

(No Model.)

L. A. HAIGHT.
FLOUR OR MEAL SAFE.

No. 411,435.

Patented Sept. 24, 1889.

Fig. 1.

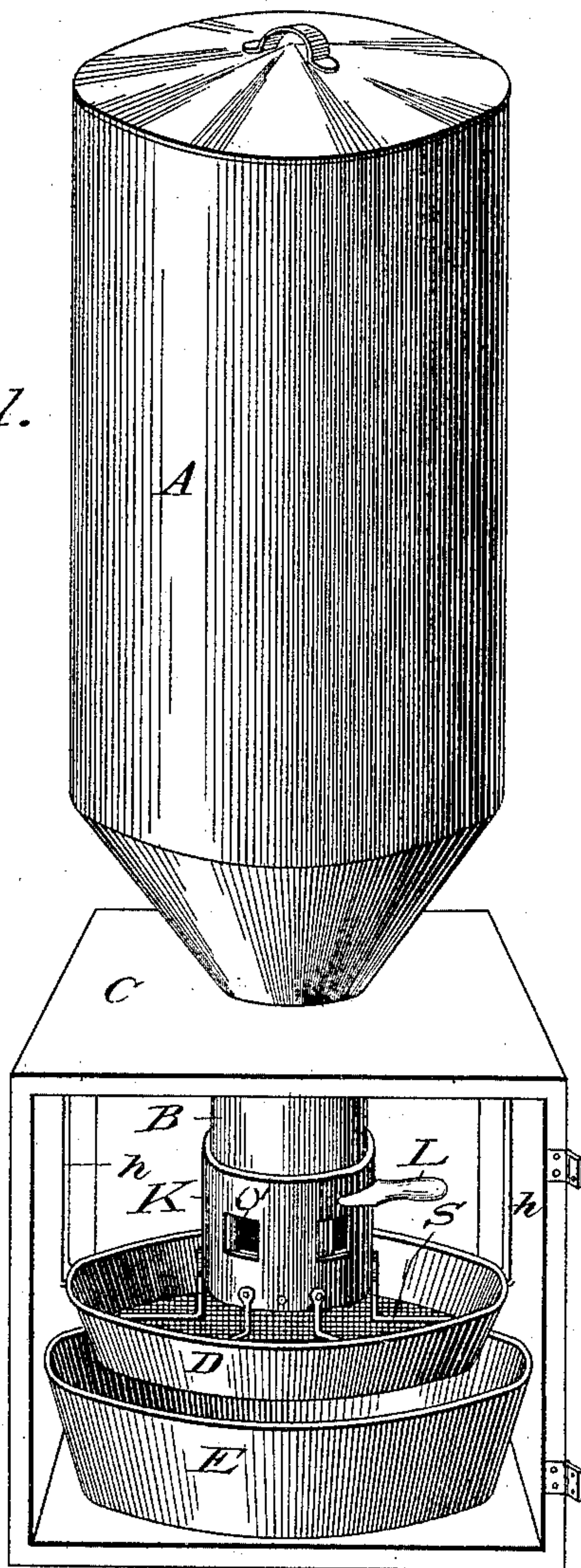


Fig. 2.

