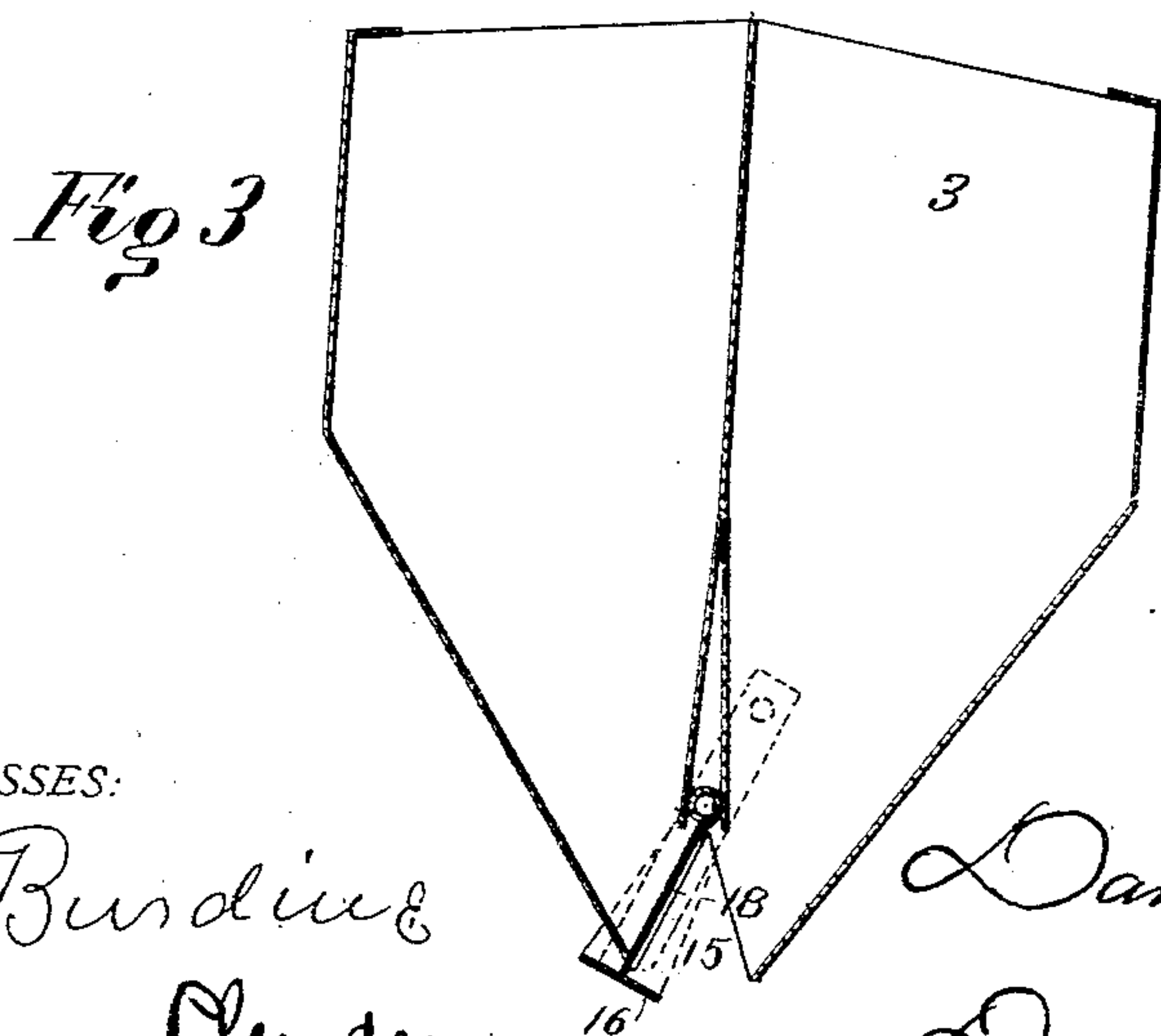
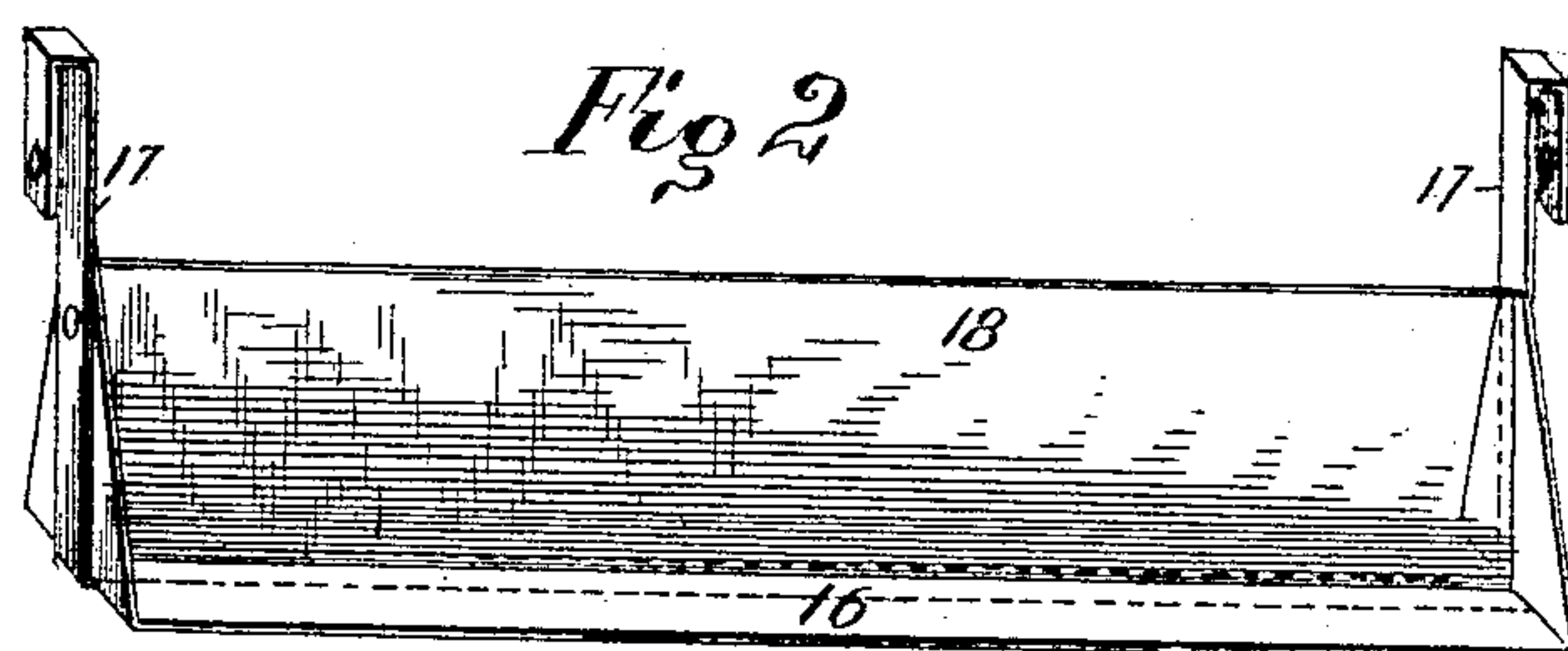
