No. 796,763. PATENTED AUG. 8, 1905.

A. SCHMITT.

DUMPING WAGON.

APPLICATION FILED FEB. 1, 1905.

2 SHEETS—SHEET 1.

Fig: 1.

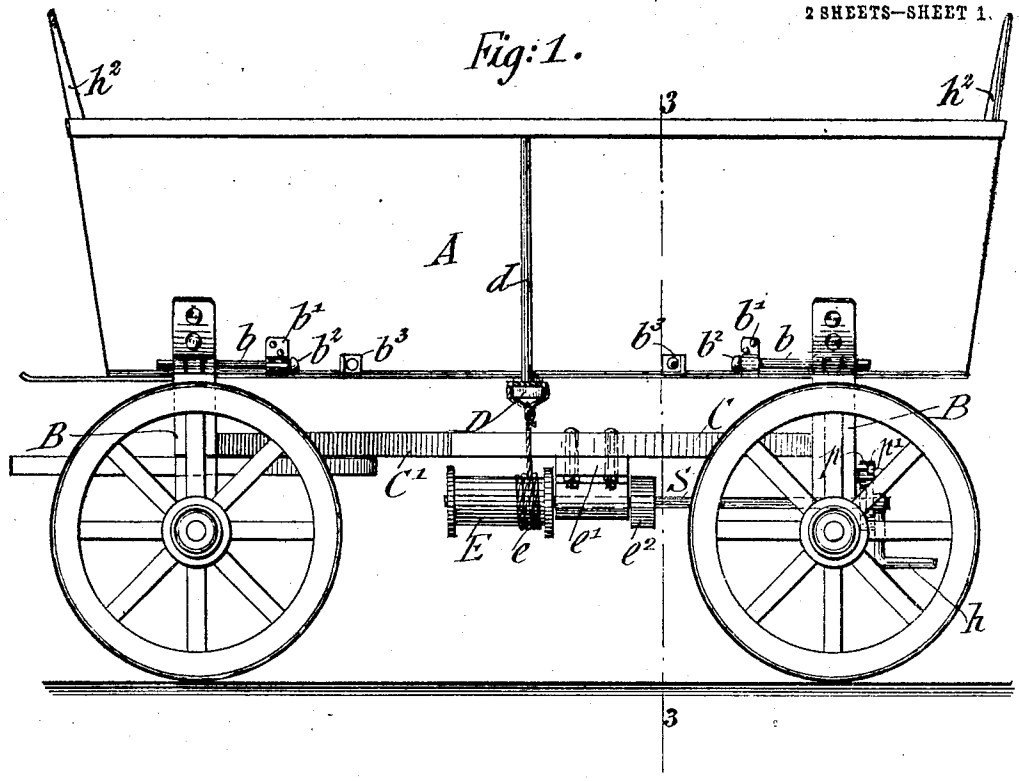
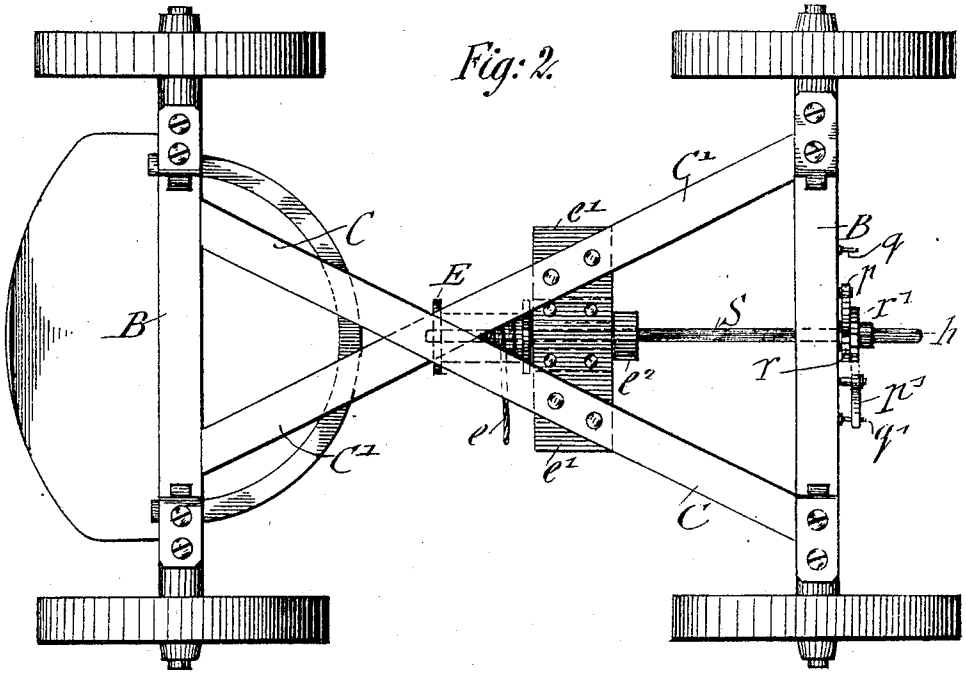


