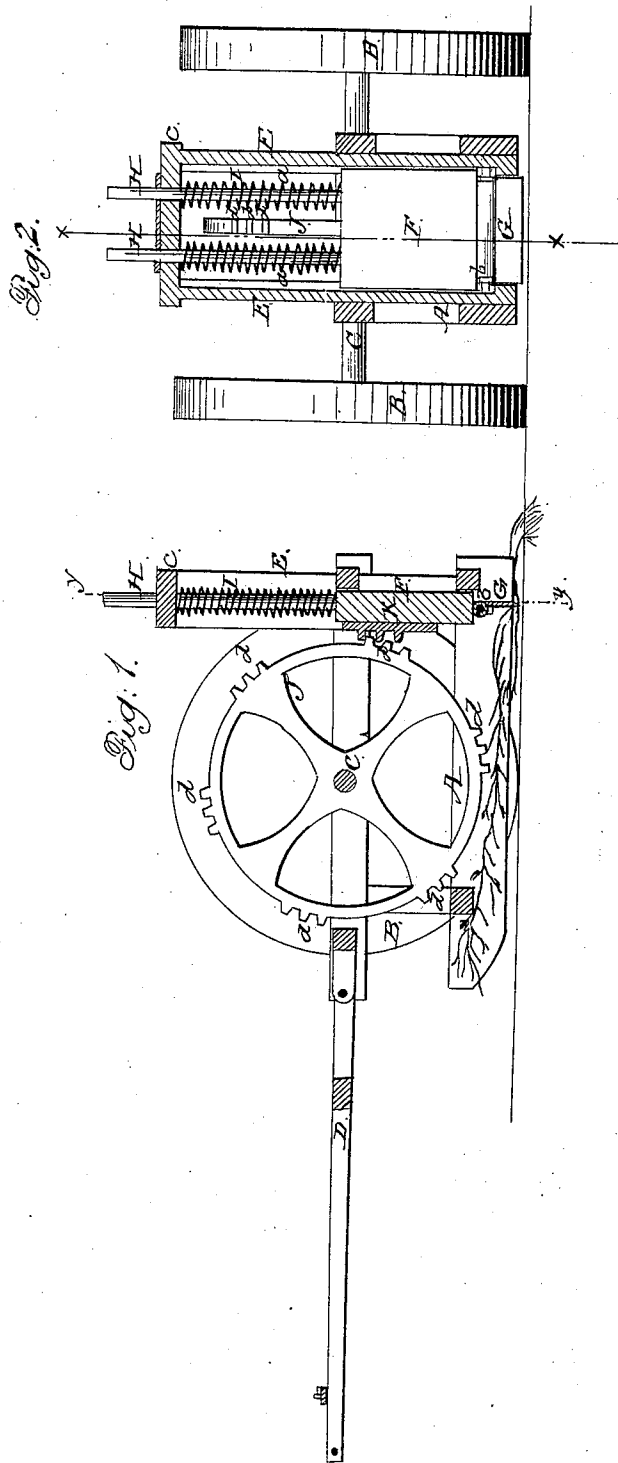


S. BOWERMAN.

Stalk-Chopper.

No. 13,505.

Patented Aug. 28, 1855.



UNITED STATES PATENT OFFICE.

S. BOWERMAN, OF DETROIT, MICHIGAN.

IMPROVEMENT IN MACHINES FOR CUTTING STANDING COTTON-STALKS.

Specification forming part of Letters Patent No. 13,505, dated August 28, 1855.

To all whom it may concern:

Be it known that I, S. BOWERMAN, of Detroit, in the county of Wayne and State of Michigan, have invented a new and Improved Machine for Cutting Standing Cotton-Stalks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a longitudinal vertical section of my improvement, *xx*, Fig. 2, showing the plane of section. Fig. 2 is a transverse vertical section of the same, *yy*, Fig. 1, showing the plane of section.

Similar letters of reference indicate corresponding parts in the two figures.

The nature of my invention consists in the combination of a block, knife, rods, springs, rack, and cog-wheel, arranged as will be presently fully shown and described, for the purpose of cutting standing cotton-stalks.

To enable others skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a frame which is supported by two wheels, B B, the axle C of the wheels passing through the upper part of the frame, so as to bring the lower part of the frame within a short distance of the ground.

To the front end of the frame A the draft-pole or shafts D are attached, and to the back part of the frame there are secured two uprights, E E, one at each side of the frame. The inner sides of the uprights E have longitudinal grooves *a* made in them, in which a block, F, is fitted, said block having a knife, G, secured to its lower end, the knife being attached rigidly to the block or by a joint, *b*, as shown

in the drawings. The upper end of the block F has two vertical rods, H H, attached to it, which rods pass through a cross-piece, *c*, at the upper ends of the uprights. The rods between the cross-piece and blocks are encompassed by spiral springs I I.

On the axle C of the wheels B B, at its center, there is hung a wheel, J, which has cogs *d* on its periphery, three cogs being placed near each other and suitable spaces being allowed between each set of cogs of three each, as clearly shown in Fig. 1. On the inner side of the block F there is attached a rack, K, formed of three teeth, in which the cogs *d* on the wheel J catch when said wheel rotates. As the machine is drawn along the wheel J of course rotates and the cogs *d* catch into the rack K and raise the block F, and when the cogs pass out from the rack K the springs I I force down the block F and the knife G cuts the cotton-stalks, which are bent over by the frame, as shown in Fig. 1. The knife G, as before stated, may be attached rigidly to the block F or hung on a bar or shaft or by a joint, so that it may turn either to the right or left and cut obliquely. This may be advantageous in some cases.

The above machine is simple and effective, and may be drawn by a single team.

I claim—

The combination of the block F, knife G, rods H H, springs I I, rack K, and cog-wheel J, when arranged for the purpose specified, substantially as herein shown.

S. BOWERMAN.

Witnesses:

ELISHA CHASE,
LAURENCE DALY.