

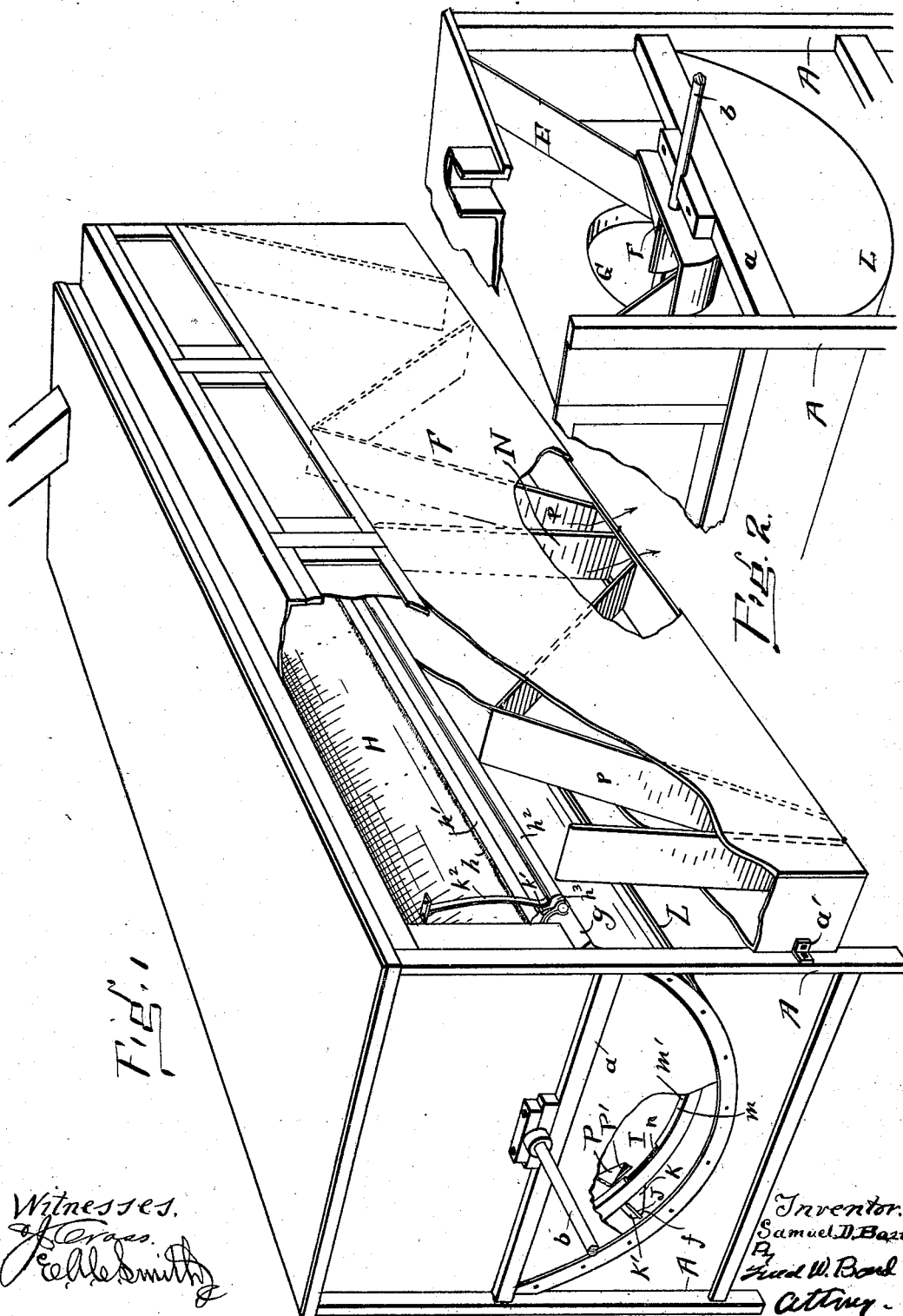
(No Model.)

3 Sheets—Sheet 1.

S. D. BARR.
FLOUR BOLTING REEL.

No. 524,157.

Patented Aug. 7, 1894.



