

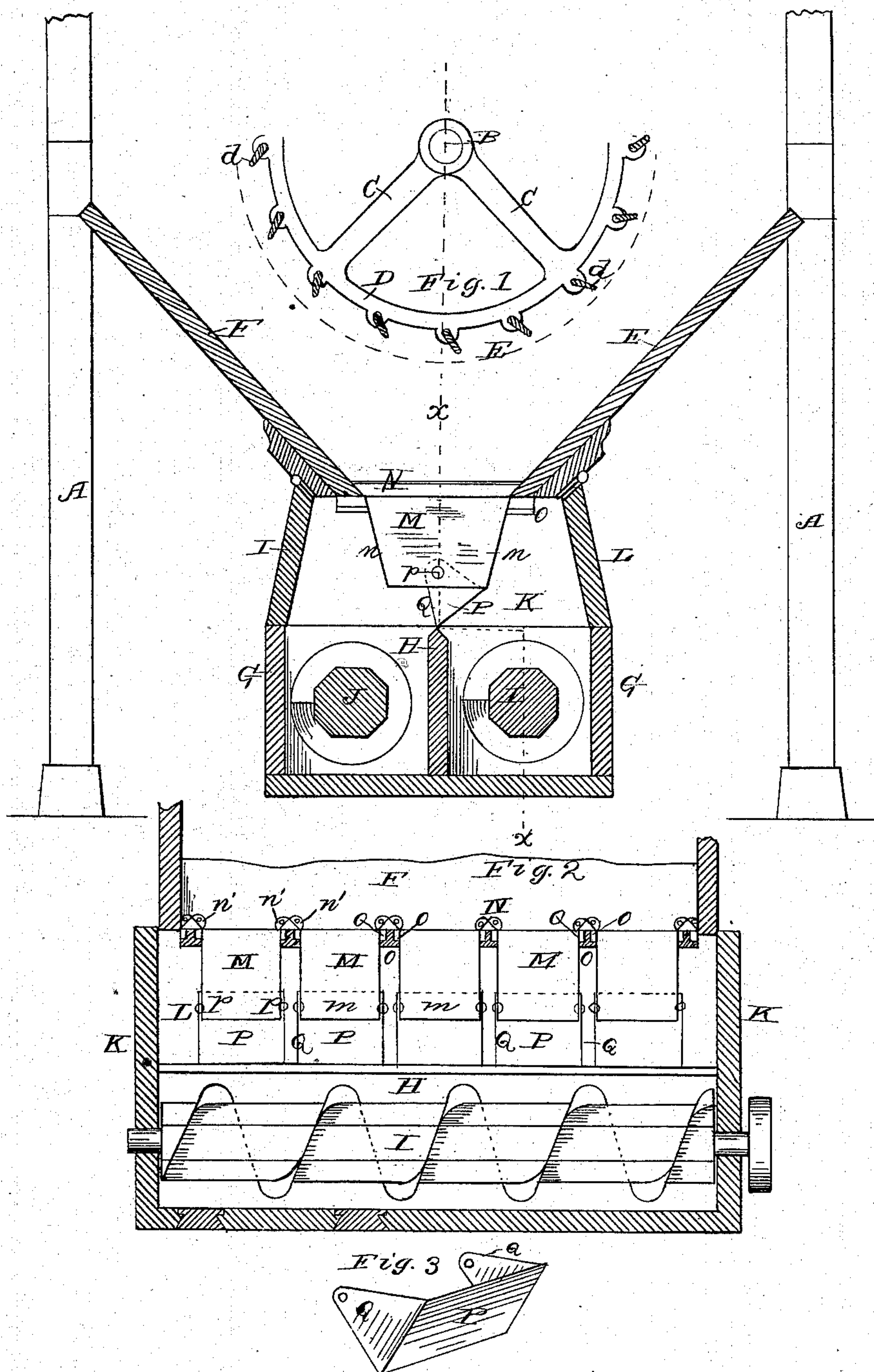
(No Model.)

G. E. MOUNT & E. BASSETT.

CONVEYER FOR FLOUR BOLTS, &c.

No. 288,588.

Patented Nov. 13, 1883.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE E. MOUNT AND EDGAR BASSETT, OF JACKSON, MICHIGAN, ASSIGN-
ORS TO THE GEORGE T. SMITH MIDLINGS PURIFIER COMPANY, OF SAME
PLACE.

