

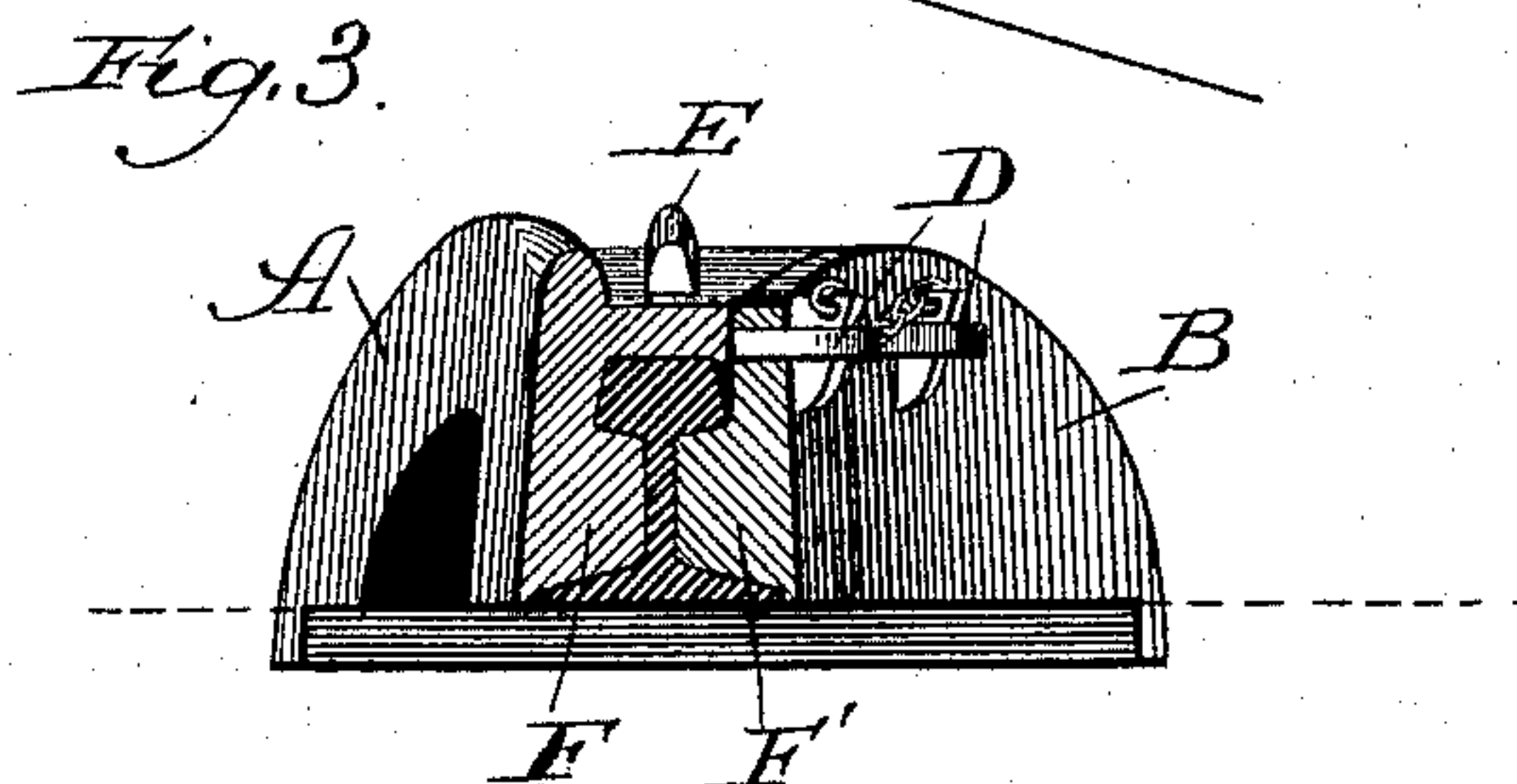
