(No Model.)

C. E. BUTLER.

DUMPING WAGON.

No. 502,278. Patented Aug. 1, 1893.

Fig. 1.

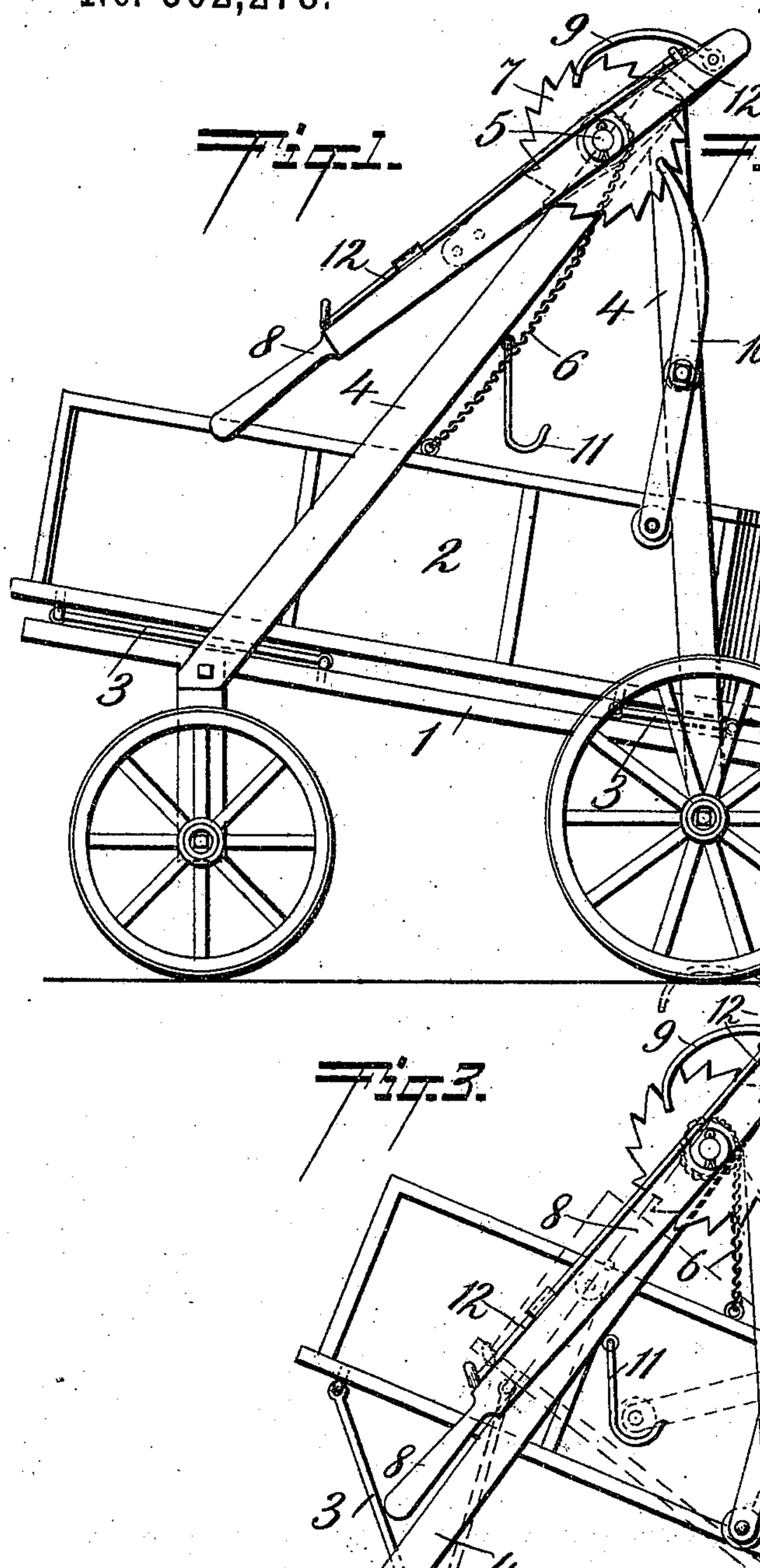


Fig. 2.

