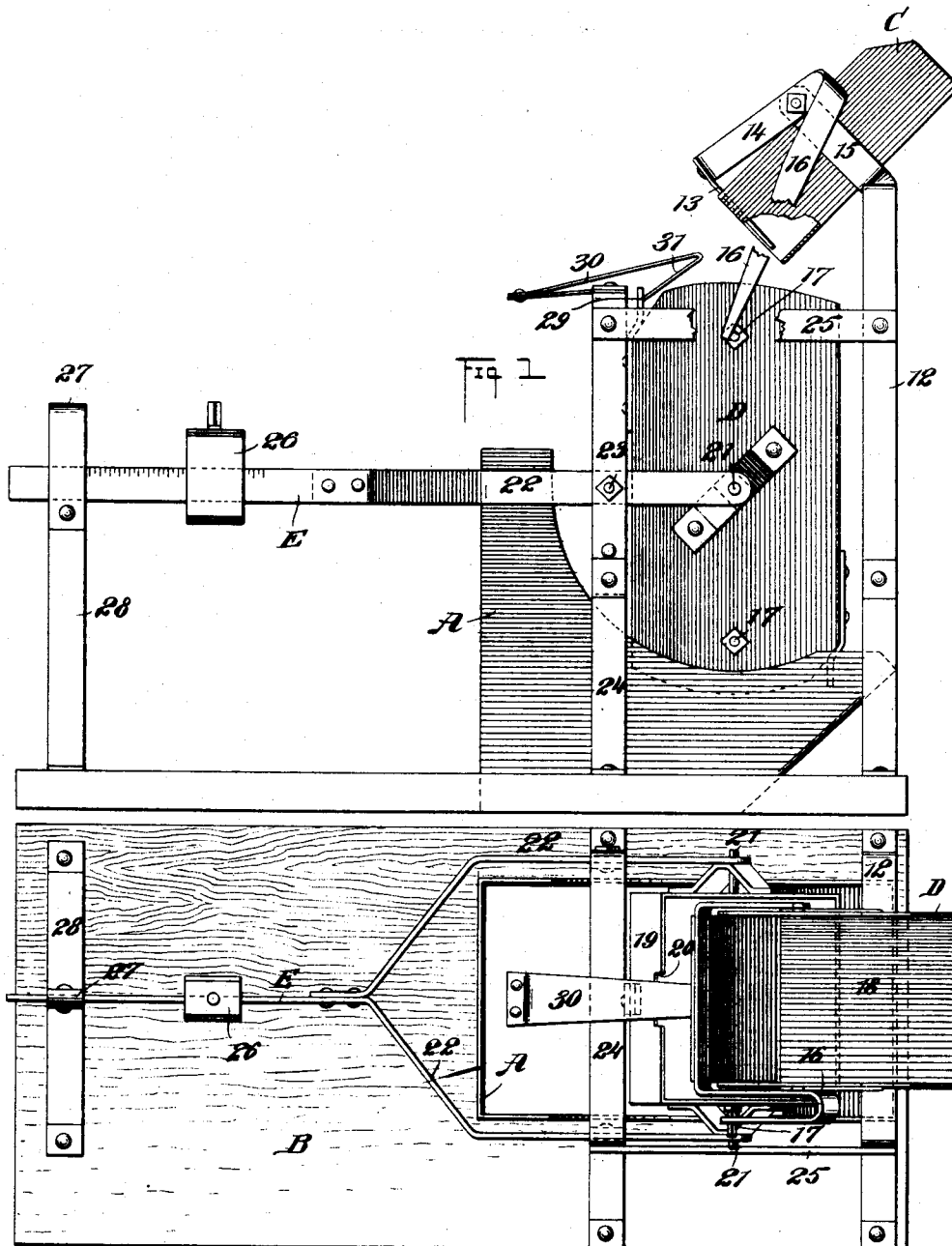


A. GOEHRING.
GRAIN WEIGHER.

(Application filed Mar. 30, 1901.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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Fig 2

INVENTOR

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No. 682,926.