Fig: 2.



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2 SHEETS—SHEET 2

Fig: 3.

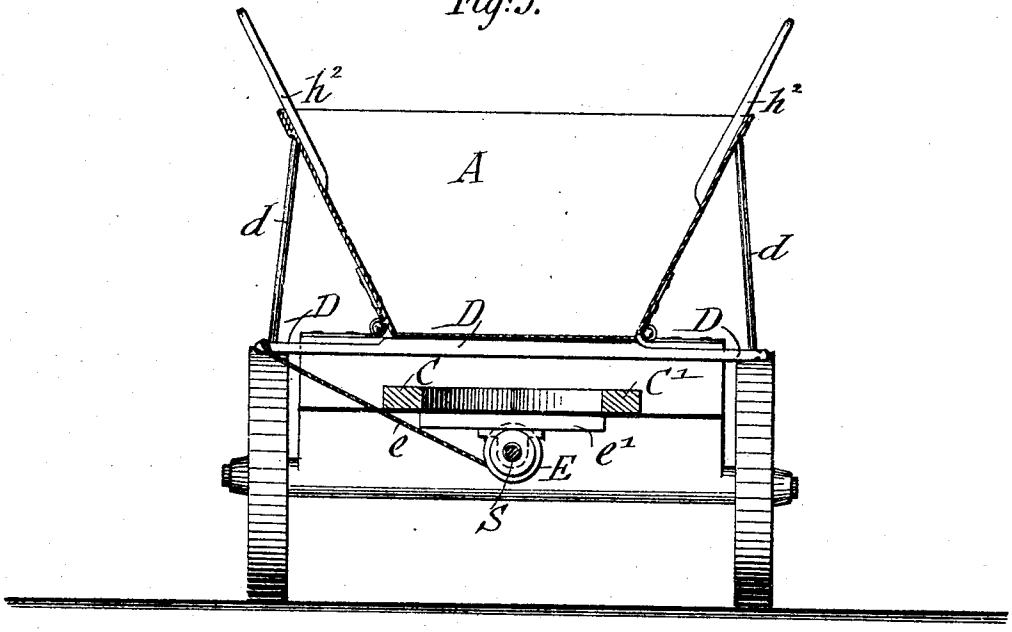
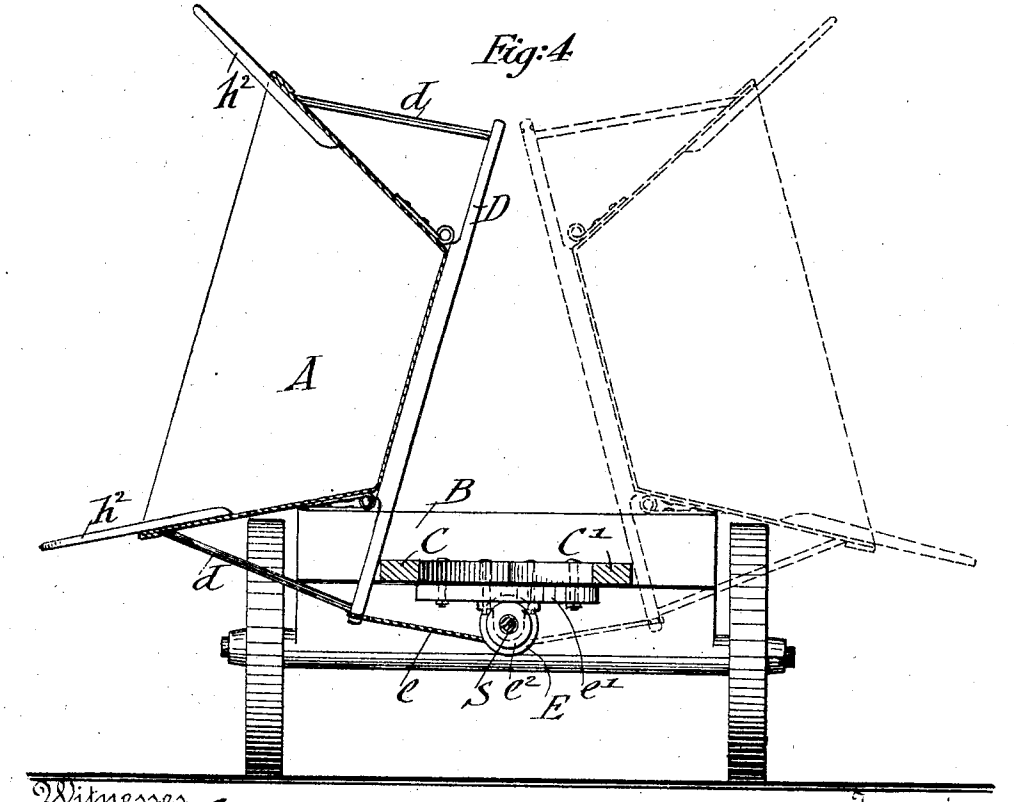


