

(No Model.)

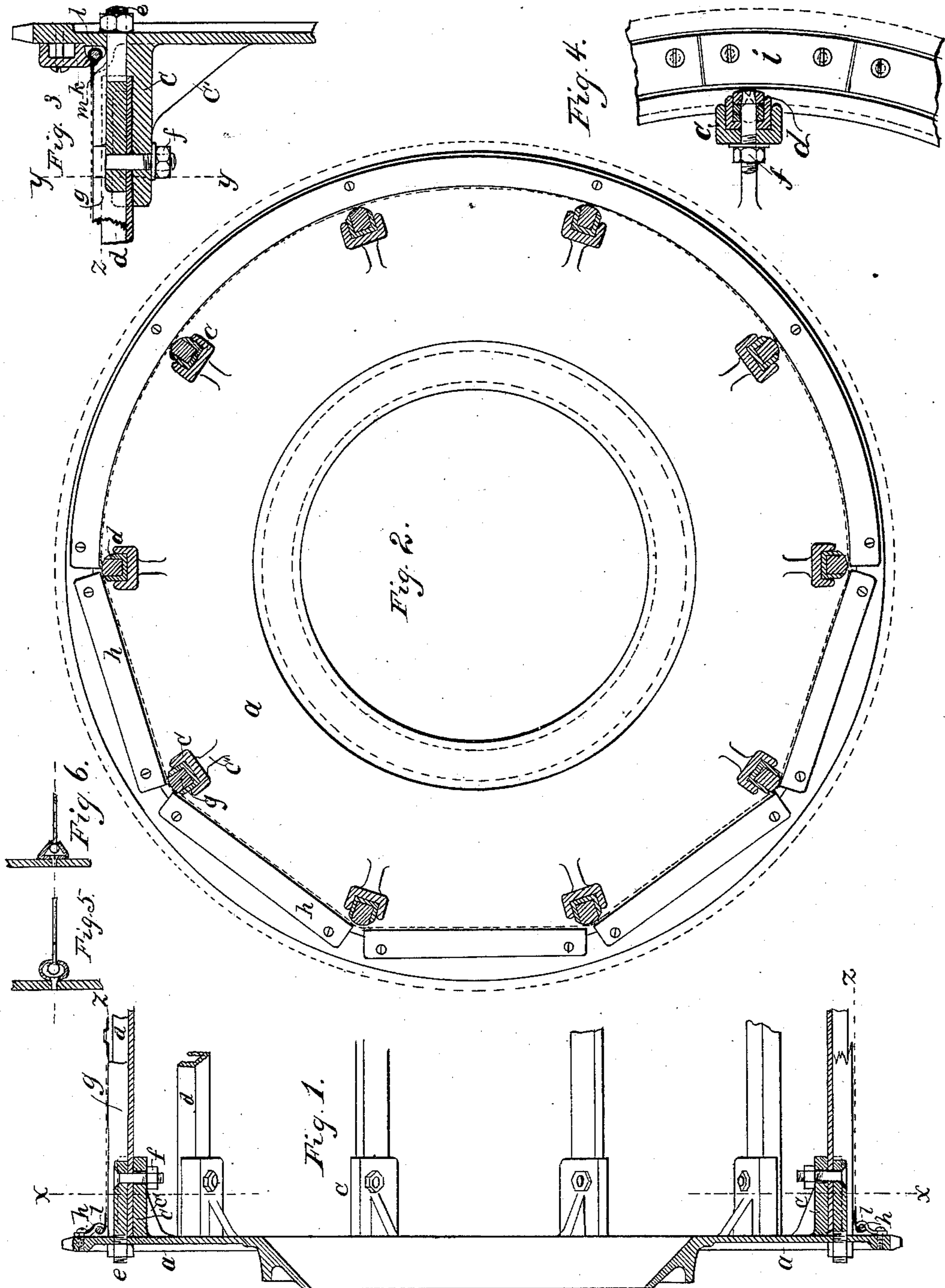
3 Sheets—Sheet 1.

H. SECK.

FLOUR BOLTING AND DRESSING MACHINE.

No. 302,165.

Patented July 15, 1884.



Witnesses:
Eugene J. Walker
[Signature]

Inventor:
Heinrich Seck
by his attorney
[Signature]

(No Model.)