Witnesses.
J. C. Cross.
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(No Model.)

3 Sheets—Sheet 2.

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Fig. 3

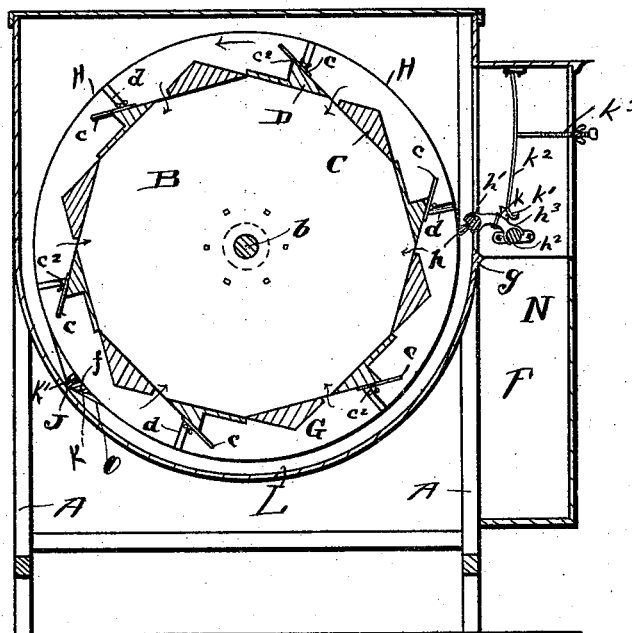


Fig. 4

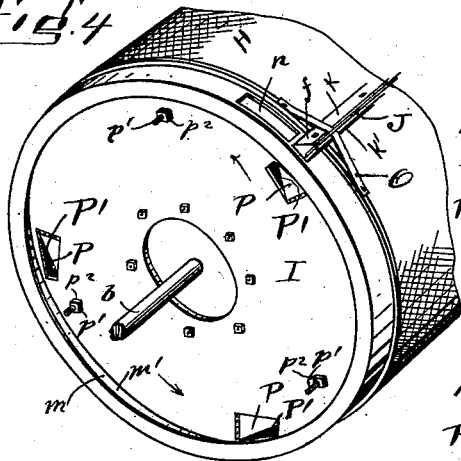


Fig. 5.

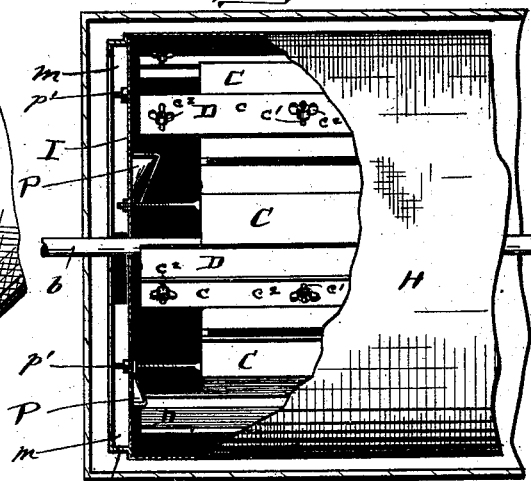
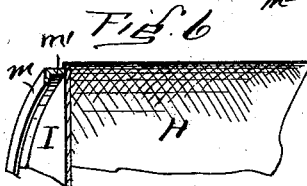


