2 Sheets—Sheet 1.

H. C. SCHARNWEBER & E. BARKHAM.

Corn-Sheller.

No. 201,359. **Patented March 19, 1878.**

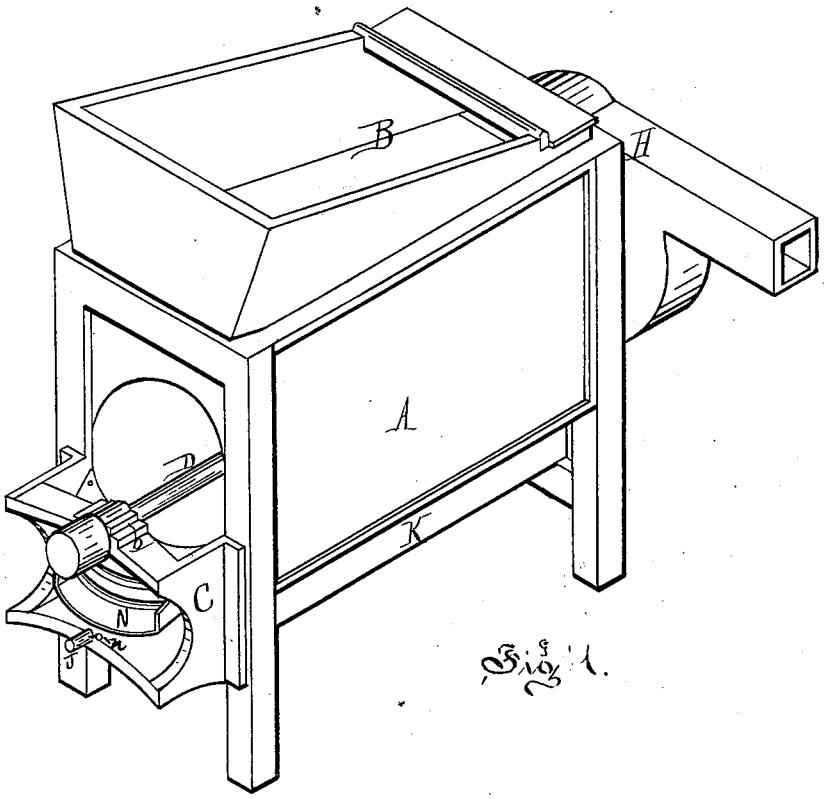

Fig. 1.

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Chas. Thurman.

Inventor:
H. C. Scharnweber
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2 Sheets—Sheet 2.

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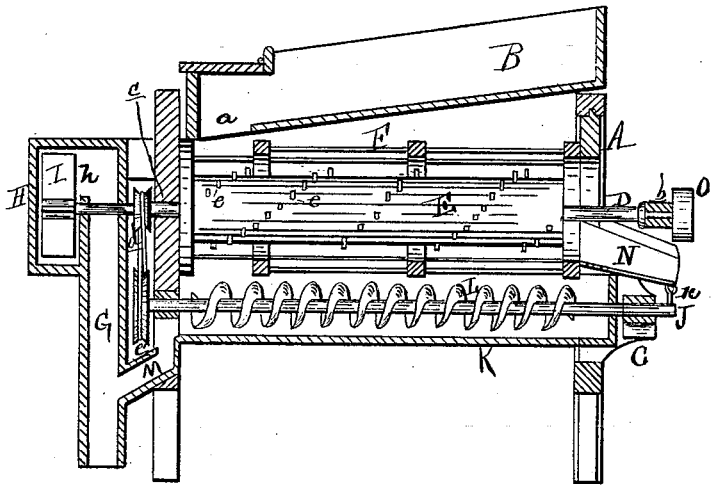

Fig. 2.

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UNITED STATES PATENT OFFICE.

HENRY C. SCHARNWEBER AND EDMUND BARKHAM, OF COMMERCE, MICH.

IMPROVEMENT IN CORN-SHELLERS.

Specification forming part of Letters Patent No. **201,359**, dated March 19, 1878; application filed December 31, 1877.

To all whom it may concern:

Be it known that we, HENRY C. SCHARNWEBER and EDMUND BARKHAM, of Commerce, in the county of Oakland and State of Michigan, have invented a new and useful Improvement in Corn-Shellers; and we do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification.

