

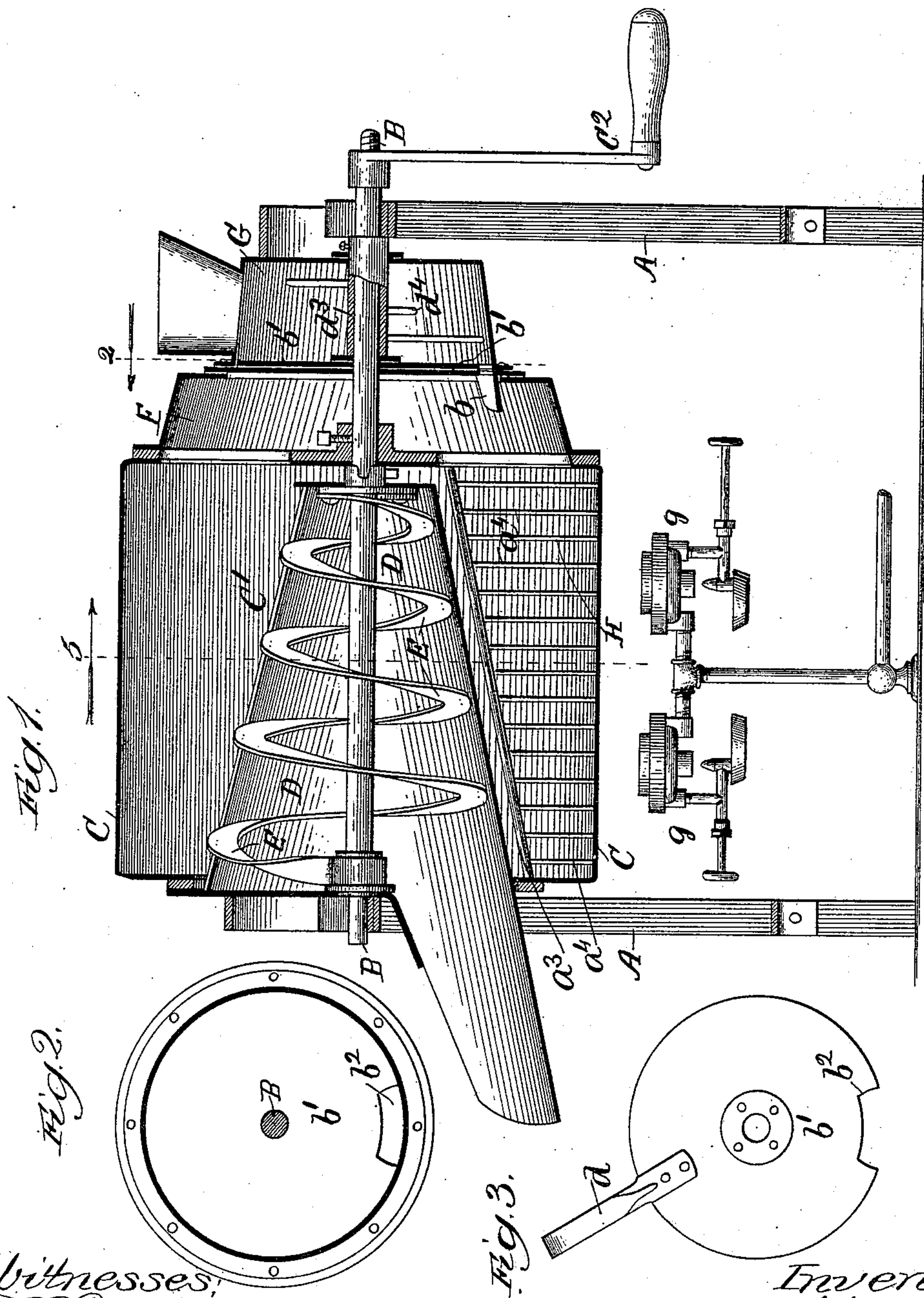
(No Model.)

2 Sheets—Sheet 1.

A. H. GLEASON.  
CORN POPPER.

No. 471,994.

Patented Mar. 29, 1892.



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Fig. 5.

