

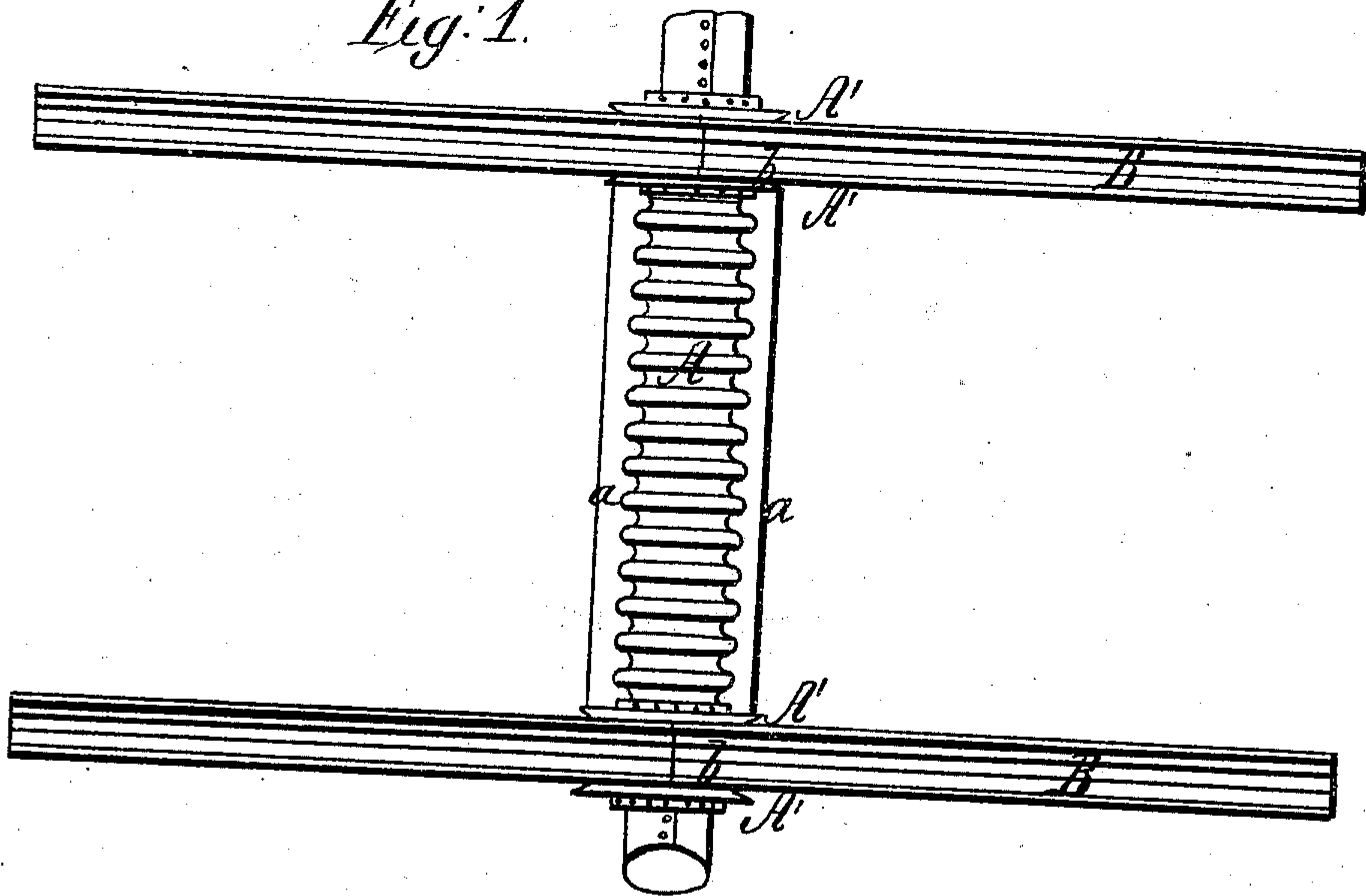
*J. Burson,*

*Hose Bridge.*

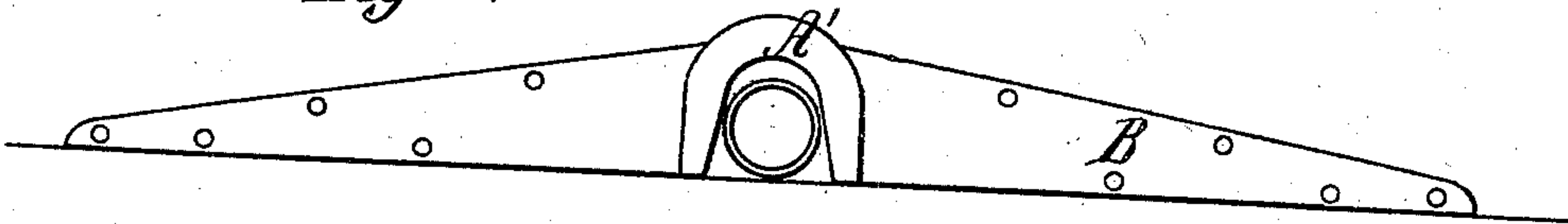
*No. 88,364.*

*Patented Mar. 30. 1869.*

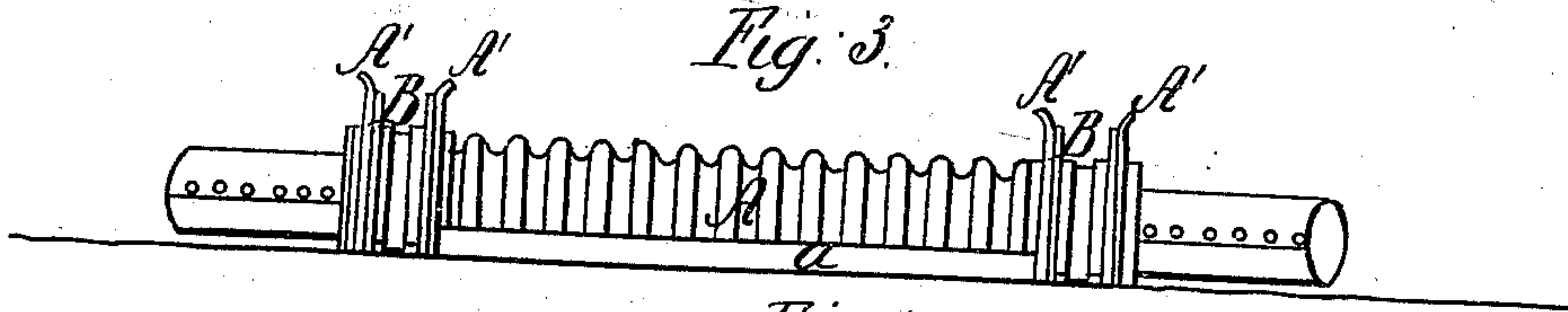
