

W. Bashor,

Flour Packer.

No. 104,817.

Patented June 28, 1870.

Fig. 1.

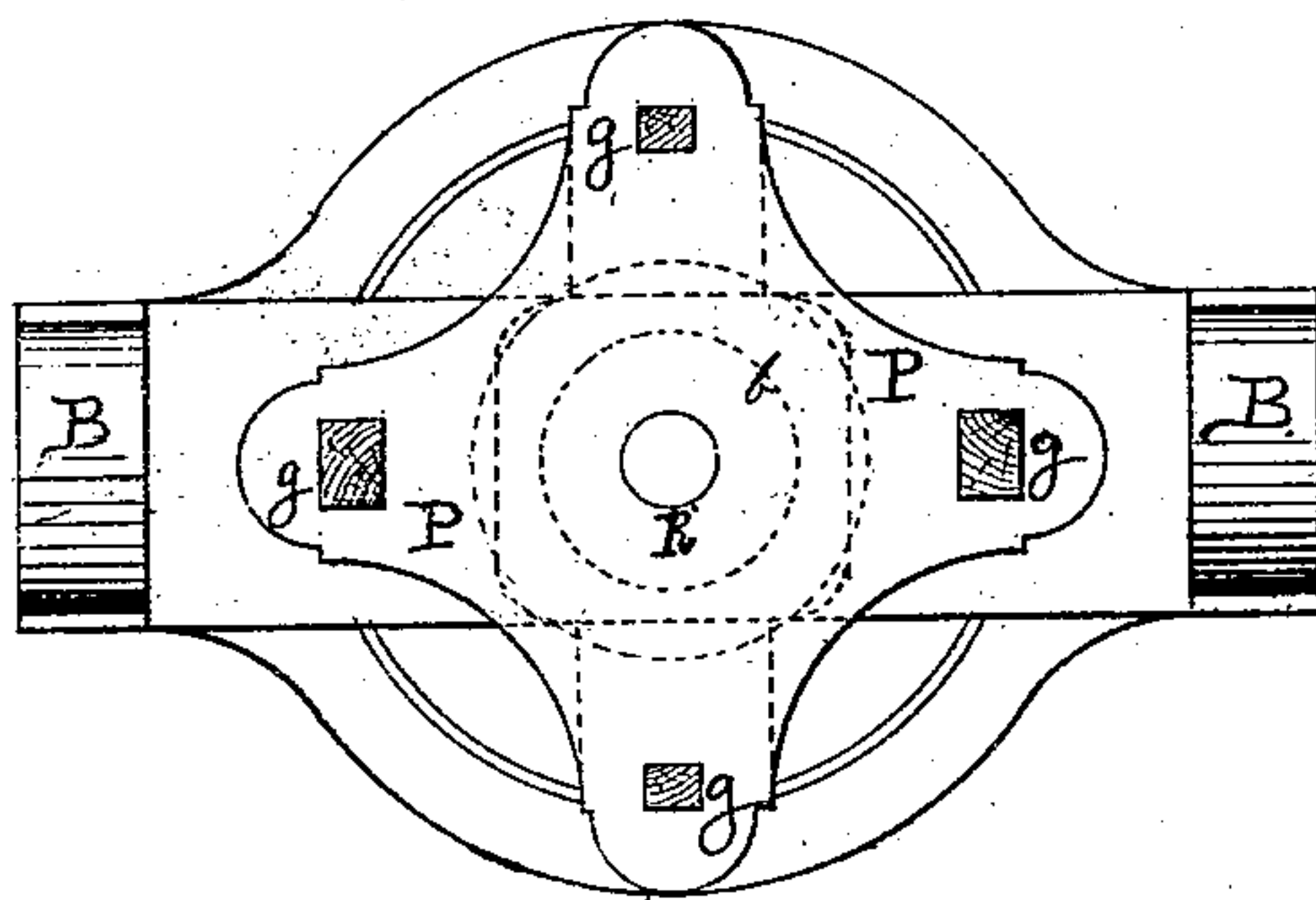
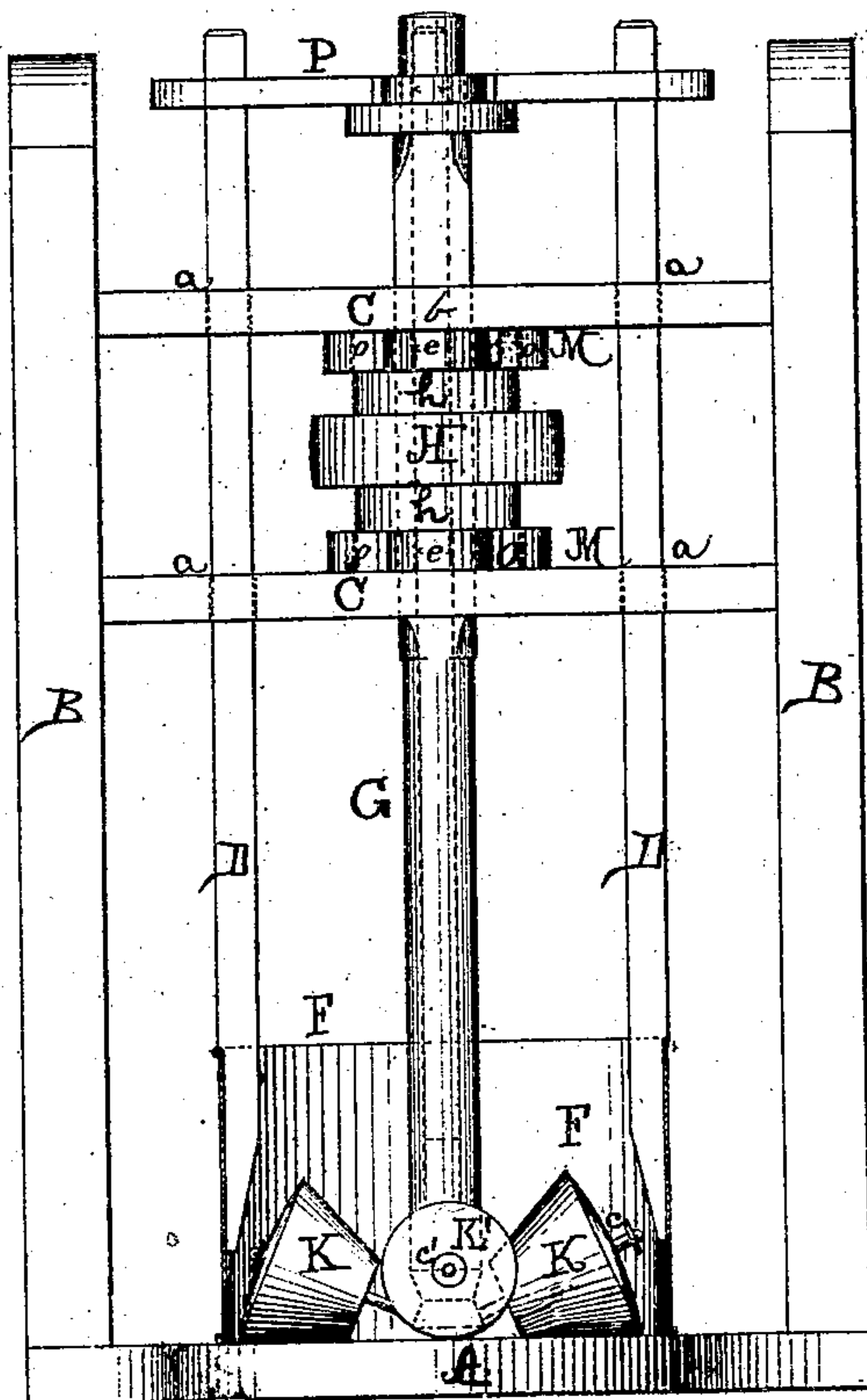