Fig: 4



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DUMPING-WAGON.

No. 796,763. Specification of Letters Patent. Patented Aug. 8, 1905.

Application filed February 1, 1905. Serial No. 243,624.

To all whom it may concern:

Be it known that I, ANDREW SCHMITT, a citizen of the United States, residing in New York, borough of Brooklyn, in the State of New York, have invented certain new and useful Improvements in Dumping-Wagons, of which the following is a specification.

This invention relates to dumping-wagons, and has among its objects the provision of a wagon of this type in which the load may be dumped to either side in an easy and convenient manner.

A further object of the invention is to provide a dumping-wagon in which the load when dumped does not interfere with the running-gear of the wagon.

The invention also contemplates the provision of improved means for effecting the dumping operation in such a manner that the body may be tilted into almost vertical position, so that the contents of the same will be completely dumped, the wagon-body during this operation being firmly supported.

With these and other objects and advantages in view the invention consists in the novel features and combinations of parts to be hereinafter described, and recited in the claims.

In the accompanying drawings, illustrative of a preferred form of the invention, Figure 1 is a side elevation of the improved dumping-wagon. Fig. 2 is a plan view of the same, the body being removed in order to clearly show the mounting of the dumping mechanism. Fig. 3 is a vertical transverse section on line 3 3, Fig. 1; and Fig. 4 is a similar section showing the body dumped to one side, the position of the body when dumped in the opposite direction being indicated in dotted lines.

Similar characters of reference indicate corresponding parts throughout the several views.

The wagon-body A used in the construction of the improved wagon is preferably hopper-shaped—that is to say, the sides thereof are downwardly converging—and said body is preferably made of sheet metal reinforced at the upper edges in the usual manner. This body is hinged at opposite sides to the bolsters B, which are connected by a reach formed of cross-pieces C C′, arranged in the form of an X, as shown. The bolsters B are supported on the front and rear axles in the usual manner, and the running-gear is also of the usual construction. The hinge connection of the wagon-body to the bolsters at either side of the body is made in such a manner that the hinge-pintles are constituted by sliding bolts b, which are removable from the hinges, being guided in suitable keepers b' upon the sides of the wagon and prevented from displacement by means of stops b^3, attached to the sides of the wagon-body at such a distance as to abut against the enlarged heads b^2 of said bolts. One leaf of each hinge is attached to the bolster, while the other leaf is attached to the side wall of the wagon-body, as shown.

