

(Model.)

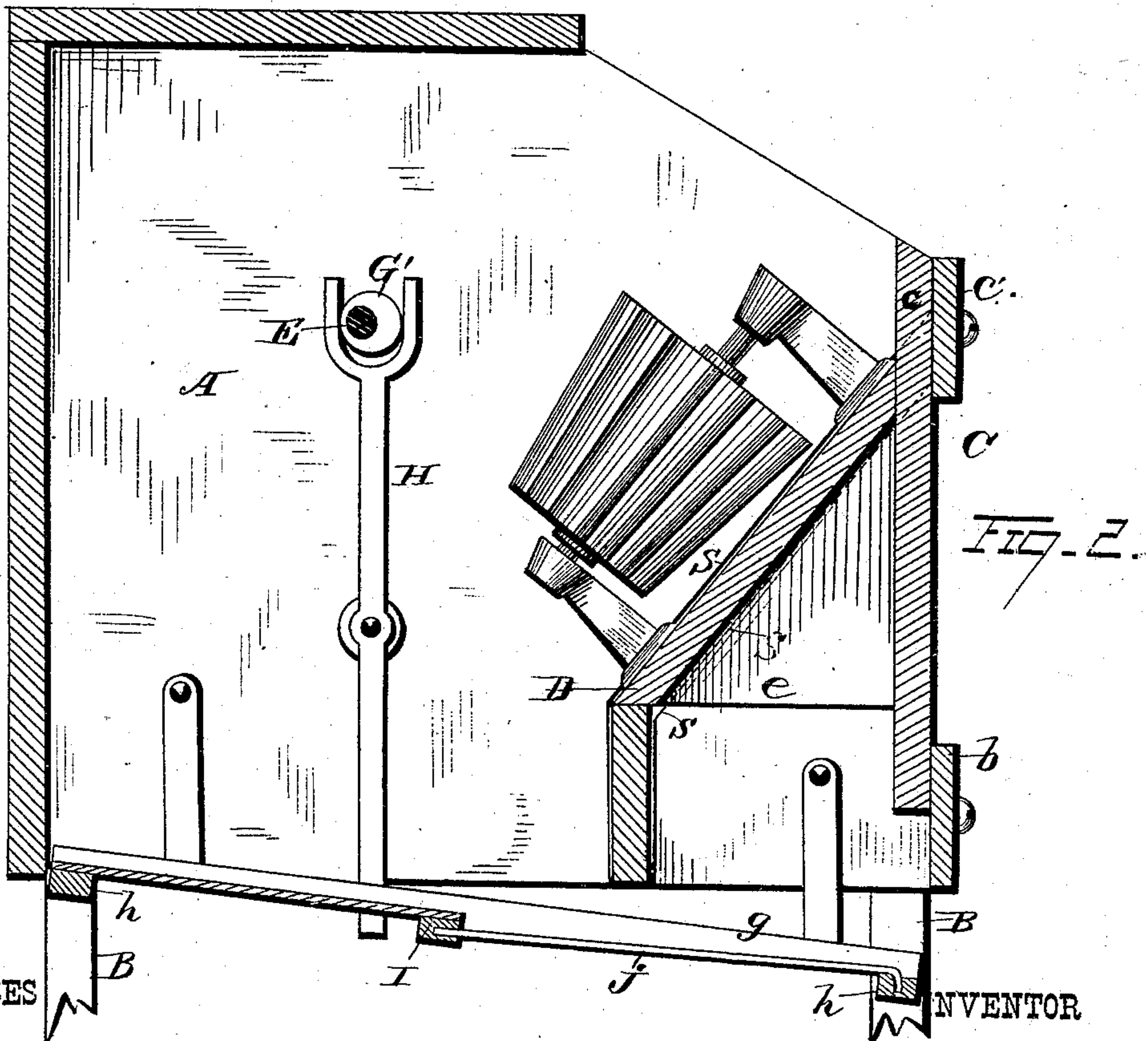
