

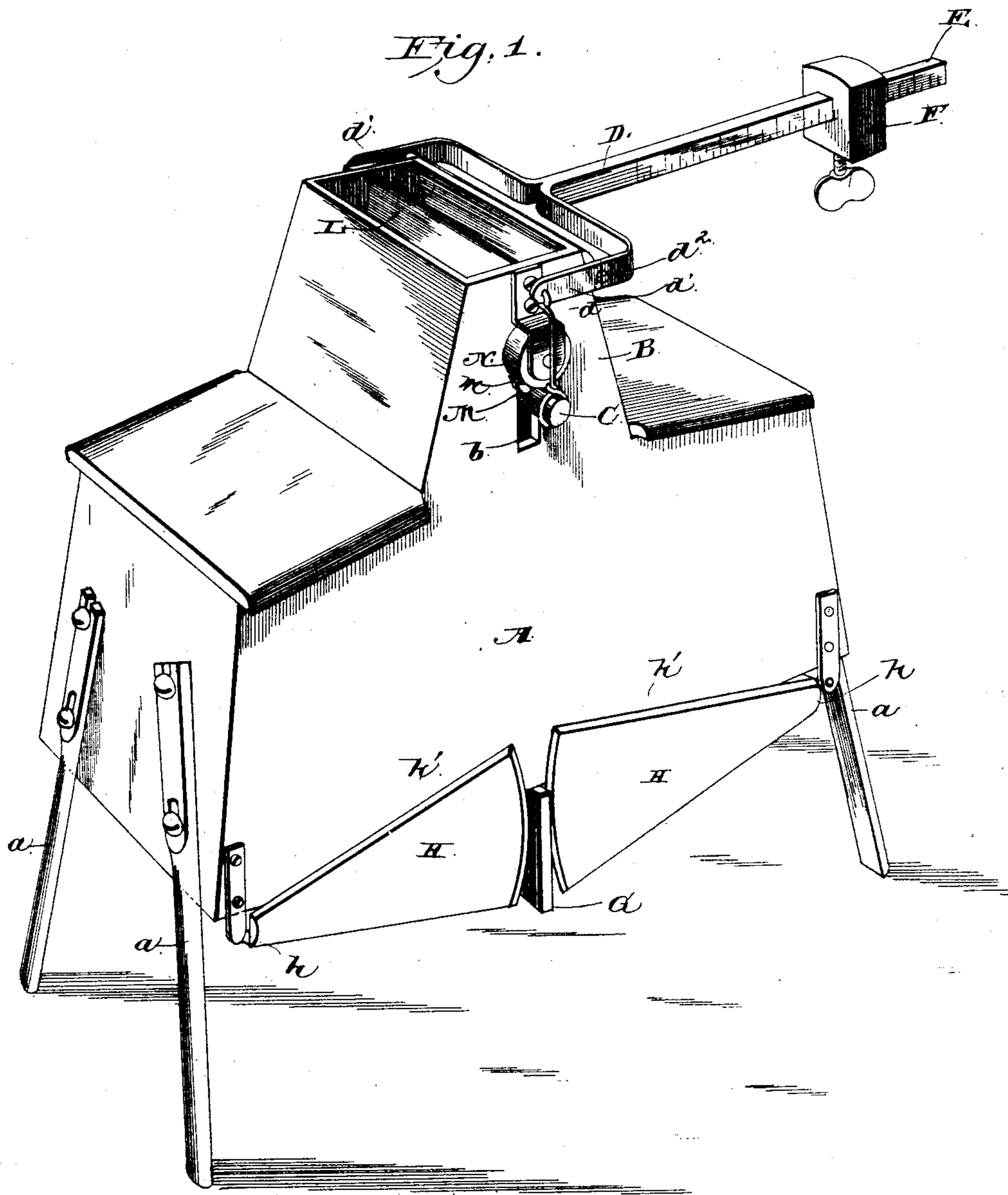
(No Model.)

2 Sheets—Sheet 1.

J. R. CREIGHTON.
GRAIN WEIGHING APPARATUS.

No. 403,519.

Patented May 21, 1889.



