No. 622,685. Patented Apr. 11, 1899.

F. HOCH.

DRAWBRIDGE.

(Application filed Apr. 27, 1898.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

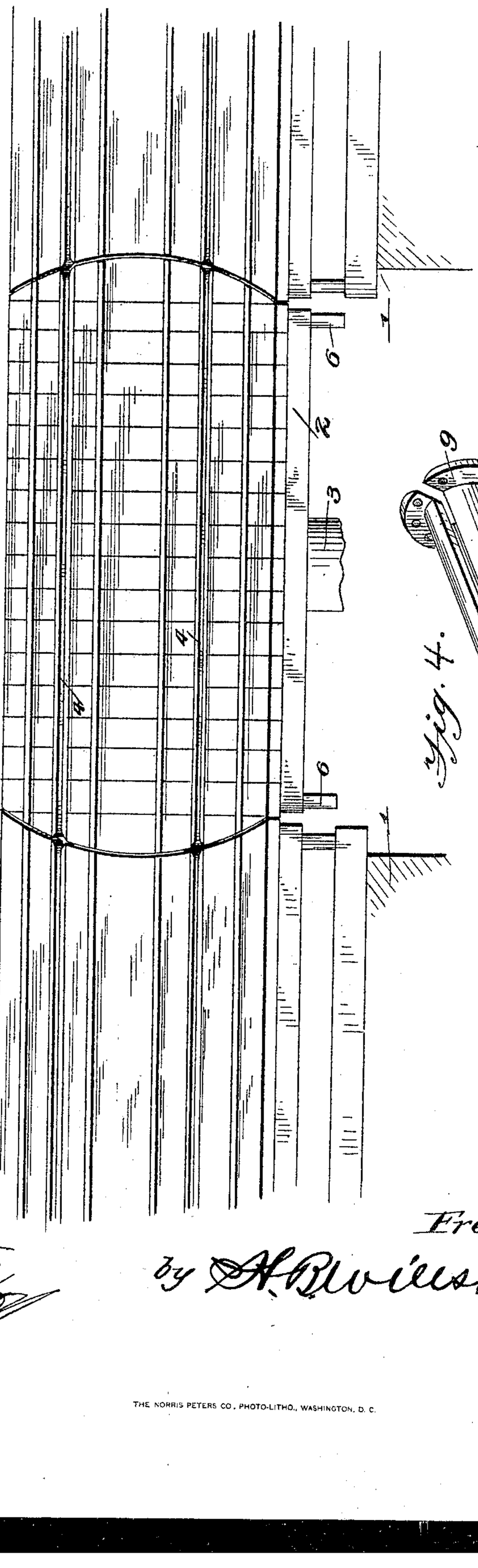

Fig. 4.

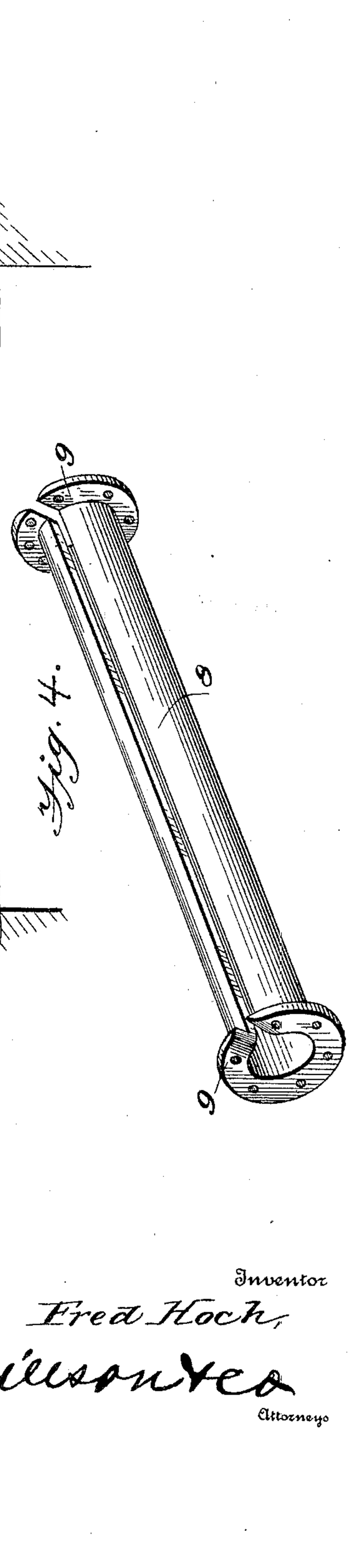

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Fig. 2.

