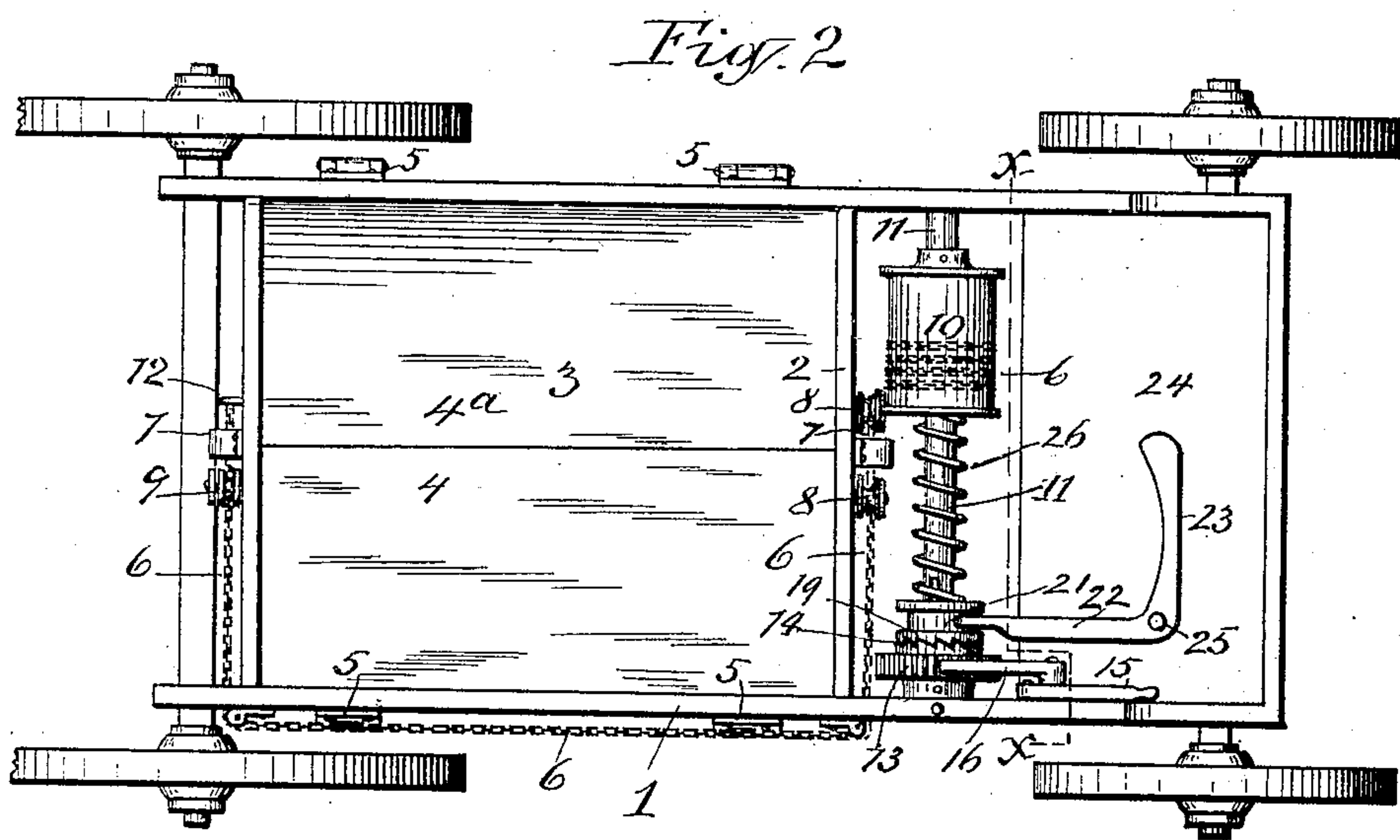