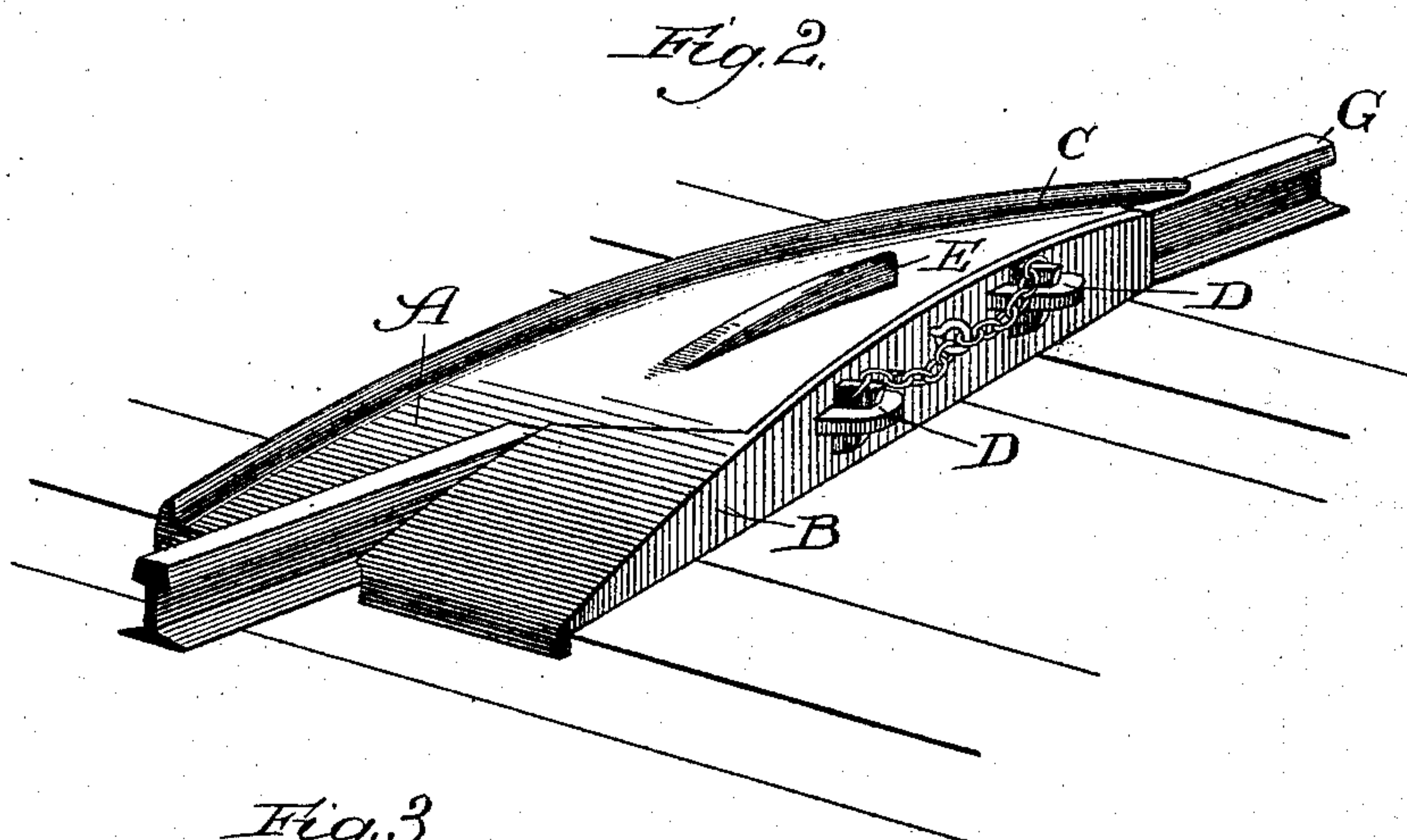
