

(No Model.)

2 Sheets—Sheet 1.

S. LEBACH.
DUMPING WAGON.

No. 496,163.

Patented Apr. 25, 1893.

Fig: 1.

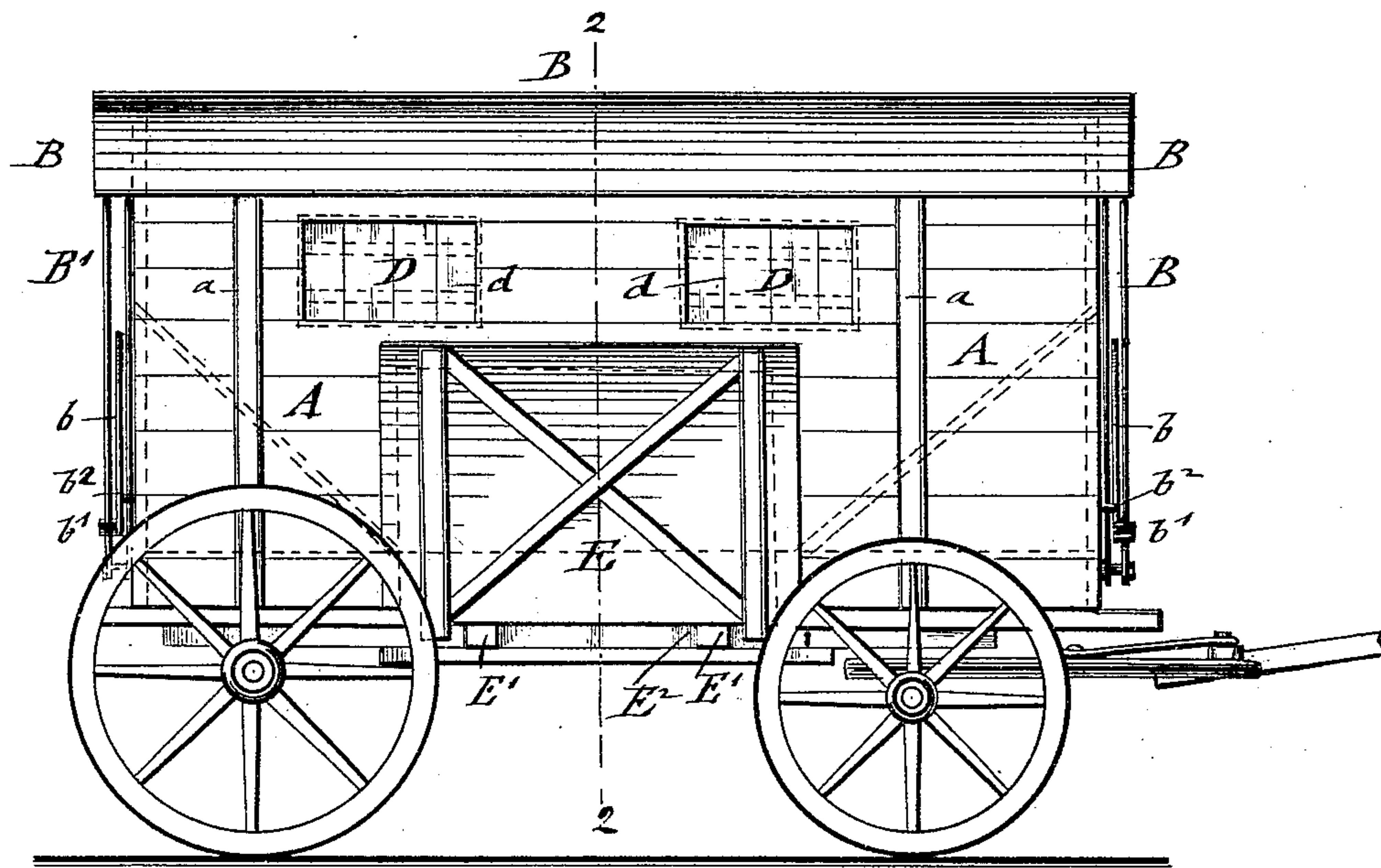
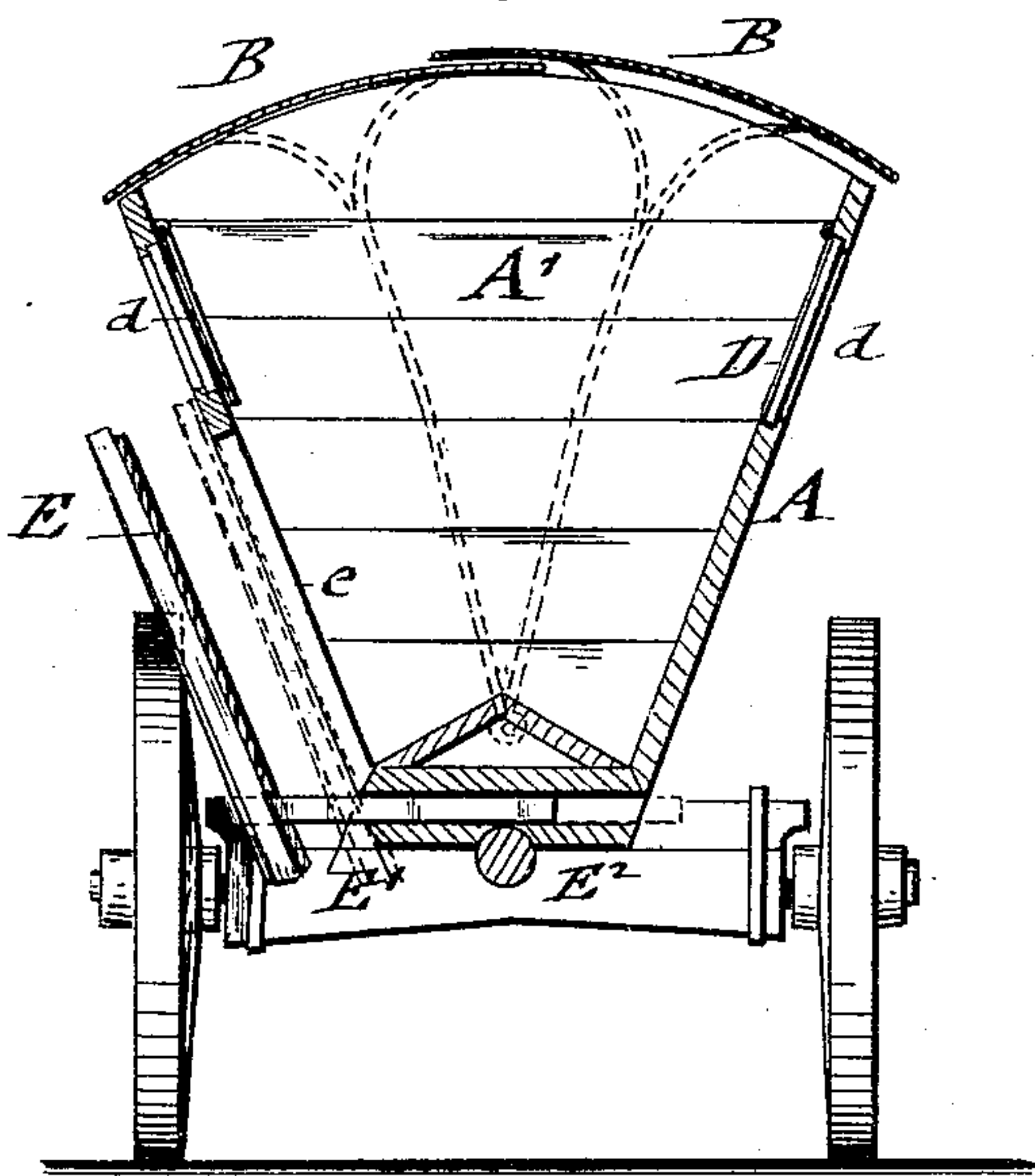