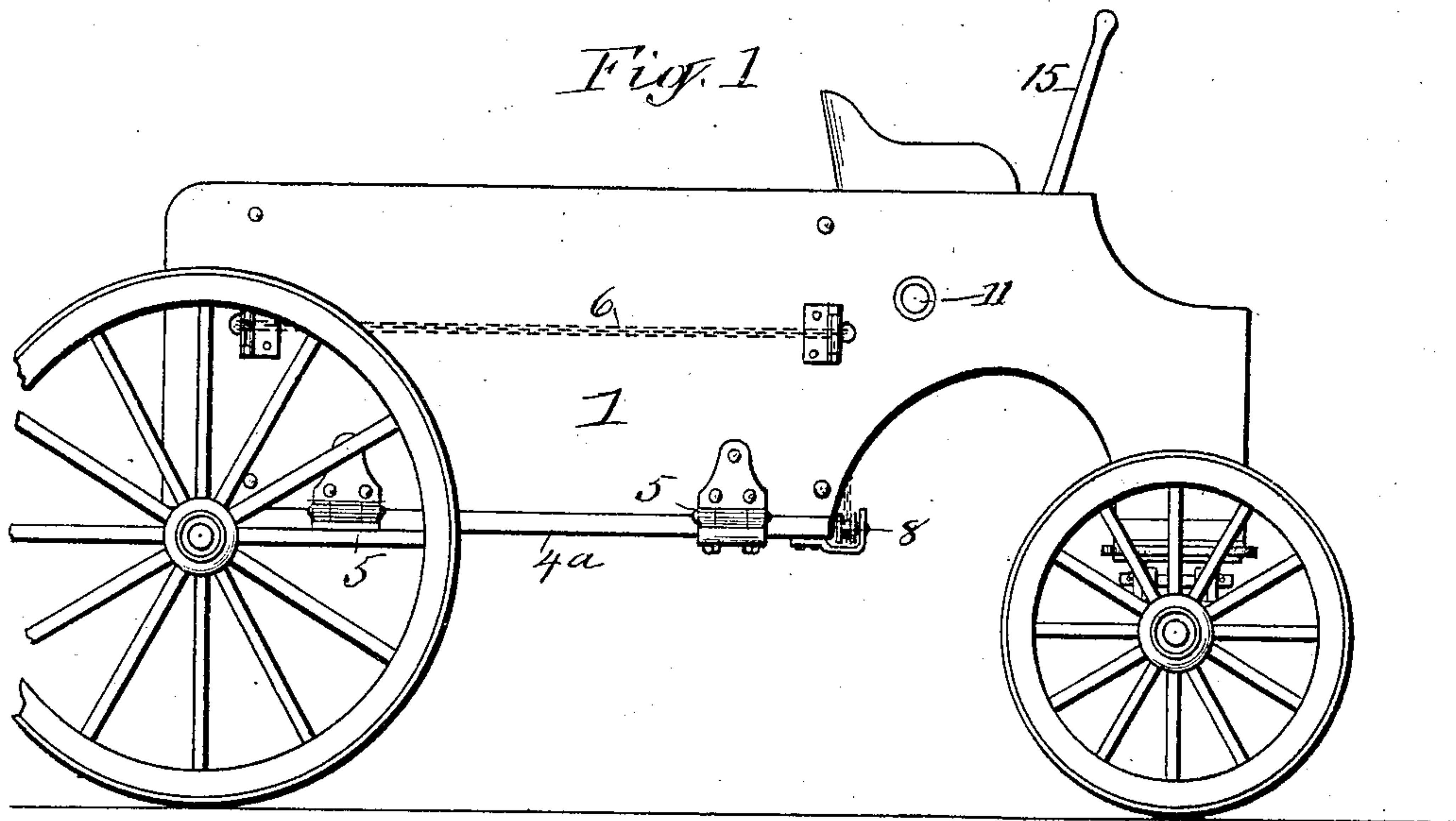


