No. 688,727. Patented Dec. 10, 1901.

C. GESKE & C. MILLER.

CAR TIPPLE.

(Application filed July 17, 1901.)

(No Model.) 3 Sheets—Sheet 1.

Fig. 1.

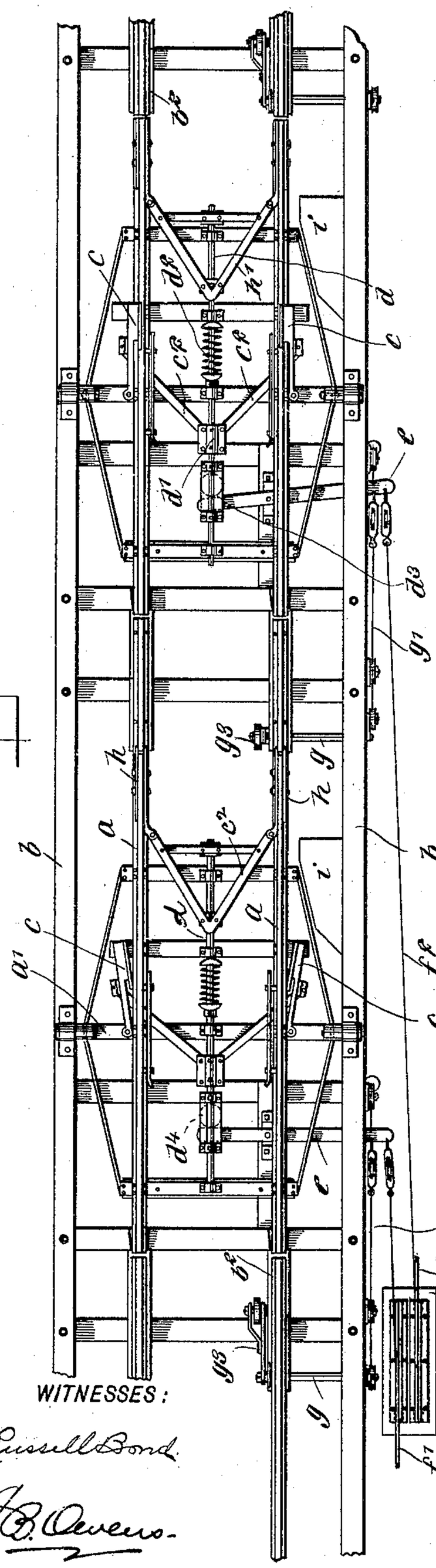
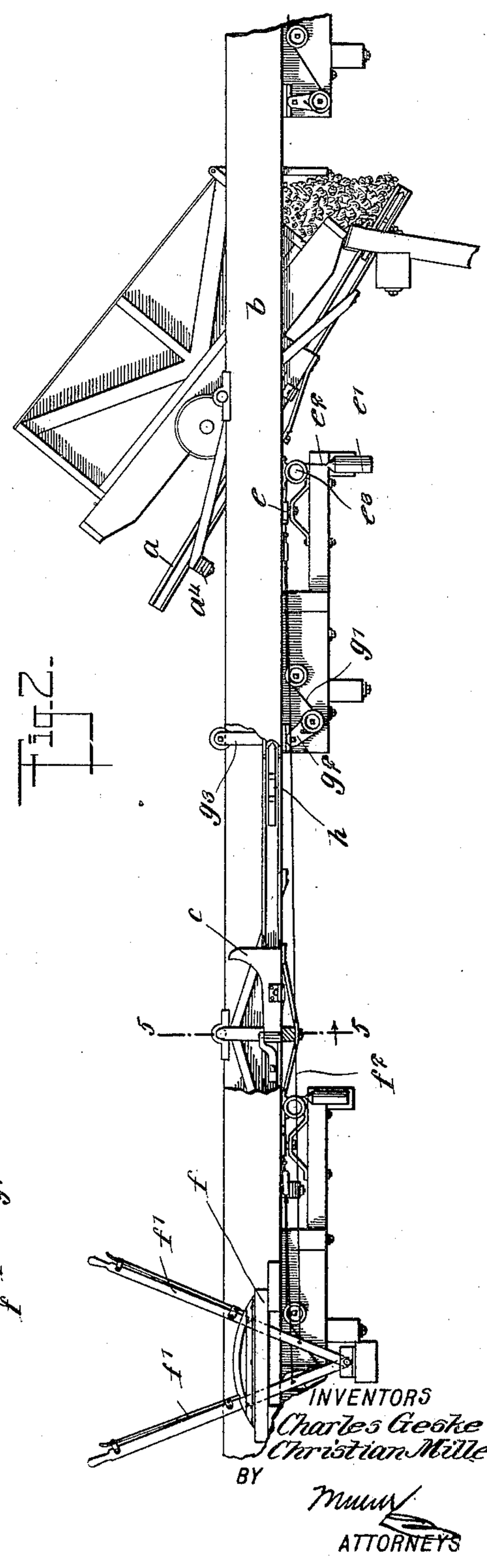


