

No. 793,924.

PATENTED JULY 4, 1905.

B. L. DRESSER.
TRACK CLEANER.

APPLICATION FILED DEC. 7, 1904.

2 SHEETS—SHEET 1.

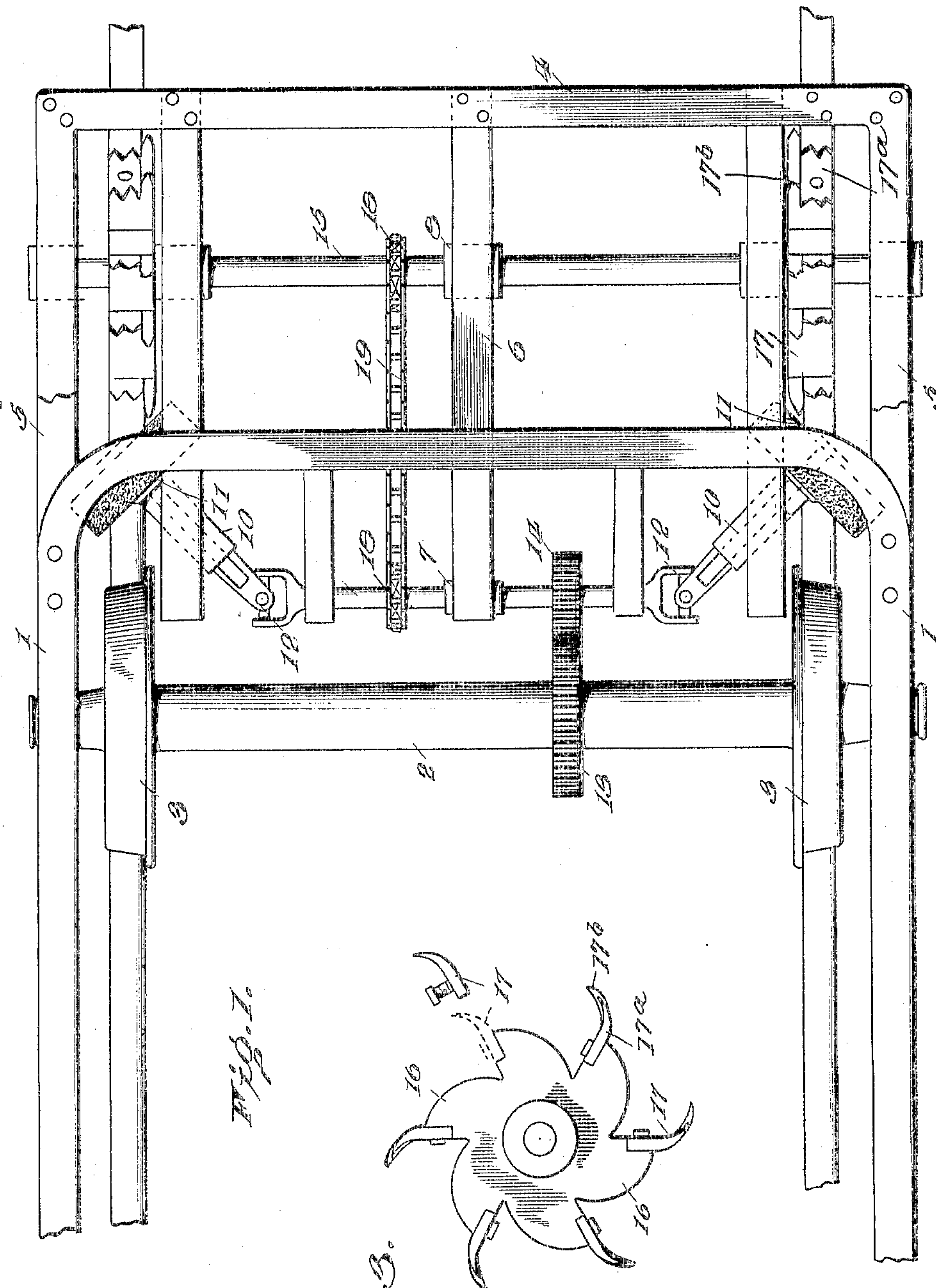


Fig. 1.

Fig. 3.

Inventor

B. L. Dresser

Witnesses

John H. ...
W. H. ...