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PATENTED SEPT. 10, 1907.

C. JOHNSON.  
DUMPING WAGON.  
APPLICATION FILED SEPT. 22, 1906.

2 SHEETS—SHEET 1.



WITNESSES:

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*S. B. Levine*

INVENTOR

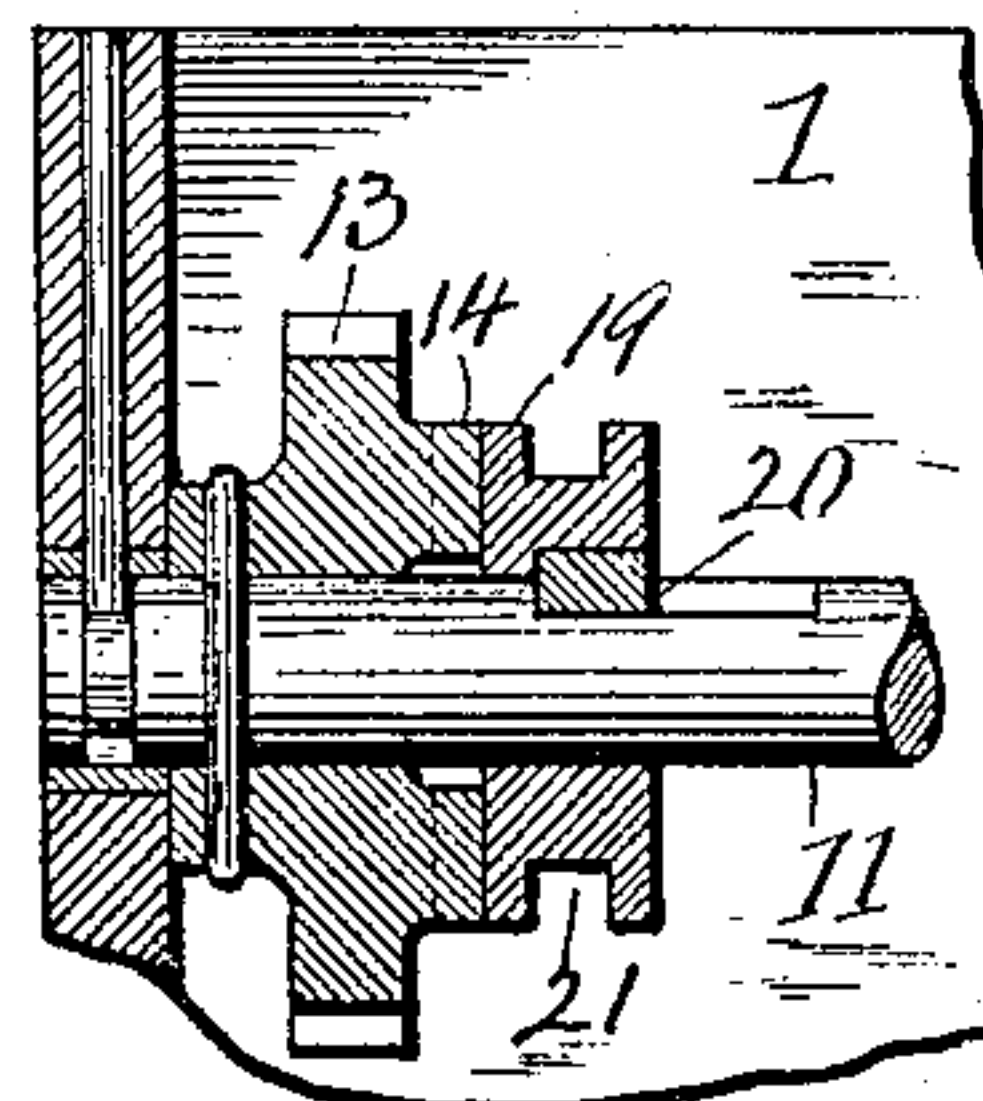
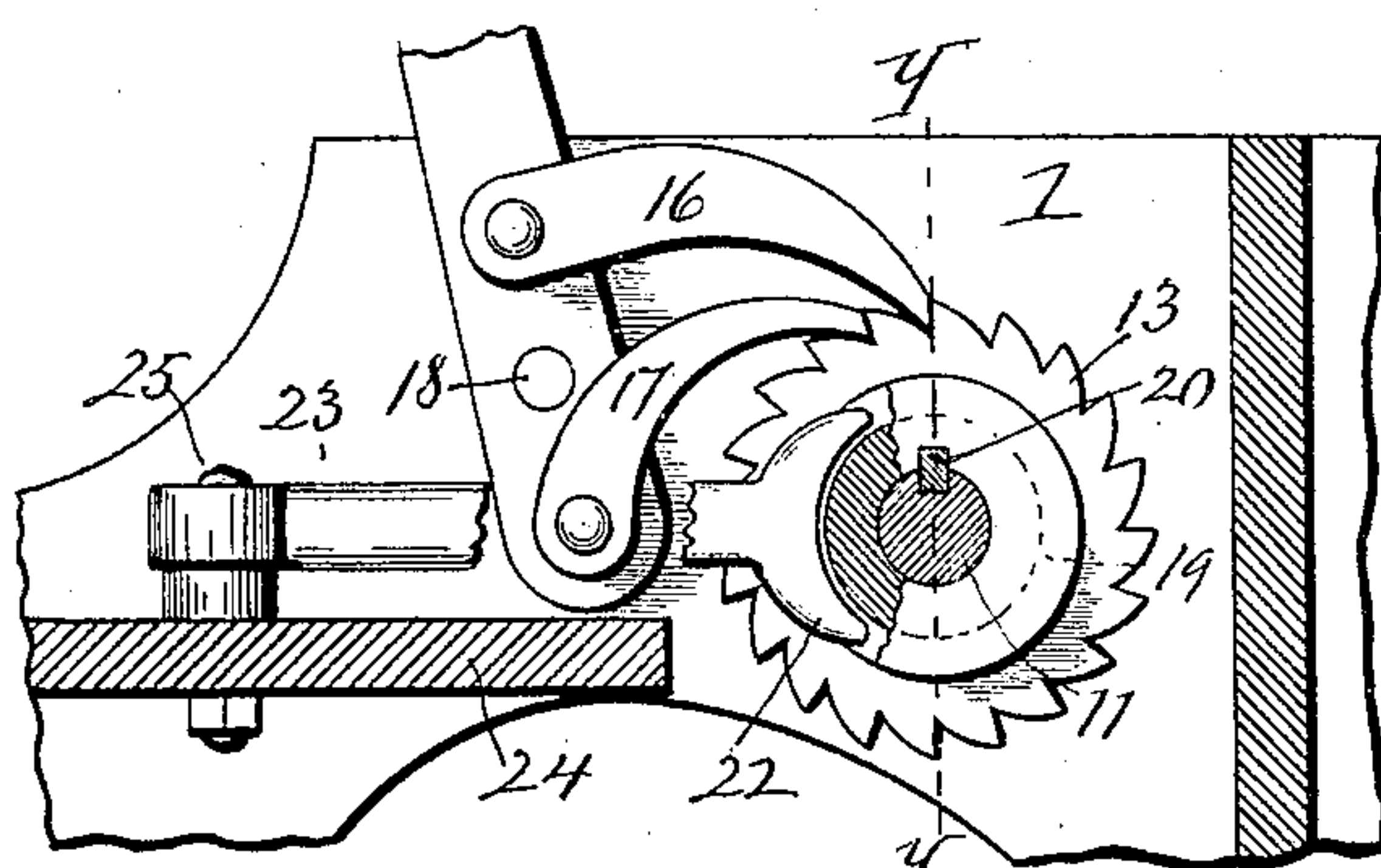
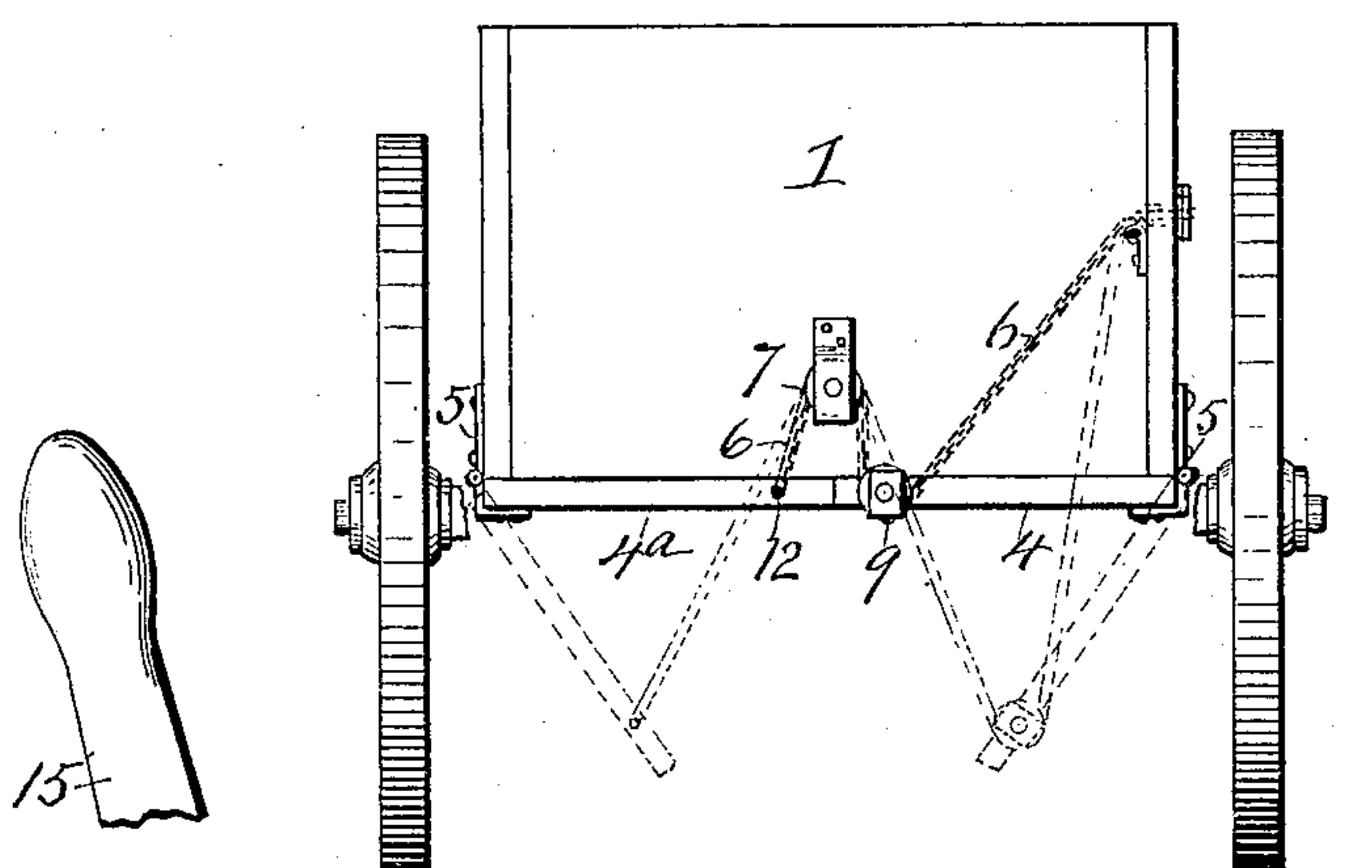
