No. 647,984. **Patented Apr. 24, 1900.**

J. PAYNE.

CAR BRAKE.

(Application filed Jan. 31, 1900.)

(No Model.)

Fig. 1.

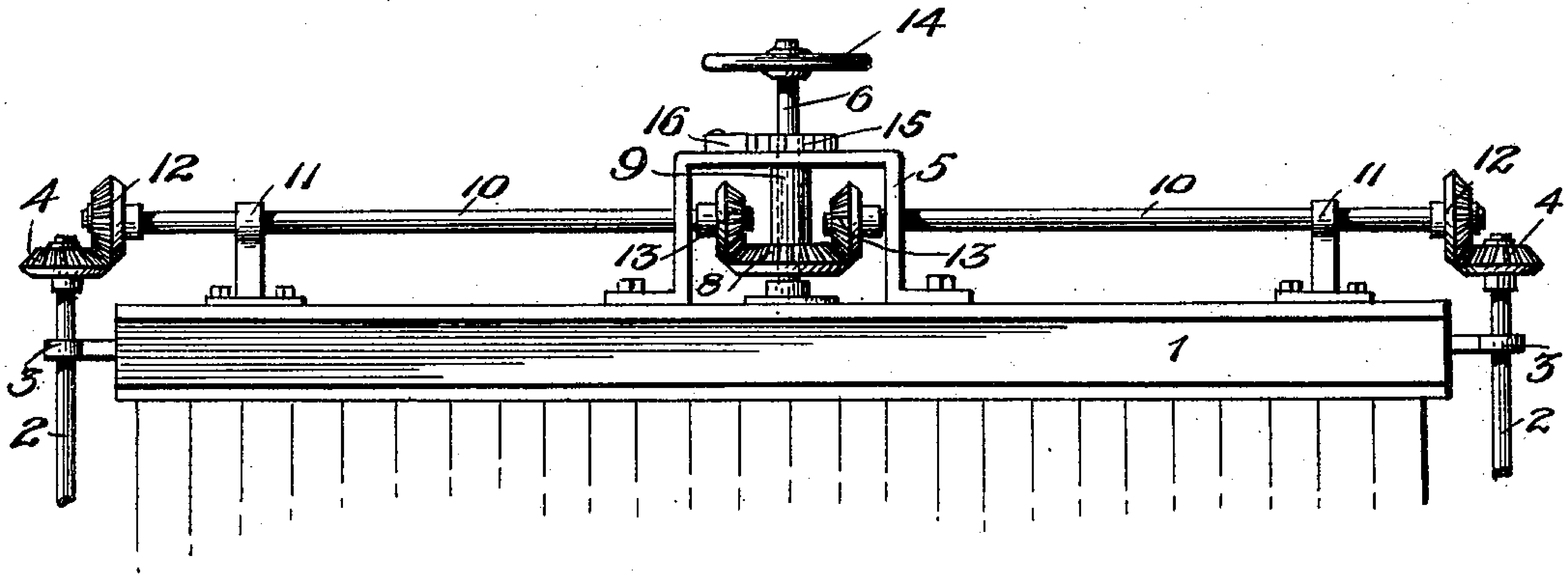
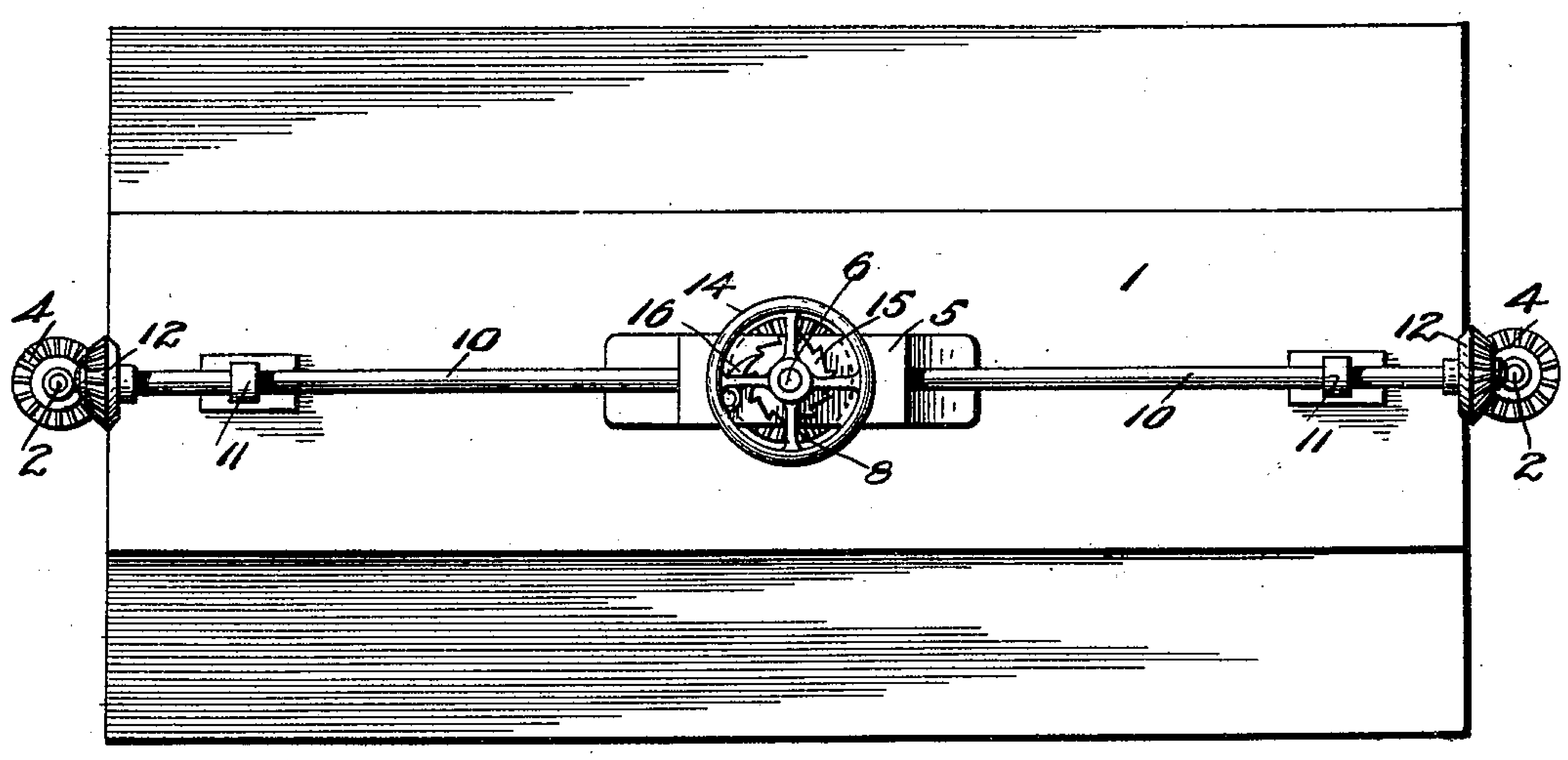


