

(No Model.)

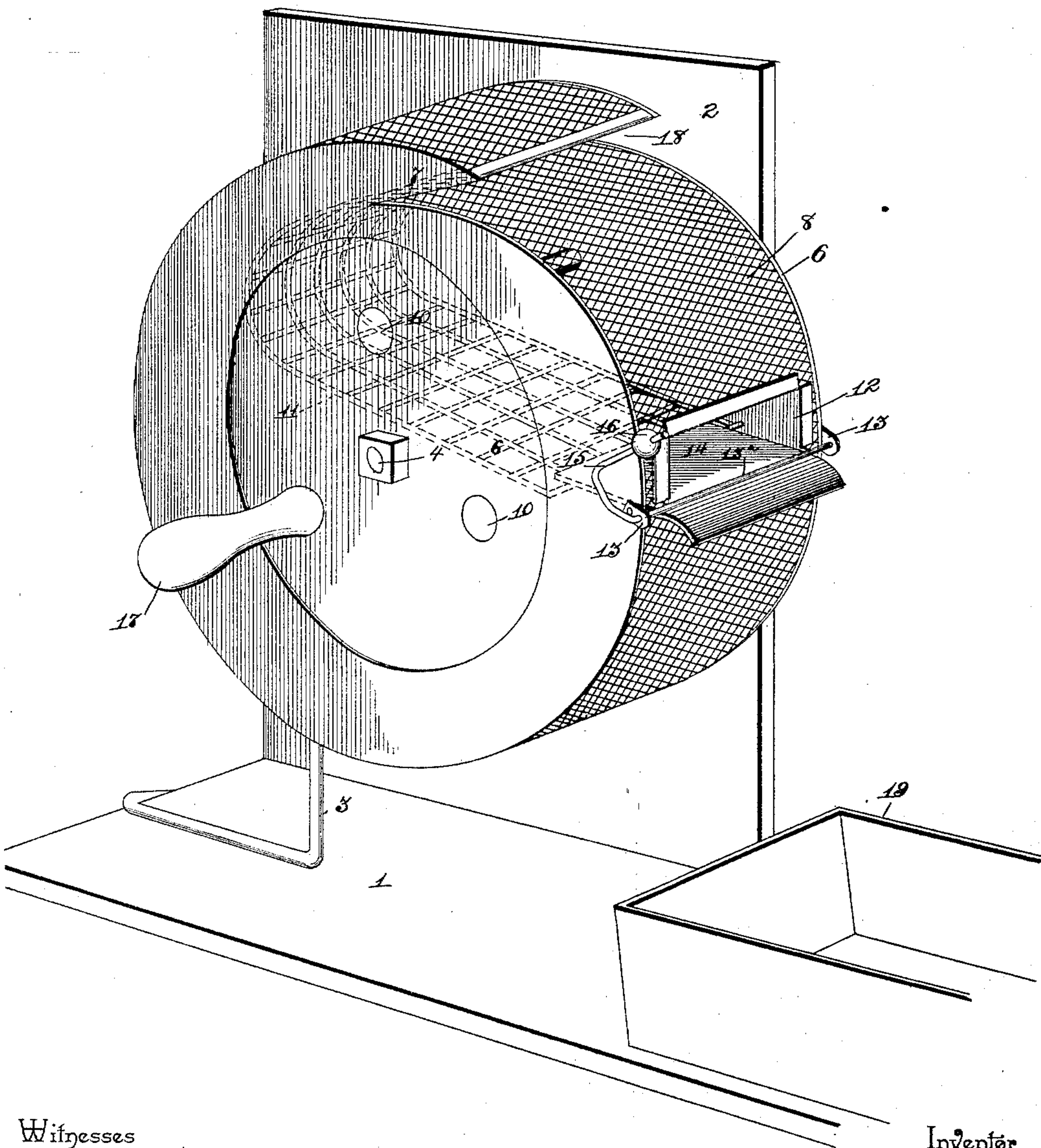
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G. STALEY.
CORN POPPER.

