No. 749,361. PATENTED JAN. 12, 1904.

F. L. CLARK.

INTERCHANGEABLE DRAW GEAR FOR RAILWAY CARS.

APPLICATION FILED MAY 10, 1901.

NO MODEL.

Fig. 1

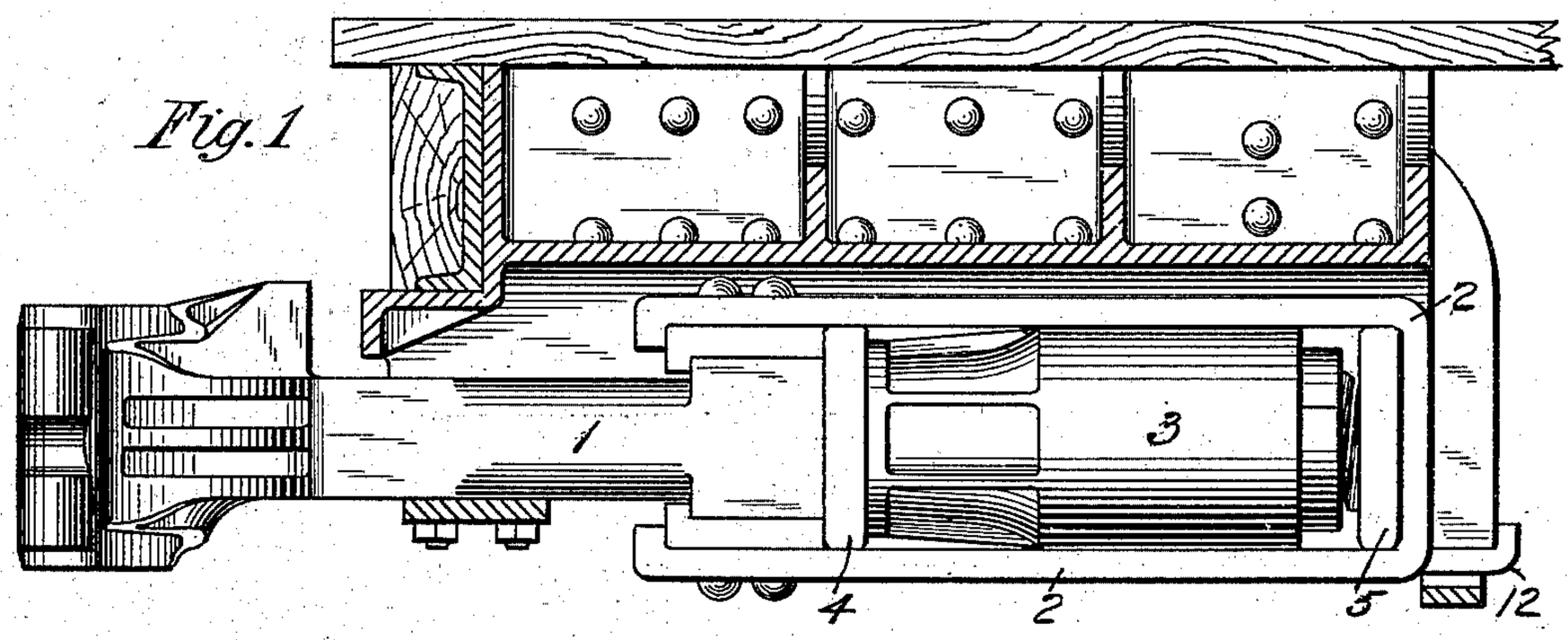


Fig. 2

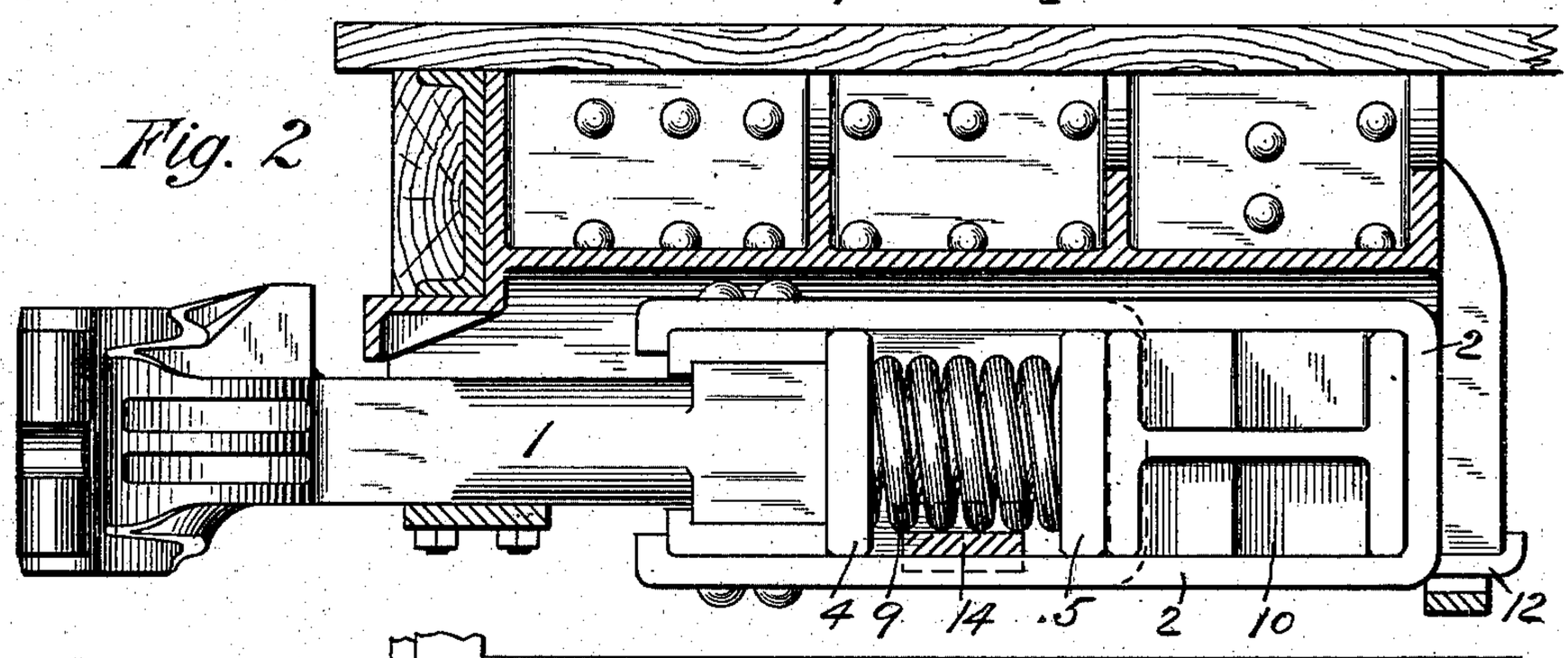


Fig. 3

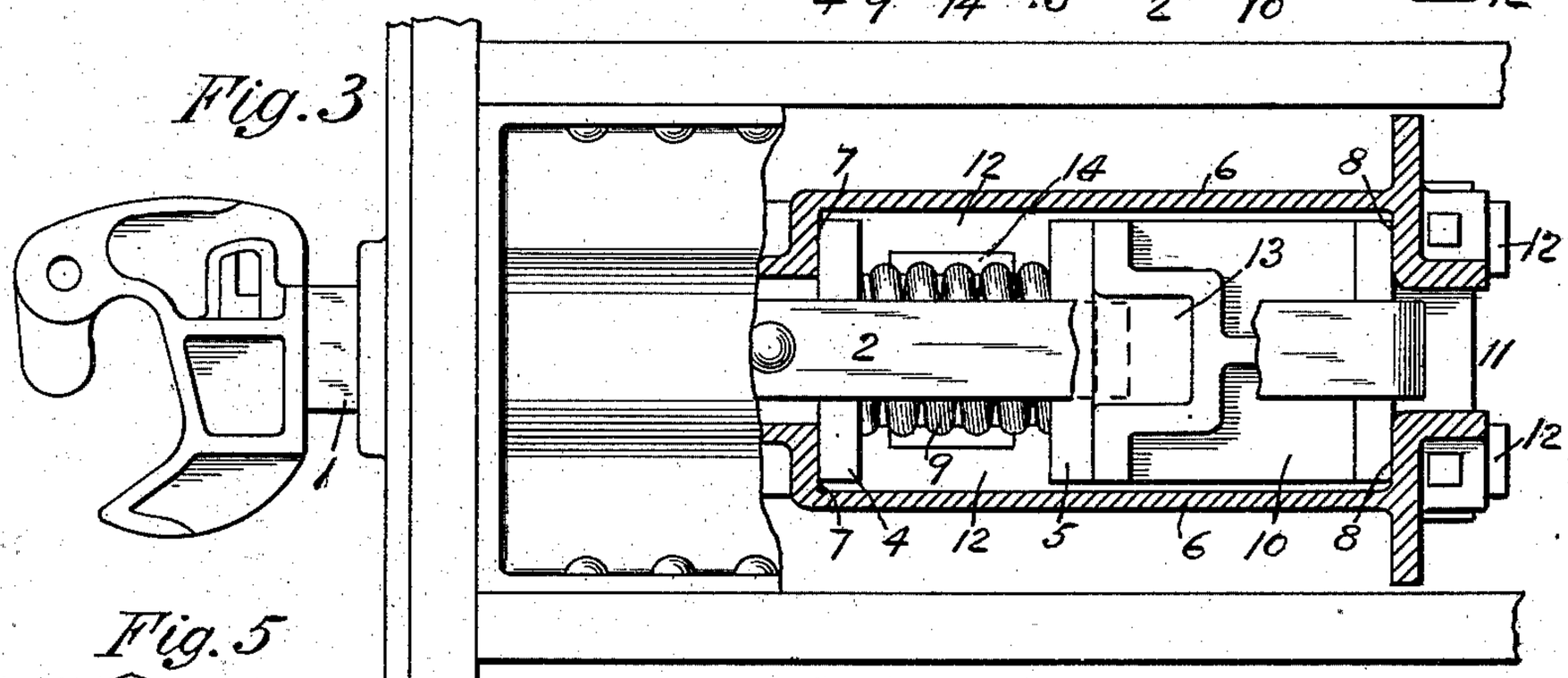


Fig. 5

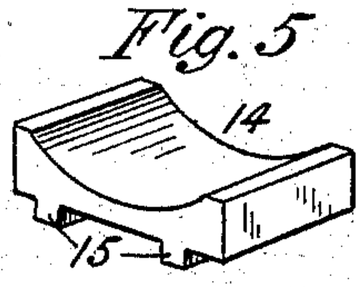
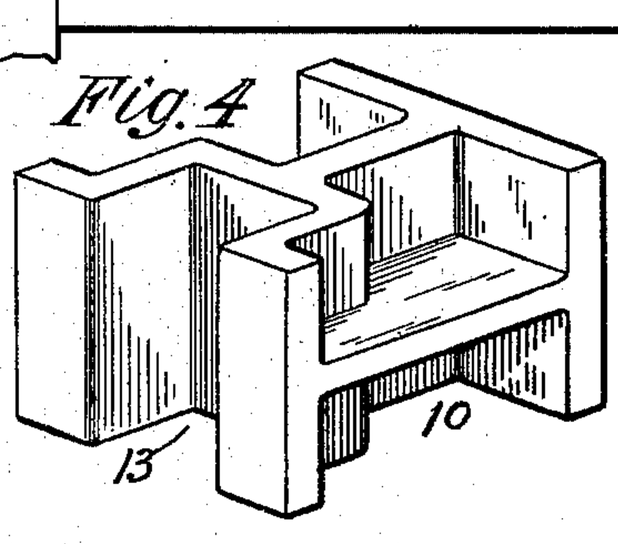


Fig. 4



WITNESSES:

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No. 749,361. Patented January 12, 1904.

UNITED STATES PATENT OFFICE.

FRANCIS L. CLARK, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO THE WESTINGHOUSE AIR BRAKE COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

INTERCHANGEABLE DRAW-GEAR FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 749,361, dated January 12, 1904.

Application filed May 10, 1901. Serial No. 59,607. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS L. CLARK, a citizen of the United States, residing at Pittsburg, county of Allegheny, State of Pennsylvania, have invented or discovered a certain new and useful Improvement in Interchangeable Draw-Gear for Railway-Cars, of which improvement the following is a specification.

My invention relates to draw-gear for railway-cars, and has for its object to provide a construction by means of which the ordinary spring draw-gear may be substituted in the place of a friction draw-gear, and vice versa.