The nature of this invention relates to an improvement in construction of corn-shelling Machines; and it consists in the peculiar manner of vibrating the slotted cob-discharge apron, and in the combination with the same of the carrier-trough and spiral conveyer, as fully hereinafter explained.

Figure 1 is a perspective view. Fig. 2 is a central longitudinal section.

In the drawings, A represents the frame and case of a sheller surmounted by the hopper B, whose discharge-orifice *a* is at one end.

Rigidly secured to one end of the frame A is a bracket-frame, C, in the upper girder of which one end of the shaft D is journaled at *b*, while the other end of the shaft which runs longitudinally through the center of the case is journaled in the frame at *c*.

Mounted upon this shaft D, within the case, is a cylinder, E, in whose surface are spirally arranged the shelling-teeth *e*. These teeth we prefer to make with square heads, and provide them with screw-points, in order that they may be regulated in their projection from the cylinder, as circumstances may require.

Surrounding this cylinder, excepting at the point directly under the discharge-orifice of the hopper, is a shelling-cage, F, which is composed of square bars of iron set so as to present one corner or edge of each bar to the ears of corn as they are thrown against them by the action of the cylinder, and at such distance apart as to prevent an ear of corn passing between them.

Rigidly secured to one end of the frame A is a wind-trunk, G, carrying at its top a fan-case and an exhaust-trunk, H, an air-passage, *h*, communicating between the trunk G and fan-case H. The shaft D extends beyond the case A, and through the fan-case and wind-trunk, carrying upon its end a fan-wheel, I.

Between the wind-trunk G and the case A there is keyed to the shaft D a pulley, *d*. Directly under this pulley *d* is another pulley, *e'*, mounted on the end of a carrier-shaft, J, journaled through the frame A, and within a carrier-trough, K, constructed below the main case of the machine. Secured to this shaft J is a spiral carrier, L.

From the discharge end of the carrier-trough there is a spout, M, which connects with the lower end of the wind-trunk.

There is an opening in the end of the case A, opposite the end of the shelling-cage, through which the cob is ejected. Should there be any kernels of corn still adhering to the cob they will be shaken off by the slotted vibrating apron N, which is pivoted at that end of the machine to the case, and receives its vibrating or jarring motion from a stud or knocker, *n*, upon the end of the carrier-shaft. The corn which is shaken off by this apron falls through the slots or openings down into the carrier-trough.

A pulley is secured to one end of the shaft D, by means of which motion is imparted to the various parts from any convenient power.

Corn in the ear is fed into the hopper B and discharged therefrom through the orifice into the shelling-cage and upon the spiked cylinder. This cylinder, being kept continually revolving, throws the ears against the bars of the cage, the result of which is to effectually shell the corn from the ear. The kernels of corn drop to the bottom of the case and into the carrier-trough, from whence they are carried to the spout M and discharged into the wind-trunk G, falling from thence into a bag or other proper receptacle. Should there be any chaff or small pieces of cob mixed with the corn after being shelled, they are drawn up the wind-trunk by the fan or blower and discharged through its discharge-trunk. The cob passes on over the cylinder to the exit at the rear of the machine, and falls upon the vibrating apron, which shakes off what kernels of corn there may be still adhering to it, such

kernels falling through the slots in the apron into the conveyer-trough, while the cob falls off upon the floor.

What we claim as our invention is—

1. In a corn-shelling machine, the slotted cob-discharge apron N projecting from one end of the machine, and vibrated by a knocker, *n*, upon the end of the conveyer-shaft situated below it, substantially as described and shown.

2. In a corn-shelling machine, the combination of the carrier-trough K, situated longitudinally below the shelling-cylinder and inclosing-cage, and extended at one end beyond the same, the spiral conveyer L having its shaft J passing through the end of the carrier-trough, with the slotted cob-discharge apron N vibrated by the conveyer-shaft, and having its slots arranged directly over the extended end of the carrier-trough, constructed and arranged substantially as described and shown.

In testimony that we claim the above as our invention we hereunto affix our signatures.

HENRY C. SCHARNWEBER.
EDMUND BARKHAM.

Witnesses to the signature of H. C. Scharnweber:

H. S. SPRAGUE,
C. R. HULETT.

Witnesses as to the signature of E. Barkham:

WM. WIX,
J. R. MACOMBER.