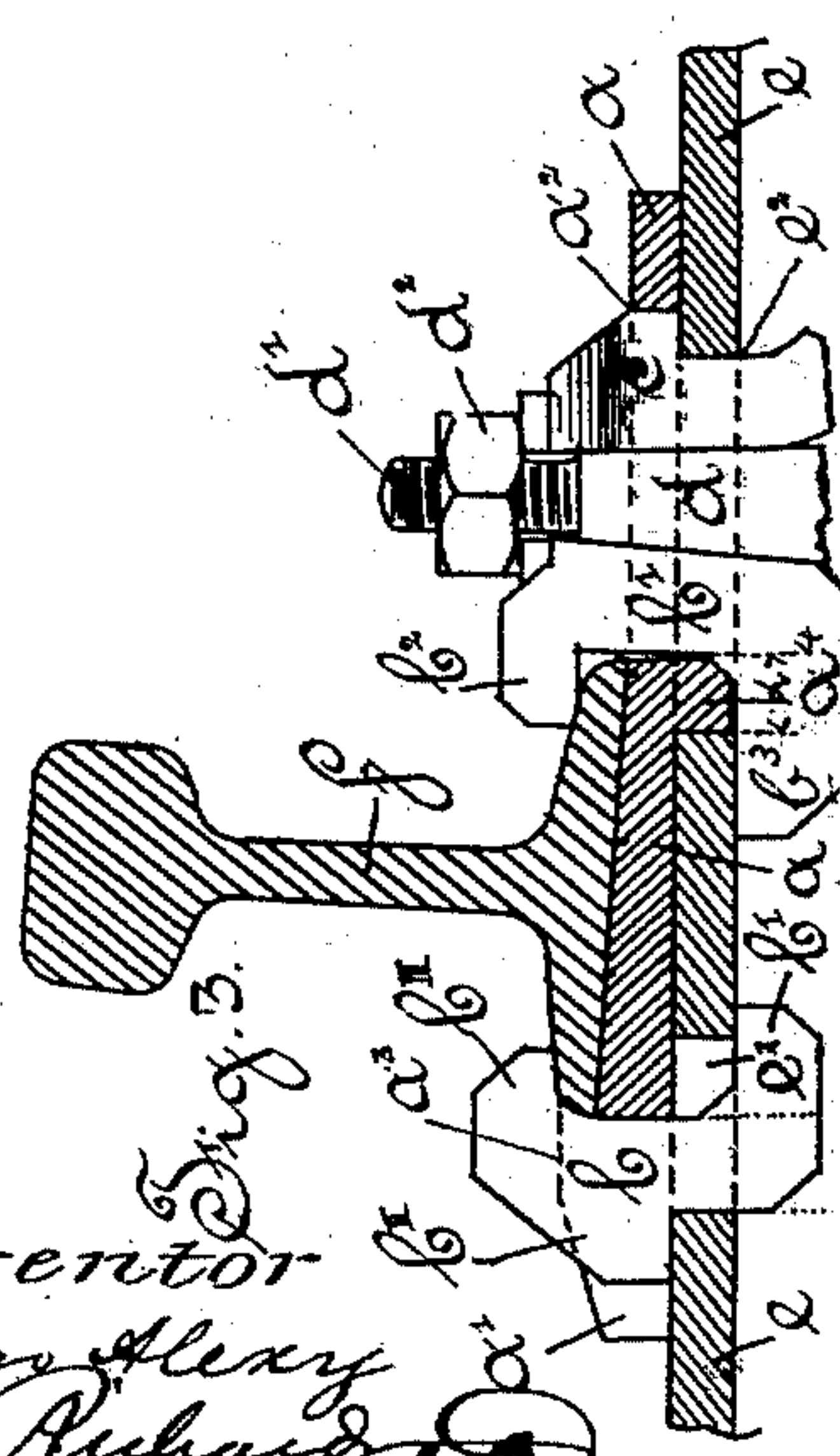