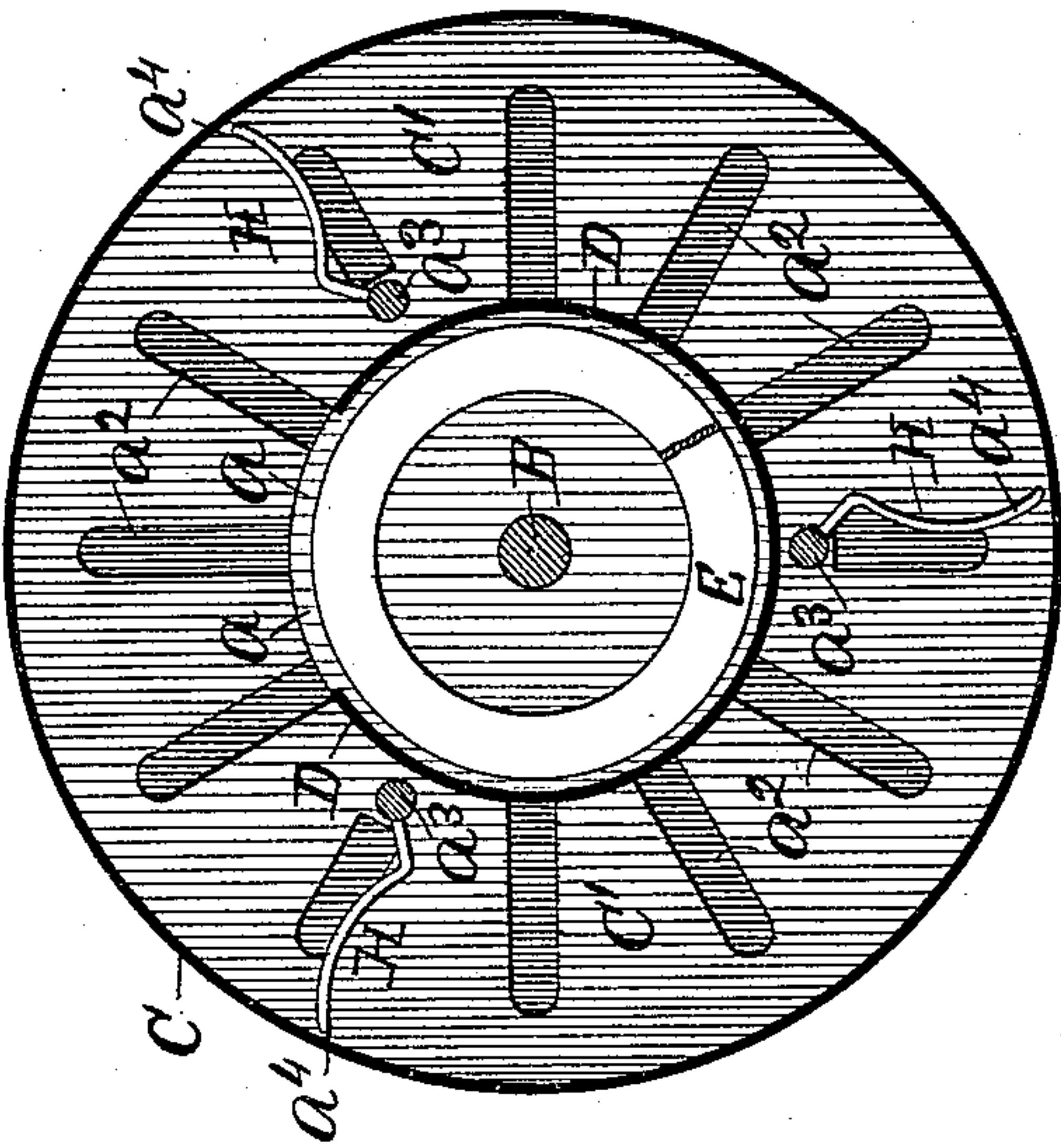


Fig. 6.

