

E. C. HEGELER.  
Dumping Car.

No. 107,683.

Patented Sept. 27, 1870.

Fig. 1

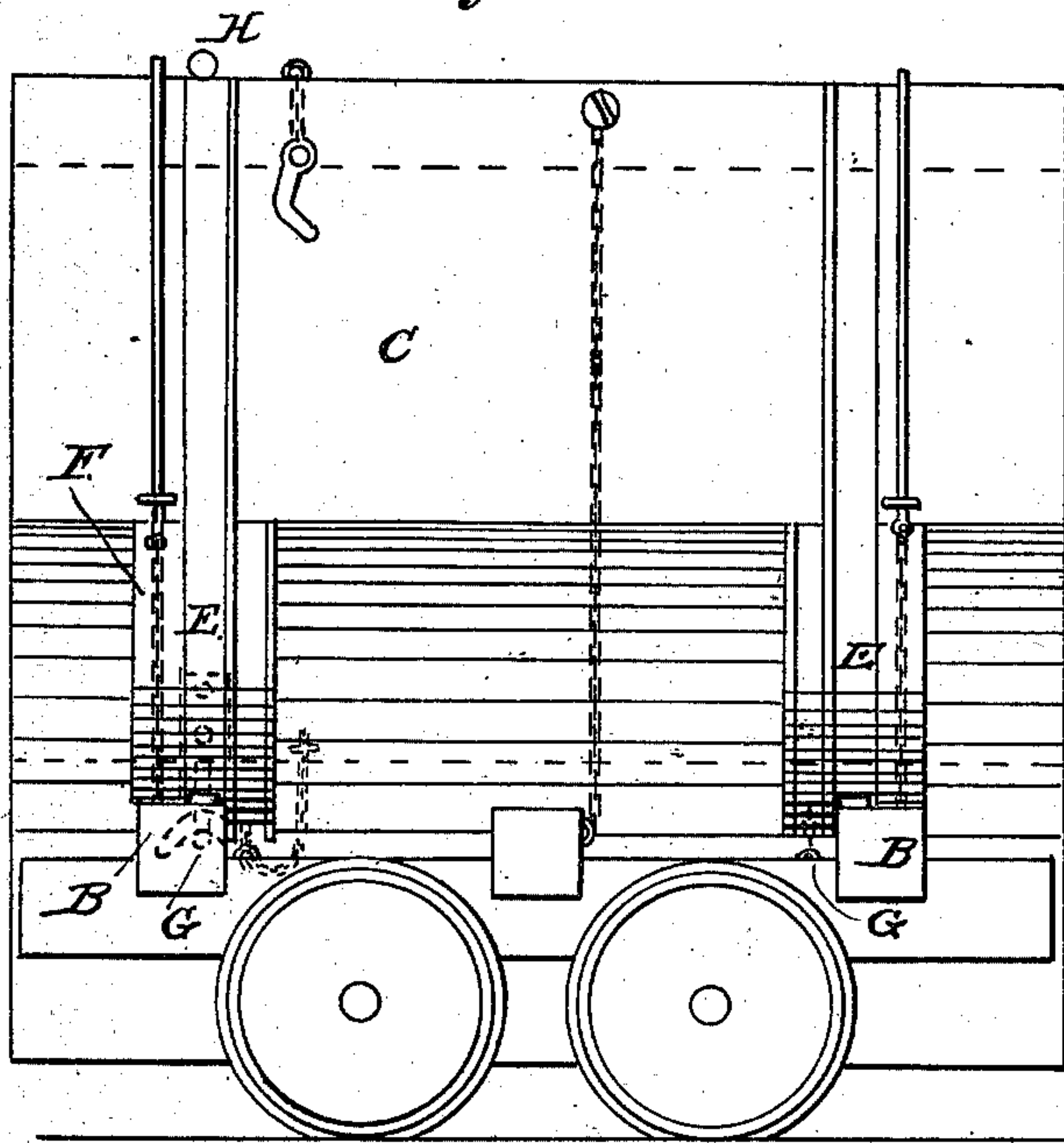
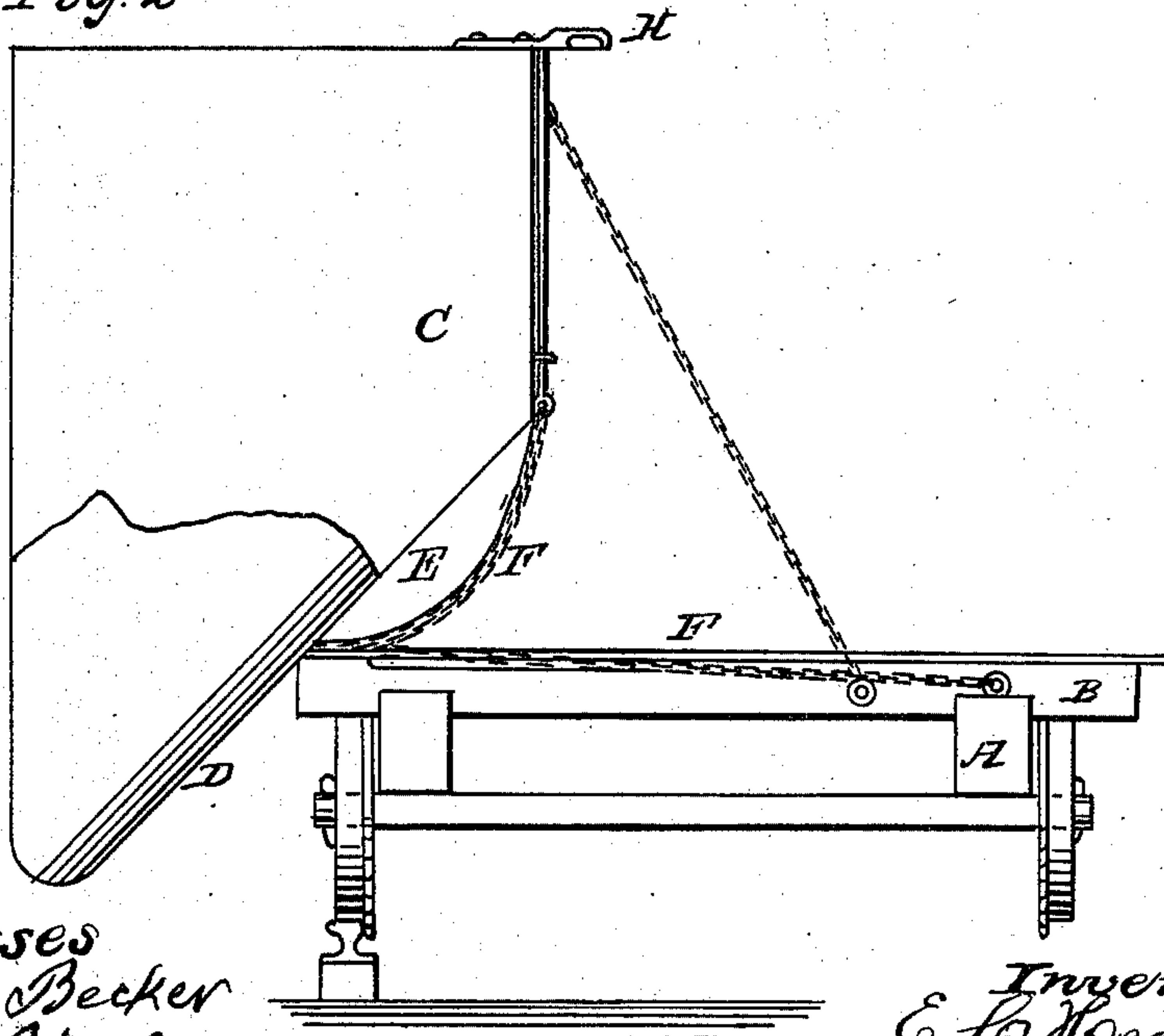


