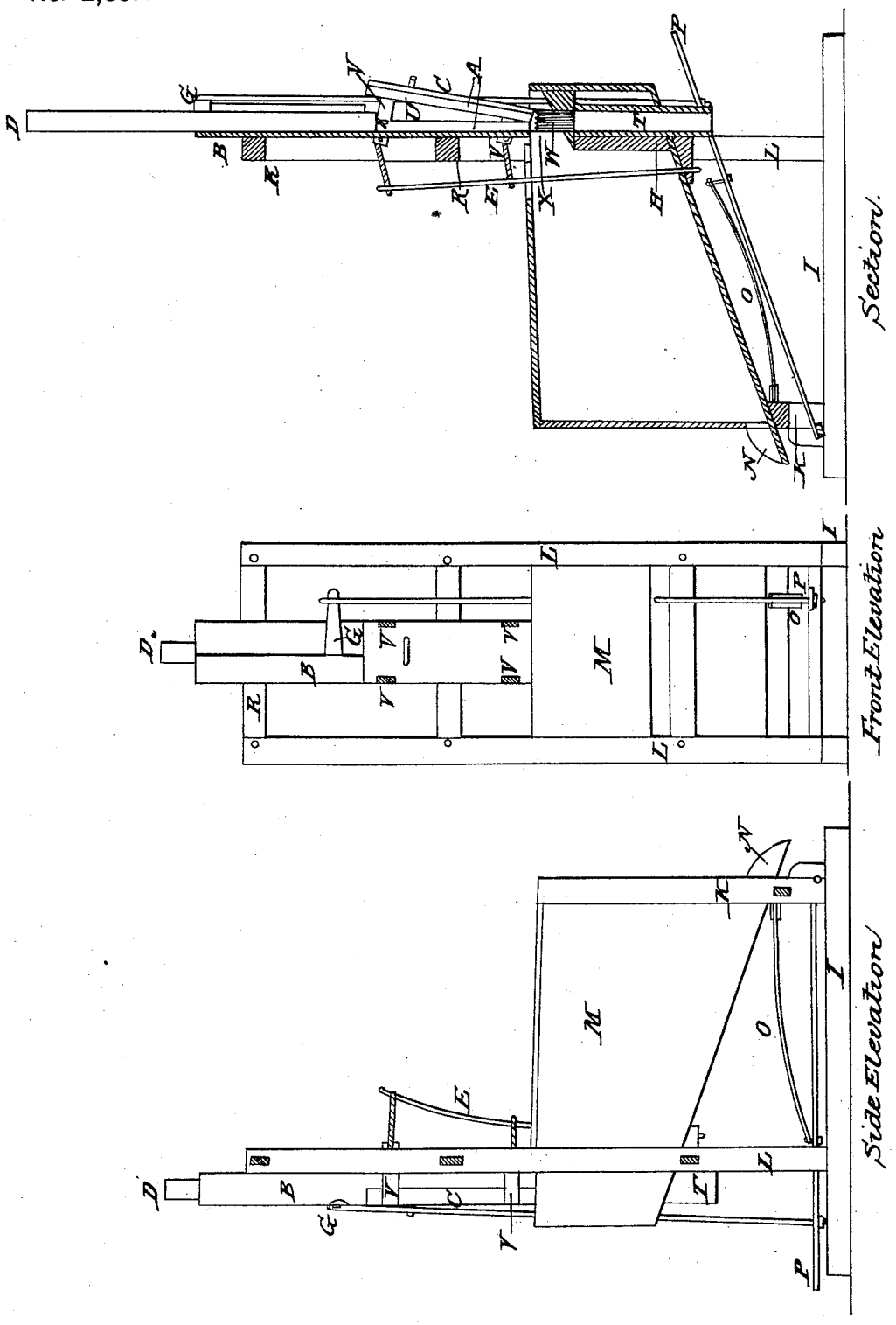
J. H. DERBY.

Corn Sheller.

No. 2,337. Patented Nov. 10, 1841.



UNITED STATES PATENT OFFICE.

JOSEPH H. DERBY, OF LEOMINSTER, MASSACHUSETTS.

CORN-SHELLER.

Specification of Letters Patent No. 2,337, dated November 10, 1841.

To all whom it may concern:

Be it known that I, JOSEPH H. DERBY, of Leominster, in the county of Worcester and State of Massachusetts, have invented a new and useful Machine for Shelling Corn; and I do hereby declare that the following is a full and exact description.

The machine consists of two bottom pieces, 3 feet long, each 2 inches square, marked I, upon the plan hereto annexed, into which are formed, two hind, and two fore posts; all 2 inches square. The front posts are 3 feet high, marked L, on the plan. The two back posts are 2 feet high, marked K, on the plan.

