No. 833,635. PATENTED OCT. 16, 1906.

J S ROGERS.

ANTIFRICTION DEVICE.

APPLICATION FILED JAN. 11, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

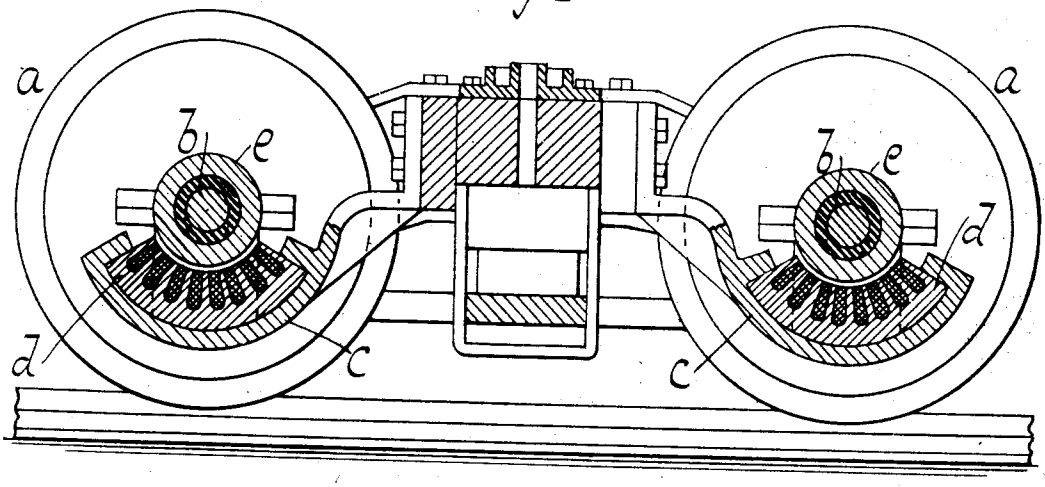


Fig. 2.

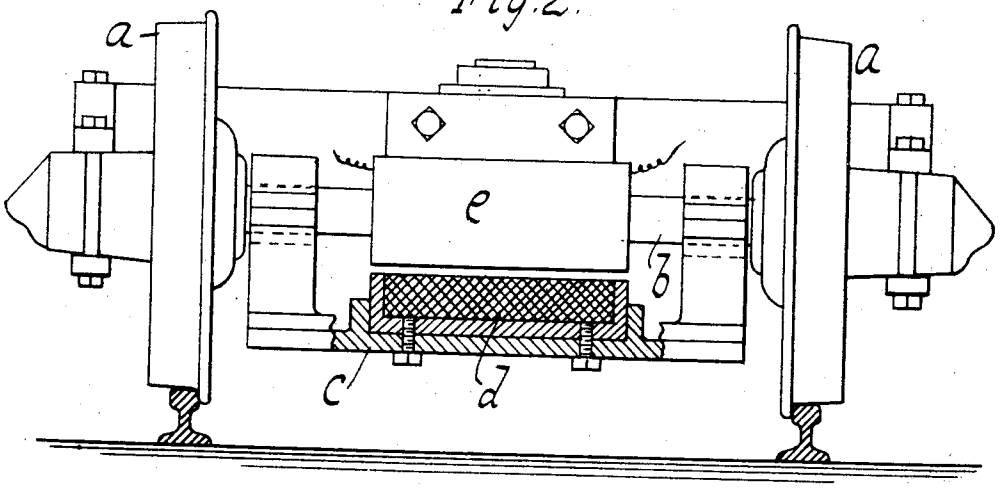
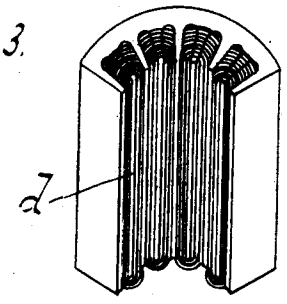


Fig. 3.