Fig: 2.



WITNESSES:

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Fig: 3.

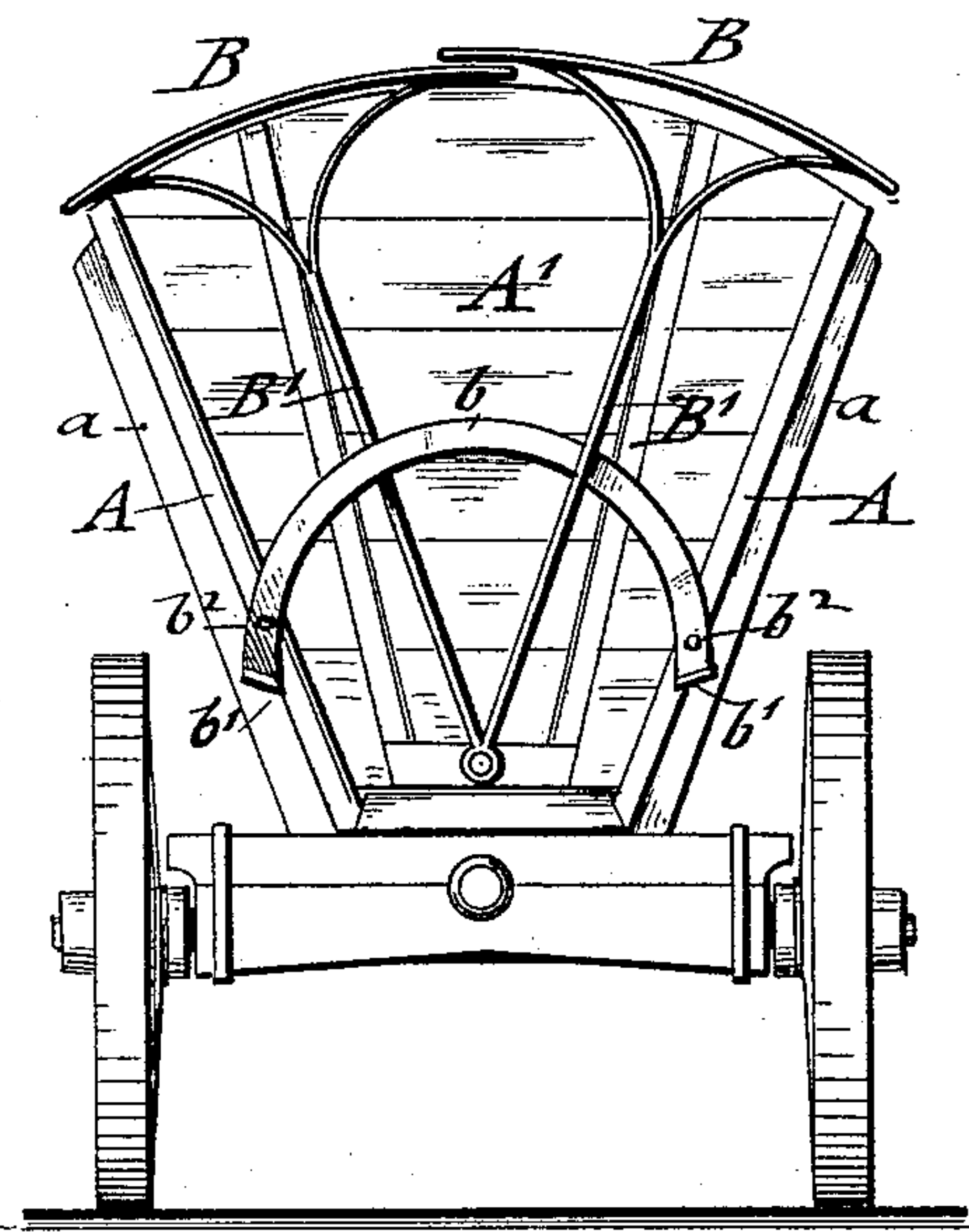


Fig: 4.

