

(No Model.)

2 Sheets—Sheet 1.

W. H. BARBER.

GRAIN SACKING AND WEIGHING ATTACHMENT FOR THRASHING MACHINES.

No. 319,170.

Patented June 2, 1885.

Fig. 2.

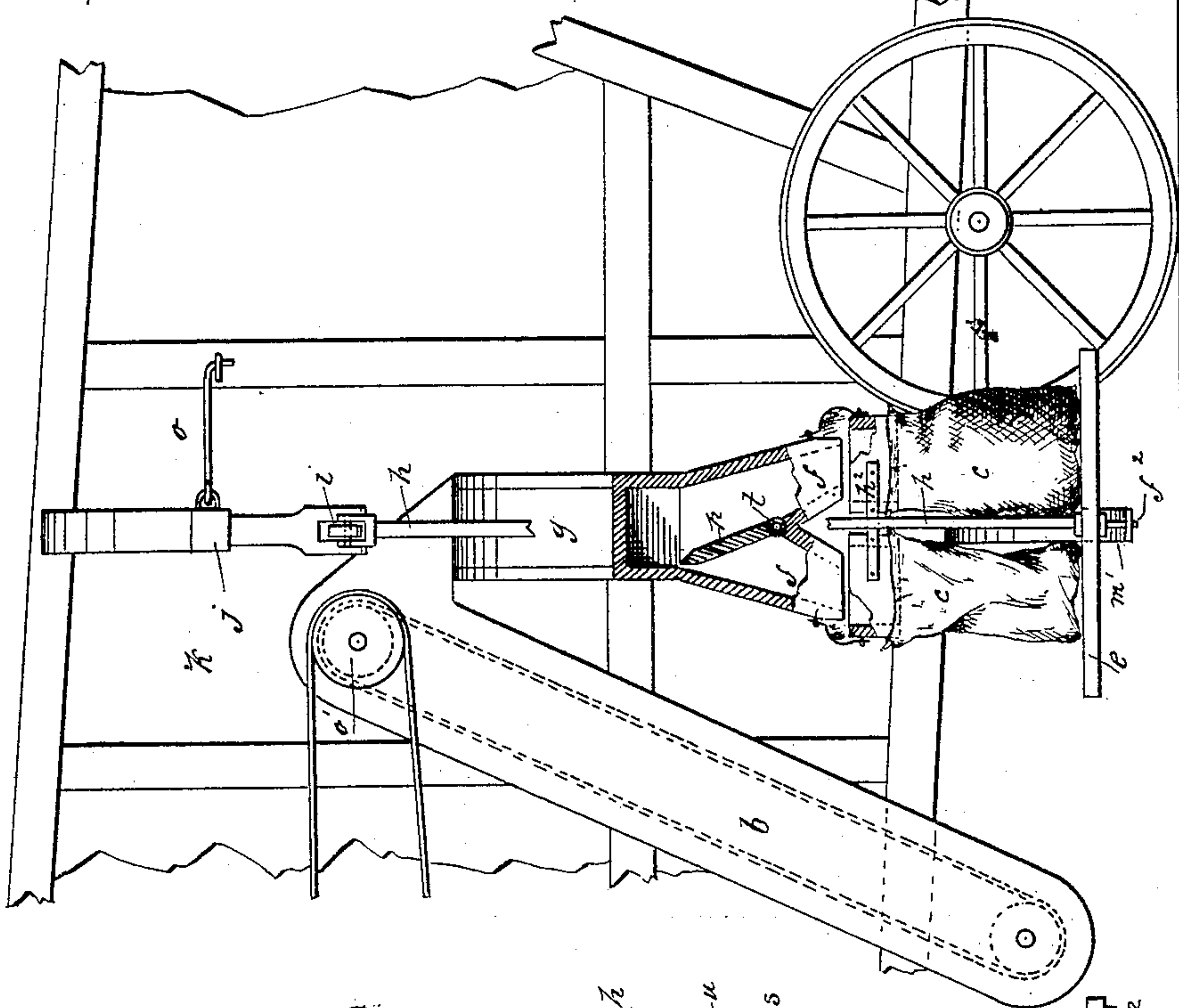
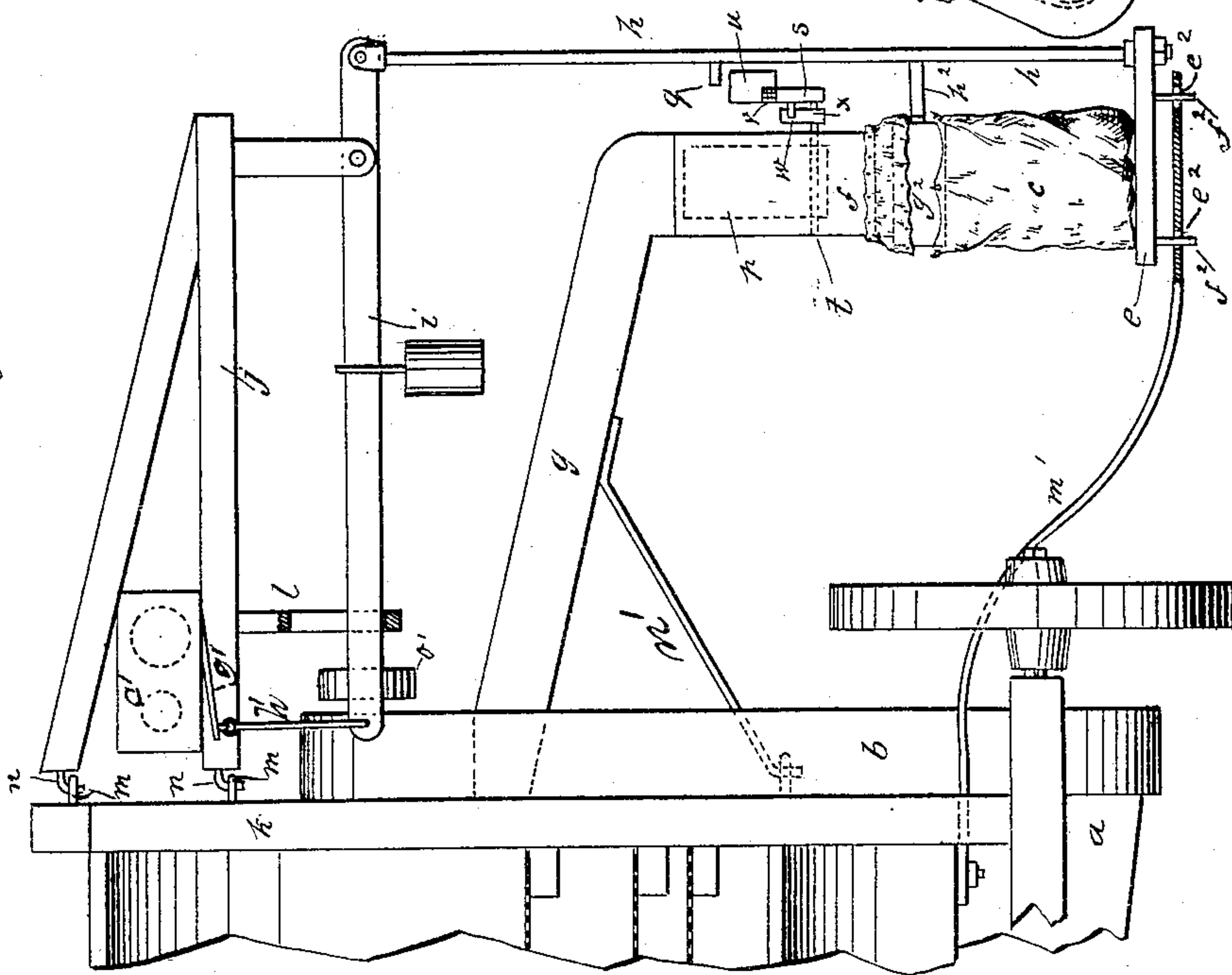