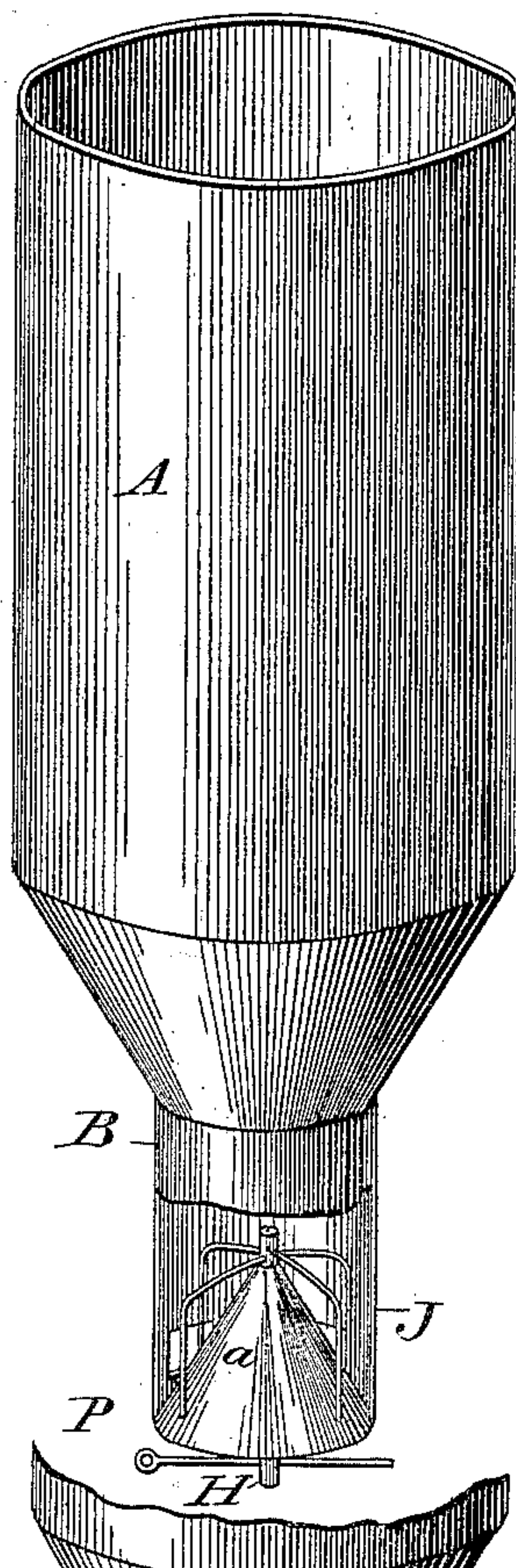


Fig. 3.