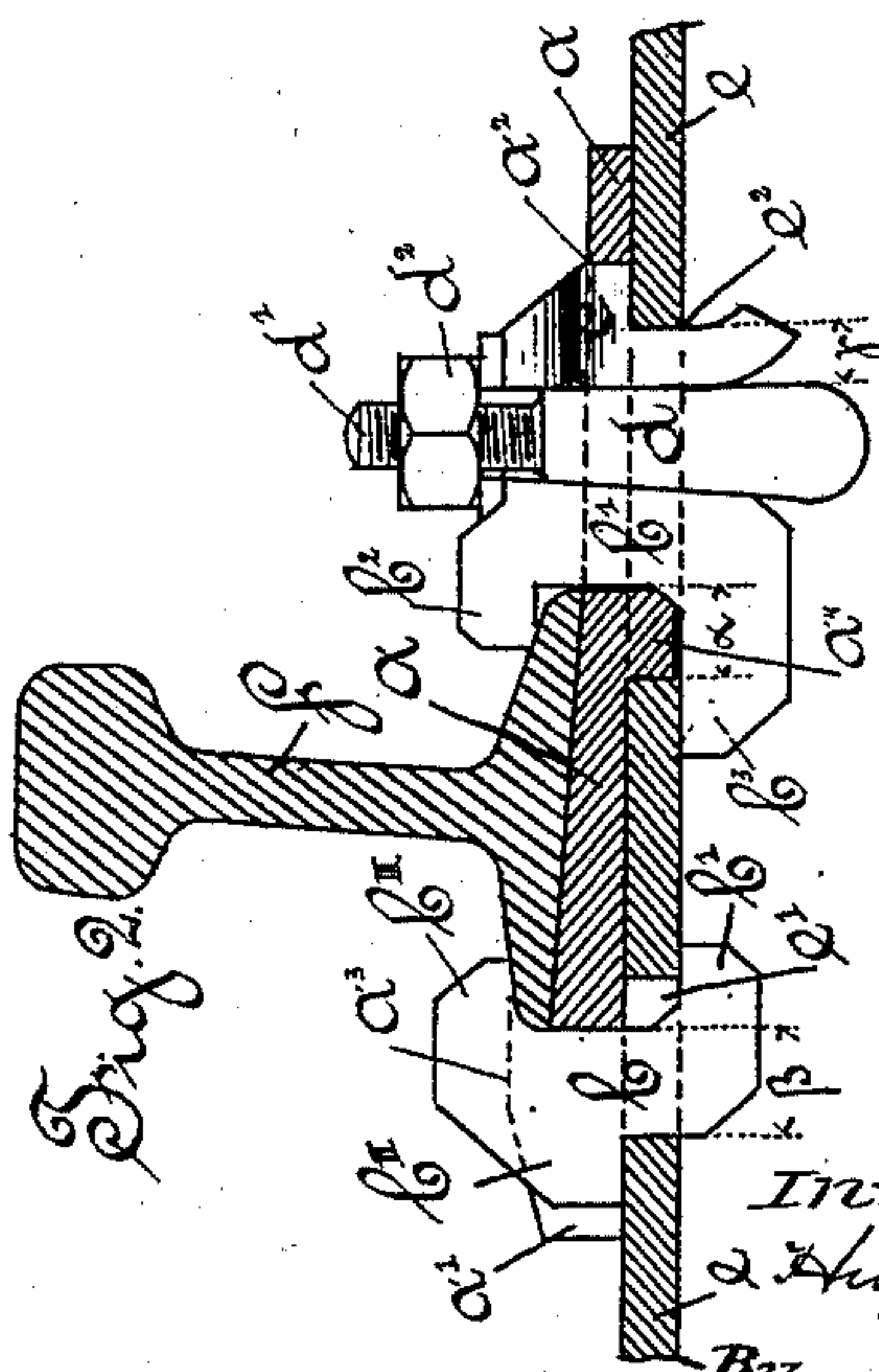