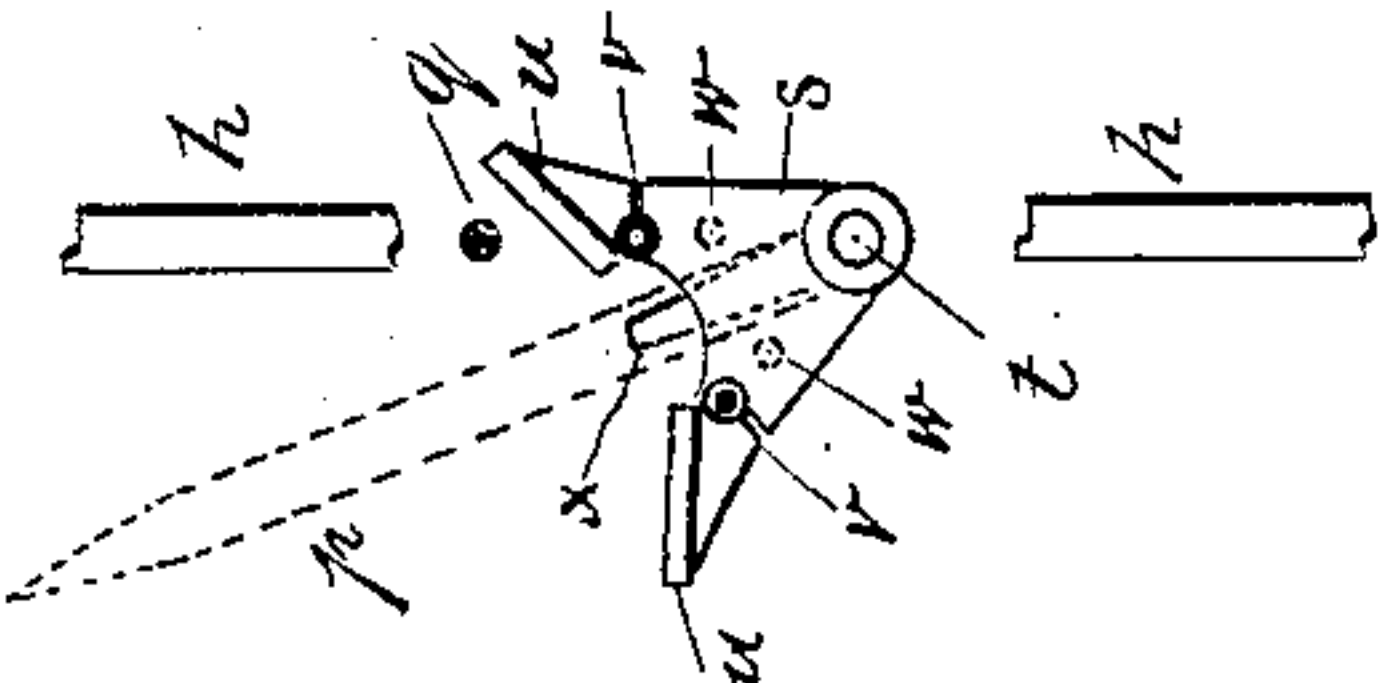
Fig. 1.



WITNESSES:

*Chas. N. H. A.*  
*C. Sedgwick*

Fig. 3.



INVENTOR:

*W. H. Barber*  
BY *Munn & Co*  
ATTORNEYS.

(No Model.)