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H. SECK.

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Fig. 9.

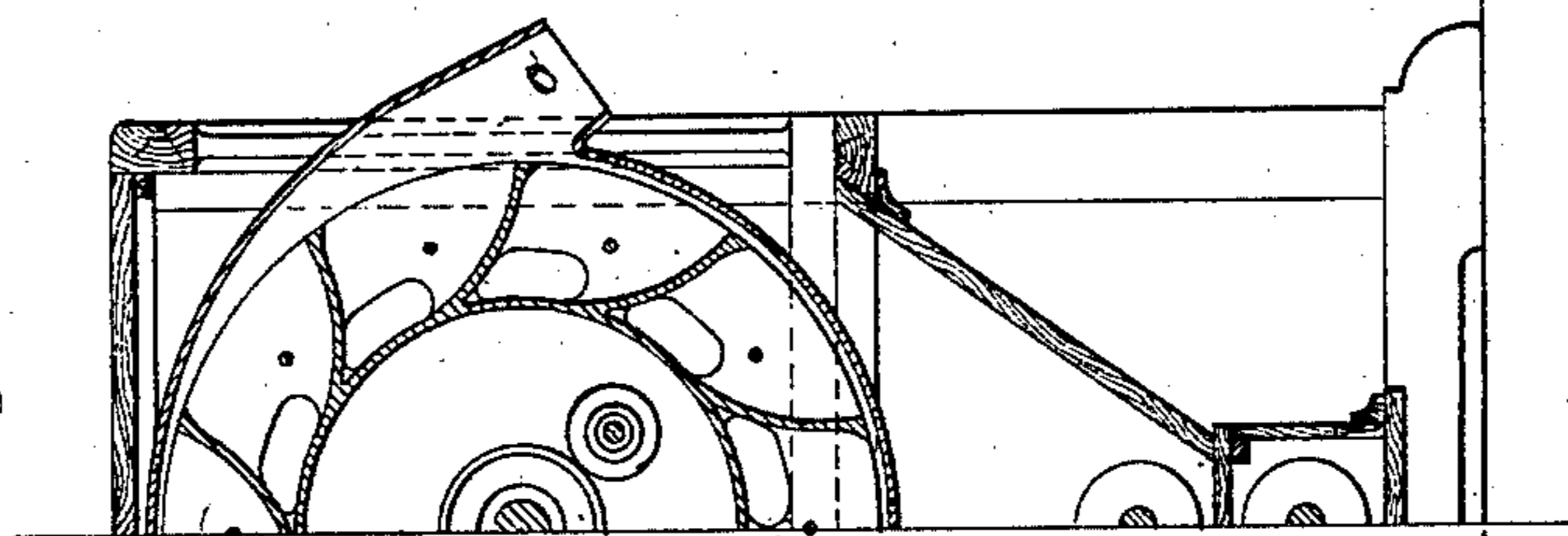


Fig. 8.

