

No. 684,174.

Patented Oct. 8, 1901.

J. BLAKE.
DUMPING WAGON.

(No Model.)

(Application filed Sept. 1, 1900. Renewed May 3, 1901.)

2 Sheets—Sheet 1.

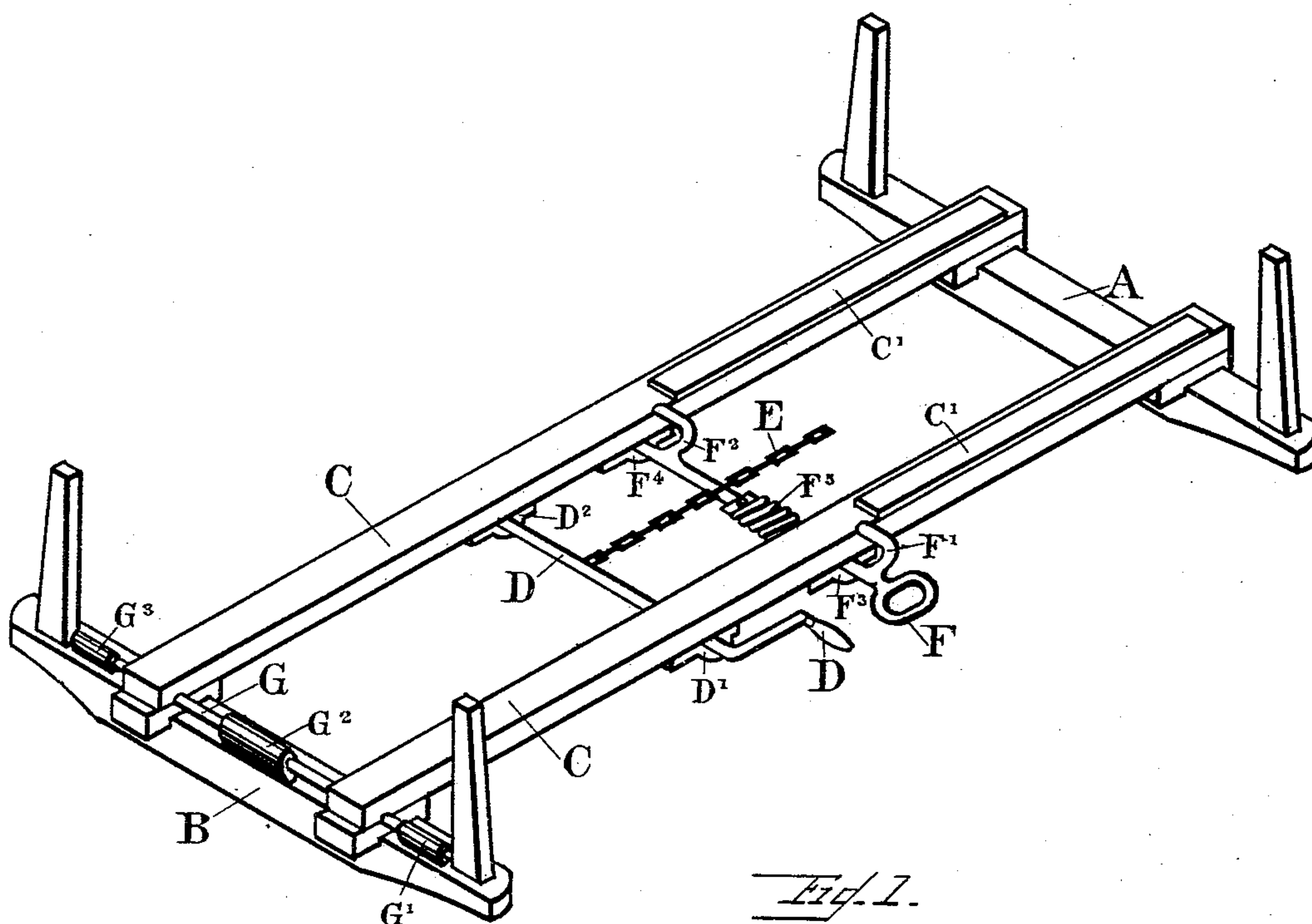


Fig. 1.

