

No. 715,488.

W. A. LATHROP.
CAR DUMP.

Patented Dec. 9, 1902.

(Application filed Oct. 18, 1900.)

(No Model.)

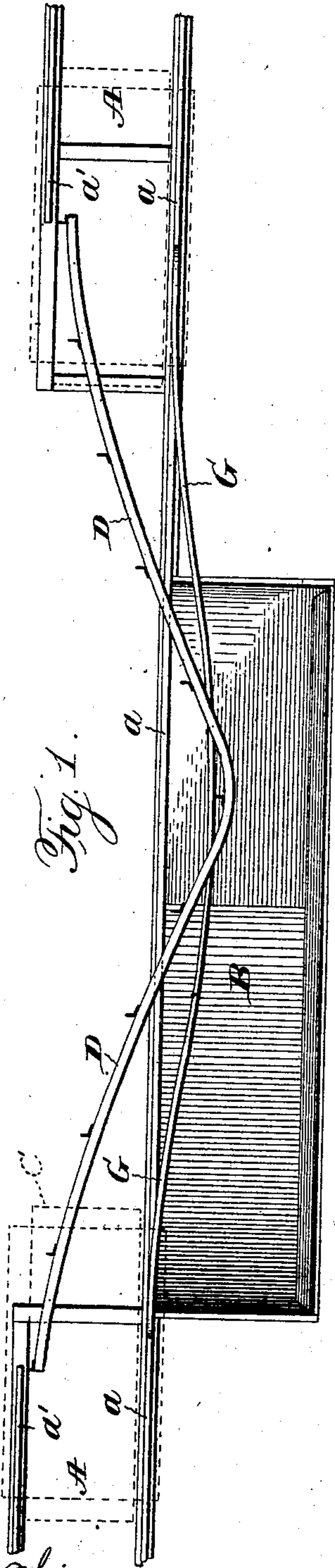


Fig. 1.

