

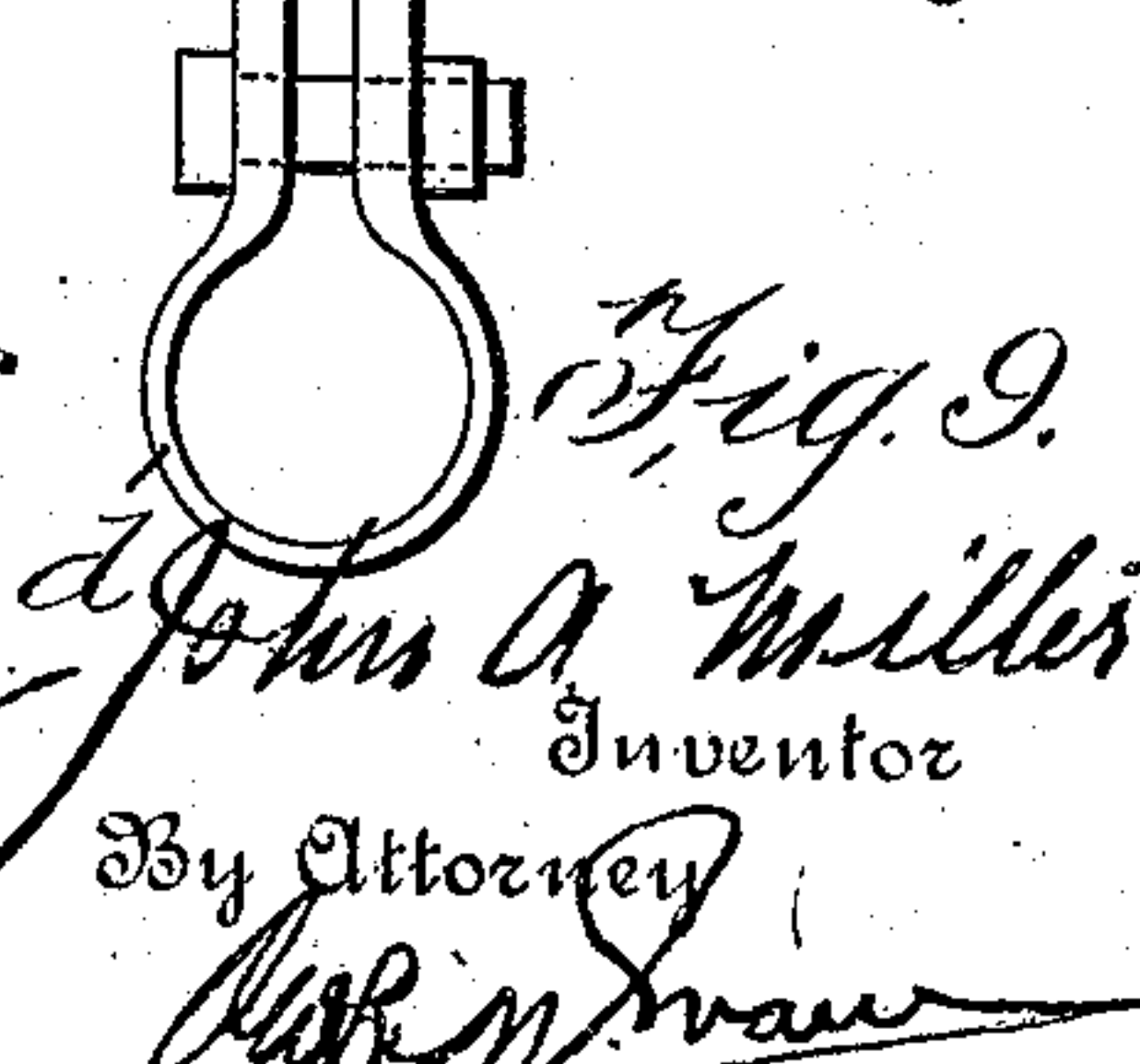
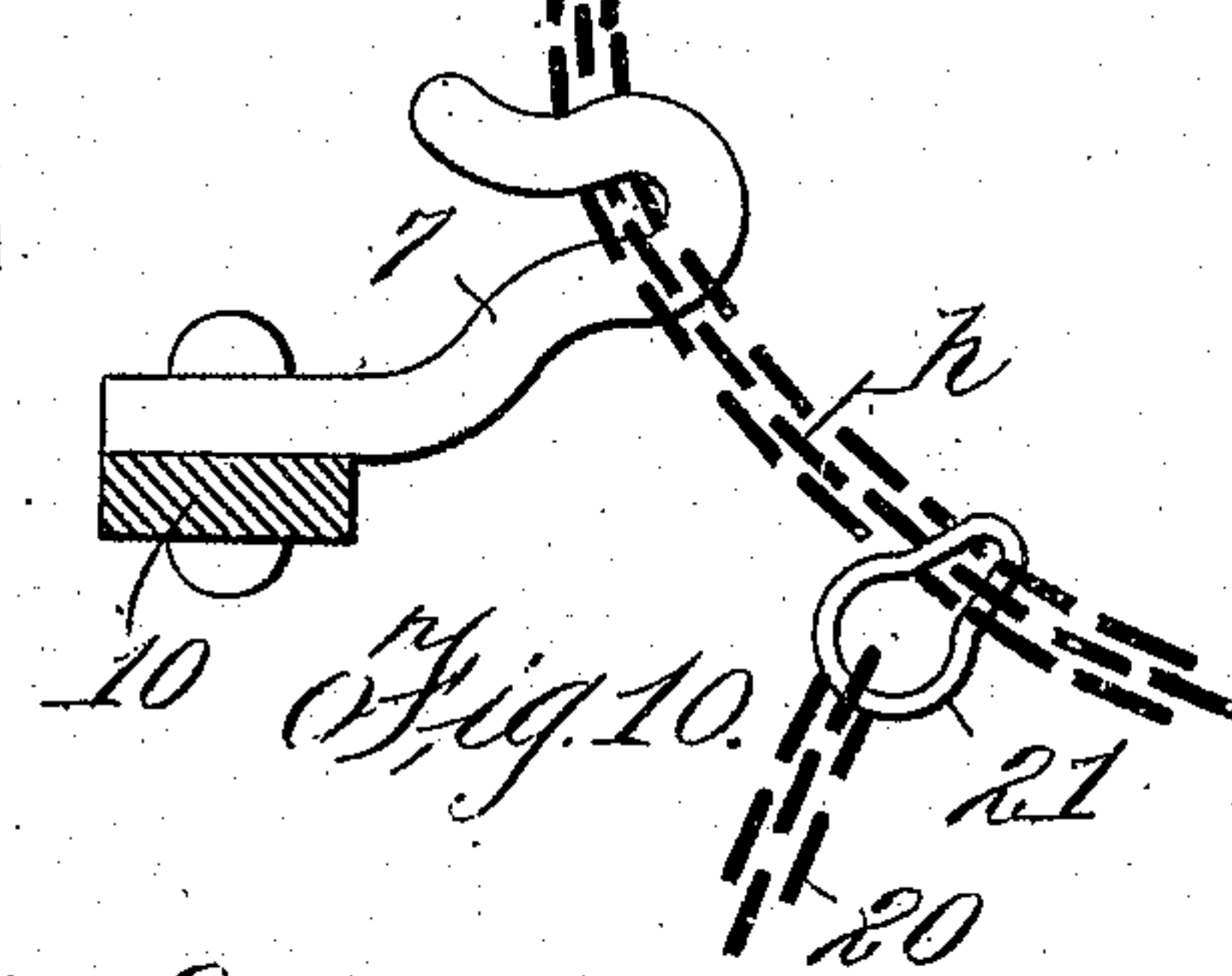
