

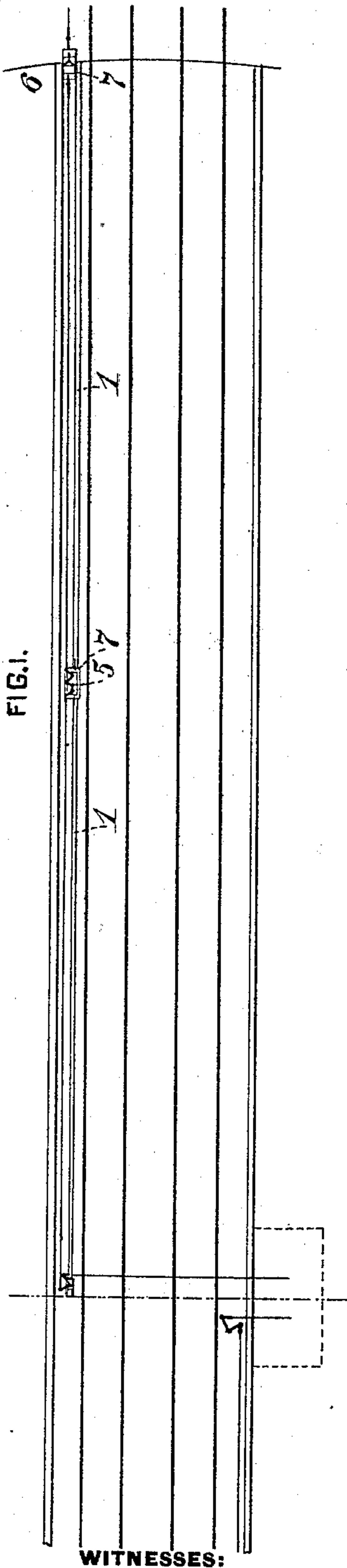
(No Model.)

J. T. HAMBAY.

FOUNDATION FOR SIGNAL RODS FOR DRAW BRIDGES.

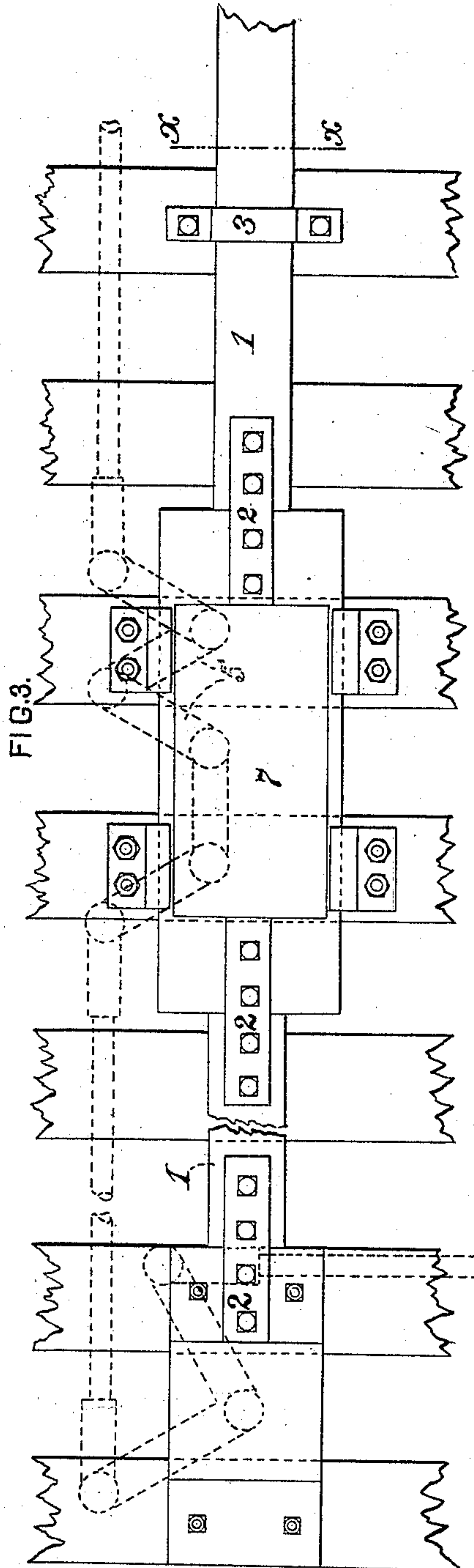
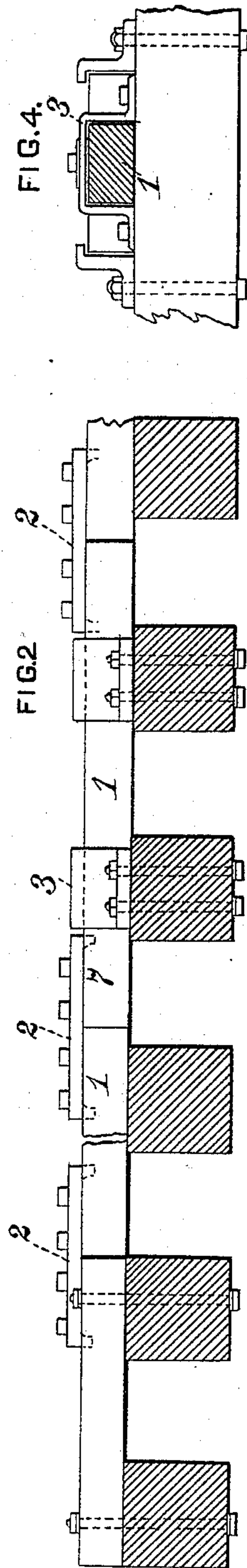
No. 417,177.

