

No. 765,974.

PATENTED JULY 26, 1904.

A. E. HOLADAY.
TROLLEY WIRE CLIP.

APPLICATION FILED DEC. 30, 1903.

NO MODEL.

Fig. 1

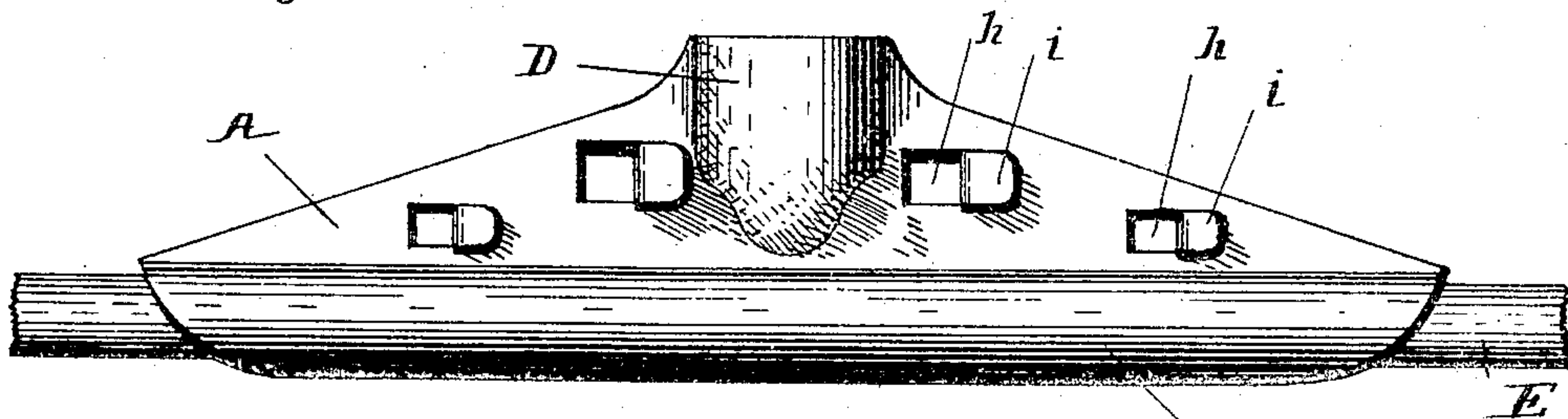


Fig. 2

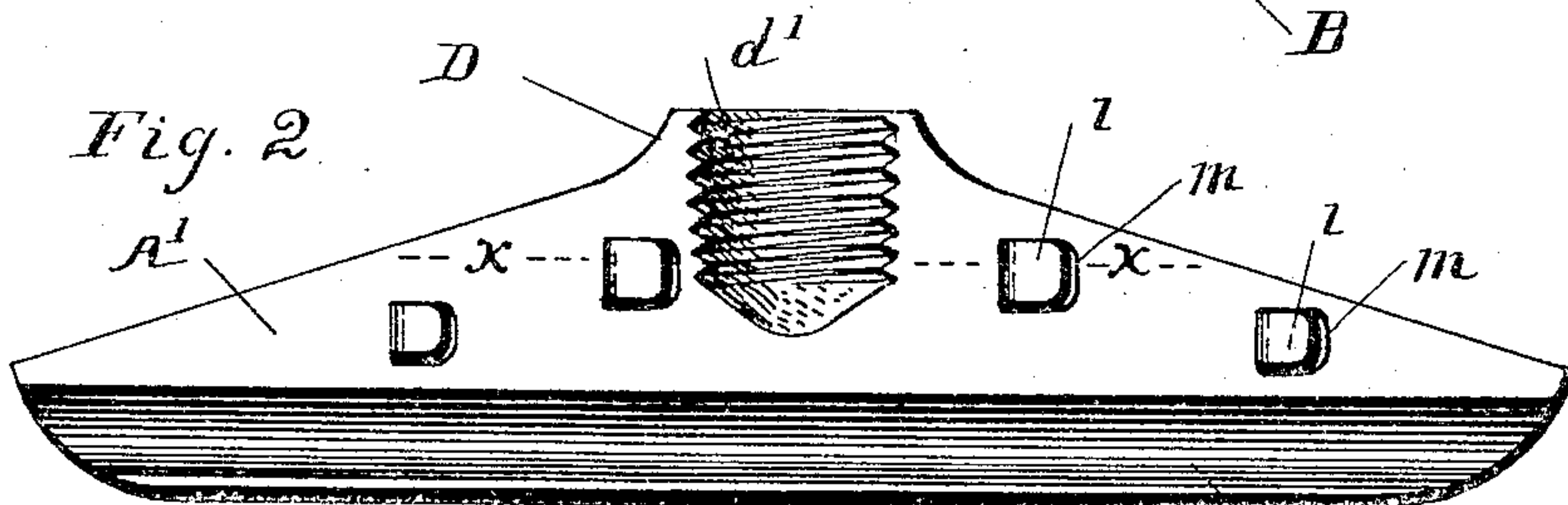


Fig. 3

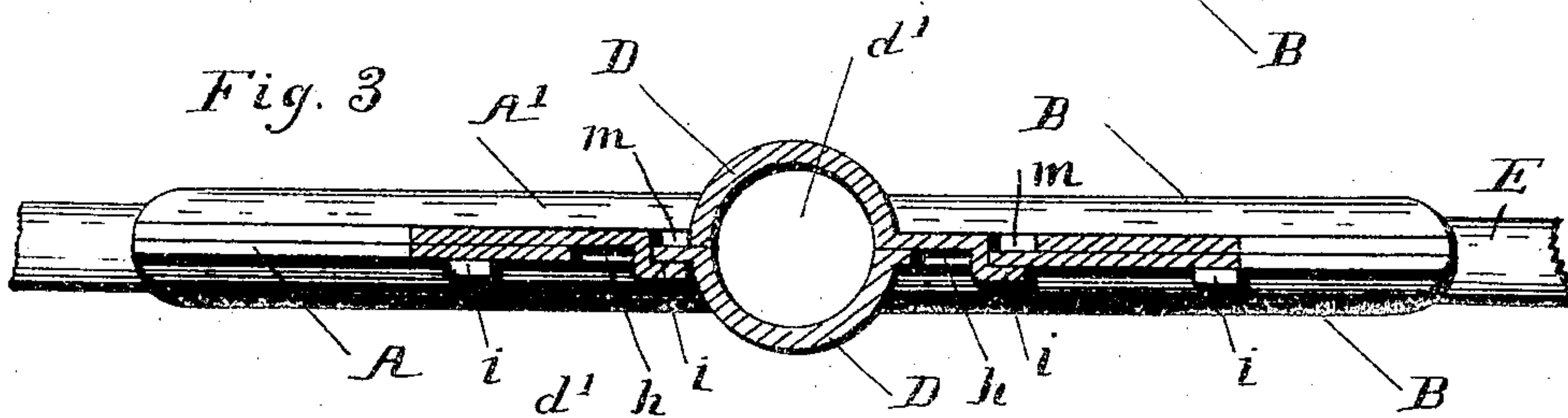


Fig. 4

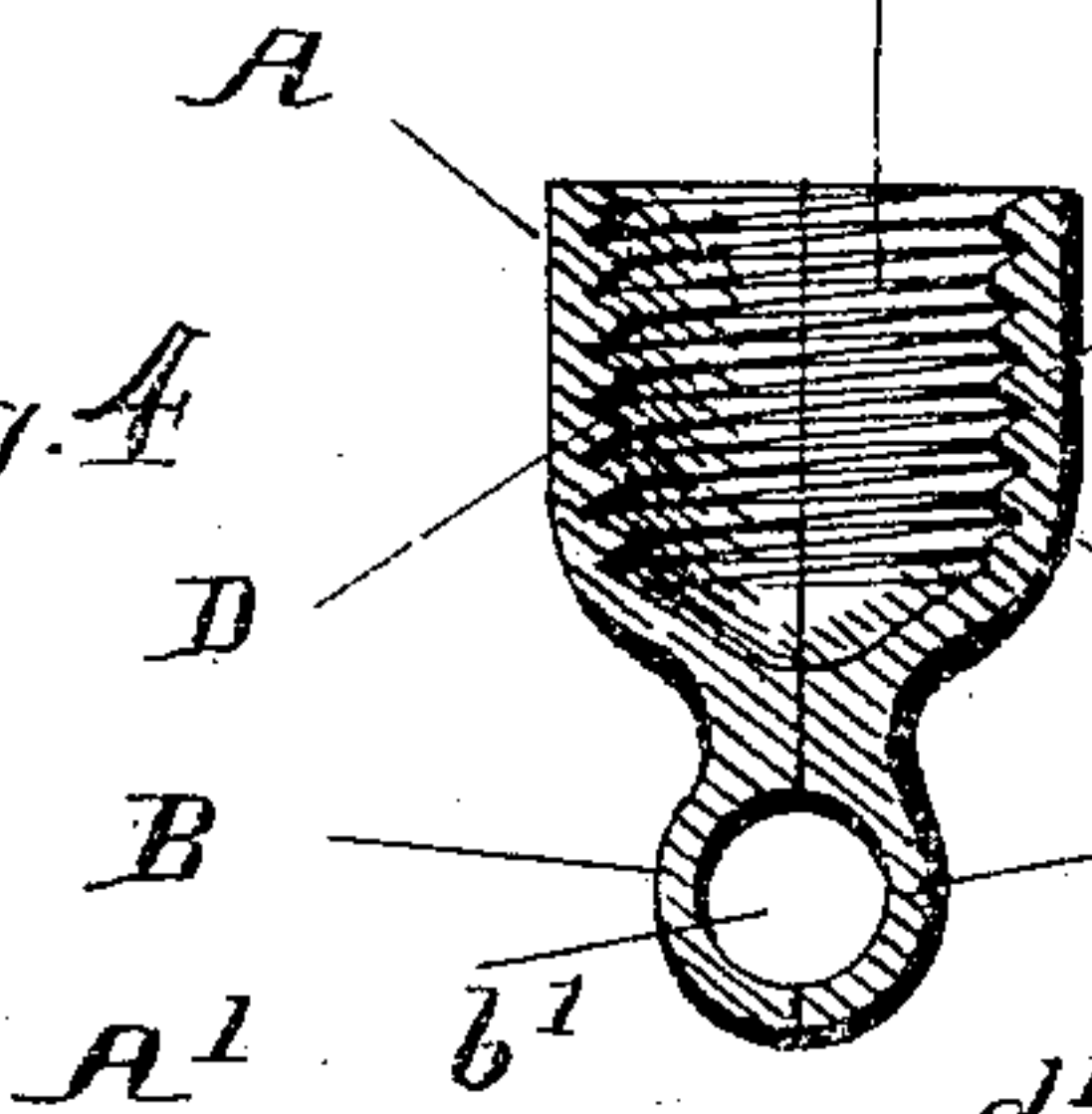


Fig. 5

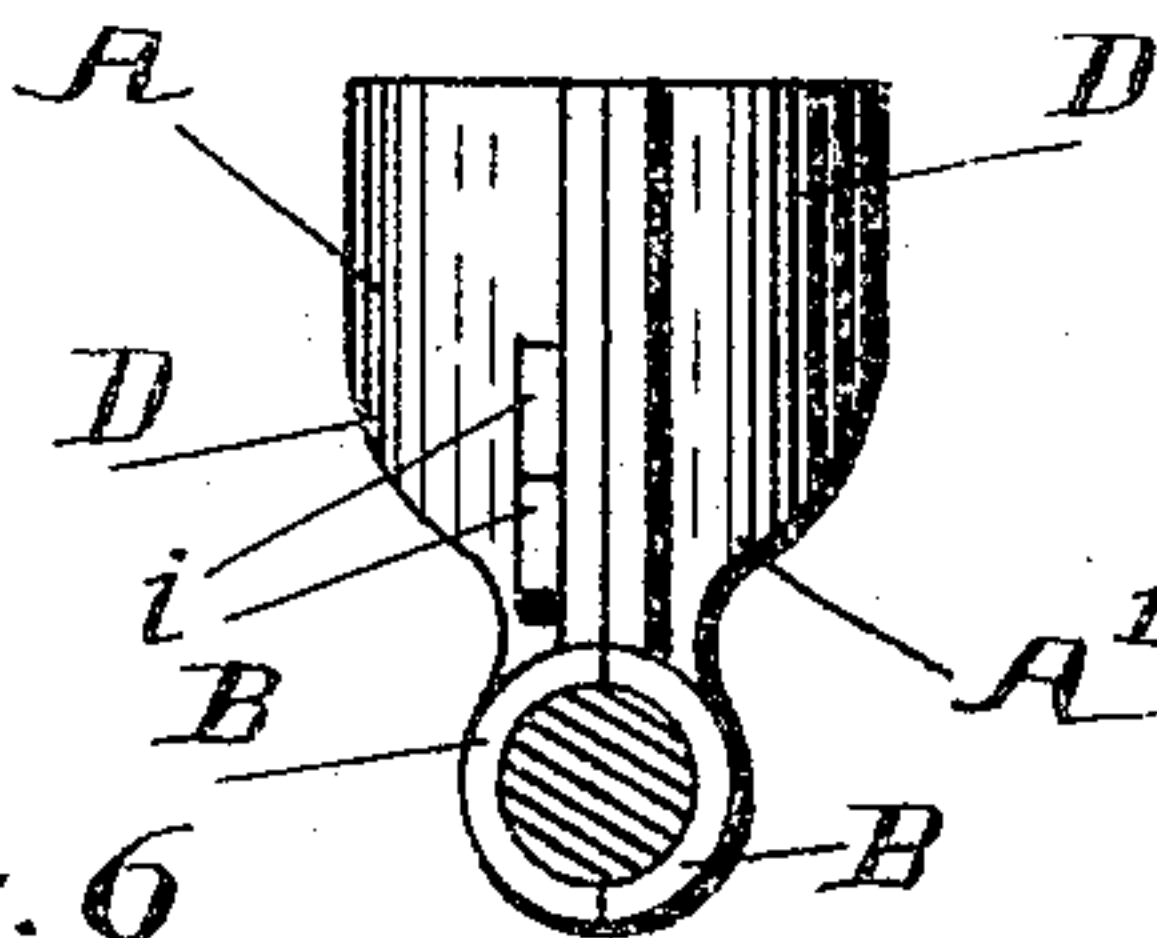


Fig. 6