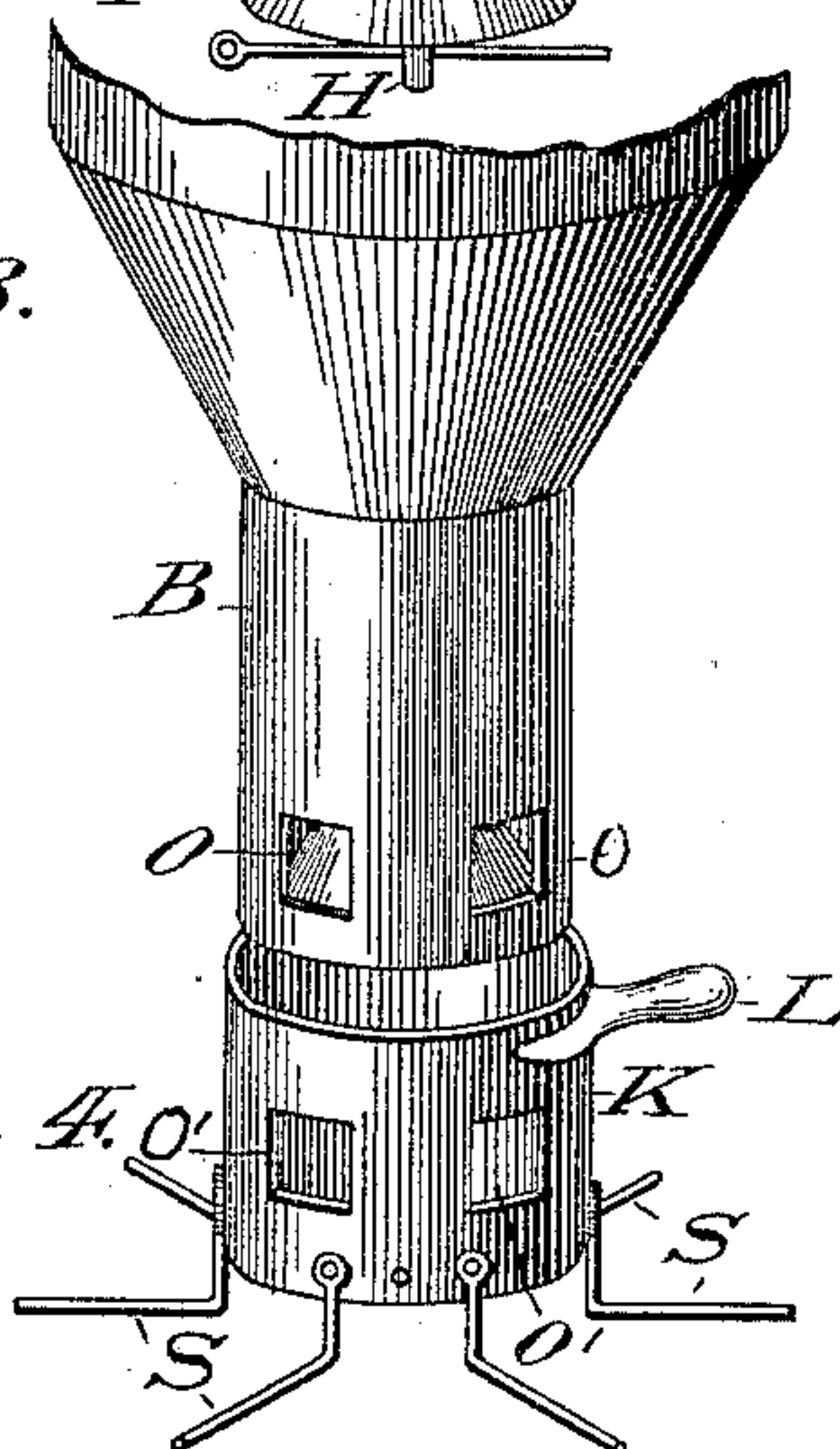
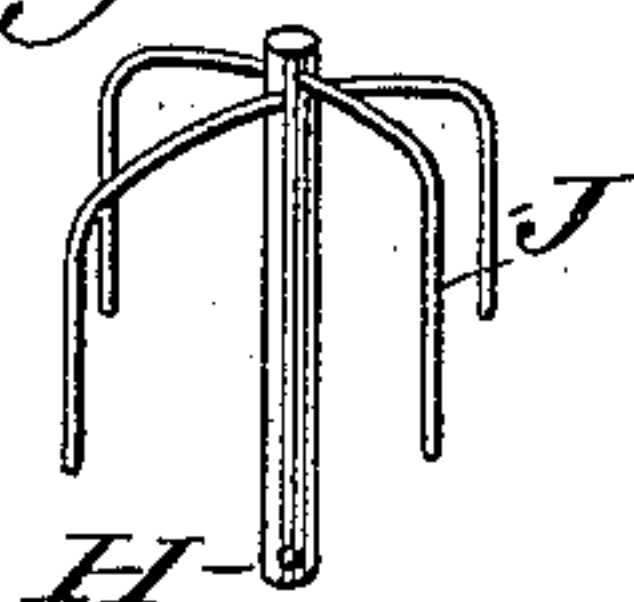


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

LEVI A. HAIGHT, OF TYNDALL, DAKOTA TERRITORY.

FLOUR OR MEAL SAFE.

SPECIFICATION forming part of Letters Patent No. 411,435, dated September 24, 1889.

Application filed March 2, 1889. Serial No. 301,807. (No model.)

To all whom it may concern:

Be it known that I, LEVI A. HAIGHT, a citizen of the United States, residing at Tyndall, in the county of Bon Homme and Territory of Dakota, have invented a new and useful Improvement in Flour and Meal Safes, of which the following is a specification.

My invention relates to the peculiar construction and arrangement of parts for the purpose of agitating, discharging, and sifting, successively, the contents of the safe, as hereinafter fully described, and particularly pointed out in the claim.

Figure 1 is a front view of the safe, together with its appurtenances. Fig. 2 represents a holder with parts broken away. Fig. 3 shows the lower portion of the safe, which is formed into a cylindrical tube. Fig. 4 shows the device for operating. Fig. 5 represents an agitator, which is for the purpose of loosening the flour or meal within the safe to cause an easy flow.

Similar letters indicate corresponding parts.

A denotes the safe proper, which may be made cylindrical, square, or in any desired form, but should be contracted toward its lower end, so as to terminate in a cylindrical tube B in order to conduct the flour or meal into the sifting-pan, the position of which is shown in Fig. 1.