By

R. H. ... Attorney

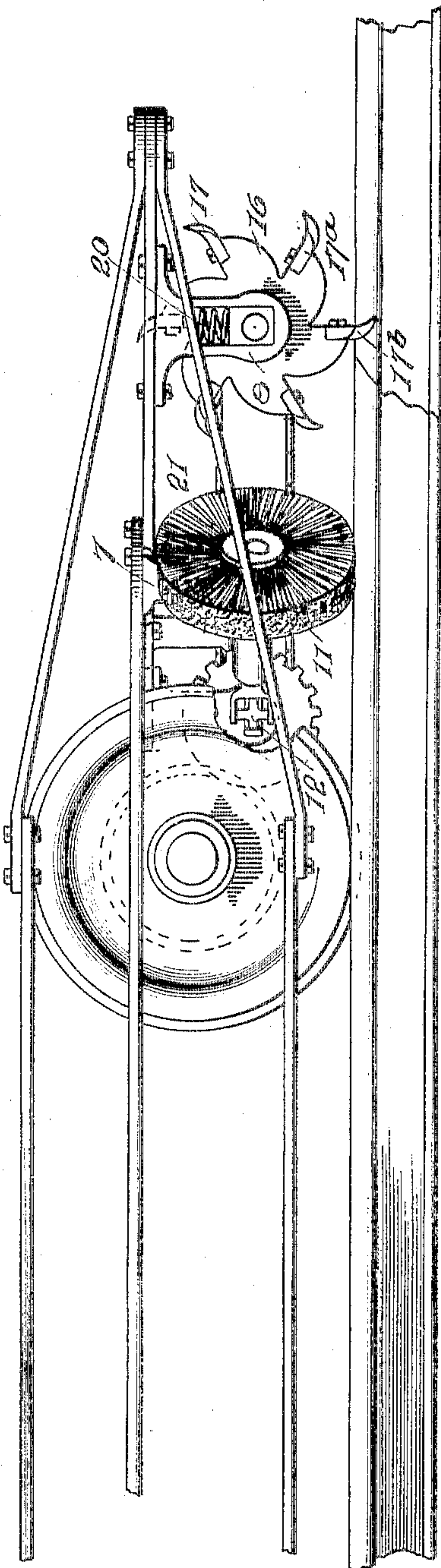
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2 SHEETS—SHEET 2.

Fig. 2.



Inventor

B. L. Dresser

Witnesses

Wm. H. Woodson

By

R. A. B. Kacy Attorney

UNITED STATES PATENT OFFICE.

BENJAMIN L. DRESSER, OF UXBRIDGE, MASSACHUSETTS.

TRACK-CLEANER.

SPECIFICATION forming part of Letters Patent No. 793,924, dated July 4, 1905.

Application filed December 7, 1904. Serial No. 235,845.

To all whom it may concern:

Be it known that I, BENJAMIN L. DRESSER, a citizen of the United States, residing at Uxbridge, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Track-Cleaners, of which the following is a specification.

This invention consists of a cleaning mechanism, adapted in its preferred use to be applied to cars or rolling-stock for cleaning the track over which said rolling-stock passes.

The invention embodies brush devices mounted in a suitable supporting-frame designed to be attached to the car or whatever type of carrier it may be desired to apply the invention, which brush devices are operated by a suitable motor.

The invention also contemplates the use of cutting mechanism adapted to coöperate with the brushes in the cleaning operation and used more particularly in wintry weather to positively break up any ice or frozen gravel particles which may lodge upon the track detrimental to the movement of the cars.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment thereof is shown in the accompanying drawings, in which—

Figure 1 is a top plan view showing the invention applied to the front of a car or like carrier. Fig. 2 is a side elevation of the invention. Fig. 3 is a side elevation of one of the cutter-wheels, the cutting device being shown displaced in an adjacent position.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The invention is shown applied to the front of a truck 1, similar to those at present in use upon railway-coaches, street-cars, or the like.

The front axle 2 of the truck 1 is shown mounted therein, said axle having the usual wheels 3.