Fig. 2.



WITNESSES:

A. Russell Bond.

J. B. Owens.

INVENTORS

Charles Geske

Christian Miller

BY

Munn & Co.

ATTORNEYS

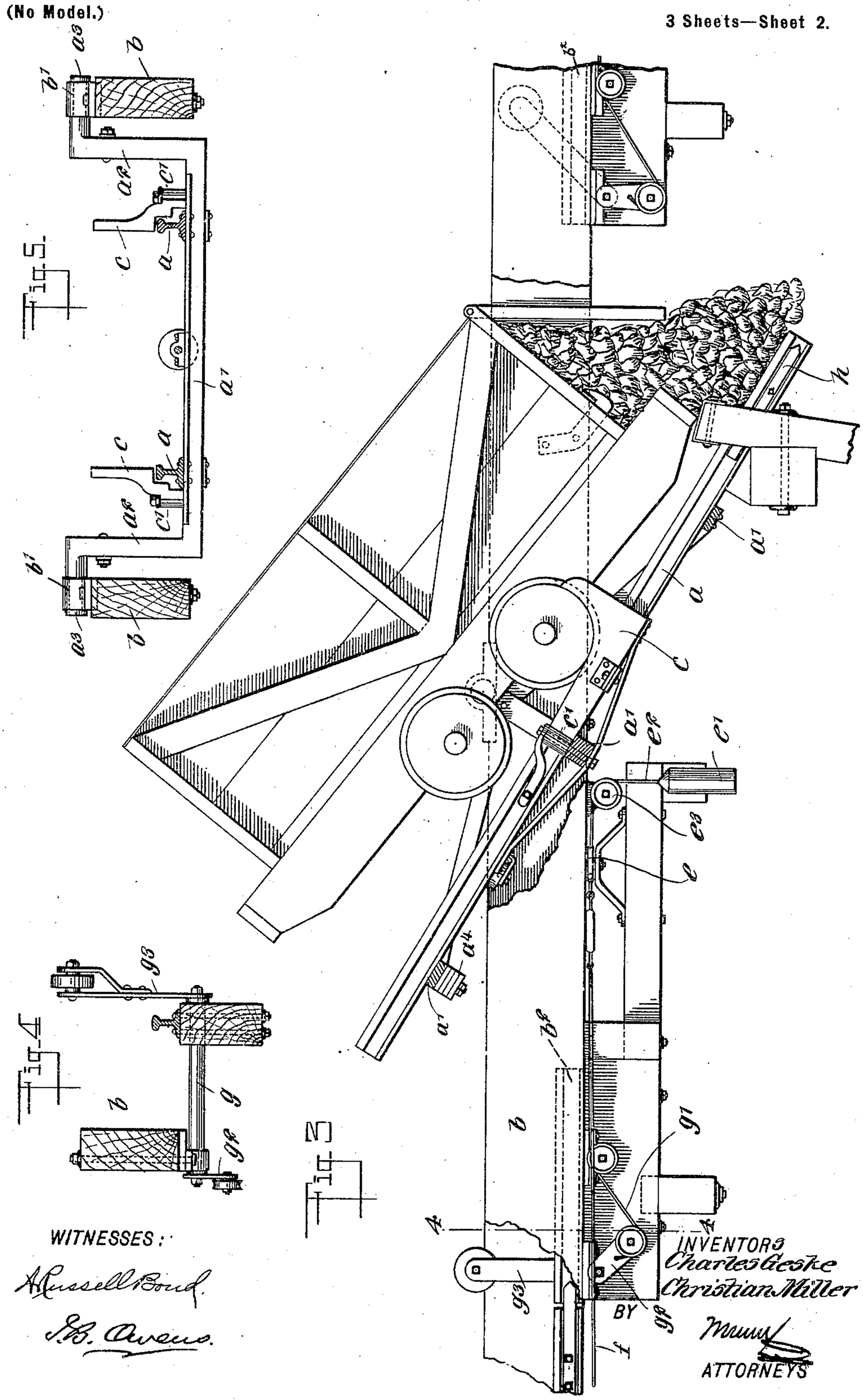
No. 688,727. Patented Dec. 10, 1901.