WITNESS

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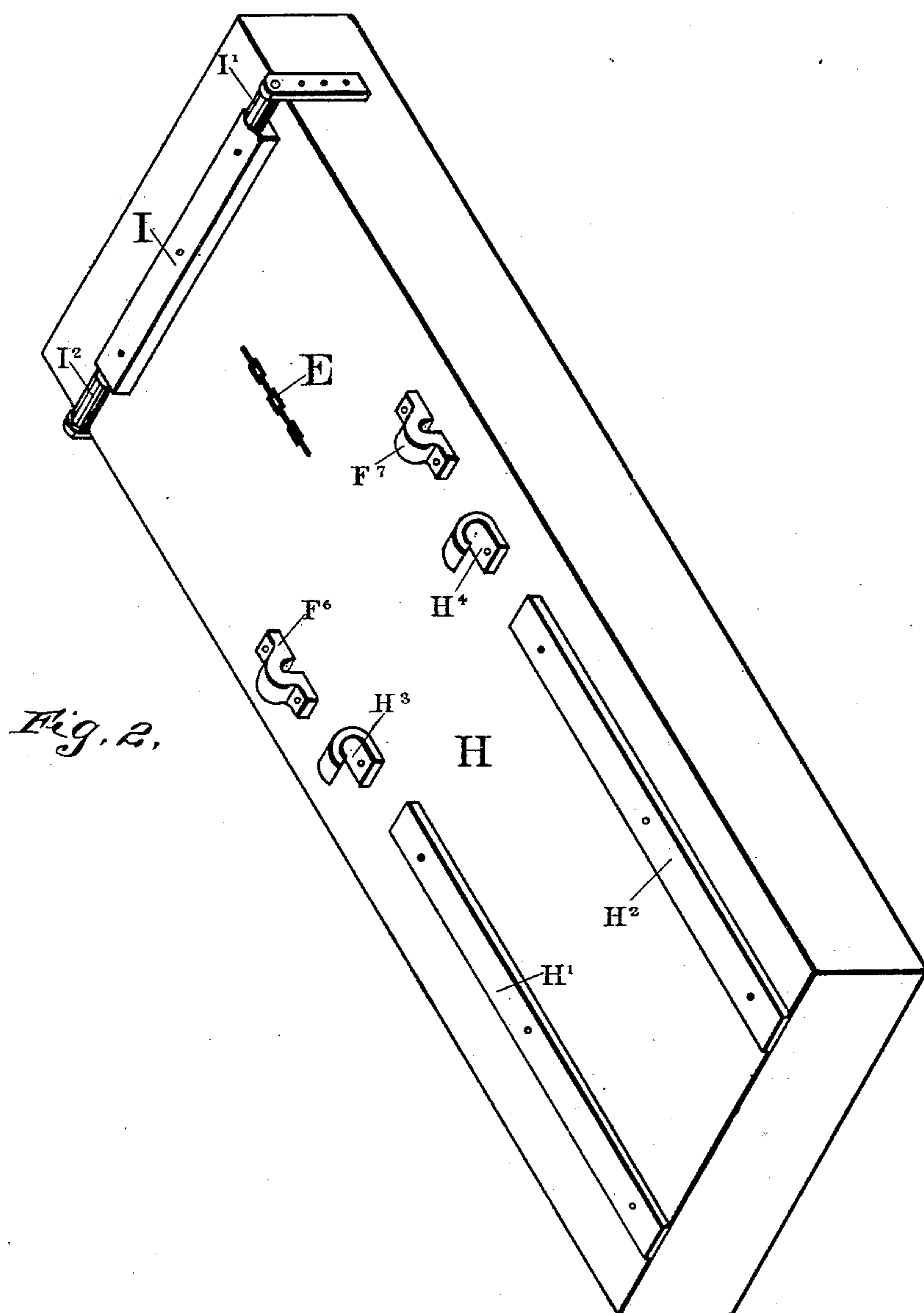
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UNITED STATES PATENT OFFICE.

JOHN BLAKE, OF LANGFORD, COLORADO.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 684,174, dated October 8, 1901.

Application filed September 1, 1900. Renewed May 3, 1901. Serial No. 58,654. (No model.)

To all whom it may concern:

Be it known that I, JOHN BLAKE, a citizen of the United States, residing at Langford, in the county of Boulder and State of Colorado, have invented certain new and useful Improvements in Dumping-Wagons; and I do 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, reference being had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both figures.

My invention relates to a class of dumping-wagons having four wheels designed for hauling ore, bricks, or any material or substance that will permit of unloading by careful dumping.

The object of my invention is to provide a dumping-wagon that can be unloaded with ease and without the usual sudden drop which makes so many dumping-wagons impracticable, as the jar the wagon-box receives injures the contents thereof, or, if not the contents, injures the wagon itself.

I refer now to the drawings in further explaining the nature and objects of my invention, in which—

Figure 1 is an isometrical view of my device applied to the bolsters of a wagon. Fig. 2 is an isometrical view of the bottom of a wagon-box provided with my invention.

A represents the front bolster of a wagon.

B represents the rear bolster of the same.

C C represent two supports or beams, constructed of wood or other suitable material, which are placed on and secured to the bolster, as shown in Fig. 1.

C' C' represent two bars or bands of iron, steel, or other suitable metal, which I secure to the front ends of the supports C C. These bars are designed for the rollers I' and I², which are secured to the bottom of the wagon-box, to roll upon when the wagon-box is being drawn backward to dump.

D represents a crank-arm device which is secured to the supports C C by means of the lugs D' and D², and to this crank-arm is attached one end of the chain E, the other end being secured to the bottom of the wagon-box II near the front end.