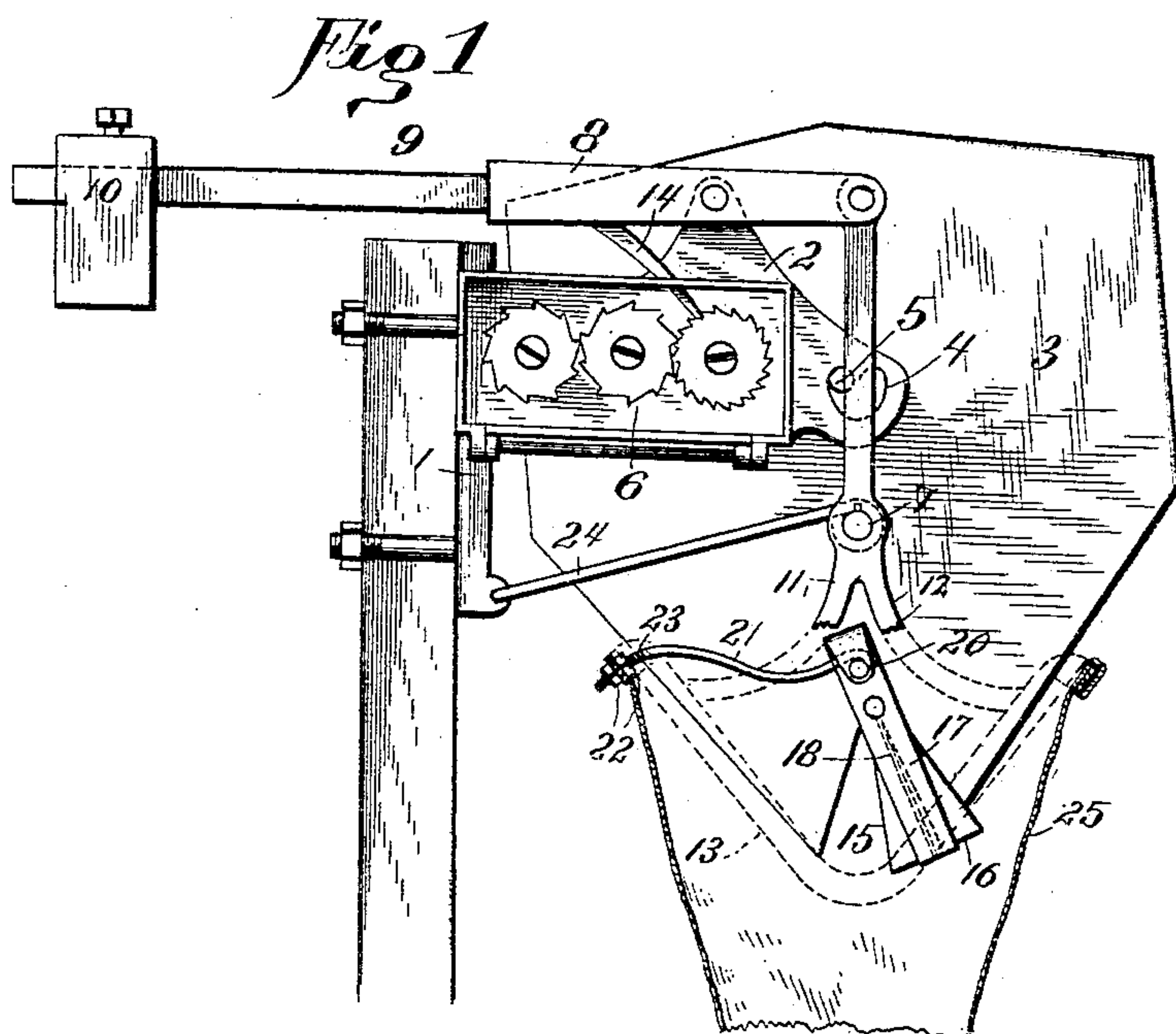


