

No. 755,526.

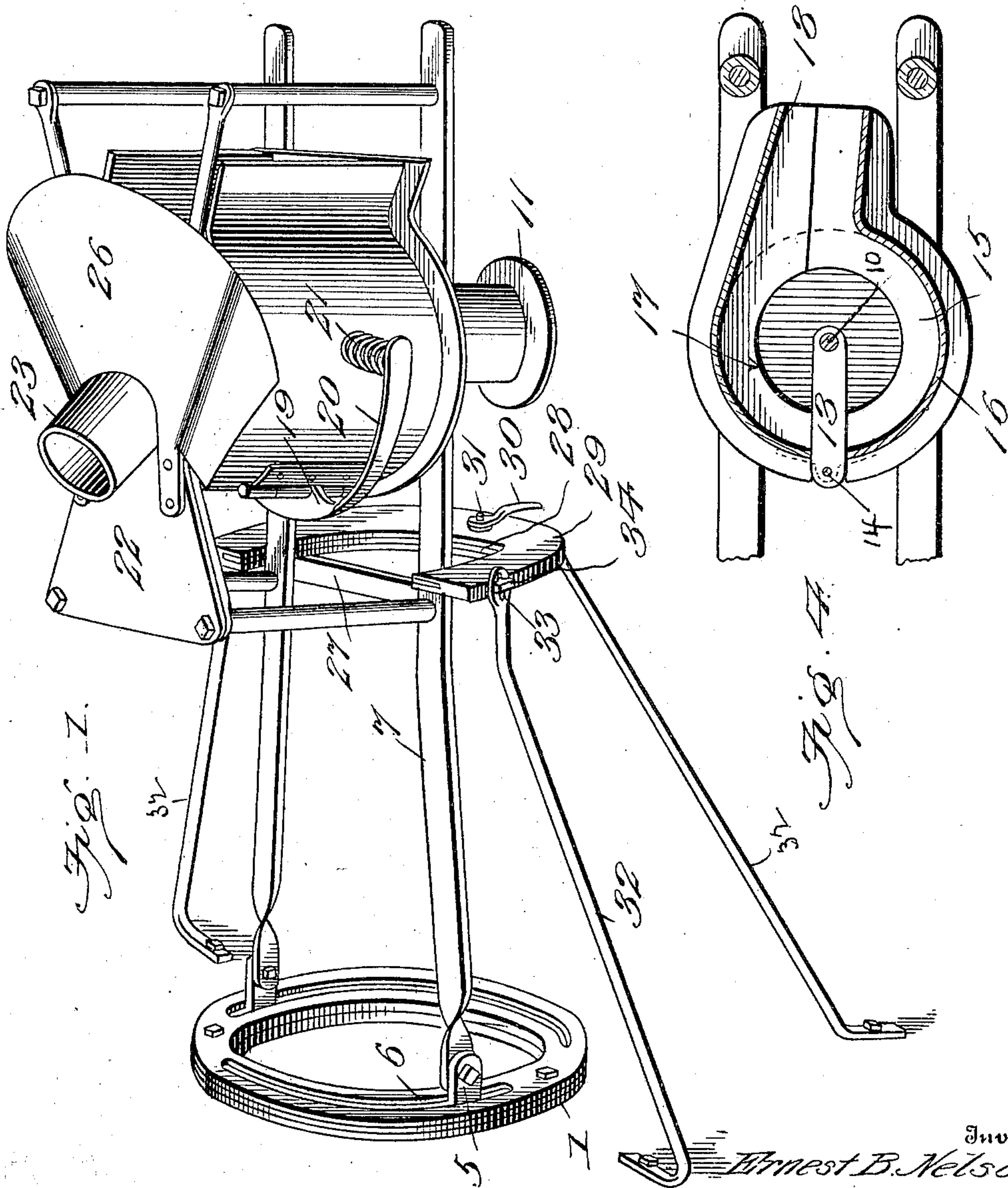
PATENTED MAR. 22, 1904.

