

(No Model.)

2 Sheets—Sheet 1.

C. W. BRIDGUM.
DUMPING CAR.

No. 476,780.

Patented June 14, 1892.

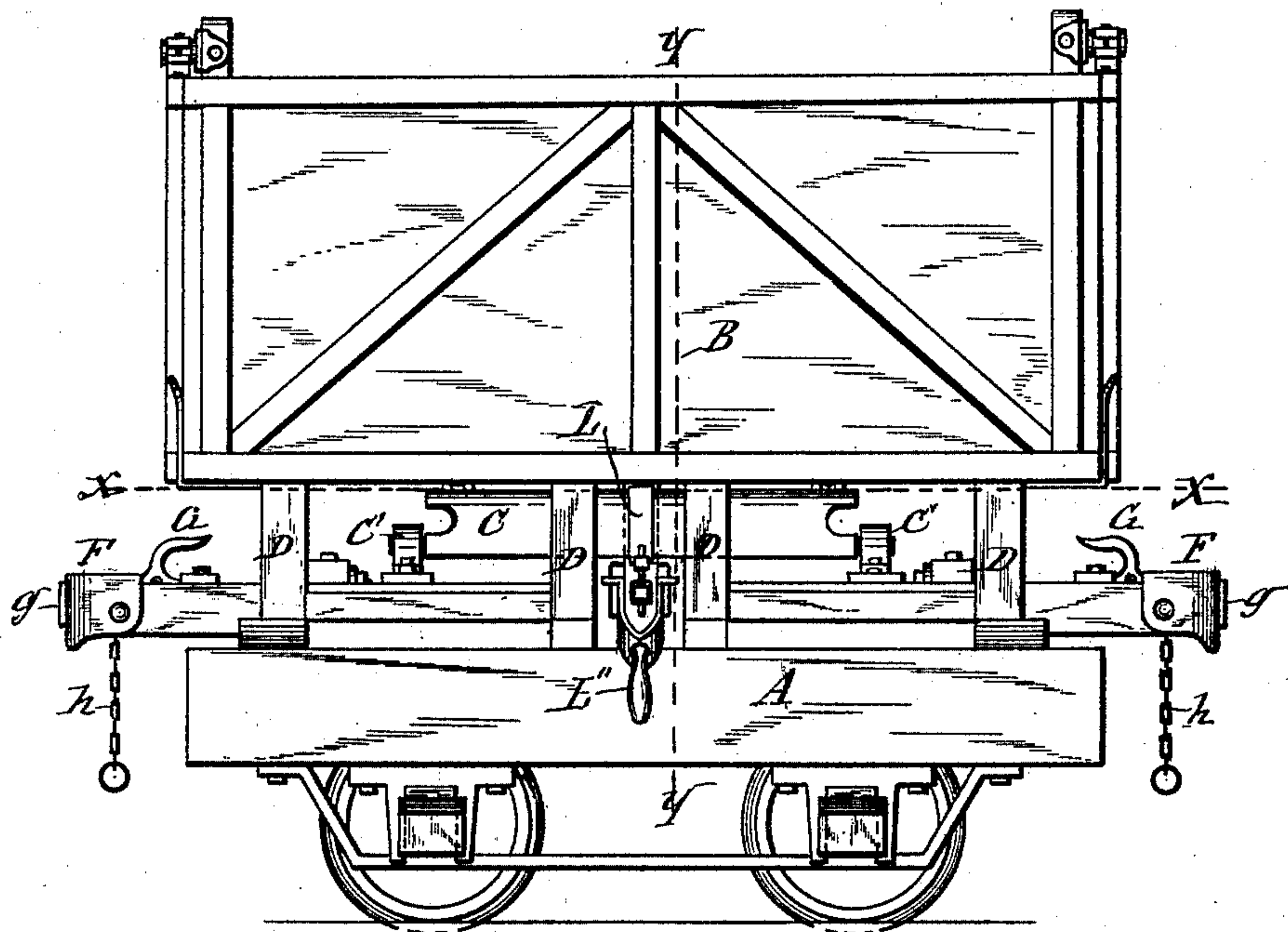


Fig. 1

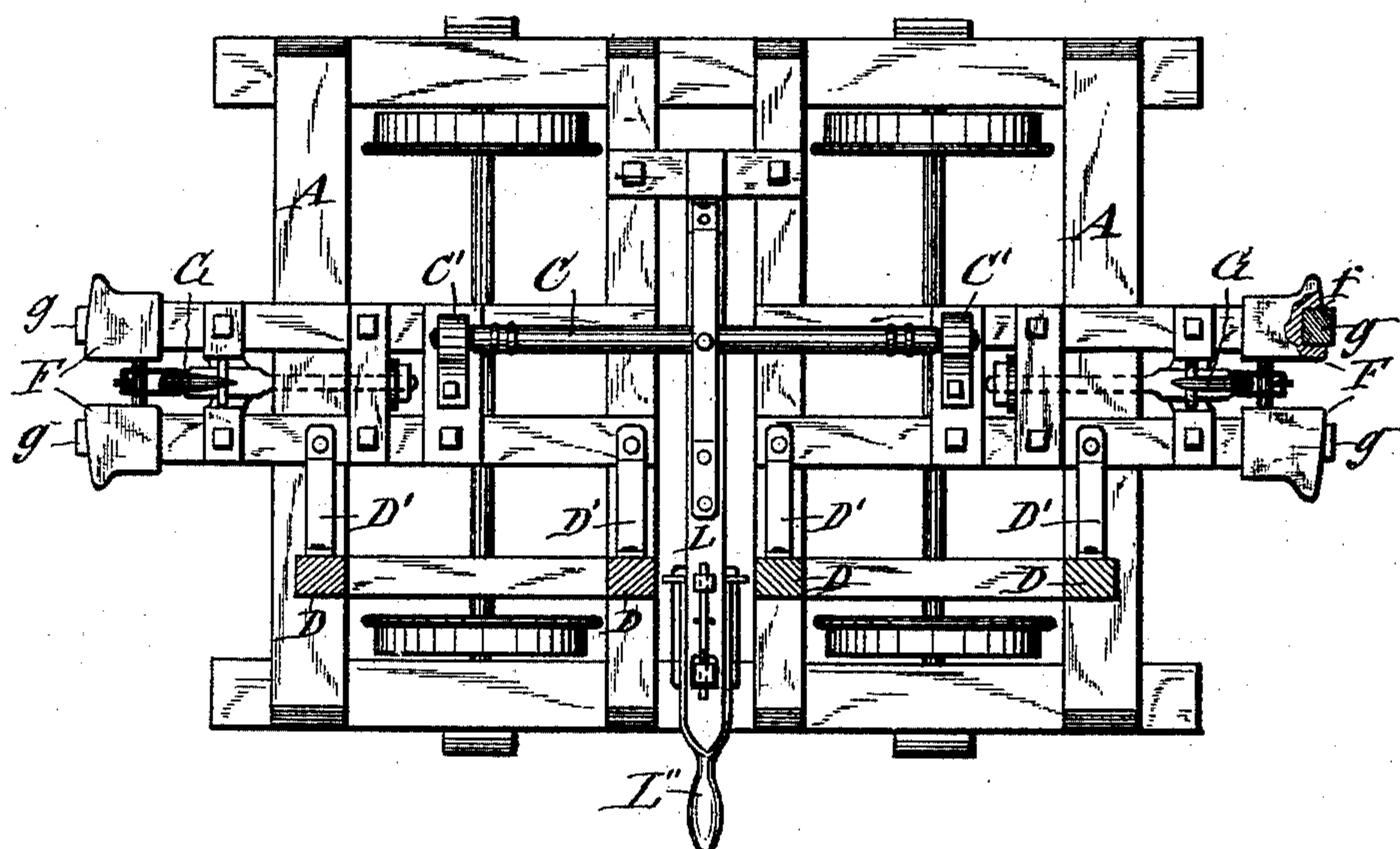


Fig. 2

WITNESSES:

C. L. Bendixon
H. E. Bates

INVENTOR:

Cyrus W. Bridgum
By *Smith, Lassar & Smith*
ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

C. W. BRIDGUM.
DUMPING CAR.

No. 476,780.

Patented June 14, 1892.