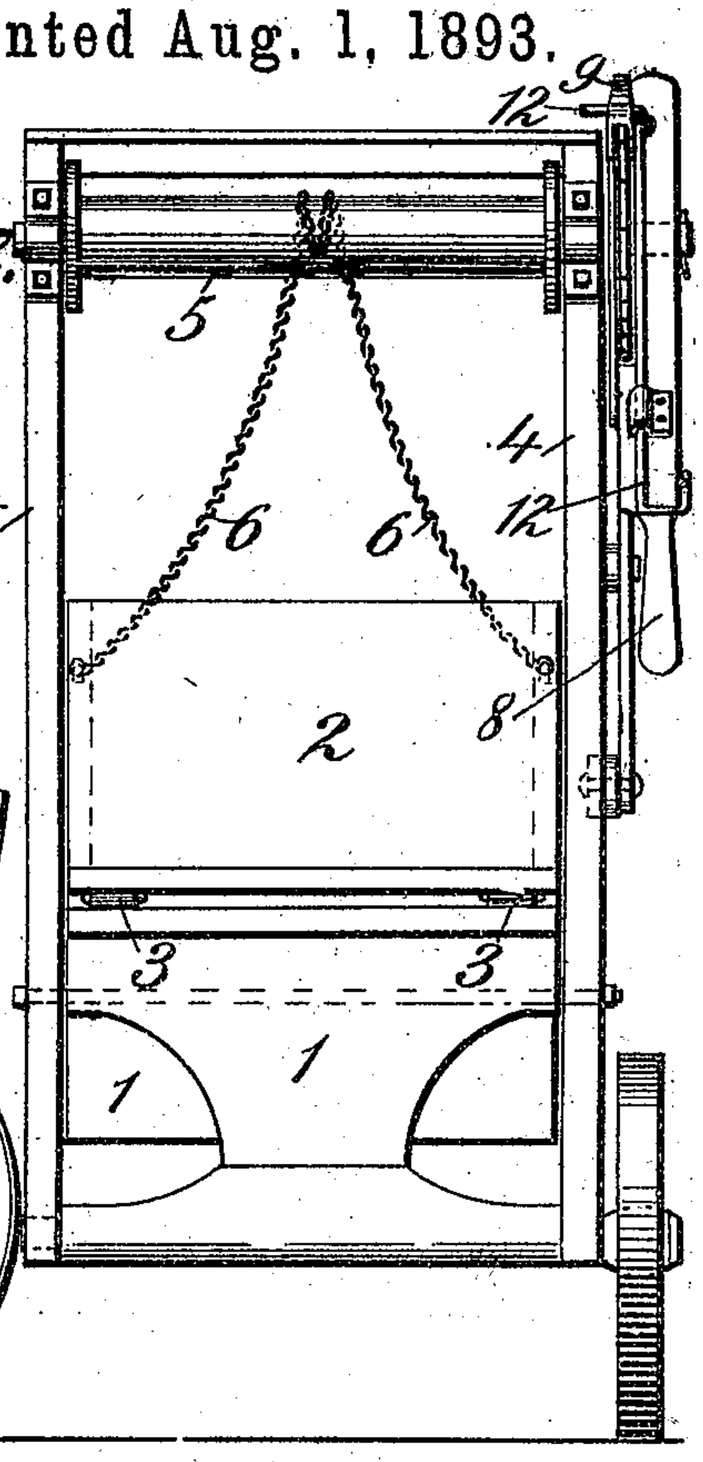
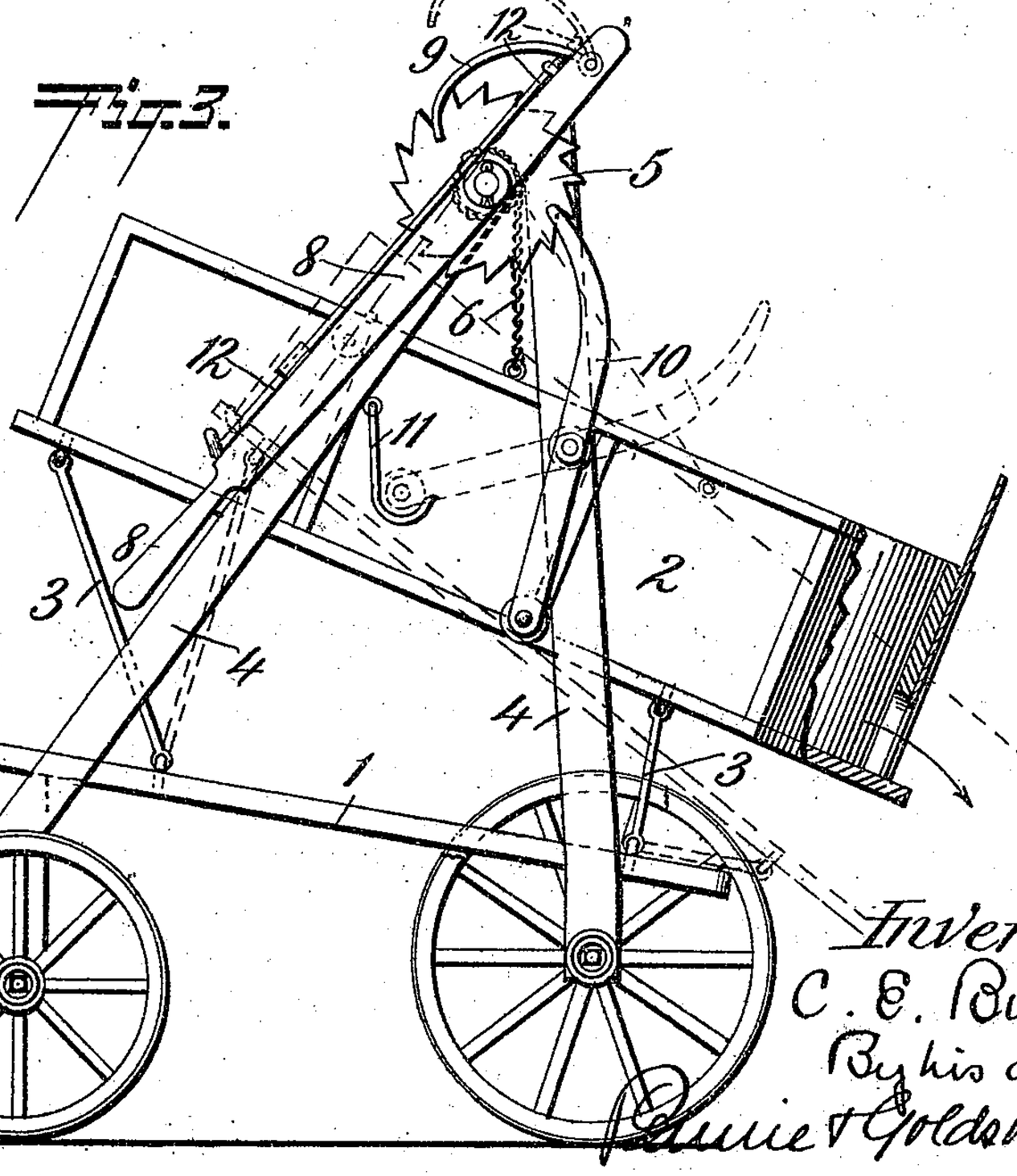