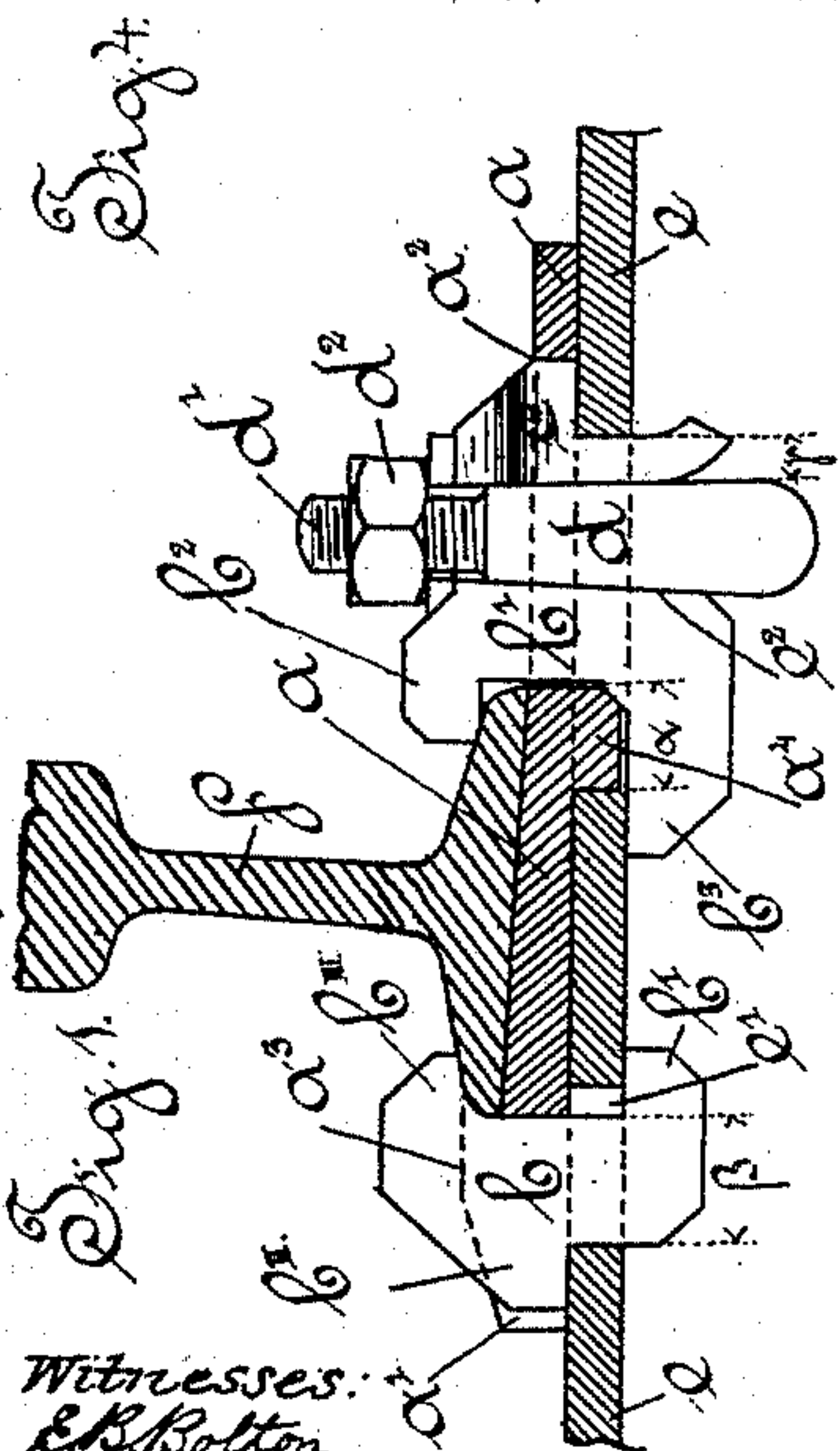