The invention is designed for attachment in front of the truck 1 of a vehicle; and it consists, primarily, of a suitable supporting-frame comprising a transverse bar 4 and side bars 5. The side bars 5 are suitably attached to the truck 1, such attachment being sufficiently rigid to hold the cleaning device in proper position. Between the side bars 5 of the frame of the cleaning attachment is located a longitudinal supporting-bar 6, and this bar carries upon its under side suitable boxings 7 and 8, one located in advance of the other. A short shaft 9 is mounted transversely of the cleaner-frame in the boxing 7 above mentioned, and this shaft is connected at its ends with stub-shafts 10, upon which are carried revolving brushes 11. The shafts 10 are mounted at an angle to the line of the shaft 9 and are connected with said shaft 9 by means of universal joints 12. The brushes 11 are mounted upon the outer extremities of the stub-shafts 10 and are actuated, of course, by the revolution of said shaft 9.

Motion is transmitted to the shaft 9 through a suitable train of gearing, and in this instance power is communicated from the axle 2 to the shaft 9 through the medium of intermeshing gears 13 and 14, mounted upon the respective elements 2 and 9 aforesaid. As the vehicle advances the brushes 11 will be revolved in a manner readily apparent, and these brushes operate immediately in advance of the wheels 3, so that the track over which said wheels pass will be thoroughly cleaned by contact with the brushes 11. The brushes 11 operate at an angle to the line of the track, and the material with which the brushes come into contact is accordingly swept outwardly away from the sides of the track.

In addition to the brushes 11 under certain conditions it is desirable to utilize some means for cutting ice or frozen material from the grooves of the track or from the upper side thereof, as the case may be, and in this event the attachment which comprises the invention is provided with a cutter-shaft 15, mounted transversely of the frame thereof and carried in the bearing 8 upon the bar 6. The shaft

15 is mounted at its end portions in suitable boxings depending from the end bars 5 of the frame of the attachment, and thus rigidly supported. At the ends of the shaft 15 are 5 disposed cutter-wheels or spiders 16, from which project a plurality of cutters or blades 17. The blades 17 are adapted for adjustment so as to contact with the track-rails in order to remove foreign matter therefrom, as 10 hereinbefore premised upon. It is preferred to transmit power to the shaft 15 by means of sprockets 18, mounted upon the shafts 9 and 15 and connected by the usual sprocket-chain 19. It will be understood, however, 15 that the shafts 9 and 15 may be operated by an independent motor or motors, as found desirable in the actual use of the invention. The boxings 7 and 8, in which the shafts 9 and 15 are mounted, are preferably provided 20 with springs 20, cooperating with the upper brasses 21 in order that the mounting of the brushes and the cutting devices may have a certain amount of elastic play to accommodate the up-and-down motion of the rolling- 25 stock in its travel.

The mounting of the brushes 11 is such that the same serve to a certain extent as fenders, and should a person through accident or otherwise be thrown before the car or 30 rolling-stock life may be readily preserved, due to the fact that the brushes would under certain conditions roll the body of such person off of the track.

The cutters 17 may be provided in any 35 suitable number, and said cutters are secured to the part 16 by substantial fastening means. Two cutters are preferably situated adjacent

each other at intervals, one of said cutters being longer than the other, so as to clean the rail upon the inner side thereof, whereas the 40 other cutter is double-pointed, so as to effectively engage the surface of the rail in cleaning the same. The double-pointed cutter is indicated at 17^a and the single-pointed cutter at 17^b. 45

Having thus described the invention, what is claimed as new is—

1. In a device of the class described, the combination of an attachment embodying a drive-shaft and stub-shafts arranged at an 50 angle to the line of the drive-shaft and operable with said drive-shaft, brushes mounted upon said stub-shafts, a shaft mounted in advance of the drive-shaft, and cutters mounted upon the last-mentioned shaft and operating 55 in advance of the brushes aforesaid.

2. In a device of the class described, the combination of a drive-shaft, stub-shafts, universal joints connecting the inner ends of the stub-shafts with the end portions of the drive- 60 shaft, brushes mounted upon the outer ends of the stub-shafts and operated at an angle to the line of axis of the drive-shaft, a shaft mounted in advance of the drive-shaft, means for transmitting motion to the last-mentioned 65 shaft, spiders mounted upon the ends of the last-mentioned shaft, and cutters carried by said spiders.

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

BENJAMIN L. DRESSER. [L. S.]

Witnesses:

C. EDWARD BLANCHARD,
JAMES F. TRACY.