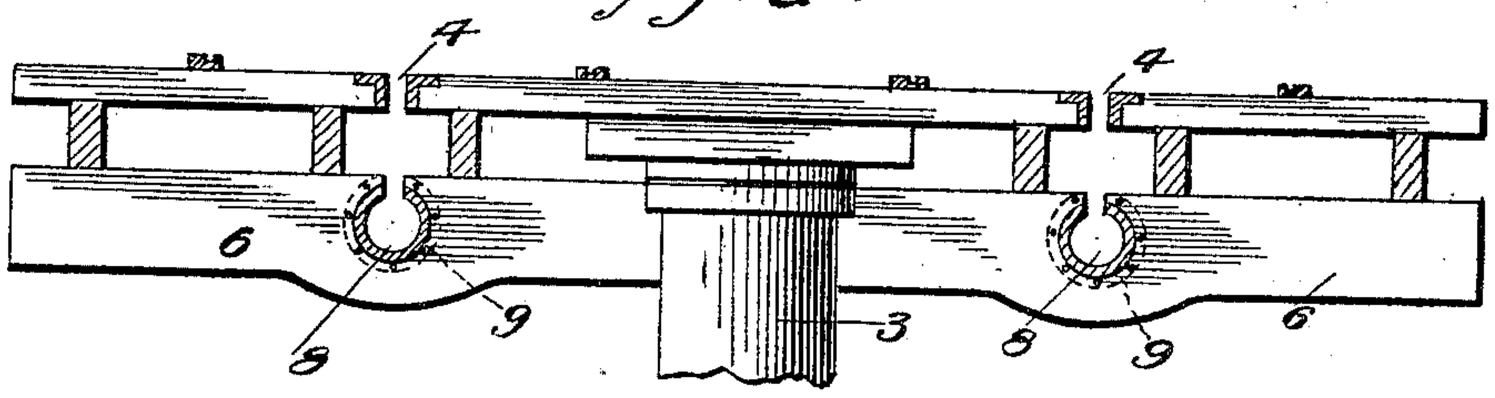
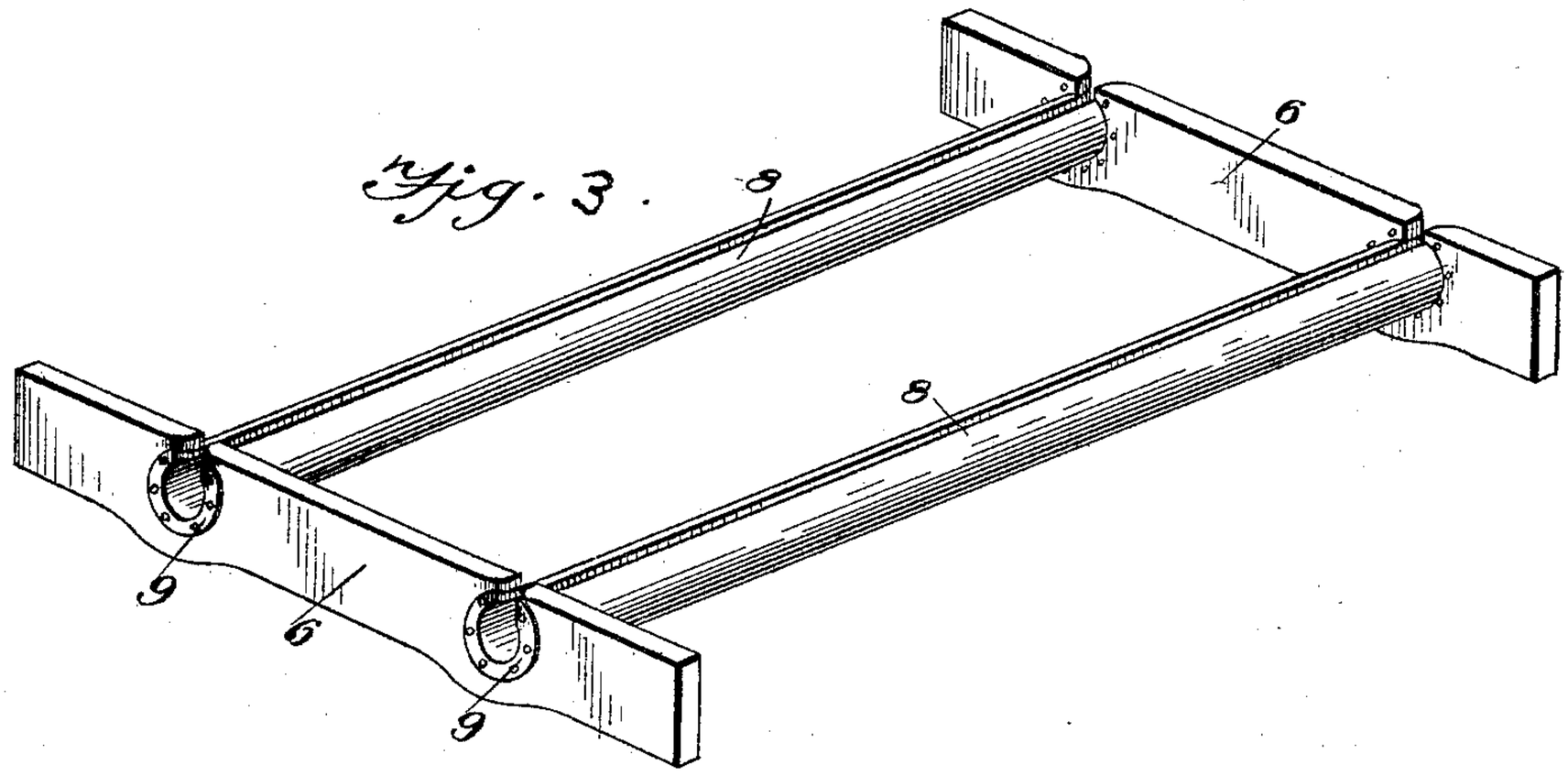


