(No Model.)

D. SWENSON.

CORN POPPER.

No. 481,877. Patented Aug. 30, 1892.

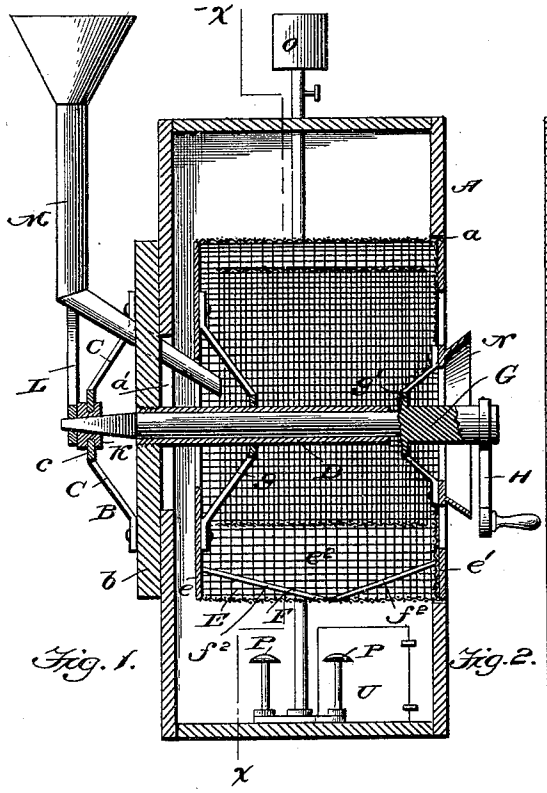


Fig. 1.

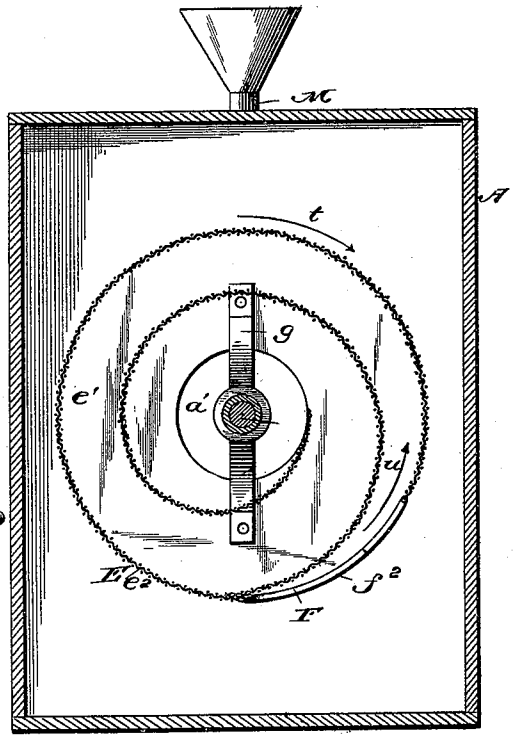


Fig. 2.

Fig. 3.

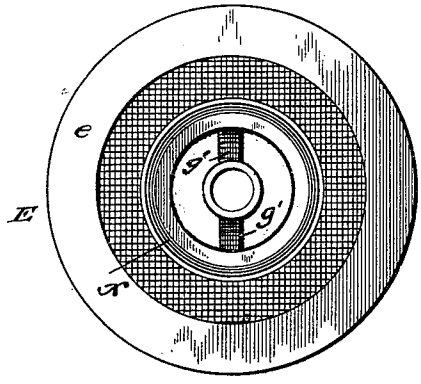
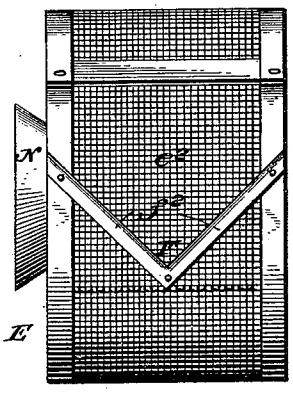


Fig. 4.



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

UNITED STATES PATENT OFFICE.

DANIEL SWENSON, OF KANSAS CITY, MISSOURI.

CORN-POPPER.

SPECIFICATION forming part of Letters Patent No. 481,877, dated August 30, 1892.

Application filed April 11, 1892. Serial No. 428,697. (No model.)

To all whom it may concern:

Be it known that I, DANIEL SWENSON, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Corn-Poppers; 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 appertains to make and use the same.

My invention relates to improvements in corn-poppers of the class shown and described in a patent issued to me on the 15th of March, 1892, No. 470,882; and its object is to improve the construction shown and described in the patent just referred to.

With these ends in view my invention consists in the peculiar construction and arrangement of parts, as will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a vertical sectional view through a corn-popper constructed in accordance with my invention. Fig. 2 is a sectional view on the line *x x* of Fig. 1. Figs. 3 and 4 are respectively an end and side view of the popping-drum.

Like letters of reference denote corresponding parts in the several figures of the drawings, referring to which—

A designates an outer inclosing case or shell made of suitable imperforate material and of any desired form; and in the front and rear walls of said casing A are formed suitable openings *a a'*, for a purpose which will hereinafter be described.