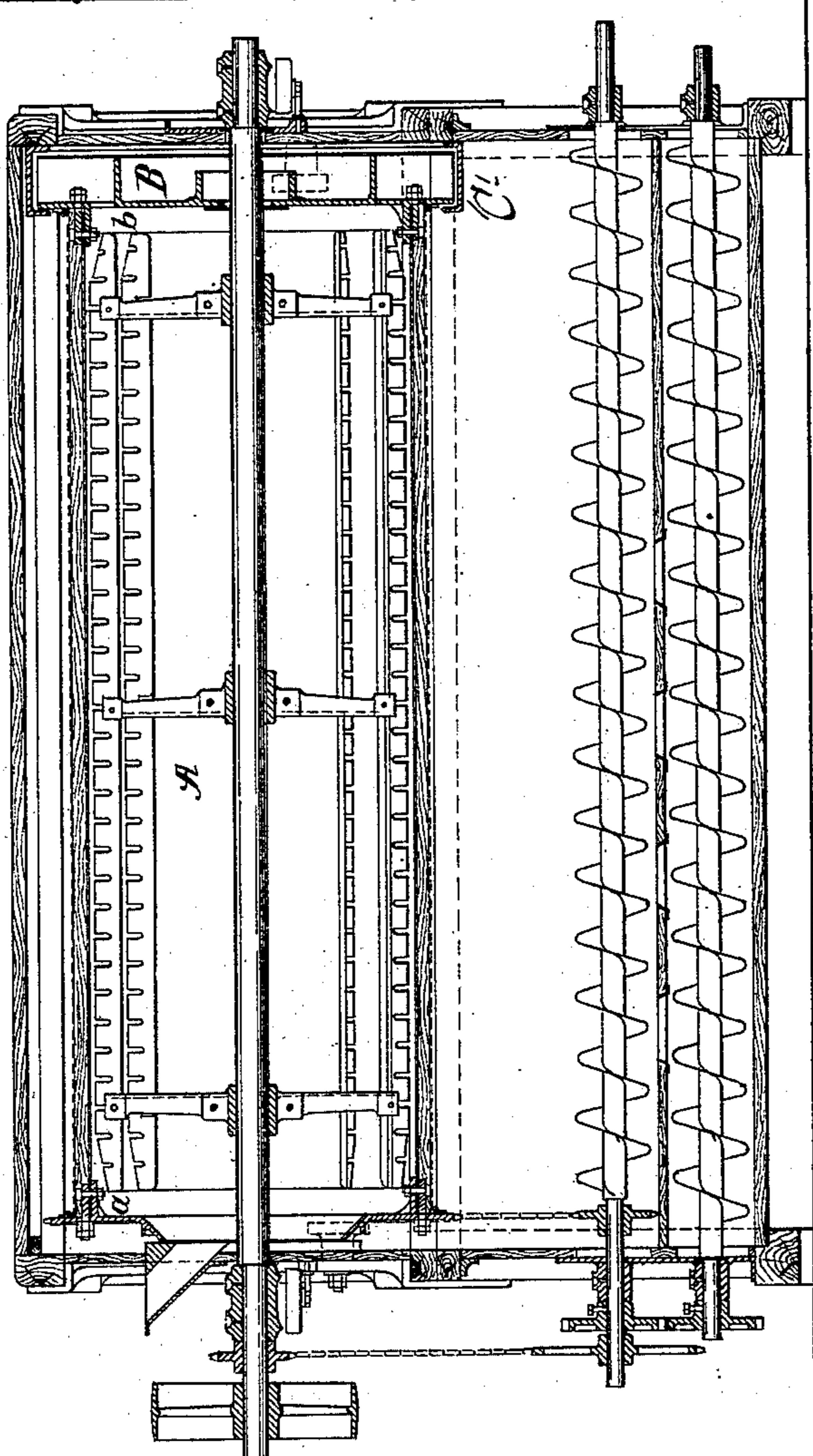
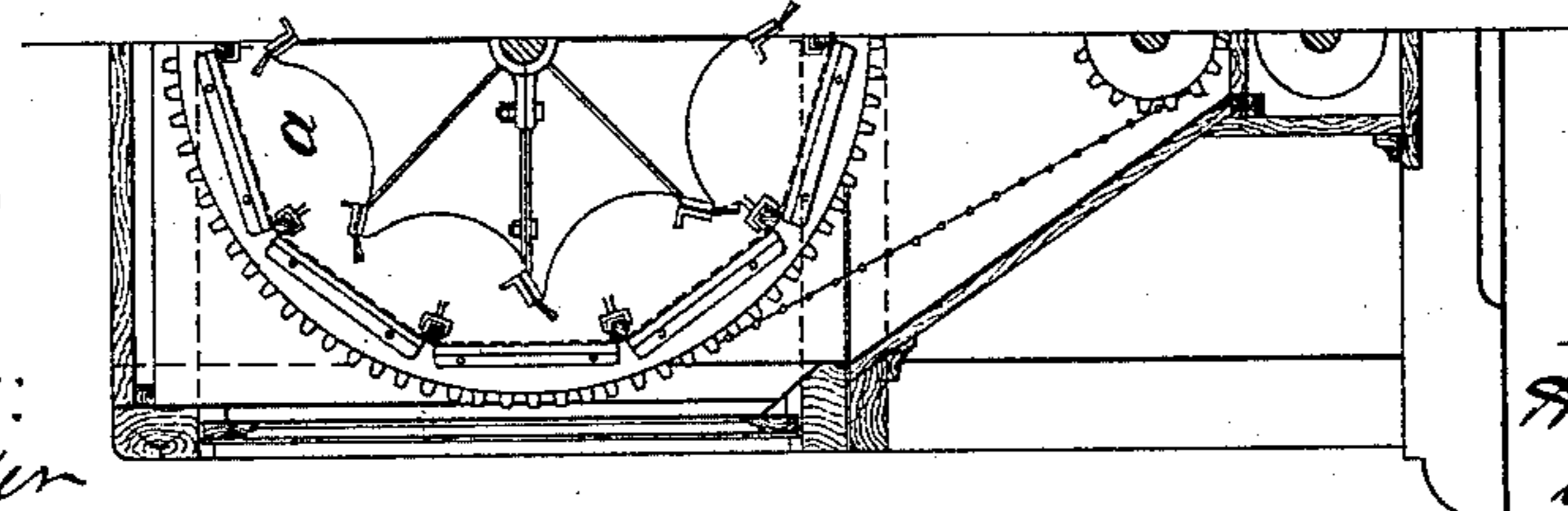


