

J. PERRY, Jr.

ATTACHMENT FOR PAPER BAG MACHINES.

No. 304,750.

Patented Sept. 9, 1884.

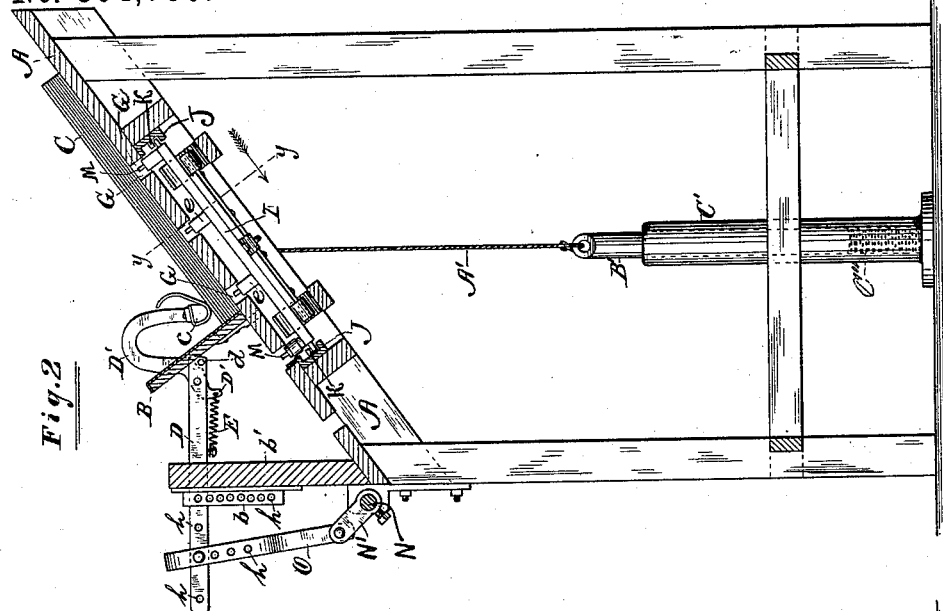


Fig. 2

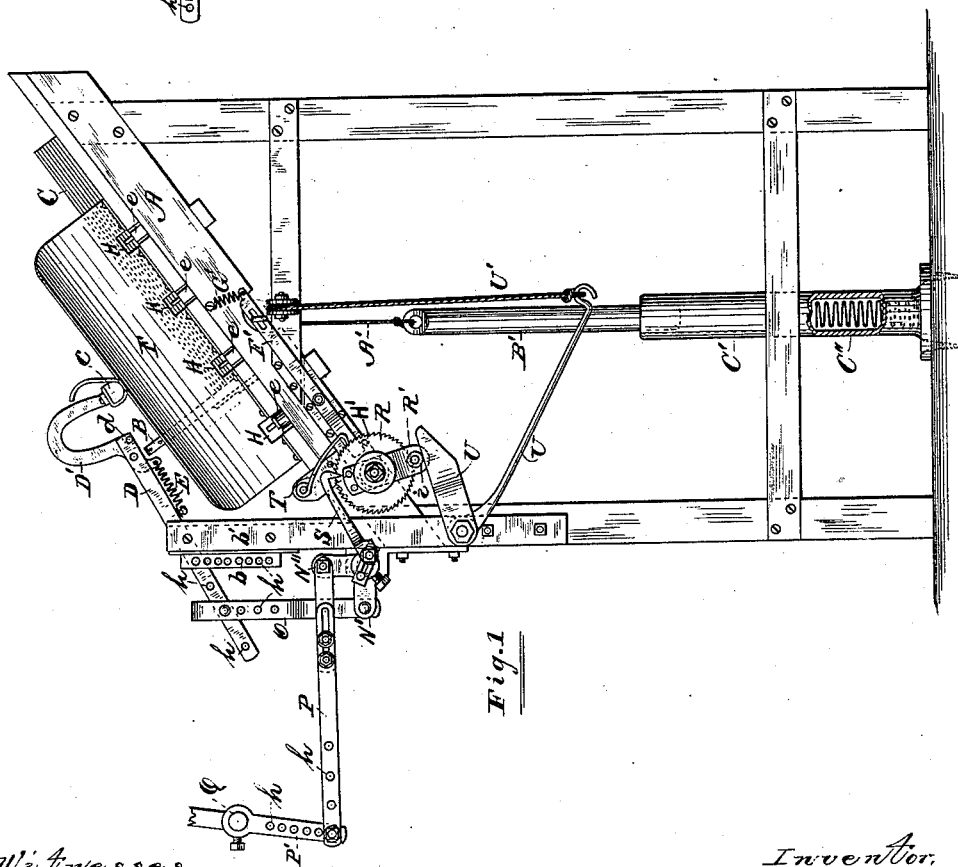


Fig. 1

Witnesses,
Henry Frankfurter
W. L. Baker

Inventor,
James Perry Jr.
per *F. F. Thompson* Attorney.