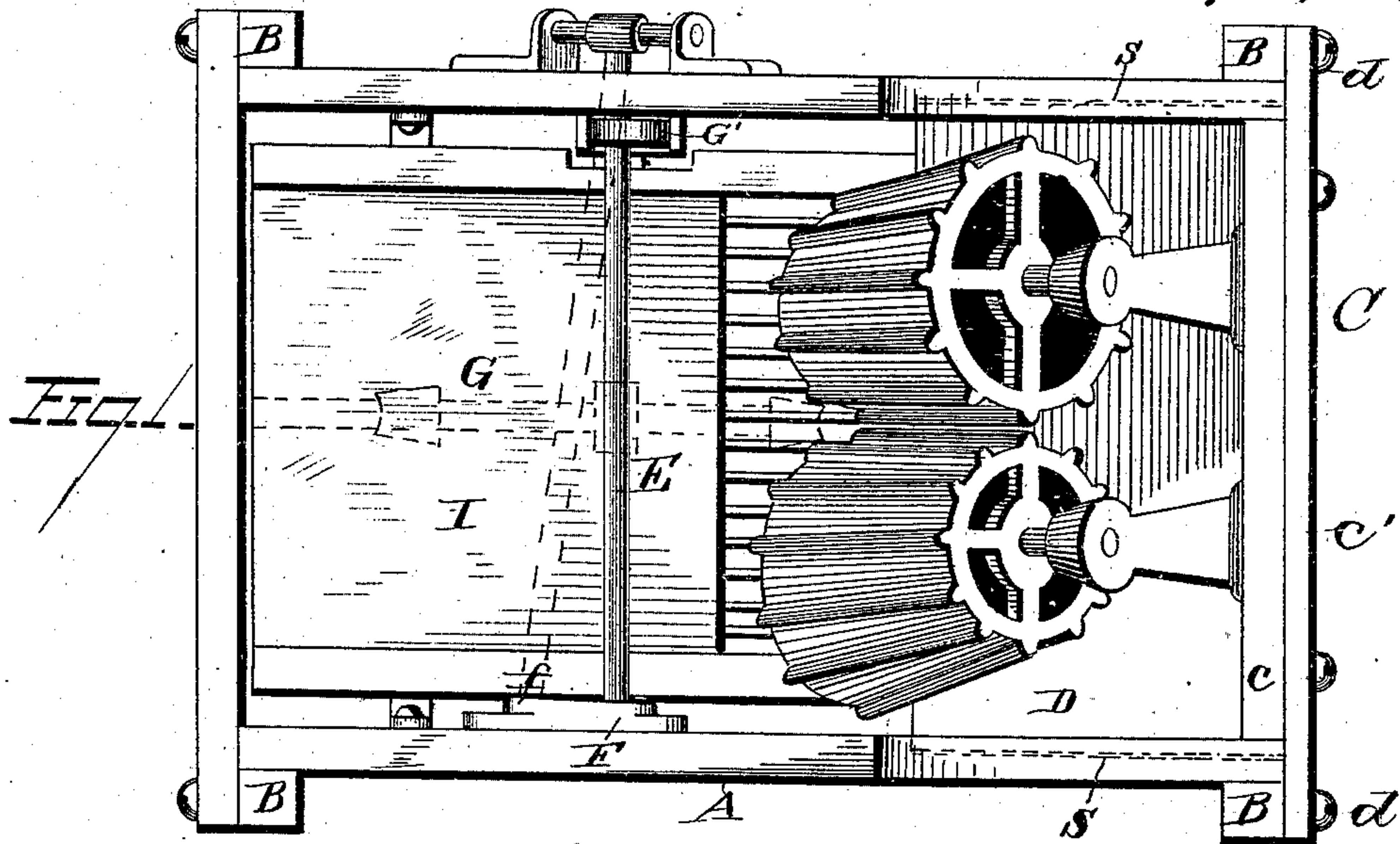
2 Sheets—Sheet 1.

