

(No Model.)

2 Sheets—Sheet 1.

F. B. GIESLER.
GRAIN SPOUT.

No. 492,004.

Patented Feb. 21, 1893.

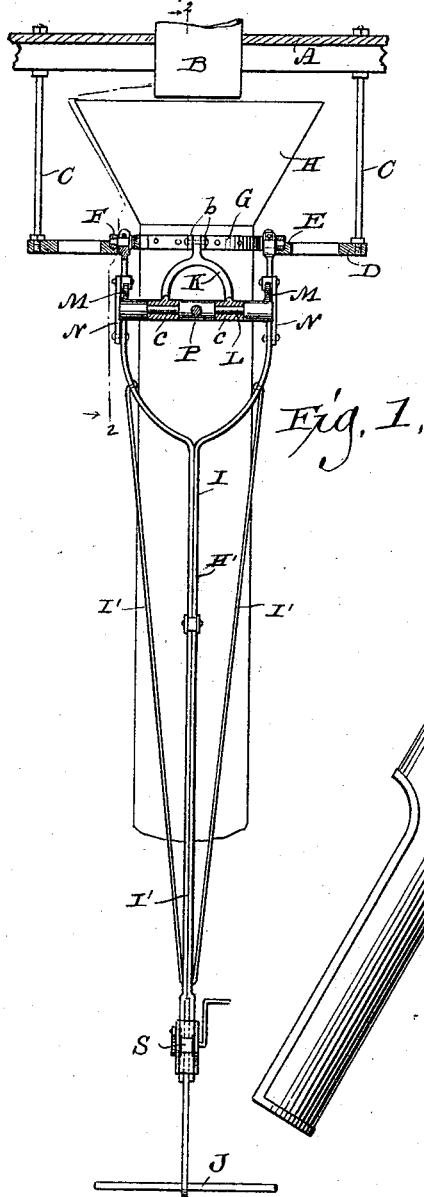


Fig. 1.

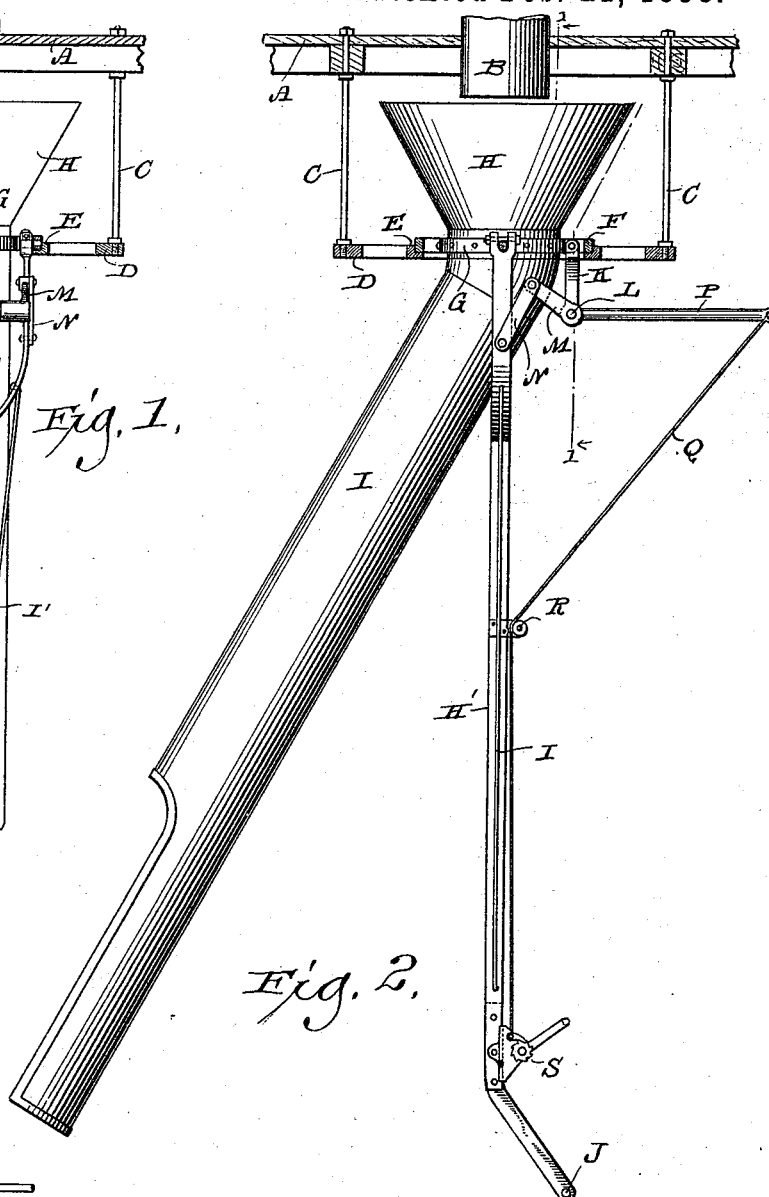


Fig. 2.

