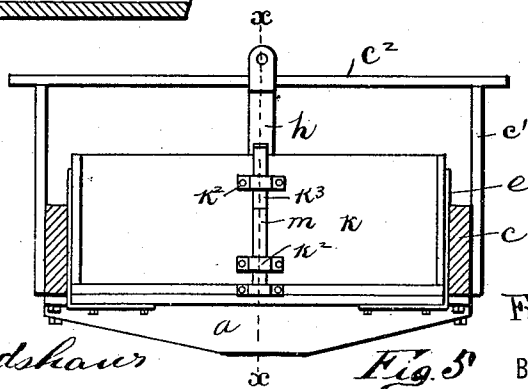
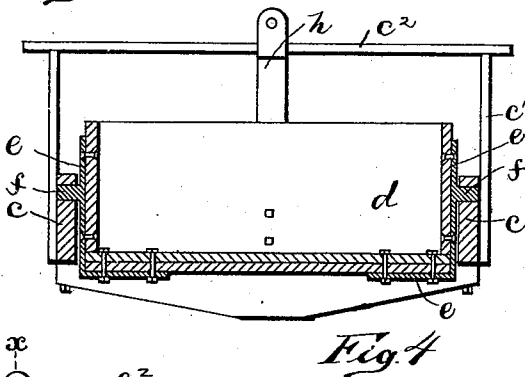
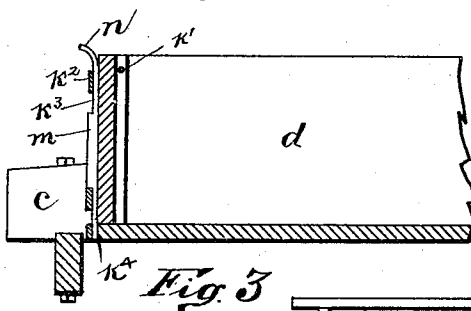
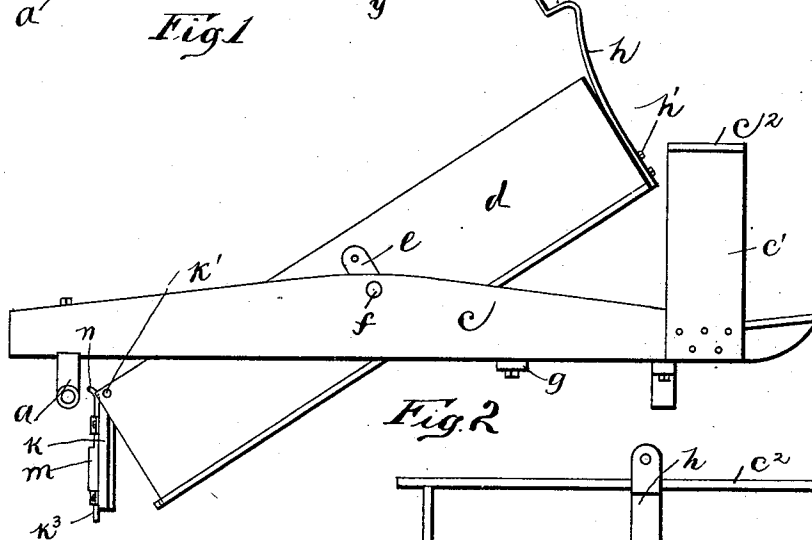
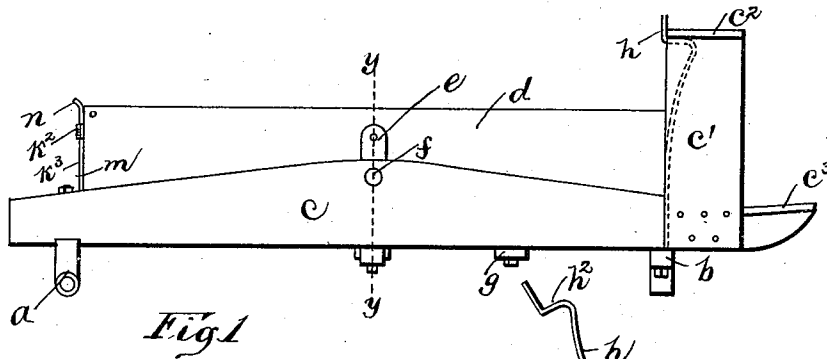


(No Model.)

F. S. HIGBEE.
DUMPING WAGON.

No. 510,426.

Patented Dec. 12, 1893.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FREDERICK S. HIGBEE, OF PATASKALA, OHIO.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 510,426, dated December 12, 1893.

Application filed February 7, 1893. Serial No. 461,381. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK S. HIGBEE, a citizen of the United States, residing at Pataskala, in the county of Licking and State of Ohio, have invented a certain new and useful Improvement in Dumping-Wagons, of which the following is a specification.

My invention relates to the improvement of dumping wagons of that class in which the contents of the wagon bed are designed to be dumped therefrom by a tilting of said bed.

The objects of my invention are to provide a dumping wagon of this class, of such improved construction and arrangement of parts as to greatly facilitate the dumping or unloading of the same when desired; to so construct the same as to admit of the contents being dumped between the axles and at the same time form the dumping bed of one section; to produce improved automatic means for opening the end-gate at the proper time; to construct said device in a simple, reliable and inexpensive manner and admit of the same being readily connected with the ordinary running gears of a wagon. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 represents a side view of my improved wagon bed and its framework. Fig. 2 is a similar view showing the bed in position for dumping. Fig. 3 is a sectional view of the rear end portion of the wagon taken on line *xx* of Fig. 5. Fig. 4 is a transverse section on line *yy* of Fig. 1 and Fig. 5 is a rear end view of the bed and showing the side pieces or sills cut away.