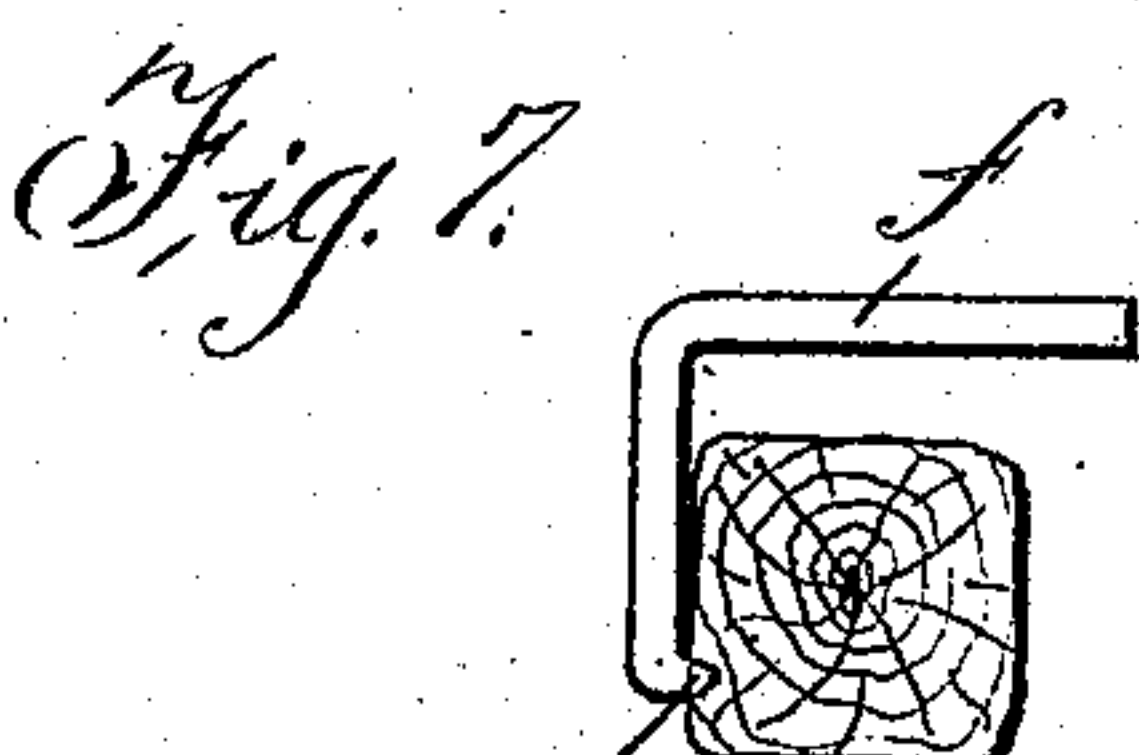