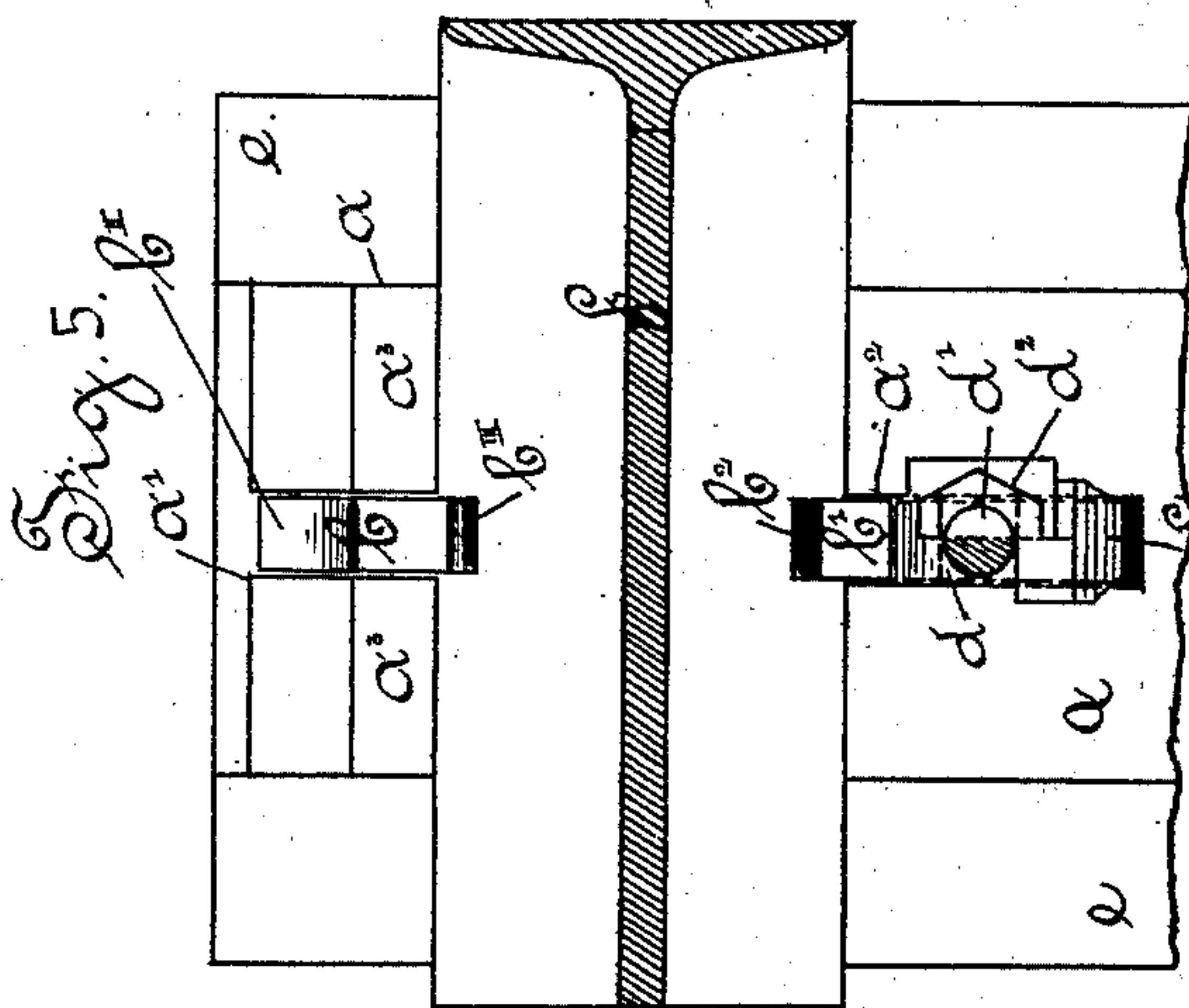
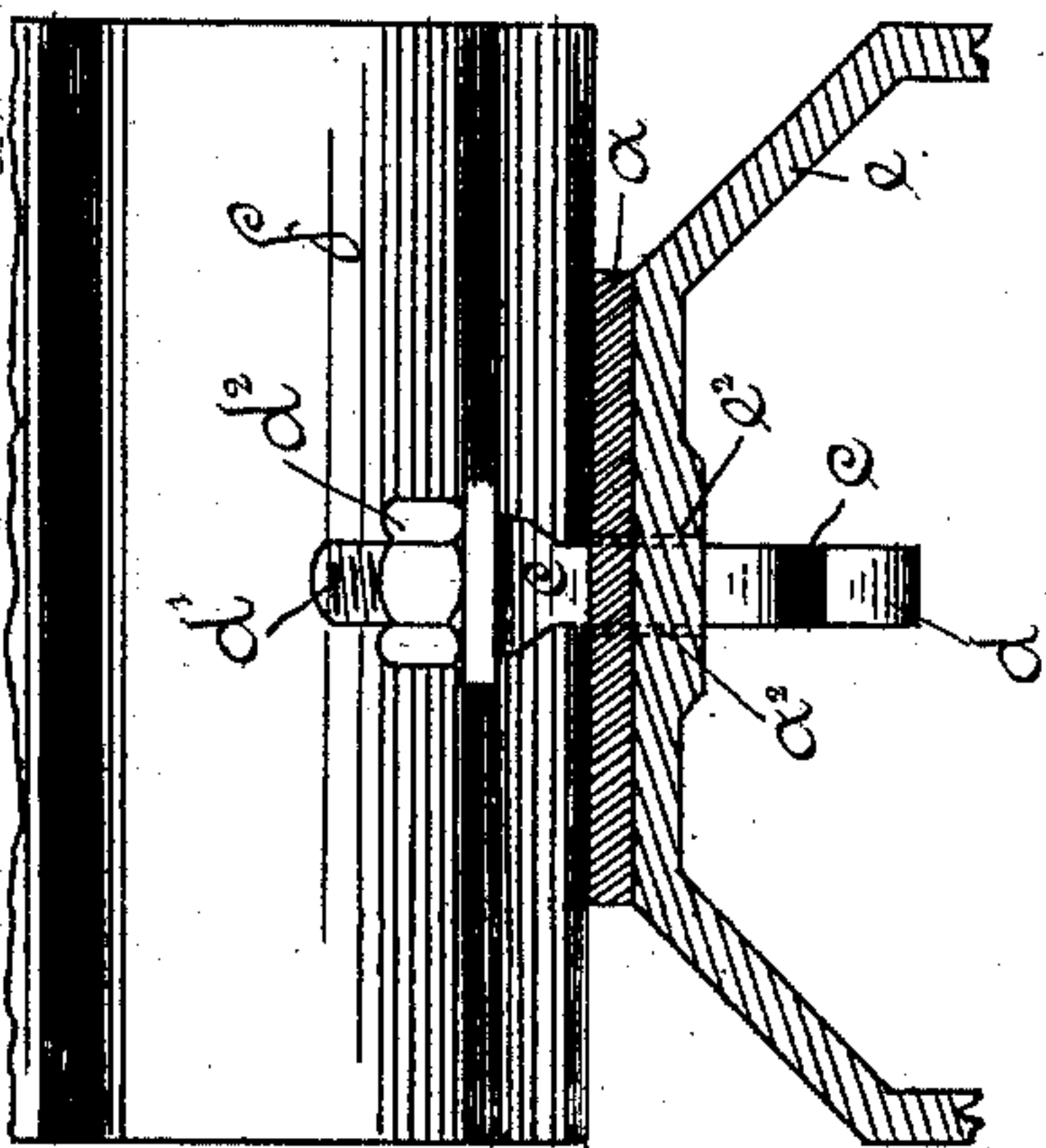
