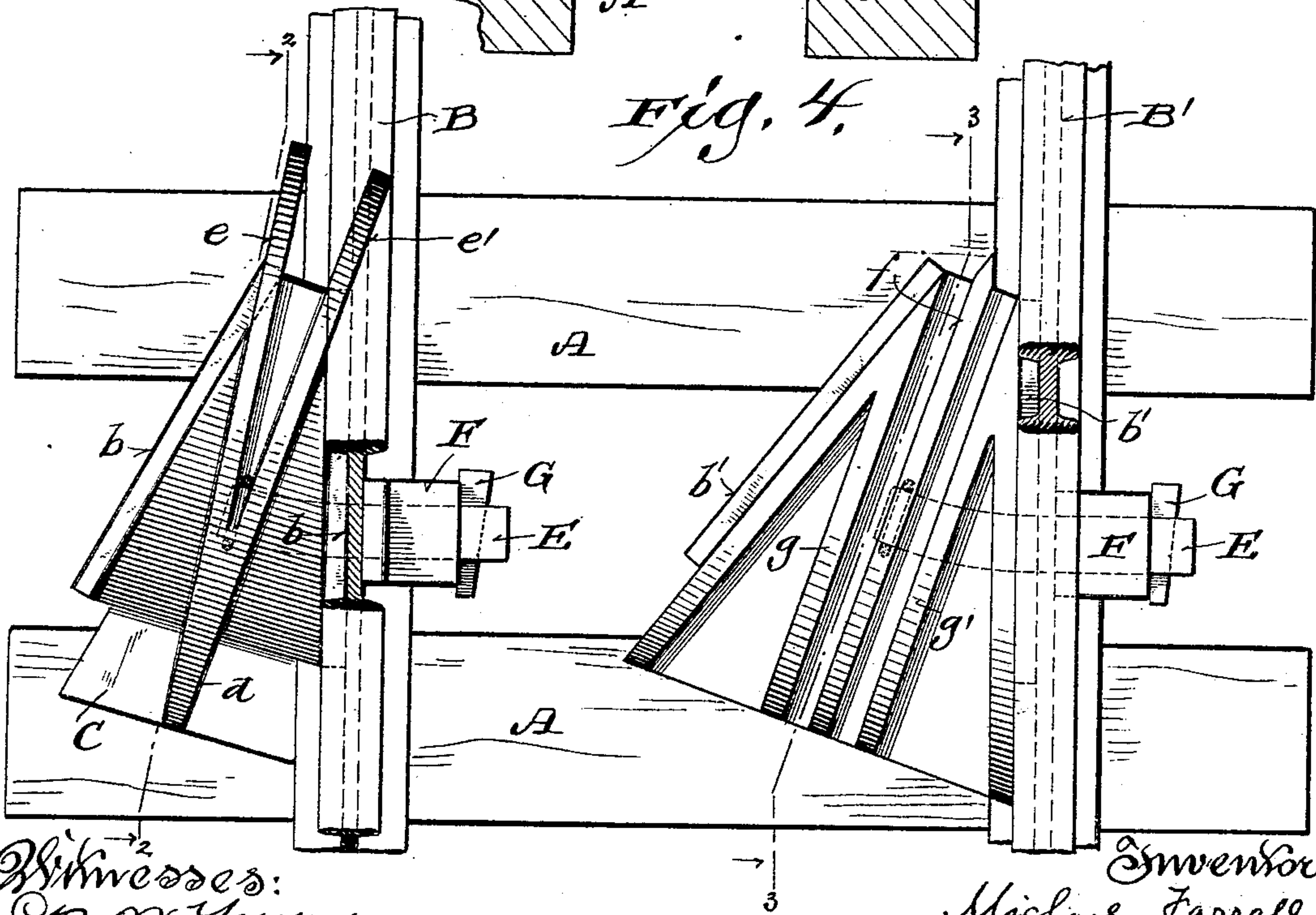
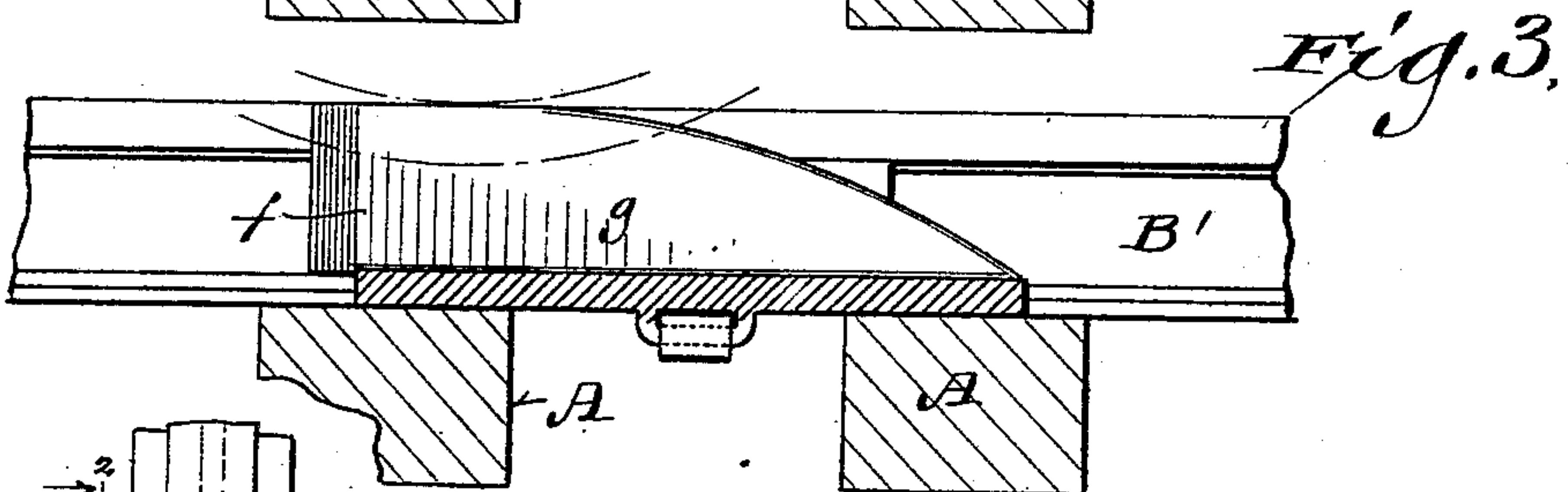