Similar letters refer to similar parts throughout the several views.

a represents the rear axle and *b* the front bolster of an ordinary wagon, said bolster and axle being connected as shown, by two parallel sills or side pieces *c*, to the under side of which said axle and bolster are secured. From the forward portions of the sills *c* and at opposite points thereon rise suitable seat supporting arms *c'*, the latter being provided at their upper ends with a suitable seat board *c²*. Connecting the upper sides of the forward ends of the sills in front of the seat supports, is a suitable foot board *c³*.

d represents the wagon bed or box, which

as hereinafter described is pivotally supported between the side bars or sills *c*.

e represents metallic angle bars, one of which has its vertical arm secured to each of the outer sides of the bed *d*, at opposite points, while the lower arms of said bars are secured to the under side of said bed. These angle bars are preferably supported at points at or near the center of the length of the bed and the vertical arms thereof are each provided as shown at *f*, with an outwardly projecting fulcrum or pivot pin, the outer projecting portion of which is journaled in the adjacent sill *c*. The length and position of the bed of my improved dumping wagon are such as to bring the rear termination thereof on the inner side of the rear axle and adjacent thereto. As shown at *g*, I preferably connect the under sides of the sills *c* at a point in rear of the front bolster, with a transverse bar or cross piece upon which the bed bottom may rest, when said bed is in its normal position.

h represents a spring strip, the lower end of which is secured as shown at *h'*, to the forward end of the end *d* preferably at the center of the width of and near the bottom of the latter. This spring strip *h* which rises above the height of the bed, normally extends outward therefrom and is provided as shown with an angular bend in its upper portion which results in the formation of a shoulder *h²* therein. This shoulder portion is as shown in the drawings adapted when the bed is in its normal position to engage with the under side of the seat piece *c²*.

k represents the end gate, which as shown is adapted to fit within the rear end of the bed *d*. This end gate has its upper portion journaled as shown on a transverse rod *k'*, which connects the upper portions of the bed sides at the rear ends thereof. On the outer face of the end gate, I provide upper and lower guide staples *k²*, which as shown in the drawings serve as guides for the vertical sliding latch piece *k³*. The lower end of this latch piece, is as shown at *k⁴* adapted to drop within a suitable mortise in the under side of the bed and thus retain the end gate in its proper position. In forming the latch bar *k³*, I provide the same between the staples *k²* with

a raised or thickened portion *m* which results in the formation at each end thereof, of shoulders which are adapted to limit the upward and downward movement of said latch bar by contact with said staples. The upper end of the latch bar *k*³ is as shown provided with an outturned portion *n*.

It is evident that when the bed herein described, is loaded or supported in the horizontal position shown in Fig. 1 of the drawings, said bed will be prevented from turning on its pins *f* by contact of the spring shoulder *h*², with the seat piece *c*² and that any tendency of the bed to tip forward is obviated by the use of the cross piece *g*.

The method of utilizing and operating my improved wagon is as follows: The wagon being loaded and it being desired to discharge the contents therefrom by dumping, a backward pressure upon the upper end of the spring *h* will result as will readily be seen, in a disengagement of the spring shoulder *h*² and seat piece *c*² and in a consequent turning of the wagon bed on its pivots and a dropping of the rear portion thereof to the inclined position shown in Fig. 2 of the drawings. In this downward or tipping movement of the rear portion of the wagon bed, it will be seen that the upper outturned end of the latch bar *k*³ will come into contact with the upper side of the axle *a*, resulting in said latch piece being stopped in its downward movement and in its withdrawal from the mortise *k*⁴. This disengagement of the latch and mortise must result as will readily be seen in so unlatching the end gate as to admit of its swinging outward by pressure of the contents of the bed thereon and allowing such contents to drop outward through the end of the bed. The bed having been returned to a horizontal position it will be seen that the shoulder *h*² of the spring *h*, will again spring into contact with the seat piece *c*² and serve to automatically lock the bed in its normal position, while the end gate may be readily secured in place by dropping the latch bar *m* into engagement with the mortise *k*⁴.

From the construction herein shown and described, it will be seen that the operation of unloading my improved wagon by dumping

the bed of the same, is extremely simple and that the construction of the same and arrangement of parts thereof are such as to insure effective operation.

It will be observed that the operation of dumping the bed is accomplished by one movement, thus producing a saving of both time and labor.

It is obvious, that a dumping wagon such as I have described may be produced at a low cost of manufacture and that the same may be readily attached to the ordinary running gears of a wagon.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a dumping wagon the combination with the running gear and side sills *c*, of a bed *d* journaled between said sills, a seat frame piece *c*² supported from said sills and a spring strip *h* on said bed having as described a shoulder *h*², the latter adapted to engage with said seat piece and lock the bed against backward movement substantially as set forth.

2. In a dumping wagon the combination with the running gear and side sills *c* supported thereon, of a bed *d* journaled between said sills, a spring latch strip *h* on said bed adapted to engage with the wagon frame work, a swinging end gate in the rear of said bed, a sliding latch bar on said end gate and a mortise in the bed bottom with which said latch is adapted to engage substantially as specified.

3. In a dumping wagon the combination with the running gear and side sills *c* supported thereon, of a bed *d* journaled between said sills, a spring latch strip *h* on said bed adapted to engage with the wagon framework as described, a swinging end gate in the rear of said bed, a sliding latch bar on said end gate and an outturned upper end portion on said latch bar adapted to engage with the rear axle or other framework of the vehicle when the rear end of said bed is tipped downward, substantially as and for the purpose specified.

FREDERICK S. HIGBEE.

In presence of—

B. F. SUTHERLAND,
T. W. PINCOTT.