No. 468,102.

Patented Feb. 2, 1892.

Fig. 1.



Witnesses

Inventor

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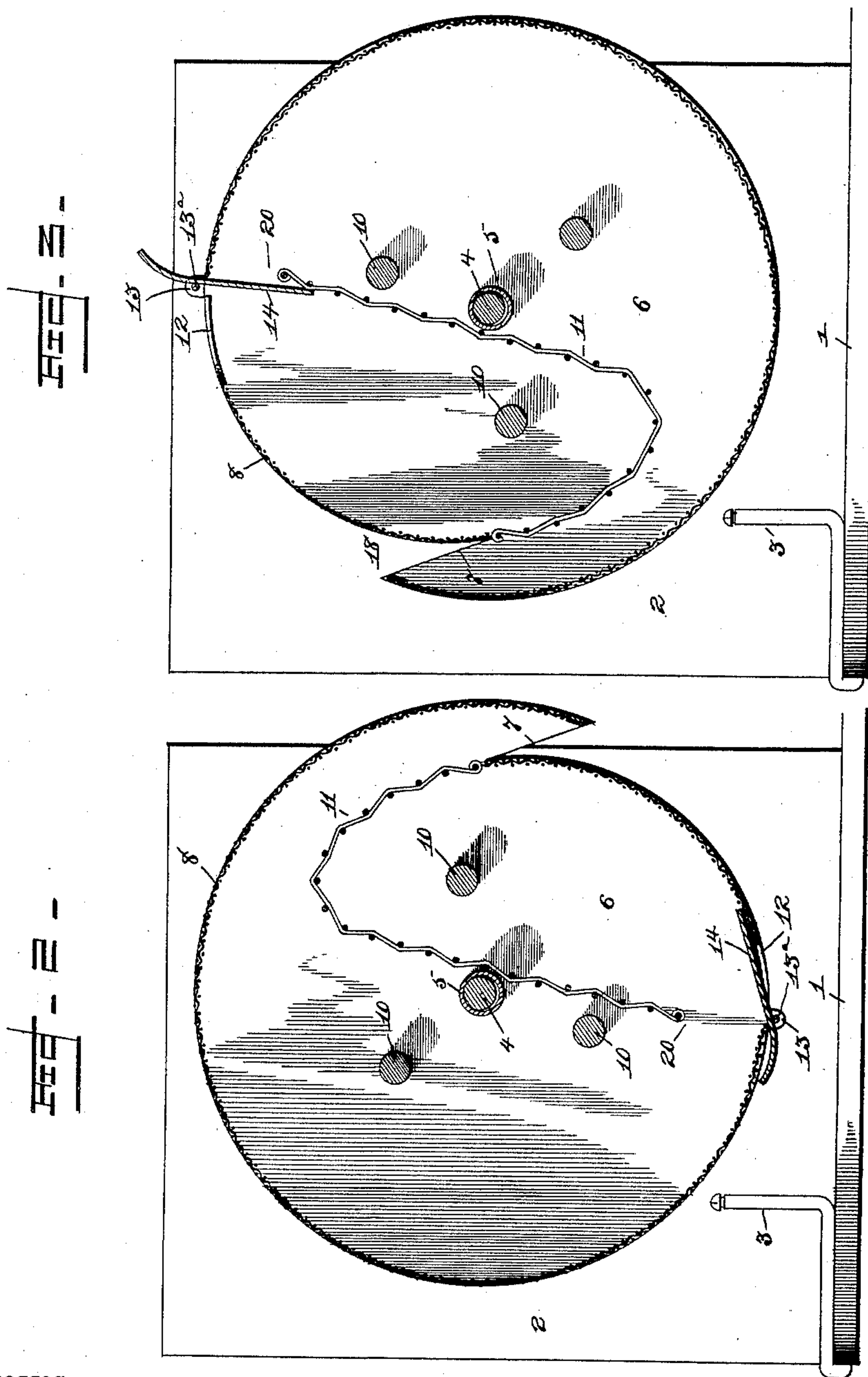
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E. S. Duwall Jr.
M. S. Duwall

By his Attorneys,

C. A. Snow & Co.

Inventor

George Staley.