C. GESKE & C. MILLER.

CAR TIPPLE.

(Application filed July 17, 1901.)

(No Model.) 3 Sheets—Sheet 2.



No. 688,727. Patented Dec. 10, 1901.

C. GESKE & C. MILLER.

CAR TIPPLE.

(Application filed July 17, 1901.)

(No Model.) 3 Sheets—Sheet 3.

Fig. 6.

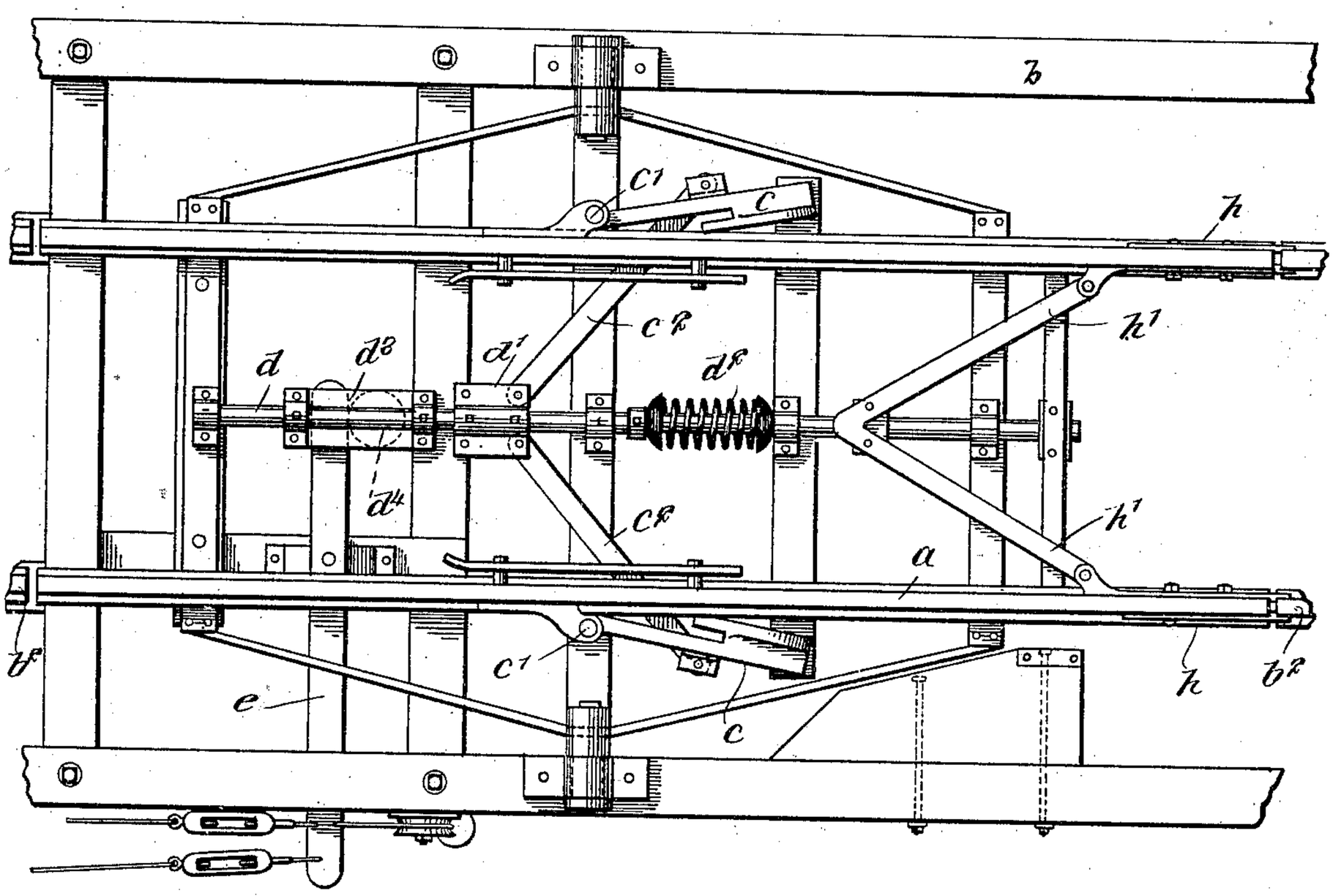
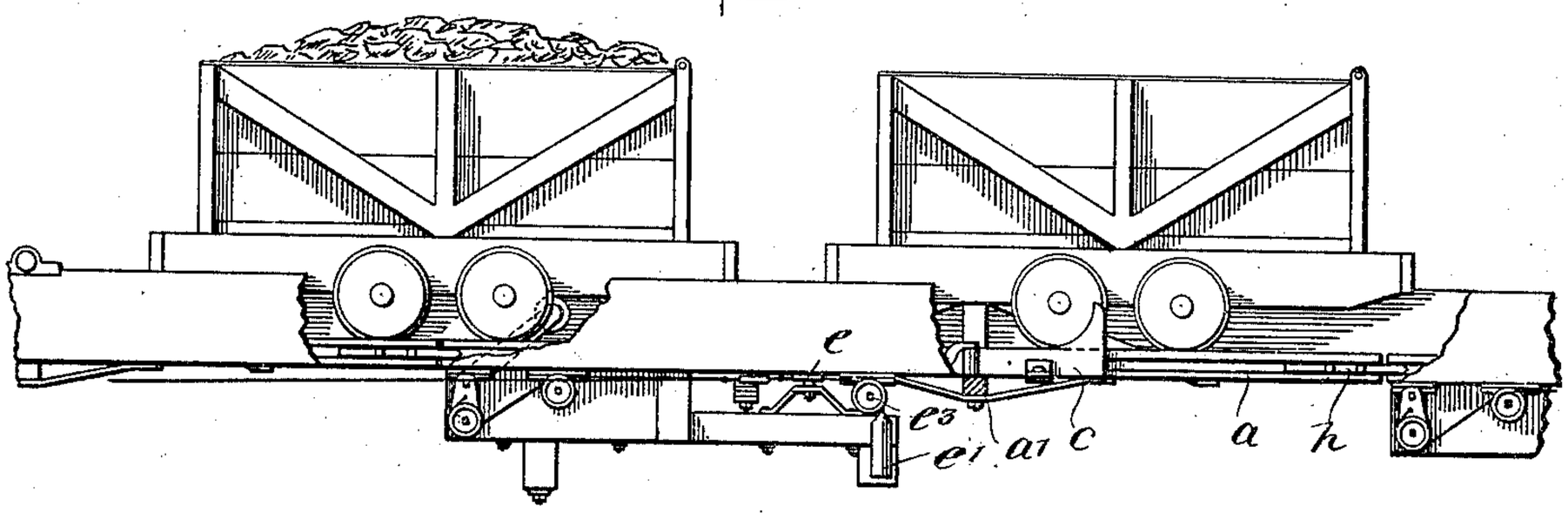


Fig. 7.



