

No. 642,395.

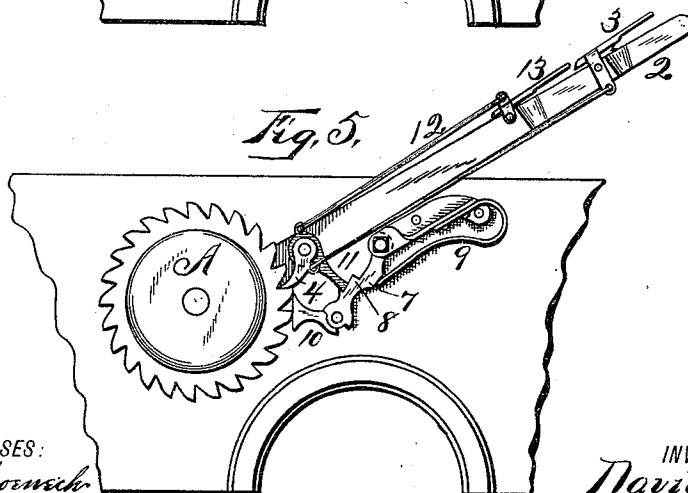
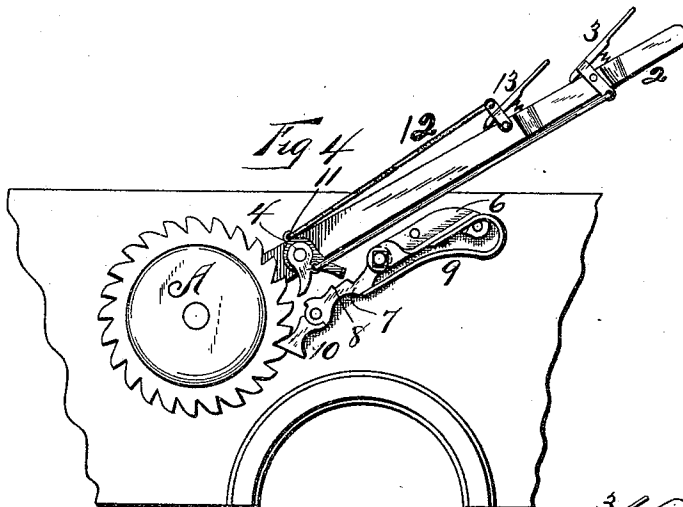
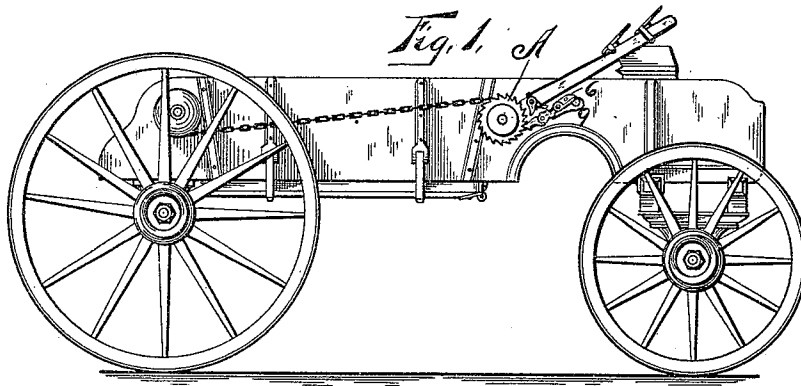
Patented Jan. 30, 1900.

D. S. WATSON.
DUMPING WAGON.

(Application filed July 7, 1899.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:
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M. M. Abbott

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David S. Watson
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Smith & Denison
ATTORNEYS.

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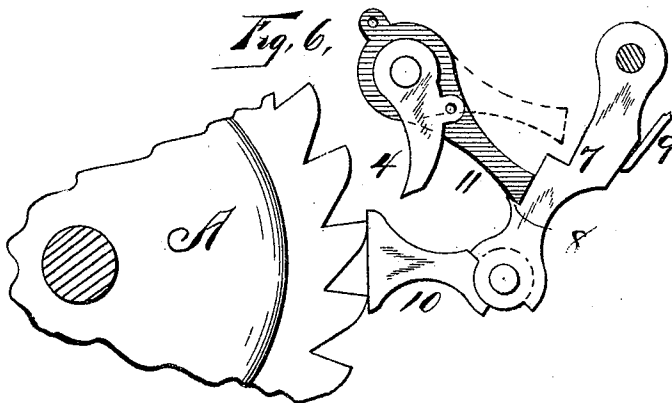
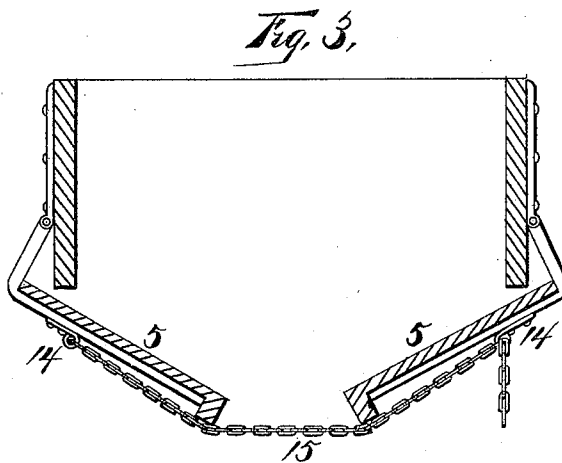
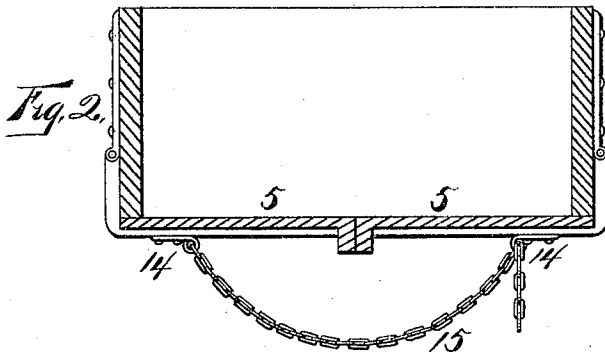
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2 Sheets—Sheet 2.