Fig. 3.



Attest
F. Hdehott
T. Coombs.

Inventor
C. E. Butler
By his attys.
Dennie & Goldsborough

UNITED STATES PATENT OFFICE.

CHARLES EDWARD BUTLER, OF ST. MICHAEL'S, MARYLAND.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 502,278, dated August 1, 1893.

Application filed May 1, 1893. Serial No. 472,572. (No model.)

To all whom it may concern:

Be it known that I, CHARLES EDWARD BUTLER, a citizen of the United States, residing at St. Michael's, in the county of Talbot and State of Maryland, have invented certain new and useful Improvements in Dumping-Wagons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates especially to dumping wagons for use in cities for delivering coal, wood, and the like, where it is desired to dump the material directly into the cellar, vault or bin.

The object of the invention is to provide a wagon of this character which shall be strong and durable in construction without being heavy and cumbersome, and wherein the dumping mechanism shall be simple and easily understood and operated.

The invention consists in the construction, arrangement, and combination of parts hereinafter described and claimed, and illustrated in the accompanying drawings forming part of this specification, wherein—

Figure 1 is a side elevation of the wagon in position to receive its load. Fig. 2 is a front end elevation of the same, also in position for loading, and Fig. 3 is an elevation similar to Fig. 1, except that the wagon body is shown in different positions for discharging its load.

Referring to these views, 1 is the truck, which may be of any desired construction. It is preferably set higher in front than behind, as shown, but this is not essential. 2 is the wagon body. This may also be of any desired form or construction, the invention not being limited to any particular specific construction of either of these parts. The body is connected to the truck by means of pivoted links 3, of which there is one pair at or near the front end and another pair at the rear, as clearly shown in Figs. 2 and 3.