F represents the clutch device, which is provided with two clutch-hooks F' and F² and is secured to the supports C C by means of the lugs F³ and F⁴. A coiled spring F⁵ is provided which draws the device into position and locks the clutch-hooks F' and F² into the eyes provided in the lugs F⁶ and F⁷, which are secured to the bottom of the wagon-box H.

G represents a rod or journal which passes through the rear ends of the supports. The ends of the rod are secured into the standards of the rear bolster B. On this rod or journal are provided three cylindrical rollers G', G², and G³. Two of these rollers come into contact with the plates or bands, of iron, steel, or other metal, designated by H' and H², which are secured to the bottom of the wagon-box H. Upon these rollers the box rolls when being drawn backward to dump and when drawn forward into place. The roller G² is designed to prevent the bottom of the wagon-box H from sagging, as it is of larger diameter than the outside rollers G' and G³.

The wagon-box H is constructed in the ordinary manner of any suitable material. The hooks (designated by H³ and H⁴) which are secured to the bottom of the wagon-box are designed to prevent the box from being drawn too far backward, as they catch on the rollers G' and G³. The cross-support (designated by I) which is secured to the bottom of the wagon-box H has a rod or journal running through it, the ends of which are secured into the lugs, and placed upon the ends of the rod which passes through the cross-support I are two cylindrical rollers I' and I², hereinbefore referred to.

It is now obvious that when my invention has been constructed according to the foregoing description and placed upon a wagon the successful operation of the same will be as follows: By drawing out the clutch device F, which releases the clutch-hooks F' and F² from the lugs F⁶ and F⁷, the box is released, and the simple operation is to draw it toward the rear by means of the crank-arm D, which winds the chain around the crank-rod and pulls the wagon-box backward. As the box rolls upon the cylindrical rollers and the iron bars or plates, the movement of the same requires very little exertion. After the load

has been dumped from the box the simple reversion of the movement of the crank-arm draws it back into place, when the clutch device F can be released, allowing the clutch-hooks F' and F² to again secure themselves into the lugs F⁶ and F⁷, which holds the box rigid upon the wagon.

I do not confine myself to any one mode of constructing my device nor to any one material, but desire to cover by Letters Patent the principle involved, making it in various sizes and varying the mode of construction and material used, as will be found most efficient and practicable.

15 Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a self-dumping wagon of the class described, the combination of the front and rear
20 bolsters, the supports or beams secured to the bolsters, the metal plates or bars placed upon the supports or beams at the front ends, the crank-arm device secured to the supports on the under side, the chain, one end of
25 which is secured to the crank-arm device and the other end secured to the wagon-box, the clutch device which is secured to the supports on the under side by means of the lugs and is provided with two clutch-hooks designed to
30 hook into the eyes of the lugs or suitable contrivances placed upon the bottom of the wagon-box, the coiled spring which adjusts and keeps in place the clutch device, the rod which passes through the rear ends of the
35 supports, the cylindrical rollers which are placed upon the rod; with the wagon-box which is provided with two metal plates or bars designed to come into contact with the rollers at the rear bolsters, the hooks which
40 are also secured to the bottom of the wagon-box and designed to catch on the outside cylindrical rollers, the lugs having eyes to receive the clutch-hooks, the cross support-bar,

the two cylindrical rollers secured thereto designed to roll upon the metal plates or bars 45 secured to the front ends of the supports or beams, substantially as specified.

2. In a self-dumping wagon of the class described, the combination of the bolsters A and B, the longitudinal supports or beams C, 50 C which are secured to the bolsters A and B, the metal plates or bars C' and C', secured to the upper side of the supports or beams C, C near the front ends, the crank-arm device D which is attached to the supports C, 55 C by means of the lugs D' and D², the chain E, one end of which is secured to the crank-arm device and the other end attached to the wagon-box, the clutch device F, which is attached to the under side of the beams C, C 60 by means of the lugs F³ and F⁴, the clutch device provided with two clutch-hooks F' and F², designed to hook into the eyes provided in the lugs F⁶ and F⁷, which are secured to the bottom of the wagon-box, the rod G, 65 which passes through the ends of the supports C, C and is secured into the standards of the rear bolster B, the cylindrical rollers G', G² and G³, which are placed upon the rod G; with the wagon-box H, the metal plates 70 or bars H' and H² secured to the bottom of the box H, the hooks H³ and H⁴, which are also secured to the box H, the lugs F⁶ and F⁷, which are provided with eyes and secured to the bottom of the wagon-box H, the cross 75 support-bar I, and cylindrical rollers I' and I² attached thereto, all as and for the uses and purposes herein fully set forth and substantially specified.

In testimony that I claim the foregoing as 80 my own I hereunto subscribe my name in the presence of two witnesses.

JOHN BLAKE.

Witnesses:

EMILE C. NEUMEISTER,
CLARA F. MONTGOMERY.