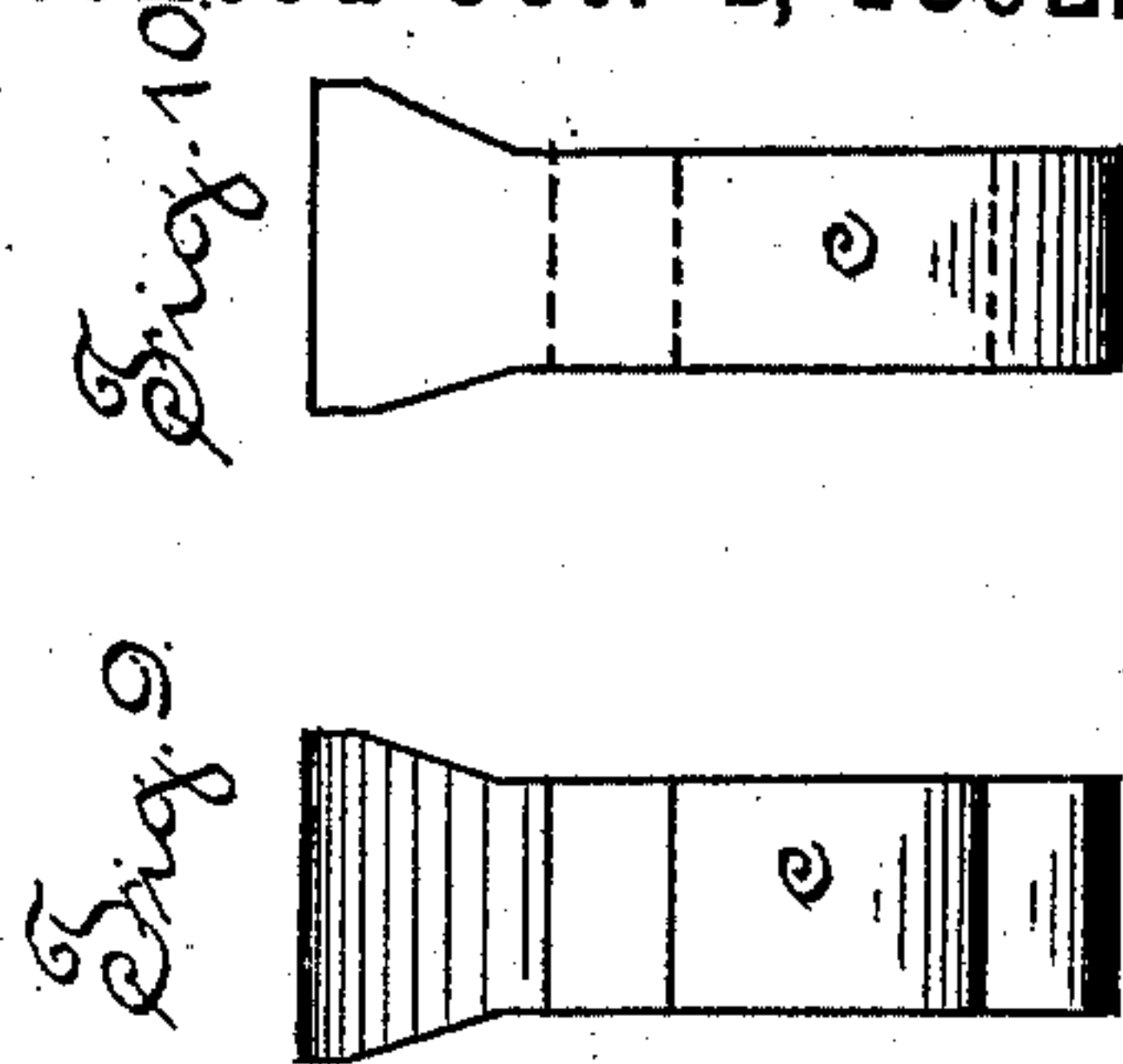