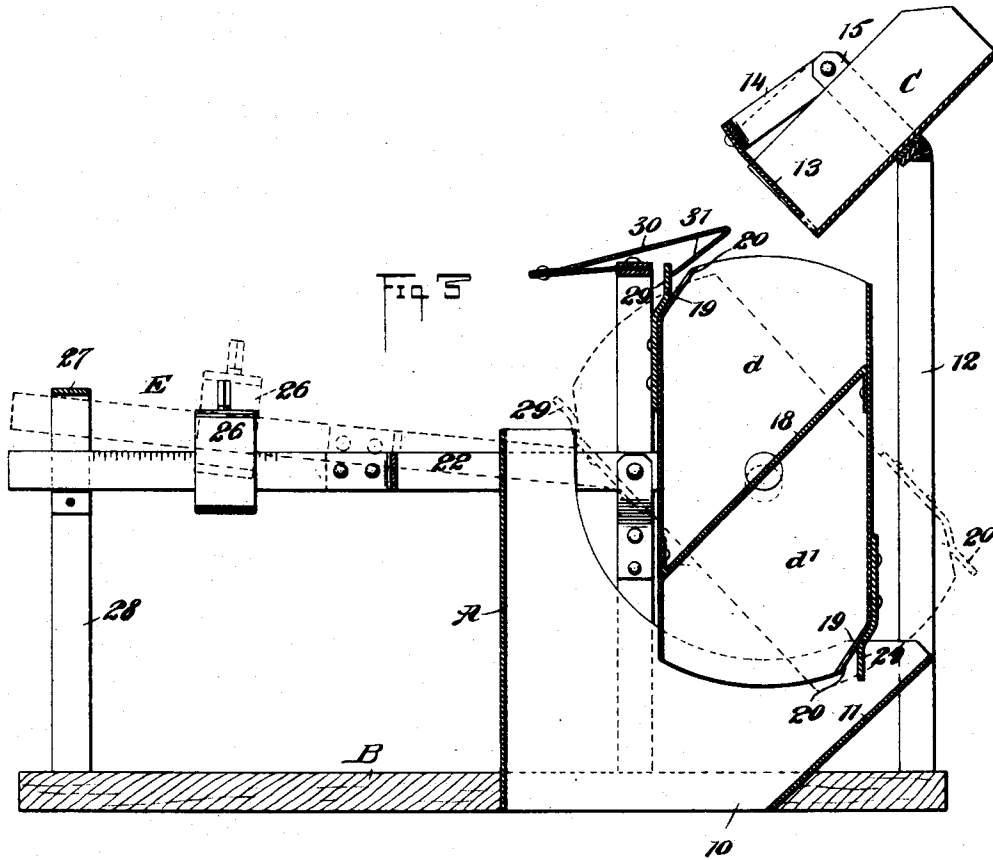
Patented Sept. 17, 1901.

A. GOEHRING.
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(No Model.)

2 Sheets—Sheet 2.



WITNESSES :

WITNESSES:
George Henry
J. A. Ocker

INVENTOR

Anton Goehring

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UNITED STATES PATENT OFFICE.

ANTON GOEHRING, OF EDGELEY, NORTH DAKOTA.

GRAIN-WEIGHER.

SPECIFICATION forming part of Letters Patent No. 682,926, dated September 17, 1901.

Application filed March 30, 1901. Serial No. 53,638. (No model.)

To all whom it may concern:

Be it known that I, ANTON GOEHRING, a citizen of the United States, and a resident of Edgeley, in the county of Lamoure and State of North Dakota, have invented a new and Improved Device for Weighing Grain, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a weighing device adapted to receive grain from a threshing-machine, elevator, or a storage-bin, which device is operated entirely and automatically by the weight of the grain, and to construct such a device with but few parts not liable to get out of order, and so that a double bucket is provided, one section of the bucket being in position for filling while the other section is emptying its contents.

Another purpose of the invention is to support the grain-receiving bucket upon a scale-beam, and to provide means operated by the scale-beam for holding the bucket in position to receive grain and for releasing the bucket when a proper amount of grain has been delivered thereto, means being also employed, operated from the scale-beam, for controlling the gate at the outlet of the chute arranged to supply grain to the bucket.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set, forth and pointed out in the claims.

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

Figure 1 is a side elevation of the improved weighing device, parts being broken away. Fig. 2 is a plan view of the device, and Fig. 3 is a longitudinal vertical section through the device.

A casing A is made to fit in an opening 10 in a base B. The front of this casing is of greater height than the rear, and the rear portion of the casing 11 is inclined from its upper edge forward and downward, as is shown in Fig. 3. At the rear of the casing A an arched standard or support 12 is secured to the base, and this arched support or standard is carried up some distance beyond the highest point of the casing A, as is shown in Figs. 1 and 3. The upper portion of the up-

per member of the arched standard 12 is inclined downward and forward and supports a chute C in the same position, so that when grain is delivered into the chute at its higher end it will discharge the grain from its lower end over the casing A. The delivery end of the chute C is closed or partially closed, as occasion may demand, through the medium of a gate 13, and this gate at its upper end is attached to a yoke-support 14, the side members of which yoke-support are pivotally connected with extensions 15, located at the sides of the chute C, and these extensions 15 may be continuations of a yoke secured to the chute C, as shown in Fig. 3, extending above the upper edge of the chute at its sides, as is shown in Fig. 3.