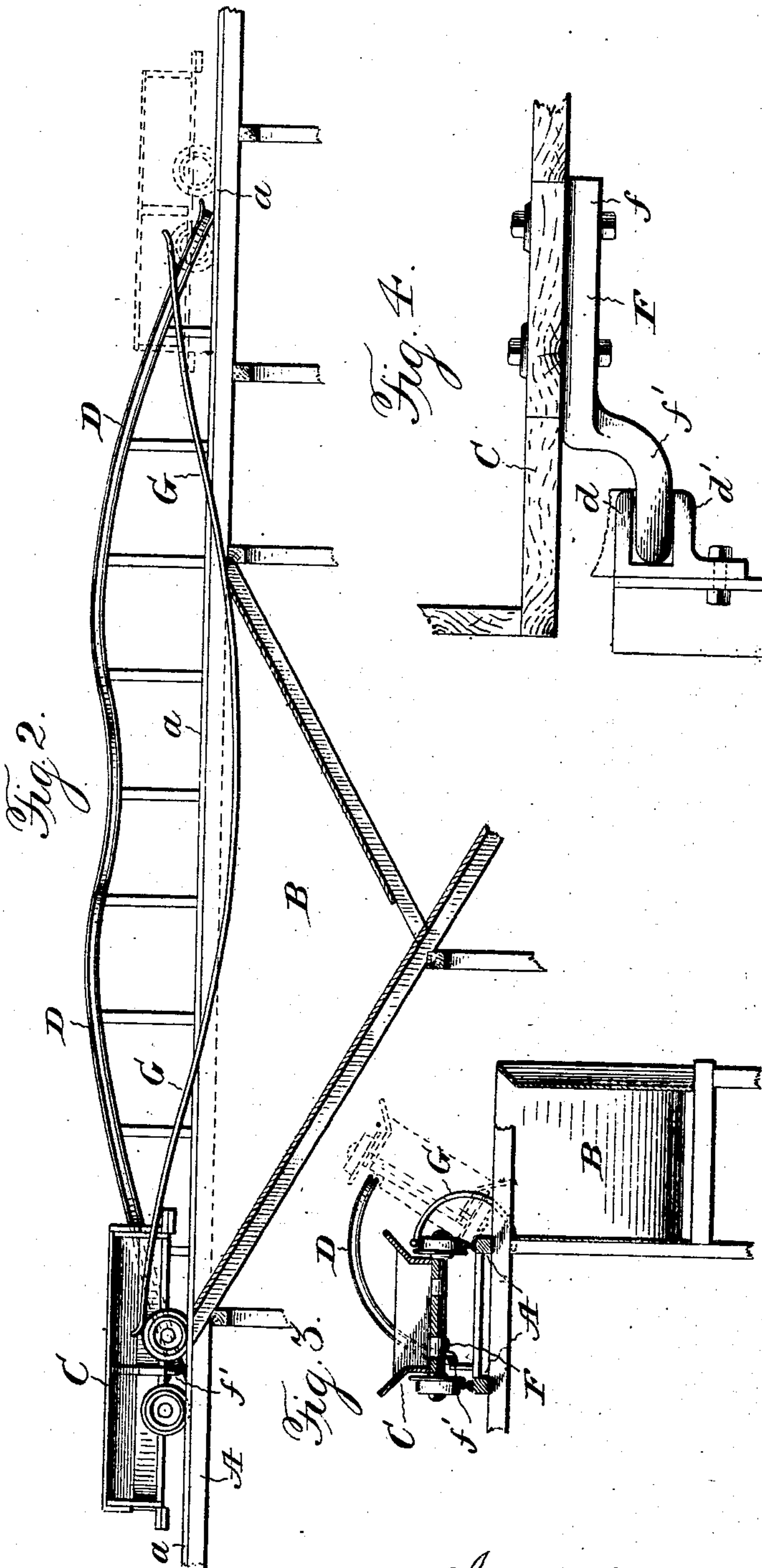


Fig. 2.

Fig. 4.