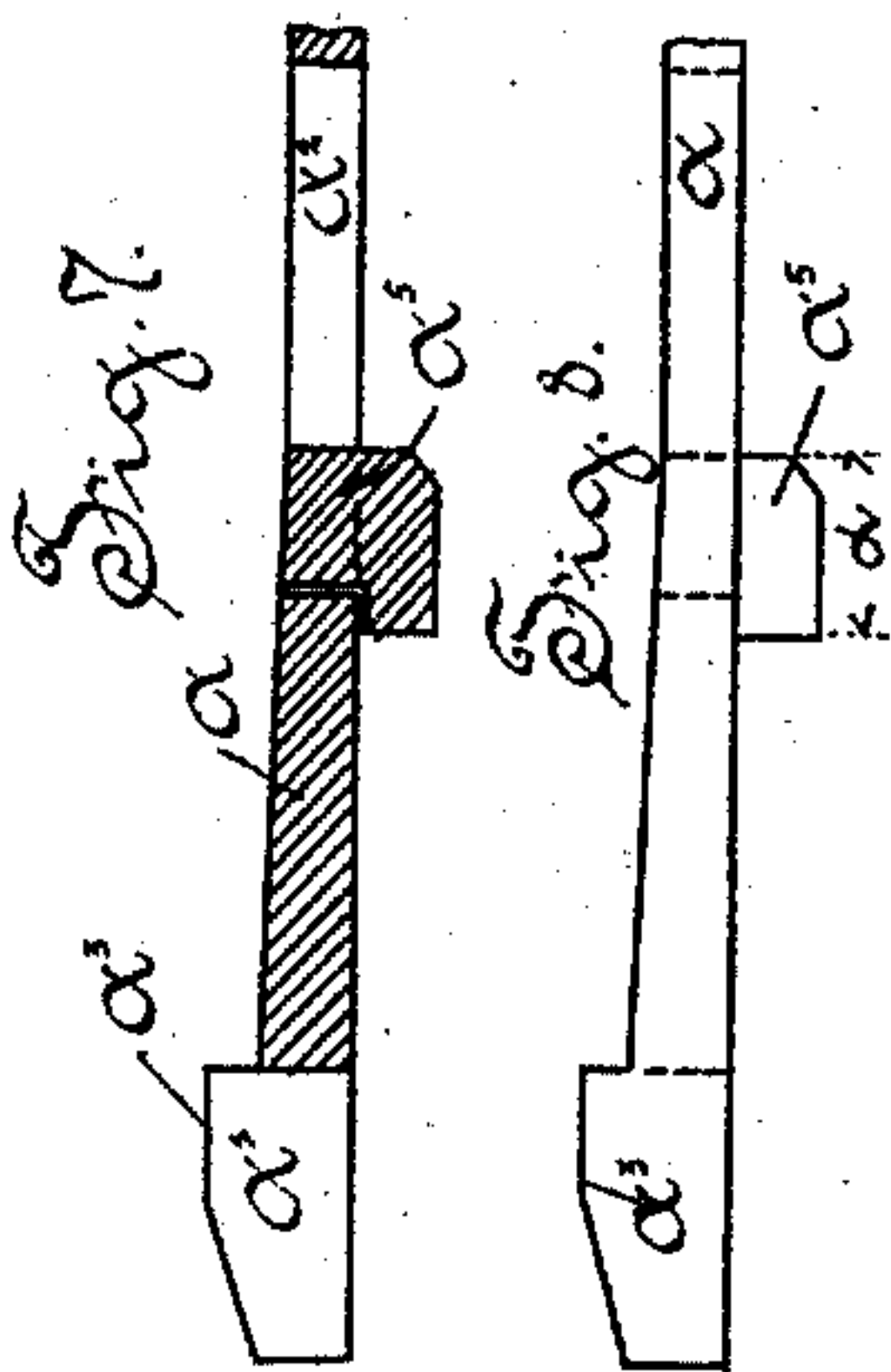