*Fig. 1.*



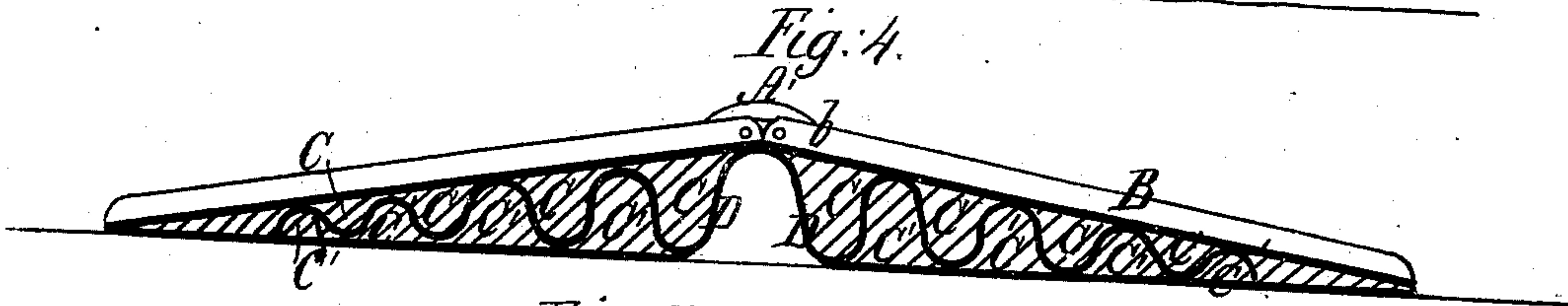
*Fig. 2.*



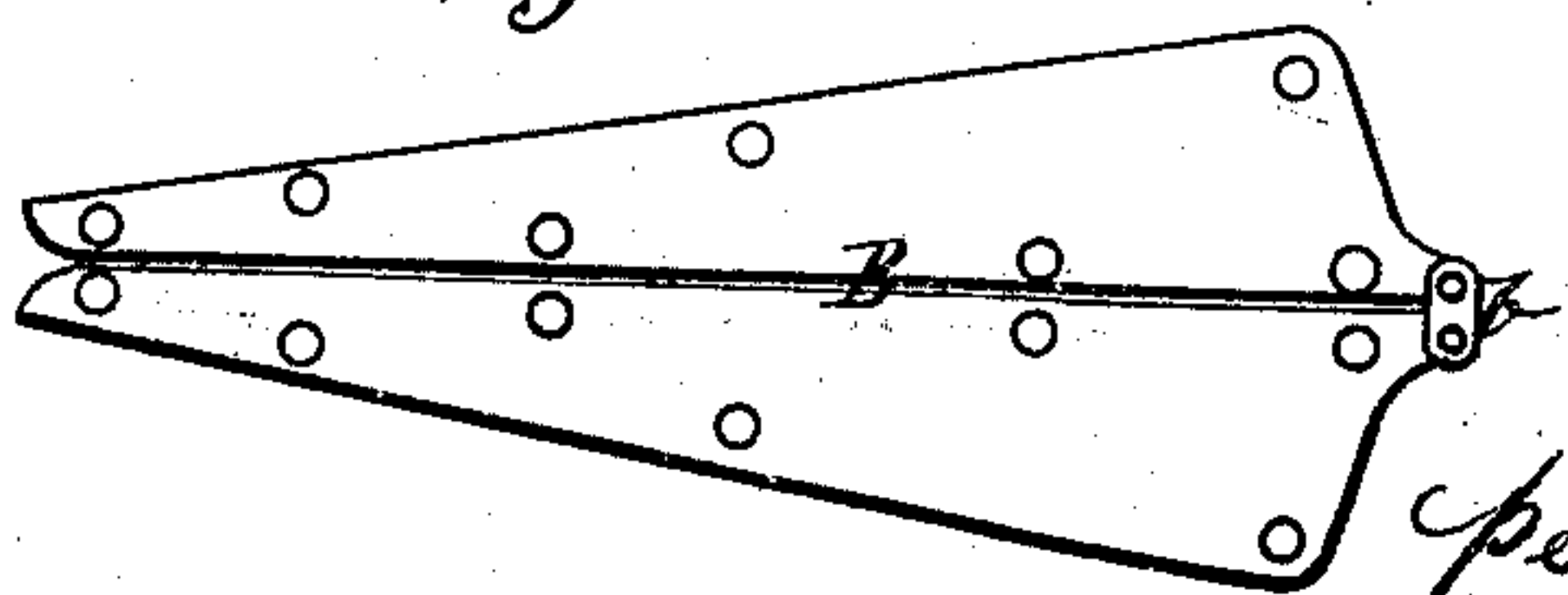
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