On either side of the body, standards 4 are erected, these standards extending to a point considerably above the body and somewhat back from the center. Journaled in suitable bearings at or near the upper ends of the standards is a windlass shaft 5, having connected thereto the upper ends of ropes or chains 6, which extend down and are fastened to either side of the wagon body, preferably a little forward of the vertical plane of the windlass shaft. A ratchet disk 7 is rigidly fixed to one end of the shaft 5, and a hand operating lever 8 is pivotally mounted on the standards in suitable proximity to the disk, being preferably pivoted on an extension of the axis of the shaft. This hand lever is pivoted at a point between its ends, as shown, and carries on its upper end a pivoted operating dog or pawl 9, which is adapted to normally engage the teeth of the ratchet 7.

10 denotes a weighted holding pawl pivoted on the standard and adapted to engage the ratchet on the opposite side from the operating dog. A hook 11 is hung on the adjoining timber of the standard, the object of which is to engage the lower end of the pawl 10 and hold it out of engagement so as to permit the body to be lowered.

The hand lever 8 is provided with means whereby the operator may release the operating dog 9 and hold it out of engagement with the ratchet 7. This mechanism consists of a rod 12 sliding in guide keepers or staples on the handle, and having its upper end bent at an angle, as shown in Fig. 2, and arranged to underlie the dog 9. The lower end of the rod 12 is also preferably bent so as to form a hold for the fingers.

As illustrated in Fig. 3, the links at the front end of the body are considerably longer than those at the rear. The object of this arrangement is to enable the body to be tilted more or less for the purpose of automatically discharging its load. As before described, the point of connection of the chains with the body is forward of the vertical plane of the windlass shaft. The object of this arrangement is to carry the body over past the dead center of the rear links, so that the weight of the body and its load will continue the rearward movement.

The construction being as above described, the operation is as follows: The body being in the position indicated in Fig. 1, and, it being desired to dump the load, the operator taking hold of the hand lever turns the shaft with a step-by-step movement until the body has been raised into the position shown in

full lines in Fig. 3. If the mouth of the cellar or vault is near the curb, it will not be necessary to continue the movement of the body, but the load may be discharged in this position by simply raising the tail board. If, however, the cellar, opening, or point at which the load is be discharged, is farther removed from the curb or gutter, the operator by releasing the holding pawl may permit the loaded body to descend into the position shown in dotted lines, when the load may be discharged in the same way, but at a point farther removed from the wheels. The object of the mechanism carried by the hand lever for throwing out the operating pawl, is to enable the body when unloaded and lifted into the position shown in Fig. 3 to return by its own weight to its normal position easily and quickly without having to work the lever.

It will be understood that this construction dispenses with the heavy and complicated gearing underneath the truck, which is so common in these dumping wagons; also that, by the employment of an overhead windlass and chain, all props and lifting levers between the truck and the wagon body are dispensed with. A further advantage arising from the use of the overhead windlass in conjunction with the pivoted links beneath the body, is that it permits the shifting of the body lengthwise into various positions within wide limits, thus allowing the load to be delivered at a point farther in the rear than is possible with any of the other wagons not employing separate chutes or spouts.

Having thus described my invention, what I claim is—

1. In a dumping wagon, the combination of the truck, the standards on the sides, the body connected to the truck by pivoted links, the windlass shaft journaled in the standards above the body, and the chains connecting the shaft with the body, substantially as described.

2. In a dumping wagon, the combination of the truck, the standards on the sides, the body connected to the truck by pivoted links, the windlass shaft journaled in the standards above the body, the chains connecting the shaft with the body, the operating lever, and the holding pawl; substantially as described.

3. In a dumping wagon, the combination of the truck, the standards on the sides, the body connected to the truck by pivoted links, the windlass shaft journaled in the standards above the body, the ratchet disk on the shaft, the chains connecting the shaft with the body, the operating lever, the releasable pawl carried by the lever, and the holding pawl, substantially as described.

4. The combination of the windlass shaft, the ratchet disk fast thereon, the operating lever, the pawl carried by the lever, mechanism carried by the lever for releasing the pawl at will, and the holding pawl, substantially as described.

5. In a dumping wagon, the combination of the truck, the body, the pivoted links connecting the body to the truck, the front links being longer than those at the rear, and the overhead raising and lowering mechanism, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES EDWARD BUTLER.

Witnesses:

SAMUEL J. CONNER,

THOMAS B. JONES.