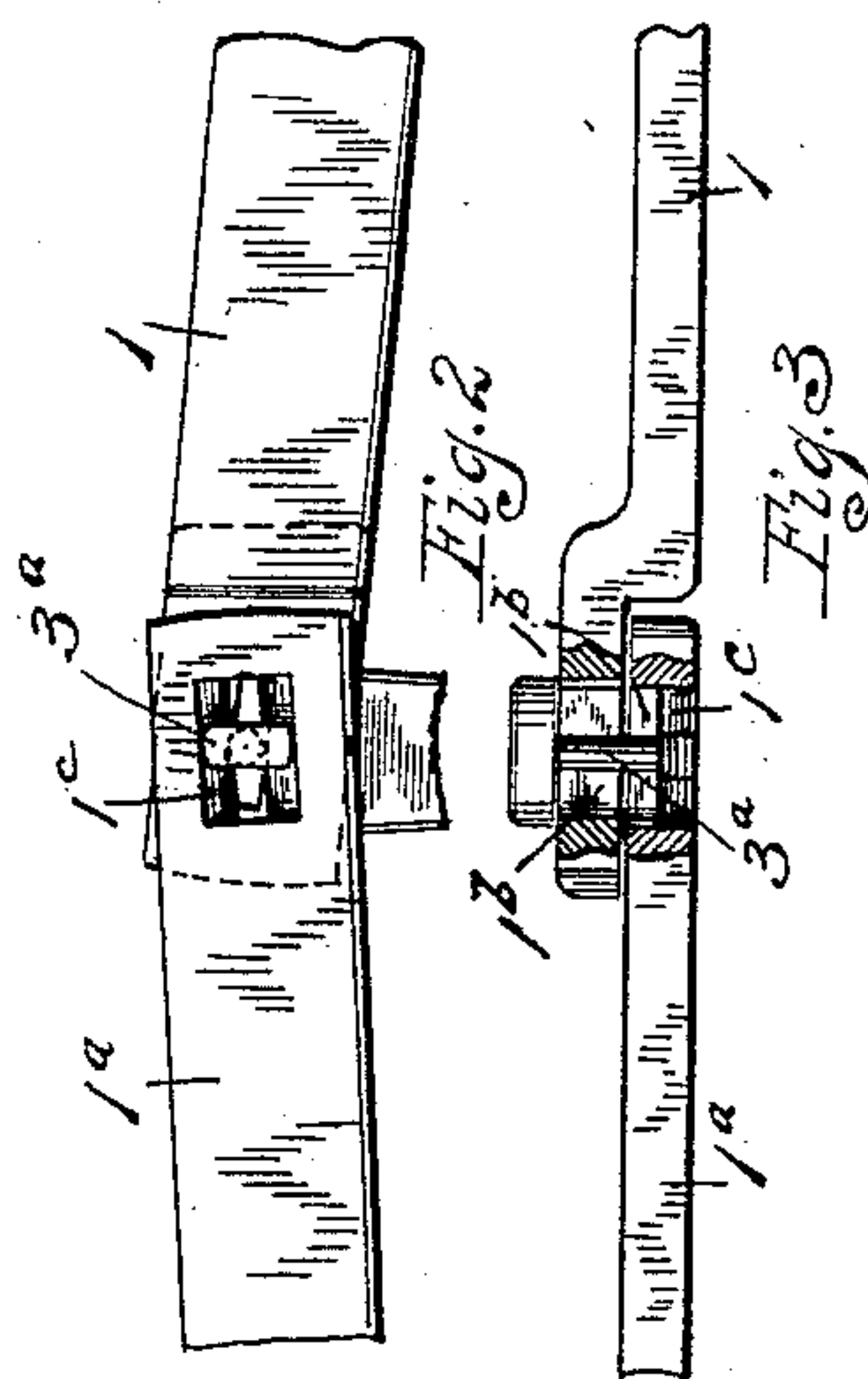
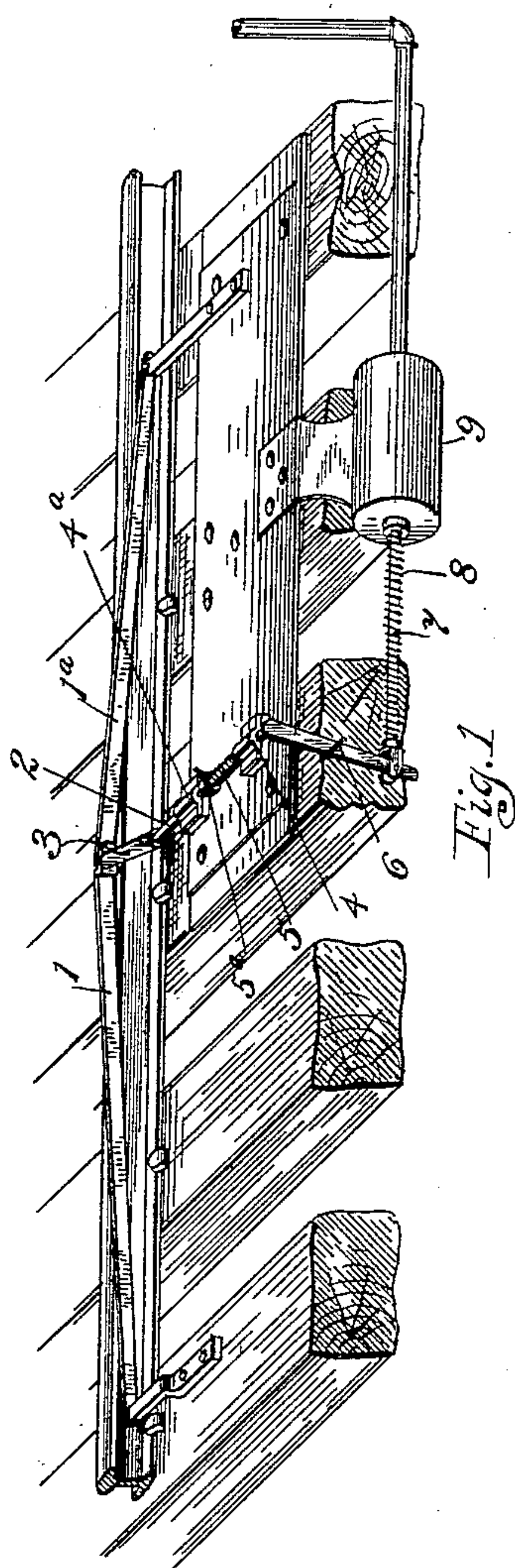