E. B. NELSON.  
CONVEYER.

APPLICATION FILED SEPT. 10, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

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Inventor

*Ernest B. Nelson,*

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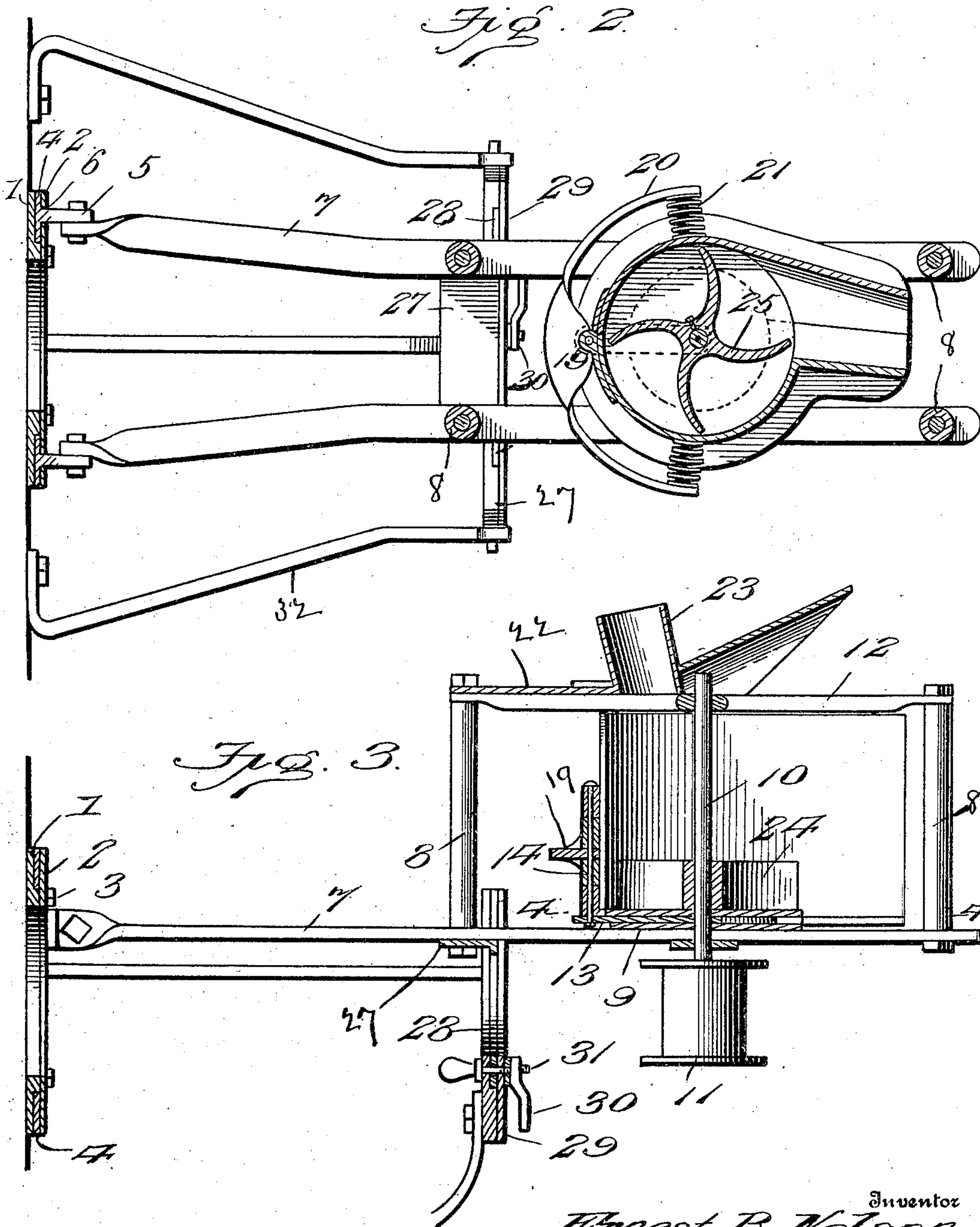
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Inventor

*Ernest B. Nelson,*

Witnesses

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By

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# UNITED STATES PATENT OFFICE.

