(No Model.) 2 Sheets—Sheet 1.

G. N. JOSS.

CORN SHELLER.

No. 469,523. Patented Feb. 23, 1892.

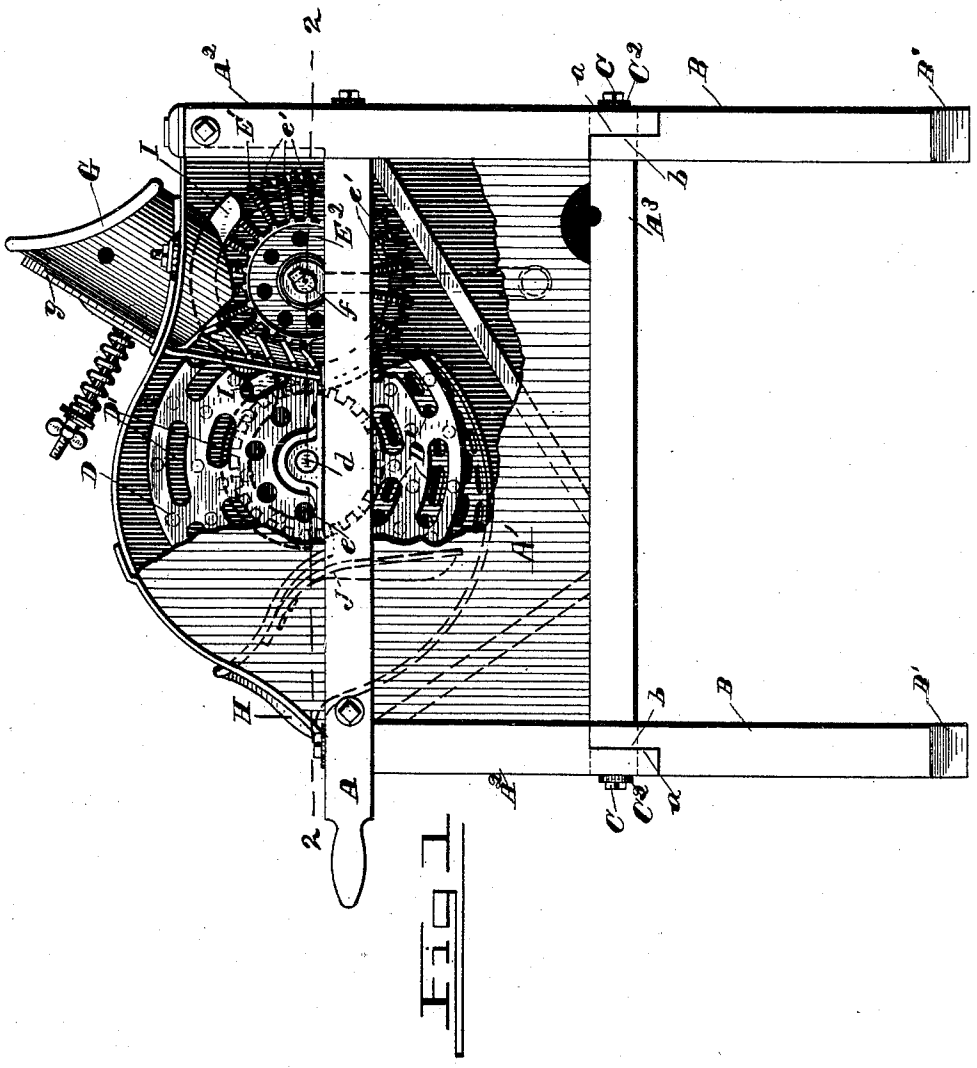

Fig 1

WITNESSES

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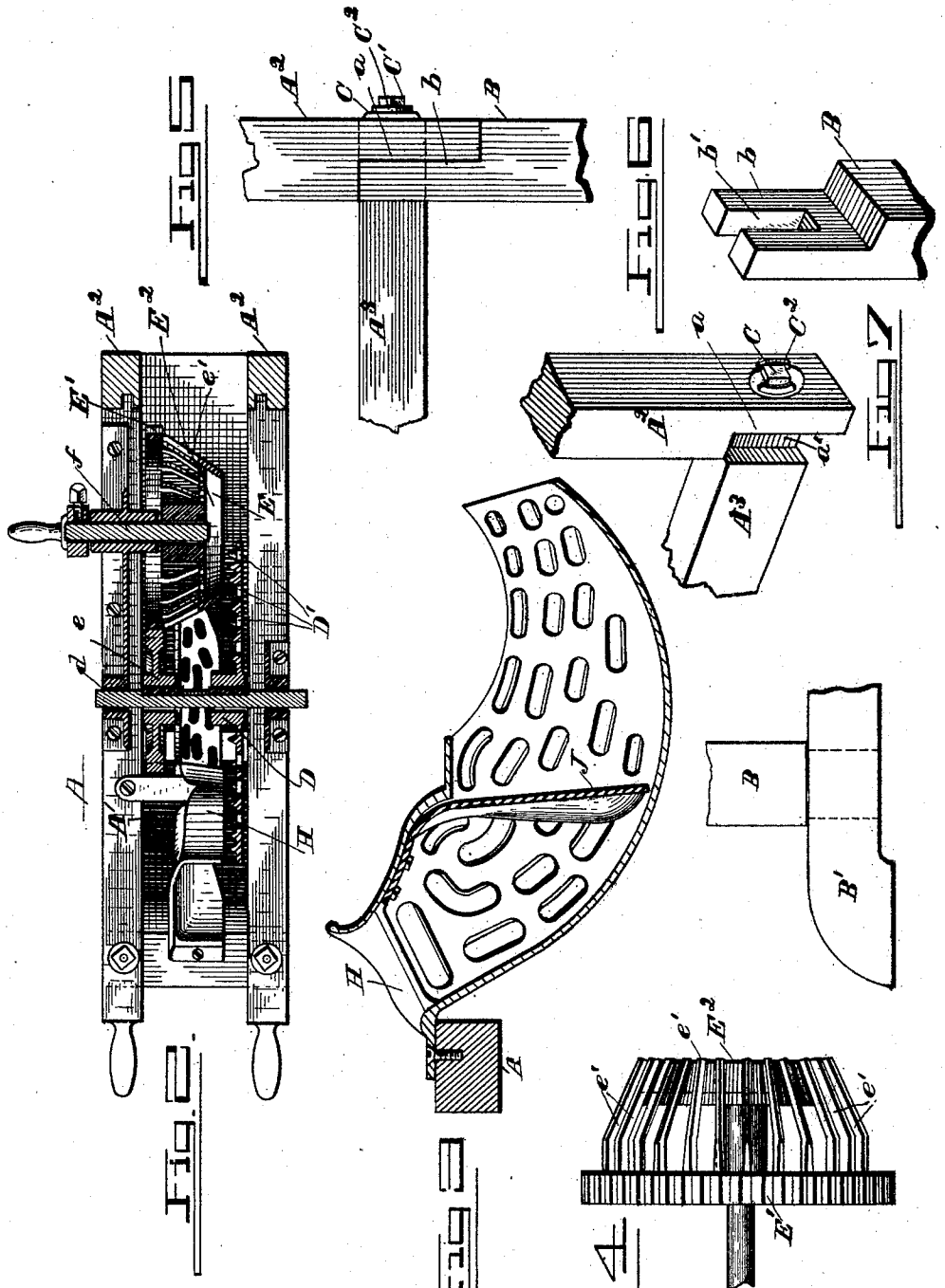

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UNITED STATES PATENT OFFICE.

GEORGE N. JOSS, OF LANCASTER, OHIO.

CORN-SHELLER.

SPECIFICATION forming part of Letters Patent No. 469,523, dated February 23, 1892.

Application filed September 10, 1891. Serial No. 405,293. (No model.)

To all whom it may concern:

Be it known that I, GEORGE N. JOSS, of Lancaster, in the county of Fairfield and State of Ohio, have invented certain newand useful Improvements in Corn-Shellers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a side elevation of my improved corn-shelling machine, partly broken away to show the interior arrangement of parts. Fig. 2 is a horizontal transverse sectional view of the same on line 2 2 Fig. 1. Fig. 3 is a detail vertical sectional view showing the tongue. Fig. 4 is a detail view of the shelling-cone detached. Figs. 5, 6, and 7 are detail views of the leg-joint.