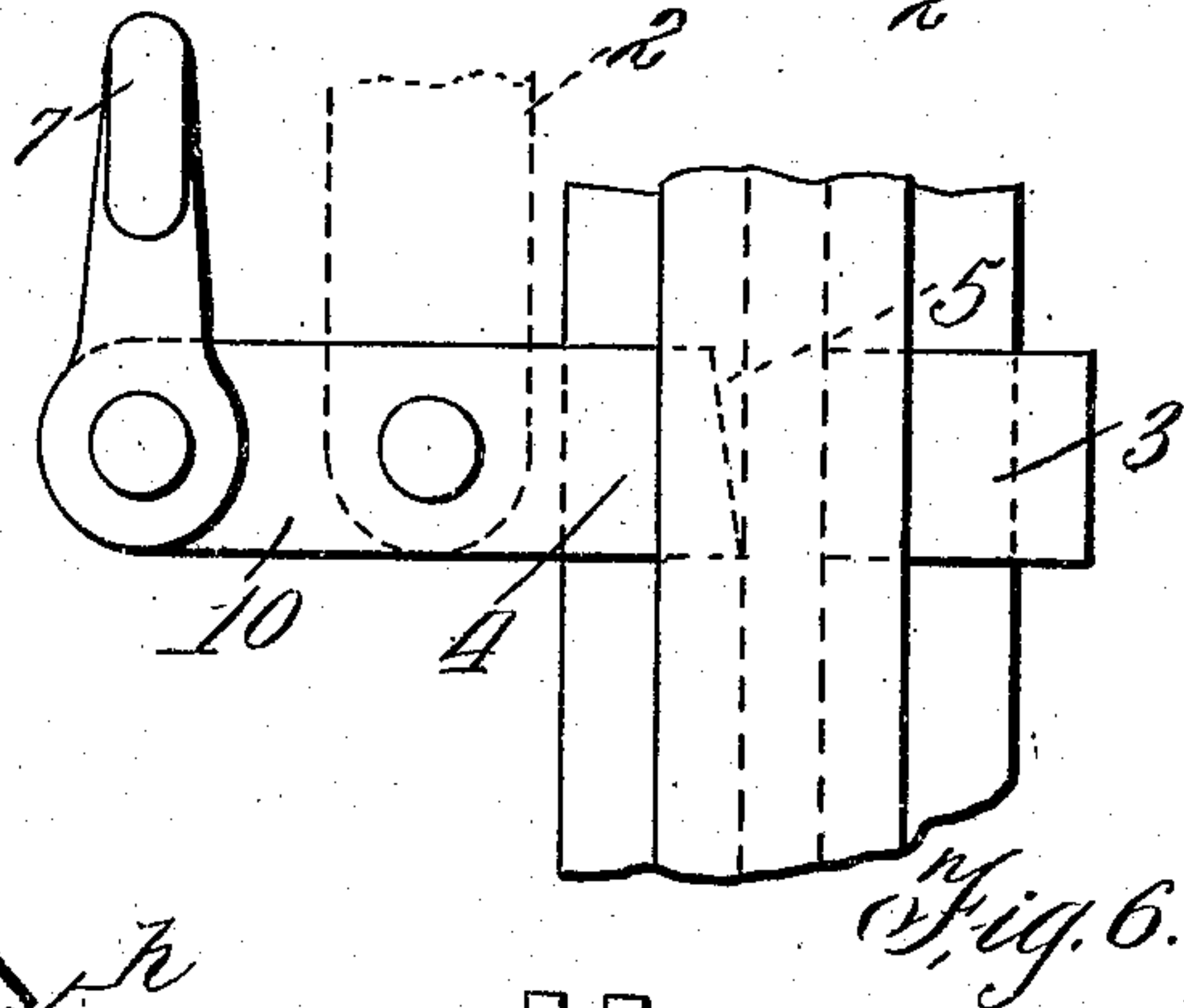
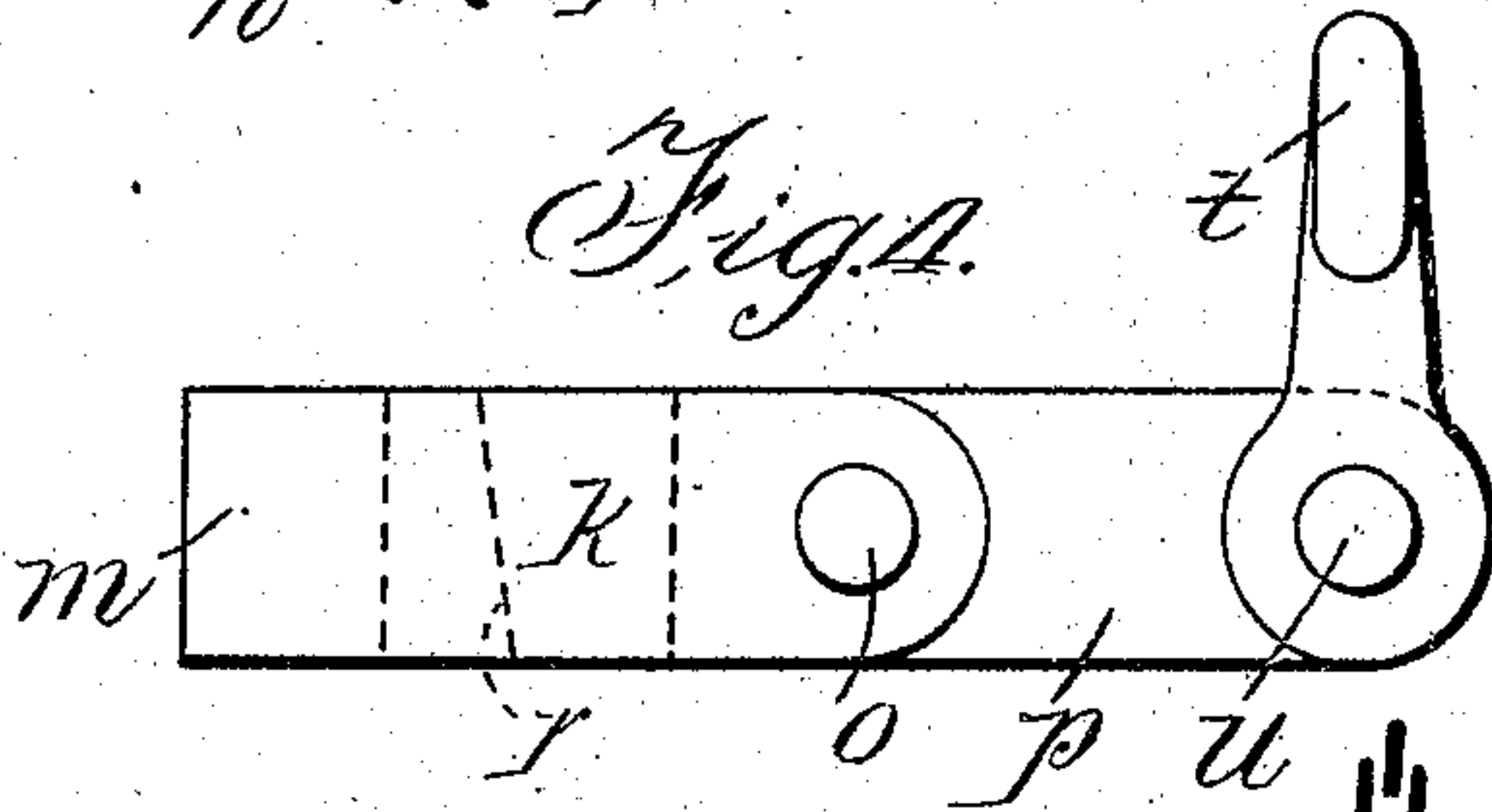