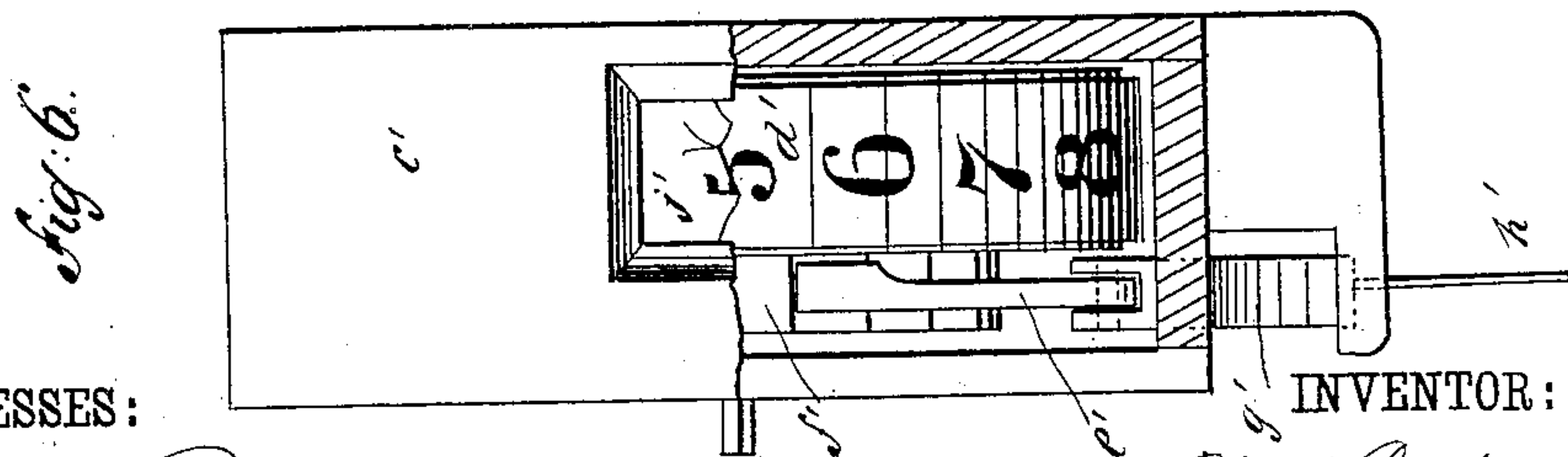
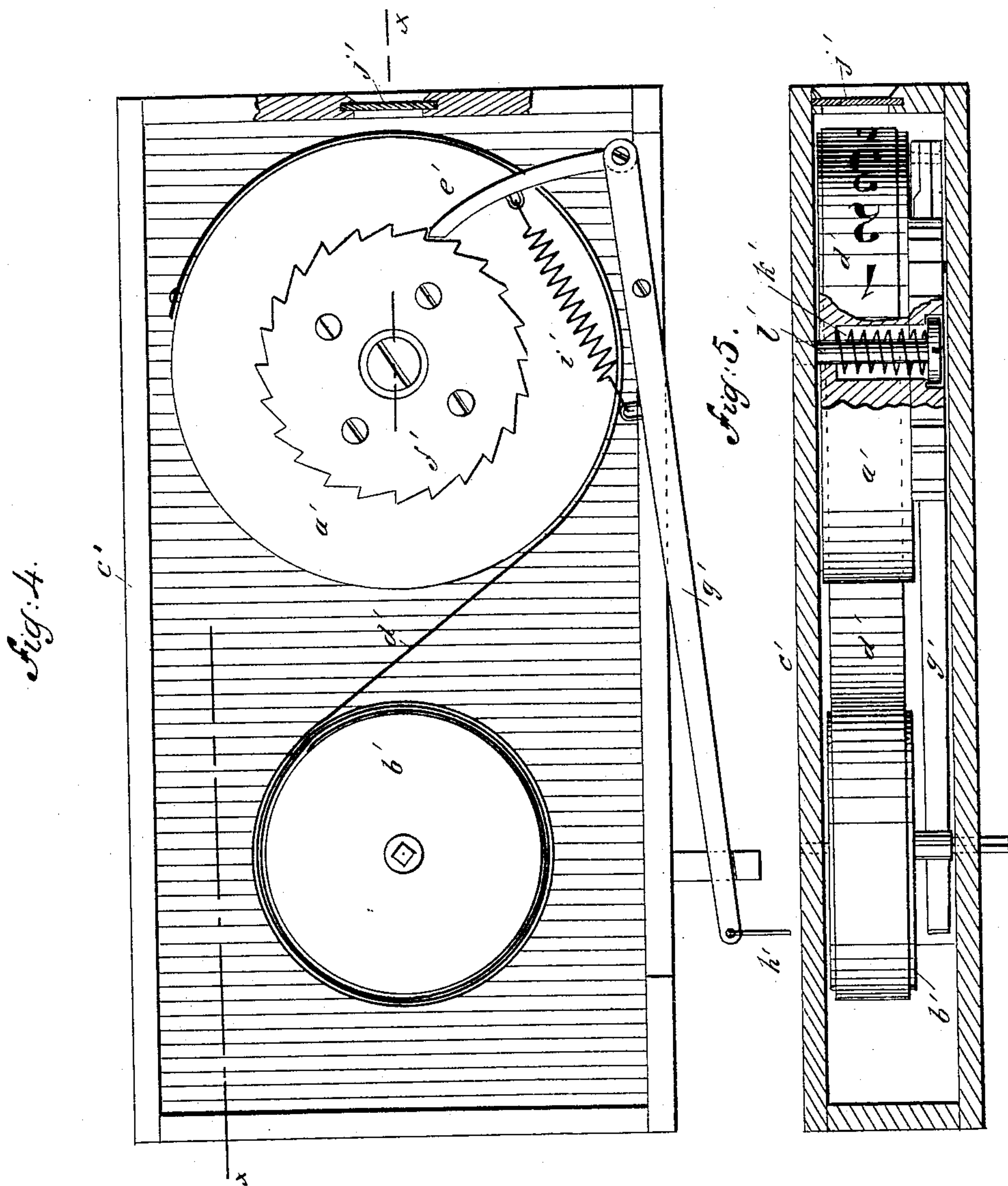
2 Sheets—Sheet 2.

