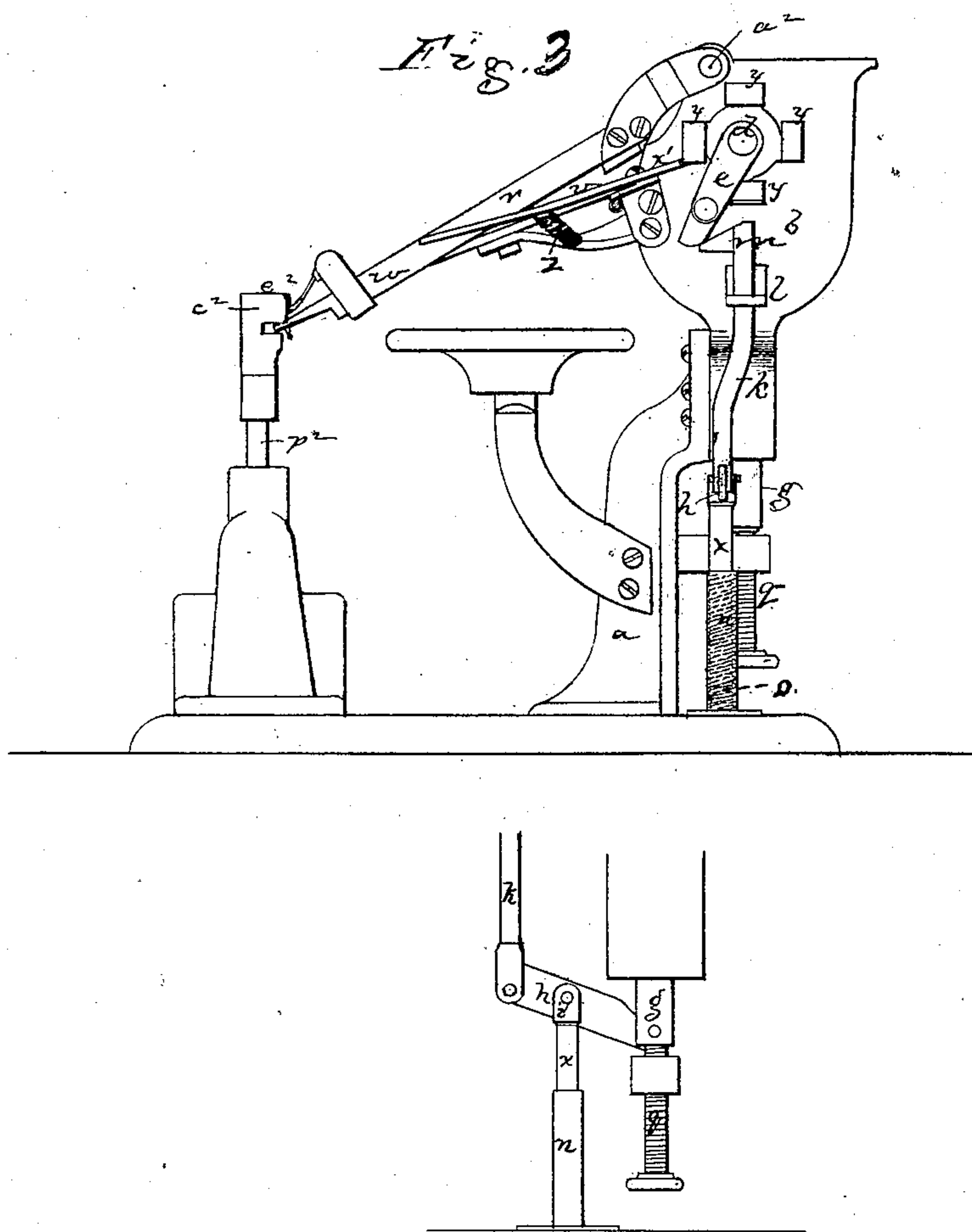


C. W. GLIDDEN.

Machines for Separating and Delivering Tacks.

No. 135,329.

Patented Jan. 28, 1873.