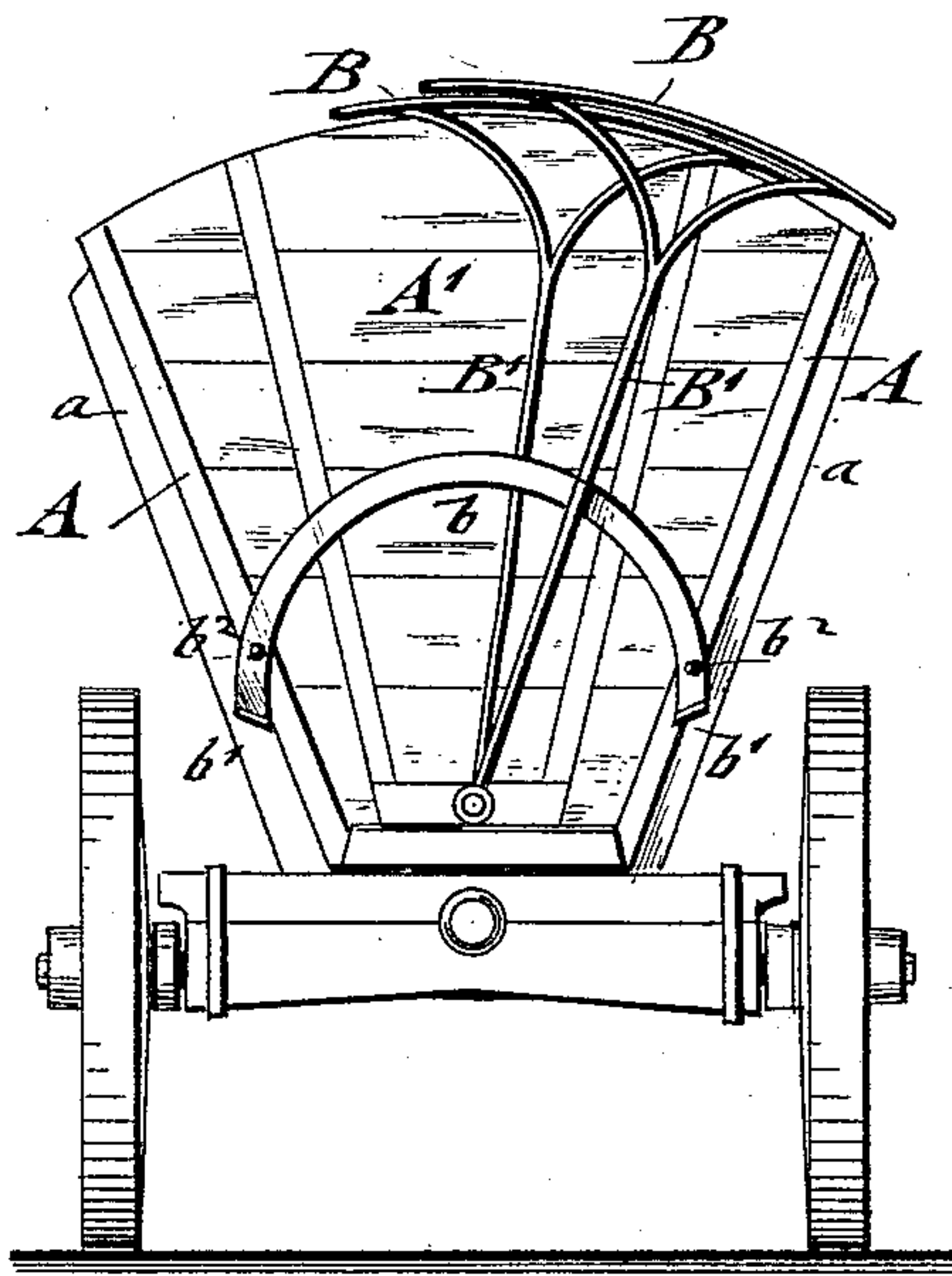
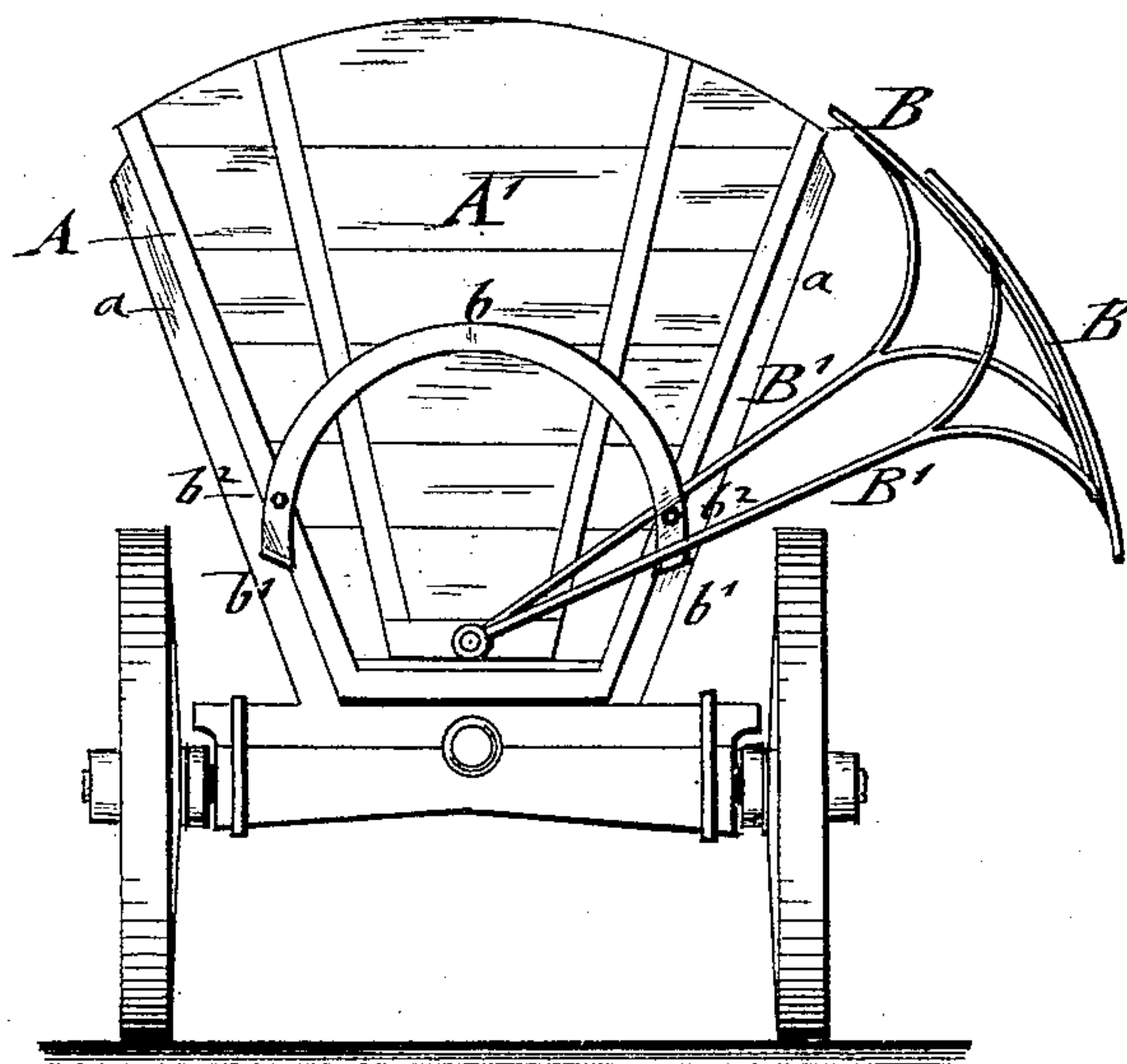