Fig. 2.



Witnesses:

Geo. L. Norris.
W. J. Payton.

Inventor:

W. Bashor
by *Wm. H. H. Harris*
Atty.

United States Patent Office.

WILLIAM BASHOR, OF JOHNSON CITY, TENNESSEE.

Letters Patent No. 104,817, dated June 28, 1870.

IMPROVED MACHINE FOR PACKING FLOUR, &c.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, WILLIAM BASHOR, of Johnson City, in the county of Carter and in the State of Tennessee, have invented a new and useful Improvement in Flour-Packers; and I do hereby declare that the following is a full, clear, and exact description of the same, sufficient to enable any one skilled in the art to make, construct, and use the same, reference being had to the accompanying drawing making part of this specification, in which drawing—

Figure 1 represents a top view of my improved flour-packer.

Figure 2 is a side view.

Nature and Object of this Invention.

This invention relates to that class of devices known as flour-packers, designed for packing flour in sacks, bags, or other packages; and

It consists in the use of large and small conical-shaped rollers, journaled adjustably upon arms secured to a vertical revolving shaft; also, in the combination of certain other parts; all of which will hereinafter be described.

Like letters of reference indicate corresponding parts.

A, in the drawing, may represent the base of the flour-packer.

B B, upright standards.

C C, cross-beams.

D D, sliding-standards or connections secured to the top P, and carrying the case F.

G is a movable vertical shaft, carrying a band-wheel, H, and the conical-shaped rollers K K and K' K'.

A is the base or foundation of the flour-packer, upon the outer ends of which are firmly secured, in a suitable manner, the upright standards B B.

These upright standards B B are connected together, and firmly braced by the cross-beams C C, which cross-beams also support a band-wheel, and are provided with suitable openings *a a*, near their ends, and an opening *b*, near their centers, the former for the free movement up and down of vertical standards or connections, the latter for the free movement up and down of a vertical revolving shaft, hereinafter to be mentioned.

G is the vertical revolving shaft, provided at its lower end with suitable metallic journals *c c c' c'*, bearing the conical-shaped rollers K K K' K', in such a manner that the said rollers may adjust themselves while the shaft is revolving, the rollers acting upon the flour or other material in the sacks, bags, or other packages.