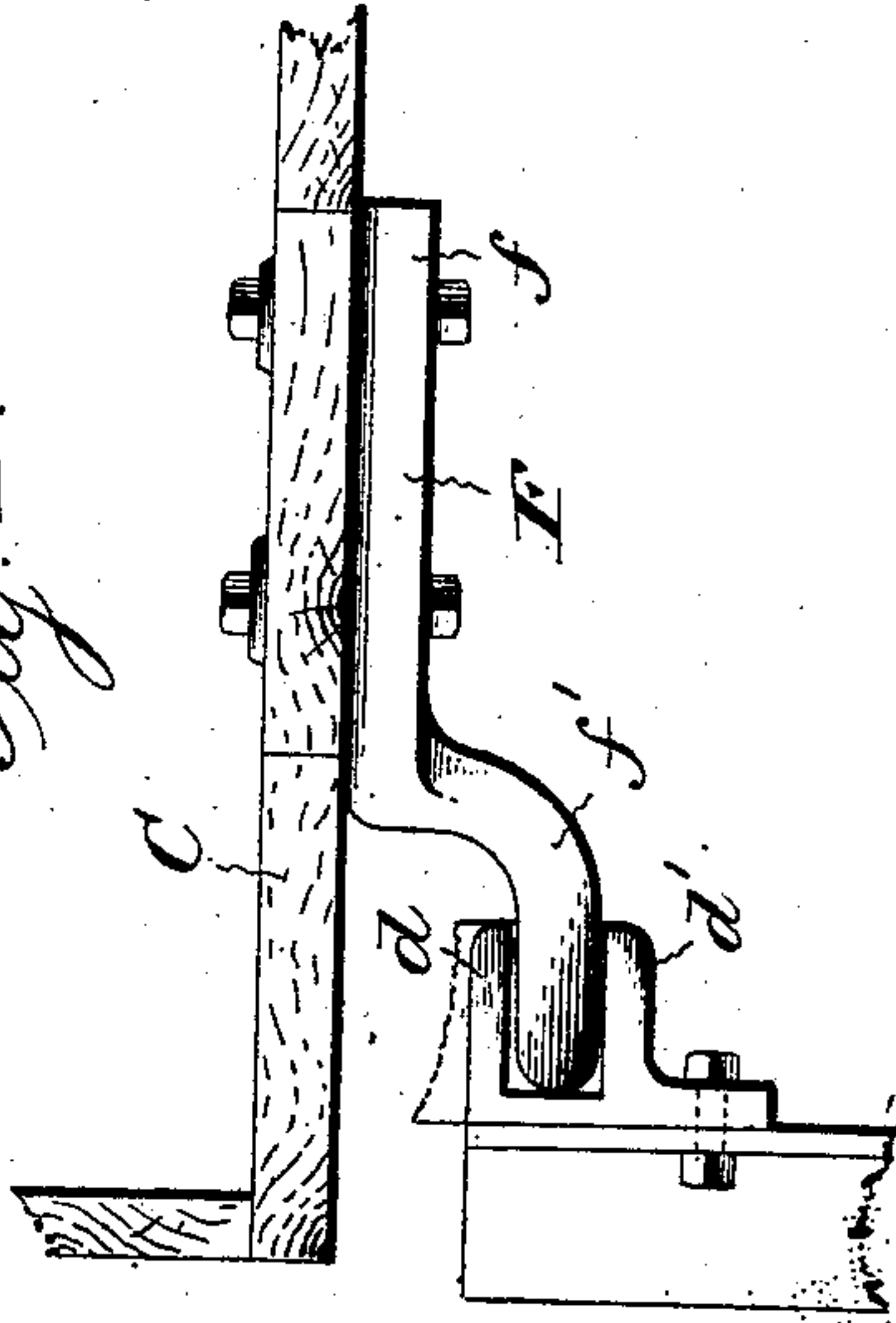
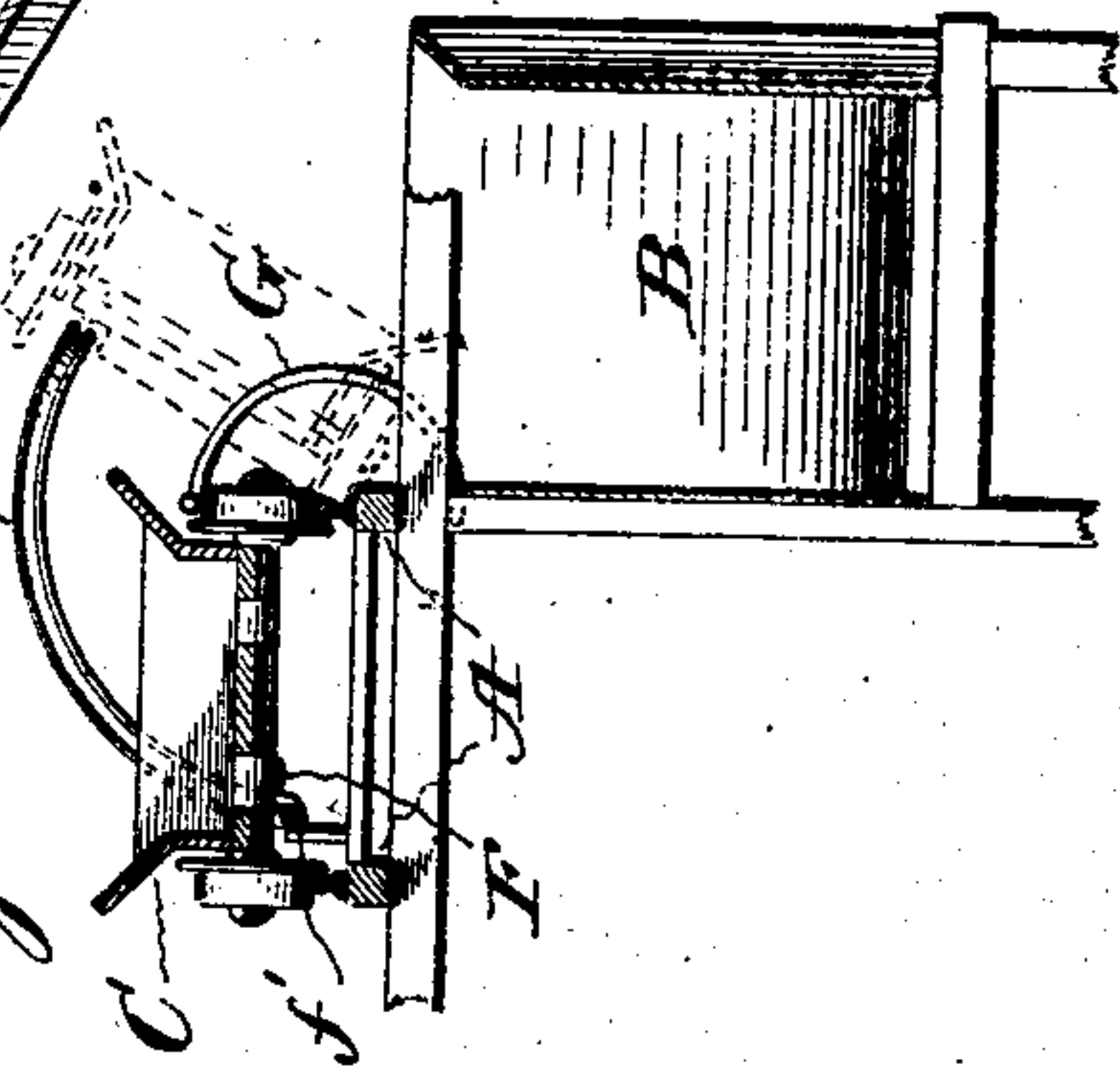