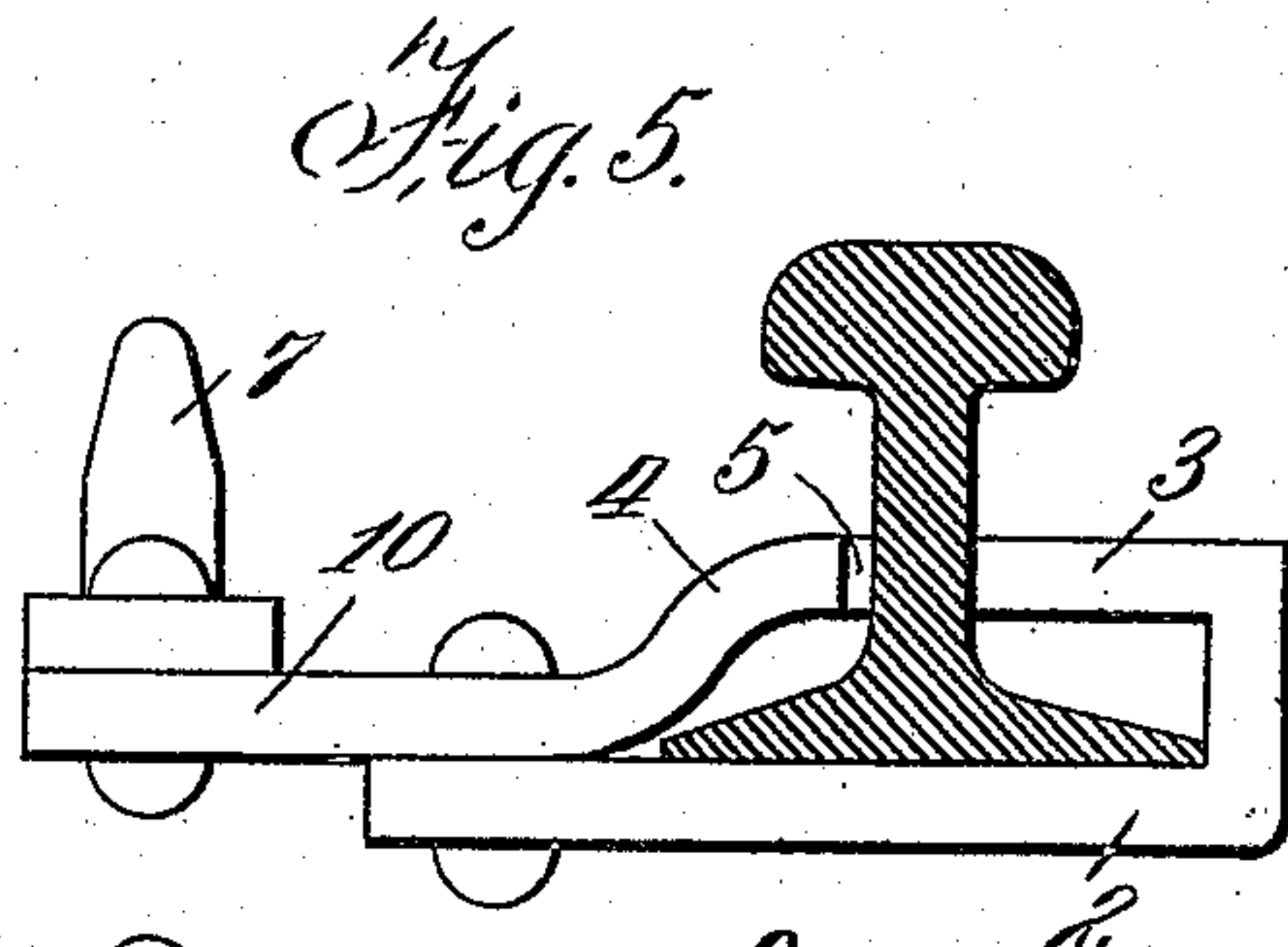