The rollers K K are made preferably double the size or of a much greater diameter than the rollers

K' K', in order, that the rollers K' K' will perform at least two revolutions to one revolution of the rollers K K.

The object of employing the large and small conical rollers is that, as the flour is thrown into a case, or conveyed into the same from a hopper or other suitable device, the shaft revolving and the rollers coming in contact with the flour, the flour is snugly and closely packed in the center, and at the same time forced outward toward the interior surface of the sacks by the small rollers, when the rollers K K, performing their function, press down reliably all flour or other material coming in contact with them.

The lower part, or about one-half, of the shaft G is made of a circular formation, while the upper portion, except its extreme end, is made square or angular.

The top part of the shaft G is made circular, and is provided with a metallic washer, hung either loosely or made fast with the shaft, as may be desired.

H is a band-wheel, hung loosely upon and is the means whereby the vertical shaft G is revolved, while the flour or other material is being packed.

This band-wheel H is formed or provided with projecting arms or flanges *h h*, and may embrace the vertical shaft G the entire distance between the two cross-beams C C.

The opening or space in the center of the band-wheel, and its arms or flanges, is made of a form corresponding to the square or angular portion of the shaft G, so that, when the power is applied to the band-wheel, by means of a belt attached to a suitable pulley, the shaft will revolve with it while packing the flour or other substance, but when the shaft is raised, until the circular portion of the vertical shaft enters the opening in the band-wheel and its arms or flanges, the latter will revolve while the shaft remains stationary.

This is an important function, as it not only allows the ready attachment of an empty sack, bag, or other package, when the one on the case is packed as full as desired, but also saves power and machinery, there being no resistance offered by the vertical shaft during the intervals of placing and replacing the sacks, bags, or other packages upon the case.

M M are arms, arranged transverse between the cross-beams C C, and are provided with circular openings O, seen in dotted lines, of a diameter greater than that of the arms or flanges *h h* of the band-wheel, in such a manner that the said arms or flanges of the band-wheel are embraced and supported by the circular openings of the arms C C, at the same time not interfering with the free revolution of the band-wheel.

These arms M M are provided near their outer ends

with openings *e e*, for a purpose hereinafter to be mentioned.

D D are upright standards or connections sliding freely up and down in the openings *a a* of the cross-beam *C C* and the openings *e e*, in the transverse arms *M M*.

F is a case, made either of metal or wood, as may be desired, and upon which case the bag or sack to be packed is placed.

The upright connections *D D* are secured to the inner surface of the case *F* by means of bolts or screws, and extending upward pass through the openings *a a* and *e e*, and are then either secured firmly to the top plate *P* or pass through openings *g g*, formed in said plate.

When the upright connections pass through the openings *g g*, they are secured by bolts, screws, or other suitable devices, in such a manner that the case *F* may be raised and retained at any required height when large sacks, bags, or other packages are to be packed.

The top plate *P* is also formed with a circular opening, *R*, which forms a bearing for the upper end of the vertical revolving shaft *G*.

The sacks or bags are retained upon the case *F* by means of an elastic band passing around the sack when placed upon the case, and its ends fastened together by means of suitable hooks or catches.

The several parts composing this packer are made either of cast, wrought, or other suitable metal, although wood can be used in its construction.

I am aware that conical rollers of equal size have long been known and used in machines for packing flour and like materials, but such I do not claim.

I am aware, too, that broad band-wheels or drums have been used for rotating the shaft carrying packing-rollers of equal size, but they have been uniformly keyed fast to the shaft, consequently the rotation of

the one could not be stopped without stopping the rotation of the other.

I am also aware that cog-wheels, provided and combined with sliding-sockets, clutch-pins, friction-rollers, and various other clutching devices for stopping the rotation of the shaft carrying the packing rollers when raised to a certain height, without discontinuing the rotation of said operating wheels, have been known and used, but these have proved to be too complicated and expensive in construction and uncertain in action, and I disclaim all such.

I am not aware, however, that an arrangement for accomplishing the desirable object above stated so cheap and simple in construction, and certain in function as mine, has ever-before been devised.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination and arrangement in a machine for packing flour and like material, of the conical differential rollers *K K'*, and revolving shaft *G*, substantially as described, and for the purpose set forth.

2. The band-wheel *H*, provided with the shoulders *h*, and an angular opening through its center, in combination with the vertically sliding shaft *G* and arms *M*, when said parts are constructed and arranged to operate substantially as described, in the manner and for the purpose specified and shown.

3. The machine for packing flour and like material herein shown, consisting of the frame *A B*, cross-beams *C*, sliding standards *D*, arms *M*, wheel *H*, shaft *G*, case *F*, and plate *P*, constructed, combined, and arranged for operation, substantially as described.

To the above I have signed my name this 24th day of May, 1870.

Witnesses:

WM. BASHOR.

JOHN A. WIEDERSHEIM,
JAMES L. NORRIS.