C. P. FERRIER.

Corn Sheller.

No. 241,531.

Patented May 17, 1881.



WITNESSES

*Geo. M. Nottingham*  
*Geo. S. Seymour*

INVENTOR

*Charles P. Ferrer*  
*By H. A. Symmon*  
ATTORNEY

(Model.)

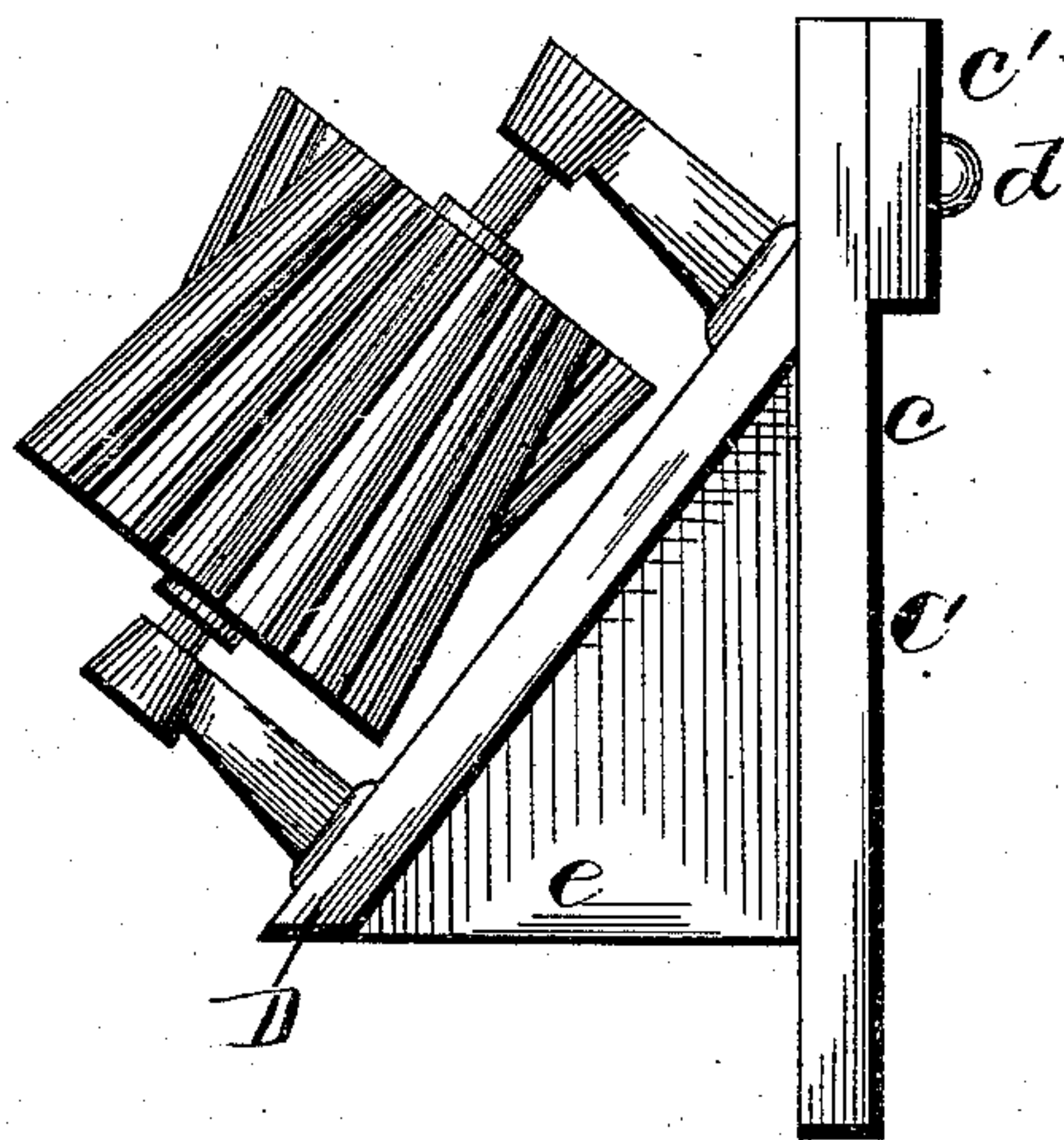
2 Sheets—Sheet 2.

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Fig. 3.



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# UNITED STATES PATENT OFFICE.

CHARLES P. FERRIER, OF YPSILANTI, MICHIGAN.

## CORN-SHELLER.

SPECIFICATION forming part of Letters Patent No. 241,531, dated May 17, 1881.

Application filed March 17, 1881. (Model.)