Witnesses  
M. W. Frothingham.  
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By his Attys.  
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# UNITED STATES PATENT OFFICE.

CHARLES W. GLIDDEN, OF LYNN, MASSACHUSETTS.

## IMPROVEMENT IN MACHINES FOR SEPARATING AND DELIVERING TACKS.

Specification forming part of Letters Patent No. 135,329, dated January 28, 1873.

*To all whom it may concern:*

Be it known that I, CHARLES W. GLIDDEN, of Lynn, in the county of Essex and State of Massachusetts, have invented an Improved Tack Separating and Delivering Mechanism; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

The invention relates particularly to the organization of a machine for selecting tacks from a loose assemblage and delivering them one by one, point first, in vertical position, to be driven. In my invention I use a soft-surface rotary cylinder, placed above a tack-containing hopper, which is intermittently raised to bring the tacks into contact with the cylinder, the point of such tacks as strike the cylinder point upward adhering, so that the cylinder takes them with it as it rotates, there being in contact with the cylinder the points or teeth of a comb-like plate, the spaces between the teeth of which form passages, into which the shanks of the tacks slide, the teeth stripping the tacks from the cylinder, and the tacks sliding down the passages, which converge into one main passage, from which the tacks are fed or delivered into the tube through which they pass to be driven. My invention consists in the peculiar tack receiver and guide; in the combination of the tack receiver and guide with the spool or cylinder that presents the adhering tacks to the points of the receiver; in the combination, with the tack-receiver and guide, of a vertical tube, into which the tacks are delivered one by one; and in various details relating to the organization.

The drawing represents a machine embodying my invention.

Figure 1 is a plan of the machine. Fig. 2 is a vertical central section of it. Fig. 3 is a side elevation of it.

*a* denotes a post, surmounted by a box or case, *b*, in which is a cylinder, *c*, fixed on a shaft, *d*, that rotates in suitable bearings and is driven by a winch or handle, *e*. The bottom *f* of the box is movable, and is mounted upon the top of a vertical slide, *g*, that moves in a suitable bearing or guide, the slide being jointed to one arm of a lever, *h*, pivoted at *i*,

and having jointed to its outer arm a rod, *k*, that passes through a guide, *l*, the upper end of the rod having a head, *m*, which, as the winch is rotated, is struck and depressed by the end of the winch, such depression raising the box bottom *f*. The round surface of the cylinder *c* is made of soft material, and as the box bottom is raised the tacks in the box are raised and the top of the body of tacks is forced against the cylinder, the points of the tacks which are point up and on top entering the surface of the cylinder and adhering thereto. As the rod *k* has a fixed movement or extent of movement, and as the extent of upward movement of the tack-box must be in accordance with the extent of supply of tacks in the box, the lever *h* is pivoted to a piston, *x*, that stands in a tube, *n*, and on the top of a spring, *o*, the spring pressing the piston up, but enabling it to descend as the quantity of tacks in the machine may require. The box bottom *f* is forced down by a spring, and the downward movement of the slide upon which the bottom rests may be adjustably limited by a stop-screw, *q*. At the front side of the cylinder is placed the tack receiver and separator *r*. This receiver is composed of a series of strips, *j*, so arranged as to leave between each two adjacent ones a slot or groove, *s*, which will receive the shank of a tack, but not the head, the head riding upon the two top surfaces of the adjacent strips. The upper ends of the strips are pointed, the points *t* extending to or nearly to the surface of the cylinder, and the slots *s* are straight and parallel at their upper ends, and at their lower ends curve, converging toward and entering a main straight slot, *u*. As the cylinder rotates the tack-shanks enter the slots *s*, the heads lodging on the strips, and the slotted receiver is placed at such an angle vertically that the tacks slide down through the slots and enter the main delivery-slot *u*. To facilitate their descent into the slot *u* a hammer, *v*, may be arranged to intermittently strike the chute *w*, which contains the slot *u*, this hammer being on the end of a lever, *x'*, the rear arm of which is intermittently struck by cams *y* on the cylinder-shaft, each cam in turn drawing back the hammer, and a spring, *z*, throwing it forward against the chute *w* to jar it and start the tacks.