Witnesses,

M. Fowler.

R. J. Marshall Jr.

Inventor
James R. Creighton

By *His Attorneys*

C. A. Snow & Co.

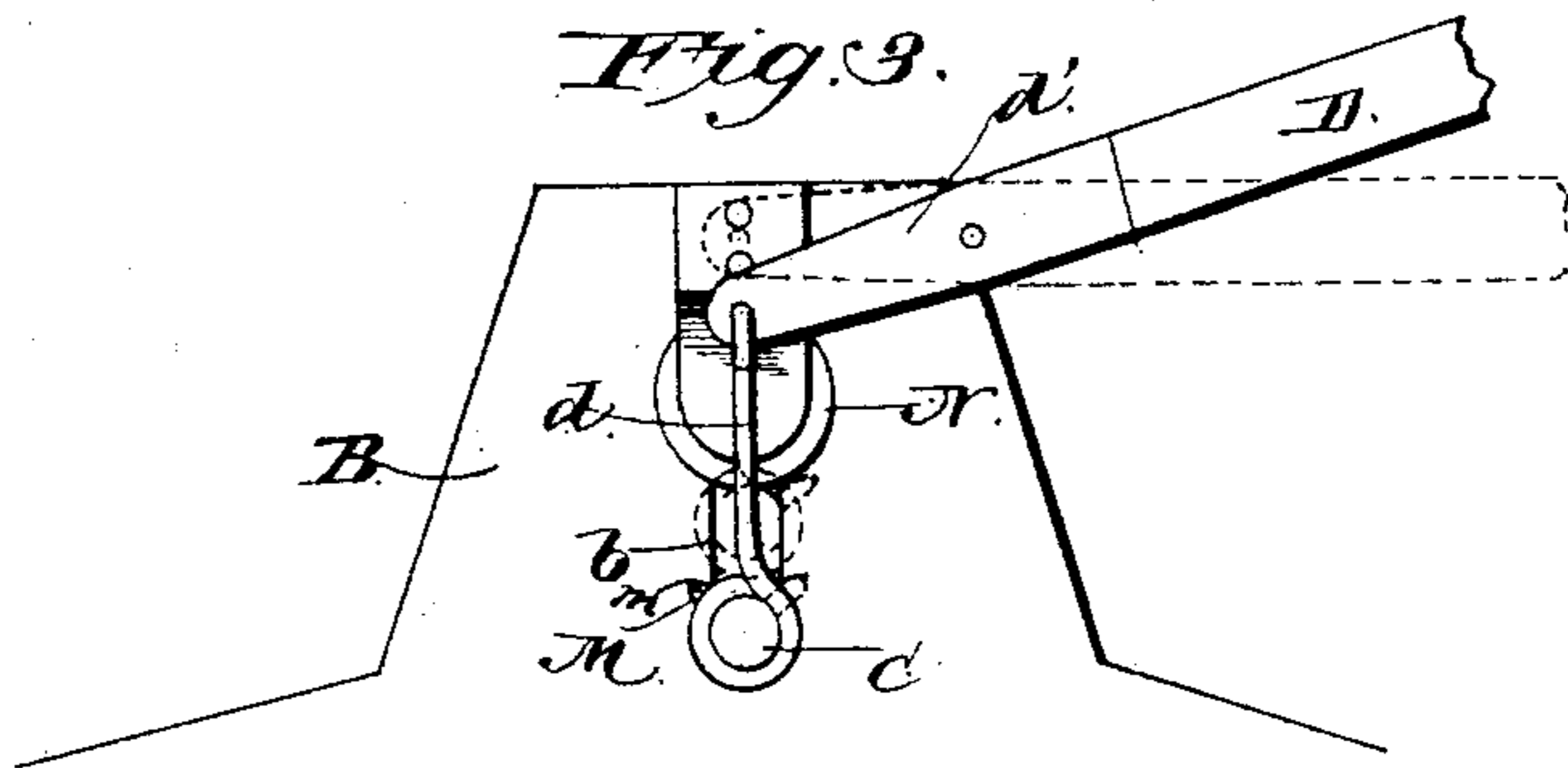