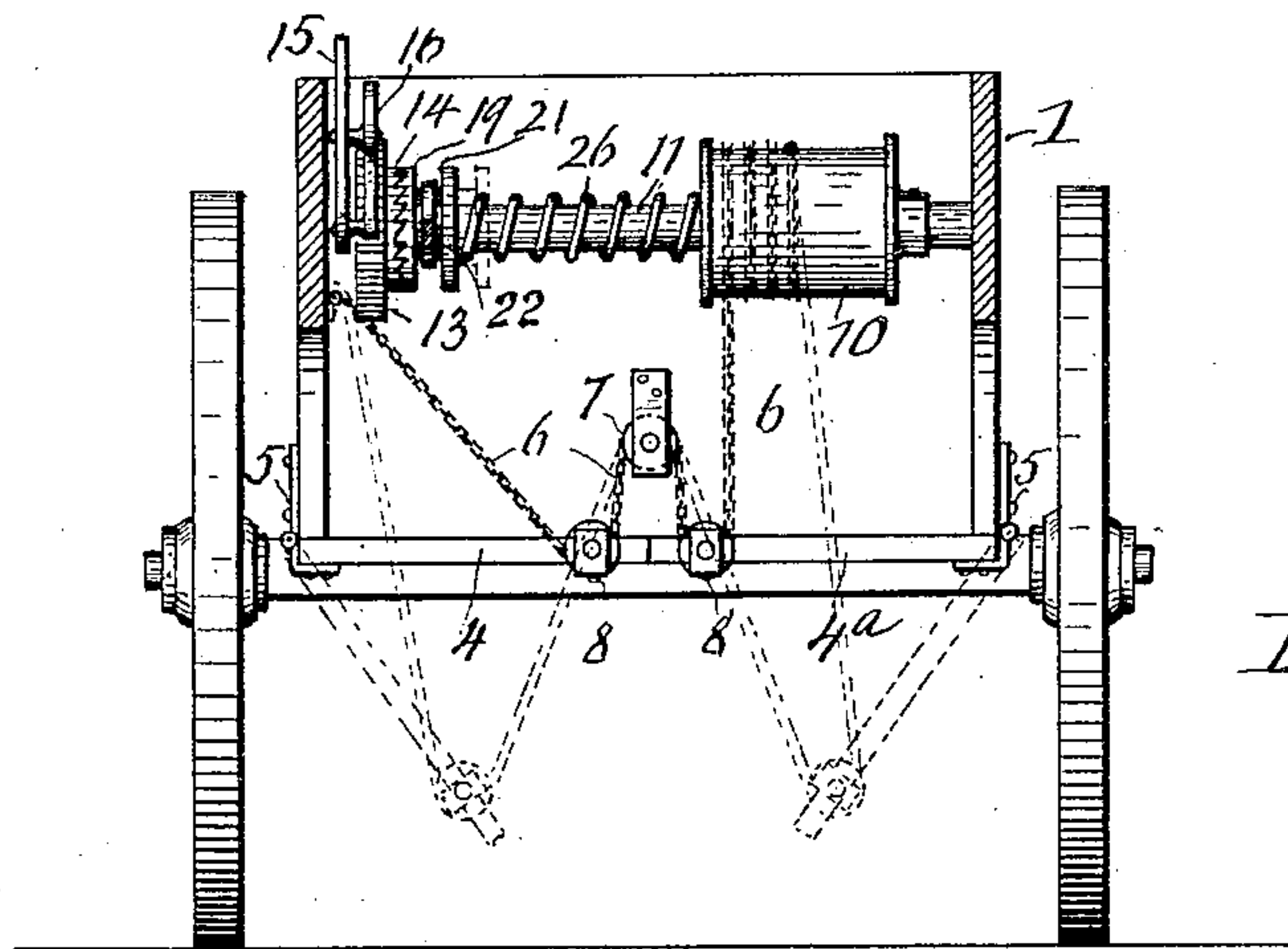
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2 SHEETS—SHEET 2.



