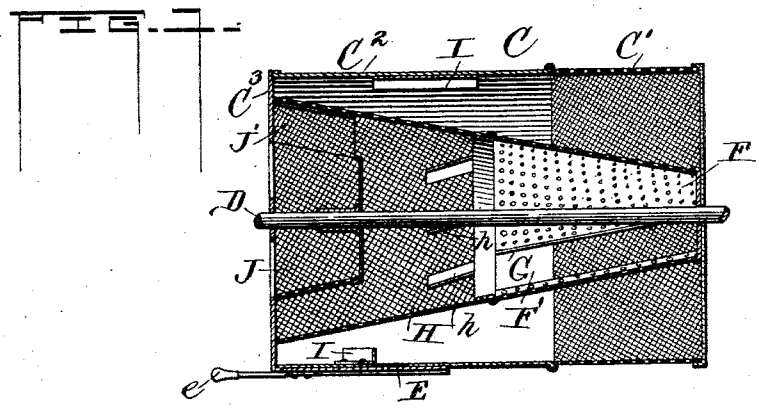
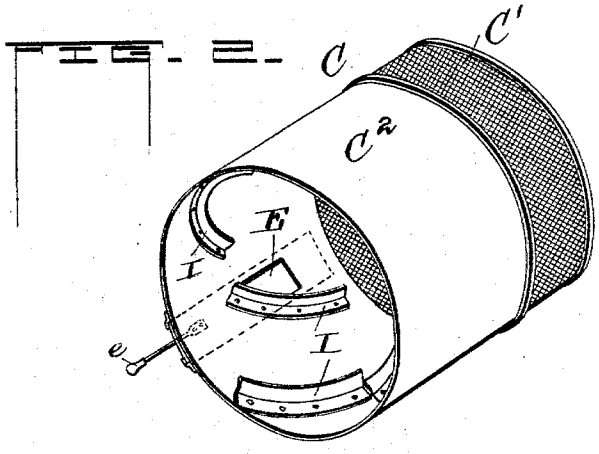
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C. L. COLE.

CORN POPPER.

No. 589,817. Patented Sept. 14, 1897.





Witnesses:-
Chas. P. LaPorte.
A. E. Francis

Inventor,
Charles L Cole.
by W. V. Jeffers.
Atty.

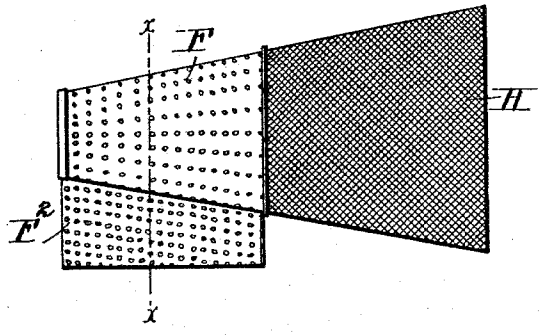
THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

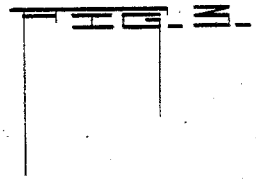
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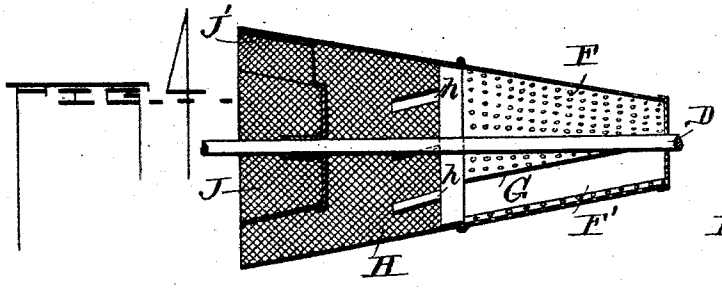
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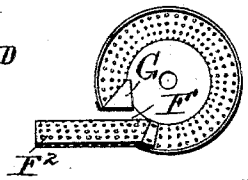
CORN POPPER.