An arm 16 is carried from one of the side members of the yoke-support 14 of the gate 13, as is shown in Figs. 1 and 2, and this arm 16 extends downward and forward and is adapted to engage with lugs 17, which extend, respectively, from one side of a bucket D near each end of said bucket, as is best shown in Fig. 1. This bucket D is divided into two compartments *d* and *d'*, as illustrated in Fig. 3, by means of a central inclined partition 18, and at the mouth of each compartment *d* and *d'* one wall 19 of the compartment is bent inward, as shown in Fig. 3, and this wall 19 is provided with a central slot 20 for a purpose to be hereinafter stated. When a compartment of the bucket D is in position to receive grain from the chute C, the wall 19 is the upper front wall of the compartment. The bucket D is centrally fulcrumed, by means of trunnions 21, to the side members of a fork 22, which fork is attached by pivot-pins 23 to the side members of a forward arched support or standard 24, located in front of the bucket. It may be here remarked that the casing A is between the side members of the two standards 12 and 24 and that the forward standard 24 extends up to about the upper edge of the bucket D, while the lower standard 12 extends some distance beyond the upper edge of the said bucket. The standards 12 and 24 may be connected by suitable brace-bars 25. The fork 22 is secured in any suitable or approved manner to the scale-beam E, and this beam is provided with the usual sliding weight 26. The outer or free end of the scale-

beam has vertical movement in a loop-guide 27, located on or forming a portion of a support 28, which is secured to the base B.

A lip 29 is carried slightly beyond the mouth 5 of each compartment d and d' of the bucket D, and these lips are attached to the outer face of the bucket in front of the inclined walls 19 and immediately opposite the slots 20 in these walls. A spring-latch 30 is secured to the top portion of the front standard 10 or support 24, and the rear or head member 31 of the said latch is adapted to engage with the back of the lip 29, belonging to the uppermost compartment of the bucket, and this 15 latch serves to hold the bucket against backward rotation, while said bucket is held against forward rotation by the arched upper portion of the standards 23 being normally unable to pass under the same. The bucket 20 is thus held rigidly in position, so that the upper compartment may receive the proper amount of grain without spilling. The slots 20 in the inclined walls 19 of the bucket D permit the bucket when turning to readily pass 25 the spring-latch 30. When the proper amount of grain has been received in the upper compartment of the bucket D, the weight of the grain will carry down the rear end of the fork 22 and will raise the forward end of the scale-beam E. Thus the bucket at this time drops 30 slightly downward, but sufficiently to cause the lip 29, which is in engagement with the head of the latch 30, to clear the said head and cause the arm 16, connected with the gate 35 13, to be disengaged from the lug 17 on the bucket with which it was in contact, and the gate which was formerly opened to a greater or less extent immediately closes and the supply of grain from the chute C is cut off. 40 The bucket will now turn in its pivots in the scale-beam, and as the upper compartment is carried downward the grain is discharged therefrom into the casing A, and as what was formerly the lower compartment approaches 45 an upper position to again receive grain the

lug 17 at the outside of the bucket and belonging to that compartment will carry the arm 16 in a forwardly direction, and thus commence to raise the gate 13, permitting some 50 of the grain to enter the compartment that is uppermost, and when the bucket reaches a vertical position the gate 13 will be opened as far as intended, as shown in Fig. 1, and the lip 29 of the now uppermost compartment will have pressed past the head 31 of the 55 latch 30 to a position at the rear of the said head, as shown in Figs. 1 and 3.

It will be observed that the device is operated entirely and automatically by the weight 60 of the grain.

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

1. In a grain-weighing device, a revoluble bucket, the wall of which is partly cut away 65 so as to form a slot, a tongue mounted upon said bucket and extending over said slot, and a stationary spring-catch in the path of said tongue and of said slot, in combination with a scale actuated by the weight of said revoluble bucket. 70

2. In a grain-weighing device, a revoluble bucket, the wall of which is partly cut away 75 so as to form a slot, a tongue mounted upon said bucket and extending over said slot, and a stationary spring-catch in the path of said tongue and of said slot for the purpose of preventing backward rotation of the bucket, a frame for supporting said bucket and normally abutting the same to prevent forward 80 rotation thereof, and a scale actuated by the weight of said bucket for releasing said bucket.

In testimony whereof I have signed my name to this specification in the presence of 85 two subscribing witnesses.

ANTON GOEHRING.

Witnesses:

WM. T. MARTIN,
C. W. KESLER.