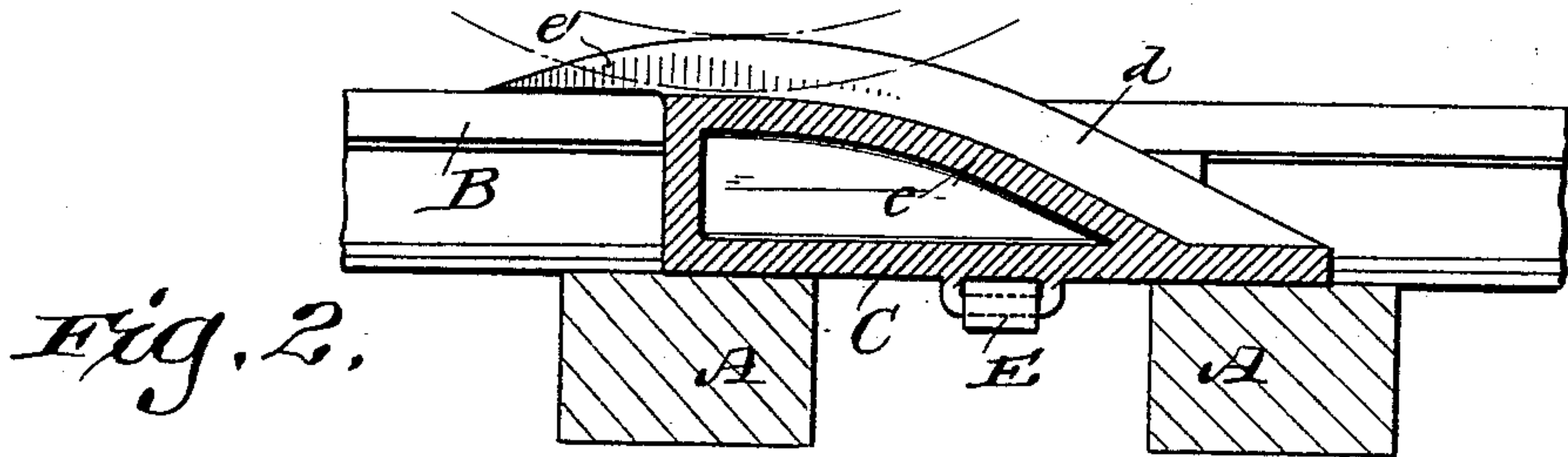
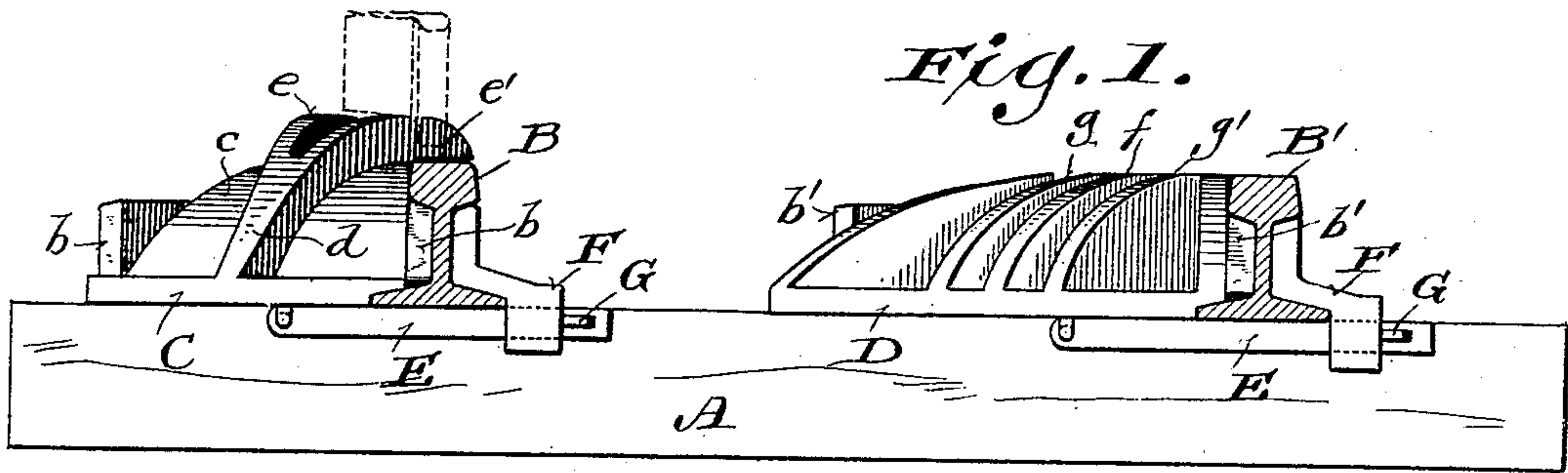