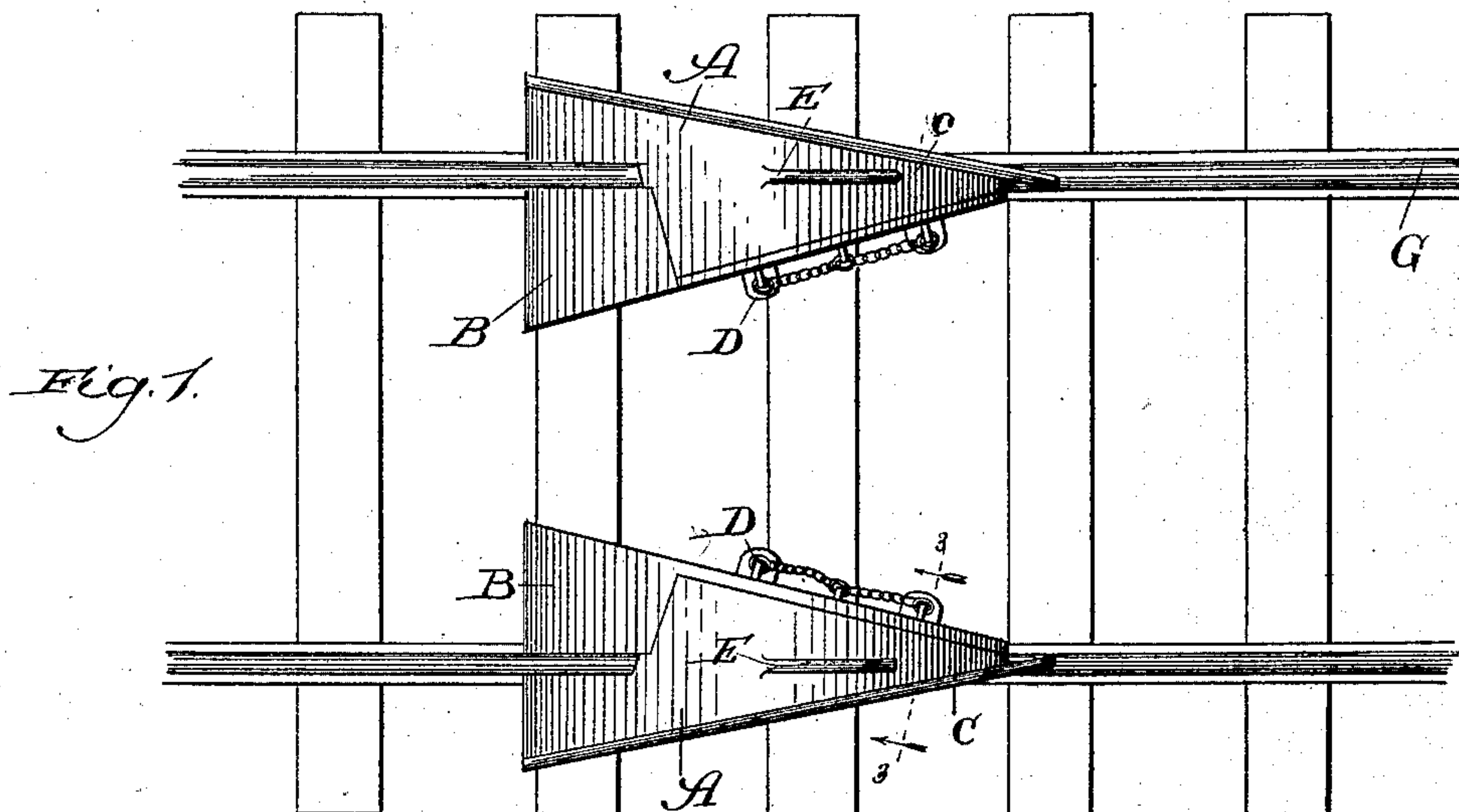
(No Model.)