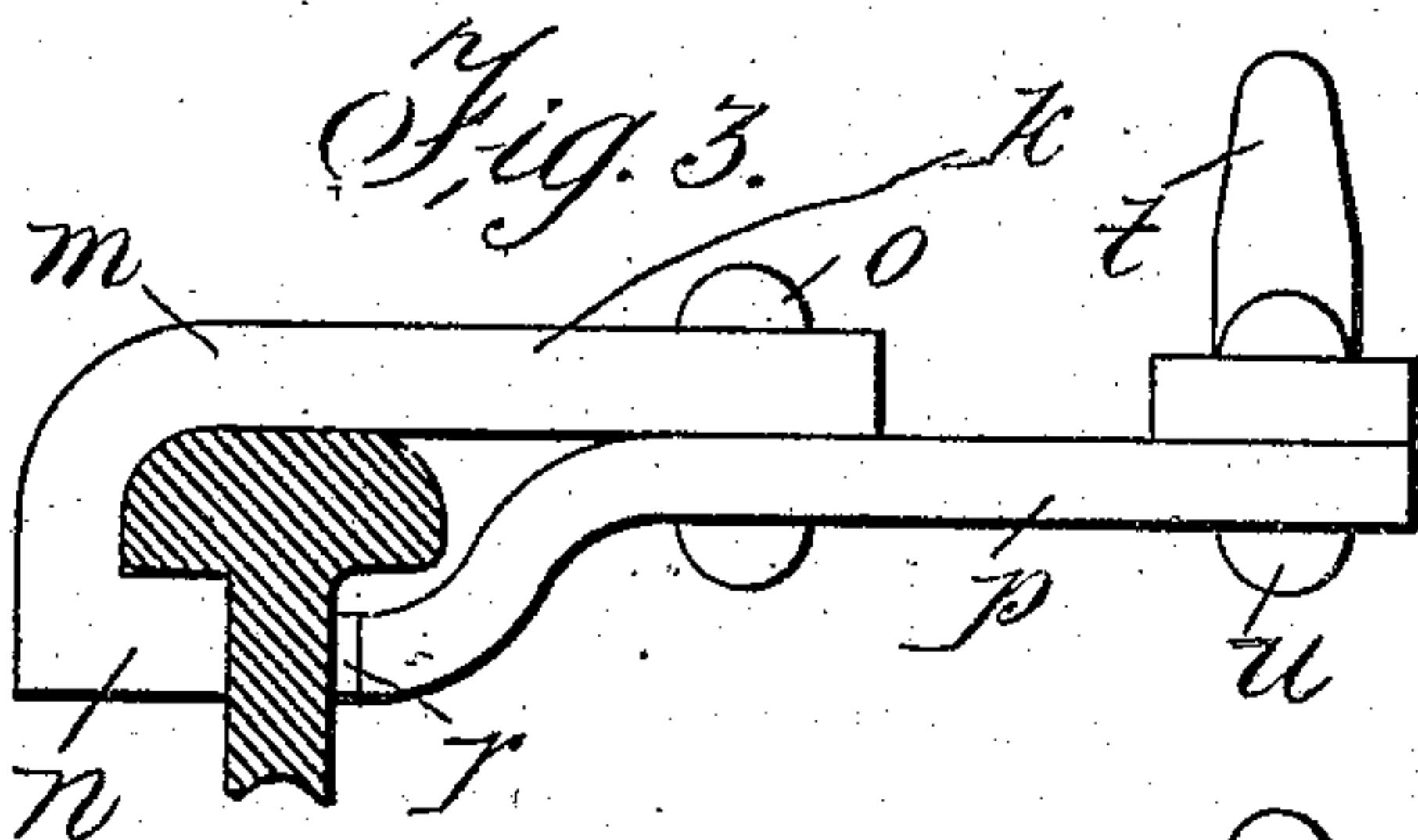
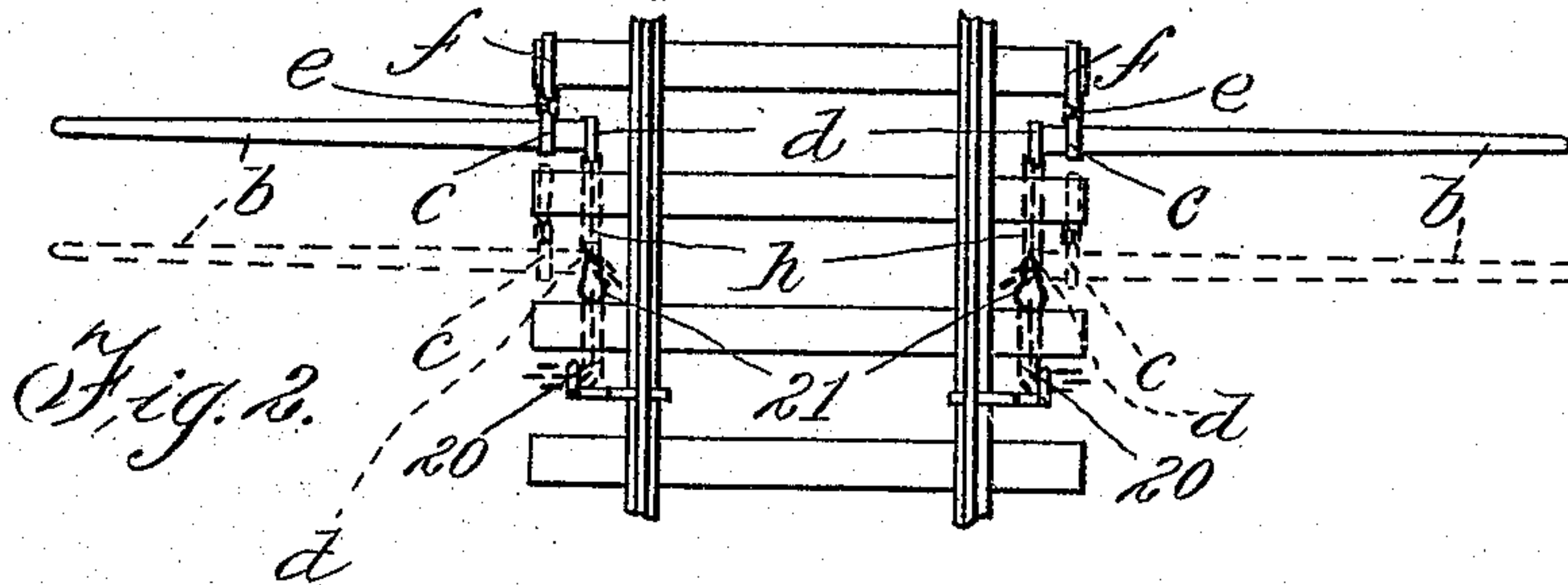
