(No Model.)

H. BARRATT.

FLUID PRESSURE CAR BRAKE.

No. 283,368. Patented Aug. 21, 1883.

Fig. 1.

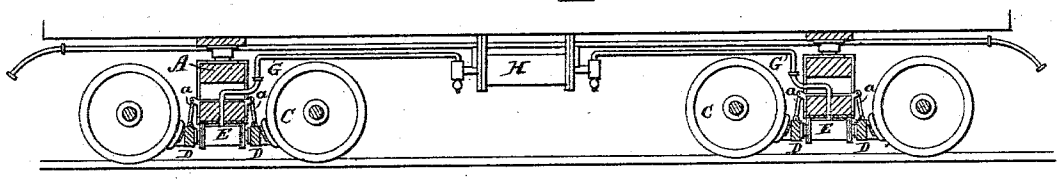


Fig. 2.

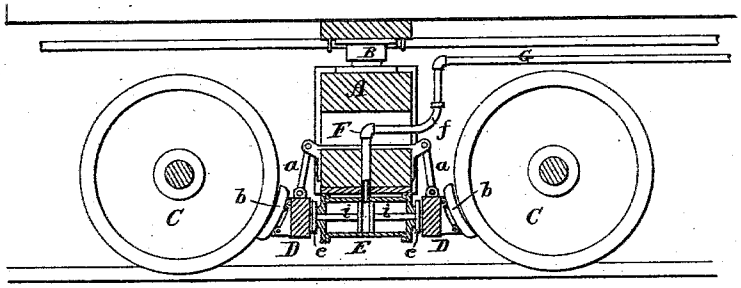
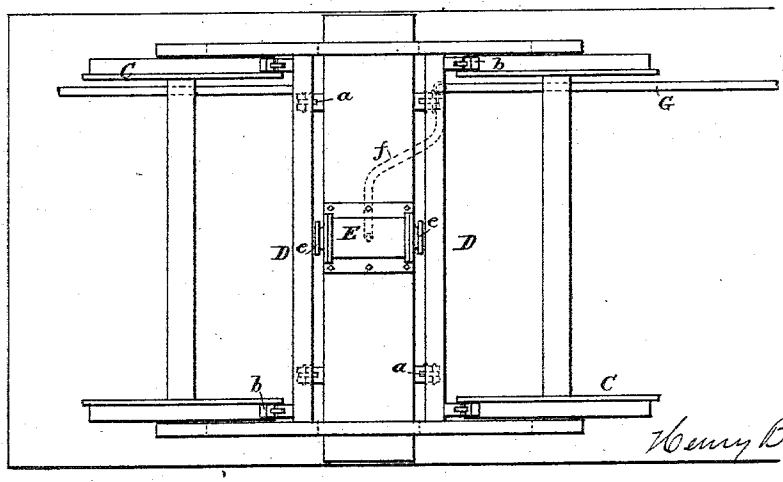


Fig. 3.



Henry Barratt

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N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

HENRY BARRATT, OF YORK, PENNSYLVANIA, ASSIGNOR OF ONE-THIRD TO JACOB O. MILLER, OF SAME PLACE.

FLUID-PRESSURE CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 283,368, dated August 21, 1883.

Application filed February 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY BARRATT, of the city and county of York, State of Pennsylvania, have invented certain Improvements in Fluid-Pressure Car-Brakes, of which the following is a specification.

My invention relates to that class of car-brakes in which the pressure of air, steam, or other fluid is made the means of applying the brakes; and my invention consists in certain appliances, described hereinafter, whereby to avoid the use of ordinary bars, levers, and rods employed for communicating motion to the brake-shoes.

In the drawings, Figure 1 is a sectional elevation of sufficient of a railway-car to illustrate my improvement. Fig. 2 is a longitudinal section of one of the trucks enlarged. Fig. 3 is a plan view of Fig. 2 in part.

The car-body is supported by the usual trucks, each of which has a frame of any ordinary construction. As shown, there is a central cross-beam, A, from which the brake-bars D are suspended by links *a*, the shoes *b* being arranged upon the beams so as to bear against the treads of the wheels C.

Each truck is pivoted by the usual king-bolt, B, and carries one or more cylinders, E, in each of which are two pistons, *i*, with rods extending to the opposite ends of the cylinder, and provided at the ends with disks or heads *e*, arranged opposite the inner sides of the brake-beams D.

With the center of each cylinder communicates a tube, F, which is connected by a flexible pipe, *f*, to a tube, G, leading to a reservoir, H, upon the car, or upon the locomotive or any other convenient place, and supplied in any well-known way with air, steam, or water, or other fluid under pressure, suitable cocks being provided whereby the engineer or brakeman may transmit the pressure of the fluid at will to the cylinders E, or remove the pressure therefrom.

When the pressure is brought upon the fluid in the cylinder, the pistons *i i* will be forced outward, and the brake-beams D will be carried toward the wheels until the shoes are pressed firmly against the latter, in which condition they will remain until the pressure is removed, and the weight of the beams and appurtenances will carry the shoes away from the wheels and bring the pistons together.

It will be seen that by this construction and arrangement of devices I dispense with the levers, and rods and chains, pulleys, and similar appliances heretofore used, and secure a direct application of the pressure to the brakes, that the power can be transmitted to the ordinary pivoted trucks through the medium of the flexible connecting-pipe *f*, and that any number of cylinders to secure the desired result may be simultaneously supplied with the motor-fluid from a single source.

I claim—

The combination, with the trucks pivoted to a car, of cylinders mounted thereon and provided with pistons and rods arranged and connected to operate the brake-shoes, supply-pipes G, and flexible pipes *f*, connecting said pipes G to the cylinders, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY BARRATT.

Witnesses:
D. BEAVERSON,
T. C. STROMAN.