W. O. COOKE.

PORTABLE FROG OR CAR REPLACER.

No. 388,397.

Patented Aug. 28, 1888.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM O. COOKE, OF CHICAGO, ILLINOIS.

PORTABLE FROG OR CAR-REPLACER.

SPECIFICATION forming part of Letters Patent No. 388,397, dated August 28, 1888.

Application filed May 15, 1888. Serial No. 273,916. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM O. COOKE, a citizen of the United States, residing at Chicago, Illinois, have invented a certain new and useful Improvement in Portable Frogs or Car-Replacers, of which the following is a specification.

The subject-matter of the present invention is designed as an improvement upon the construction shown in Letters Patent of the United States, No. 364,091, bearing date May 31, 1887. In using the portable frog described in said Letters Patent it was ascertained that while with flanged wheels the frog operated perfectly, such was not the case with blind-wheels, or wheels not having flanges, the wheels in this case being compressed by and bound between the side bars of the frog. My present invention is intended to overcome this difficulty, and also to provide means for holding the frog rigidly to the rail, so as to prevent the rear end of the frog from tipping upward as the car is pushed upon the front end thereof.

In the drawings, Figure 1 is a plan view of a pair of frogs in position upon the rails of the track; Fig. 2, an elevation in perspective of one of the frogs fastened to the rail; and Fig. 3 a sectional view taken on line 3 3 of Fig. 1, looking in the direction of the arrows.

A and B are two castings, which when united form my improved frog; C, a side bar upon such frog for the purpose of directing the flanges of the wheels on the car intended to be replaced toward the rails; D, bolts or tongues for fastening together the two parts of the frog; E, a shoulder formed on the piece A; F F', tongues on the two pieces of the frog fitting into the recesses of the rail, and G a piece of the rail to which the frog is attached.

In constructing my improved frog I make, by casting or forging, the piece A, consisting of an arched bed or bridge piece adapted to fit over the rail, and a side bar, C, projecting below the bridge-piece, so as to rest upon the ties, and passing backward and resting upon the top of the rail. On the upper surface of this casting is formed a shoulder, E, which rises gradually from the surface of the bridge-piece until at its rearward end it reaches a height equal to that of the side bar. This shoulder is formed directly over the rail

and parallel thereto. At the sides of the piece A are formed bolts or tongues which pass through mortises in the piece B and are held in place by keys. The piece B is formed correspondingly to the same piece in my above-mentioned patent, except that I omit the side bar formerly constructed thereon, and make the piece of such a height that when the two sections of my frog are fastened together the top of the piece B and the bridge of the piece A shall be flush with one another. At the rearward end of the two pieces composing my frog I form shoulders or tongues adapted to fit into the grooves in the sides of the rail in order to prevent the frog from tipping upward as the car strikes the forward end thereof. This construction is shown in Fig. 3 of the drawings.

As the other details of construction are plainly obvious from an inspection of the drawings, and differ in no way from that applied for in my prior patent, any further description of them here is considered unnecessary.

In operating my improved frog the parts are detached from one another, placed on opposite sides of the rail, and then fastened together again by means of the tongues and mortises, or in any other suitable manner. As the wheels of the car which it is desired to replace strike the forward end of the frogs, they roll up the incline, and the flanges striking against the side bars are guided thereby into their proper position on the inside of the rail, the tread of the wheel meanwhile passing along up the side bar and down the incline onto the top of the rail. When, as in the case of "mogul" engines, what are known as "blind-wheels" are used—that is to say, wheels having no flanges—the wheel passes in the same manner up the crown of the frog and striking against the side bar is unable to rise upon the same, and it would therefore become bound were it not that the contact forces the wheel over upon the shoulder E, up the gradual ascent of which it rolls till it reaches the top, whence it passes readily onto the side bar and thence onto the track.

I claim—

1. A portable frog or car-replacer provided with a shoulder for raising blind-wheels, substantially as described.

2. In a portable frog or car-replacer, the combination of piece A, having shoulder E, with piece B secured thereto, substantially as described.
- 5 3. In a portable frog or car-replacer, the combination of piece A, having shoulder E and lug F, with piece B, having lug F', the lugs fitting into the grooves in the sides of the rail and preventing the frog from tilting or tipping, substantially as described.

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Witnesses:

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