The receiver *r* may be made a permanent

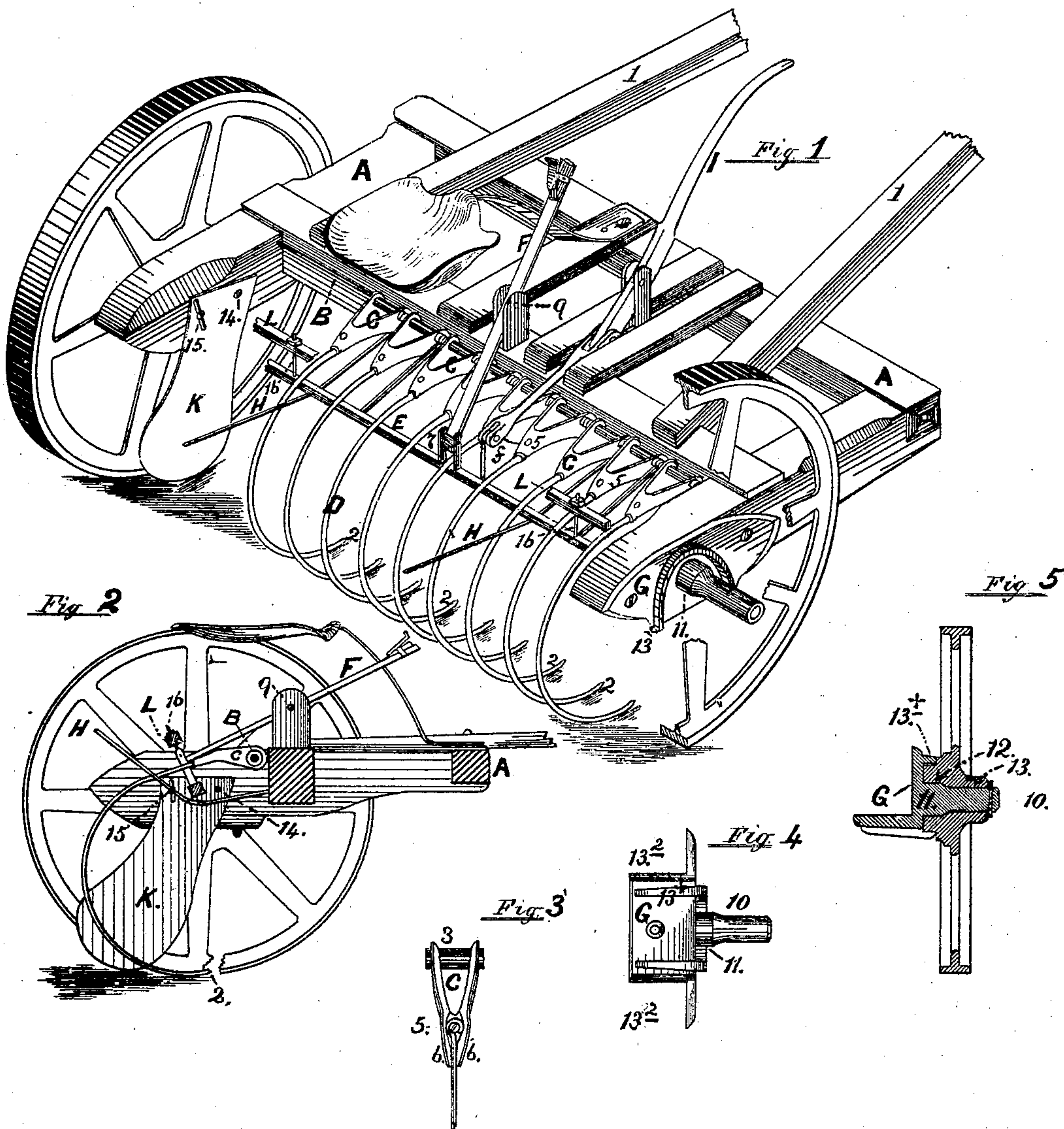


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Horse Hay-Rakes.

No. 135,330.

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Witnesses

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