WITNESSES:

J. J. Laass.  
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# UNITED STATES PATENT OFFICE.

CHARLES JOHNSON, OF AUBURN, NEW YORK.

## DUMPING-WAGON.

No. 865,708.

Specification of Letters Patent.

Patented Sept. 10, 1907.

Application filed September 22, 1906. Serial No. 335,809.

To all whom it may concern:

Be it known that I, CHARLES JOHNSON, a citizen of the United States, and a resident of Auburn, in the county of Cayuga, in the State of New York, have invented new and useful Improvements in Dumping-Wagons, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of dumping wagons which have the bottom of the body divided and movable to and from its closed position.

The object of the invention is to provide simple, inexpensive, convenient and efficient means for operating the movable bottom. And to that end the invention consists in the improved construction and combination of parts, hereinafter described and as illustrated in the accompanying drawings, in which

Figure 1 is a side elevation of a dumping wagon embodying my invention; Fig. 2 is a plan view of the same; Fig. 3 is a transverse section on the line *x, x*, in Fig. 2. Fig. 4 is a rear end view of the dumping wagon; Fig. 5 is an enlarged vertical transverse section of the winch-shaft viewed toward the end which is provided with the means for operating it; Fig. 6 is a longitudinal section on the line *y, y*, in Fig. 5.

1—represents the body of the wagon, which body is formed with a transverse partition—2—dividing the body into a compartment—3—in which is carried the material to be transported to the place at which it is to be delivered. The bottom of the said compartment is divided longitudinally into two sections 4—4<sup>a</sup>, which are hinged to the sides of the body as shown at 5, 5, to allow said sections to drop from their closed position into a depending position as shown in dotted lines in Figs. 3 and 4. For lifting the sections of the divided bottom to their closed position I employ only one chain—6—which is arranged to operate in the following manner, to wit:

To each end of the body, 1, preferably over the junction of the two sections of the bottom, is attached a pulley—7—, and to the front ends of the bottom sections adjacent to the free edge thereof are attached pulleys—8— and to the rear end of the section—4—is attached a pulley—9—. In the front end portion of the body—1—is a winch—10—, the shaft—11—, of which is journaled in suitable bearings in the sides of the body. To this winch is attached one end of the chain 6—the opposite end of which passes under the front pulley 8— of the bottom section—4<sup>a</sup>—, thence passes over the front pulley—7—, thence under the front pulley—8— of the section 4— thence along one side of the body—1—to the under side of the pulley—9— on the rear end of the bottom section—4, thence over the rear pulley—7— and thence down to the rear end of the bottom section—4<sup>a</sup>— to which the end of

the chain—6—is fastened adjacent to the free edge of said section as shown at—12—in Fig. 4.

For operating the winch I employ the following means, on one end of the winch shaft—11—is loosely mounted a ratchet—13—the side of which is provided with a clutch-face 14—. A hand lever—15—is pivoted to the side of the body—1—and has two pawls—16—17— pivoted to it at opposite sides of, or above and below the pivot—18— of the lever as shown in Fig. 5 of the drawings. Both of said pawls engage the upper part of the ratchet and are caused to operate alternately by the rearward and forward thrust of the lever and thus impart a continuous movement to the ratchet during the operation of the lever, and prevent reverse movement of the ratchet as soon as the lever is left at rest. Said movement of the lever turns the winch-shaft in a direction which causes the chain 6—to be wound on the winch and thereby lift the bottom sections 4—4<sup>a</sup>— to their closed positions. On the winch-shaft—11—is mounted a clutch—19—which is movable lengthwise of the shaft and splined thereon as shown at—20—in Figs. —5 and 6. A spiral spring—26— surrounding the winch-shaft and bearing with its ends on the inner end of the winch and on the inner side of the clutch serves to automatically force the clutch into engagement with the clutch-face of the ratchet. The clutch is provided with a circumferential groove—21—which is engaged with the forked end—22— of an L shaped foot-lever 23— pivoted at its angle to the foot-board—24—as shown at 25. By means of the said foot-lever the operator is enabled to throw the clutch—19— out of engagement with the clutch-face of the ratchet and thus liberate the winch-shaft from the restraint of the locked lever—15—and yield to the strain of the chain—6—and allow the bottom sections 4—4<sup>a</sup>— to drop from their closed position as shown in dotted lines in Figs. 3—4— and thus discharge the contents of the body—1—.