W. H. BARBER.

GRAIN SACKING AND WEIGHING ATTACHMENT FOR THRASHING MACHINES.

No. 319,170.

Patented June 2, 1885.



WITNESSES:

*Chas. Nida.*  
*L. Sedgwick*

INVENTOR:

*W. H. Barber*

BY

*Munn & Co.*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

WILLIAM H. BARBER, OF WARD, OHIO.

GRAIN SACKING AND WEIGHING ATTACHMENT FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 319,170, dated June 2, 1885.

Application filed November 3, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. BARBER, of Ward, in the county of Washington and State of Ohio, have invented a new and Improved Grain Sacking and Weighing Attachment to Thrashing-Machines, of which the following is a full, clear, and exact description.

My invention consists of an elevator-scale, suspending-crane, branched bag, filling-spout, and an automatic valve-shifter, and also an automatic registering-counter constructed in connection with a thrashing-machine suitably for spouting the grain directly into the bags from the machine, and weighing and registering the number of bags weighted, so as to effect the sacking of the grain and the measuring of the same in a much simpler, more economical manner and more certainly than by the common method of spouting the grain into measures and pouring it therefrom into the sacks, all as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is an end elevation of a portion of a thrashing-machine and a side elevation of the attachment. Fig. 2 is a side elevation of a portion of a thrashing-machine and front view of the attachment, with the branched spout in section. Fig. 3 is a detail of the automatic valve-shifting device of the branched spout. Fig. 4 is a longitudinal sectional elevation of the registering attachment. Fig. 5 is a horizontal section of Fig. 4 on line  $x x$ , and Fig. 6 is partly an end elevation and partly a transverse sectional elevation of the register.

Where the grain is usually discharged from the spout  $a$  into a measure, I fix the foot of an elevator,  $b$ , suitably to receive the grain, the elevator being arranged to carry the grain up high enough to discharge it into bags  $c$ , resting on the platform  $e$  of a weighing-scale suspended a little above the ground, and being hung on hoppers  $g^2$ , suspended under the ends of the branches  $f$  of a spout,  $g$ , by the arm  $h^2$  of the rod  $h$ , said spout being suitably connected with the head of the elevator to receive the grain from it and adapted to suspend the bags over the platform. Canvas may

be tacked on the lower ends of the spouts and hung over the hoppers to keep out all dirt and dust, the canvas being suitably arranged to avoid interference with the action of the scale. I suspend the platform  $e$  by a rod,  $h$ , connected to the short arm of the weigh-beam  $i$ , that is suspended from the outer end of the crane  $j$ , attached to the side  $k$  of the thrashing-machine, said weigh-beam ranging back along under the crane toward the side of the thrashing-machine and through a guide-link,  $l$ , to keep it in position. The crane is detachably hooked onto the side of the thrashing-machine by eye-studs  $m$  and hook-pivots  $n$ , enabling the crane to be readily taken off when required, and also to swing around to the side of the machine for compactly disposing of it when the machine is to be moved from place to place. The brace  $o$ , jointed to the crane and hooked into an eye-stud in the side of the machine, stays the crane while in the position for use.