Fig. 3

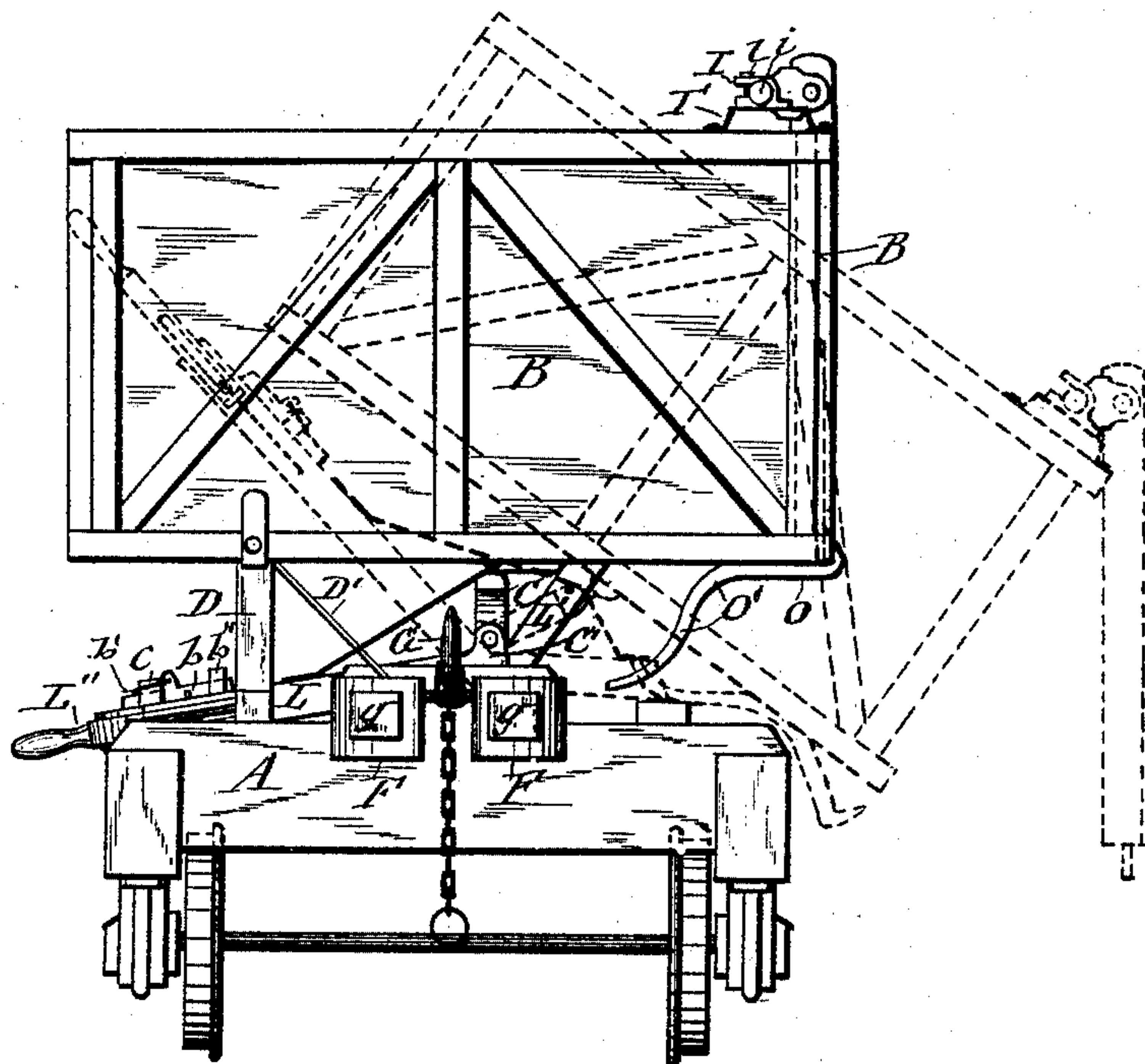


Fig. 4