Patented Dec. 10, 1889.



WITNESSES:

Danville S. Wolcott
F. E. Gaither



INVENTOR,

James T. Hambay
by George H. Christy
Att'y.

UNITED STATES PATENT OFFICE.

JAMES T. HAMBAY, OF WILKINSBURG, ASSIGNOR TO THE UNION SWITCH AND SIGNAL COMPANY, OF PITTSBURG, PENNSYLVANIA.

FOUNDATION FOR SIGNAL-RODS FOR DRAW-BRIDGES.

SPECIFICATION forming part of Letters Patent No. 417,177, dated December 10, 1889.

Application filed October 17, 1889. Serial No. 327,362. (No model.)

To all whom it may concern:

Be it known that I, JAMES T. HAMBAY, a citizen of the United States, residing at Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented or discovered a certain new and useful Improvement in Foundations for Signal-Rods for Draw-Bridges, of which improvement the following is a specification.

The invention described herein relates to the arrangement of signal and other rods on draw-bridges. Bridges of this class, or at least the movable members thereof, are generally formed of iron or steel, and expand and contract considerably under the changes of temperature to which they are subjected; and it has been customary in laying signal or other rods which are also formed of metal on such bridges to secure the guides and compensator directly to some member of the bridge; but as the bridge will expand and contract equally with or a little more than the rods the action of the compensator is neutralized to such an extent as to prevent the use of automatic couplings between the sections of the rods on the bridge and those on the stationary member of the bridge.

The object of this invention is to provide a foundation or support for the compensator of such material as will not be affected as regards longitudinal dimensions by changes in temperature.

The invention claimed is hereinafter fully described.

In the accompanying drawings, forming a part of this specification, Figure 1 is a diagrammatic view showing in plan a portion of a draw-bridge having my invention applied thereto. Fig. 2 is a detail view, on an enlarged scale, partly in section and partly in elevation, showing the arrangement of foundation for the rods. Fig. 3 is a plan view of the same, and Fig. 4 is a sectional view on the line *x x*, Fig. 3.

In the practice of my invention I arrange on the cross-beams or other suitable part of the draw pieces of timber 1, which extend from the middle or center of movement of the draw to the ends thereof. These timbers, each of which may be formed in one piece,

but preferably of a series of sections secured together by ties or clamps 2, are laid in position and held from lateral or vertical displacement by straps 3. These timbers are securely bolted at their inner ends at the middle of the bridge to the frame-work of the latter, thereby holding the timbers as against any longitudinal displacement. On these timbers I arrange the compensator 5 and the draw member 6 of the automatic signal-rod coupler. The timbers or foundation-pieces may be made comparatively narrow, except at those points where the compensators and the draw members of the coupler are placed, where comparatively broad sections 7 are introduced.

It will be readily understood from the foregoing that, the timbers or foundations lying loosely on the bridge, except at their inner ends, which, as hereinbefore stated, are secured to the bridge at or near its center of movement, the bridge can expand and contract, moving under the timbers or foundations without affecting the latter or the positions of the compensator and coupler relative to the center of movement of the draw and to the abutment; hence the compensators can effect their intended functions, maintaining the rods at a uniform length, and in consequence thereof holding the draw member of the coupler in such position as to readily engage the abutment member of the coupler when the bridge is closed.

It will be understood that the foundation-pieces are made of such a length that their outer ends, carrying the draw member of the coupler, will be in such proximity to the abutment when the bridge is closed that the members of the coupler will readily engage with each other.

It is not necessary that the foundations extending from the middle to the ends of the draw should be made independent of each other, but may be in one piece or connected together in any suitable manner, provided such single or integral piece be secured to the bridge at such point as is not affected by changes in temperature.

While preferring to extend the foundations sufficiently to permit of the location of the

draw member of the coupler thereon with some forms of coupling mechanism, it is only necessary to mount the compensator on the foundations.

5 I claim herein as my invention—

1. In a draw-bridge, the combination of the draw or movable member and a foundation for the compensator stationary as regards the longitudinal movements of the bridge produced by changes in temperature, substantially as set forth.

10 2. In a draw-bridge, the combination of the draw or movable member and a non-expandible foundation for signal-rod connections arranged along the draw member and secured thereto at the point or points of least longi-

tudinal movement of the draw, substantially as set forth.

3. In a draw-bridge, the combination of the draw or movable member and timber or non- 20 expandible foundations for signal-rod connections, extending from a point or points at or near its center of movement toward the ends thereof and secured to the draw at their inner ends only, substantially as set forth. 25

In testimony whereof I have hereunto set my hand.

JAMES T. HAMBAY.

Witnesses:

DARWIN S. WOLCOTT,
R. H. WHITTLESEY.