Fig. 7.



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(No Model.)

3 Sheets—Sheet 3.

H. SECK.

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Fig. 11.

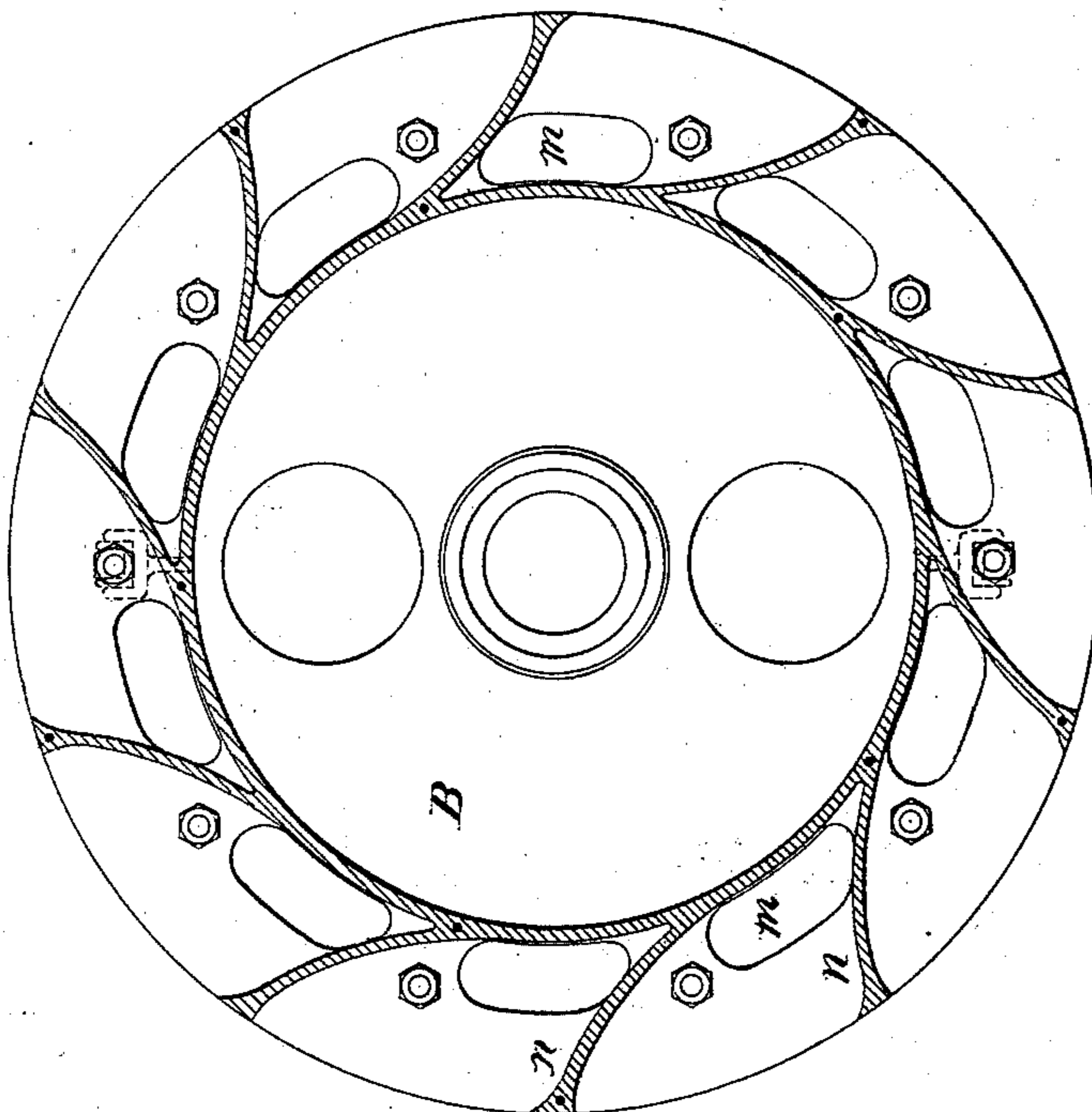
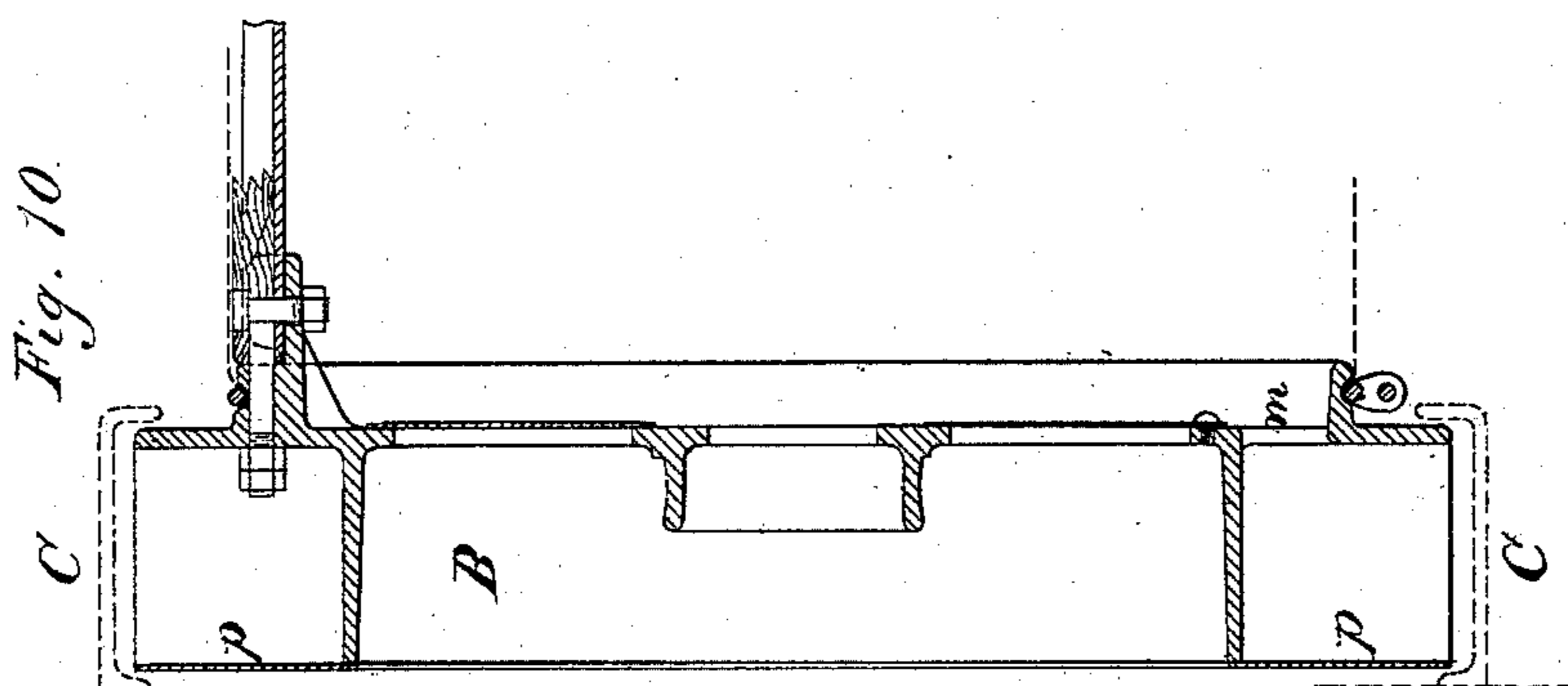


Fig. 10.