ERNEST B. NELSON, OF BURCHINAL, IOWA.

## CONVEYER.

SPECIFICATION forming part of Letters Patent No. 755,526, dated March 22, 1904.

Application filed September 10, 1902. Serial No. 122,846. (No model.)

*To all whom it may concern:*

Be it known that I, ERNEST B. NELSON, a citizen of the United States, residing at Burchinal, in the county of Cerro Gordo and State of Iowa, have invented new and useful Improvements in Conveyers, of which the following is a specification.

My invention relates to new and useful improvements in car-loading devices; and its object is to provide a durable and efficient device which is especially adapted to convey grain or similar material from a chute to the car or other receptacle provided and to deposit it at desired points therein.

The invention consists in providing a bracket having horizontally-extending arms adjustably connected thereto and which serve to support a casing having a revoluble beater therein, said casing being so shaped as to form a spout through which grain or other material is adapted to be discharged. The casing is formed of sections hinged together and kept normally closed at the bottom by means of springs provided for that purpose. The top of the casing is open and is provided with an inlet-tube adapted to be connected to the chute and inclosed by a shield, whereby the material discharged into the casing is prevented from falling backward toward the entrance to the car or other receptacle in which the device is arranged.

The invention also consists in the novel construction, combination, and arrangement of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved car-loader. Fig. 2 is a horizontal section therethrough. Fig. 3 is a vertical longitudinal section; and Fig. 4 is a section on line 4 4, Fig. 3.

Referring to the figures by numerals of reference, 1 is a ring adapted to be fastened in any suitable manner to the wall of a structure or to any other suitable support, and this ring has a groove in its outer face, which is normally covered by means of a slotted ring 2, which is fastened to the ring 1 by bolts 3. A ring 4 is in-

terposed between the rings 1 and 2 and is revolvably mounted in the groove in said ring 1, and this last-mentioned ring 4 has ears 5, projecting therefrom and slidably mounted in the slots 6 in the ring 2. To each ear is pivotally connected a horizontally-extending arm 7, and standards 8 are arranged upon these arms at points near the outer ends thereof and between the outer and inner ends. A preferably circular plate 9 is supported by the arms at a point between the standards 8, and extending through this plate is a vertical removable shaft 10, having a pulley 11 upon its lower end, while its other end is journaled within arms 12, secured in any suitable manner upon the standards 8. A link 13 extends from the shaft and has a pin 14 in its other end, which forms a pintle for a hinge arranged at the adjoining edges of the side sections of a casing. Each of these sections is formed of bottom portions 15 and curved side walls 16, said bottom portions normally contacting along their adjoining edges, but being recessed at points above the plate 9 to form a circular aperture 17. The side walls 16, above referred to, are concentric with the edge of the aperture 17 and are bent outward to form a spout 18. Secured upon the pintle 14 is a plate 19, having oppositely-extending curved arms 20 thereon, which partly embrace the casing, and springs 21 are interposed between these arms and the casing, so as to hold the adjoining edges of the bottoms 15 of the side sections normally in contact. A top plate 22 is fastened upon the inner arms 12 and has an upwardly-extending tubular inlet 23 thereon, which opens into the top of the casing at a point above the inner portion of a beater 24, mounted on the shaft 10. This beater comprises a hub and a series of curved arms 25 extending therefrom, said arms being of such length as to rotate within the casing, but fit snugly therein. A shield 26 of any suitable construction is secured upon the plate 22 and about the tube 23 and serves to cover the top of the casing.

A cross-bar 27 is secured or formed inte-



gral with the arms 7 and is also connected to a slide 28, which is adjustably mounted between two preferably semicircular plates 29. These plates are adapted to be clamped upon the slide by means of a lever 30, having an aperture therein for the reception of a bolt 31. Arms 32 are adapted to be fastened to the structure to which the ring 1 is secured, and these arms have slots 33 therein for the reception of bolts 34 or other devices for securing the rings 29 to the arms.