(No Model.)

M. FARRALL.
RAILWAY WRECKING FROG.

No. 602,597.

Patented Apr. 19, 1898.



Witnesses:
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UNITED STATES PATENT OFFICE.

MICHAEL FARRALL, OF BARABOO, WISCONSIN.

RAILWAY WRECKING-FROG.

SPECIFICATION forming part of Letters Patent No. 602,597, dated April 19, 1898.

Application filed December 8, 1897. Serial No. 661,165. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL FARRALL, a citizen of the United States, and a resident of Baraboo, in the county of Sauk and State of Wisconsin, have invented certain new and useful Improvements in Railway Wrecking-Frogs; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to provide simple, economical, and reversible railway wrecking-frogs that may be quickly positioned and firmly held in place.

It therefore consists in certain peculiarities of construction and combination of parts hereinafter set forth with reference to the accompanying drawings and subsequently claimed.

Figure 1 of the drawings represents an end elevation of a pair of my improved railway wrecking-frogs and means for holding the same in position for service, the track-rails to which they are secured being shown in transverse section; Fig. 2, a partly-sectional view of one of the frogs indicated by line 2 2 in the fourth figure; Fig. 3, a similar view indicated by line 3 3 in the succeeding figure, and Fig. 4 a plan view of said frogs positioned for service.

Referring by letter to the drawings, A A represent cross-ties, B B' track-rails thereon, and C D a pair of outside and inside wrecking-frogs in accordance with my invention. Each of the wrecking-frogs embodies a horizontal base provided with longitudinal side flanges and upwardly-projecting ribs, as hereinafter more particularly specified.

The bases of the wrecking-frogs are triangular in shape, and their respective side flanges *b b'* are designed to fit against the webs of track-rails, between the treads and flanges of the same. Inasmuch as the wrecking-frogs herein shown are reversible each of the same is necessarily provided with two longitudinal side flanges.

In pivotal connection with the under side of each frog is a bar E, having a longitudinal tapered slot in its outer free end, and in slip engagement with each bar is an angular metal block F, that fits upon a track-rail to constitute a clamp, this casting being held in working position by a wedge-key G, driven in a bar-slot, as clearly shown in Figs. 1 and 4.

While each frog-base is shown provided with a depending pivot-loop engaging a bar-aperture, this pivotal connection of frog-base and bar may be varied in practice without departure from my invention, and as said bar in working position comes under a track-rail intermediate of cross-ties the frog in connection therewith may be readily positioned for service.

The outside frog C is herein shown as having its base provided with an upper inclined swell *c*, surmounted by a central rib *d*, from which diverging branches *e e'* extend forward past the narrow end of said base far enough to permit of either branch overlapping the full width of an adjacent track-rail, the gradual elevation of said rib and branches necessary to bring the latter above the track-rail being due to the swell on the aforesaid base. The forward ends of the diverging rib branches are rounded or otherwise gradually diminished in elevation to terminate practically flush with the tread of a track-rail overlapped by either.

It may be found practical to omit the swell *c* of the aforesaid frog-base and have the rib *d* and its branches rise direct from said base, the forward ends of these branches being angularly notched in order that a portion of either may overlap a track-rail when the frog is in position for service.