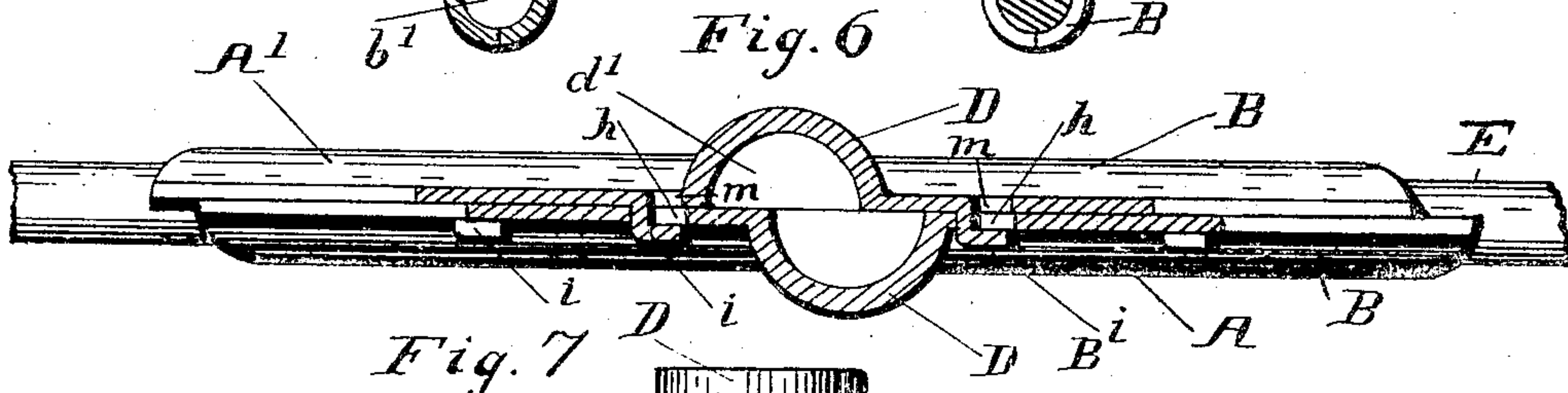
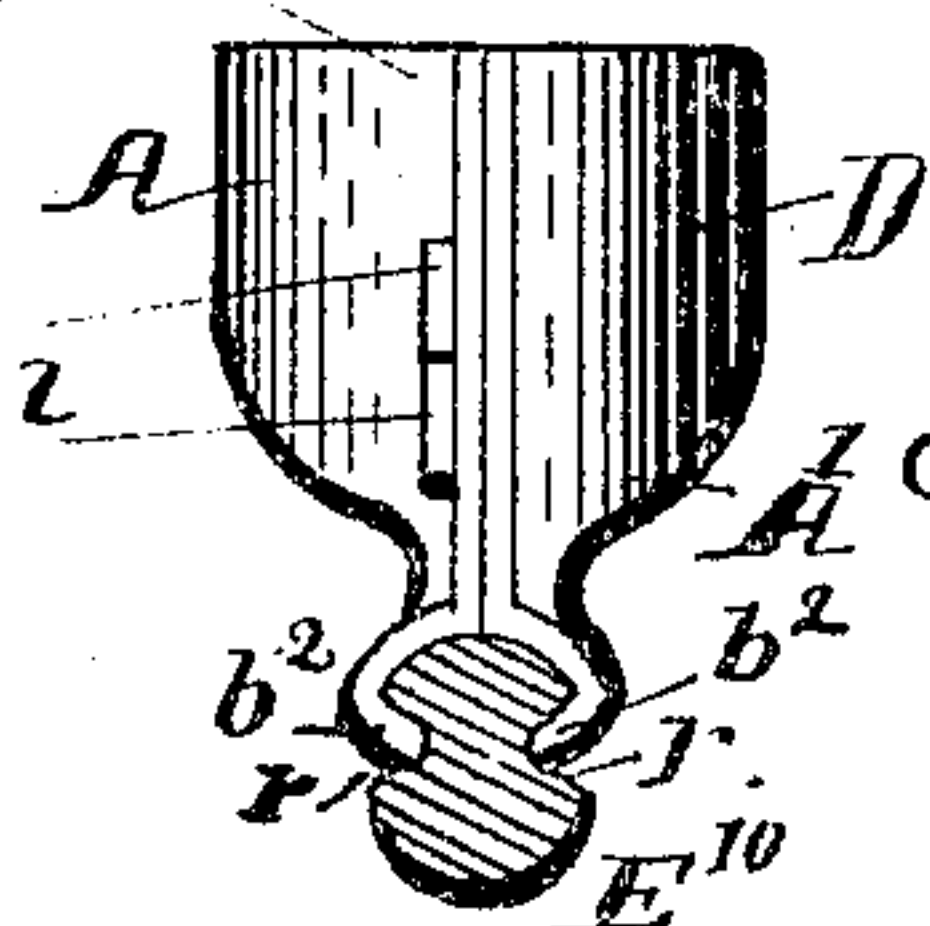


Fig. 7



WITNESSES:

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UNITED STATES PATENT OFFICE.

ALBERT E. HOLADAY, OF NEW HAVEN, CONNECTICUT.

TROLLEY-WIRE CLIP.

SPECIFICATION forming part of Letters Patent No. 765,974, dated July 26, 1904.

Application filed December 30, 1903. Serial No. 187,240. (No model.)

To all whom it may concern:

Be it known that I, ALBERT E. HOLADAY, a citizen of the United States, and a resident of New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Trolley-Wire Clips, of which the following is a full, clear, and exact specification.

My invention relates to an improvement in trolley-wire clips or ears, the object being to provide a compression-clip for holding the trolley-wire upon its supports and which may readily be applied and secured without resort to solder or complicated fastening mechanisms.

The invention consists in the novel arrangement, combination, and construction of the separate compression-halves of the clip with their clamping or holding devices, as herein-
after more fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side elevation of my improved trolley-clip, and Fig. 2 is a similar view of one of the compression halves or parts detached from the other. Fig. 3 is a plan view of Fig. 1, partly in horizontal cross-section, on the line X X, Fig. 2. Fig. 4 is a vertical cross-section through Figs. 1 and 3. Fig. 5 is an end view of Figs. 1 and 3. Fig. 6 is a plan view of the parts, showing the operation. Fig. 7 is an end view of a modification.