The friction draw-gear and buffing apparatus, which is now rapidly coming into use, is usually secured to the draw-bar by means of a long strap or yoke and operates in an elongated frame or housing secured to the draft-timbers of the car. It is often desirable to be able to substitute temporarily an ordinary spring draw-gear in place of the friction draw-gear and buffing apparatus; but the spring draw-gear is so much shorter than the friction apparatus that it will not reach between the abutments of the frame.

My invention therefore consists in providing a filling piece or block adapted to coöperate with an ordinary spring draw-gear and to be inserted between the abutments of the frame in the place of a friction draw-gear and buffing apparatus.

In the accompanying drawings, Figure 1 is a side elevation of a friction draw-gear and buffing apparatus, the frame being shown in section. Fig. 2 is a similar view showing a spring draw-gear embodying my improvement. Fig. 3 is a plan view of my improved construction, the top of the frame being broken away and the side pieces being shown in horizontal section. Fig. 4 is a perspective view of the filling-block; and Fig. 5 is a perspective view of the supporting-block, which may be used for holding up the spring.

Fig. 1 illustrates the friction draw-gear and buffing apparatus, such as shown and described in patent to George Westinghouse, No. 629,943, of August 1, 1899. The draw-bar is secured to the strap or yoke 2, which incloses the housing 3, containing the friction mechanism, and the buffer and draft follower-plates 4 and 5 extend through the strap to engage the abutments 7 and 8, carried by the side plates 6 6 of the frame. There is an opening 11 at the inner end of the frame to allow the end of the strap 2 to pass through during the buffing action, and the buffing and draft plates are carried by the supporting-bars 12, which are secured to the side plates 6, the side plates being bolted to the draft-timbers in the usual way. Fig. 2 shows the same construction with the friction mechanism removed and the ordinary draft and buffer spring 9 and my improved filling-block 10 inserted in its place. The filling-block 10 may be made of any form or shape adapted to transmit the buffing strains from the plate 5 or from the spring to the abutment 8 of the frame, though I prefer to form the same of cast-iron substantially of the shape shown in Fig. 4 of the drawings. A vertical recess or opening 13 is provided in the outer end of the filling-block, so that in case it is desired to use a short strap of the length corresponding to that of the ordinary draft-spring the inner end of the strap may pass through and operate in the recess of the filling-block, as indicated in dotted lines in Figs. 2 and 3 of the drawings.

If the draft-spring 9 should be of smaller diameter than the distance between the upper and lower bars of the strap 2, a supporting-block 14 may be used for holding the spring in position in line with the draw-bar. The top of the supporting-block is hollowed out to conform to the surface of the spring, and the bottom is provided with two lugs 15, adapted to extend downward between the supporting-bars 12 12 and the lower bar of the draft-strap 2, the block being movably supported on these bars. Instead of this block other means for supporting the spring may be used, if desired. The filling-block may also be formed without the recess 13, and in that case it may be made longer, so as to dispense with the follower-plate 5, the filling-block itself serving as the follower or draft plate of the apparatus.

From the foregoing description it will be seen that I have provided a construction, including the ordinary draft-spring, which may readily be inserted in the place of the friction mechanism in a friction draw-gear and buffing apparatus.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a draw-gear and buffing apparatus, the combination with a frame provided with abutments, and a draw-bar having a long draft-strap, of a short draft-spring and a comparatively long filling-block surrounded by the strap, and located between the abutments.

2. The combination with a frame having abutments to coöperate with a friction draw-gear and buffing apparatus, of a short draft-spring and a comparatively long filling-block adapted to be inserted in the place of the friction mechanism between the abutments.

3. In a draw-gear and buffing apparatus, the combination with a frame having abutments, of a recessed filling-block together with a spring and follower-plates located between said abutments, and a draw-bar provided with a draft-strap.

4. In a draw-gear and buffing apparatus, the combination with a frame having abutments, a draw-bar and a draft-strap secured thereto, of a buffer-plate, a draft-spring and a filling-block located between said abutments, and a supporting-block for holding the spring in line with the draw-bar.

5. In a draw-gear and buffing apparatus, the combination of a frame having abutments, a draw-bar, a strap secured thereto, follower-plates, a draft-spring and a comparatively long filling-block located between one of the follower-plates and one of the abutments.

In testimony whereof I have hereunto set my hand.

FRANCIS L. CLARK.

Witnesses:

R. F. EMERY,

JAS. B. MACDONALD.