(No Model.)

D. WILDE.
GRAIN METER.

No. 495,145.

Patented Apr. 11, 1893.



WITNESSES:

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UNITED STATES PATENT OFFICE.

DANIEL WILDE, OF WASHINGTON, IOWA.

GRAIN-METER.

SPECIFICATION forming part of Letters Patent No. 495,145, dated April 11, 1893.

Application filed December 3, 1892. Serial No. 454,004. (No model.)

To all whom it may concern:

Be it known that I, DANIEL WILDE, a citizen of the United States, residing at Washington, in the county of Washington and State of Iowa, have invented certain new and useful Improvements in Grain-Meters; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention has particular reference to that class of grain meters, in which an oscillating bucket is employed, and it is especially designed as an improvement on my prior patent No. 411,514, granted September 24, 1889.

My object is to provide superior cut-off mechanism for the discharge openings in the bucket.

With this end in view my invention consists in the peculiar features and combinations of parts more fully described hereinafter and pointed out in the claims.

In the accompanying drawings: Figure 1 represents a side elevation of my invention, the supporting-frame being broken away below the pivotal point, to better show my bucket closer in the position assumed when one side of the bucket is closed, the mouth being shown in dotted lines. Fig. 2 is an enlarged detail perspective view of the bucket-closer; Fig. 3 views of details.