C represents a closet, the front of which is provided with a hinged door. The top of the closet is used as a support for the safe. The safe is secured to the closet in a vertical position, for which purpose a circular aperture is made in the central portion of the top of the closet of a sufficient size to admit the tube B, which should extend its full length into and through the aperture. The safe is fastened in this position in any suitable manner. The closet also forms an inclosure for the sifting-pan D, as seen in Fig. 1. The sifting-pan is placed directly under and a suitable distance from the bottom of the tube B, for purposes which will be made apparent from further description, and is secured thereat by means of two metallic strips *h h*, one end of each being fastened to the inner portion of the top of the closet, the lower ends forming shoulders or hooks from which it depends by the rim.

E represents the receptacle for the sifted

flour or meal, which is placed immediately under the sifting-pan upon the bottom of the closet.

The tube B, through which the contents of the safe pass in operation, is provided with a substantial bottom, forming a cone *a*, which also constitutes the bottom of the safe. The tube B is further provided with suitable discharge-openings *O O*, as seen in Fig. 3, extending upward from the base of the cone *a* or bottom of the safe, so as to allow an outward flow of the flour or meal into the sifting-pan. To prevent packing or choking I construct an agitator consisting of shaft *H* and arms *J J*, as seen in Fig. 5, and also seen in Fig. 2. The shaft *H* is placed in a vertical position extending through the center of the cone, the agitating-arms *J J* resting upon the top of the cone and extending outward and downward, so as to revolve freely around it.

K denotes a collar having openings *O' O'* of the same size and distance apart as the openings in the tube or cylinder B. The collar must be made to fit easily over the cylinder, so as to allow an easy movement thereupon. The collar *K*, at its lower edge and rigidly attached thereto, is provided with a suitable number of arms *s s*, which extend downward and outward, and are designed for the purpose of agitating the flour or meal after it has passed into the sifting-pan D, the screen-bottom of which is in close relation to the arms *s s*. The collar *K* is further provided with a handle *L* for the purpose of transmitting movement to it and the connections thereof. The agitator, consisting of shaft *H* and arms *J J*, being in the position as above described and seen in Fig. 2, the collar *K* is slipped over the cylindrical tube B and connection is secured between the collar and agitator by a pin *P*, which runs through the lower portion of the collar *K* and agitator-shaft *H*, said collar and shaft extending a little below the bottom of the safe or tube for the above purpose.

The operation of withdrawing and sifting is therefore apparent. The operator grasps the handle *L*, and by a vibrating rotary movement the contents of the safe are withdrawn and sifted in any desirable quantity.

It may be readily seen that when the openings in the collar and tube correspond or reg-

ister with each other the flour or meal falls
into the sifting-pan, the agitator within the
safe loosening it for that purpose, and the
arms that are attached to the collar working
5 upon the screen cause the fine flour or meal
to pass through as rapidly as it is withdrawn
from the safe, the outflow and sifting being
regulated by the rapidity and extent of the
movement, whereas an extended slow move-
10 ment increases the outflow and diminishes its
passage through the screen, an extended rapid
movement diminishes the outflow and in-
creases its passage through the screen. The
collar K and arms s s may be operated to the
15 extent that the openings do not in any part
correspond and no outflow is obtained, pro-
vided that the proper movement is made.

The safe proper is provided with a remov-
able cover, and also a ring, which is secured
20 to the rear portion of the top edge of the safe
by which it may be suspended from the wall,
the closet bearing against the wall to afford
a steady and firm support. In lieu of thus
suspending the apparatus from the wall it

may be placed on a table, shelf, or any desired 25
elevation. For the purpose of conveniently
filling, it may be set upon the floor in an up-
right position.

I do not claim the safe proper or its sup-
ports; but, 30

Having thus fully described my invention,
I claim—

In a flour and meal safe, the combination
of bin A, tube B, having cone *a* and outlets
O O, collar K, having corresponding outlets 35
C' O', stirrers J J on its lower ends, and han-
dle L, agitator H J J, and means for attaching
to collar K, sieve D, and pan E, whereby the
contents of the bin are agitated, discharged,
and sifted, successively, substantially as de- 40
scribed.

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

LEVI A. HAIGHT.

Witnesses:

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