WITNESSES:

C. Schornack
M. M. Bott.

INVENTOR

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UNITED STATES PATENT OFFICE.

DAVID S. WATSON, OF CANASTOTA, NEW YORK, ASSIGNOR TO THE
WATSON WAGON COMPANY, OF NEW YORK.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 642,395, dated January 30, 1900.

Application filed July 7, 1899. Serial No. 723,026. (No model.)

To all whom it may concern:

Be it known that I, DAVID S. WATSON, of Canastota, in the county of Madison, in the State of New York, have invented new and
5 useful Improvements in Dumping-Wagons, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to dumping-wagons
10 of the general class or type shown in the Letters Patent granted to me February 21, 1888, No. 378,272.

My object is to improve upon the construction there shown, my improvements being
15 also adapted to be used upon wagons of different construction. They relate specifically to ratchet-and-pawl mechanisms for dumping or closing the bottom of the box and applying a brake to the ratchet, whereby the dropping
20 of the bottom will be retarded more or less and at least sufficiently to prevent all the liability to damage incident to a free drop, comprising a spring-pawl operating normally to engage with the ratchet to carry the load
25 and having a head mounted thereon by a knuckle-joint, one end of which is the point of the pawl, and means to shift the pawl-body out of center with said head, whereby the weight of the load will swing said head and
30 bring its flat face into contact with the face of the ratchet, so that it will operate as a brake to retard the backward rotation of the ratchet which permits the unwinding of the bottom-closing chain. They also relate to
35 devices for regulating the distance of the opening of the bottom sections, whereby the load can be dumped in a heap or can be distributed over a greater distance. It is constructed as follows, reference being had to
40 the accompanying drawings, in which—

Figure 1 is a side elevation of the wagon. Fig. 2 is a cross-section thereof, showing the bottom closed. Fig. 3 is a like view showing the bottom partly opened for distributing the
45 load. Fig. 4 is an enlarged elevation of the ratchet mechanism in its position when supporting a load. Fig. 5 is a like view thereof, showing the load-carrying pawl shifted to operate as a brake when the ratchet is released

from the driving or winding-up pawl. Fig. 50 6 is a like view of the same, showing the ratchet controlled only by the brake action of the pawl-head.

The drawings illustrate my improved devices applied to the wagon shown and described in my patent aforesaid, and for that
55 reason I will only describe the parts which relate or belong to my improvements.

A is the ratchet upon the outer end of the winding-shaft, which is suitably journaled in
60 the box. A ratchet-lever 2 is suitably mounted so that by pressure upon the hand lever or grip 3 the pawl 4 will engage said ratchet to revolve it and the winding-shaft to wind up
65 the chains and close the sections of the bottom 5 of the box in the usual manner. Upon the side of the box a block 6 is secured, to which is pivoted the body 7 of the load-supporting pawl provided with a shoulder 8, and
70 9 is a spring suitably mounted and engaging with said pawl-body. A head 10 is mounted with a knuckle or other suitable joint upon or in the free end of said pawl-body, said
75 head having a point to suitably engage with the ratchet-teeth and a flat face to engage flatwise with the ratchet when tripped to operate as a brake spring-pressed to retard the
80 backward rotation of the ratchet, retard the unwinding of the chains and the dropping of the bottom, and relieve the hinges and chains from liability to damage especially with a
85 heavy load. As a means for tripping this combination pawl and brake a lever 11 is pivoted upon the lever 2 and connected by a rod
12 to a hand-grip 13, whereby the free end of the trip-lever is swung into position and by
90 swinging said lever 2 is brought against the pawl-body and the free end thereof swung down until the strain against the point of the head will swing said head into position to operate as a brake.

Hooks or eyes 14 are secured upon the bottom sections, usually an eye on one and a hook upon the other, and 15 is a chain
95 mounted thereon and adjustable as to length, as by shifting the hook from one link to another, whereby, as shown in Fig. 3, the bottom sections will only open the distance per-

mitted by the bight of the chain and whereby the load will be distributed according to the width of the space.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination with a winding-ratchet of a pawl composed of a body pivotally mounted, a head, having a point and a flat face, pivoted upon said body, a spring engaging with said body, and a lever adapted to engage therewith and swing said body in one direction, while the strain upon the ratchet will tilt said head in the opposite direction.

2. The combination with a winding-ratchet of a pawl composed of sections hinged together, and having a shoulder on one section, a spring engaging with one section to hold the point of engagement of the pawl out of alinement with the pivot connecting the sections and the pivot of the pawl, a lever en-

gaging with said shoulder to swing that section whereby the strain on the ratchet will swing the other section and bring its flat face into engagement with the face of the ratchet.

3. The combination with a winding-ratchet, of a pawl composed of a body and a head hinged thereon having a flat face and a pawl-point whereby when said ratchet is revolved in one direction it will operate as a pawl, and when in the opposite direction said head will swing and bring its flat face against said ratchet as a brake, and means to retain said pawl in either position.

In witness whereof I have hereunto set my hand this 4th day of July, 1899.

DAVID S. WATSON.

Witnesses:

WILLIAM R. GROAT,
WILLIAM A. NORTHUP.