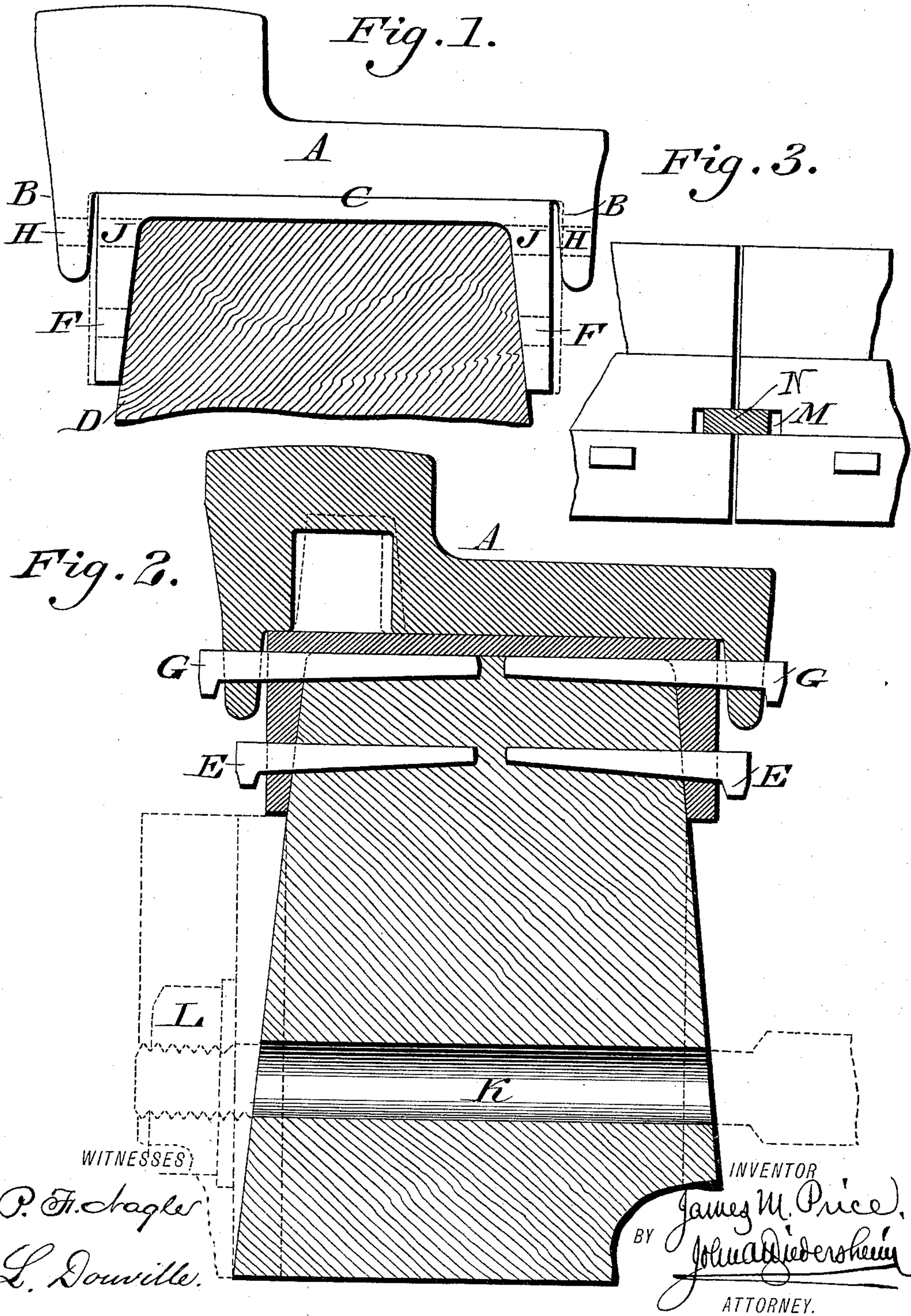


(No Model.)

J. M. PRICE.
TRAMWAY.

No. 462,063.

Patented Oct. 27, 1891.



UNITED STATES PATENT OFFICE.

JAMES M. PRICE, OF PHILADELPHIA, PENNSYLVANIA.

TRAMWAY.

SPECIFICATION forming part of Letters Patent No. 462,063, dated October 27, 1891.

