F. GOSTINER.

CAR BRAKE.

APPLICATION FILED MAY 23, 1911.

1,009,505. **Patented Nov. 21, 1911.**

Fig. 1.

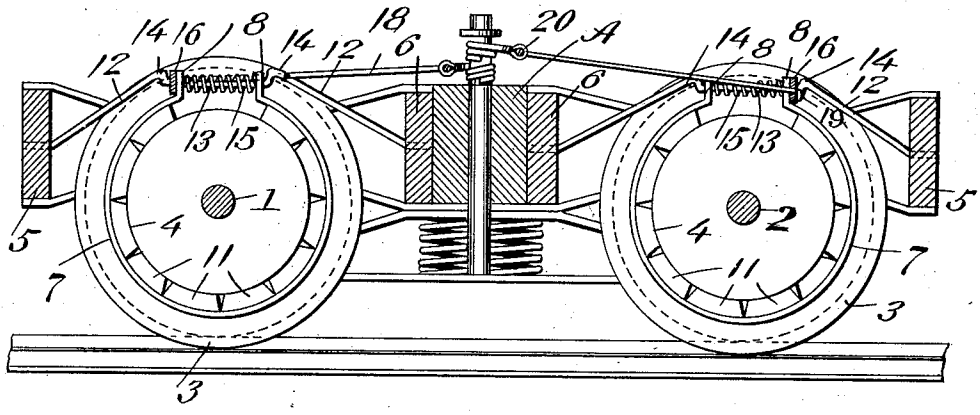


Fig. 2.

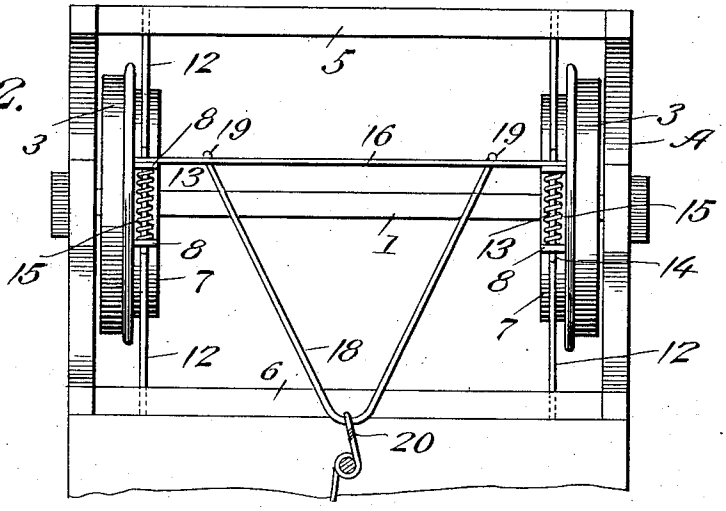
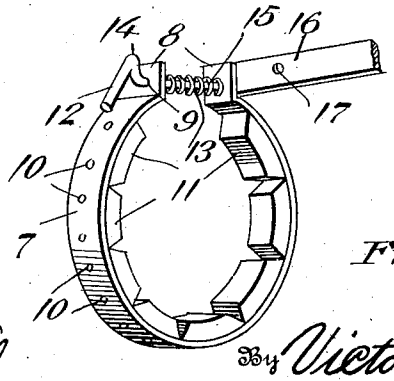


Fig. 3.



Witnesses

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CAR-BRAKE.

1,009,505. Specification of Letters Patent. Patented Nov. 21, 1911.

Application filed May 23, 1911. Serial No. 628,939.

To all whom it may concern:

Be it known that I, FRANK GOSTINER, a citizen of the United States, residing at Port Huron, in the county of St. Clair and State of Michigan, have invented new and useful Improvements in Car-Brakes, of which the following is a specification.

This invention relates to car brakes and has particular application to certain novel and useful improvements in band brakes adapted especially for use in connection with railway rolling stock.

In carrying out my invention, it is my purpose to provide a simple, reliable and effective form of brake mechanism which may be readily operated by air pressure or otherwise to positively and quickly stop the car.

A further object of the invention is to provide a form of braking mechanism which may be installed upon any of the ordinary types of street railway or other railway cars, which will require but little attention and repair, and which may be manufactured and marketed at a relatively low cost.

