

(No Model.)

B. A. MASON.

RAILWAY CAR.

No. 248,188.

Patented Oct. 11, 1881.

Fig. 1.

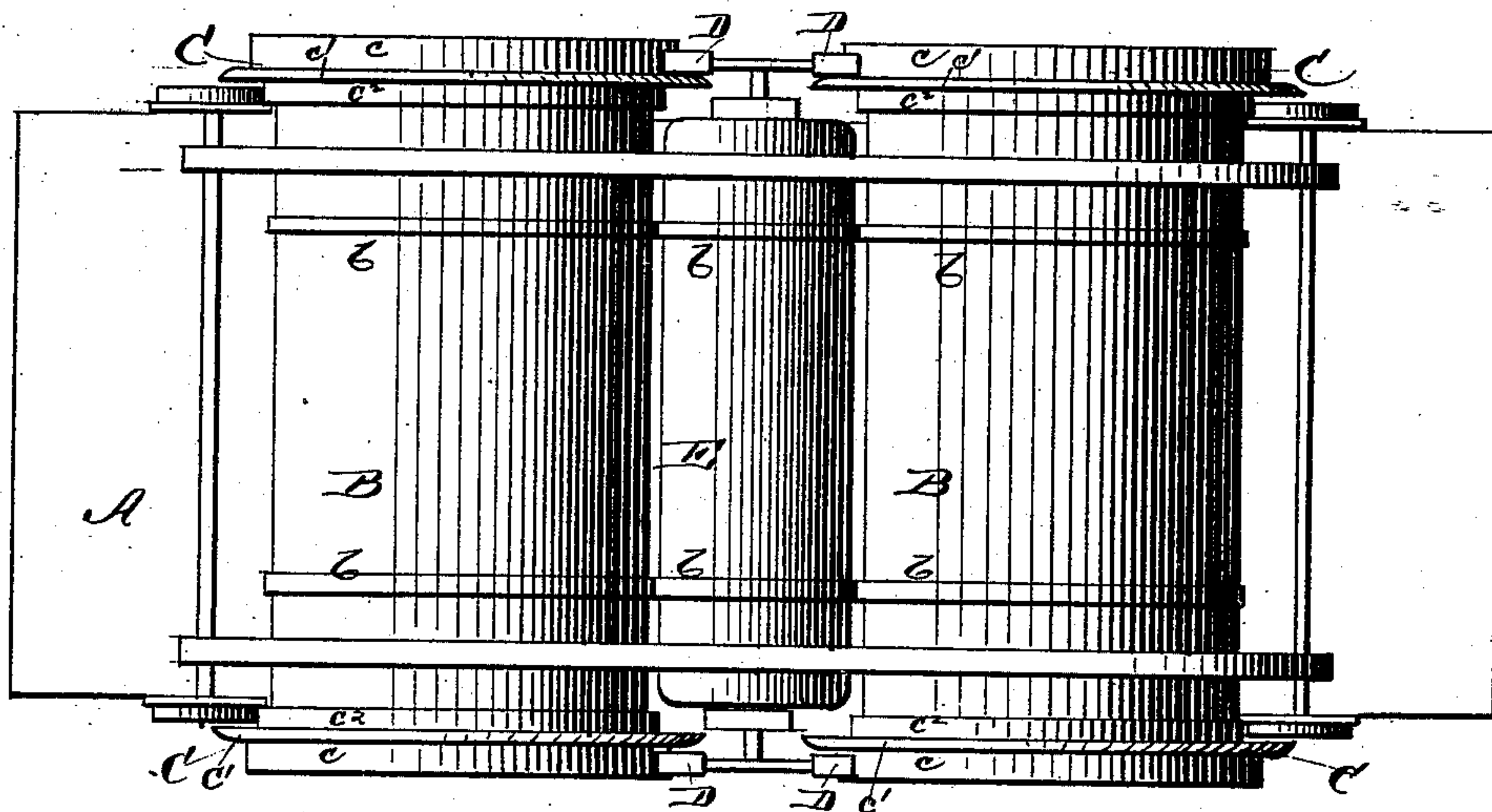
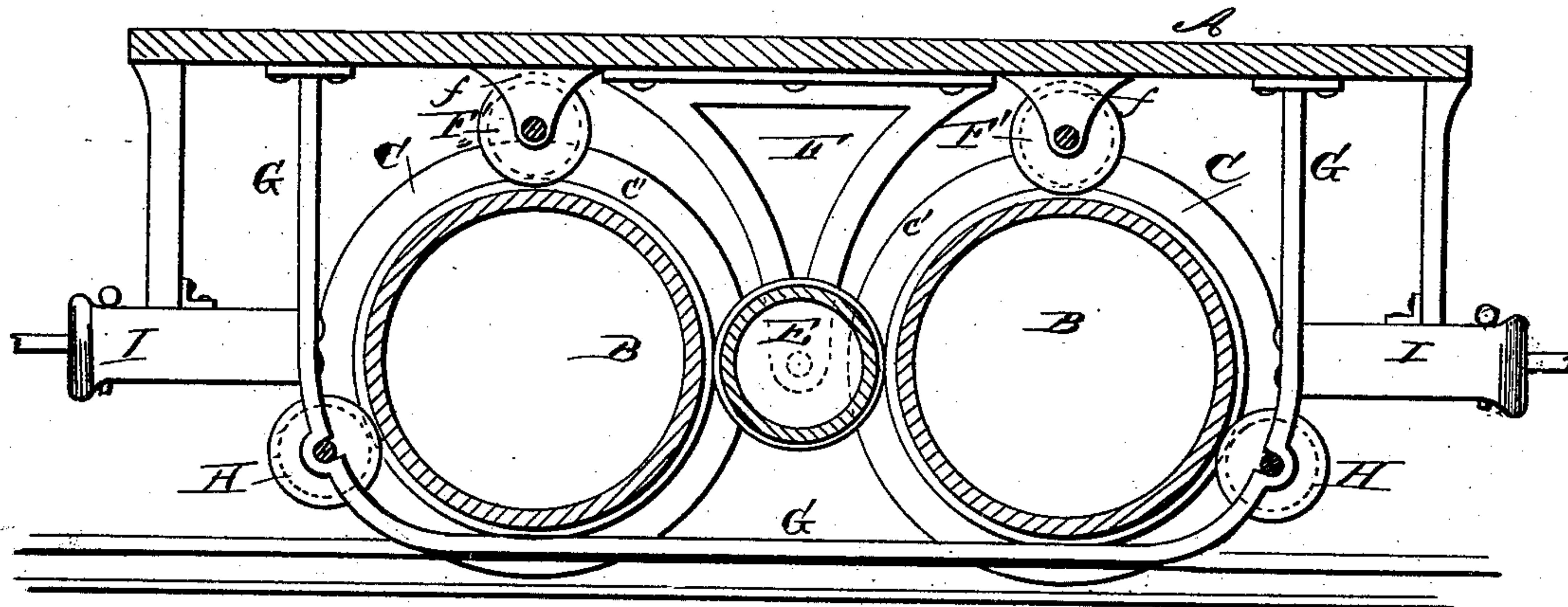