The box, marked M on the plan, is to receive the corn, after it is shelled, and out of which, the corn passes, by means of a spout, in the rear, marked N, on the plan. This box is 2 feet long, and 14 inches wide. In the rear, it is 20 inches deep, and in the front, 12 inches, and is placed between the back and front posts, a little inclining to the rear, so that the corn will readily run out of said spout, see N. The top, of said box, is level with the back posts. Immediately in front and center, between the two forward posts, and fastened on to the two cross bars, marked R on the plan which run across, and are framed into the two forward posts, stands a perpendicular sheath, marked B, on the plan, for the reception of the piston or punch, marked A, on the plan. This sheath, when closed, is in the shape of a small timber, about 5 inches wide, 2 inches thick, and 28 inches long; with a hole through it lengthwise, large enough to receive an ear of corn, and is made, by taking two narrow pieces of thick boards, both are grooved, so when put together and fastened with screws, they form an orifice, like the barrel of a gun. About half way down said sheath, (see B) and on the front side thereof, the front half of said sheath is cut, and the lower part is made to open, being stayed up by 4 slides, (marked V on the plan) one above the other, and let into a bevel, on each side of the sheath. The slides are about one inch wide, and $\frac{1}{4}$ inch thick. The two upper ones are about 5 inches long, and the two lower ones are about 3 inches long. The slides are made fast at one end, to the movable part of said sheath, running back through a let in on the side of the back part of the sheath, cut square on the bottom, and dovetailing at the top. The front lower half of said sheath, (stayed up as before said) is made to open by the hand, by means of a strap, made fast nigh the top, and when opened, see U, on the plan, the unshelled ear of corn is put in, with the other hand. As soon as the ear of corn is put in, the opening part of the sheath, see C, is closed by means of strings, or leather straps running back from the ends of the slides V (which are made fast to the movable part of the aforesaid sheath) and fastened to a wooden spring marked E, on the plan set in rear of the sheath, (see B), and fastened to the bottom of the box, see M. This closes the sheath firmly. A piston, or punch of wood, (see D) of the size of the orifice in the sheath, is brought down upon the ear of corn, by means of a treadle, marked P, on the plan. This foot treadle is fastened to the back right hand post, and running to the front. At a sufficient distance from the front end of the treadle, a wire J, marked on the plan, $\frac{1}{2}$ an inch in diameter, is made to pass through the treadle, (see P) and fastened on the underside of said treadle with a screw. The wire, (see I) then passes up through the box, (see M), and is fastened to the end of an iron, marked G, on the plan. This iron is fastened to the piston or punch, (see D) and is steadied by running in a crease made in the center upper front part of said sheath. This crease is made by the stationary front part being in 2 pieces, left open in the center, two eighths of an inch, all the way up and down the stationary front part of the sheath, see B. The aforesaid iron, (see G) is then turned to the right, at right-angle, for the purpose of reaching the wire, (see I) that the wire may stand perpendicular over the treadle, see P. The foot of a man is put upon the treadle, and it is brought down. This act brings down the piston or punch, (see D) upon the ear of corn, forcing it through the sheller, marked X, on the plan. This sheller is made of several flat pieces of steel, brought to a point at one end, and set in a circle, with the pointed ends up, a little inclining to the center, around a hole made in a thick piece of board, left thicker where the hole is, and made thinner around the edges, marked Y, on the plan; fastened by two screws, one at each end, over a hole, which is made in a plank, (marked H, on the plan) that is framed at each end into the two forward posts, (see L), through the fore part of the box, see M.

This brings the orifice (marked W on the plan) of the sheller, see X, directly under the orifice or groove of the sheath, (see A) made for the piston or punch, see D. The steels, thus arranged, and made to yield a little, which I call the sheller, (see X) form an orifice, (see W), just large enough to permit the cob to pass through, bereft of the corn; the corn falling on the outside of the sheller, (see X) into the box, (see M) and out at the spout, (see N,) in the rear. The cob being pushed by the piston or punch, (see D) to the top of the steel points, which constitutes the sheller, (see X) and as the points of the sheller are set inclining to the center, therefore to carry the cob through the sheller, a wire, marked Q on the plan, ½ an inch in diameter, is let in endwise, in the lower end of the piston or punch, (see D) being left out from the wood, (see Q) about 2 inches. This wire follows the cob into the orifice of the sheller, (see W) below the pressure of its points, when its own heft carries it to the floor, out at a spout, under the sheller, marked T, on the plan. The treadle, (see P) and piston, (see D) immediately ascend, ready to receive another ear of corn, as soon as the foot is taken off; by means of a steel spring, marked O, on the plan, being attached to the upper part of the treadle, (see P) and fastened to the back post, see K.

And I claim, as my invention,

The combination of the piston, with the sheath, and sheller, constructed, and arranged, in the manner set forth.

Leominster September 10th 1841.

JOSEPH H. DERBY.

Witnesses:

CHARLES H. COLBURNE,

WM. PERRY.