well adapted to its work.

The metal bar, A, has the hook or claw, B, secured in the slot, i, by means of the pin, d. This pin has a groove, c, around its projecting end, in which groove the spring, e, fits so as to hold the pin in place. The pipe is grasped between the edge, m, of the end of the bar, and the curved end of the hook. The end of the bar is inclined at a small angle from a right angle, so that when the hook is placed in the slot on the opposite

side of the bar, the distance from n to the end of the hook will be less than the distance from m to the end of the hook, and thus the implement will be adapted to grasp a cylinder of smaller size. Several hooks of various sizes are furnished with each bar; and the peculiar arrangement of the pin, d, and spring, e, renders the changing of the hooks a very quick and easy operation.

The patent for this invention was secured through the Scientific American Patent Agency, Dec. 20, 1859, and persons desiring further information in relation to it may address the inventor, George Smith, No. 169 (in the rear) East Twenty-sixth street, this city.

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CHAS. MASON.

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Your obedient servant, J. HOLT.

Communications and remittances should be addressed to

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1 Publishers, No. 37 Park-row, New York.