Witnesses.
C. F. Walker
h. s. t. e. n

Inventor
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UNITED STATES PATENT OFFICE.

HEINRICH SECK, OF FRANKFORT-ON-THE-MAIN, GERMANY.

FLOUR BOLTING AND DRESSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 302,165, dated July 15, 1884.

Application filed July 14, 1882. (No model.) Patented in England July 31, 1882, No. 3,635, and in Germany October 29, 1882, No. 23,945.

To all whom it may concern:

Be it known that I, HEINRICH SECK, of Frankfort-on-the-Main, Germany, in the Province of Hesse-Nassau and Kingdom of Prussia, have invented certain new and useful Improvements in Flour Bolting and Dressing Machines, of which the following is a specification.

This invention relates to improved means of fastening or applying the bolting or screening cloth or silk to flour bolting and dressing machines, and to certain other features of construction, all as hereinafter more fully described and claimed.

My invention is shown in the accompanying drawings, and in these drawings—

Figure 1 is a partial longitudinal section of my improved means for securing the cloth. Fig. 2 is a transverse section through the bolting-cylinder on the line *xx*, Fig. 1, looking toward one of the heads of the same, and showing the supporting-ribs, and in section the bearing **U**-arms carrying **U**-shaped iron bars provided with wooden bars forming the contact-surfaces for the screening-cloth. Fig. 3 is a modified form of my improvement. Fig. 4 is a sectional view on the line *yy* of Fig. 3. Figs. 5 and 6 are modified forms of the fastening-bars holding the screening-cloth. Fig. 7 is a sectional view of parts of a bolting-machine provided with my improvements. Fig. 8 is a longitudinal vertical section of such machine. Fig. 9 is a sectional view of part of the opposite end of the machine, and Figs. 10 and 11 are detail views of the discharging-elevator at the tail of the reel.

Referring first to Figs. 1, 2, 7, and 8 of the drawings, *a* and *b* are the heads of the bolting-cylinder **A**, to which heads are fixed near their inner periphery a suitable number of projecting **U**-arms, *c*, having supporting-ribs *c'*. Every two opposite arms *c* carry a **U**-bar, *d*, made of cast-iron or other suitable material, said **U**-bars *d* fitting snugly the **U**-arms *c* and extending across the entire length of the cylinder **A**.

e and *f* are screw-bolts, provided with nuts for holding the **U**-bars *d* in position in the **U**-arms *c* and fastening said bars to the heads *a* and *b*. To this end the bolt of the screw *e* is made,

near its inner end, of a rectangular or square form, fitting snugly the end of the **U**-bar, and this rectangular end of the screw-bolt *e* is provided with a hole for the screw-bolt *f* to pass through, the end of the latter carrying a nut which holds the screw-bolt *e*, the **U**-bar *d*, and the **U**-arm *c* in a tight connection. The screw-bolt *e* is provided at its outer end with a similar nut to prevent the lengthwise movement of the **U**-bars *d*. Now, each **U**-bar is fitted up with a snugly-fitting wood bar, *g*, extending from one head to the other, and the outer surface of said wood bars *g* is rounded off, and is provided with a suitable covering, over which the screening-cloth is drawn. In the drawings the screening or bolting cloth is indicated by dotted lines *z*, and the said cloth is provided with a strong edge, made of linen or other suitable material, the rim of which is folded over a rope, *l*, and is fastened by means of stitching to the upper side of the said linen edge again, thus inclosing the said rope *l* and forming a swelled edge on the screening-cloth.

h h are bars, made of iron or other convenient material, which are bent in such a form as to form, when screwed upon the heads *a b*, a space similar to that formed by a tube or pipe slotted lengthwise. The rope *l*, inclosed and held by the linen edge of the bolting-cloth, is inserted into this said space, so that when the bolting-cloth is stretched the edge, with the rope *l*, will be pressed against the inside of the "slot," between the lower edge of the bar *h* and the upper surface of the wood bars *g*, thereby holding the bolting-cloth in a stretched position.

