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H. FENSKE.

SWITCHING ATTACHMENT FOR RAILWAY CARS.

APPLICATION FILED JUNE 26, 1905.

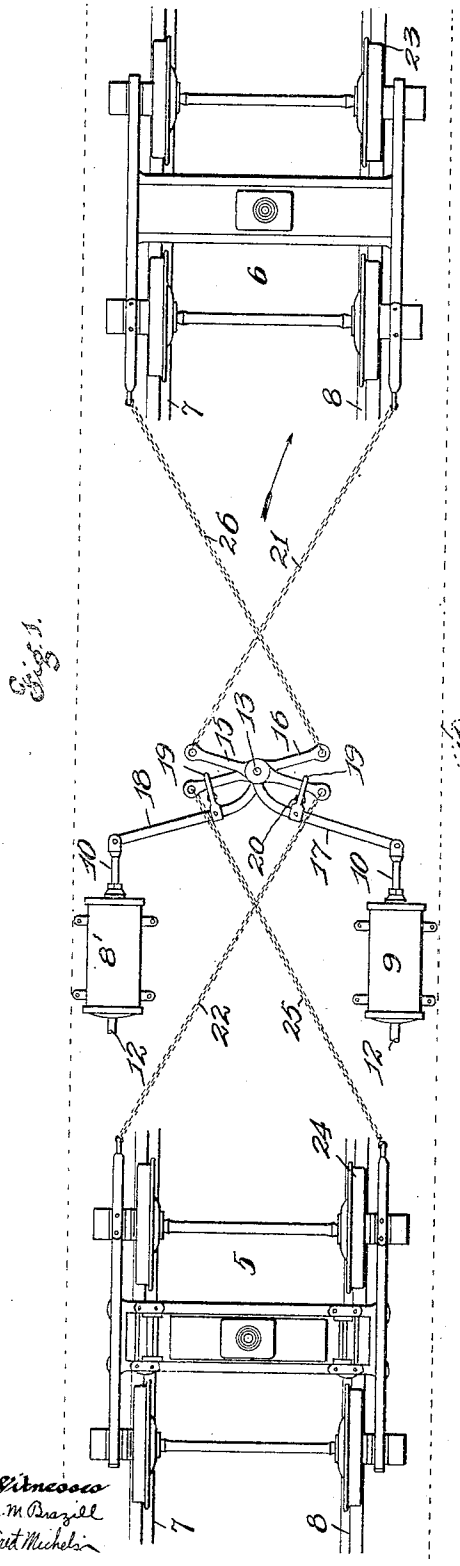

Fig. 1.

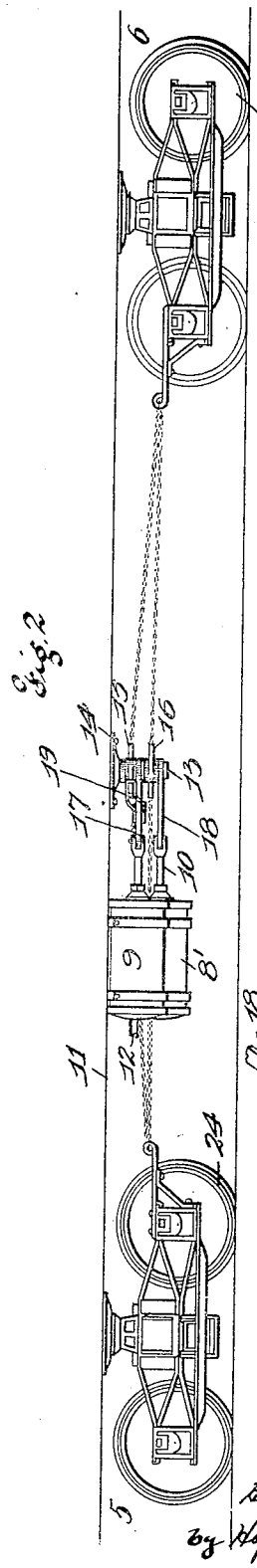

Fig. 2.

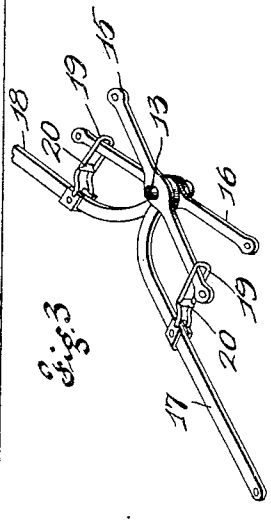

Fig. 3.

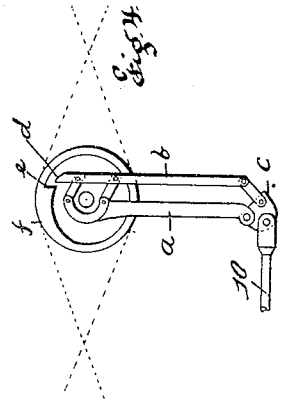

Fig. 4.