UNITED STATES PATENT OFFICE.

GEORGE STALEY, OF VERSAILLES, MISSOURI, ASSIGNOR OF ONE-HALF TO
CHARLES H. MASON, OF SAME PLACE.

CORN-POPPER.

SPECIFICATION forming part of Letters Patent No. 468,102, dated February 2, 1892.

Application filed October 12, 1891. Serial No. 408,491. (No model.)

To all whom it may concern:

Be it known that I, GEORGE STALEY, a citizen of the United States, residing at Versailles, in the county of Morgan and State of Missouri, have invented a new and useful Corn-Popper, of which the following is a specification.

This invention relates to improvements in corn-poppers; and the objects in view are to provide a popper which will automatically during the revolutions of the popper separate the popped from the unpopped corn and deliver the same from the popper to any waiting receptacle, and to retain the unpopped corn within the popper until the same has been properly popped by the heat.

With these objects in view the invention consists in the certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a corn-popper constructed in accordance with my invention. Fig. 2 is a vertical longitudinal section of the same, the discharge being closed. Fig. 3 is a similar view, the discharge being open, the cylinder being in the position it assumes previous to discharging.

Like numerals of reference indicate like parts in all the figures of the drawings.

The base 1 is provided at its rear side with the vertical wall or standard 2 and supports a burner 3, adapted for the combustion of gasoline, gas, or other explosives. From the standard 2 projects laterally a shaft 4, and mounted for rotation upon the shaft is a cylindrical hub 5, whose ends pass through central openings of a pair of opposite heads 6. These heads are nearly circular, with the exception of a pair of tangentially-disposed notches 7 formed in their edges and located opposite each other, and their edges are connected from the inner angle of the notches around to the end of the notch by means of a reticulated wire wall 8. The heads are connected at intervals by proper tie-bolts 10, whereby they are maintained a proper distance apart. The wire wall 8 at the inner edge of the notch 7 is continued by a reticulated wire wall 11, the mesh of which is considerably coarser than that of the wall 8 and large enough to

permit of the largest of unpopped grains of corn to drop therethrough. This wall 11 is abruptly curved within the popping-cylinder for a portion of its length and terminates just short of the finely-reticulated wall 8 of the cylinder a short distance in advance of the notches in the opposite heads, thereby forming an intermediate opening 20. Opposite this point an opening 12 is formed in the wall 8 and is provided with a suitable metal binding for preservation of the edges thereof. Bearing-ears are located upon the heads 6 at the opposite sides and at the lower edges of the opening 12, and in the same a transverse shaft 13 is mounted and adapted to loosely rock. This shaft carries a door or shutter 14, adapted to close either the opening 12 or the opening 20 in accordance with the position the cylinder may occupy. The outer end of the rod 13 is bent to form a crank 15, and at its extremity carries a small weight 16. This completes the construction, with the exception of a crank-handle 17, extending from the outer head 6 of the popping-cylinder; or any other suitable means for operating the cylinder may be provided.

In operation the corn is fed into the cylinder through the opening 18, formed by the notches in the head, and is thus exposed directly to the action of the flame, being kept in constant agitation as the cylinder slowly revolves. As the cylinder revolves, the corn, following the outer wall 8, is directed thereby through the opening 20 to the space inclosed by the wall 11, reaching that position just as the door 14 uncloses the opening 20 and closes the opening 12. The corn is now caught by the coarse wall and is carried around by the same, the unpopped corn falling through its meshes back to the main compartment. As the coarse wall reaches an inclined or discharging position, the door swings from over the opening 12, forming a continuation of the wall, and thus the popped corn escapes into the waiting pan. A guide-lip extending from the rod 13 diametrically opposite the door 14 is curved so as to guide the corn into the receptacle 19, seated upon the base 1. As the cylinder further revolves, so as to pass beyond the pan or receptacle, the weight of the door falls by gravity and closes the same over

the opening 12, so as to direct the corn along through opening 20 to the space inclosed by the wall 11, where the operation is repeated.