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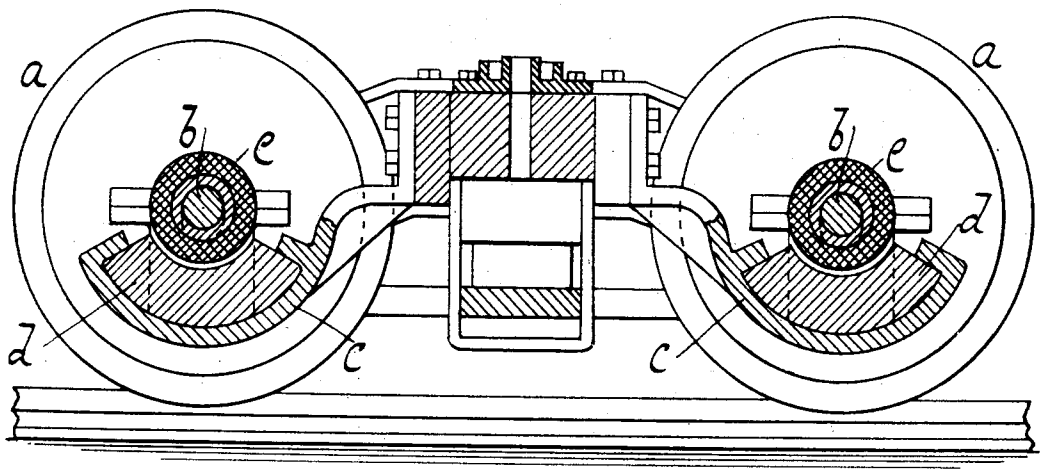
2 SHEETS—SHEET 2.

Fig 4



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ANTIFRICTION DEVICE.

No. 833,635. Specification of Letters Patent. Patented Oct. 16, 1906.

Application filed January 11, 1906. Serial No. 295,664.

To all whom it may concern:

Be it known that I, J S ROGERS, a citizen of the United States, residing at Bronx borough, in the county and State of New York, have invented new and useful Improvements in Antifriction Devices, of which the following is a specification.

By means of this invention the pressure or friction of a vehicle on the axle or bearing is counteracted or reduced, as set forth in the following specification and claims, and illustrated in the annexed drawings, in which—

Figure 1 is a sectional side elevation of a running-gear or a truck embodying this invention. Fig. 2 is an end view, partly in section. Fig. 3 is a perspective view of a magnet. Fig. 4 is a sectional side elevation of a modification.

In the drawings the letter *a* designates the wheels, and *b* is an axle. The wheels of a railroad-car can be taken as an example, but no limitation of this invention is thereby intended. The frame *c* is hung from or has its bearings on the axle, and this frame is made to carry the vehicle or support the weight of the car or vehicle body.

A magnet is shown at *d*, and the attraction between the magnet and the axle will tend to lift or counteract the pressure of the frame or vehicle on the axle. The friction of the frame on its bearings or the pressure of its contact on the axle is thus reduced or counteracted. The axle thus serves as an armature with relation to the magnet. An armature portion or suitable enlargement on the axle can be provided, as seen at *e*. The magnet can be an electromagnet of suitable construction, and when suitably vitalized such magnet will cause counteraction or reduction of friction, as stated. The supporting-frame *c* can be of any suitable construction, and the magnet being secured to this frame and the latter being on the axle a suitable lifting action by the magnet will be obtained, as required. By means of an armature, as seen at *e*, the attraction can be increased. The axle can have an enlargement forming an armature, as shown in Fig. 2, or, as shown in Fig. 4, the axle may carry the magnet, and the armature of curved or suitable form can be secured in proximity to the magnet. A reversal of parts, such as applying the magnet to the axle and the armature to the frame or to the vehicle to accomplish the desired result is, of course, included in the invention. Such and similar modifications are to be considered as claimed herein.

The armature and magnet can be the laminated structure usual in magnetic constructions.

This invention can be suitably applied. For example, on electric motors or vehicles when the electric fluid is turned on it can at the same time be made to vitalize the antifriction magnet, or the device could be arranged in any other desired suitable way—as, for example, by having a dynamo or electric generator on the vehicle; or other suitable operating means can be employed to generate and control the electric current.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A vehicle having the body and axle respectively provided with magnet and armature portions for counteracting the pressure of the body on the axle.

2. A vehicle-axle combined with a frame having bearings on the axle, and a magnet connected to the frame for exerting attraction on the axle.

3. A vehicle-axle provided with an armature portion, a supporting-frame hung on the axle, and a magnet for exerting attraction on the armature portion to counteract the pressure or weight of the frame.

4. A vehicle-axle combined with a frame hung on and having a magnet below the axle for counteracting the weight or pressure of the frame.

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

J S ROGERS.

Witnesses:

EDWARD WIESNER,

GEORGE HULSBERG.