A. P. NORTON.
Corn and Cob Mill.

No. 5,533.

Patented April 25, 1848.

Fig. 5

Fig. 6

Fig. 3

Fig. 4

Fig. 2

Fig. 1
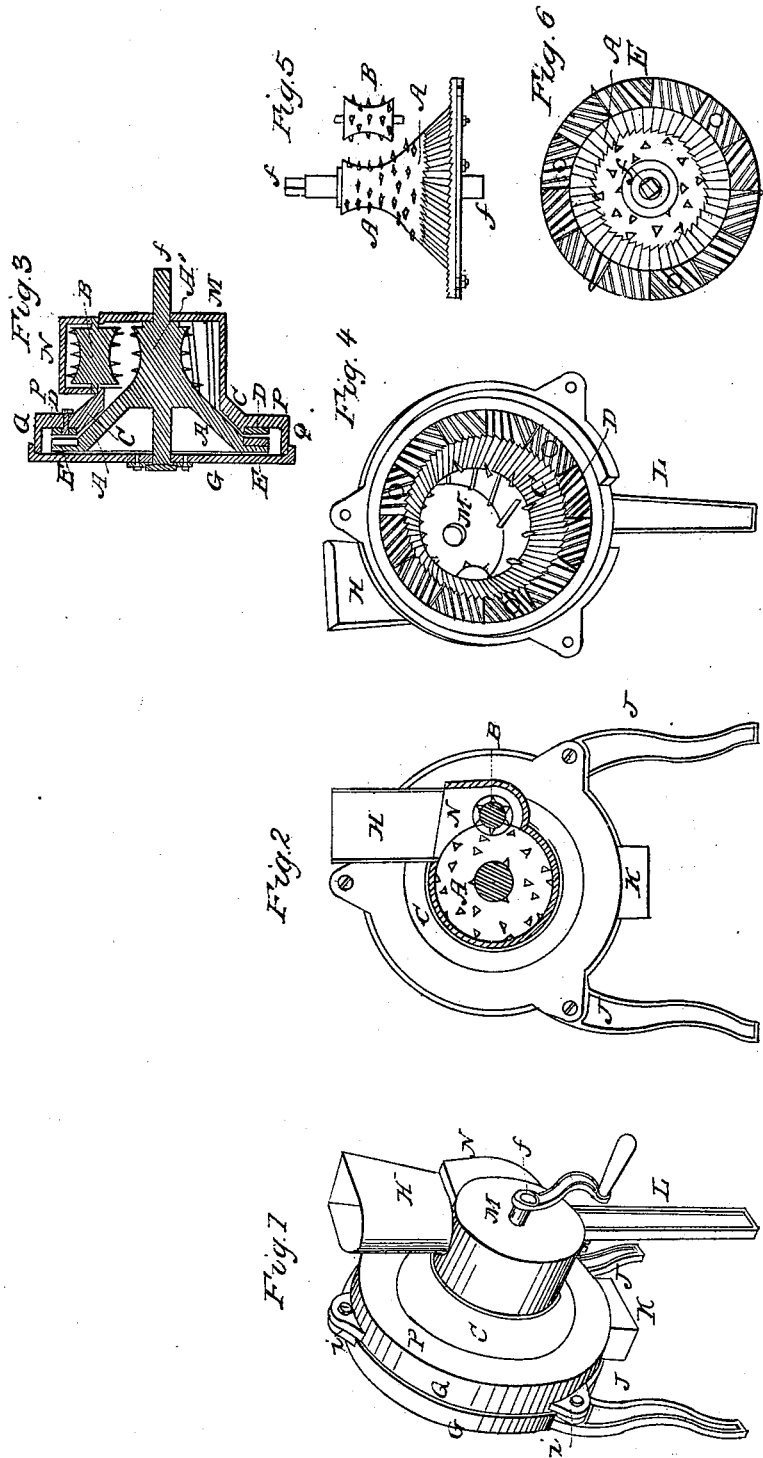
UNITED STATES PATENT OFFICE.

A. P. NORTON, OF PITTSBURGH, PENNSYLVANIA.

MILL FOR CRUSHING AND GRINDING.

Specification of Letters Patent No. 5,533, dated April 25, 1848.

To all whom it may concern:

Be it known that I, A. P. NORTON, of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and Improved Corn and Cob Mill for Crushing and Grinding Corn with the Cobs; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view; Fig. 2, a transverse section; Fig. 3, a longitudinal section; Fig. 4, a perspective view of a part of the mill detached; and Figs. 5 and 6, are plans of parts of the mill detached.

Similar letters indicate like parts in all the figures.

A, is a conical serrated surface, suspended by, and rotating on the horizontal axle *f*. The conical grinding surface A, terminates at its smallest end in a concave surface A′, armed with strong radiating teeth, and at its largest end in a vertical flange, to which is bolted the serrated faced ring E.

C, is a hollow frustum of a cone, having a serrated surface on its inner side which corresponds with the conical grinding surface A, placed within the same. The hollow frustum C, terminates at its smallest end in the cap M; and at its largest end in the annular radial projection P, and horizontal flange Q, as represented in Fig. 3.

N, is a lateral enlargement of the cap M, in which is placed the roller B, having a concave toothed surface corresponding with the surface of A′, opposite which it is placed as shown in Figs. 3, and 5.

D, is a ring secured to the rear surface of the annular projection P, having a serrated surface corresponding with the ring E, opposite which it is placed, as shown in Fig. 3.

G, is a circular plate, having a projecting horizontal flange which embraces the flange Q, to which it is secured by screw bolts passing through the ears *i, i*.

J, J, are legs descending from the plate G, supporting the rear end of the mill.

L, is a leg secured to the cap M, supporting the end of the mill. The axle *f*, of the rotating toothed, and serrated crusher and grinder A, A′, has its bearings in the center of the plate G, and in the head of the cap M.

The corn and cobs are fed in endwise through the hopper H, into the space between the rotating concave toothed surface A′, and the concave faced toothed roller B, motion being imparted to the roller B, by the passage of the cobs and corn between the same and the rotating surface A′. The teeth radiating from A′, and B, are of such a length and shape that they pierce and cut the cobs up into short pieces. The cobs being thus cut into short pieces, pass with the corn upon them, between the grinding surfaces of A, and C, where it is partially operated upon and crushed, thence it passes to the flat serrated surfaces between the rings D, and E, which complete the operation of grinding and mixing the corn and cobs thoroughly with each other, and discharge the same through the spout K. When the rings D, and E, become dull, they can be removed and replaced by new ones. The space between the grinding surfaces can be adjusted in any well known or usual manner.

Having thus fully described my improved corn and cob mill, what I claim therein as new, and desire to secure by Letters Patent, is—

The manner of cutting the cobs into short pieces and crushing and grinding the same with the corn, by means of the rotating toothed concave surface A′, combined with the corresponding toothed concave surface of the auxiliary roller B, and these two combined with conical serrated surfaces A, and C, and the serrated rings D, and E, substantially in the manner herein set forth.

A. P. NORTON.

Witnesses:
Z. C. ROBBINS,
GUY C. HUMPHRIES.