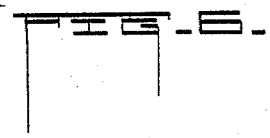
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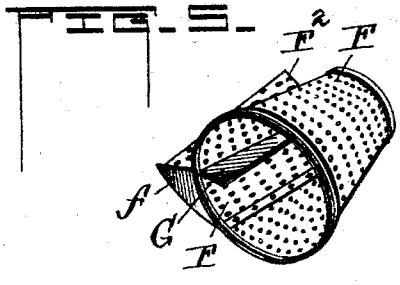


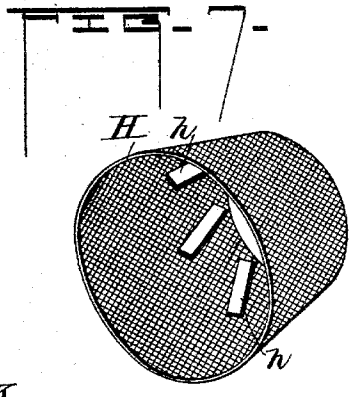


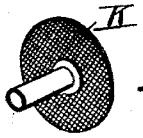


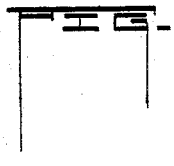












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Att'y.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES L. COLE, OF BUSHNELL, ILLINOIS.

CORN-POPPER.

SPECIFICATION forming part of Letters Patent No. 589,817, dated September 14, 1897.

Application filed June 4, 1896. Serial No. 594,267. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. COLE, a citizen of the United States, residing at Bushnell, in the county of McDonough and State of Illinois, have invented certain new and useful Improvements in Corn-Poppers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in corn-poppers; and the objects in view are to provide a popper which will automatically during the revolution of the popper separate the popped corn to any waiting receptacle and to retain the unpopped corn within the popper until the same has been popped; but the particular feature that I desire to claim in this application for patent is the provision, in connection with a popping-cylinder designed to be carried over the fire in the usual way, of a sifting-cylinder extending out from the side or end of the popping-cylinder and in such position as to be wholly removed from the blaze or heat utilized for popping the corn in the popping-cylinder and the necessary details of construction which I employ to carry out this invention.

That my invention may be more fully understood reference is had to the accompanying drawings, in which—

Figure 1 is a longitudinal section of my improved corn-popper. Fig. 2 is a view in perspective showing the outside casing of the popping-cylinder. Fig. 3 is a plan view of an interior cone. Fig. 4 is a longitudinal section through the same. Fig. 5 is a section on the line X X of Fig. 4. Fig. 6 is a perspective view of a portion of the cone that is carried within the cylinder. Fig. 7 is a perspective view of a portion of the cone that is carried within the cylinder. Fig. 8 is a modified form of a shield that is carried within the cone and useful to prevent popping grains from flying out of the cone.

In the drawings, C is a cylinder, the details of construction of which are best shown in Fig. 2, in which said figure it will be seen that the complete cylinder is composed of the foraminated part C′ and the portion having the solid wall and designated by C^2. This cylinder is closed at its rear end, and its forward end is provided with an opening, which may be like that shown in Fig. 1, in which said figure C^3 is a rim attached to the forward end of the cylinder.

D is a rod which is passed through the center of the cylinder, and a projecting portion of the rod from the forward and rear ends thereof may be journaled in a suitable case provided. This cylinder is purposed to be supported in a suitable inclosing case, within which the cylinder is designed to be turned by any suitable means—as, for instance, by means of a crank or in any other suitable manner. This outside cylinder C, taken as a whole, is designed to receive and contain the unpopped corn and also serve as a receptacle for partially-popped corn and the general refuse resulting from the popping corn.

E is an opening in the wall of the sifting-chamber C^2, or, rather, a slide fitting over said opening and purposed to slide in grooves provided at the sides of the opening, and *e* is a handle connected with the slide, the opening being provided to facilitate the removal of the partially-popped grains of corn and other refuse that may have accumulated in the cylinder during the popping of the corn. This portion of the cylinder is preferably made or formed of wire-netting and is carried immediately over the blaze or heat utilized for the popping of the corn.

F is a sheet-metal cone provided with foraminations to provide for the admission of heat for the popping-cylinder into the cone F and is located within the portion C′ of the cylinder C and is concentric therewith and is provided with the opening F′ therein running the entire length of the cone and in a direction corresponding with the slant of the cone.

F^2 is a lift or foraminated plate, preferably made of sheet metal, which is connected with the foraminated outside wall C′ of the cylinder and with the cone F and is carried on a slant between the two parts, which completely fills the space between the same.

f is a partition interposed between the portion C′ of the cylinder and the cone F and closes one end of the chute provided by the lift F′ and the cone F.

G is a ledge connected with the inner face of the cone F, and is connected therewith at

a point just above the opening F′ therein and has the same incline as the opening, and the said ledge gradually becomes wider as it bears forward in the cone.