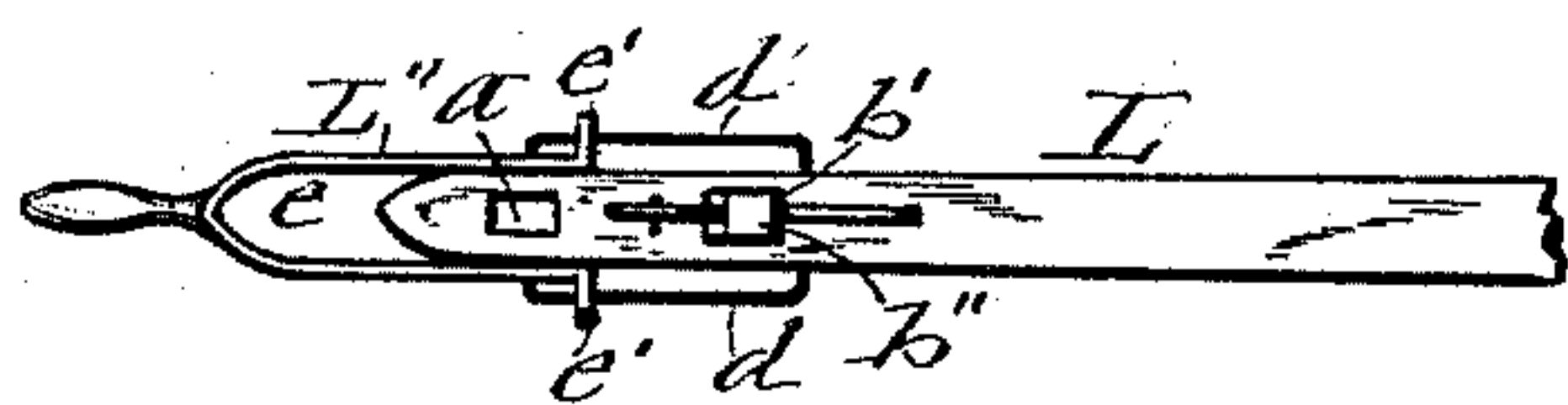
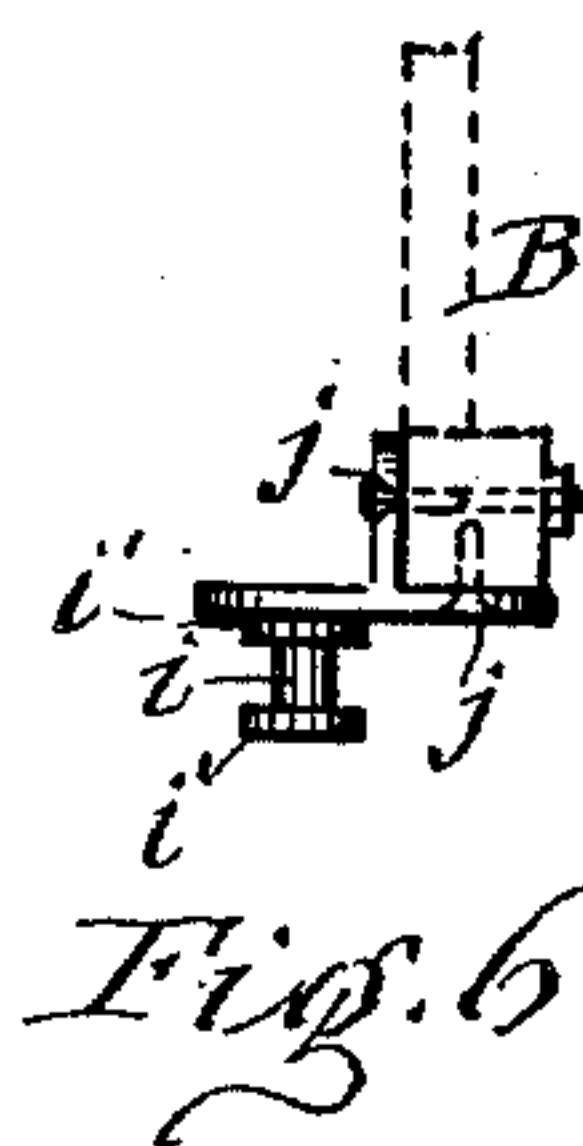