Witnesses
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Fig. 3.

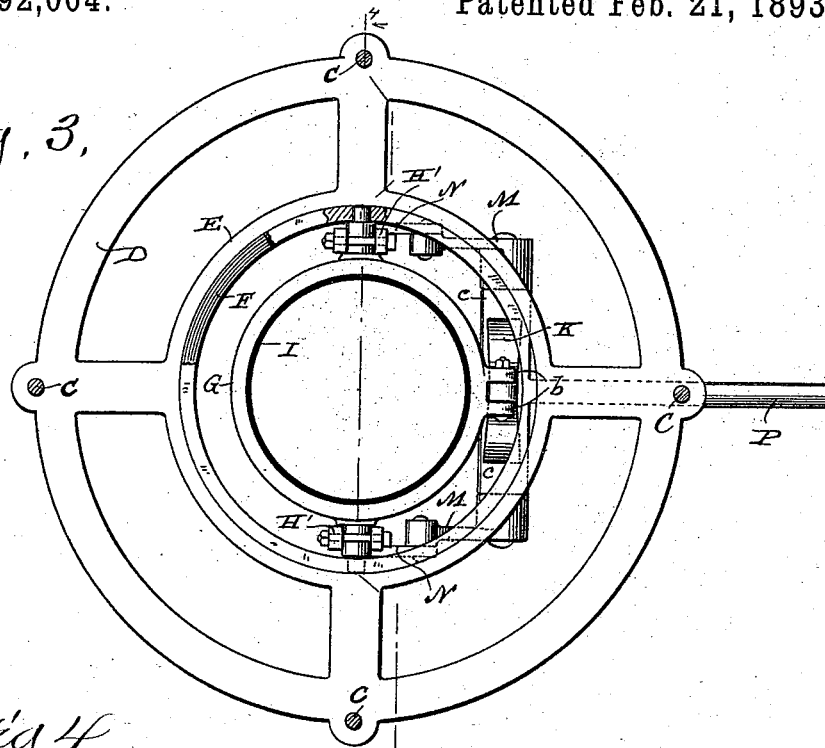


Fig. 4.

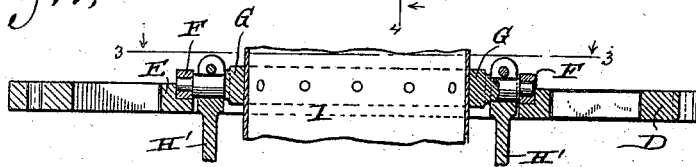


Fig. 5.

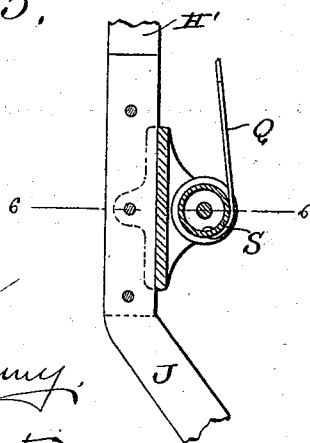
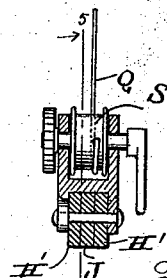


Fig. 6.



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UNITED STATES PATENT OFFICE.

FRANKLIN B. GIESLER, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO THE GALLAND-HENNING PNEUMATIC MALTING DRUM MANUFACTURING COMPANY, OF SAME PLACE.

GRAIN-SPOUT.

SPECIFICATION forming part of Letters Patent No. 492,004, dated February 21, 1893.

Application filed November 18, 1892. Serial No. 452,404. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN B. GIESLER, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Grain-Spouts; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to provide a grain-spout capable of certain adjustments for the purpose of obtaining an even distribution of material over a considerable area of surface, the movement of the discharge end of the spout being to describe a circle as well as an arc in the direction of the diameter of said circle, and said invention consists in certain peculiarities of construction and combination of parts hereinafter described with reference to the accompanying drawings and subsequently claimed.