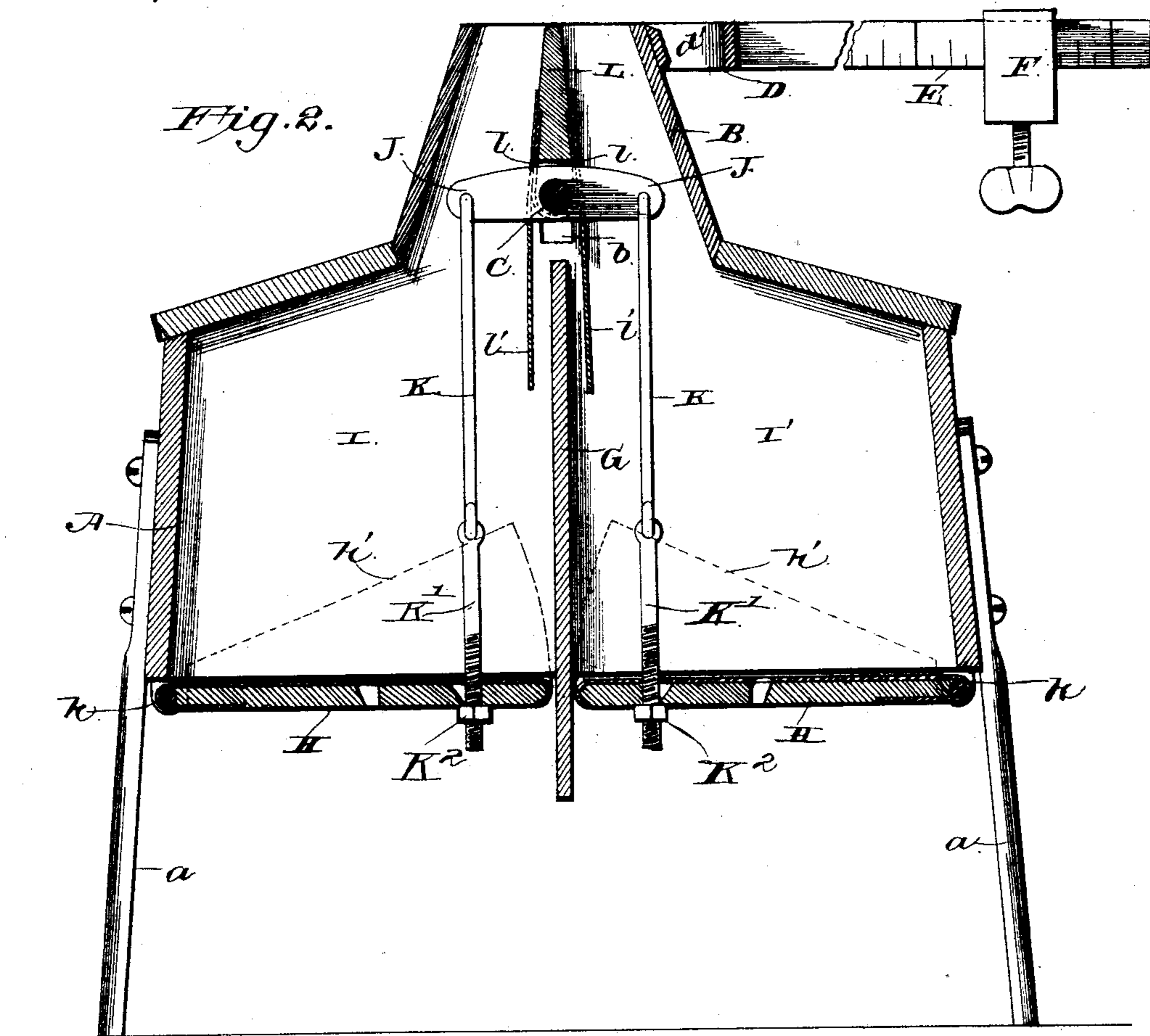
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UNITED STATES PATENT OFFICE.