*To all whom it may concern:*

Be it known that I, CHARLES P. FERRIER, of Ypsilanti, in the county of Washtenaw and State of Michigan, have invented certain new and useful Improvements in Corn-Shellers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in corn-shellers, the object of the same being to provide improved means for the convenience of attaching the cones, cross-shafts, and plates before placing them in the frame.

With these ends in view my invention consists in certain details in construction and combinations of parts, as will be more fully explained, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a plan view of my improved device. Fig. 2 is a transverse longitudinal section; and Fig. 3 is a view with the hopper removed, showing the parts attached thereto.

A represents the sides and rear end of the frame, secured in the manner shown to the standards or legs B, extending throughout the height of the machine.

C is the hopper end of the machine, removably secured in grooves S formed in the sides of the frame, and also to the legs B and horizontal piece b. This hopper end is composed of the end piece, c, having the horizontal brace c' secured on the outside at its upper end, the ends of the brace c' projecting over the sides of the end piece and removably secured to the legs or standards by bolts or screws d passing through holes in the horizontal brace. The lower part of this end piece is secured by screws or bolts to the horizontal piece b.

D is the incline, on which the working parts of the sheller are secured. This incline is secured at its upper beveled end to the end board, as shown, and is strengthened in this position by the braces e, placed between the under side of the incline and the end board. To this incline are secured the cones, cross-shafts, and plates—such, for instance, as shown in Patent No. 87,920, granted to Philo Ferrier, March 16, 1869, or any similar device—my main object

being to furnish convenient and easy means for attaching the working parts of the sheller to a removable part of the frame, so that the working parts can be changed or taken out for repairs at will, without necessitating the removal of the top of the sheller for the purpose.

E is a shaft carrying the wheel G, which serves to keep the corn against the cones while being shelled. One end of this shaft E has a bearing in the side of the frame, while the other end has a sliding bearing in the plate F, secured on the opposite side thereof. This plate F is provided with a flange, f, which has within it an oblong slot, in which the end of the shaft bears. This inner edge of this flange is formed in a segment of a circle, like the one shown in the above-named patent, so that if the axis of the wheel be changed the shoulders on the shaft will at all times bear against the flange on the plate, thereby preventing it from falling out, as would be the case were the flange the same height throughout.

G' is an eccentric secured on the shaft E at one side thereof, adapted to operate the separator placed below the shelling mechanism through the intervention of the bifurcated vibrating lever H. This lever is pivoted to the side of the frame at about its center, with its bifurcation extending upward and embracing the eccentric on the shaft, and the lower or opposite end secured to one side of the separator and imparting a vibratory motion thereto. This separator I is suspended by swinging arms from the inside of the frame-work, and consists of a rectangular frame embracing a metallic bottom. The frame is composed of the side pieces, g, extending throughout the entire length of the separator and forming the sides thereof, and the transverse pieces h, attached, as shown, to the under side of the side pieces, g, and forming the surfaces of attachment for the greater part of the metallic apron. The upper part of this apron consists of sheet metal for a sufficient distance, and the remainder is covered with a perforated iron or wire rack, j, having the perforations or wires sufficiently close together to prevent the cobs from passing between them.

The shelled corn and cobs, after leaving the cones, fall down onto the sheet-metal portion or any solid covering, thereby avoiding the



sticking of the cobs in the meshes of the screen and clogging the same, and from thence down onto the wire rack, where the corn passes through and is received into a suitable receptacle, or onto a screen or sieve, where it is relieved of all foreign matter, while the cobs are carried downward by gravity, assisted by the vibratory motion of the separator, and are deposited outside of the machine.

10 Motion is imparted to the shaft E precisely as shown in the patent before referred to.

It is evident that slight changes in the construction may be resorted to without departing from the spirit of my invention, and hence I would have it understood that I do not limit myself to the exact construction shown and described; but,

Having fully described my invention, what I

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

The combination, with the sides of the frame, having inclined grooves S formed therein, of the incline D, the end piece, *e*, sides *e*, and cross-piece *e'*, the incline D being fitted in the inclined grooves in the sides of the frame, and having the shelling-cones attached thereto, and the entire frame to which the shelling-cones are attached being removably secured to the main frame, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 14th day of March, 1881.

CHARLES P. FERRIER.

Witnesses:

JOHN R. KETCHUM,  
J. M. CHICHESTER.