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

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RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 248,188, dated October 11, 1881.

Application filed September 8, 1881. (No model.)

To all whom it may concern :

Be it known that I, B. A. MASON, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Oil-Cars; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to that class of cars known as "cylinder" or "revolving" cars. A car of such class is usually provided with two or more cylindrical receptacles attached to the axles and arranged to roll as they travel.

The objects of my improvement are, economy in construction and maintenance, the reduction of friction to a minimum point, and less expenditure of locomotive-power in moving trains composed in whole or in part of cars constructed on this plan, the means of ready access to all of the bearings for the purpose of oiling the same while the train is in motion, and also the improvement in the details of construction. These objects I attain by means of the devices illustrated in the drawings, in which—

Figure 1 is a plan view of the car, viewed from its under side, and Fig. 2 is a central longitudinal section.

The letter A indicates the car-platform, which can be provided with any suitable body for carrying freight.

B B are the cylindrical receptacles which roll as the car traverses the track. These receptacles will have doors or valves at the end, and are principally adapted for containing oil. The cylinders are provided at or near their ends with the flanged bands C C, which can either be formed with the cylinders or made separately therefrom and secured by suitable bolts, the last construction being preferable, since the cylinders will usually be made of boiler-iron. These bands constitute the wheels, and are each formed with the tread c , which is at the outer side of the annular flange c' , and also with the cylindrical bearing-surface c^2 at the inner side of the said flange of the wheel.

The brake-shoes D, of any suitably-constructed brake mechanism, are arranged to be applied against the treads of the wheels, and are operated in the usual way.

A small cylindrical receptacle, E, is arranged between the two large cylinders B, and is provided at its end with a suitable valve. This smaller cylinder E is also provided at its ends with journals which have their bearings in brackets F F, that are secured to the platform of the car.

The cylinders B are each provided with two or more circumferential bands, $b b$, and the intermediate cylinder is provided with a like pair of bands, e , which will be in contact with the bands of the two outer cylinders. The rotation of these larger outer cylinders will cause the intermediate cylinder to turn in its bearings, and they will be at all times maintained at an unvarying distance apart.

F' F' are small anti-friction rollers, which are mounted in brackets f , secured to the car platform. These rollers bear upon the upper sides of the cylindrical bearing-surfaces c^2 of the wheels, and form supports for the platform.

Two bent rods, G G, are firmly secured at their ends to the car-platform, and are formed so as to pass under the cylinders. These rods are provided with suitable bearings for the axles of the anti-friction wheels or rollers H, which are maintained in contact with the cylindrical bearing-surfaces c^2 of the wheels on the end cylinders, B, at points below the axes of said cylinders and at the outer sides of the latter.

I I indicate the usual draw-heads, which can be connected with the platform in any suitable way.

This system of anti-friction rollers and small intermediate cylinder maintains the large rolling cylinders B in position under all circumstances, the points of contact between the same being distributed about as shown in Fig. 2.

It will be evident that openings or traps can be provided in the platform, so that the bearings of the rollers can be oiled during the travel of the car in an easy and effective manner. The friction will be reduced to a minimum, and there will be no hot boxes to be cared for.

The bands upon the intermediate rotary cylinder, E, may be grooved, and the bands upon the larger outer or end cylinders adapted to fit in the said grooves, whereby any endwise or longitudinal movement on the part of the cylinders will be avoided.

What I claim is—

1. The combination, in a rolling car, of the rotary cylindrical receptacles carrying the wheels, with the intermediate rotary cylinder and the anti-friction rollers, substantially as described.

2. The combination of the rotary cylindrical receptacles, with the upper anti-friction rollers mounted in brackets secured to the platform, and the anti-friction rollers upon axles having their bearings in the bent rods that are secured to the car-platform and arranged to pass under the cylinders, substantially as described.

3. The combination, with the car-platform, of the rotary cylindrical receptacles B, carrying at their ends the flanged wheels, and also

provided with circumferential bands *b*, the rotary intermediate cylinder, E, provided with bands *e*, maintained in contact with the bands of the outer cylinders, and the anti-friction rollers, supported by brackets and rods, secured to the platform and arranged to maintain the cylinders B in place, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

B. A. MASON.

Witnesses:

AUG. A. NICHOLSON,

T. H. ALEXANDER.