Referring to the drawings, A A' designate two pieces of sheet metal of similar shape in general, each formed with a half-cylindrical horizontal channel B at its lower edge and a vertical half-cylindrical shell D in its central vertical plane, which is screw-threaded, as shown. When the two parts are placed together in opposite or right and left relation, as shown in the figures, the channels B comprise a cylindrical groove b' for the reception of the trolley-wire E, and a cylindrical socket d' is formed by the half-cylindrical shells D, into which a bolt or stud may be screwed for the purpose of securing the clip to the trolley-hanger upon the arm of the trolley-pole or other suitable support in the ordinary and well-known manner, here requiring no description.

In one of the halves of the clip, as the part A, a series of rectangular holes h are provided, and in the opposite half, as the part A', a corresponding series of tongues i are formed, each comprising a strip bent up at a right angle to the body of metal and then over parallel therewith, said parallel portion being at a distance from the body of the metal conforming very nearly to the thickness of the other half of the clip. When these tongues are formed by being struck up in a press, the removal of the stock forming the tongues from the body of metal leaves corresponding perforations m therein, and when the parts are made by casting the holes are provided for purposes of draft, but have no other function. The holes h in the part A are made slightly larger than the tongue i in the part A' to enable the tongues to pass through them. Then in operation if the opposite halves of the clip are placed together the tongues may be entered through the holes h, bringing the parts closely together, as shown in Fig. 6. One of the parts may then be slid along lengthwise upon the other until the tongues are entirely lapped over on the body of the part A, thus firmly locking the two halves of the clip together. This may be done after the parts are first placed in position on the trolley-wire E. Then when the bolt or stud of the trolley-hanger is screwed into the socket d' in the operation of screwing the clip to its hanger the bolt, if properly proportioned to crowd into the socket, will by such wedging action spread the two parts of the clip at the top or portion containing the socket and correspondingly clamp the lower parts of the clip or channel B tightly upon the wire E, the tongues i serving as the fulcrum-point which determines the leverage. Thus the clips or ears may easily be screwed upon the hangers and as readily removed therefrom.

Instead of the mechanism shown in Figs. 1 to 6, in which the clip entirely surrounds a cylindrical trolley-wire and the trolley-wheel is intended to run upon such inclosing portions of the clip, a special form of wire is sometimes employed having its upper portions only engaged by the clip, as shown in the modifications in Fig. 7, in which the wire E¹⁰ is formed

with a groove r on each side somewhat above its central plane, and the edges b^2 of the lower half-cylindrical wire-holding parts of the clip are clamped into these grooves, as shown in 5 said figure. Said wire-holding parts, corresponding to the channels B in the other figures, are of less depth or extent than when they are intended to inclose the wire, and in such case the trolley-wheel is designed to 10 travel in direct contact with the lower surface of the trolley-wire.

In the drawings the tongues i are shown formed upon one part or half of the clip, and the perforations h are made in the other half 15 of the clip; but if a part of the tongues are on one half of the clip and a part on the other and the holes for receiving them are correspondingly distributed it is obvious that the result will be substantially the same and will 20 not comprise a departure from my invention.

I claim and desire to secure by Letters Patent—

1. The herein-described compression trolley-clip consisting essentially of a pair of compression parts formed with the trolley-wire-

gripping flanges and the hanger-bolt socket and provided with lengthwise-locking tongues offset from the body of the part parallel therewith and the corresponding series of tongue-receiving perforations through which the 30 tongues may be passed and locked upon the opposite part substantially in the manner and for the purpose specified.

2. In a compression trolley-clip the combination of the separate halves of the clip each 35 provided with a trolley-wire-gripping flange and the hanger-bolt socket the series of locking-tongues i offset from the body of the part and the corresponding series of perforations h for receiving the locking-tongues and permitting them to be lapped upon the body of 40 the opposite part by lengthwise motion thereof substantially in the manner and for the purpose specified.

Signed by me at New Haven, Connecticut, 45 this 21st day of December, 1903.

ALBERT E. HOLADAY.

Witnesses:

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