For automatically shifting the valve  $p$  to turn the stream of grain from the filled bag into the empty one, I have a stud-pin,  $q$ , on the platform-suspending rod  $h$ , and a branched arm,  $s$ , on the pivot  $t$  of the valve, so contrived that the pin  $q$ , descending with the rod  $h$  when the filled bag causes the platform to descend, strikes one or the other of the inclines  $u$  of the branched shifting-arm  $s$ , according to the position in which the valve may happen to be, and throws it over to the other side. The branches of the shifter are pivoted at  $v$ , so that after having shifted the valve the stud-pin, passing below the inclines  $u$ , on which the stud-pin acts, may swing the frame out of its path when rising after the filled bag has been removed from the platform. The arm  $s$  is fitted loosely on the pivot-rod of the valve, and takes effect on said rod by means of two stud-pins,  $w$ , attached to the block  $x$ , made fast to said rod; but the arm may be keyed fast to the pivot-rod of the valve, if preferred.

For the register by which to register the number of sacks filled, I arrange a couple of rollers,  $a'$  and  $b'$ , in a case,  $c'$ , located on the crane, over the free end of the scale-beam, with a tape,  $d'$ , numbered consecutively, coiled on roller  $b'$  and attached to roller  $a'$ , so as to be wound on the latter roller the length of the space occupied by one number each time the



platform descends and a filled bag is removed by means of the ratchet  $f'$ , pawl  $e'$ , and lever  $g'$ , the lever being connected by a rod,  $h'$ , with the scale-beam suitably therefor. A spring,  $i'$ , is attached to the pawl  $e'$ , to keep it engaged with the teeth of the ratchet. A glazed opening,  $j'$ , is made through the end of the case to enable the register to be seen, and a tension-spring,  $k'$ , is coiled on the pivot  $l'$  of the roller  $a'$  suitably for pressing the roller against the side of the case for a friction device to prevent the roller from shifting by the shakes and jars of the machine or by the reaction of the pawl. The platform is stayed by a brace,  $m'$ , rigidly fastened to the side or it may be to the bottom of the thrashing-machine, and extending under the platform  $e$ , and having eyes  $e^2$ , through which guide-studs  $f^2$  of the platform extend, so that the platform will be properly stayed against lateral play, and will at the same time be free to rise and fall without affecting the accuracy of the weighing-scale. The spout  $g$  is stayed by a brace,  $n'$ . All the parts are detachably connected, so that the attachment may be applied to either side of the machine at will. The spout is also fitted to the elevator-head so as to be connected on either side of it, and the driving-pulley  $o'$  for the belt that draws the elevator is similarly fitted, thus enabling the attachment to be placed on the side of the machine from which it may happen to be most convenient for taking away the grain, as the measures for receiving the grain now are, the thrash-

ing-machines being generally constructed with discharge-spouts  $a$ , adapted for discharging from either side, as desired. 35

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

1. The combination, with the branched chute or spout valve having the arm provided with jointed branches, of the studs secured to the block fastened to the valve-rod, and the platform-suspending rod of the weighing-scale, said rod having a stud or pin acting upon one or the other of the branches of the said arm, substantially as and for the purpose set forth. 40 45

2. The stud  $q$  on the platform-suspending rod, and branched shifting-arm  $s$  on the valve-pivot, combined with said valve-branched spout, substantially as described. 50

3. The branched shifting-arm  $s$ , having inclines  $u$ , and joints  $v$  in its arms, in combination with the reversing-valve  $p$  in the branched spout, and the platform-suspending rod  $h$  of the weighing-scale, having the stud-pin  $q$ , substantially as described. 55

4. The brace  $m'$ , rigidly fastened to the machine-frame and having eyes  $e^2$ , and the guide-studs  $f^2$ , attached to the platform  $e$ , in combination with the weighing-scale, suspending-crane, and bag-holding hoppers, substantially as described. 60 6c

WILLIAM H. BARBER.

Witnesses:

J. R. WARD,  
A. WARD.