The base of the inside frog D is shown as a flat plate surmounted by a central inclined upper guard-rib *f*, having its forward end extended beyond the narrow end of said base and taper-pointed, so that either side may be parallel with a track-rail flange and snug against the same when said frog is positioned for service. Parallel with the guard-rib, in opposite directions therefrom, are other ribs *g g'*, and thus a groove is had intermediate of said guard-rib and each of the others parallel thereto. In practice it may be found convenient to omit the guard-rib and have each of ribs *g g'* constitute a guard for the flange of a car-wheel rolling on the other. While each of the ribs *g g'* may be of solid acute-angle form, having their outer sides flush with the longitudinal edges of the frog-base, they are herein shown in skeleton form, whereby a saving of metal is effected, and the aforesaid flanges *b'* are virtually lateral ex-

tensions of said ribs. All the ribs *f g g'* gradually ascend to a height equal to that of a track-rail, and the longitudinal edge of the frog-base surmounted by these ribs is preferably
5 made to have overlapping fit upon a track-rail flange, this latter feature being best illustrated in Fig. 1.

From the foregoing it will be understood that the frog C is the one upon which to run
10 car-wheels whose flanges must cross a track-rail to come in proper position against the inner side of its tread, and owing to the contour of rib *d* and its branches *e e'* said wheels readily find their proper arrangement with
15 respect to said track-rail without injurious results. In other words, the car-wheels will move along the rib *d* and that one of its branches that for the time being overlaps the tread of a track-rail, the flanges of said wheels
20 coming against the inside of said rib and branches and thereafter inside of the track-rail without appreciable jar or contact of said flanges with said tread.

The frog D guides other car-wheels to place
25 on a track-rail parallel to the one to which the former frog is made fast, it being understood that the latter car-wheels travel on one of the ribs *g* or *g'* with their flanges in the adjacent groove and thereafter pass onto the
30 adjacent track-rail.

As shown, the wrecking-frogs are set to facilitate replacing cars in one direction of the railway, but they may be reversed to permit
35 of said cars being replaced in the opposite direction. It also follows that frog C may be arranged outside of rail B' and frog D inside of rail B instead of the reverse herein shown.

Inasmuch as the frogs herein set forth have support on cross-ties and are firmly clamped
40 to track-rails they are not liable to slip out of position, and being reversible they are effective under various conditions that render their service necessary.

While I have shown and described preferred means for holding said frogs in position
45 for service, it is possible that other means may be devised for the same purpose, and therefore I do not limit myself to those set forth.

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

1. An outside railway wrecking-frog comprising a horizontal triangular base provided
55 with an upper inclined central rib having diverging branches extended beyond the forward narrow end of the base and so designed that the one innermost at any time may over-

lap the tread of a track-rail and terminate practically flush therewith, an inside railway
60 wrecking-frog comprising a triangular base provided with upper acute-angle inclined ribs each having its inner side facing a parallel groove and its outer side flush with a longitudinal edge of the corresponding base, and
65 suitable means for securing both frogs in position for service.

2. An outside railway wrecking-frog, comprising a horizontal triangular base provided with an upper inclined rib having diverging
70 branches extending beyond the forward narrow end of the base and so designed that the one innermost at any time may overlap the tread of a track-rail and terminate practically flush therewith, an inside railway wreck-
75 ing-frog comprising a triangular base provided with acute-angle inclined ribs each having its inner side facing a parallel groove and its outer side flush with a longitudinal edge of the corresponding base, longitudinal side
80 flanges on each frog adapted to fit against webs of track-rails between treads and flanges of the same, a bar in pivotal connection with the underside of each frog, a track-rail clamp-
85 block in sliding engagement with each bar, and a bar-engaging wedge-key arranged to hold each clamp-block in working position.

3. An outside railway wrecking-frog comprising a horizontal triangular base provided with an upper inclined center rib having di-
90 verging branches extended beyond the forward narrow end of the base and so designed that the one innermost at any time may overlap the tread of a track-rail and terminate practically flush therewith, an inside railway
95 wrecking-frog comprising a triangular base provided with a longitudinal upper center rib having a taper-point extending beyond the forward narrow end of the base for snug alignment against a track-rail flange and acute-
100 angle inclined ribs that have their inner sides parallel with the center rib in opposite directions therefrom at a predetermined distance, their outer sides being parallel to longitudinal edges of the corresponding base; and
105 suitable means for securing both frogs in position for service.

In testimony that I claim the foregoing I have hereunto set my hand, at Baraboo, in the county of Sauk and State of Wisconsin,
110 in the presence of two witnesses.

MICHAEL FARRALL.

Witnesses:

F. C. BULLARD,
JOHN GOLDING.