Fig. 6



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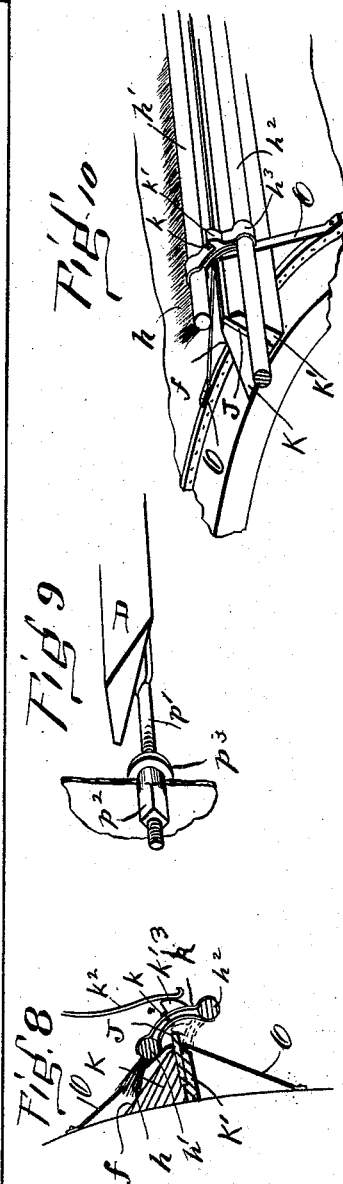
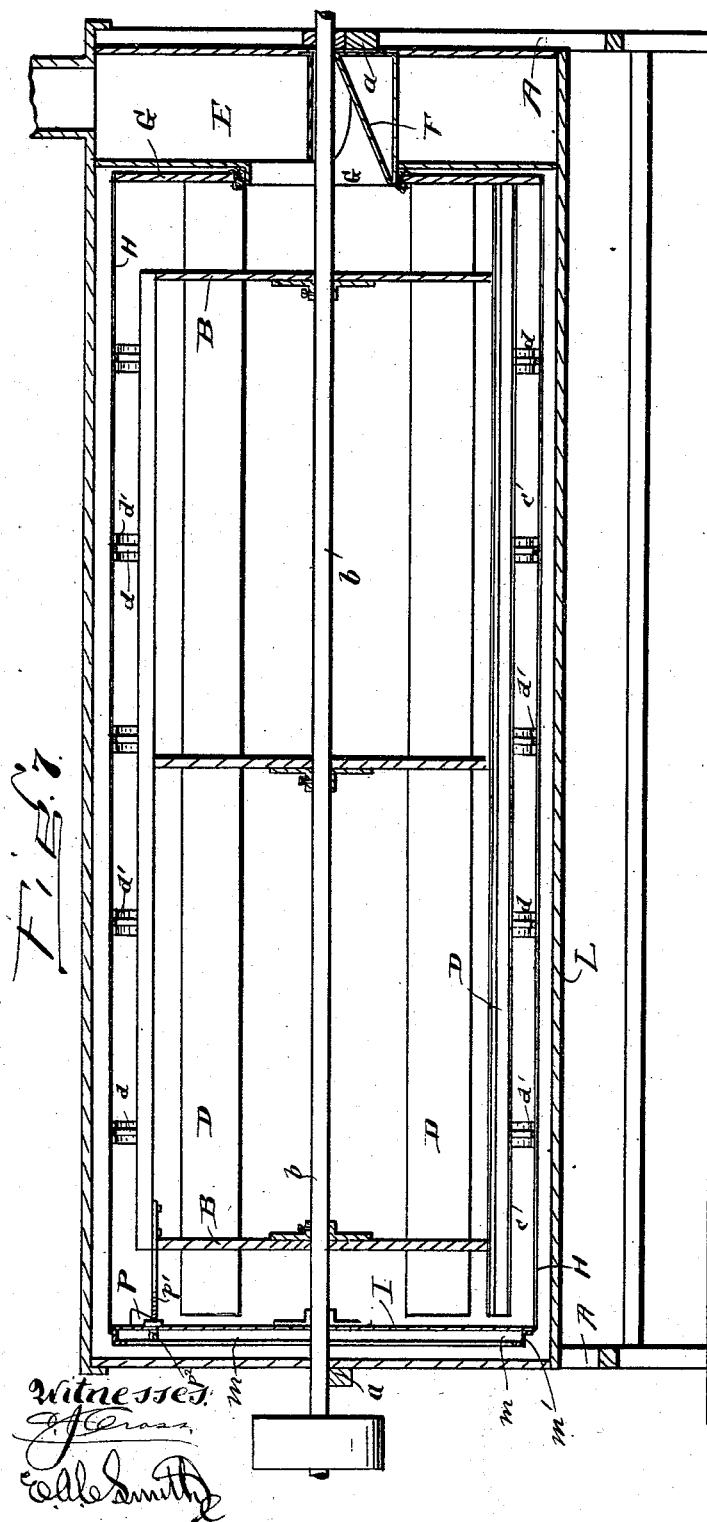
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No. 524,157.