JAMES REED CREIGHTON, OF ALTOONA, DAKOTA TERRITORY.

GRAIN-WEIGHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 403,519, dated May 21, 1889.

Application filed July 31, 1888. Serial No. 281,601. (No model.)

To all whom it may concern:

Be it known that I, JAMES REED CREIGHTON, a citizen of the United States, residing at Altoona, in the county of Beadle and Territory of Dakota, have invented new and useful Improvements in Grain-Measuring Devices, of which the following is a specification.

The invention relates to improvements in grain-measuring devices; and it consists in the construction and novel combination of parts, hereinafter described, illustrated in the accompanying drawings, and pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a machine embodying the invention. Fig. 2 represents a vertical longitudinal section of the same. Fig. 3 is a detail view to show the action of the studs on the transverse shaft.

Referring to the drawings by letter, A designates the main frame or casing of the machine, and *a a* the legs thereof, which are attached to the casing by bolts passing through slots in their upper portions.

B is a central vertical extension rising from the casing and having in its sides the opposite vertical slots, *b b*. The upper end of the extension is open, and a shaft, C, passes through the slots *b*, to which shaft are attached the looped lower ends of the link-rods *d d*, the upper ends of which are loosely secured to the ends of the inner arms, *d' d'*, of the weighing-lever D, which is pivoted at *d²* upon the sides of the extension B. The said lever is bifurcated, as shown, and the outer arm, E, thereof is graduated outward to pounds and ounces, and has upon it the sliding weight F, of the usual construction.

G is a central transverse partition bisecting the main casing, and H H are similar doors hinged at their outer edges, *h*, to the side edges of the bottom of said casing. The said doors have edge flanges, *h'*, which stand up therefrom on each side of the main casing, the doors themselves forming floors to the compartments I I' of the said casing, which compartments are formed by the vertical partition G.

J J are similar arms extending on each side of the shaft C, above the chambers or compartments I I', and having loosely attached to

their upper ends the meeting ends of the vertical rods K, the lower ends of which are loosely attached to the upper ends of link-bolts K'. The lower ends of the latter extend through the doors H H', which form the floors of the compartments I I', respectively, and have adjusting-nuts K², bearing on the lower sides of the doors, so that when the shaft C turns the rod K on one side closes the lower opening of one of said compartments and opens that on the other side. The said arms rise above the shaft C and pass through kerf-slots *l* in the swinging door L, which is journaled at its corners on said shaft and has the curtains or cloths *l' l'* depending from its lower edge on each side of the partition G, to direct the grain into the compartments.

M M are upstanding studs on the ends of the shaft C, outside of the casing, and each having its end beveled upwardly to its transverse edge *m*.

N N are wheels pivoted to the sides of the extension B and with their rims resting normally against the corresponding ends of the shaft C, the studs or pins M resting against the corresponding sides of the adjacent wheels.

It is evident from the foregoing that the shaft cannot turn till the said studs are drawn downward below the shaft C, which can be depressed in the vertical slots *b*, and that the beveled ends of the studs will direct the same, when the shaft is depressed, to one side or the other thereof, permitting the doors H H' to change position.

The operation, therefore, is as follows: The weight is set at the proper point on the graduated arm E of the lever, and the grain is poured into one compartment, (I, for instance,) when the weight of the grain thereon overbalances the weights F, the shaft C is pulled down, the outer arm of the lever D is raised, and the studs M are depressed below the wheels N. The doors H H' then reverse their position, the former dropping so as to open the compartment I and the latter rising to close the compartment I'.

If desired, a recording-dial may be placed on one end of the shaft outside of the main casing.

Having described my invention, I claim—
1. In a grain-measurer, the combination of

the main casing having the vertical central partition, G, forming the compartments I I', the shaft C, journaled in the frame above the partition and having the arms J, the swinging doors H H' at the lower ends of the compartments, the rods K, connected to and depending from the arms J, the link-bolts K', loosely connected to the lower ends of the rods K and extending through the doors, and the adjusting-nuts K², screwed to the lower ends of the link-bolts and bearing under the doors, substantially as described.

2. In a grain-measurer, the combination of the main frame or casing divided into two similar vertical compartments by the partition G, the hinged and swinging doors forming the bottoms of said compartments, the shaft C, journaled in vertical slots in the sides of the casing and provided with arms J J, standing over the said compartments, the rods K, connecting said arms and doors, the swinging door L, provided with the kerf-slots l and having its corners journaled on the shaft C, and the curtains l' l', depending from the door L on each side of the partition G, substantially as specified.

3. In a grain-measurer, the combination, with the opposite vertical compartments, I I',

and the hinged doors forming the floors of said compartments, of the shaft C, journaled in vertical slots in the extension B of the casing, the lever D, journaled in said extension, the link-rods d, connecting the arms of the bifurcation of said lever with the ends of the shaft C outside of the casing, the weight F on the graduated arm of said lever, the studs M on said shaft, and the wheels N, against which said studs normally rest, substantially as specified.

4. The combination, with the main casing having the compartments I I', the hinged doors H H', the shaft C, provided with the studs M, beveled on each side transversely at their points, and the wheels N on the side of the extension B, of the lever having the graduated arm E, the link-rods d, the sliding weight F, the arms J J of the shaft C, and the link-rods K, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JAMES REED CREIGHTON.

Witnesses:

BERT WILSON,
ETHEREAL WILSON.