The rings 1 and 2 are fastened at points approximately in horizontal alinement with the tops of the grain-cars to be filled, and when not in use the arms 7 and the parts connected thereto are hung from the ears 5 by withdrawing the bolts 34, so as to disengage the plates 29 from the arms 32. It will be understood that the lower arm 32 must first be removed before the plates 29 can be lowered. When a car is to be filled with grain, the same is moved into position with the door thereof directly opposite the rings 1 and 2, and the arms 7 and the parts secured thereto are then swung upward until the rings 29 are brought into position between the arms 32. The lower arm 32 is then resecured into position, so as to securely support the parts. The grain-spout is then fastened to the tubular extension 23 and a belt is placed upon the pulley 11 and is adapted to be driven by any suitable power. The grain will thus be discharged by gravity into the top of the casing and upon the beater 24, and owing to the peculiar shape of the arms 25 of the beater the grain will be thrown outward through the spout 18 to any point toward which the same is directed. Should foreign substances, such as sticks or stones, be discharged into the casing and become wedged between the beater and the sides 16, the springs 21 will permit the sections of the casing to swing apart, so as to discharge said foreign substances between the adjoining edges of the bottom portions 15 of the casing. The springs will promptly return the parts to their normal positions. The shield 26 serves to prevent the grain from falling outward toward the rings 1 and 2 when the loader is inclined upward for directing grain toward the top of the car. It will be understood that by loosening the bolts 34 the same can be moved to any position desired within the slots 33, and the arms 7 thus secured at any inclination desired. Moreover, by loosening the ring 2 the inner ring 4 can be rotated, so as to partly rotate the casing. Before this movement of the casing can be produced it is necessary to loosen the slide 28 between the plates 29.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that

modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes and alterations as may fairly fall within the scope of my invention.

I claim—

1. In a device of the character described, a casing comprising oppositely - arranged spring-pressed sections hinged together, and a beater revolubly mounted within the casing.

2. A device of the character described comprising a casing formed of a pair of oppositely - arranged spring-pressed sections forming a spout, and a beater revolubly mounted within the casing.

3. In a device of the character described, the combination with arms and means for adjustably supporting the same; of a casing mounted upon the arms and formed of oppositely-arranged spring-pressed sections having a spout, a revoluble beater within the casing, a tubular inlet, and a shield inclosing the inlet and the top of the casing.

4. In a device of the character described, the combination with adjustable supporting-arms; of oppositely-arranged sections mounted upon the arms and forming a casing, arms embracing the casing, springs interposed between the arms and the sections of the casing, a revoluble beater mounted within the casing, and an inlet to the casing above the beater.

5. In a device of the character described, the combination with adjustable supporting-arms; of oppositely - arranged sections supported by the arms and hinged together to form a casing, arms embracing the sections, springs interposed between the arms and sections, a beater revolubly mounted within the casing, an inlet-tube upon the casing and above the beater, and a shield inclosing the tube.

6. In a device of the character described, the combination with adjustable supporting-arms; of sections hinged together and supported by the arms, said sections forming a casing having an outlet-spout, arms embracing the sections, springs interposed between the arms and the sections, a beater revolubly mounted within the casing and an inlet-tube opening into the top of the casing.

7. In a device of the character described, the combination with adjustable supporting-arms having standards thereon, an inlet-tube supported by the standards and a shield inclosing the tube; of oppositely-arranged sections hinged together and supported by the arms, said sections forming a casing having an outlet-spout, a revoluble beater within the casing and below the inlet-tube, and means for holding the sections of the casing normally in contact at their adjoining edges.

8. In a device of the character described,  
the combination with supporting-plates, a ring  
revolvably mounted therebetween and arms  
pivoted to and extending from the ring; of  
5 means for supporting the arm in extended posi-  
tion, oppositely-arranged sections supported  
upon the arms and forming a casing having  
an outlet-spout, a revoluble beater within the  
casing, standards upon the arms, an inlet-tube

supported thereby above the casing, and 10  
means for holding the casing-sections normally  
in contact.

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

ERNEST B. NELSON.

Witnesses:

C. H. McNIDER,  
W. H. BAYLEY.