With the above-recited objects and others of a similar nature in view, my invention consists in the construction, combination and arrangement of parts, set forth in and falling within the scope of the appended claim.

In the accompanying drawing:—Figure 1 is a longitudinal sectional view taken through a car truck having my improved braking mechanism applied thereto. Fig. 2 is a top plan view of a portion of the truck carrying a pair of wheels and provided with my improved braking mechanism. Fig. 3 is a perspective view of one of the band brakes and its connections.

Referring now to the accompanying drawing in detail, the letter A designates a car truck, having a forward and rear axle 1 and 2, and the wheels 3 carried thereby. Each wheel is provided on its inner face with a braking flange or disk 4.

The numerals 5—5 designate cross beams at the ends of the truck frame while 6—6 indicate similar bars or beams extending intermediate the side sills of the truck frame.

My improved brake mechanism, as shown in the drawings, comprises in the present instance, four band brakes, one for each wheel, and operating mechanism therefor, although I wish it to be understood that it is not necessary for the purpose of the invention to employ this number of brakes, as two band brakes, or one set may be employed. Each brake proper comprises a flexible spring band 7, preferably constructed of metal, and bent into approximately circular form to fit over the flanged disk on the wheel, the ends of said band being extended to form the approximately parallel pair of lugs 8—8 which are perforated as at 9. To the inner face of the band I secure by bolts 10 a number of wooden sections or blocks 11 forming friction shoes when forced into contact with the periphery of the brake flange disk, as hereinafter described. Each band brake is provided with a hanger formed of two oppositely inclined arms 12—12, connected through the straight horizontal rod section 13, on the top side of the band brake, the arms at their point of junction with the rod section forming the shoulders 14—14. The rod section of the hanger or suspender is surrounded by the expansion spring 15, which bears against the inner faces of the apertured lugs of the band, the rod section passing through such lug. The outer ends of the arms 12—12 are connected to the end cross beams and intermediate cross beams of the truck frame. Extending transversely between opposite brake members is a brake bar 16 having apertures 17 therein through which pass the suspenders or hangers of the brakes, the ends of said bar lying between the adjacent lugs of the band and the shoulders 14. These brake bars are each connected to and operated by the brake-setting yoke 18, the ends 19 of which are connected adjacent to the ends of the bar so that a direct pull may be had upon the bar when the draft is applied at the loop of the yoke, at the point 20. Instead of a yoke, I may employ other forms of actuating means for pulling the brake bar to set the brakes. These yokes are operated by any suitable mechanism under the control of the engineer or motorman and each set of brakes may be made to operate independently if desired.

From the above description, taken in connection with the accompanying drawings, the construction and operation of my invention will be readily apparent. When the brakes are assembled upon the car the bands carrying the friction shoes partially surround the flanges or brake disks, but out of contact with the same, the expansion springs forcing the end of the band apart.

When the brake is to be applied stress or pull is exerted through the yoke or its equivalent, drawing the bar of the set of brakes away from the shoulders against which it rests and into contact with the adjacent lugs of the bands, thus forcing these lugs inward and contracting the band brake to apply the same against the tension of the expansion springs. When the tension upon the bar actuating yoke is released, the expansion springs return the braking bar to its normal position against the shoulders of the suspenders, thereby releasing the pressure upon the brake bands and unsetting the latter.

It will be noted that I have provided an exceedingly simple yet efficient form of car braking mechanism, which is applicable to any type of railway rolling stock and while I have herein shown and described one particular embodiment of my invention, by way of illustration, I wish it to be understood that I do not confine myself to all the precise details of construction herein set forth, as modification and variation may be made without departing from the spirit of the invention or exceeding the scope of the appended claim.

I claim:—

The combination with a car truck, an axle journaled therein, wheels carried by the axle a brake flange on the inside of each wheel, and braking mechanism comprising a band partially encircling the flange, friction brake shoes carried by the band, a suspender member supported in the truck frame and having a central portion connecting the ends of the band, a spring encircling said central portion and normally forcing the ends of the band apart, a brake bar extending between the brakes of the wheels and bearing against the ends of the bands, and means for exerting a pull upon said bar to set the brakes.

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

FRANK GOSTINER.

Witnesses:

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