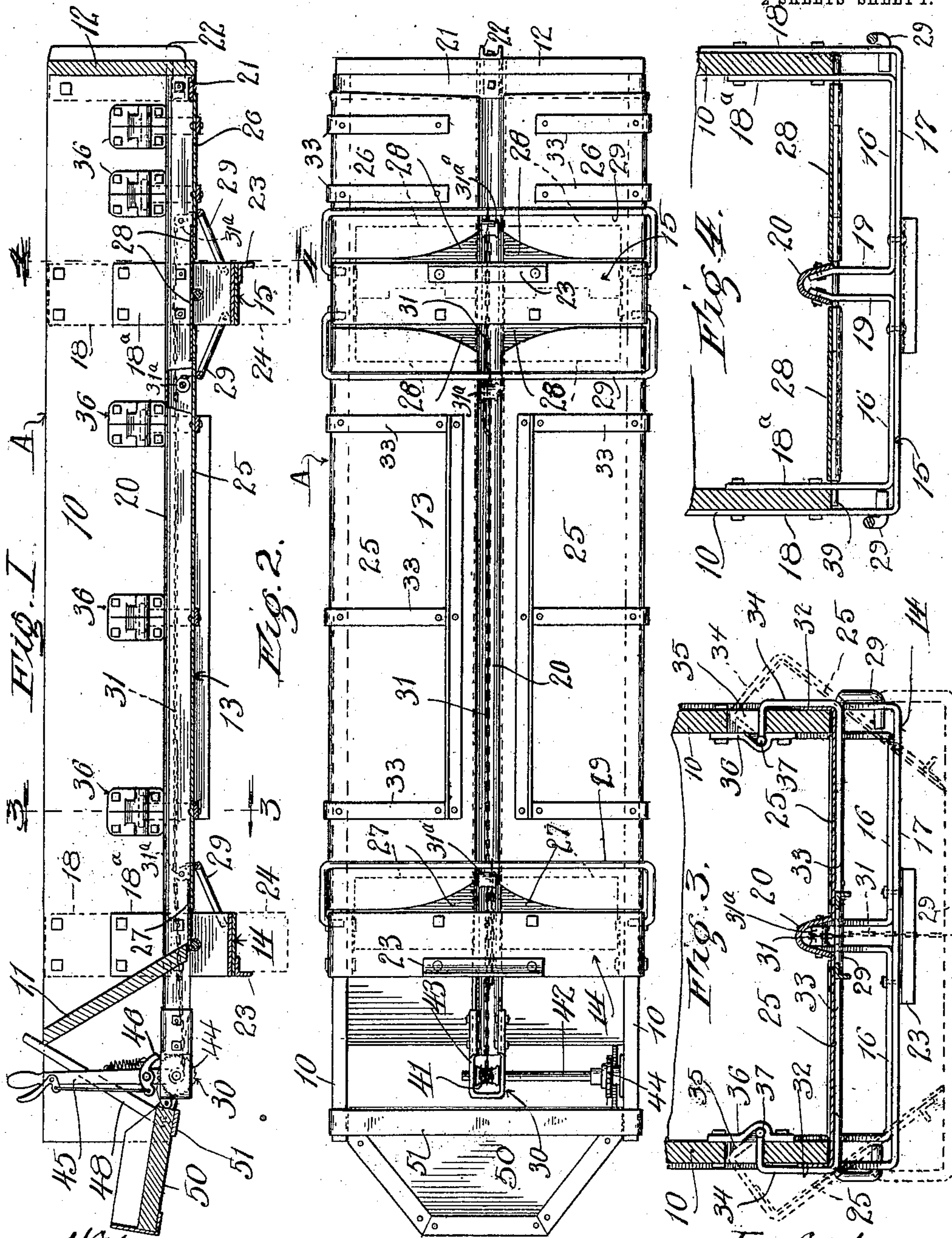


M. A. YOUNG.
DUMPING MECHANISM.
APPLICATION FILED MAR. 2, 1910.

983,666.