CONVEYER FOR FLOUR-BOLTS, &c.

SPECIFICATION forming part of Letters Patent No. 288,588, dated November 13, 188 .

Application filed August 22, 1883. (No model.)

To all whom it may concern:

Be it known that we, GEORGE E. MOUNT and EDGAR BASSETT, citizens of the United States, residing at Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Conveyers for Flour-Bolts, &c., of which the following is a specification, reference being had therein to the accompanying drawings.

10 Figure 1 is a vertical transverse section of the lower part of a bolting-chest containing our invention. Fig. 2 is a longitudinal section on the line *x x*, Fig. 1. Fig. 3 is a detached view of one of the pivoted chutes.

15 The object of this invention is to enable the operator to direct or deliver any desired portion of the material which falls through the bolt to one or the other of a pair of conveyers arranged side by side below the bolt, thus
20 dividing the material into suitable grades.

A A represent the frame, B the central shaft, C C the spider-arms, D the rim of the spider, *d d* the beaters, and the dotted line E the position of the bolting-cloth outside of the beaters,
25 of an ordinary centrifugal reel. We do not limit our invention to its use in connection with a centrifugal reel, because it may be employed in connection with a many-sided or other common construction of bolt, or with a
30 flat bolt or shaker or other bolt of a middlings-purifier.

F F are the gather-boards, which form the hopper-bottomed lower part of the bolting-chest.

35 G G H are respectively the sides and center-board of a double conveyer-box, in which two conveyers, I J, are arranged on lines parallel with the axis of the reel, or when employed with a flat bolt these conveyers are parallel
40 with the direction of flow of the material over the bolt-cloth from the head to the tail of the machine.

K K are the ends of the conveyer-boxes.

45 L L are movable doors, connecting the lower edges of the gather-boards with the upper edges of the sides G of the conveyer-box, and may be of any usual or preferred construction or arrangement which will permit access to the space between the conveyers and the lower
50 edges of the gather-boards, for a purpose to be explained.

M M are a series of spouts, made, preferably,

of sheet metal, suspended below the lower edges of the gather-boards. Each of these spouts is by preference rectangular in cross-
55 section, with two of its sides, *m n*, slightly inclined or converging, although these sides may be vertical; but we prefer to make them as shown. N N are a series of triangular dividing-
60 ribs or partition-bars, arranged transversely of the bolt-chest at the lower edges of the gather-boards. By preference we form these ribs of sheet metal, turning up each end, so as to form ears *n' n'*, to receive screws, nails, or their equivalent, by means of which the
65 ribs are firmly attached to the gather-boards.

O O are a corresponding series of supporting ribs or rails secured to the lower edges of the gather-boards, one below each of the ribs N N. Each rail O is rabbeted upon its upper
70 edge, as at *o o*, Fig. 2, in order to form a better support for the spouts M M, each of which has, by preference, two of its sides turned over at their upper edges, forming flanges which fit
75 into the rabbets *o o*. Under some circumstances we propose to hem wires into these upper edges of the spouts, to fit into the rabbets.

P Q Q are a series of pivoted chutes, of which the bottom of each is of such length as
80 to correspond with the width of the spout above it, and of such width as to extend from the upper edge of the center board, H, to the lower edge of one of the sides *m n* of the corresponding spout. The vertical sides Q Q of
85 these chutes are by preference triangular in shape, and are attached to the outer faces of the spouts M M by means of rivets *p p* on a line directly above the center board, H, so that each chute can be swung into position to
90 direct material from one of the spouts M to either of the conveyers, as is indicated in Fig. 1. By opening one of the doors L access can be readily had to the chutes, so that the operator can shift them from the position shown in
95 Fig. 1 to a reverse position—that is to say, so that the edge which is there shown in contact with the center board, H, shall rest against the lower edge of the side *n* of the spout, and the edge which is there shown resting against
100 the lower edge of the side *m* of the spout will engage with the upper edge of the center-board—thus reversing not only the position of the chutes, (or a portion of them,) but also