Fig: 5.



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UNITED STATES PATENT OFFICE.

SELIG LEBACH, OF FRANKFORT-ON-THE-MAIN, GERMANY.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 496,163, dated April 25, 1893.

Application filed January 9, 1893. Serial No. 457,739. (No model.) Patented in Germany August 27, 1891, No. 61,091, and December 8, 1891, No. 63,524; in France October 3, 1891, No. 215,526, and in Belgium January 30, 1892, No. 97,913.

To all whom it may concern:

Be it known that I, SELIG LEBACH, a subject of the Emperor of Germany, residing at Frankfort-on-the-Main, Prussia, Germany, have invented certain new and useful Improvements in Mechanism for Loading and Unloading Wagons, (for which Letters Patent were granted to me in Germany, No. 61,091, dated August 27, 1891, and No. 63,524, dated December 8, 1891; in France, No. 215,526, dated October 3, 1891, and in Belgium, No. 97,913, dated January 30, 1892;) 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.

This invention relates to certain improved loading and unloading mechanisms for wagons and other vehicles, which are intended to be used for the transportation of garbage, gravel, sand, coal, potatoes and other articles, the loading mechanism being so arranged that the loading is accomplished with little annoyance by dust while the unloading is performed in a quick and effective manner; and the invention consists of a wagon the end walls of which are provided with arc-shaped upper ends and with a cover or covers which are supported on arms or standards that are pivoted to the end-walls and guided along guide-rails attached to the end-walls, said guide-rails having stops at their ends for arresting the supporting arms of the cover or covers.

The invention consists further of loading openings in the side-walls of the wagon, which are provided with hinged and inwardly-moving gates for the convenient loading of the wagon.

The invention consists, thirdly, of a discharge-opening in the lower side-wall of the wagon and of a gate for said opening, which gate is guided by horizontal bars in sleeves or sockets arranged below the bottom of the wagon; and the invention consists lastly of certain details of construction, which will be fully described hereinafter and finally pointed out in the claims.

Referring to the accompanying drawings, Figure 1, represents a side-elevation of a wagon with my improved mechanism for load-

ing and unloading the same. Fig. 2, is a vertical transverse section on line 2 2, Fig. 1, showing the unloading mechanism in open position for discharging a load, and Figs. 3, 4 and 5, represent end-elevations of my improved wagon, showing the covers of the same respectively in closed, partly open, and entirely open positions.

Similar letters of reference indicate corresponding parts.