*Witnesses;*  
*K. Holmes*  
*M. Holmes.*

*Inventor;*  
*James Burson*  
*per L. Holmes, his Atty*

# UNITED STATES PATENT OFFICE.

JAMES BURSON, OF YATES CITY, ILLINOIS, ASSIGNOR TO JAMES AND GEORGE B. WATERHOUSE, OF NEW YORK CITY.

## IMPROVED RAILWAY HOSE-BRIDGE.

Specification forming part of Letters Patent No. 88,364, dated March 30, 1869.

*To all whom it may concern:*

Be it known that I, JAMES BURSON, of Yates City, in the county of Knox, in the State of Illinois, have invented a new and useful Hose-Bridge for the passage of cars or other wheeled vehicles over water-hose while in use for the extinguishment of fires and intersecting railroads or streets; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, and letters of reference marked thereon, making part of this specification, in which—

Figure I is a plan or horizontal view; Fig. II, a longitudinal elevation; Fig. III, a transverse elevation; Fig. IV, a longitudinal section; Fig. V, a longitudinal elevation of one rail, folded for convenience of handling and stowage, and corresponding to Fig. II.

Like letters in all the figures denote like parts.

For the protection of water-hose, when in use upon streets or railroads for the extinguishment of fires, from the injurious action of the feet of horses or the wheels of cars or other vehicles, I place over the same a semi-tubular or arched piece, A, made of light sheet-iron, which may be strengthened by corrugation, as shown, or otherwise. Upon the lower edges of this arch are secured the sill-pieces *a a*, made of hard wood, which, when in use, rest upon the roadway, between the rails of the track or upon the street, as the case may be. Upon either end of the arched piece A are secured, by riveting or other mode of fastening, two projecting flange-pieces, A' A' A' A', for the purposes of securing and maintaining in their proper places while in use the inclined rails B, to be further hereinafter described, upon the railroad-track or street.

The inclined rails B B, except where they surmount the arch A, rest for their whole length upon the fixed rails of the track or upon the street, and have their lower surfaces made to correspond, in reverse, to the transverse profile of the rails upon which they are intended to rest.

The upper surfaces of the rails B B incline from the horizontal rail of the fixed track to and above the apex of the arch-piece A, at

which point the rails are jointed by means of link-hinges *b*, for the convenience of handling and stowage, as seen in Fig. V.

The rails B B are constructed of light sheet-iron, the interior being filled, between the undulations of the wave-formed pieces D, with sections of light wood C and C', with its grain perpendicular to the direction of pressure upon the rail.

The side pieces of B B secure and cover in the pieces C C', and their upper edges, rising above the tracks of B B, form a support for the flanges of the track, which are turned up on purpose to be secured thereto.

The rails B B are double-flanged, for the guidance of the wheels of cars or other vehicles in passing over the same, as well as for the other purposes of strength and making them interchangeable or reversible in direction.

The center of the rails B B is grooved to correspond to the flange of the car-wheels in use, thus forming an additional security to the duplex flange-rail, to prevent the cars from leaving the track.

I do not claim a portable inclined section of a railroad for the protection of water-hose pipes intersecting railroad-tracks; nor do I claim as such a hollow cross-tie or beam for uniting such inclined rails, for such have been used before.

I claim—

1. A sheet-metal arch, A, with sills of wood, *a*, and flanges A' A' A' A', substantially as shown and set forth.

2. I claim, in a hose-bridge, when combined with a supporting arch-piece, A, the hinge-joint of the inclined rails B B, for the purposes of transportation and stowage, substantially as shown and set forth.

3. I claim supporting the tracks of a hose-bridge by the combination of the undulating metallic plate D D and the intervening wooden supports C C', substantially as and for the purposes shown and described.

JAMES BURSON.

Witnesses:

K. HOLMS,  
M. HOLMS.