WITNESSES:

A. Russell Bond.

F. B. Owens.

INVENTORS
Charles Geske
Christian Miller
BY
Munn & Co
ATTORNEYS

UNITED STATES PATENT OFFICE.

CHARLES GESKE AND CHRISTIAN MILLER, OF SEATTLE, WASHINGTON.

CAR-TIPPLE.

SPECIFICATION forming part of Letters Patent No. 688,727, dated December 10, 1901.

Application filed July 17, 1901. Serial No. 68,618. (No model.)

To all whom it may concern:

Be it known that we, CHARLES GESKE and CHRISTIAN MILLER, citizens of the United States, and residents of Seattle, in the county of King and State of Washington, have invented a new and Improved Car-Tipple, of which the following is a full, clear, and exact description.

This invention relates to a means for automatically dumping railway-cars, and comprises certain novel elements by means of which the cars may be run successively onto the tipple and successively dumped, the operations being such that the one car is automatically pushed off of the tipple by the car next following, which latter car is then dumped in its turn.

This specification is a specific description of one form of the invention, while the claims are definitions of the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the invention, showing two of the tipples arranged immediately adjacent to each other. Fig. 2 is a side elevation of the same with parts broken away. Fig. 3 is a side elevation illustrating the operation of dumping. Fig. 4 is a section on the line 4 4 of Fig. 3. Fig. 5 is a section on the line 5 5 of Fig. 2. Fig. 6 is an enlarged plan view of the tipple, and Fig. 7 is a reduced side elevation illustrating the operation of the tipple with respect to the loaded and unloaded cars.

The tipple is designed especially for use in mines, although obviously it could be used in other connections. Owing to our invention any number of these tipples may be constructed one after the other on a single line of track. In Figs. 1 and 2 we have shown two. This provides for dumping the contents of the cars at any point desired.

Each tipple comprises a cradle made up of rail-sections a, joined by cross-ties a', the middle of said cross-ties being formed at its ends with hangers a^2, having laterally-projected trunnions a^3, rockably mounted in bearings b', carried on the string-pieces b of the track or trestle-work. The end cross-ties a' are joined by diagonal stringers a^5 with the hangers a^2. The cradle thus mounted is capable of swinging from the horizontal position shown at the left-hand end in Fig. 2 to the tilted position shown at the right-hand portion of said view. The rail-sections a are adapted to register with the rail-sections b^2 of the railway, so that the cars may pass continuously over the parts a and b^2 when they are in proper adjustment. a^4 indicates a counterweight, which returns the cradle, with the empty car, to its horizontal position. Mounted at each side of the cradle is a wheel-chock c. These chocks are pivotally mounted on vertical axes, (indicated at c' in the drawings,) so that the chocks may swing sidewise into and out of the path of the wheels of the car. When the chocks are in the position shown at the left-hand end of Fig. 1, the car may pass unobstructed over the rail-sections a; but when the chocks are thrown inward, as shown at the right-hand portion of Fig. 1, they engage the wheels of the car and arrest the further movement thereof. The chocks c have bars c^2 pivotally connected thereto, and these bars extend inward diagonally toward each other and are connected to a longitudinally-reciprocal rod d through the medium of a flanged sleeve d', fastened to the rod, and to which flanged sleeve the bars c^2 are pivoted. The rod d is held on the cradle to reciprocate longitudinally thereof and is pressed leftward, as in Fig. 1, by means of an expansive spring d^2, bearing between a transverse bar a^5 on the cradle and a collar d^6 on the rod d'. This spring serves, therefore, normally to hold the chocks c in operative position. The rear end portion of the rod d has a box d^3 fixed thereto, and this box carries, as best shown in Fig. 6, a roller d^4, which is engaged by a lever e, fulcrumed on the bed of the road or trestle. This lever e is so arranged that when the cradle is in horizontal position the lever engages the roller d^4, and by moving the lever the rod d may be slid in its bearings contrary to the pressure of the spring d^2. When, however, the cradle rocks, the roller d^4 is moved out of engagement with the lever e and the action of the lever on the roller is *nil*.