Patented Feb. 7, 1911.

2 SHEETS—SHEET 1.



Witnesses:

Geo. J. Foster
Fannie L. Richards

Inventor:

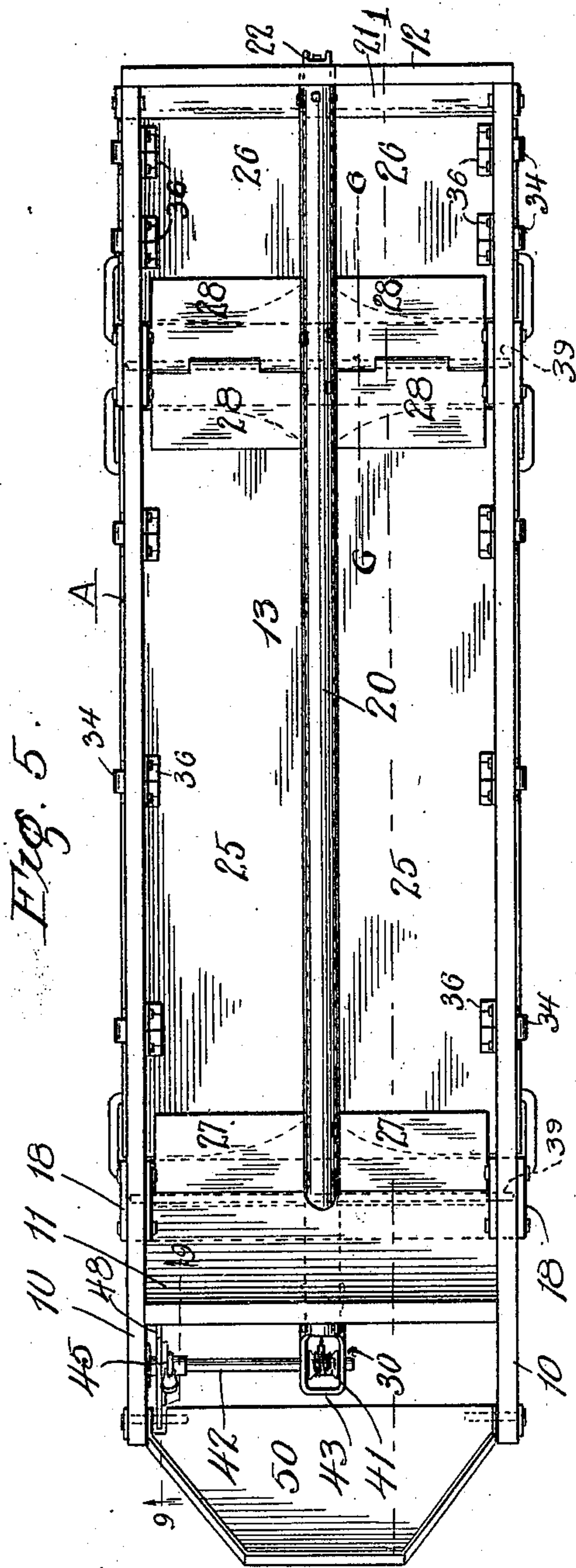
Mary A. Young,
by Charles O. Sherway
Her Atty.

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Geo. J. Hottel
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Fig. 7.