The body A is provided intermediately of its length with a brace D, which extends transversely of the body and is attached to the bottom of the same in any suitable manner, being connected at its outer ends, which extend at either side beyond said bottom, with the upper portion of the wagon-body by means of stays d. The ends of the transverse brace D are adapted to be connected with the loop-shaped end of a chain, cord, wire rope, or similar device e, which is wound on a drum or windlass E, the shaft of which is supported in bearings at the under side of a supporting-plate e', attached to the intermediate portion of the reach and extending transversely thereof, the shaft S of said drum being extended in backward direction beyond the rear bolster, in which it is journaled, and being provided with a hand-crank h in order to permit the turning of the drum in either direction. On the drum-shaft S is placed a collar e^2 adjacent the shaft-bearings, by which the drum-shaft is held in position and prevented from shifting longitudinally.

The loop-shaped end of the chain or rope is adapted to be connected to either end of the brace, according as the wagon is to be dumped to one side or the other. The pintle-bolts of the hinges at the opposite side of the body are first withdrawn, and the crank-shaft is then turned by means of the handle h in such a direction that the chain or cord is wound up on the drum and the body thereby slowly tilted on its hinge connection, as shown in full lines in Fig. 4. When the load is to be dumped to the opposite side—that is, into the position shown in dotted lines in Fig. 4—the pintle-

bolts at the opposite side of the body are removed from the hinges and the tilting chain or rope is applied to the opposite end of the brace D, after which the crank-shaft is turned in a direction opposite to that previously mentioned.

In order to lock the drum against backward movement during the dumping of the wagon-body, a pawl-and-ratchet mechanism is provided, which consists, preferably, of two ratchet-wheels r r', which are keyed to the shaft S at a point slightly in the rear of the rear bolster and provided with oppositely-directed teeth, each ratchet-wheel being engaged when necessary by a pawl pivoted upon the rear face of said bolster. In Fig. 2, p denotes the pawl adapted to engage the ratchet-wheel r, and p' the pawl adapted to engage the wheel r'.

During the dumping operation the pawl which is not in use to prevent the return of the body is thrown out of engagement with its ratchet-wheel and rests by gravity against a pin arranged upon the rear bolster, as shown at g g' in Fig. 2, the pin g being adapted to retain the pawl p in inoperative position, while the pin g' performs the same function for the pawl p' when necessary. For facilitating the tilting of the wagon-body and the return of the same into normal position a number of upwardly-extending handles h^2 are provided, which are preferably attached to the corners of the body, as shown.

As has been stated, the reach of the vehicle is of essentially X shape. By employing this form of reach the brace D has a large amount of play in downward direction in order to permit the tilting of the body into almost a vertical position, the abutting of said brace against the reach serving to arrest the tilting movement at the proper point. The wheels of the wagon are of smaller diameter than the distance of the wagon-body from the ground, the bolsters extending above the wheels, so that the latter are not in the way of the side walls of the body when the same is being tilted, but serve to firmly support said body when it is in completely-tilted position.

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

1. In a dumping-wagon, the combination, with the bolsters and the reach, of a body hinged at opposite sides to said bolsters, the hinges being provided with removable pintle-bolts, a shaft extending from the intermediate portion of said reach beyond the rear bolster and provided at its rear end with a crank, a drum fixed to said shaft in proximity to the intermediate portion of said reach, and a flexible connection wound about said drum and adapted to be connected to said wagon-body at either side thereof.

2. In a dumping-wagon, the combination, with the bolsters and an X-shaped reach connecting the same, of a body hinged at opposite sides to said bolsters, a shaft journaled on said reach at the intermediate portion thereof, and also in the rear bolster, a drum fixed to said shaft adjacent said first-named journal-bearing, and a flexible connection wound about said drum and adapted to be attached to either side of said body.

3. In a dumping-wagon, the combination, with the bolsters and a reach constituted by cross-pieces connecting the former, of a wagon-body hinged at opposite sides to said bolsters and having downwardly-converging sides, a transversely-extending brace attached to the intermediate portion of the bottom of said body and extending at either end beyond the same, a plate attached to said cross-pieces and extending transversely of the reach constituted thereby, a shaft journaled on said plate and also in the rear bolster, a drum mounted on said shaft adjacent said plate, and a flexible member wound about said drum and adapted for attachment to either end of said brace.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

ANDREW SCHMITT.

Witnesses:
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