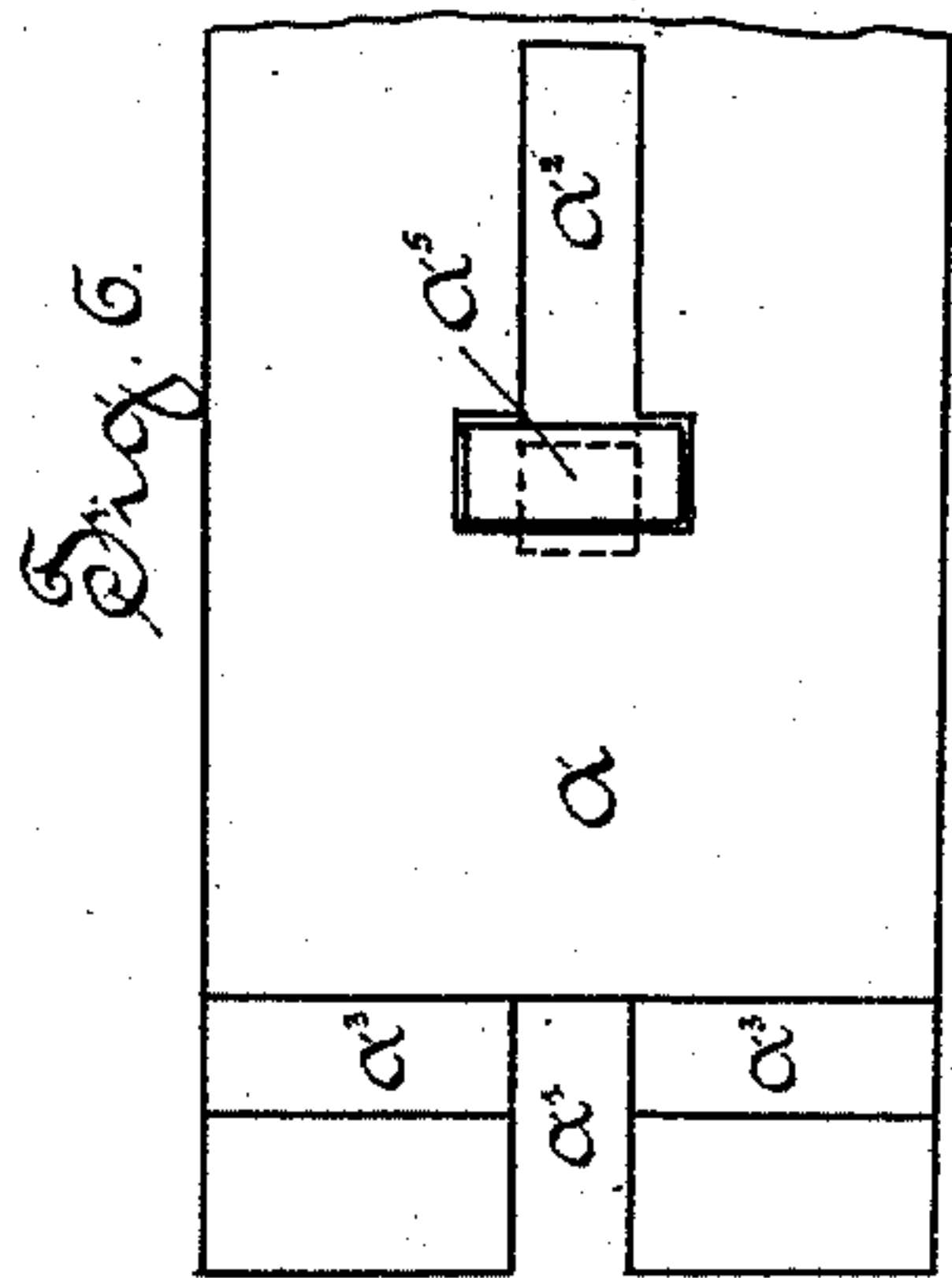