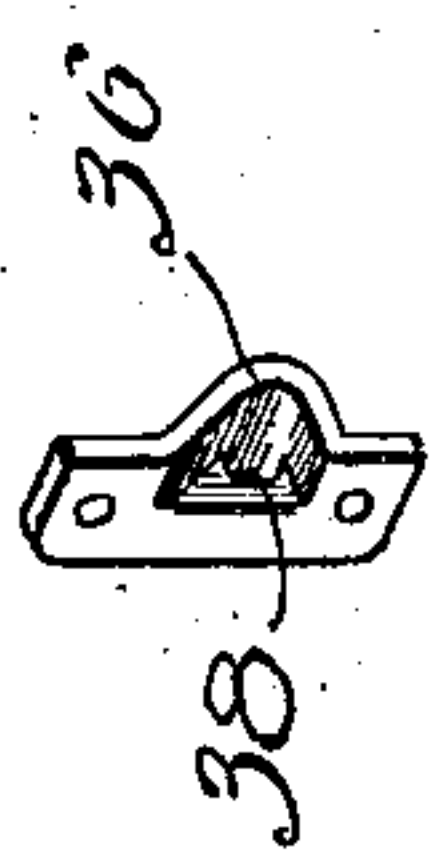


Fig. 8.

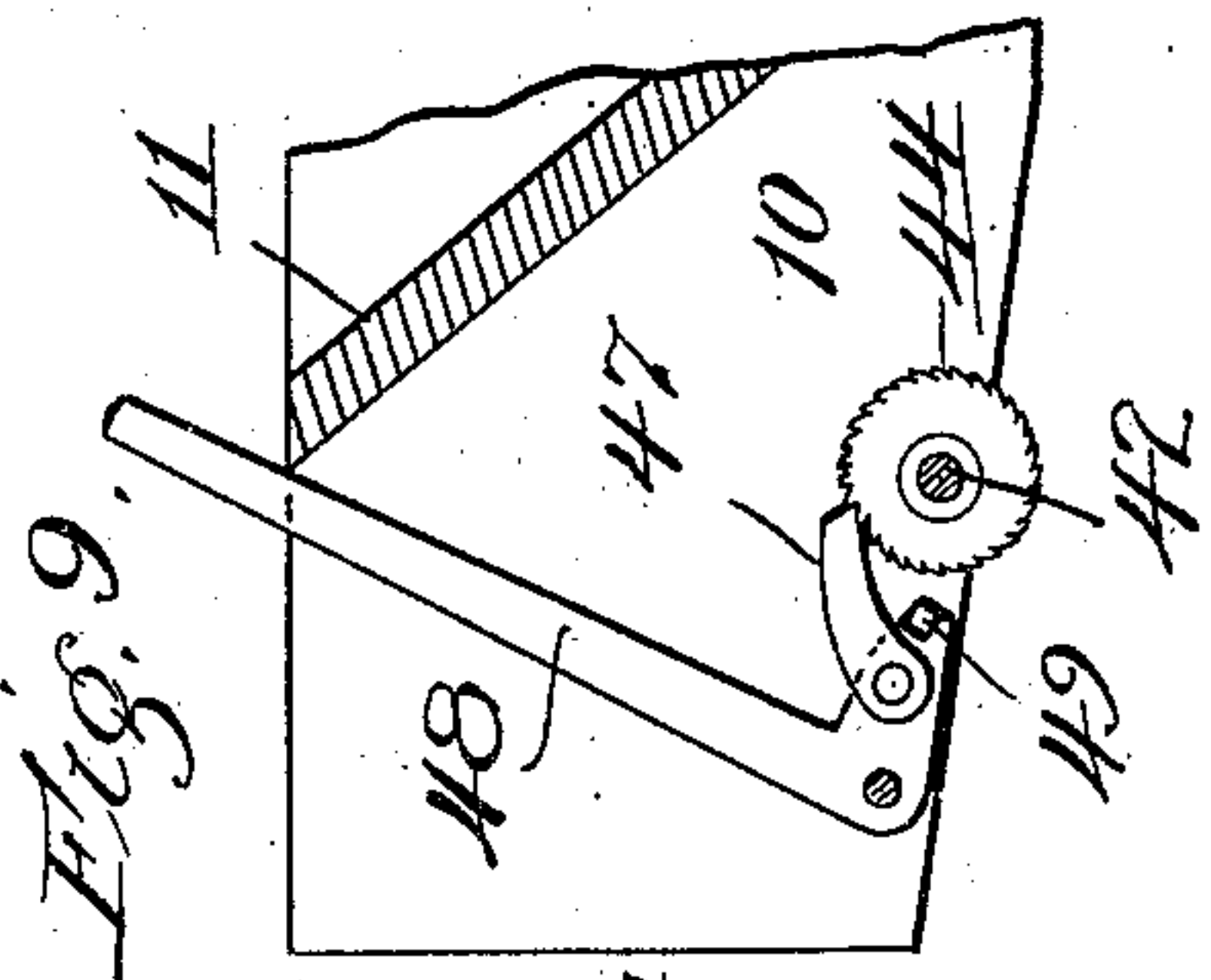
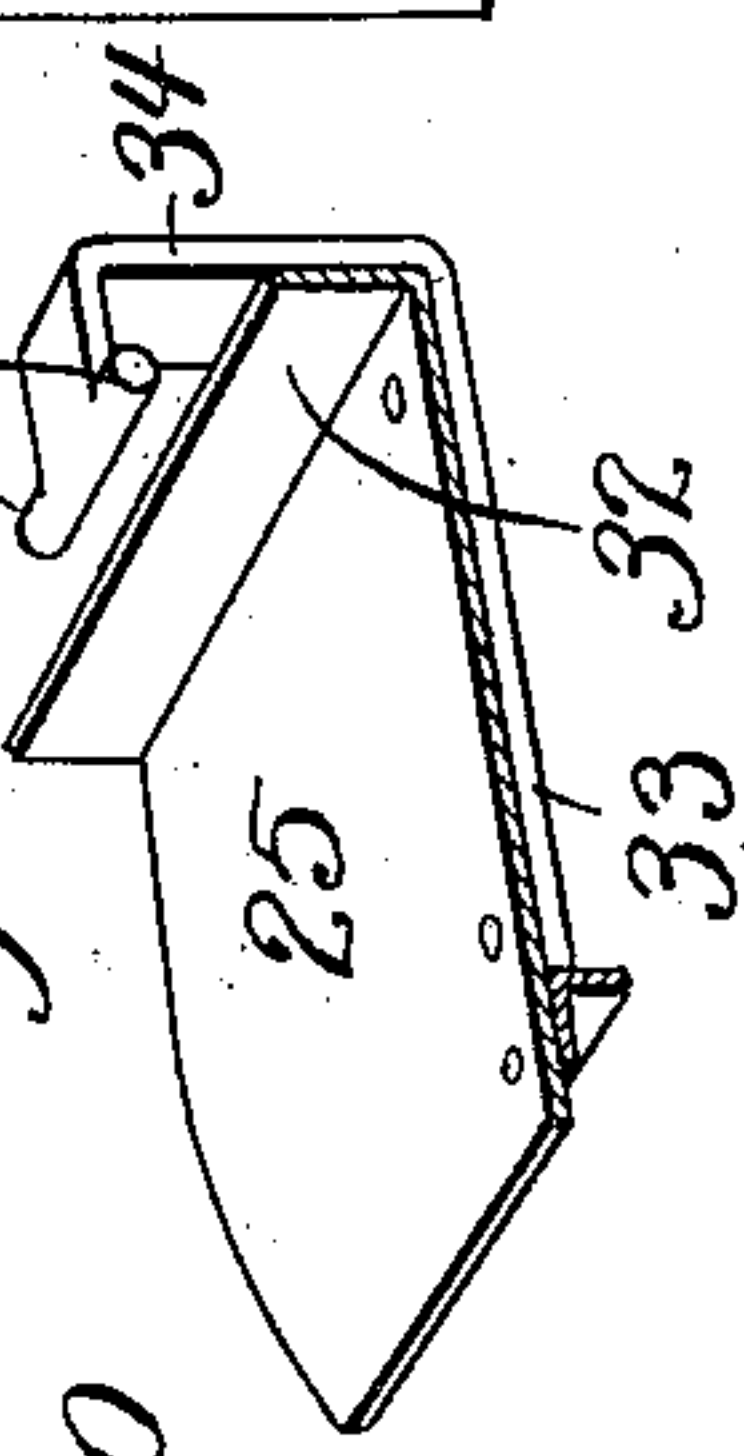