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Fig.3

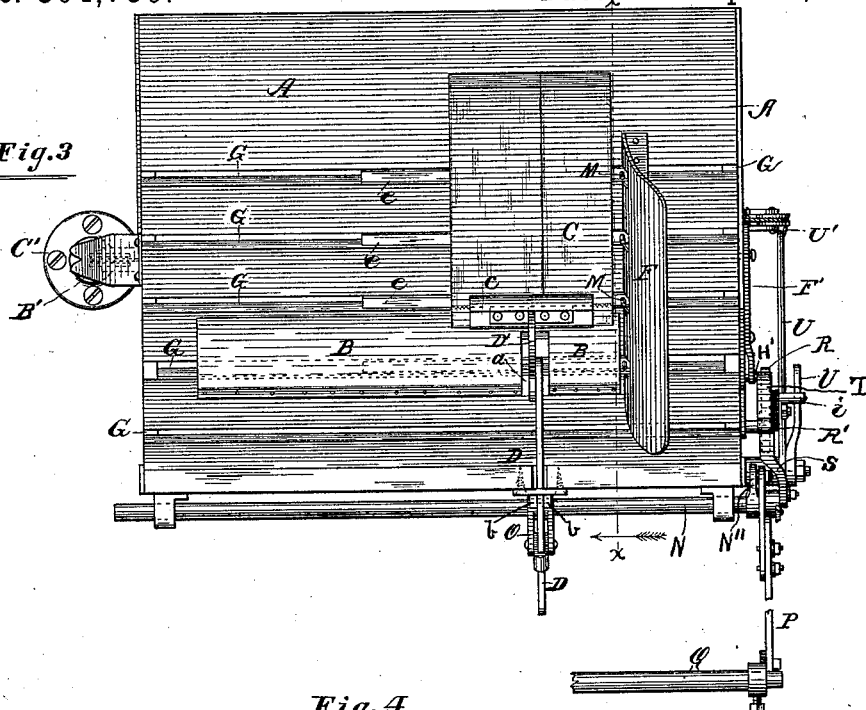


Fig.4

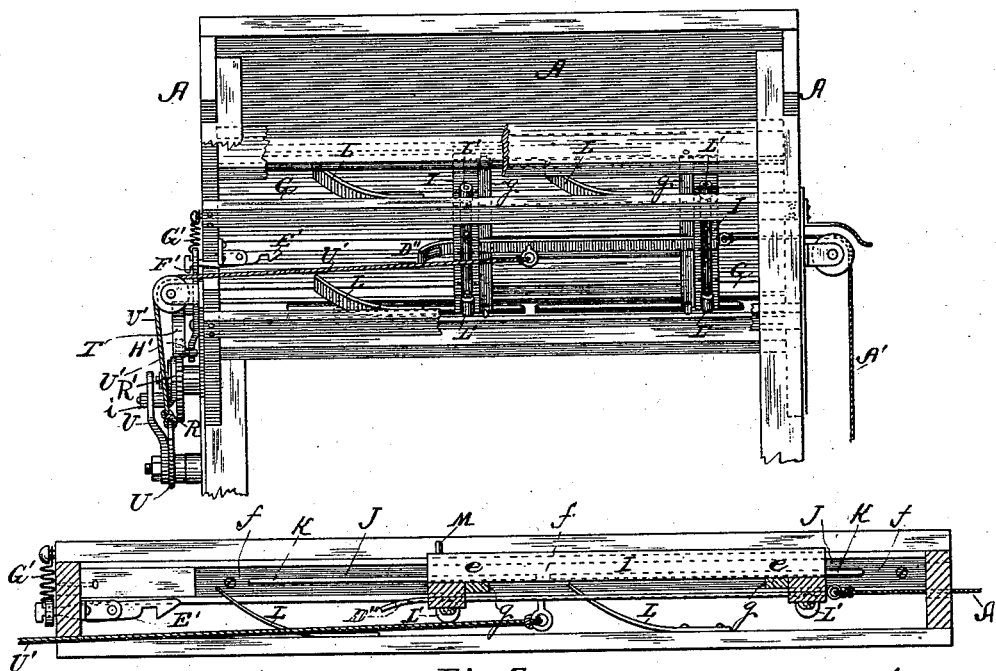


Fig.5

Witnesses,
Henry Transmitter,
W. S. Baker

Inventor,
James Perry Jr
per *F. F. Warner*
his Attorney.