From the foregoing description it will be seen that the inner wall 11 forms a pocket and is curved so that in conjunction with the wall 8 the corn is made to traverse a spiral path and is discharged at the end of said path if it be popped, or if unpopped is returned to position for popping. In this manner a uniform popping of the corn is secured and the corn is not discharged until the proper time, and the hard unpopped kernels commonly found in pop corn and so injurious and disagreeable are wholly avoided.

Having described my invention, what I claim is—

1. In a corn-popper, the combination, with the bearings, of the opposite heads notched at opposite points, the reticulated wall leading from the outer end of the notch around to and continued beyond the angle of the notch and terminating short of and opposite an opening formed in itself, that portion of the wall beyond the angle of the notch being coarser than the remaining portion of the wall, a door hinged to the opening opposite which the wall terminates, and means for automatically closing said door alternately over the two openings of the walls, substantially as specified.

2. In a corn-popper, the combination, with the bearings, of the opposite heads tangentially notched at opposite points, the reticulated wall leading from the outer end of the notches around to and continued beyond the angle of the notch and terminating opposite an opening formed in itself, thus forming an inner compartment, that portion of the wall beyond the angle of the notch being coarser than the remaining portion of the wall, a weighted rod journaled in bearings opposite the opening in the wall, and a door adapted to be closed by gravity when the inner or coarse portion of the wall has passed its discharging position and to open thereby when at such position, substantially as specified.

3. The combination, with the base provided with the vertical standard and the transversely-disposed spindle, of the tubular hub mounted for rotation upon the spindle, the opposite heads mounted upon the ends of the hub and having the opposite tangential notches, the reticulated wall connected to the opposite edges of the heads and leading from the outer edges of the notches around the heads beyond the angles of the notches, a coarser wall connected at this point and curved for a portion of its length and then extended

straight to a point opposite but short of a discharge-opening formed in the first-mentioned wall in front of the notches, ears located opposite the opening, a rod journaled in the ears and having one end laterally bent to form a crank-arm, a weight mounted on the arm, and a door mounted on the rod and adapted to alternately close the discharge-openings in the two walls and to close that of the outer wall when the inner wall is in other than a discharging position and close the openings between the two walls when in a discharging position, substantially as specified.

4. The combination, with the base provided with the vertical standard, of the transversely-disposed spindle of the tubular hub mounted for rotation upon the spindle, the opposite heads mounted upon the ends of the hub and having the opposite tangential notches, the reticulated wall connected to the opposite edges of the heads and leading from the outer edges of the notches around the heads beyond the angles of the notches, a coarser wall connected at this point and forming an inner compartment and extending to a point opposite but short of the discharge-opening formed in the first-mentioned wall in front of the notches, ears located opposite the opening, a rod journaled in the ears and having one end laterally bent to form a crank-arm, a weight mounted on the arm, a door mounted on the rod and adapted to close the discharge-opening in the outer wall when the inner wall is in other than a discharging position and when in such discharging position to open by gravity and close the opening between the end of the inner coarse wall and the outer finer wall, and the curved lip located upon the rod opposite the door, substantially as specified.

5. In a corn-popper, a cylinder having a covering of fine wire provided with a receiving and a discharging opening, combined with means for rotating the cylinder, a coarse-wire screen leading from the receiving-opening to the discharge-opening, a door hinged to the discharging-opening, and means for automatically closing the door when the coarse screen is at other than a discharging position, substantially as specified.

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

GEORGE STALEY.

Witnesses:

JNO. W. KNOOP,
DAVID A. SHANK.