T. WRIGHT.

Corn Sheller.

No. 778. Patented June 12, 1838.

Fig. 1.

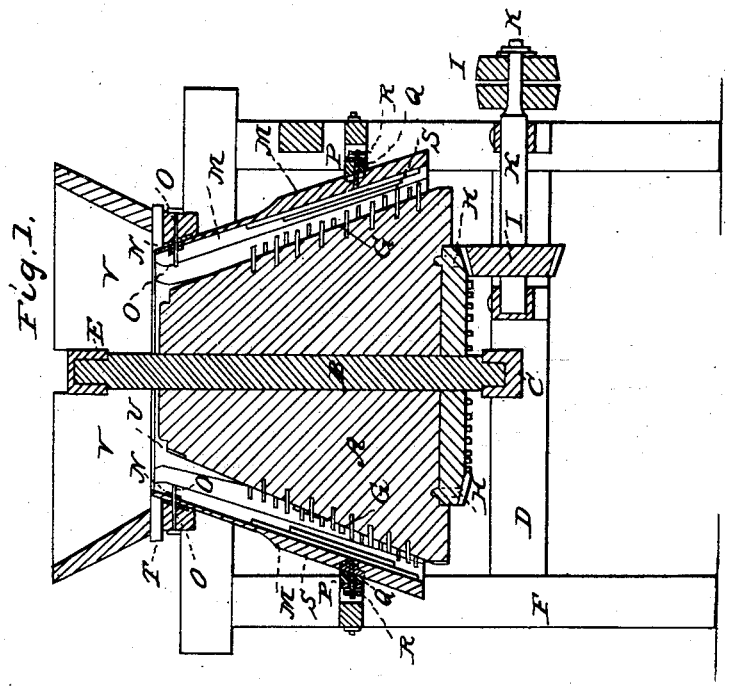
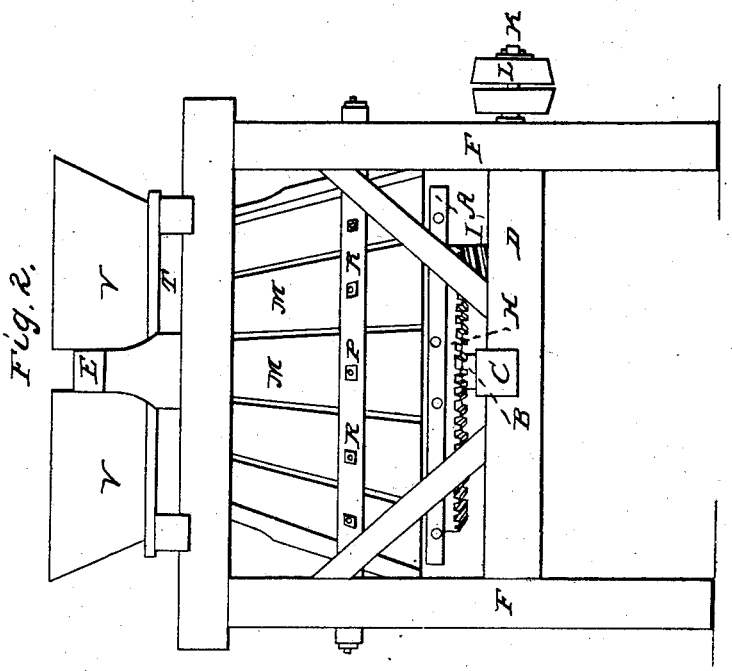


Fig. 2.



UNITED STATES PATENT OFFICE.

THOMAS WRIGHT, OF NEW VILLAGE, NEW JERSEY.

MACHINE FOR SHELLING CORN.

Specification of Letters Patent No. 778, dated June 12, 1838.

To all whom it may concern:

Be it known that I, THOMAS WRIGHT, of New Village, Warren county, State of New Jersey, have invented a new and useful Machine for Shelling Corn, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

This machine consists of a solid frustum of a cone, A, Figures 1, 2 and 3 having a vertical axle B, passing through its center on which it is fixed—turning in a step on a bridge-tree C, resting on two side pieces of the frame, F, and the upper end turning in a cross piece E of the frame F above the top of said frame; and the surface of said frustum of a cone being armed with teeth G for taking off the grains of corn from the cob, and which frustum of a cone is turned by means of a circular row of beveled cogs H on the lower end, into which works a bevel pinion I fixed on a horizontal axle K turning in boxes on two cross girts of the frame; having on the end of said horizontal axle a pulley L around which passes a band leading to the horse power for propelling the machine. This frustum of a cone is surrounded by springs M placed near together but so as not to touch each other—the spaces between them being for the escape of grains of corn between them. The upper ends of which springs are made fast to a flat ring N, Fig. 6, or band by screws and nuts O, said ring being fastened permanently to the frame by four horizontal screws V, Fig. 3, at the top thereof, and the lower ends of the springs hang loosely inside a large flat ring or band P, Figs. 1 and 2, of greater diameter than the circle of the springs is intended to be at the place where the ring is placed—each of said springs being attached to said ring, (which is fastened to the frame) by a screw Q screwed into the spring, or into a nut let into the spring, and having a nut R on the other end outside the ring, which may be turned to the right or left for regulating the space between the springs and frustum of a cone and for allowing them to have more or less play over the shanks of said screws, when unequal sized ears of corn are admitted between the springs and frustum of a cone. Each spring is tapered flatwise from the lower to the upper end—the upper third being made considerably thinner for the purpose of giving it elasticity to extend and contract when large and small ears are admitted and for other purposes and is furnished with staples S, Figs 4 and 5, or straight bars of iron with the ends turned at right angles and inserted into the staves for drawing the ears into the machine and turning them in the manner of a screw, which staples or bars are inserted into the face of the spring toward the frustum of a cone or runner in an oblique direction at an angle of about 45 degrees with the edge of the stave, against which staples or oblique bars of iron the ears of corn are pressed by the teeth of the runner and between which and the teeth the feeding and the shelling operation takes place as the runner is turned. The upper or smaller ends of the staves, where the feeding takes place, are placed farther from the surface of the frustum of a cone than at the lower or discharging end.

A square board T Fig. 3, with a circular opening U in the center nearly the diameter of the smaller end of the concave outside with the under edge of the circle beveled is placed on top of the frame, the upper edge of the concave coming against the beveled part of the circle of the board T. Upon this board is placed a feeding hopper V of the usual form. The four horizontal screws V which fasten the upper ring to the frame project into the concave sufficiently far to impede the entrance of the ears of corn and prevent the machine feeding too fast.

The runner may be an inverted cone or a cylinder.

The invention claimed and desired to be secured by Letters Patent consists in—

The construction and arrangement of the springs forming the concave around the frustum of a cone in combination as above described with the large ring and screws for confining them in a circle and at the same time allowing the lower or larger ends of them to recede from the center, when large ears of corn are admitted and to advance toward it again when small ears are admitted.

THOMAS WRIGHT.

Witnesses:
WM. P. ELLIOT,
WM. BISHOP.