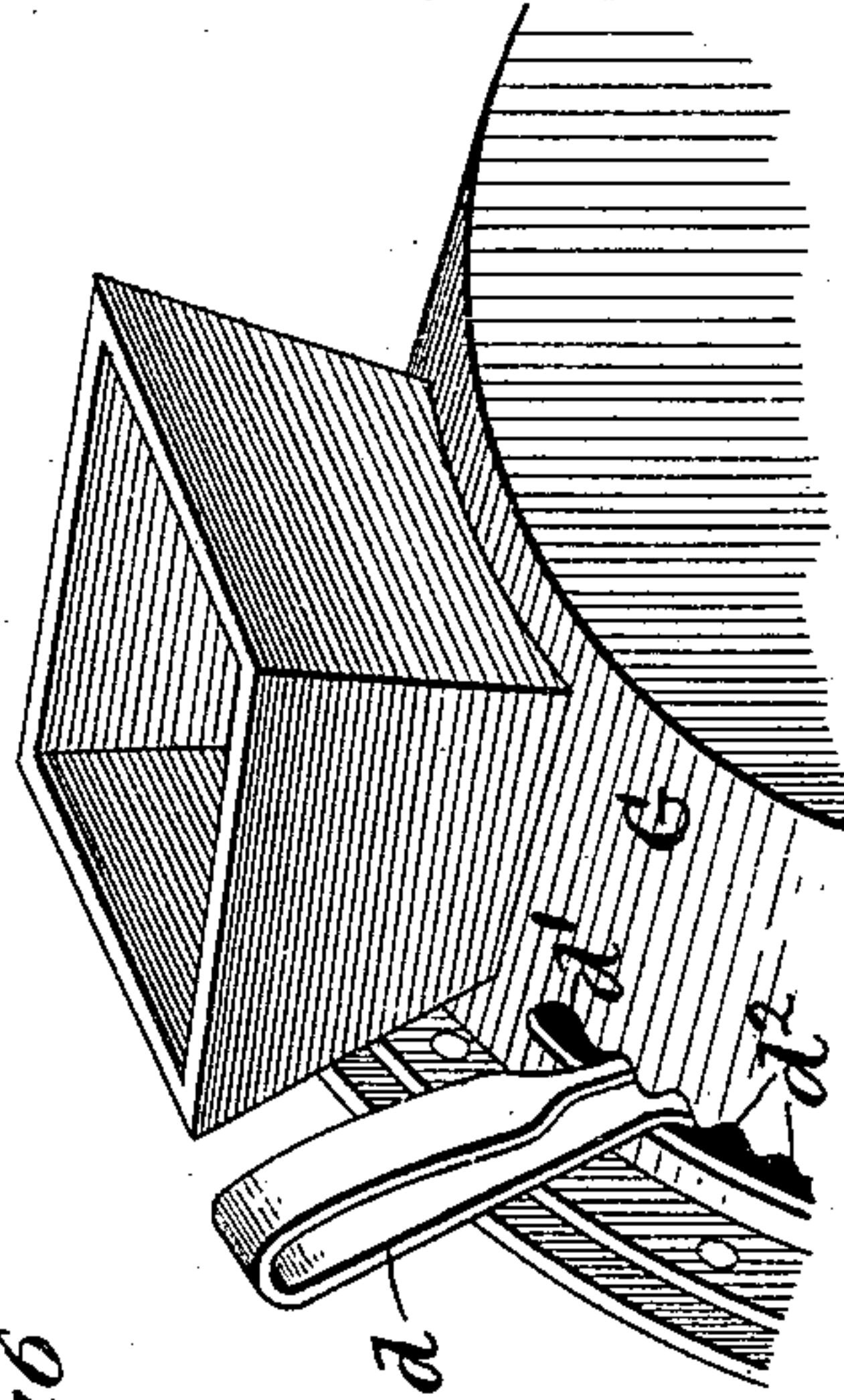