UNITED STATES PATENT OFFICE.

JAMES PERRY, JR., OF CHICAGO, ILLINOIS.

ATTACHMENT FOR PAPER-BAG MACHINES.

SPECIFICATION forming part of Letters Patent No. 304,750, dated September 9, 1884.

Application filed October 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES PERRY, Jr., residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Attachments for Paper-Bag Machines, of which the following, in connection with the accompanying drawings, is a specification.

In the drawings, Figure 1 is an end elevation of one end of an attachment of the class referred to, embodying my invention. Fig. 2 is a section in the plane of the line *x x* of Fig. 3, viewed in the direction indicated by the arrow there shown. Fig. 3 is a top or plan view of the attachment. Fig. 4 is a side view of one side of the same, certain parts being broken away to more clearly show the construction intended to be represented; and Fig. 5 is a section in the plane of the line *y y* of Fig. 2.

Like letters of reference indicate like parts.

A represents an inclined table, upon which the bags are received from the bag-machine.

B is a stop or gage, against which the lower ends or bottoms of the bags fall, one upon the other, as they leave the said machine; and C represents a pile of bags so delivered or received. The stop or gage B is notched deeply, as shown at *a*.

D is a vertically-vibrating arm or lever pivoted in bearings *b b*, attached to a standard, *b'*, forming a part of the frame of the attachment.

D' is a bow-shaped presser-arm pivoted to the inner end of the lever D, and *c* is a presser-bar on the inner or free end of the arm D'.

E is a spring attached or connected to the lever D and to the outer end of the arm D', the action of the said spring being such as to hold the arm D' down against a stop or pin, *d*, but permit the bar *c* and its arm to be raised or tilted yieldingly. In other words, as the inner end of the lever D moves downward the presser *c* will strike the bottom fold of the first bag received upon the table A, and will move less far downward as the pile of bags increases, while the lever D does not vary its stroke as the pile grows higher. By this means the bottom fold of each bag as it is delivered will be compressed by the presser or arm *c* until the pile of bags reaches such a height that it should be removed. The pile is thus prevented from swelling out thicker to any great ex-

tent at the bottom than at the top, and the separation of the seam at the bottom of bags there seamed is prevented.

F is a guide or gage to aid in delivering the bags properly in a pile.

G G are parallel openings or slots in the table A, and H H are notches in the gage F.

I is a carriage having bars or ribs *e e* thereon adapted to enter the openings G G.

J J are ways in which the carriage I slides.

K K are separating bars or strips dividing each way J into two channels, and *ff* are openings or passages connecting these two channels, all of which is more clearly indicated in Figs. 2 and 5 than elsewhere in the drawings, and in which figures the carriage is represented as located in the lower channels of the ways J J.

L L are springs attached to the table A, and L' L' are rollers on the said carriage. As the carriage I is moved along toward the springs L L the wheels L' L' ride upon the said springs, and the latter raise the carriage into the upper channels of the ways J J as soon as the bearings *g g* reach the openings *ff* near the upper ends of the said springs. If the carriage be now drawn in the opposite direction, it will fall into the lower channels of its ways when its bearings reach the other openings *ff*.

M M are studs projecting from the carriage I. When the said carriage is traveling in the lower channels of its ways, the tops of the studs M M move below the upper surface of the table A, as indicated in Figs. 2 and 5. When it rides in the upper channel, the said studs project above the said surface, as indicated in Figs. 1 and 3. These studs M M, as will be perceived on reference to the figures last referred to, will carry the pile of bags laterally away from the presser *c* as the carriage moves in that direction, thus depositing the bags where they may be easily removed, and making room for others to pass underneath the presser. This movement of the carriage takes place whenever the pile of bags reaches a certain number, as will hereinafter be explained, and consequently the bags are tallied or counted each time the carriage moves along the upper channels of its ways.

I have now described in general terms the means directly employed for pressing and counting the bags, and will proceed to describe

the means for actuating the presser and carriage, and, first, the means employed for actuating the presser.