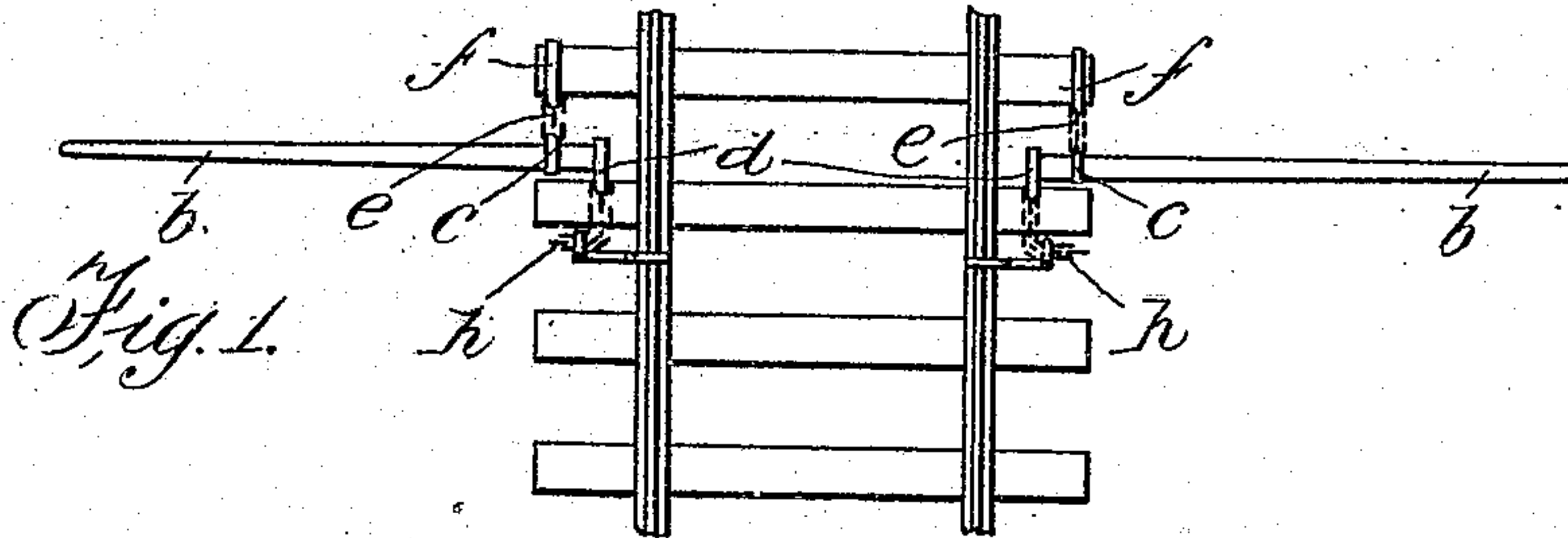
J. A. MILLER.