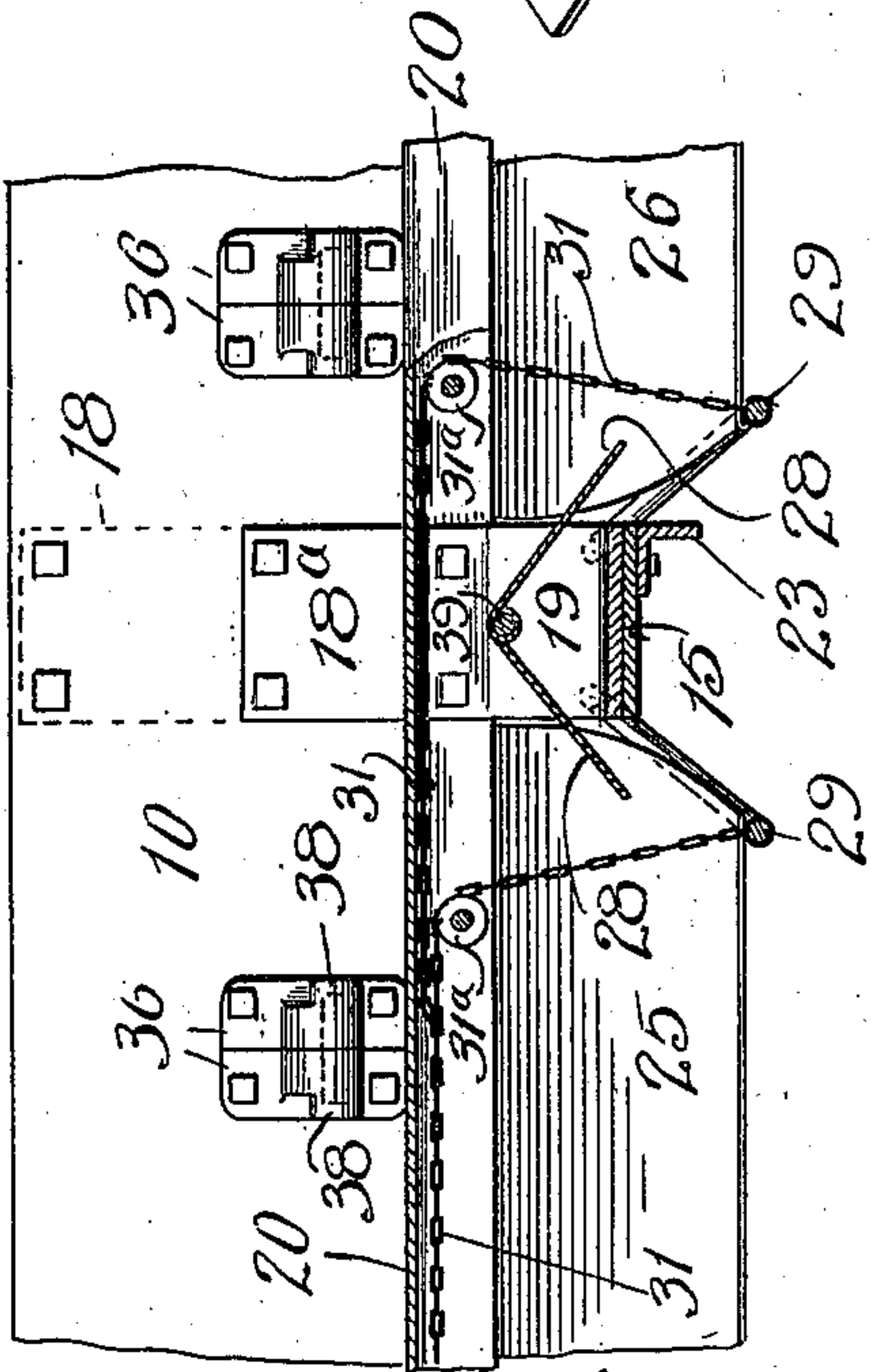