H is also a cone and is constructed, preferably, of wire-netting and is practically a continuation of cone F and is connected therewith. This cone is carried with the portion C^2 of the cylinder, which I have referred to as the "sifting-cylinder," and it will be understood, of course, that the two cylinders receive the corn, whether popped or unpopped, that is delivered from the popping-cylinder C′ through the opening F, and the popped corn and such grains as are unpopped or partially popped will pass into the cone H, and the popped corn will be delivered therefrom through the opening in the forward end of the cone.

h are diagonally-disposed ledges or conveyers fixed to the inner face of this foraminated cone and at the rear portion thereof, and may extend forward any distance desired and are useful to facilitate or accelerate in hastening the escape of the popped corn, and the said unpopped or partially-popped grain will be sifted through the foraminated wall of the cone H as the cylinder and cone are revolved.

I I I are diagonally-disposed conveyers or ledges fixed to the inside wall of the solid portion of the case C^2. The said conveyers or ledges overlapping each other are useful to convey the unpopped grains of corn back to the popping-cylinder and in position where they will again be subjected to the heat.

J is an auxiliary sifter, being foraminated and being cone shape and also having the general construction of the cone F. This auxiliary sifter is fixed upon the rod D and placed at the mouth of cylinder H, the said cone being closed at its rear end, and the space between the rear end of the cone and cylinder H is left open, so that the popped corn delivered from cone F may be delivered to the said sifting-chamber, and the said corn will finally be deposited upon the lift J′ thereof, and from thence will be delivered through the opening in the cone into the inside thereof, and from thence it will be delivered from a point without the popper.

I have shown in this application my popper as I propose to construct it generally, but the pattern is a small one and is purposed to do popping in a small way; but I may employ the principle embodied herein in connection with large-sized poppers, such as are purposed to pop corn in large quantities, and in such event it may be necessary for me to modify the construction slightly from that herein shown—viz., it may be necessary for me to employ a greater number of lifts as herein shown in connection with cone F and also a greater number of lifts like J′, shown in connection with auxiliary sifting-chamber J, when my popping-cylinder is of large circumference, so that the popped corn may not accumulate too much, but may be delivered more than once during a revolution of the cylinder into the sifting-chambers. This modification of course is not a departure from what I have heretofore described as my invention, but I call attention to it merely to show that I have this modification clearly in mind.

K is a shield which I may substitute for the auxiliary sifting-chamber J, and the same may be carried, if used, within the sifting-cone, in any position desired, and is useful to prevent popping grains being ejected from the cone by the force of popping and prevent the undue scattering of the same and will stop the grains from being so ejected and will cause them to be delivered in the usual way and into the waiting receptacle.

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

1. In a corn-popper, a sifting-cylinder connected with the popping-cylinder and receiving corn delivered therefrom, provided with a series of diagonally-disposed conveyers, and an inclosing cylinder for said sifting-chamber provided with conveyers for returning unpopped corn received from the said sifting-chamber to the popping-cylinder.

2. In a corn-popper, the combination with the case C, formed of the foraminated part C′, and the non-perforated wall C^2 provided with interior overlapping conveyers, of the interior cone formed of the foraminated sheet-metal part F, having an opening leading into the cylinder and provided with a lift connecting the cone and the foraminated wall of the cylinder and the foraminated sifting-chamber H, provided with the conveyer *h*, and a suitable shield for bearing within the mouth of the sifting-chamber, all substantially as described and shown.

3. In a corn-popper, an exterior cylinder partially foraminated and partially non-foraminated of an interior cone formed of two parts one of foraminated sheet metal bearing within the foraminated part of the exterior cylinder opening into the same and connected therewith by means of a suitable lift or slanting partition designed to receive deposits of corn therefrom and the other part formed of wire-netting and constituting a sifting-chamber and carried within the non-perforated part of the exterior cylinder and to which it delivers unpopped corn and refuse resulting from popping, the same being provided with a number of conveyers fixed to the inner wall and at the rear end thereof, all substantially as described and shown.

4. A corn-popper consisting of the exterior cylinder C having the foraminated and non-foraminated parts C′ and C^2, the part C^2, provided with the overlapping conveyers I, and with the opening E provided with a suitable slide or cover, an interior cone formed of the sheet-metal foraminated part F carried within the foraminated portion of the exterior cyl-

inder opening into the same and connected therewith by means of a suitable lift or slanting partition and with the interior ledge G and the sifting portion of the cone H extending out from the end of the cone F and provided with a series of conveyers diagonally disposed upon the inner surface and at the inner end of the said sifting-chamber and the auxiliary sifting-chamber J, located at the mouth of the sifting-chamber and opening into the same and connected therewith by means of the lift or diagonally-disposed partition J', all substantially as described and shown.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES L. COLE.

Witnesses:
W. V. TEFFT,
CHAS. W. LA PORTE.