In the drawings: Figure 1 represents an elevation of my device partly in section on line 1—1 of the succeeding figure, Fig. 2, a like view of the same from another point of observation and partly in section on line 2—2 of the preceding figure, Fig. 3, a plan view partly in section on line 3—3 of the succeeding figure and broken away at certain points for the purpose of better illustration, Fig. 4, a detail section view on line 4—4 of the preceding figure, Fig. 5, a detail elevation partly in section on line 5—5 of the succeeding figure, and Fig. 6, a horizontal section taken on line 6—6 of the preceding figure.

Referring by letter to the drawings, A represents an upper floor provided with a grain outlet that is herein shown as being occupied by the lower portion of a spout B leading from a still higher floor. Suspended from the floor A by hanger-rods C is a spider D having an inner circular track E for a loose ring F, and trunnioned to this ring is another ring G that is bolted to the upper or hopper portion H of a spout I, the latter being at a certain angle to the hopper, as shown in Fig. 1. Pivotaly connected to the trunnions of the inner ring G is a suitable depending frame, that in this instance comprises two parallel bars H' spread apart at their upper ends to form a

fork, brace-rods I' being employed to unite these upper ends of the bars with the lower portions of the latter, and the lower ends of said bars are offset in opposite directions to form a space into which the shank of a handle J is fitted and rigidly secured. Pivotaly connected to ears b on the inner ring G, intermediate of its trunnions, is a depending yoke K having horizontal bearings c for a rod L that has its ends fast in cranks M, and these cranks have link-connections N with the depending frame hereinbefore set forth. Intermediate of its bearings c, on the yoke K, the rod L is fast in the inner end of a lever P, and connected to the outer end of this lever is a flexible device Q that bears upon a pulley R, on the frame above specified. The flexible device Q has its lower end connected to a windlass-roller S journaled in brackets at the bottom of said frame, and this windlass-roller is held against reverse movement by means of an ordinary pawl-and-ratchet mechanism, as best illustrated in Fig. 2.

From the foregoing description it will be seen that the grain-spout I has a universal joint with the stationary spider D, and it is to be understood that the depending frame may be made heavy enough to serve as a counter-balance for said spout.

By operating the lever P the angle of the depending frame is proportionately changed and consequently there is a corresponding tilt of the grain-spout, whereby its discharge-end will move on an arc, in the direction of the diameter of a circle which may be described by said discharge-end of the spout when the latter is traveled on the track that forms part of the supporting spider. Hence it will be seen that I may readily and evenly distribute grain over a considerable area of space, by various adjustments of the universally hung spout, these adjustments being effected by a manipulation of the depending frame and lever-mechanism above specified. If the depending frame be heavy enough to serve as a counter-balance the spout will remain at any angle to which it may be adjusted.

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

1. A suitable support, a grain-spout having a hopper like terminal universally jointed to the support, and a pivotally adjustable counter-balance for the spout, substantially as set forth. 5
 2. A circular track, a ring loose on the same, another ring trunnioned within the first, a grain-spout fast to the trunnioned ring, a depending frame having pivotal connection with 10 the grain-spout, a yoke depending from said trunnioned ring, a rod having its bearings in the yoke, a lever and cranks fast on the rod, links connecting the cranks and depending frame, and suitable means for actuating the 15 lever, substantially as set forth.
 3. A circular track, a ring loose on the track, another ring trunnioned within the first, a grain-spout fast to the trunnioned ring, a depending frame having pivotal connection with 20 the grain-spout, a yoke depending from the trunnioned ring, a rod having its bearings in the yoke, a lever and cranks fast on the rod, links connecting the cranks and depending frame, a windlass on said frame, and a flexible 25 device connecting the lever and windlass, substantially as set forth.
 4. A circular track, a ring loose thereon, another ring trunnioned within the first, a grain-spout fast to the trunnioned ring, a 30 depending frame having pivotal connection with the grain-spout, a yoke depending from the trunnioned ring, a rod having its bearings in the yoke, a lever and cranks fast on the rods, links connecting the cranks and depending 35 frame, a pulley on said frame, and a flexible device that connects with the lever and bears on the pulley, substantially as set forth.
 5. A stationary support, a grain-spout universally jointed to the support, a depending frame pivotally connected to the spout, and a 40 lever-mechanism that connects with the frame and has its fulcrum connected to said spout, substantially as set forth.
 6. A stationary support, a grain-spout universally jointed to the support, a depending 45 frame pivotally connected to the spout, a lever-mechanism that connects with said frame and has its fulcrum connected to said spout, a windlass on the frame, and a flexible device connecting the windlass and lever-mech- 50 anism, substantially as set forth.
- In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.
- FRANKLIN B. GIESLER.
- Witnesses:
H. G. UNDERWOOD,
N. E. OLIPHANT.