TIE SPACER.

APPLICATION FILED AUG. 19, 1908.

907,844.

Patented Dec. 29, 1908.



Witnesses
Albert J. [Signature]
Fred [Signature]

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By Attorney
[Signature]

UNITED STATES PATENT OFFICE.

JOHN ANSLEY MILLER, OF McADAM JUNCTION, NEW BRUNSWICK, CANADA.

TIE-SPACER.

No. 907,844.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed August 19, 1908. Serial No. 449,302.

To all whom it may concern:

Be it known that I, JOHN ANSLEY MILLER, of McAdam Junction, New Brunswick, Canada, have invented certain new and useful

Improvements in Tie-Spacers.

My invention has for its object to provide a tie spacer which will be more easily manipulated, less complicated, and more durable than devices of this type heretofore known.

The invention may be said briefly to consist of a device adapted to grip the tie, a second device adapted to grip the rail, a lever and tensional means effecting an operative connection between the lever and the said tie and rail gripping devices.

For full comprehension, however, of my invention reference must be had to the accompanying drawings forming a part of this specification, wherein corresponding reference characters indicate the same parts, and wherein—

Figures 1 and 2 are plan views of a section of track with my invention applied thereto, the former including a device for gripping the head of a rail and the latter a device for gripping the rail's base; Figs. 3 and 4 are enlarged detail side and plan elevation of the device for gripping the head of the rail; Figs. 5 and 6 are similar views of the device for gripping the base of the rail; Figs. 7 and 8 are an enlarged side elevation and a plan view of the device for gripping the tie; and Fig. 9 is an enlarged detail plan view of one of the straps whereby the tensional means is connected to the lever. Fig. 10 illustrates one of the grab hooks and the grab link in use.

Specifically speaking, I provide a lever *b*, having a pair of straps *c* and *d* (Fig. 9) mounted thereon near one end, one of such straps being connected by a chain *e* to a rectangular hook *f* (Figs. 7 and 8) having a laterally extending tooth *g* adapted to sink into the tie, the other strap being connected by a chain *h* to a clamp for gripping the rail.