Fig. 6.



Inventor:
Mary A. Young,
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UNITED STATES PATENT OFFICE.

MARY A. YOUNG, OF CHICAGO, ILLINOIS.

DUMPING MECHANISM.

983,666.

Specification of Letters Patent.

Patented Feb. 7, 1911.

Application filed March 2, 1910. Serial No. 546,896.

To all whom it may concern:

Be it known that I, MARY A. YOUNG, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Dumping Mechanism, of which the following is a specification.

This invention relates to dumping mechanism of that class in which the bed or bottom of the wagon is provided with a series of downwardly opening leaves to facilitate the unloading of the wagon.

The object of this invention is to provide a dumping mechanism of improved construction, to provide means for economizing space whereby the downwardly opening leaves may open to their fullest extent in less space than is ordinarily required.

Other objects and advantages will appear in the course of this specification, and to such ends this invention consists in certain novel features of construction, arrangement and combination of parts fully set forth in this specification and more particularly defined in the claims.

The invention is clearly indicated in the drawings furnished herewith, in which—

Figure 1 is a vertical longitudinal section taken through a wagon body embodying my improved dumping mechanism, the line of section being indicated at 1—1 in Fig. 5, Fig. 2 is an under plan view of the device, Fig. 3 is a vertical cross section taken on the line 3—3 of Fig. 1, Fig. 4 is a vertical cross section taken on the line 4—4 of Fig. 1, Fig. 5 is a plan view of the device, Fig. 6 is a fragmental longitudinal section taken on the line 6—6 of Fig. 5, with the leaves dropped and showing a hollow beam partly broken out to illustrate parts which would otherwise be hidden from view, Fig. 7 is a perspective view of a hinge member, Fig. 8 is a sectional perspective view of a fragment of one of the leaves, and Fig. 9 is a detail vertical longitudinal section taken on the line 9—9 of Fig. 5.

Referring to the drawings, the wagon body A, will be seen to comprise in general two side boards 10, a vertically inclined end board 11, at the front, an end board 12, at the rear and a bottom or bed 13. Two bolsters 14, 15, are provided for supporting the wagon body and said bolsters are preferably constructed of metal bars 16, 17, that are bolted or otherwise secured together, and have upwardly extending arms 18, 18^a, that

are fastened to the side boards 10. The upper bars 16, of the bolsters have centrally located arms 19, that extend up into the wagon body and support a hollow beam 20, which extends longitudinally through the wagon body immediately above the bed or bottom. Said beam 20, may be secured at its rear end to a transversely extending bar 21, and to a brace 22, secured to the end board 12. Angle irons 23, are secured to the under side of the bolsters and the latter are arranged to rest upon the bolsters 24, of the running gear, said angle irons 23, operating to hold the wagon body against longitudinal movement upon the running gear.

The bed or bottom 13 comprises a plurality of downwardly opening leaves 25, 26, 27, 28, which are hinged to the wagon body and supported in place by means of yoke shaped leaf supporting members 29, winding mechanism 30, and suitable connecting devices 31. The leaves 25, extend longitudinally of the wagon body with their free side edges lying just underneath the hollow beam 20. The opposite edges extend underneath the side boards 10, and are bent upward to form flanges 32, that extend along the lower sides of said side boards. Said leaves 25, are pivoted to the side boards at points located somewhat above the plane of the leaves and on the inner sides of the side boards. This pivotal arrangement affords means whereby said leaves may swing into open position in less vertical space than is required when they are pivoted to the lower edges of the side boards, and by reason of this fact the wagon body can be set closer to the running gear of the wagon. The preferred means for hinging the leaves 25, at these points comprise, as will be seen, straps 33, secured to the leaves and having upwardly extending arms 34, the ends of which project into the box through openings 35, in the side boards where they are hinged in ears 36, secured to the inner faces of the side boards. In the form shown the inwardly extending portions of the arms 34, have pintles 37, that rest in sockets 38, formed in the ears 36, and said ears are made with symmetrically disposed halves bolted to the side boards as shown, and covering the openings 35, therein. The cross leaves 27, 28, extend between the side boards and the centrally located hollow beam 20, and are hinged to rods 39, that project through and are carried by the upwardly extending arms 18^a, of the bolsters.