(No Model.)

F. WILLIAMS.
RAILWAY SIGNAL.

No. 602,676.

Patented Apr. 19, 1898.



WITNESSES:

Edwin L. Bradford
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INVENTOR

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UNITED STATES PATENT OFFICE.

FILLMORE WILLIAMS, OF COLUMBUS, OHIO, ASSIGNOR TO O. W. ALDRICH
AND C. W. CRITCHFIELD.

RAILWAY-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 602,676, dated April 19, 1898.

Application filed February 2, 1898. Serial No. 668,872. (No model.)

To all whom it may concern:

Be it known that I, FILLMORE WILLIAMS, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Railway-Signals; and I do hereby declare the following to be a full, clear, and exact description of the invention; such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to devices employed more particularly for the automatic giving of signals at railway-crossings to indicate the approach of a train. There is frequently employed in these devices a lever or pair of levers to be depressed by the wheels to effect the operation of the signal, and as the treads of wheels vary in width it sometimes happens with a narrow tread that the lever is pressed out laterally from the rail instead of down vertically, thereby damaging the apparatus and rendering it inoperative.

My invention consists in means, substantially as hereinafter set forth, for holding said lever or levers yieldingly in their proper position with respect to the rail and also in an improved mode of connecting the parts of a duplex lever.

In the accompanying drawings, Figure 1 is a perspective view of my improvements as employed in a pneumatic signal. Fig. 2 is a side view showing the means for connecting the ends of a pair of arms constituting a duplex lever, and Fig. 3 is a top view partially broken out to illustrate details of construction.

In the embodiment of my invention shown the depressible lever is shown to be of two parts 1 and 1^a, pivoted flatwise at their outer ends upon pins extending, preferably, into the side of the rail. The inner meeting ends of these parts or bars are provided with narrow longitudinal slots 1^b, and the inner side of the part 1 is bent or cut out to form a recess into which the end of the part 1^a fits, so that the sides of the two parts adjacent the rail shall be in substantially the same plane and lie snugly against the rail. The slot in the part 1^a is enlarged or formed with a countersink 1^c.

2 is a shaft lying at right angles to the rail and journaled to rock in bearings 4 and 4^a. Fixed on the end of the shaft 2 nearer the

rail is a crank-arm 3, having a T-head 3^a, that stands across the slot in the arm or part 1^a, said head resting in the countersink or enlarged recess about the slot in the part 1^a. On the shaft 2, between the bearing 4 and an adjustable collar 5^a, is a spring 5, that tends to throw the shaft inward toward the rail, and consequently to hold the parts or arms 1 and 1^a normally in the proper position against or near the rail.

Fixed on the outer end of the shaft 2 is a crank-arm 6, that is connected with the end of a piston-rod 7 of an air-compressor 9, and on this piston-rod is shown a spring 8, that tends to hold the crank-arm 3 upward, and consequently the connected ends of the parts 1 and 1^a.

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

1. In a railway-signal, the combination of a depressible lever adapted to be operated by the wheel of a car composed of two parts 1 and 1^a, one of said parts having a comparatively narrow slot 1^b and the other a similar slot with an enlarged recess or countersink 1^c, shaft 2, crank-arm 3 on said shaft, and pin 3^a on the crank-arm having a T-head adapted to pass through the aforesaid narrow slots and to stand transversely in the countersink, all constructed and arranged, substantially as shown and described.

2. In a railway-signal, the combination of a depressible lever adapted to be operated by the wheel of a car composed of two parts 1 and 1^a, one of said parts having a comparatively narrow slot 1^b and the other a similar slot with an enlarged recess or countersink 1^c, shaft 2, crank-arm 3 on said shaft, pin 3^a on the crank-arm having a T-head adapted to pass through the aforesaid narrow slots and to stand transversely in the countersink, a spring 5^a for holding the parts 1 and 1^a laterally in position, crank-arm 6 on shaft 2, and a spring 7 acting against arm 6 to hold the parts 1 and 1^a in elevated position, all constructed and arranged, substantially as shown and described.

In witness whereof I hereunto set my hand in the presence of two witnesses.

FILLMORE WILLIAMS.

Witnesses:

GEO. M. FINCKEL,

J. H. VOSSKUEHLER.