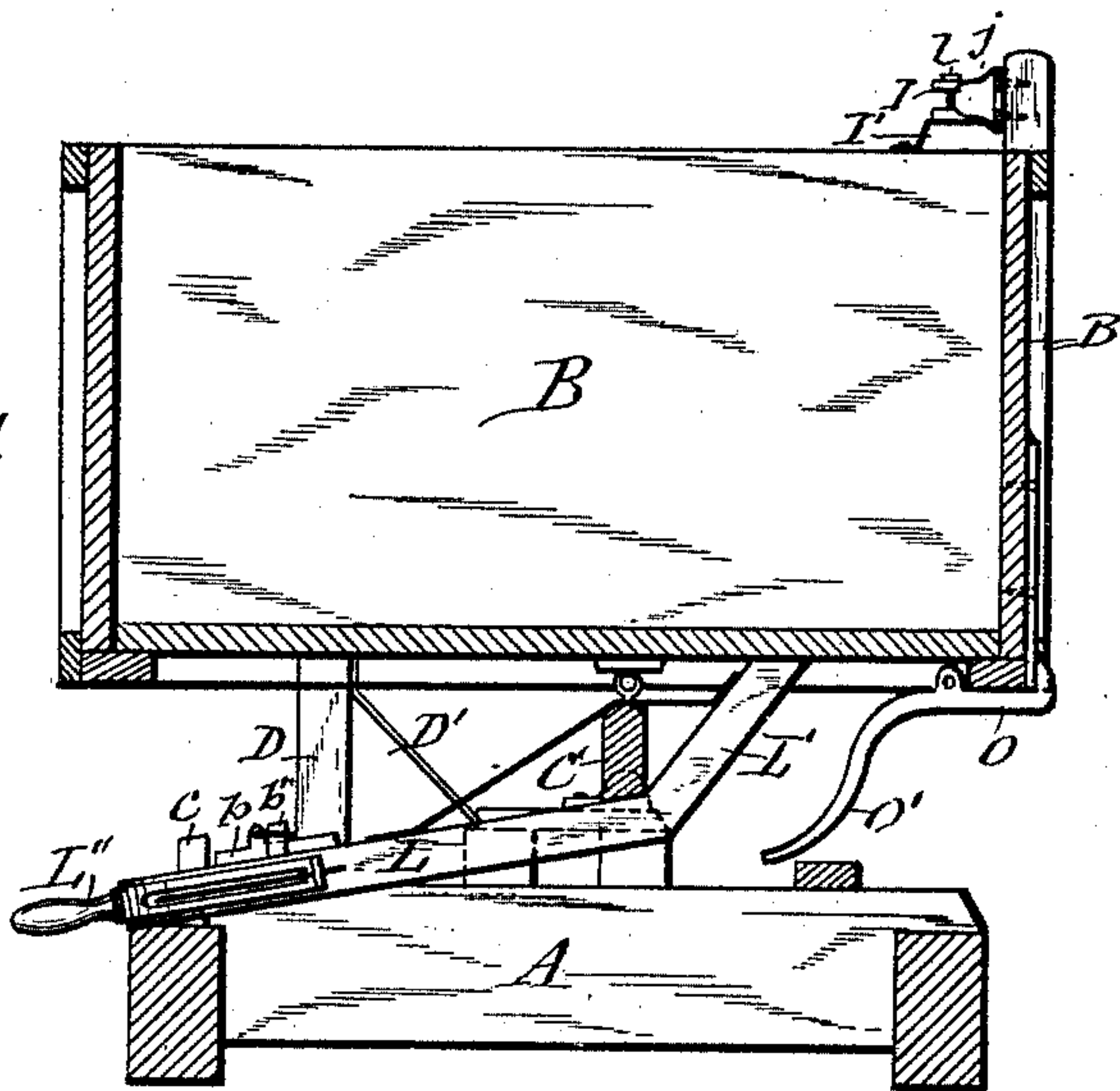