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UNITED STATES PATENT OFFICE.

SAMUEL D. BARR, OF MINERVA, OHIO, ASSIGNOR OF THREE-FOURTHS TO SYLVESTER GHARKY, OF SAME PLACE, AND NICHOLAS FELLER, OF BEACH CITY, OHIO.

FLOUR-BOLTING REEL.

SPECIFICATION forming part of Letters Patent No. 524,157, dated August 7, 1894.

Application filed January 5, 1894. Serial No. 495,854. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL D. BARR, a citizen of the United States, residing at Minerva, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Flour-Bolting Reels; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1, is a perspective view, showing parts broken away. Fig. 2, is a perspective view of the feed end of the reel frame, showing the end of said frame removed. Fig. 3, is a transverse section of the reel, showing the same properly located with reference to its concave and frame. Fig. 4, is a perspective view, showing a portion of the delivery end of the reel. Fig. 5, is a view, showing the top of the reel, and illustrating the same properly located with reference to its frame or casing. Fig. 6, is a view, showing a portion of the grooved flange and the adjustable head. Fig. 7, is a longitudinal section of the reel, and its frame. Fig. 8, is an end view of the sweeping blade and brush, showing said parts somewhat enlarged, to better illustrate their construction. Fig. 9, is a view showing one of the bolts for tightening or stretching the bolting cloth, and illustrating a portion of the adjustable head. Fig. 10, is a view, showing a portion of the reel and illustrating the brush tripping bracket properly located, and also showing a portion of the brush.

The present invention has relation to flour bolting reels, and it consists in the different parts and combination of parts hereinafter described and particularly pointed out in the claims.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings A, represents the frame, which is substantially of the form shown in Fig. 1 and is of a size to correspond with the size of the reel designed to be constructed. The frame A, is provided with suitable cross-bars *a*, which are for the

purpose of providing a means for properly journaling the reel shaft *b*. To the reel shaft *b* are securely attached the disks B, which disks are located substantially as shown in Fig. 7. To the peripheries of the disks B are attached the longitudinal bars C and D, which bars are alternated as illustrated in Fig. 3, and for the purpose of providing an open reel the bars C and D are set a short distance apart, as illustrated in Fig. 3, for the purpose of giving the outer faces of the bars C and D, the proper inclination, said bars are provided with inclined faces.

To the bars D, are adjustably attached the plates *c* which plates are formed of a length to correspond with the length of the bars D, or substantially so, or if desired the plates *c* may be formed in sections, thereby providing for properly locating the posts *d*.

For the purpose of providing a means for feeding the stock to the reel proper, the inclined boards E are provided, which inclined boards E are located substantially as shown in Fig. 2, and as shown they are so arranged that they will convey the stock to the hopper F, which hopper leads through the open head G, substantially as shown in Fig. 7.

For the purpose of allowing the stock to come directly in contact with the bolting cloth H, the longitudinal bars C are extended only to the disk B, substantially as illustrated in Fig. 7, thereby leaving a clear space for the stock to fall upon the bolting cloth. The bolting cloth H, is securely attached to the head G in the ordinary manner and extends the entire length of the reel, and the opposite end of said bolting cloth is attached to the adjustable head I. For the purpose of properly supporting the bolting cloth, the posts *d* and the bands *d'* are provided, said bands *d'* being properly covered with cloth, so as to afford proper protection to the bolting cloth.

To the outer side of the bolting cloth H, is located the sweeping blade J, which sweeping blade is preferably formed of rubber, and is held in proper position by means of the bars K and K', said bars being attached to the head G, and to the bands *d'* or their equivalents. The bar K is provided with the

inclined face *f*, which inclined face is for the purpose of providing a means for easily removing the flour from said bar as hereinafter described.

5 Below the reel proper is located the concave L, which concave is so arranged with reference to the sweeping blade J, that said sweeping blade will sweep the flour from the concave, and elevate the flour, as the reel is revolved. As the sweeping blade reaches the
10 ledge *g*, the brush *h*, will come in contact with the bar K, thereby removing the flour from the bar K and the sweeping blade J, at which time the flour falls into the casing F, which
15 casing is provided with the adjustable valves N, said valves being adjusted to properly divide the flour into the desired grades.