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES PAYNE, OF LOUISVILLE, KENTUCKY, ASSIGNOR OF ONE-HALF TO S. I. I. BATTISTE, OF SAME PLACE.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 647,984, dated April 24, 1900.

Application filed January 31, 1900. Serial No. 3,470. (No model.)

To all whom it may concern:

Be it known that I, JAMES PAYNE, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Car-Brakes; 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.

The invention relates to car-brakes, and more particularly to means for operating the brakes of a box-car.

One object of the invention is to provide simple, durable, and inexpensive means whereby the brakes of a box-car may be operated from the top of the car midway its ends, thereby reducing to a minimum the liability of the brakeman slipping and falling between the cars.

A further object of the invention is to provide means whereby both sets of brakes on the car may be operated simultaneously by the same brake-shaft.

With these as well as other objects in view the invention consists in certain features of construction and combination of parts, which will be hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a side elevation of a fragment of the top of a box-car, and Fig. 2 is a top plan view.

In the drawings, 1 denotes the top of the box-car. Vertical shafts 2 are journaled in brackets 3, secured to the ends of the car, and have their lower ends connected to the brake-chains, (not shown,) while their upper ends are provided with beveled gears 4.

5 denotes the brake-stand, in which is journaled the brake-shaft 6, the lower end of which is stepped in a bearing 7. A beveled gear 8 is fixed to the lower end of the shaft, and a collar or spacing-sleeve 9 is placed upon said shaft between the upper side of the gear 8 and the top of the stand 5, thereby steadying the lower end of the shaft in its step-bearing.

10 denotes horizontally-disposed shafts, one end of each of which is journaled in a bearing 11, mounted on the top of the car, and the other end in the stand 5. The outer end of each shaft is provided with a beveled gear 12, which meshes with the beveled gear 4, while the inner end of each shaft is provided with a beveled gear 13, which meshes with the master-gear 8.

14 denotes the brake-wheel, secured to the upper end of the shaft 6. When it is desired to apply the brakes, the brake-wheel 14 is rotated, thus rotating the shafts 10 and causing them in turn to impart this rotary movement to the brake-rods 2, which being at their lower ends connected to the brake-chains wind said chains around said shafts and apply the brakes at each end of the car. The usual pawl and ratchet 15 and 16 may be employed for locking the brake.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my improved car-brake will be readily apparent without requiring an extended explanation.

It will be seen that the device is simple of construction, that said construction permits of its manufacture at small cost, and that it is exceedingly well adapted for the purpose for which it is designed.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus fully described my invention, what is claimed as new, and desired to be secured by Letters Patent of the United States, is—

The combination with a box-car, of brackets secured to its ends and to its top, brake-rods journaled in the end brackets provided with beveled gear-wheels at their upper ends, a brake-stand, shafts journaled in the top brackets and in the brake-stand and provided with beveled gear-wheels at their ends, the outer ones being adapted to engage the bev-

eled wheels aforesaid, a brake-shaft journaled in said brake-stand and provided with a beveled gear-wheel which meshes with the inner gear-wheels of said shafts, and a pawl and ratchet for locking the shaft, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAMES PAYNE.

Witnesses:
W. P. HILLSMAN,
W. H. TOOPS.