N is a shaft turning in bearings applied to the main frame, and N' and N'' are arms rigidly applied to the said shaft.

O is a connecting-arm, jointed or pivoted to the lever D and to the arm N'.

P is a connecting-arm or pitman connected to the arm N'', and to a vibrating arm, P', rigidly attached to a crank-shaft or rocker, Q, which may be rocked by any suitable means—for example, by means of a pitman connecting it to a reciprocating part of the bag-folding machine, or by being connected to any moving part which will produce the desired movement, and I have not, therefore, shown any special means for actuating it, as my invention does not relate, particularly, to such means. As the arm P' is vibrated it will swing the arms N'' and N' through the medium of the arm P, and the arm O will thus be raised and lowered and the lever D vibrated.

I have made provision, by means of the holes *h h* and by making the arm P extensible, for changing the position and stroke of the lever D.

R is a ratchet-wheel, and R' is an arm attached thereto, and carrying a roller, *i*.

S is a hook or pawl adjustably connected to an arm or plate, S', attached to the shaft N, and engaging the ratchet-wheel R.

T is a stop hook or pawl, also engaging the ratchet R.

U is a pivoted arm or lever arranged to be struck by the roller *i*, and U' is a cord attached to the end of the arm U and to the carriage I. A' is a cord also attached to the said carriage and to a weight, B'.

C' is a box, in which I place a spring, C'', serving as a cushion for the said weight.

D'' is a loop on the carriage I, and E' is a pivoted hook adapted and arranged to engage the said loop.

F' is a trip-arm, through a slot in which the outer end of the hook E' passes.

G' is a spring connecting the upper end of the arm F' to the table A.

H' is a pin projecting inwardly from the ratchet R.

As the shaft N is rocked, the hook S will be drawn back and forth, and the movement of this hook in one direction will rotate the ratchet R. The hook T prevents the reverse rotation of this ratchet. As the ratchet R rotates, the roller *i* on arm R' will be brought in contact with the arm or lever U, depressing the said lever, and thereby drawing the carriage I toward the hook E' until the latter engages the loop D''. By this time, or soon thereafter, the roller R' leaves the lever U. When the ratchet R has made a complete revolution, the pin H' will strike the trip arm or lever F', by which means the hook E' will be drawn from the loop D'' and release the carriage I. As soon as the carriage is released, the weight B' descends and draws the carriage back. As

before stated, the carriage in moving back in this manner, shifts a pile of bags from underneath the presser *c* to a position at one side thereof for removal, it being understood that the movement of the carriage is so timed as to operate while the presser-arm *c* is raised from the pile.

It will be perceived that the ratchet R is rotated step by step, and, consequently, if it has fifty teeth, for example, it will make fifty such steps during one rotation. I aim to have the pawl S work simultaneously or in unison with the mechanism which deposits the bags upon the table A. Consequently, a pile of fifty bags will be counted or tallied with each complete rotation of the ratchet R. I desire to state, however, that the throw of the hook S may be made to engage each alternate tooth of the ratchet R, or so to engage the said ratchet that the number of bags in a pile may be regulated.

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

1. The combination, with a bag-receiving table, of a vibrating presser-arm, substantially as and for the purposes set forth.

2. The combination, with a bag-receiving table, of the jointed lever D D', the part D' being yielding, and provided with the presser-arm *c*, substantially as and for the purposes set forth.

3. The combination, substantially as described with a bag-receiving table, of the jointed lever D D', the part D' being yieldingly connected to the part D by means of a spring, E, and provided with the presser-arm *c*, for the purposes set forth.

4. The combination, substantially as described, of the slotted table A, the carriage I, having thereon the studs M M, the ways J J, having therein the ribs K K and the spaces *f f*, and springs L L, and means, substantially as described, for reciprocating the said carriage intermittently, for the purposes set forth.

5. The combination, substantially as described, of the slotted table A, the reciprocating carriage and its studs, the channeled ways J J, a trip device, substantially as described, the hook E' and loop D'', and means, substantially as described, for actuating the carriage, for the purposes set forth.

6. The combination of the weighted carriage I and its studs and channeled ways, the springs L L, the slotted table A, the loop D'', the pivoted hook E', the trip or lever F', the ratchet R and its pin H', the hook or pawl S, the stop T, arm or cam R', lever U, and cord U', substantially as and for the purposes set forth.

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

JAMES PERRY, JR.

Witnesses:

J. B. HALPENNY,
F. F. WARNER.