The lever e has a weight e' connected therewith through the medium of a cord e^2 and a guide-sheave e^3. This weight serves to hold

the lever normally in the position shown at the right in Fig. 1 and in Fig. 3—that is to say, to hold the lever with its end which acts on the roller d^4 drawn backward—so that when the cradle returns to its horizontal position the roller d^4 drops into proper engagement with the lever and does not hit on the side thereof.

f indicates a stand for a lever or levers. In Figs. 1 and 2 we have shown two levers, (designated f'.) These levers are one for each of the tipples shown. The levers f' may be arranged separately from each other, or if arranged as preferred they will be all put immediately adjacent in a single stand, so that one person may readily actuate them. Each lever f' has a cord f^2 attached, this cord extending to the lever e. The lever e further carries a cord g', which is connected with a crank g^2 on a rock-shaft g, mounted in the bed of the railway and having an upwardly-projected arm g^3, adapted to be struck by the car and thrown downward in the manner indicated in Fig. 7.

The rail-sections a of the cradle are normally located in horizontal position, so that they will aline with the sections b^2 of the track-rails, and these parts a and b^2 may be held rigidly together by means of latch-plates h, which are slidably mounted at each side of each rail-section and connected together in pairs by transverse bolts passing through slots in the web-sections a of the cradles. These latch-plates are capable of being projected beyond the rail-sections a to engage the sections b^2 at opposite sides of the webs between the balls and base-flanges thereof, thus locking said parts together. The latch-plates h are pivotally connected to bars h', which extend inward to and have rigid connection with the rod d. This rod under the action of the spring d^2 serves normally to throw the latch-plates h into inactive position.

When a lever f' is thrown to the left-hand position, (see Figs. 1 and 2,) it throws the lever e in such a manner as to move the rod d against the action of the spring d^2, thus throwing outward the chocks c and throwing the latch-plates h into active position. This not only adjusts the cradle so that a car may pass unobstructedly over it, but it also locks the cradle horizontally, so that no impediment will be offered by the rails to the passage of the car. The above-described movement of the lever f' also results in the slackening up of the cord g', thus allowing the arm g^2 to fall into horizontal position, so that it cannot be struck by the car in passing over the platform of the tipple. When, however, the lever f' is thrown into the opposite position, (the right-hand position in Figs. 1 and 2,) the cord f^2 will be slackened and the lever e will be allowed to assume the position which is influenced by the spring d^2—that is to say, such position as will permit the chocks c to swing inward into active position and the latch-plates h to move backward into inactive position—thus allowing the cradle to tilt. Now when a car rolls on a tipple thus adjusted it first strikes the arm g^3 of the shaft g, and during the time that this arm is engaged the latch-plates h will be thrown into active position and the chocks c moved outward. (See left-hand end of Fig. 1.) When, however, the wheels of the car pass the arm g^3, the parts will again assume the position shown at the right-end end in Fig. 1 and the car in rolling on the platform will engage its wheels on the chocks c, thus arresting the movement of the car. The weight of the loaded car will now cause the tipple to rock, as indicated in Figs. 2 and 3, and by the action of a cam-block i on suitable latch mechanism on the car the car will be automatically opened and its contents dumped, as illustrated in the drawings. As soon as the car is emptied, the counterweight a^4 returns the cradle to its horizontal position, and the parts then lie as shown at the right-hand end of Fig. 1. Now when the next car passes along the track and strikes the arm g^3 it will momentarily throw open the chocks c and operate the latch-plates h. The parts then assume the position shown in Fig. 7. After this the loaded car strikes the empty car and before the chocks c have had time to return into engagement with the wheels of the empty car the empty car will be driven off the platform. The loaded car will now be passed onto the platform and will be stopped by the chocks c, whereupon the loaded car will then be dumped. The above operation may be repeated as often as desired. It will be seen that the entire action is automatic, it being only necessary to lock or unlock the tipple by actuating the levers f'. This done, the operation of dumping may go on as long as desired. As before intimated, any number of tipples may be placed in line, one after another, on a single track, and each tipple being provided with a lever f', these levers may be arranged immediately adjacent to each other, so that one operator standing by the levers may throw into or out of action any of the tipples desired, thus dumping the contents of the various cars in their proper places.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. In a car-tipple, the combination of a rocking platform, counterbalanced to lie normally in a horizontal position, means on the platform for releasably holding the car, said means being normally active, means for releasably locking the platform horizontally, said means being normally inactive, and operating devices for both of said means, the operating devices being actuated by an approaching car.