There may be applied one bar *h* between each two adjacent **U**-bars *d*; or the bar *h* may consist of one single ring screwed to the heads near their inner periphery, above the said bars *d*. In the former instance the bolting-cloth will have a polygonal form, while in the latter case it will be cylindrical. When there is but one ring used, the latter must be so constructed as to allow of a short piece of it being taken out for inserting the end of the rope *l* of the bolting-cloth. When there are several bars *h* applied, it will be necessary only to unscrew one of them to insert the rope *l* into the space

formed by the one adjacent bar and the wood bar *g*, and to slide the rope forward until it issues from the other adjacent bar *h*, when it may be tied together, and the unscrewed bar *h* may be screwed on again to cover the connected part of the rope *l*, as will be easily understood. The cloth is then stretched in the usual way.

In the modification shown in Figs. 3 and 4 of the drawings the bars *h* have been replaced by the ring *k*, an annular projection, *m*, being applied to the heads below the said ring *k* to form the "slotted tube," serving for the reception of the rope *l* to hold the stretched cloth. Some other forms of such slotted tube are shown in Figs. 5 and 6. In order to insert the rope *l* or the swelled edge of the bolting-cloth into the space formed by the ring *k* and the projection *m*, (shown in Fig. 3 of the drawings,) it is necessary only to unscrew the part *i* of the said ring *k*, as shown in Fig. 4, and to slide the rope or swelled edge forward in the same manner as has been described with reference to Figs. 1 and 2 of the drawings. The said annular projection *m* is of course broken or intersected by the U-arms *c*.

I wish it understood that I do not confine myself to the exact construction and arrangement of devices for holding the swelled or puffed-up edge of the bolting-cloth when stretched as many modifications would suggest themselves to the skilled mechanic without departing from the spirit of my invention.

Another part of my invention relates to the combination, with a flour bolting and dressing machine, of an improved elevator, the same being mounted in the same height and on the same axis with the bolting-cylinder. This part is shown in Figs. 9, 10, and 11 of the drawings. The said elevator is fixed to the head *b* of the bolting-cylinder *A*, and rotates with the same, its rotary motion being about one-tenth (more or less) of the speed of the beater-wheel within the said cylinder *A*. The grist in the latter is moved from the left to the right by means of the beaters until it enters the elevator *B* through the openings *m*, said elevator rotating within a stationary box, *C'*, and being provided with a number of scoops, *n*. The said box *C'* has a spout, *o*. The scoops *n* are closed by a ring, *p*. They will elevate the grist

and throw the same through the spout *o* into the grinding-rollers. It will be seen that by this arrangement the construction of the machine is rendered far more simple, and that it is of less height than heretofore; and I wish it to be understood that I do not confine myself to making the bars *g* of wood, as other light material would answer the purpose equally well.

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

1. In bolting-machines, the combination, with the bolting-cloth, of the metal U-bars *d*, extending the length of the bolting-cylinder, and the wooden bars *g*, for filling the grooves of said metal bars *d*, substantially as described.

2. The combination of metal U-shaped bars *d*, U-shaped brackets *c*, the heads *a b*, the wooden filling-bars *g*, and the bolting-cloth, substantially as described.

3. In a bolting-reel, the combination of the reel-heads, a continuous bolting-cloth provided at its opposite ends with swelled edges, by which it is stretched and held in place, and an annular bracket or keeper secured to each reel-head, substantially as described.

4. In a bolting-reel, the reel-heads, a continuous bolting-cloth secured thereto and provided at its opposite ends with swelled edges, by which it is stretched and held in place in each reel-head, as herein described, with the longitudinal U-shaped bars containing wooden filling-bars, substantially as described.

5. In a bolting-machine, the combination of the reel, the elevators *n*, made in one piece with one head of the reel, the ring *p*, and the stationary box *C'*, provided with the spout *o*, substantially as described.

6. A reel-frame for flour-bolting machines, consisting, substantially, as before set forth, of the heads *a b*, the arms *c*, projecting therefrom, the U-shaped bars *d*, having their ends seated in recesses in said arms, the bolts *e f*, and a wood filling for the grooves of the bars *d*.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HEINRICH SECK.

Witnesses:

B. ROY,

ROBERT R. SCHMIDT.