Said cross leaves rest upon the longitudinal leaves 25, 26, and their free ends are supported thereby, so that whenever the longitudinal leaves are released, the cross leaves
5 fall with them, thereby opening up the bed of the box to such an extent that the contents escape freely through the opening thus formed.

The yoke shaped leaf supporting rods 29,
10 are shown as pivoted to the bolsters and are operated by chains or other connecting devices 31, which run over pulleys 31^a, journaled in the hollow of the beam 20. The connecting devices are connected together,
15 and one runs to a winding drum 41, of the winding mechanism 30. Said drum is fast upon a shaft 42, one end of which is journaled upon one of the side boards 10, and the other end of which is journaled in a bearing 43, secured to the adjacent end of the
20 hollow beam 20. A ratchet wheel 44, is secured to said shaft 42, and a lever 45, having a pawl 46, is provided for turning said ratchet wheel. A detent 47, carried by a
25 lever 48, is arranged to prevent retrograde movement of the ratchet wheel. Said lever 48, carries a pin 49, which is adapted to lift the detent 47, whenever the lever 48, is thrown back far enough. The pivot of the detent
30 47, is located at a point past the dead center between the lever fulcrum and the point of engagement of the detent with the ratchet, and the upper end of said lever 48, engages with the front board 11, of the wagon. This
35 arrangement of detent effectually prevents retrograde movement of said ratchet and drum. To dump the wagon, the lever 48, is pushed back, thereby releasing the detent 47, from the ratchet. The weight upon the
40 bed swings the leaves downwardly and opens up the bed. To close said leaves, the lever 48, is swung back into normal position and the lever 45, rocked back and forth with the pawl 46, in engagement with the teeth
45 of the ratchet 44.

A foot rest 50, is pivoted to the side boards

and swings down into operative position against a strap 51, also secured to the side boards. Said foot board may be swung upward and out of the way should the occasion
50 arise, as for instance when it is desired to back up the wagon, it may be raised out of the way of the horses.

I claim as new and desire to secure by Letters Patent:

1. In a dumping mechanism, the combination with a wagon body having a downwardly opening bed, and a centrally located beam, of a bolster having upwardly
60 extending arms for carrying the sides of the wagon body and centrally located upwardly extending arms for carrying the beam.

2. In a dumping mechanism, the combination with a wagon body having a downwardly opening bed, and a centrally located beam, of a bolster comprising upper
65 and lower horizontal bars having upwardly extending end pieces that carry the sides of the wagon body, said upper horizontal bars having centrally located end pieces that extend up and carry the beam.

3. In a dumping mechanism, the combination with a wagon body having a downwardly opening bed, and a centrally located, longitudinal beam, of a bolster comprising upper and lower horizontal bars,
75 disposed at some distance below the wagon body, the ends of the lower bar being bent upward and secured to the outer sides of the wagon body and the upper horizontal bars having their outer ends bent up and secured on the inner sides of the wagon body, and their inner ends bent up and secured
80 to the beam.

In witness whereof, I have hereunto subscribed my name at Chicago, Cook county, Illinois, this 25th day of February 1910.

MARY A. YOUNG.

Witnesses:

JOHN W. TAYLOR,
FRED WILLIAMS.