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UNITED STATES PATENT OFFICE.

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SWITCHING ATTACHMENT FOR RAILWAY-CARS.

No. 804,001. Specification of Letters Patent. Patented Nov. 7, 1905.

Application filed June 26, 1905. Serial No. 267,062.

To all whom it may concern:

Be it known that I, HERMAN FENSKE, a citizen of the United States, and a resident of St. Louis, Missouri, have invented certain new and useful Improvements in Switching Attachments for Railway-Cars, of which the following is a specification.

My invention relates to improvements in switching attachments for railway-cars; and it consists of the novel arrangement, construction, and combination of parts, as will be fully hereinafter described and claimed.

The object of my invention is to equip a railway-car with a device whereby the trucks are operated laterally by a lever mechanism operated by compressed air, the said trucks being so manipulated for rounding a curve without the use of rail-switches.

A further object of my invention is to be able by means of a lever mechanism operated by compressed air to impart lateral motion to each of the trucks, the same hugging closely to the rail which forms the curve over which the car is adapted to be conveyed.

In the drawings, Figure 1 is a top plan view of the trucks detached from the car-body, showing my invention connected therewith. Fig. 2 is a side view of the same. Fig. 3 is a detail perspective view of the levers made use of in carrying out my invention. Fig. 4 is a detail top plan view of a modified form of lever mechanism.

Referring to the drawings in detail, 5 and 6 indicate the trucks of an ordinary railway-car, and 7 and 8 the rails on which said trucks are conveyed.

8′ and 9 are compressed-air cylinders, in which operate pistons 10. Said cylinders are supported to the under side of the car-body 11, and to the same are connected a suitable air connection 12, to which air is admitted by any suitable valve mechanism located on the platform and operated by the motorman. To the under side of the body and located about midway between the trucks is supported a pintle 13 by means of its base-plate 14. On this pintle are mounted levers 15 and 16. Immediately beneath the lever 15 is pivotally mounted the operating-lever 17, and beneath the lever 16 is likewise mounted the operating-lever 18. The levers 17 and 18 are connected to the pistons 10, and upon said levers are also mounted yokes 19, which pass around one of the arms of the levers 15 and 16. The yokes 19 are provided with a cross-bar 20, the purpose of which is to come in contact with the arm of the levers 15 and 16 when the levers 17 and 18 are operated forwardly by the pistons 10, thereby drawing upon the chains connected to the trucks. The purpose of the yokes 19 is to allow freedom to the levers 15 and 16 to coöperate in movement with the trucks caused by the irregularity of the track when power is not applied to the operating mechanism. When power is applied to the levers 17 and 18, lost motion is employed until the cross-bars 20 of the yoke come in contact with the arms for the purpose as before specified.

The operation of my invention is as follows: If it is desired to convey the car over a curve located at the right of the main track, air is admitted to the cylinder 9, which will operate the lever 17 and the lever 15, thereby drawing upon the chains 21 and 22, giving a lateral movement to the trucks and causing the wheels 23 and 24 to hug closely to the rail 8, thereby being able to round the desired curve. To round a curve located at the left of the track, the cylinder 8′ is operated, which will, by means of the levers 16 and 18, operate the chains 25 and 26 and impart lateral motion to the trucks opposite to that previously described. In order to convey the car on the straight track and to freely pass the curved connections of the track, air is admitted into both cylinders equally, thereby imparting equal motion upon both sets of levers and chains, holding both trucks in a perfectly straight and solid position.

The modified form, as shown in Fig. 4, consists of levers *a* and *b*, their outer ends connected to a plate *c*, which plate in turn is connected to the piston 10. The lever *b* is provided with a tooth *d*, which is designed to come in contact with the tooth *e*, formed on a circular disk *f*, said disk to form the same function as the levers 15 and 16, and to said disk is connected the chains which operate the trucks.

Having thus described my invention, what I claim as new, and desire to have secured to me by the grant of Letters Patent, is—

1. A switching attachment for railway-cars comprising a plurality of levers carried by the car, flexible connections between the levers and the trucks, and means for operating said levers from the platform of the car to impart lateral motion to the trucks for the purpose of switching the car, substantially as specified.

2. A switching attachment for railway-cars comprising a plurality of levers carried by the

coach, air-cylinders operating said levers, and chains connecting the levers with the trucks for the purpose of imparting lateral motion to the truck for switching the same, substantially as specified.

3. A device of the class described, comprising a pair of double-arm levers mounted upon a pintle, operating-levers, one mounted beneath each of the double-arm levers, a yoke carried by the operating-levers and passing over one of the arms of the double-arm levers, chains connecting the double-arm levers to the trucks, and means for imparting motion to the operating-levers, substantially as specified.

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

HERMAN FENSKE.

Witnesses:
B. S. MUCKENFUSS,
GEO. THIES.