Fig. 2



Witnesses  
John Becker  
L. S. Mabee

Inventor  
E. C. Hegeler  
Per Munn & Co  
attys



# UNITED STATES PATENT OFFICE.

EDWARD C. HEGELER, OF LA SALLE, ILLINOIS, ASSIGNOR TO F. W. MATTHIESSEN & HEGELER, OF SAME PLACE.

## IMPROVEMENT IN DUMPING-CARS.

Specification forming part of Letters Patent No. **107,683**, dated September 27, 1870.

*To all whom it may concern:*

Be it known that I, EDWARD C. HEGELER, of La Salle, in the county of La Salle and State of Illinois, have invented a new and Improved Dumping-Car; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

This invention relates to improvements in dumping-cars; and consists in arranging the boxes with one side or end, as the case may be, sloping from about the center of the bottom upward, and providing the sloping side with rockers, on which the box, in tilting, will roll toward the edge for dumping instead of tilting on hinges, as heretofore.

The said rockers are provided with flanges, to keep them on the rails whereon they roll, and they have chains attached to their ends and to the truck-frame in a way to prevent them from sliding on the rails they roll upon.

Figure 1 is a side elevation of my improved dumping-car; and Fig. 2 is an end view of the same, the box being partly broken out.

Similar letters of reference indicate corresponding parts.

A is the frame of the truck, with cross-rails B. C is the box, one side of which, D, slopes from about the plane of the center upward.

E represents the rockers, placed on the said sloping side, and arranged to roll on the rails B. The rockers are so shaped (being curved eccentrically, the radii lessening from the bottom up) that in dumping the car the center of gravity of car-box and load jointly (which center of gravity changes in the act of dumping by the gradual running out of the load) remains perpendicularly supported, or nearly so.

F represents chains attached to the rockers and to the rails in such a way that the rollers will be prevented from slipping along the rails either way from the position they should occupy. The rockers have flanges G, to prevent end movement of the box.

H is a locking-pin to secure the box to the truck when receiving and carrying the load. I is a chain to prevent the box from turning too far.

The box being filled level full, the same will require no power in theory, or very little in practice, for dumping, nor for holding it back from dumping too sudden. Of course, the boxes may be arranged to dump at the side or end of the car, as preferred.

It is an essential advantage of the arrangement that the center of gravity of the box and load be over the center of the truck, which would not be the case if the load had to be adjusted on the sloping side, as with dumping-boxes with hinges, and if the rockers are not curved, as described, the dumping will require power at some position of the box, and at other positions it would fall over suddenly and be damaged or broken. Now, these boxes may be so constructed that they will either not dump without the application of a little power, or will dump by the action of gravity as soon as the fastening-hook is taken out. In the latter case they should be held back a little by hand. For very heavy cars any known contrivance—a windlass, for instance—may be used. In all cases the principle involved in the curving of the rockers is to be employed.

It is well known to me that a car can be made dumping to both sides by making the box sloping on both sides and using rockers, chains, and locking-pins, &c., on both sides, on the same principle of the car above described.

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

The sloping car-box C, eccentrically-curved rockers E, rails B, and chains F, all combined and arranged together and with the truck of a car, all substantially as specified.

EDWARD C. HEGELER.

Witnesses:

THOS. JAQUES,  
W. B. CORNISH.