Application filed December 10, 1890. Serial No. 374,155. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. PRICE, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Railways or Tramways, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to improvements in street railways or tramways; and it consists, first, of an intervening channel-bar for supporting a rail on a stringer.

It further consists of a rail having depending flanges which embrace a supporting channel-bar, substantially as described.

It further consists of the combination of parts hereinafter described.

Figure 1 represents an end view of a street railway or tramway embodying my invention. Fig. 2 represents a sectional view of a modification thereof. Fig. 3 represents a side view of a portion of the railway, showing a connection for the joints thereof.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a street-rail having the depending flanges B, which may slightly overhang the channel-bar C, or may have their inner walls vertical, as shown in dotted lines, Fig. 1, so as to permit a wider channel-bar to be employed. The channel-bar C is provided with depending flanges adapted to embrace the sides of a sleeper or longitudinal support D. The latter may be of converging form or squared sides and beveled top. The channel-bar C is secured in place on the head of the sleeper D by means of spikes, nails, or straps E, which are driven or passed through holes or openings in the flanges of the bar and into the stringer, and the rail A is secured to the channel-bar C by other spikes, nails, or straps G, which are passed through openings H in the flanges of the rail and opening J of the bar, and then into the sleeper D or into grooves formed on the upper side of the same. By these means the rail and bar are held securely in place on the sleeper and prevented from any vertical movement thereon. The sleepers D are kept in proper position or in gage by means of a

tie-rod K and the nuts L on the screw-threaded ends thereof. The ends of each of the flanges of the adjacent rails are provided with saw cuts forming communicating recesses, as M, adapted to receive the straps N, each of which is passed through two of the communicating recesses and into an opening in the channel-bar, and then into the sleeper D, whereby the knocking of the ends of the rails is prevented. The channel-bars and rails are placed so as to break joints, or, in other words, the ends of the two do not coincide, whereby a stronger connection of the said rails and bars with the sleeper is made.

In Fig. 2 is shown a modification of the rail, the same having a hollow or recessed under portion, thereby saving metal and also providing a longitudinal chamber, which is adapted for the suitable placing therein of electric or other wires. By providing the upper face of the sleeper with grooves for the reception of the spikes, which are passed through the openings H and J of the rail and channel-bar, respectively, all danger of splitting of the sleeper by driving the spike therein is avoided.

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

1. A street or tramway rail having depending flanges at its sides with openings therein, a channel-bar with depending flanges at its sides having openings therein, a support for the channel-bar, and fastening means, substantially as described, passing through the openings in said flanges of said rail and channel-bar into said support, said parts being combined substantially as described.

2. A street or tramway rail having depending flanges with openings therein, a channel-bar with side flanges having two series of openings therein, and a support for said channel-bar, said rail being seated on said channel-bar and one of said series of openings in the flanges of the channel-bar coinciding with the openings in the flanges of the rail, said parts being combined substantially as described.

3. A street or tramway rail having depending flanges with openings therein, a channel-

bar with depending flanges with two rows of openings therein, and a wooden sleeper, said parts being combined substantially as described.

5 4. A street or tramway rail having depending flanges, a channel-bar with depending flanges, and a wooden sleeper with converging sides adapted to fit in said channel-bar, said rail being adapted to rest on said chan-
10 nel-bar, said parts being combined substantially as described.

5. The combination of two street or tramway rails, each having depending flanges with saw cuts or recesses in their ends, said re-
15 cesses communicating, a strap fitting in said recesses, and a stationary support for said rails, substantially as described.

6. The combination of two street-rails, each having depending flanges with saw cuts or
20 recesses in their ends, a channel-bar with an

opening therein, a strap fitting in two communicating recesses of said rail-flanges and in said opening in the channel-bar, and a support for the channel-bar, with means for firmly securing the channel-bar thereto, substan- 25
tially as described.

7. A rail with depending flanges having openings therein, a channel-bar with depending flanges with a row of openings coinciding with the openings in the rail-flanges, and a
30 sleeper or support for the channel-bar, having grooves in its upper face for receiving the spikes or straps inserted in said openings in the rail and channel-bar, said parts being combined substantially as described.

JAMES M. PRICE.

Witnesses:

JOHN A. WIEDERSHEIM,
A. P. JENNINGS.