The reference numeral 1 denotes the supporting frame of my weigher, which is fork shaped, its two arms 2 embracing the bucket 3. One arm has a heart-shaped opening 4, in which a locking pin 5, on the bucket, works. To one of the arms is secured a set of registering wheels 6 inclosed in a suitable box. The bucket 3 is pivoted, by trunnions 7, to a movable frame, the upper end of which connects with the forward end of a forked scale-beam 8, having rearwardly extending arms 9, upon which an adjustable weight 10 is adapted to slide. The lower end of the frame has branching arms 11, 12, to the ends of which is hinged a V-shaped frame 13. To the upper ends of

this frame are secured longitudinal bars, extending under the bucket, and fastened to the frame on opposite sides thereof. Attached to one of the forks of the scale-beam 8, is a downwardly extending pawl 14, the nose of which engages the teeth on the registering wheels. The bucket 3 has a vertical partition placed in its center, which divides the bucket into two compartments, but the partition does not extend to the bottom of the bucket, it terminating just below the bucket's center and at the apex of its mouth. The bucket converges as it nears its lower end, the bottom being cut away, so that each compartment will have a common discharge mouth 15, having in transverse section, the shape of an inverted V.

My bucket-closer consists of a flat longitudinal plate 16 having its ends provided with upward extending arms 17. From the longitudinal center of this plate 16 rises a cut-off 18, the upper end of which meets the lower end of and forms a continuation of the partition 19, to close either of the compartments. The part of the plate, on either side of the partition or cut-off 18, overlaps the lower edge of the mouth of the compartment, when the closer is on that side, as clearly seen in Fig. 1. The upwardly extending arms 17 are pivoted to the bucket at 20, and the upper end of one is pivoted to a check-rod 21, which can be lengthened or shortened, as desired, by means of the nuts 22 and threads 23 on the outer end. A brace-rod 24 is joined to the trunnion or pivot 7 of the bucket, and extends back and is secured to the lower part of the supporting-frame 1.

To prevent the wind from blowing the grain away after it leaves the mouth of the bucket, I provide a canvas chute 25, its receiving mouth being attached to the longitudinal bars of the V-shaped frame, and its discharge opening being made narrower and extending below the mouth of the bucket. It will thus be seen that when the grain is being emptied from the bucket, the canvas chute will converge the stream of grain, tending to keep the particles together.

In using my device the operator first slides the weight 10 along the arm 9, to the desired position. It will be seen that when he has

adjusted the weight, the pin on the bucket will be in one of the upper cavities of the heart-shaped bearing, as for instance the right-hand cavity. When in this position the bucket will be tipped to the right, so that the grain, coming from a suitable chute above, will run into the left-hand compartment. It will also be noticed that the bucket-closer is also on the left-hand side, thus closing that compartment. The grain continues to flow into the left-hand compartment until its weight overcomes that on the scale-beam, when it will raise it, and shift the bucket to its other position, or tilt it in exactly the opposite direction. The locking-pin on the bucket will thus be thrown from the right-hand cavity to the left-hand cavity of the heart-shaped bearing. The bucket-closer will also be thrown from the mouth of the left-hand compartment to the mouth of the opposite compartment, allowing the grain to run out, and, as the bucket tips to its other position, the weight on the scale-beam will drop, actuating the pawl 14, which in turn moves the registering wheel one point. The grain will now run into the other compartment, until it fills, when the operation just described will be repeated. Hence it will be seen that the buckets and bucket-closer are made to

automatically alternate their positions and to keep up a continuous registration. 30

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

1. In a grain meter, the combination of an oscillating bucket provided with a partition, a cut-off plate extending across the bottom of the bucket, and arranged to automatically close one side and open the other by the oscillation of the bucket, a counterbalanced scale-beam supporting the bucket, and a pin on the bucket, which pin is arranged to enter locking cavities, and to shift from one to the other by the weight of the bucket, in the manner and for the purpose set forth. 45

2. In a grain meter, an oscillating bucket, in combination with a cut-off consisting of a vertical plate rising from the center of a longitudinal horizontal plate and adapted to extend entirely across and close the mouth of the bucket, substantially as specified. 50

In testimony whereof I affix my signature in presence of two witnesses.

DANIEL WILDE.

Witnesses:

WM. WILSON, Jr.,
E. G. MASON.