To the rear wall of the inclosing case or shell A is attached in any suitable manner the main supporting-plate *b* of a bracket B. This bracket B consists of the plate *b*, which is attached to the rear wall of the casing A and two or more outwardly-extending arms C, said arms being connected at their outer ends by a plate *c*.

To the main plate *b* of the bracket B is rigidly secured, preferably in the manner shown in Fig. 1, a sleeve or tubular support D, which extends from such plate through the aperture *a'* in the rear wall of the casing A into said casing.

Within the casing A around the tubular support or sleeve D is arranged a popping-drum E. This drum is formed by two heads *e e'*, each of which is provided with a central opening or aperture, and said heads are connected by a reticulated outer shell, preferably of wire-netting e^2, which forms the outer side wall of the drum E.

Within the drum E between the openings *e e'* in the heads thereof is arranged a reticulated spiral conductor. The interstices in the outer shell or reticulated wall e^2 of the drum E are smaller and more numerous than those in the spiral conduit within said drum. One end *f* of the material forming the spiral conduit within the drum E is attached to the side wall e^2 of said drum, and in said outer wall e^2, at one side of the point of connection between said wall and the spiral-shaped conduit, is formed a V-shaped opening F. The sides of this opening are strengthened and protected by reinforce-strips f^2.

The heads *e e'* of the drum E may be made solid, or such heads may be formed partially of any suitable recticulated material, and said heads *e e'* are braced by braces *g g'*, one *g* of which is provided near its center with an aperture or opening. The tubular support or sleeve D extends from the plate *b* into the interior of the casing A and passes through the central aperture or opening in the brace *g*, attached to the head *e* of the drum E. The brace *g'* is rigidly attached to a shaft G, which shaft extends through the tubular support or sleeve D.

To one end of the shaft G is attached an operating crank or handle H, and the other end of said shaft is made polygonal in cross-section and fits snugly in a polygonal aperture formed in a hub or short tubular sleeve K, which is fitted in a suitable bearing in the plate *c* of the bracket B, attached to the rear wall of the casing A.

To the hub or sleeve K is attached a short crank L, the free end of which is connected to and adapted to operate suitable valves arranged in a supply-pipe M, substantally as shown and described in my prior patent, No. 470,882, before referred to, for the purpose of feeding unpopped corn to the drum E as the same is revolved.

To the head e' of the drum E, around the central opening therein, is secured a flaring rim N.

A tank or vessel O, adapted to contain gasoline or similar fluid, is mounted on suitable supports at one side of the casing A, and said tank is connected with one or more burners P, arranged within the casing A below the drum E by a suitable supply-pipe.

A door U is arranged in one of the side walls of the casing A near the base thereof.

The operation of my improvements is as follows: The burners P are lighted and the drum E revolved by the handle or crank H. As the shaft G and crank-arm L revolve the unpopped corn is delivered to the drum E through the supply-pipe M. The unpopped corn enters the drum through the central opening in the head e thereof, and as said drum is revolved in the direction indicated by the arrow t the corn passes along the spiral conduit, being exposed to the heat and flame from the burners P during its passage and is delivered through the opening in the head e' of the drum. The corn which fails to pop while passing through the spiral conduit falls through the interstices in such conduit and is stopped by the outer wall e^2 of the drum E. By revolving the drum in the direction indicated by the arrow u the unpopped corn will be discharged from the drum E through the V-shaped aperture F in the side thereof. If desired, the drum E may be moved on the sleeve or tubular arm D clear of the inclosing case or shell A by withdrawing the shaft G.

I am aware that changes in the form and proportion of parts and details of construction of the devices herein shown and described as an embodiment of my invention can be made without departing from the spirit or sacrificing the advantages of my invention, and I therefore reserve the right to make such changes as fairly fall within the scope of the same.

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

1. The combination, with an inclosing shell or casing provided with openings in its front and rear walls, of a tubular support or sleeve attached to the rear wall of the casing, a shaft extending into said sleeve and adjustable thereon in the direction of its length, and a drum carried by said shaft and fitting loosely around the sleeve and provided with openings in its heads and side wall, substantially as described.

2. The combination, with an inclosing case or shell provided with suitable openings in its front and rear walls, of a tubular support or sleeve rigidly attached to the case or shell, a shaft extending into said sleeve and movable longitudinally thereon, a drum carried by said shaft and fitting loosely around the tubular support, said drum being provided with an opening in each head and with a V-shaped aperture in its side wall, and a spiral reticulated conduit arranged within the drum between the openings in the heads thereof, substantially as described.

3. The combination, with an inclosing case or shell provided with openings in its front and rear walls, a bracket attached to the rear wall of the casing, a tubular support or sleeve rigidly attached to said bracket, a shaft extending through said sleeve and having the polygonal end thereof fitted in a polygonal socket formed in a hub or short sleeve carried by the bracket at the rear of the casing, connections between said hub and a supply-pipe, and a drum rigidly attached to said shaft, substantially as described.

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

DANIEL SWENSON.

Witnesses:
JOHN SWANSON,
AXEL SWANSON.