By the employment of the loosely mounted ratchet, in combination with the clutch splined on the winch-shaft and automatically engaging the clutch-face of the ratchet, and thrown out of engagement at will of the operator without the use of the lever which is provided with pawls engaging the ratchet, the discharge of the load from the wagon is conveniently and perfectly controlled so as to either dump the load quickly in a pile on the ground or distribute the load gradually along the road traveled by the wagon.

It will also be observed that by my invention I employ only one chain for closing the movable bottom of the wagon, which chain is operated by simple, efficient and convenient means.

What I claim is:

1. A dumping-wagon having its discharge controlled by a winch, a ratchet-wheel mounted loosely on the winch-



shaft and provided with a clutch-member, means for turning the ratchet-wheel in one direction, a clutch splined on the winch-shaft, and means for throwing said clutch in and out of engagement with the aforesaid clutch-member.

2. The combination with the wagon-body provided with a longitudinally divided bottom hinged to the sides of the body, of pulleys attached to the ends of the body, pulleys attached to the ends of one of the bottom sections adjacent to the free edge thereof, a pulley attached to the front end of one of said sections, a winch secured to the body, a chain attached at one end to the winch and having its opposite end traversing the aforesaid pulleys and attached to one of the aforesaid bottom sections, a ratchet mounted loosely on the winch-shaft, a lever pivoted to the body, and two pawls pivoted to the lever at opposite sides of the pivot thereof and turning the ratchet in one direction, a clutch transmitting motion from the ratchet to the winch, and means for throwing said clutch out of operative position, as set forth.

3. The combination with the wagon-body provided with a longitudinally divided bottom hinged to the sides of the body, a winch secured to the body, and a chain wound on said winch and disposed to lift the bottom sections to their closed position, of a ratchet mounted loosely on the winch-shaft and provided with a clutch face on its side, a lever pivoted to the body, two pawls pivoted to the lever at opposite sides of the pivot thereof and turning the ratchet in one direction, a clutch splined on the winch-shaft, and means for shifting the said clutch to and from engagement with the aforesaid clutch-face.

4. The combination with the wagon-body provided with

a longitudinally divided bottom hinged to the sides of the body, a winch secured to the body, and a chain wound on said winch and disposed to lift the bottom sections to their closed position, of a ratchet mounted loosely on the winch-shaft and provided with a clutch-face on its side, a lever pivoted to the body, two pawls pivoted to the lever at opposite sides of the pivot thereof and turning the ratchet in one direction, a clutch splined on the winch-shaft, a spring forcing the clutch into engagement with the aforesaid clutch-face, and a lever disposed to force the clutch out of engagement as set forth.

5. The combination with the wagon-body provided with a longitudinally divided bottom hinged to the sides of the body, of pulleys attached to the ends of the body, pulleys attached to the front ends of the bottom sections adjacent to the free edges thereof, a pulley attached to the rear end of one of said sections, a winch secured to the body, a chain attached at one end to the winch and having its opposite end traversing the aforesaid pulleys and attached to one of the aforesaid bottom sections, a ratchet mounted loosely on the winch-shaft, and provided with a clutch-face on its side, two pawls pivoted to the lever at opposite sides of the pivot thereof and alternately engaging the ratchet to turn the same in one direction, a clutch splined on the winch-shaft, a spring forcing the clutch into engagement with the aforesaid clutch-face, and a foot-lever pivoted to the body and engaging the clutch for forcing it from the clutch-face as set forth and shown.

CHARLES JOHNSON.

Witnesses:

J. J. LAASS,

J. W. BRUDY.