the direction of movement of the material, (or a part of it,) after it enters the chute or chutes. By preference we provide the machine with doors upon opposite sides, to facilitate access to these chutes, whatever may be its location relative to other machinery or the walls or partitions of the mill. Thus, it will be readily understood, by the use of these chutes the material which passes through the bolt onto the gather-boards can be divided into different grades and delivered to either of the conveyers at the will of the operator, the spouts serving as continuations of the gather-boards, and also forming more convenient supports for the pivoting of the chutes than the transverse bars or partitions which have heretofore been employed in connection with double conveyers, gather-boards, and swinging chutes. These spouts are also convenient for use in this class of machine, because it is desirable to have the upper edges of the vertical sides of the chutes swing up into the spaces between the spouts to insure that flour shall not sift down between two adjacent chutes.

By an examination of the drawings it will be seen that by reason of the vertical sides of the chutes being pivoted to the outer faces of the spouts no material can pass between these parts, thus insuring a perfect separation of the material into the desired grades.

It will of course be understood that the parts are to be riveted or clamped together with such firmness as to insure that they shall be held by friction in the positions shown in the drawings, so that when the upper side of the bottom *P* is in contact with the lower edge of the side *m* of the spout material will be delivered to the conveyer *J*, and vice versa.

We are aware that a pivoted chute having a bottom over which moves, and having also vertical sides to properly guide the flour, is old; but, as hitherto constructed, such has been pivoted to the upper edge of the center board between the conveyers, thus necessitating that the upper edges of the sides should be formed in arcs of circles, in order to insure close-fitting joints between these edges and the gather-boards and partition-strips, and also necessitating a somewhat complex contrivance for hinging it to the center board, whereas in our invention the upper edges may be formed on straight lines, the sides of the chutes being either rectangular or triangular, as shown, and therefore the blanks from which the chutes are made may be bounded by straight lines; may, in fact, be rectangular, and the chutes may be pivoted to the spouts by use simply of bolts or rivets passing through holes in the spouts through the upper corners of the sides.

We do not wish to be limited to any particular construction of the spouts *M*, or to any particular method of attaching them to the gather-boards, nor to any particular construction of the ribs above the spouts, nor to the employment of such ribs under any form, it being apparent that the upper edges of the

spouts might be placed in close proximity to each other and be made to join sufficiently tight to prevent material from passing down between them—as, for instance, by turning over the edge of one wall of each spout and inserting the adjacent edge of the next spout underneath the turned over portion.

What we claim is—

1. The combination, with a flour-bolt, of two conveyers arranged side by side, a center board between the conveyers, an adjustable chute provided with upwardly-projecting sides and pivoted by its sides above its bottom, whereby the opposite edges of its bottom may be alternately elevated to receive material, and a hopper-bottomed chamber between the chute and the bolt to receive material and deliver it alternately to opposite sides of the chute, substantially as set forth.

2. The combination, in a flour-bolt, of two conveyers arranged side by side, a center board between the conveyers, an adjustable chute, a hopper-bottomed chamber between the chute and the bolt to receive material and deliver it to the chute, said chute being adapted to retain its position by friction after adjustment, substantially as set forth.

3. The combination, with a flour-bolt, of two conveyers arranged side by side, a center board between the conveyers, a series of adjustable chutes each provided with upwardly-projecting sides, a series of supports for the chutes arranged intermediately between the ends of the conveyers, and pivots connecting the sides of the chutes with the supports, substantially as set forth.

4. The combination, with a flour-bolt, of two conveyers arranged side by side, a center board between the conveyers, a series of adjustable chutes provided with upwardly-projecting sides, a series of transverse bars arranged intermediately between the ends of the conveyers, and pivotal supports connecting the chutes with the bars, the bars being of greater width than the spaces between two adjacent sides of two adjacent chutes, substantially as set forth.

5. The combination, with the gather-boards and the conveyers arranged side by side, of the spouts, and the chutes suspended from the spouts, substantially as set forth.

6. The combination of the gather-boards, the conveyers arranged side by side, the chutes, the spouts, and the partition-bars arranged above the upper edges of the spouts, substantially as set forth.

7. The combination, with the gather-boards and the conveyers arranged side by side, of the chutes, the transverse rails or ribs, and the spouts attached to the transverse rails, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE E. MOUNT.

Witnesses: EDGAR BASSETT.

M. KARMON,

GEO. S. BENNETT.