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM A. LATHROP, OF WILKESBARRE, PENNSYLVANIA.

CAR-DUMP.

SPECIFICATION forming part of Letters Patent No. 715,488, dated December 9, 1902.

Application filed October 18, 1900. Serial No. 33,505. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. LATHROP, of Wilkesbarre, in the county of Luzerne, and in the State of Pennsylvania, have invented certain new and useful Improvements in Car-Dumps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

10 Figure 1 is a plan view of my car-dump. Fig. 2 is a side elevation thereof. Fig. 3 is an end elevation; and Fig. 4 is a cross-section of a fragment of a car and the tilting-rail, the plate on the car which engages the tilting-rail being shown in end elevation.

15 The object of my invention has been to provide a car-dump by which the contents of a loaded car can be readily transferred to a receptacle therefor or other place of deposit; and to such ends my invention consists in the car-dump hereinafter specified.

In carrying my invention into practice I provide a structure comprising a track A for the cars to be dumped, a receptacle B beside
25 such track, and means for tipping the car to empty it of its contents as it passes such receptacle. The track A preferably consists of a rail *a* on the side toward which the dumping is to take place and a rail *a'* on the opposite side. Such track A may be horizontal or
30 inclined, as may be more convenient. The rail *a* is continued across the dump to the track A, by which the car after being emptied is conveyed away from the dump. The rail
35 *a'* may also be continued across the dump, but is preferably omitted in the portion of the track where the dumping takes place. The receptacle B is shown in the side elevation as placed on the near side of the track;
40 but it can with equal adaptability be placed on the opposite side thereof. The car C is of the usual construction, the body of the car being positively connected to the axles thereof—i. e., so that the car-body cannot
45 fall away from the axle when the car is inverted. A plate F is secured to the under side of the bottom of the car or other convenient location thereon, such plate consisting of a base *f*, which is bolted to the car, and of
50 a flange *f'*, which is bent down from the bottom of the car and is then extended parallel thereto. A tipping-rail D extends from a