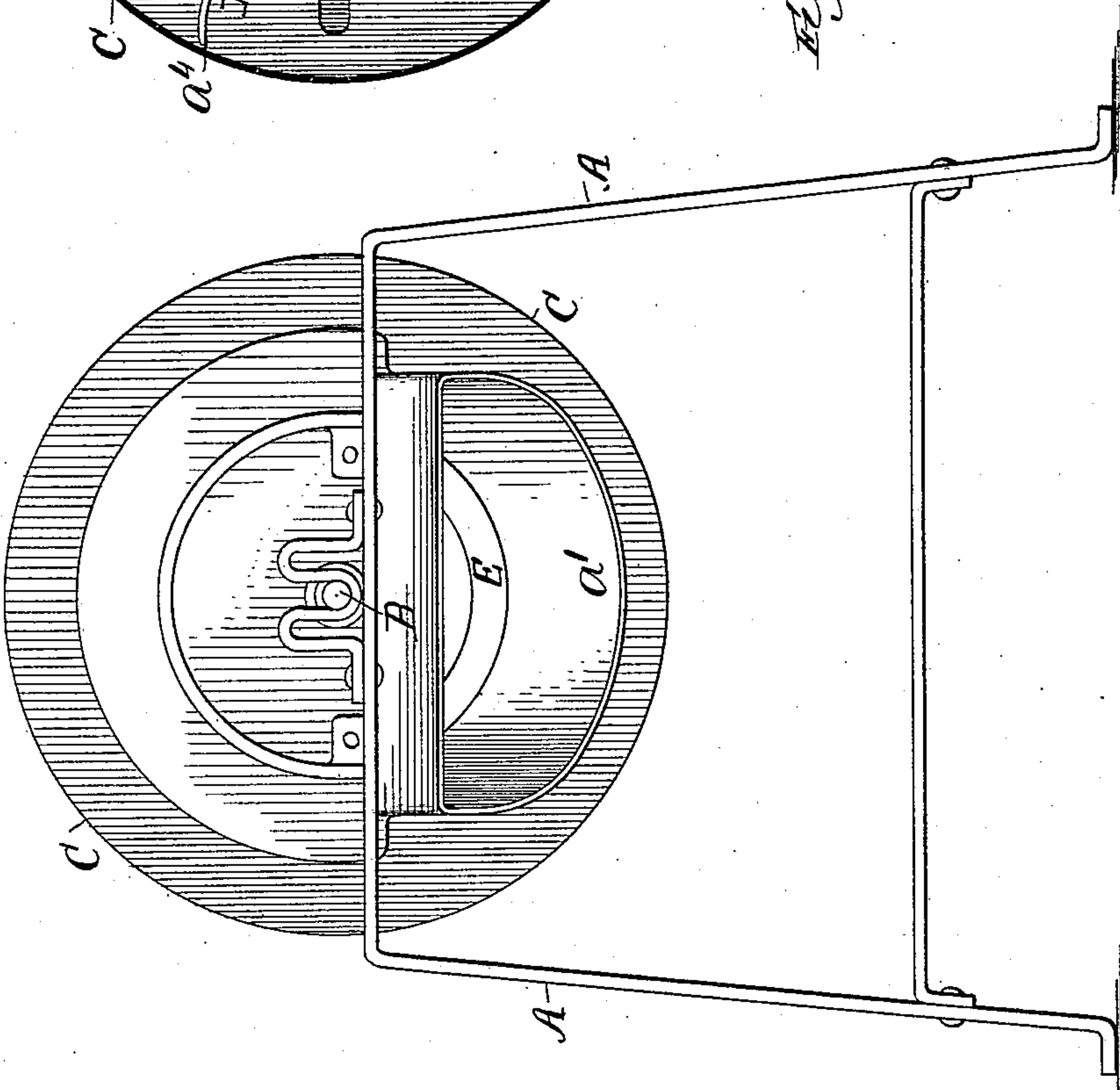