Referring to the drawings A represents the body of my improved wagon, which is provided with inclined side-walls that are reinforced by suitable strengthening bars *a a*. The end-walls A' of the body A are made arc-shaped at their upper ends and closed by an arched cover or covers B of sheet-metal or other suitable material. The cover or covers B are supported by arms or standards B' which are pivoted to the lower parts of the end-walls of the body A and guided along arc-shaped rails *b* that are attached at the upper ends to the end-walls A' of the body A, said guide-rails being provided with stops *b'* at their ends that serve for supporting the standards B' when the cover or covers are moved sidewise, so as to entirely open the wagon. When the cover is made in two sections, the supporting arms or standards of one arm are arranged outside of the guide-rails *b*, while the supporting arms of the second section are arranged inside of the guide-rails, the outer arms being arrested when they are moved into open position by the stops *b'*, while the inner arms are arrested by the fastening bolts *b²* by which the guide-rails *b* are attached to the end-walls of the body A. The supporting arms B' are so arranged, that a certain degree of friction is exerted on the same either by their pivots or by the guide-rails, so that the covers are retained in any position to which they are adjusted, whether in closed, or partly or entirely open position. When two cover-sections are used, one section is arranged so as to overlap the other section, when both sections are placed into open position at either side of the wagon-body.

The side-walls of the wagon-body are provided at their upper parts with openings *d*, which are closed from the inside by gates D that are hinged at their upper edges to the

inside of the wagon-body, as shown clearly in Figs. 1 and 2. The hinged gates D permit the loading of the wagon, while the cover or covers are in closed position, which is of considerable advantage when loading garbage, sand or other substances, as thereby the loading operation can be attended to with less dust so as to cause less annoyance. In loading the shovel or garbage-can serves to push back the hinged gate, so that the dumping of the garbage, &c., is readily accomplished, the gates closing as soon as the shovel or can is emptied. If the substance to be loaded is conveyed to the wagon by means of a chute, as when loading coal, the spout of the chute is inserted into one of the openings *a* and thereby the coal transferred directly into the wagon body without opening the covers of same. For facilitating the unloading of the wagon, the bottom is preferably made slanting in both directions from the center toward the side, as shown in dotted lines in Fig. 2, while inclined sections, shown in dotted lines in Fig. 1, extend from the end-walls toward a discharge-opening *d*, which is arranged in one of the side-walls below the loading openings *e*. The bottom of the wagon-body is thus made in the shape of a hopper, so as to discharge the contents with great facility, as soon as the gate E, which normally closes the discharge-opening in the side-wall of the body, is opened. The gate E is guided by arms E' in transverse guide-sleeves or sockets E², that are arranged below the bottom of the body A, as shown in Fig. 2, so that when the gate E is moved laterally away from the side-wall of the body A as far as is permitted by the wheels, the entire contents of the wagon are quickly unloaded to the ground below the same. When it is not desired to make the bottom of the wagon in the shape of a hopper, so as to give the wagon a greater loading capacity, the driver has to get into the wagon and assist the unloading by shoveling the contents from the ends of the wagon toward the discharge-opening *d*. When the unloading is accomplished, the gate E is returned into its initial position, so as to close the discharge-opening *e*, as

shown in dotted lines in Fig. 2, the wagon being then ready to receive the next load.

My improved cover-construction can also be used for freight cars, so as to protect the contents of the same against the influence of the rain and prevent direct access to the contents of the car while it is in transit. In this case the loading and unloading gates are not required.

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

1. The combination, of a wagon-body, the end-walls of which are provided with arched upper ends, with an arched cover or covers, arms supporting said covers and pivoted to the end walls of the body, and arched shaped guide-rails attached to the end-walls and provided with stops for arresting the arms, when the cover or covers are moved into open position, substantially as set forth.

2. The combination, of a wagon-body, the side-walls of which are provided with charging-openings below the top, a cover or covers for the opening or closing the top of the body, and gates hinged to the inside of said walls above said openings and adapted to be opened automatically when the receptacle to be emptied is brought in contact therewith, substantially as set forth.

3. The combination, of a wagon having a discharge-opening in its side-wall, a gate for closing said opening and means for guiding said gate so as to move it parallel with the side-walls for opening or closing the discharge-opening, substantially as set forth.

4. The combination, with a wagon-body having a discharge-opening in its side-wall and a gate that is guided by horizontal bars in guide-sleeves or sockets, arranged below the bottom of the wagon, substantially as set forth.

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

SELIG LEBACH.

Witnesses:

JEAN GRUND,
ALVESTO S. HOGUE.