This invention is an improvement in corn-shelling machines; and its objects are to improve the construction of the shelling parts and of the supporting-frame, so that the shelled corn shall be perfectly separated from the cobs and the frame can be knocked down to make the machine more compact for shipping.

The invention consists in the novel construction and combination of parts hereinafter described and claimed.

Referring to the drawings by letter, A designates the frame, of ordinary appearance, having a body portion A′, in which the shelling devices are mounted. The legs B B at the ends of the frame are connected together by horizontal transverse foot-pieces B′ B′, as shown, and are removably connected to the corner-posts A^2 of the frame. The upper ends of legs B are rabbeted on their outer faces *b* and the lower ends of posts A^2 are rabbeted on their inner faces at *a* to receive and fit the rabbets of legs B. The ends of the lowest side pieces A^3 of frame A are tenoned, as at *a′*, and the tenons are fitted against and secured to the rabbeted ends *a* of posts A^2 by bolts C, which are tapped through openings in rabbets *a* and in tenons *a′* and secured by nuts C′, held in countersinks C^2 in the pieces A^3, as shown. Rabbets *b* of legs B are slotted, as at *b′*, to fit over the tenons *a′* of pieces A^3. When the legs are jointed to the frame, as indicated in the drawings, the legs are held firmly thereto and can only be separated therefrom by moving them longitudinally, and the weight of the parts assist in keeping the legs in place, and by tightening bolts C they can be so firmly bound between the rabbet *a* and end of piece A^3 that the machine can be moved readily from place to place. When the machine is to be transported, the legs can be taken off, as is obvious.

D designates the picker-wheel mounted on a shaft *d*, journaled in proper bearings on the frame and may have a fly-wheel on one end, and is driven by a pinion *e* from a gear E′ on the end of cone sheller-wheel E, mounted on a shaft *f*, journaled in the frame parallel with shaft *d* and driven by a crank or other suitable means.

G is the throat, and *g* the spring-controlled feed-plate for directing the ears of corn between the picker and shelling wheels.

H is the concave cob-guide suspended below shaft *d* and adapted to catch the shelled cobs and direct them up to the cob-exit opening at the end of the machine opposite the sheller.

The picker-wheel is formed with numerous openings or perforations D′ for the passage of grains of corn. The concave is also perforated or webbed, so that the grain can escape therethrough, and the gears are protected by a hood I to prevent grain falling between the same. A flexible tongue J is attached to the top of the throat of the concave and depends therein in the path of the cobs, and its purpose and effect is to sweep the grain back into the concave, but permit the cobs to pass out. The tongue being flexible yields to permit the cobs to pass it, but the shelled grain striking it rebounds into the hoppered bottom of the machine and are directed into the proper receptacle.

The cone sheller-wheel E, it will be observed, is formed of a perforated or skeleton disk E^2 and an annular gear E′, connected by a series of integral angular ribs *e′ e′*, altogether constituting a skeleton or frame-work sheller through which the grains of corn can readily pass and thence drop onto the hoppered bottom of the machine. By thus making the wheels and several parts of perforated or open-work form ample provision is made

for the free escape of shelled corn onto the bottom of the machine and it is kept from circulating with the wheels in the machine and escaping through the cob-opening.

Having thus described my invention, I claim—

1. In a corn-shelling machine, the combination, with the picker-wheel and pinion *e*, of the conical sheller-wheel E, consisting of a disk E^2, annular gear E′, and the conically-arranged series of connecting-ribs *e*′, extending from gear E′ and over the periphery of disk E^2, all substantially as specified.

2. The combination, with the frame having rabbeted posts, substantially as described, of the removable legs B, having slotted and rabbeted ends, substantially as described, fitted to the posts, as set forth.

3. The combination of the posts A^2, having rabbets *a* on their ends, and the side pieces A^3, having tenons *a*′, bolted to the rabbeted ends of posts A^2, with the legs B, having slotted and rabbeted ends *b*, all substantially as set forth.

4. The combination of the picker-wheel, the conical shelling-wheel, and the gearing between the same and the feed-plate with the concave cob-guide and the flexible tongue J, suspended within the cob-guide and lying between the same and picker-wheel, all substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

GEORGE N. JOSS.

Witnesses:
C. B. WHILEY,
F. B. WHILEY.