Fig. 5

WITNESSES:

C. L. Bendixon
J. E. Bates.

INVENTOR:

Cyrus W. Bridgum
By *Wm. L. L. & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

CYRUS W. BRIDEGUM, OF NORTH HECTOR, NEW YORK.

DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 476,780, dated June 14, 1892.

Application filed January 9, 1892. Serial No. 417,444. (No model.)

To all whom it may concern:

Be it known that I, CYRUS W. BRIDEGUM, of North Hector, in the county of Schuyler, in the State of New York, have invented new and
5 useful Improvements in Dumping-Cars, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

The object of this invention is to provide a
10 dumping-car which shall be more convenient and more efficient in its operation; and to that end the invention consists in the improved construction and combination of parts, as hereinafter fully described, and set forth
15 in the claims.

In the annexed drawings, Figure 1 is a side elevation of a dumping-car embodying my invention. Fig. 2 is a horizontal section taken on line *x x* in Fig. 1. Fig. 3 is an end view
20 of the said car. Fig. 4 is a vertical transverse section on line *y y*, Fig. 1. Fig. 5 is a detached plan view of the manipulating end of the dumping-lever, and Fig. 6 is a detail view of the pivot of the gate.

25 Similar letters of reference indicate corresponding parts.

A represents the truck, which may be of any suitable construction, and in fact it may constitute the frame and running-gear of a
30 car.

B denotes the body or box in which the load is carried. This body I provide with a pivotal support C on the truck, which support I preferably form of an elongated plate pivoted
35 at one edge to suitable bearings C' C', firmly secured to the top of the truck a short distance from the longitudinal central line toward the dumping side thereof. To the opposite or upper edge of said plate I hinge the
40 body B, also at a short distance from the longitudinal central line toward the dumping side of the car, as shown in Fig. 3 of the drawings.

To support the body B in a horizontal position, I firmly secure to the truck farthest from the dumping side of the body the props D D, united at the top by horizontal stringers, as shown in Fig. 1 of the drawings. Said side support is firmly sustained in its upright
45 position by means of braces D' D', extending from the top thereof toward the central portion of the truck, so as to enable the support

to resist the lateral strain incident to the dragging of the body toward the opposite side of the truck during the first part of its move- 55
ment to a dumping position. The body is further supported in its horizontal position by the lever L, fulcrumed on the truck and formed at one end with an oblique upwardly-extending arm L', upon which the dumping 60
side of the body rests when placed in a horizontal position, said lever being confined in said position by suitable locking devices connected to the truck and lever. To utilize this lever for dumping the body and for restoring 65
it to its horizontal position, I firmly attach said lever transversely to the pivoted support C, as best seen in Fig. 4 of the drawings, and provide the manipulating end of the lever with a longitudinally-adjustable extension 70
L'', which I preferably form with a bifurcation *e*, the two arms of which embrace opposite sides of the lever and are slotted longitudinally and terminated with perforated ears *e' e'*. To opposite sides of the lever L, I attach 75
longitudinal guide-rods *d d*, terminating with offsets which enter the sides of the lever and sustain the guide-rods short distances from the lever. Said guide-rods pass through the ears *e' e'*, and the ends or offsets of the guide- 80
rods adjacent to the end of the lever L pass through the longitudinal slots in the arms of the bifurcation of the extension L''. Said extension can thus be drawn out to afford greater purchase of the lever for dumping and restoring 85
the body B, and during the transportation of the car said extension can be pushed in to avoid collision with objects near the side of the track.

For locking the lever in its body-supporting position, as hereinbefore referred to, I prefer to attach to the body a catch *c* of the form of a short post, which passes through a slot *a* in the lever L near the end thereof, and is provided with an orifice above the lever, receiving through it a bolt *b*, mounted on the 90
lever and sliding longitudinally through a guide-post *b''*, fastened to the lever. To the said bolt is connected a link *b'*, which is adapted to embrace either of the posts *c b''*, and 95
thereby confine the bolt either in its locked or unlocked position. 100

B represents the gate, which is hinged to the top of the dumping side of the body B.

For locking said gate in its closed position, I hinge to the under side of the body the latch O, formed with an upwardly-projecting shoulder, by which it engages the exterior of the bottom of the gate. To drop the said latch automatically with the dumping of the body B, I form the latch with a downwardly and inwardly extending lever O', which strikes the top of the truck during the operation of dumping the body, and thus throws the latch out of engagement. In moving the body back to its horizontal position the gravity of the lever O restores the latch to its normal position to re-engage the gate as it falls into its closed position. To cause the gate to fall more positively into said position and also allow it to be readily removed when desired, I attach to the top of the body the brackets I' and rigidly mount thereon the U-shaped bearings I, standing with their open ends facing the opposite sides of the body. The free ends of the said bearings are provided with vertical bolt-holes for the bolts l, which confine the journals i of the gate in said bearings. Said journals are formed with vertical leaves j, to which the gate is attached.