2. In a car-tipple, the combination of a rocking platform counterbalanced to lie normally in a horizontal position, means on the platform for releasably holding the car, said means being normally active, means for releasably locking the platform horizontally,

said means being normally inactive, operating devices for both of said means, the operating devices being actuated by an approaching car, and hand-operated devices for throwing the car-holding means into inactive position and the platform-locking means into active position.

3. In a car-tipple, the combination of a tilting platform counterbalanced to lie normally horizontal, a car-chock, a lock for holding the platform horizontal, means actuating the chock and lock in unison to hold the chock normally active and the lock normally inactive, and two operating devices for said means, one being actuated by an approaching car and the other being momentarily actuated.

4. In a car-tipple, the combination of a platform counterbalanced to lie normally horizontal, a car-chock on the platform, a lock device for releasably locking the platform in a horizontal position, means actuating the chock and lock in unison to hold the chock normally active and the lock normally inactive, and a device actuated by an approaching car for actuating said means, whereby to temporarily throw the chock into inactive position and the latch into active position.

5. In a car-tipple, the combination of a rocking platform, means on the platform for releasably holding the car thereon, means for releasably holding the platform against rocking movement, and operating devices for both of said means, the said operating devices being in the path of an approaching car to be actuated thereby.

6. In a car-tipple, the combination of a tilting platform, a wheel-chock thereon, a lock for holding the platform normally horizontal, means actuating the chock and lock, to hold the chock normally active and the lock normally inactive, a lever connected with said means, and a device actuated by an approaching car for imparting movement to the lever, for the purpose specified.

7. In a car-tipple, the combination of a tilting platform, a wheel-chock thereon, a lock for holding the platform normally horizontal, means actuating the chock and lock, to hold the chock normally active and the lock normally inactive, a lever connected with said means, a device actuated by an approaching car for imparting movement to the lever, for the purpose specified, and a manually-operative device in connection with the lever, for actuating it.

8. In a car-tipple, the combination of a tilting platform, wheel-chocks mounted thereon, means for locking the platform normally horizontal, a sliding bar to which the chocks and said locking means are connected, a spring actuating said rod to hold the chocks normally active and the lock thereon inactive, a lever arranged to actuate the sliding rod when the platform is horizontal, and means for operating the lever.

9. In a car-tipple, the combination with a railway-track having a brake therein, of a rocking cradle, set in said brake and comprising rail-sections registering with the rails of the track, wheel-chocks mounted on the cradle, a lock for holding the cradle with its rail-sections in registry with the rail-sections of the track, a spring-actuated member connected with the chock and with the lock, for the purpose specified, a lever serving to actuate said spring-actuating member, means connected with the lever for operating it by an approaching car, and an additional means connected with the lever for operating it momentarily.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

CHARLES GESKE.
CHRISTIAN MILLER.

Witnesses:
BURTON E. BENNETT,
W. T. GIBSON.