

J. B. JOHNSON
Corn-Shellers.

No. 141,795.

Patented August 12, 1873.

Fig. 1.

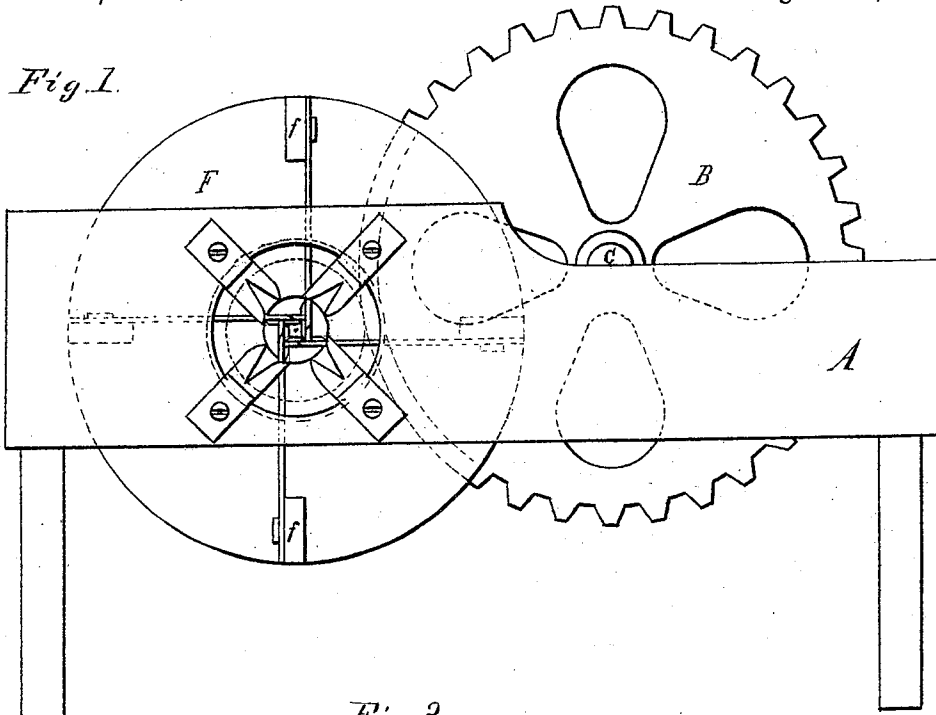


Fig. 2.

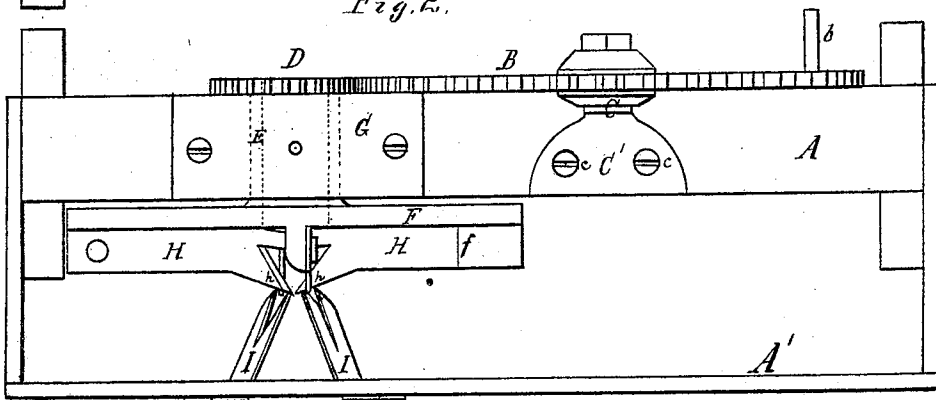
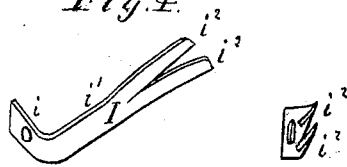


Fig. 3.



Fig. 4.



Witnesses:
 E. A. Bates.
 Villette Anderson.

Inventor.
 John B. Johnson
 Chipman, Hoar & Co.
 Attys

UNITED STATES PATENT OFFICE.

JOHN B. JOHNSON, OF ALMA, ILLINOIS.

IMPROVEMENT IN CORN-SHELLERS.

Specification forming part of Letters Patent No. **141,795**, dated August 12, 1873; application filed June 21, 1873.

To all whom it may concern:

Be it known that I, JOHN B. JOHNSON, of Alma, in the county of Marion and State of Illinois, have invented a new and valuable Improvement in Corn-Shellers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of my improved corn-sheller by an elevation. Fig. 2 is a plan view of the same. Figs. 3 and 4 are detailed views.

My invention relates to corn-shellers; and consists in the novel construction and arrangement of a spring-guide and holder for the corn-ears, and of a revolving and self-feeding corn-sheller composed of a wheel with tangential spring-knives. The object of my invention is to shell corn not by direct pressure upon the kernels, which is, in many cases, very injurious, but by paring the kernels from the cob, which requires very little power, and works much quicker than the old method.

In the drawings, A represents a trestle, of a very heavy construction, to which a driving-gear, B, is attached by means of a stud-bearing, C, with a flange, C', and screws or bolts c. The wheel B operates the pinion D, which has a tubular hub, E, and is therewith connected to a face-plate, F, with lugs f. The hub E is supported by a metal bearing, G, which is fastened to the trestle A. The face-plate F is provided with springs H, fastened to the lugs f, and arranged in tangential order around an imaginary circle, answering the size of the smallest corn-cobs known. The springs H have boot-shaped ends, consisting each of a triangular knife-blade, h, with an advancing point, and a still more advancing twisted heel, h', answering the pitch of a right-handed screw. An auxiliary frame, A', is attached to the trestle A, for the support of a number of guide-springs, I, arranged in a circle around the axis of the hub E. The springs I consist each of a strip of sheet-steel, bent at almost a right angle, forming thereby a foot, i, with which it is fastened to the frame A'. The shank i' is

parted near its end into two tongues, i², which are twisted in the direction of a right-handed scroll, and thus serve to bite or hold on to the corn-ear and keep it from turning. The position of the springs I is such that the shanks i' form a cone, with the large opening, answering the size of the largest corn-ear known, at the place of fastening in the frame A'; and with the small opening, answering the size of the smallest corn-ear known, close to the revolving knives h. The wheel B is operated by a handle, b, fastened to the side of it.

When the machine is to be used, the plate H is set in motion by turning the wheel B; the corn-ears are inserted by hand between the springs H and pushed against the revolving knives h, which penetrate the pith of the cob below the kernels and lift them from their support. As soon as the core of the cob is moved between the revolving heels h' they bury in its substance, and by means of their above-described formation force a screw-thread into its surface, by which the ear is drawn toward the knives h. The corn-ear is held firmly between the springs I, the advanced parts of the twisted tongues i² entering partly between the rows of the kernels.

This so-described feeding device is automatic, and is therefore valuable for its precision in operation, saving of time, and safety to the operator, who can keep his hands at a distance from the knives.

What I claim as new, and desire to secure by Letters Patent, is—

1. A corn-sheller composed of the revolving paring and feeding springs H and the stationary clamping-springs I, constructed and arranged substantially as specified.

2. In a corn-sheller, the combination of the paring and feeding springs H, the lugs f, and the plate F, constructed and arranged substantially as specified.

3. In a corn-sheller, the springs H with the paring-knife h and twisted heel h', substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

Witnesses: JOHN B. JOHNSON.

JOHN R. SLANE,
S. McCULLOUGH.