Fig. 3.



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UNITED STATES PATENT OFFICE.

FRED HOCH, OF MILWAUKEE, WISCONSIN.

DRAWBRIDGE.

SPECIFICATION forming part of Letters Patent No. 622,685, dated April 11, 1899.

Application filed April 27, 1898. Serial No. 678,952. (No model.)

To all whom it may concern:

Be it known that I, FRED HOCH, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Drawbridges; and I do 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.

The invention relates to drawbridges; and the object is to provide a drawbridge with a slot or conduit to carry or contain an endless traveling cable or electric feed-wire and to simplify the construction and provide means whereby the electric shoe or the cable-grip will be prevented from striking the ends of the slot-rails should the draw be vibrating, due to passing teams, or should the slot therein be slightly out of alinement with the slot in the bridge-abutments.

With this object in view the invention consists in certain features of construction and combination of parts which will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a drawbridge and the abutments. Fig. 2 is a similar view showing the draw equipped with a conduit for an electric wire. Fig. 3 is a detail perspective view of two of the cross-beams of the draw, more clearly illustrating the manner of attaching the conduit; and Fig. 4 is a detail perspective view of the conduit.

In said drawings, 1 denotes the abutments of the drawbridge, and 2 the drawbridge, mounted upon a pillar 3, to swing open in the usual manner. The abutments are level with and extend in the same plane of the drawbridge for a distance of about one hundred feet from the ends of the drawbridge and then meet the inclined grade of the road.

4 denotes the slot-rails of the drawbridge, the ends of which are flared and meet the flaring ends of the slot-rails of the abutments, so that should there be a slight lateral vibration or oscillation of the drawbridge or should the slot be slightly out of alinement there will be no danger of damage to the shoe if the bridge is equipped with a conductor-wire or of damage to the grip if the bridge is equipped with a cable.

6 denotes the cross timbers or bars of the drawbridge, which are notched, as shown at 7, at a point directly below the slot, so as to permit of the arrangement of the cables directly below the floor of the bridge.

When the device is used for an underground electric railway, I provide a slotted metallic tube 8, the ends of which are provided with flanged collars 9, bolted to the cross beams or bars. These tubes may be let into circular recesses in the cross-bars or they may be supported directly upon the upper edges of said bars.

These conduits are especially adapted for draws now in use and may either be made through the cross-bridge iron beams or may be supported directly upon the upper edges of said beams or bars.

As the manner of attaching the endless cables or of arranging the conductor-wire on the draw forms no part of my invention, I have not deemed it necessary to either illustrate or describe the cable or the conductor-wire.

Although I have specifically described the construction and relative arrangement of the several elements of my invention, I do not desire to be confined to the same, as such changes or modifications may be made as clearly fall within the scope of my invention without departing from the spirit thereof.

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

The combination with the bridge-abutments provided with slot-rails having flared ends adjoining the drawbridge-opening, of the drawbridge adapted to swing upon a supporting-pillar and provided with slot-rails having flared ends to meet in alinement with the flared ends of the abutment-rails, the parallel cross-timbers provided with alined notches, and the longitudinally-slotted conduit-sections seated in said alined notches and provided with flanged collars secured by bolts to the cross-timbers, substantially as specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRED HOCH.

Witnesses:
WILLIAM KAUMHEIMER,
M. G. MOONEY.