To the adjustable head I, and the head G are attached the V shaped bars O, which V
20 shaped bars are so adjusted that as the reel revolves, the V shaped bars O, will pass under the brush head *h'*, thereby elevating the brush, and permit the bars K and K' and the sweeping blade J to pass the brush head, and
25 at the same time sweep the flour from the bar K and the sweeping blade J.

For the purpose of holding the brush head *h'* in proper position, the bar *h*² is provided, which bar is attached in any convenient and
30 well known manner to the casing F, or its equivalent. To the bar *h*² are pivotally attached the arms *h*³, which arms carry the brush head *h'*, said arms being located substantially as shown in the drawings.

35 If desired the arms *h*³ may be rigidly attached to the bar *h*², and the bar journaled as it will be understood that the same object can be accomplished with either construction. For the purpose of providing a means for
40 easily removing the brush head *h'* and its brush *h*, the arms *h*³ are made in sections or halves, and held together by means of the clamping bolts *k*. The upper sections of the arms *h*³, are provided with the lugs *k'*, which
45 lugs are for the purpose of engaging the bottom or lower ends of the springs *k*² which springs are for the purpose of forcing the brush *h*, toward and onto the bolting cloth H, as the V shaped bars O pass from under the
50 brush head *h'*. For the purpose of regulating the tension of the springs *k*², the screw threaded bars *k*³ are provided. For the purpose of adjusting the plates *c* to and from the
55 bolting cloth H, said plates are provided with the slots *c'* and are held at the desired point of adjustment, by means of set screws *c*². It will be understood that as the plates *c*, are brought toward the bolting cloth H, that a greater amount of stock will be elevated by
60 the ascending side of the reel, which stock will be thrown onto the bolting cloth from the descending side of the reel; the stock being shunted upon the bolting cloth by means of the plates *c*, and the bars C, thereby better
65 distributing the stock upon the bolting cloth

H. For the purpose of allowing all of the stock or bran to fall upon the bolting cloth at the rear end of the reel, the bars C, stop at the head or disk B, thereby providing suitable openings between the disk B and the adjustable head I. For the purpose of conveying all of the bran to the concave L, the cups P are provided, which cups are attached to the adjustable head I, and are located directly opposite the openings P', which openings allow the bran to pass through the adjustable head I, and be received into the groove *m*, which groove is formed by the flange *m'*, said flange being securely attached to the adjustable head I, and rotates with said adjustable head.
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It will be understood that, by providing the opening *n*, in the flange *m'*, when the opening *n* reaches the under or bottom side of the reel proper, the bran will pass through said opening onto the concave L, from whence it will be swept by the sweeping blade and elevated so as to be delivered in its proper compartment in the casing F.
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The casing F, is provided with different compartments which compartments are divided by means of the inclined boards *p*. For the purpose of providing a means for adjusting the head I, the screw-threaded bolts *p'* are provided, the inner ends of which are
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It will be understood that by my peculiar arrangement no separate conveyer is necessary to remove the flour from the reel, and at the same time no accumulation of flour is left or allowed to remain below the reel at the end of a run, inasmuch as the sweeping blade I removes substantially all the flour and bran from the concave L, at each revolution of the reel.

For the purpose of providing a means for easily conveying or transporting the reel proper from place to place, the casing F is removably attached to the frame A, by means of suitable angle irons, such as *a'* and screws.
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Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a reel, having located thereunder a concave, a sweeping blade fixed to and revolving with said reel, the bars C and D, provided with inclined faces, and the adjustable plates *c*, and a brush, all arranged substantially as and for the purpose set forth.
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2. The combination of a reel having located below said reel a concave, a sweeping blade attached to and rotating with the reel, the V shaped bars O, the brush head h' , carrying
5 the brush h , the arms h^3 , provided with the lugs k' , the springs k^2 and the bar K, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

SAMUEL D. BARR.

Witnesses:

E. A. C. SMITH,
F. W. BOND.