point near the rail *a'* on one side of the receptacle B to a point near such rail on the opposite side of such receptacle. Such rail is
55 provided with upper and lower flanges *d* and *d'*, respectively, both of which flanges are preferably extended the whole length of such rail, but only one of which is essential at any given point. For instance, the lower flange
60 *d* is the only flange in action from the beginning of the tipping-rail to a point nearly vertically over the rail *a*. From such point to the point where the tipping-rail crosses back over the rail *a* the flange *d'* is the only flange
65 in action, and for the remainder of the length of the tipping-rail the flange *d* is the effective flange. The tipping-rail is curved upward and toward the receptacle B, so that the car
70 is raised on the side toward such rail and is turned about the rail *a* as an axis until it is sufficiently inverted to completely empty its contents into the said receptacle, after which the tipping-rail is curved back and down toward the rail *a'*, so that the car is restored to
75 its normal position, with its farther wheels on the rail *a'*. The rail D is supported by any form of bracing which allows the car to pass. I have shown it as supported by vertical bars rising from the track-support. In order to
80 insure that the car-wheels which engage the rail *a* shall remain in contact therewith, a guard-rail G is provided, which extends from a point just above the position of the front car-wheel at the time when the tipping is begun to a position just above the rear car-wheel when such action is ended. The rail
85 G is bent outward and down to follow the path taken by the upper side of the face of the car-wheel during the tipping operation. Such rail is supported in any desired manner
90 which does not interfere with the travel of the car. I have shown it as supported by brackets secured to the track-support and extending outside of the path of the wheels. In their extreme positions the near car-wheels
95 are supported by their flanges, which rest on the rail *a* and on the guard-rail.

In the operation of my device the car propelled in any desired manner approaches the
100 dump from either direction on the rails *a* and *a'* until it reaches the end of the tilting-rail D, at which point the flange *f'* on the car enters between the flanges on the tilting-rail

and the upper side of the wheel-face comes into contact with the guard-rail G. The further travel of the car moves the flange f' along the tilting-rail, which causes the car to turn about the rail a as an axis, the guard-rail meanwhile keeping the car-wheels on the rail a in contact with such rail. Such action continues until the car has been turned sufficiently over to cause its contents to fall into the receptacle B, after which the tilting-rail restores the car to its normal position by turning it in the reverse direction about the rail a as an axis. By the time the flange f' has reached the end of the tilting-rail the axles of the car are horizontal and the wheels are in contact with both track-rails a and a' . The emptied car can now be run in the usual manner on the said rails.

My car-dump has great advantages in its simplicity, in its automatic action, and in its speed of action, the car being dumped without stopping it in its travel along the track.

Changes other than those above indicated can be made which do not involve a departure from the scope of my invention. For instance, the tipping-rail can be made with a single flange and the plate F provided with two flanges, between which the flange of the tipping-rail is received. In place of the guard-rail a rail similar to the tipping-rail can be provided, and a plate similar to the plate F can be secured to the car in position to engage such rail.

Having thus described my invention, what I claim is—

1. The combination with a car, of a track having a substantially horizontal rail, a flange which engages and laterally tips the car, and a flange which prevents tipping beyond the desired degree, substantially as and for the purpose described.

2. The combination with a car, having a projection thereon, of a track having a substantially horizontal rail, and a tipping-rail having flanges which engage said projection

and laterally tip the car while in transit, substantially as and for the purpose described.

3. The combination with a car, of a track having a substantially horizontal rail, and a stationary tipping-rail which engages and tips the car about said horizontal rail and which extends over said horizontal rail, substantially as and for the purpose described.

4. The combination with a car, of a track having a substantially horizontal rail, a stationary tipping-rail which engages and tips the car about said horizontal rail and which extends over said longitudinal rail, and means for maintaining the wheels of such car in contact with said horizontal rail, substantially as and for the purpose described.

5. The combination with a car, of a track having a substantially horizontal rail, a stationary tipping-rail which engages and tips the car about said horizontal rail and which extends over said horizontal rail, and a guard-rail for maintaining the wheels of such car in contact with said horizontal rail, substantially as and for the purpose described.

6. The combination with a car, having a projection thereon, of a track having a substantially horizontal rail, a tipping-rail having flanges which engage said projection and laterally tip the car, and a guard-rail for maintaining the wheels of such car in contact with said horizontal rail, substantially as and for the purpose described.

7. The combination with a car, of a track having a supporting-rail, and a stationary tipping-rail which engages and tips the car about said supporting-rail, and which extends over said supporting-rail, substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand this 8th day of October, 1900.

WILLIAM A. LATHROP.

Witnesses:

FRED E. W. CHASE,
LAWRENCE B. JONES.