To guard against the spreading of the top of the body B, I form each of the journals i i with shoulders i' i', which abut against opposite sides of the bearings I I. These bearings are set a sufficient distance from the dumping side of the body to cause the gate B to fall with its bottom tightly against the body when the latter is turned from its inclined or dumping position to a horizontal position.

I attach to each end of the car two bumpers F F, disposed at opposite sides of the line of draft and with a space between them, and place in said space draw-hook G, secured to cross-bars attached to the bumpers. Said position of the draw-hook in relation to the bumpers renders the operation of coupling the car more safe.

To guard against excessive concussion when abutting against another car, I form the bumpers F F with recesses f f in their outer ends and secure in said recesses cushions g g of rubber or other suitable material.

The coupling-chain h I permanently connect to an eye in the draw-hook G. The car is thus always in condition to be coupled to another car.

What I claim as my invention is—

1. In a dumping-car, the combination, with the truck, of a body-support pivoted upon the central portion of the truck, a stationary support upon the truck farthest from the dumping side of the car, the body mounted on the pivoted support and having its discharging-gate hinged to the top of the body, and a latch for locking said gate hinged to the body and provided with a lever adapted to strike the truck and thereby unlock the gate, as set forth.

2. The combination, with the truck, of a body-support pivoted upon the central portion of

the truck, a stationary support upon the truck farthest from the dumping side of the car, the body hinged to the pivoted support, and a lever attached to said support and supporting the body at its dumping side, as set forth.

3. The combination, with the truck, of a body-support pivoted upon the central portion of the truck, a stationary support upon the truck farthest from the dumping side of the car, the body hinged to the pivoted support, the discharge-gate hinged to the top of the body, a latch for locking the gate provided with a lever adapted to strike the truck and unlock the gate, and a lever attached transversely to the pivoted support and supporting the dumping side of the body, substantially as described and shown.

4. In combination with the truck and body pivotally supported thereon, a lever for dumping the body, and an extension of said lever adjustably connected thereto, as set forth.

5. In combination with the truck and body pivotally supported thereon, a lever for dumping the body provided with longitudinal guides, and a lever-extension movably connected to said guides, as set forth and shown.

6. In combination with the truck and body pivotally supported on the central portion of said truck, a stationary body-support on one side of the truck, a lever for dumping the body fulcrumed on the truck and supporting the body at the side opposite to the stationary support, and a lock confining the lever in its body-supporting position on the truck, as set forth.

7. In combination with the truck and body pivotally supported thereon, the lever L, catch c, attached to the truck, and the sliding bolt b, connected to the lever, substantially as and for the purpose set forth.

8. In combination with the truck and body pivotally supported thereon, the lever L, catch c, attached to the truck, the sliding bolt b, connected to the lever, and the link b', connected to the bolt and adapted to engage the afore-said catch and retain the bolt in its locked position, substantially as described and shown.

9. In combination with the truck, the central support C, pivoted to the truck, the side support D, mounted rigid on the truck, the body B, hinged to the said central support, and the lever L, rigidly attached to the central support and formed with the oblique upwardly-extended arm L', supporting the body at its dumping side and provided at the opposite end with the slot a, the catch c, secured to the truck and passing through said slot and provided with an orifice above the lever, the sliding bolt b, passing through said orifice, and the link b', connected to said bolt and adapted to embrace the upper end of the afore-said catch, substantially as described and shown.

10. The combination, with the lever L, of the guide-rods d d, attached to opposite sides of said lever, and the extension L'', having the bifurcation e e, slotted longitudinally and

terminating with perforated ears *e' e'*, receiving through them the aforesaid guide-rods, substantially as described and shown.

11. The combination, with the body B, of
5 the U-shaped bearing I, disposed with its free ends facing the opposite side of the body and having vertical bolt-holes in said ends, the journal *i*, mounted in the aforesaid bearing and formed with shoulders *i' i'* and with leaves
10 *j j*, the bolt *l*, passing through the bolt-holes

of the bearing I, and the gate B', attached to the aforesaid leaves, substantially as described and shown.

In testimony whereof I have hereunto signed my name this 31st day of December, 1891.

CYRUS W. BRIDEGUM. [L. s.]

Witnesses:

J. W. TOWNSEND,
CALVIN V. BRIDEGUM.