(No Model.)

H. ALEXY.
RAIL FASTENING.

No. 483,518.

Patented Oct. 4, 1892.



Witnesses:
E. R. Botton
H. Kusterer

Inventor
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his attorneys

UNITED STATES PATENT OFFICE.

HUGO ALEXY, OF BUDA-PESTH, AUSTRIA-HUNGARY.

RAIL-FASTENING.

SPECIFICATION forming part of Letters Patent No. 483,518, dated October 4, 1892.

Application filed October 17, 1891. Serial No. 409,079. (No model.)

To all whom it may concern:

Be it known that I, HUGO ALEXY, a subject of the King of Hungary, residing at Buda-Pesth, Austria-Hungary, have invented certain new and useful Improvements in Rail-Fastenings, of which the following is a full, clear, and exact description.

The purpose of the present invention, which is a new manner of fastening railway-ties to the iron cross-tie, is to form a reliable and durable connection between the rails or bars and the cross-tie in such a manner that there is a certain changeability of the gage of way and that the separate fastening means completely fill out the holes and openings of the cross-tie intended for their reception, and thus avoid loosening and the consequent wear of the cross-tie.

The accompanying drawings show the complete mounted connection in Figures 1, 2, and 3 in three different gage-widths on the track profile and the longitudinal section of the tie. Fig. 4 is a side view. Fig. 5 is a plan view. Figs. 6, 7, and 8 show the ground-plate of the track-connecting parts in top view, cross-section, and side view. Figs. 9 and 10 are detail parts in front and rear views.

As seen from the drawings, the whole connection consists of five pieces—viz., the ground-plate a , the two catches b and b' , and the locking-hook c with the locking-wedge d . The mounting of these different parts to a fast connection is as follows: The cross-tie e has two slots e' and e'' in its longitudinal direction which correspond to the incisions a^1 and a^2 of the ground-plate a . The rectangular ground-plate a lies on the tie e so that its incision a' comes to lie over the hole e'' of the latter and its slot a^2 lies over the hole e' of the tie. The rail f lies in the usual way on the ground-plate and crosswise to the tie, and its flange rests on one side against the raising a^3 of the ground-plate. The catching-hook b is put with its lower nose b' through the incision a' of the plate a and through the hole e' of the tie, so that its lower nose b' comes to lie against the lower surface of the tie, while it rests with its upper nose b'' on the upper side of the tie and catches with its second upper nose b''' the flange of the rail. The ground-plate a itself engages with its nose a^4 in the hole e'' of the cross-tie.

The second catching-hook b' is put through the openings a^2 and e^2 of the ground-plate a and tie e and catches the flange with its upper nose b^2 and rests against the lower surface of the tie with its long lower nose b^3 . Now the wedge is inserted into these same openings and is put down as far as possible, so that the locking-hook c can also be there inserted with its lower bent end. If the wedge d is now tightened by means of its screw d' and nut d^2 , the whole connection is made fast and the rail lies fast through the catching-hooks b and b' . If the connection is to be opened, the wedge d is first loosened, so that the locking-hook c can be easily pulled out, whereupon the whole connection can be undone in reversed order to the fastening.

To facilitate the handling of the locking-hook when drawing it out, its head has, as shown in Figs. 9 and 10, been made broader on both sides.

In this kind of rail-fastener the changeability of the gage is obtained in making some of the parts which can be exchanged of different dimensions, as seen from Figs. 1 to 3. These changeable parts are the catching-hook b , the nose a^4 of the ground-plate a , and the locking-hook c .

Fig. 2 shows, for example, the rail f with the ground-plate a in the normal middle position. In Fig. 1, however, both are pushed to the right, in which case the dimension B of the catching-hook b , as also the dimension x of the nose a^4 of the plate a , becomes greater, while the dimension j of the locking-hook c becomes less. Fig. 3, however, shows the rail f and the ground-plate a pushed to the left, in which case x and j have become smaller and j alone is larger. The proportion of the increase and decrease of the dimensions B and j is seen in that the sum of both (j and B) is constant. The dimension x increases and decreases for the length of the displacement. To avoid the making of ground-plates a , with noses a^4 , of different dimensions, the same can, as in Figs. 6, 7, and 8, be made without the nose by using insertion-pieces a^5 and by making the slot a^2 of the ground-plate a T-shaped. These insertion-pieces a^5 lie with their broader upper part in the wider part of the slot a^2 , while their lower part, replacing the former nose a^4 , engages in the slot e^2 of the

tie. The dimension x of the insertion-piece is then naturally only varied, while the ground-plate remains the same in all cases.

I claim—

- 5 1. In combination with the slotted tie and the rail, a plate a , upon which the rail bears, having openings a' a^2 and the nose a^4 to fit into the opening in the tie, the hooks b and b' , having catching projections to bear upon the
10 rail-flange and the tie, the said hooks passing through the openings in the plate and tie, the locking-hook c , and the wedge interposed between the hook b' and the locking-hook c , said wedge having a screw-threaded end, and
15 the nut d^2 thereon, substantially as described.

2. In combination, the slotted cross-tie, the base-plate a , having the openings therein, the rail resting thereon, the hooks adapted to pass through said openings, and the wedging means for clamping the parts in place, the said plate 20 a having a removable nose a^4 , adapted to the opening in the cross-tie, substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing 25 witnesses.

HUGO ALEXV.

Witnesses:

F. L. JAMESON,
S. J. DREUL.