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## CORN-POPPER.

SPECIFICATION forming part of Letters Patent No. 471,994, dated March 29, 1892.

Application filed June 12, 1891. Serial No. 395,985. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT H. GLEASON, a citizen of the United States, residing at Warsaw, in the county of Kosciusko and State of Indiana, have invented certain new and useful Improvements in Corn-Poppers, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a vertical longitudinal section; Fig. 2, a transverse section on line 2, Fig. 1; Fig. 3, a detached elevation of a feed-plate; Fig. 4, an end elevation; Fig. 5, a vertical transverse section on line 5, Fig. 1, looking in the direction indicated by the arrows, and Fig. 6, a broken-away perspective of the hopper and casing inclosing the feed-chamber.

This invention relates to improvements in that class of corn-popping devices in which the operation is continuous; and it consists of certain novel features in the construction, arrangement, and operation of the several parts, as will be hereinafter set forth.

Referring to the drawings, A represents the supporting-frame parts, B a revoluble shaft having its respective ends properly journaled therein, and C a cylindrical casing inclosing the popping-chamber C'. The casing or cylinder C is rigidly mounted on its shaft and both are rotated by means of the handle C<sup>2</sup>.

D is a cylindrical stationary receiver arranged centrally on the inside of the popping cylinder or chamber. This receiver incloses the shaft B, but is supported independently thereof and is of the conical form shown. The receiver is provided in the upper side, Fig. 5, with the elongated opening *a*, which runs the entire length of the same. The spout extension *a'* is a continuation or part of the receiver and projects beyond the end of the apparatus, as shown in Fig. 1.

The spiral conveyer E is located inside of the receiver D and is rigidly mounted on the rotating shaft. The feed-chamber F is rigidly secured to the adjacent end of the popping-cylinder and revolves therewith. This end of the cylinder C is provided with a number of elongated openings *a*<sup>2</sup>, disposed in the manner illustrated in Fig. 5.

The hopper-chamber G is stationary and is loosely supported in position with reference to the shaft passing therethrough.

A number of separators H, Figs. 1 and 5, are arranged on the interior of the popping-chamber between the inclosing casing and receiver. These separators are placed at intervals and consist each of a rod *a*<sup>3</sup> and the fingers *a*<sup>4</sup>, projecting at right angles therefrom. The ends of the rod or rods *a*<sup>3</sup> are rigidly secured in the respective ends of the popping-cylinder. These rods run parallel to the sloping sides of the receiver. The fingers are arranged at intervals and extend close to the inner surface of the inclosing cylinder.

The object of having the receiver gradually enlarge in the direction of the discharge end and the diameter of the spiral conveyer correspondingly increased is to provide for a free delivery and prevent the popped product from becoming clogged in the passage-way.

The spout *b*, Fig. 1, extends from the hopper-chamber into the feed-chamber. The feed-regulating plate or disk *b'*, Figs. 1, 2, and 3, is loosely mounted on the rotating shaft and has the lower edge cut away, as at *b*<sup>2</sup>, so that the spout-passage *b* can be enlarged or diminished by turning said plate for the purpose of allowing a greater or less quantity of corn to pass from the hopper-chamber into the feed-chamber, as may be required.

One end of the handle *d* is attached to the feed-plate, Fig. 3, the other end projecting out through the aperture *d'*, Fig. 6, in the casing inclosing the hopper-chamber, said handle being adapted to engage with the notches *d*<sup>2</sup> and hold the feed in any position to which it may be adjusted.

The sleeve *d*<sup>3</sup> is rigidly mounted on the rotating shaft and is armed with a number of projecting fingers *d*<sup>4</sup>, which are adapted to agitate the body of corn and insure a continuous feed.

*g* indicates a heating device, but as there is nothing new or novel embodied therein a detailed description will be omitted.

In operation the corn is fed into the hopper-chamber, from whence it passes into the feed-chamber and thence into the popping-chamber, where the popped product is picked up by the separators and deposited in the sta-



tionary receiver and expelled therefrom by means of the conveyer-screw. The unpopped corn passes between the separating-fingers, so that the separation of the popped product therefrom is complete as the cylinder is rotated.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

10 1. In a device of the character described, the combination of the supporting-frame, the rotating shaft journaled therein, the popping-cylinder rigidly mounted on said shaft, the stationary receiver provided with an opening  
15 in the upper side and arranged inside of the popping-cylinder and opening out through one end thereof, the spiral conveyer rigidly mounted on the rotating shaft inside of the receiver, and the separators having their ends  
20 rigidly secured in the respective ends of the popping-cylinder, whereby the popped product is separated from the unpopped, deposited in the receiver, and expelled therefrom, substantially as set forth.

25 2. In a device of the character described, the combination, with the revoluble popping-cylinder and its shaft, of the spiral conveyer

rigidly mounted on said shaft, the stationary receiver located inside of said cylinder and inclosing said conveyer, and the separators  
30 arranged between the exterior surface of said receiver and the inclosing sides of the cylinder, substantially as and for the purpose set forth.

3. The combination, with the popping-cylinder and the shaft upon which the same is  
35 rigidly mounted, of the stationary receiver gradually enlarging in the direction of the discharge end, and the spiral conveyer rigidly mounted on said shaft inside of said receiver and correspondingly increasing in di-  
40 ameter, substantially as set forth.

4. The combination of the popping-cylinder having a number of elongated apertures in the feed end thereof, the rotating shaft, the  
45 feed-chamber rigidly mounted on said shaft and communicating with said apertures, the stationary hopper-chamber, and the adjustable feed plate or disk for regulating the passage from the hopper-chamber into the feed-chamber, substantially as set forth.

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