As before mentioned the rail clamping device can be made to act either upon the head or base of the rail. The device for acting upon the head is illustrated in Figs. 3 and 4 and consists of a member *k* with a downwardly facing hooked end adapted to lie upon the rail head and presenting a curved portion *m* adapted to fit the inner side of the head and a lip *n* engaging beneath the latter.

This member is pivotally secured by means of a rivet *o* to a second member *p* presenting a downwardly offset end with a beveled face *r* adapted to bear upon and bite into the portion of the web contiguous thereto, the opposite end of such member *p* having a grab hook *t* rigidly secured thereto by a rivet *u*. The chain *h* is attached to this rail by being engaged with the hook *t*.

The device for gripping the base of the rail (Figs. 5 and 6) comprises a member 2 with an upwardly facing hooked end presenting a lip 3 of sufficient length to extend over the base of the rail towards the web, and a member 10 pivoted thereto and having an upwardly offset end 4 presenting a beveled face 5 adapted to bear upon and bite into the web of the rail, while a grab hook 7 is fixed to the opposite end of the said member 10.

A separate length of chain 20 is provided for use with the clamp for the base of the rail and a grab link 21 preferably attached to one end of this separate chain is adapted to enable the latter to be readily connected to the chain *h* for the purpose of lengthening the same and permitting the hook to be moved from one tie to another without disturbing the clamp.

Operation: In the operation of my improved spacer, the tie hook is first set in place, the rail clamp is then set loosely in place and moved along the rail and away from the hooked tie to the required position, after which upon the free end of the lever being moved towards the rail clamp the tie is adjusted as desired.

What I claim is as follows:—

1. A railway tie spacer comprising a manually movable part, a device adapted to engage the tie, a device adapted to be fastened to the rail, tensional means connecting the manually movable part to the tie gripping device and tensional means connecting the said manually movable part to the device adapted to be fastened to the rail.

2. A railway tie spacer comprising a manually movable part, a hook adapted to engage the tie, a clamp adapted to be fastened to the rail, tensional means connecting the manually movable part to the hook and tensional means connecting the said manually movable part to the clamp.

3. A railway tie spacer comprising a manually movable part, a hook adapted to engage

the tie, a clamp adapted to be fastened to the rail, a chain connecting the manually movable part to the hook and a second chain connecting the said manually movable part to the clamp.

4. A railway tie spacer comprising a lever, a tie gripping device, a rail clamping device, a pair of chains connecting the lever to the said devices respectively.

5. In a railway tie spacer, the combination with means for exerting power tending to move a railway tie, of a tie gripping device consisting of a rectangular hook presenting an inwardly extending tooth.

6. In a railway tie spacer, the combination with a device adapted to be connected to a railway tie and means connected to such device for exerting power tending to move the tie, of a rail clamp consisting of a member having one end hooked, a second member presenting an offset end, and means whereby the said members are secured in clamping relation.

7. In a railway tie spacer, the combination with a device adapted to be connected to a railway tie and means connected to such device for exerting power tending to move the tie, of a rail clamp comprising a member with one end in the form of a lateral hook adapted to engage one side of the rail, a second member having the first mentioned member pivoted thereto and presenting an offset end with beveled faces adapted to engage the opposite side of the rail, and means upon the last mentioned member for the attachment of a chain.

8. In a railway tie spacer, a rail clamp comprising a member with one end in the form of a lateral hook adapted to engage one side of the rail, a second member having the first mentioned member pivoted thereto and presenting an offset end with beveled face adapted to engage the opposite side of the rail, and a grab hook pivoted to the last

mentioned member for the attachment of a chain.

9. In a railway tie spacer, the combination with a lever, of a hook adapted to engage a tie, a clamp adapted when in one position to clamp the rail and when in a different position release the rail, tensional means permanently connecting the lever to the hook, tensional means connecting the lever to the clamp, and means for varying the length between the points of connection of the last mentioned tensional means and the lever and clamp.

10. In a railway tie spacer, the combination with a lever, of a hook adapted to engage a tie, a clamp adapted when in one position to clamp the rail and when in a different position release the rail, a grab hook carried by such clamp, tensional means permanently connecting the lever to the hook, a chain connected at one end permanently to the lever and adapted to have its opposite end engage the clamp.

11. In a railway tie spacer, the combination with a hook adapted to engage a tie, a clamp adapted when in one position to clamp the rail and when in a different position release the rail, a grab hook carried by such clamp, tensional means permanently connecting the lever to the hook, a chain connected at one end permanently to the lever and adapted to have its opposite end engage the clamp, a second chain, and a grab link connected permanently to one of the said chains and adapted to be engaged by the other chain.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

JOHN ANSLEY MILLER.

Witnesses:

WILLIAM P. McFEAT,
FRED J. SEARS.