

(No Model.)

2 Sheets—Sheet 1.

W. P. WYLLY.
GUIDE RAIL CLAMP.

No. 323,895.

Patented Aug. 4, 1885.

Fig 1.

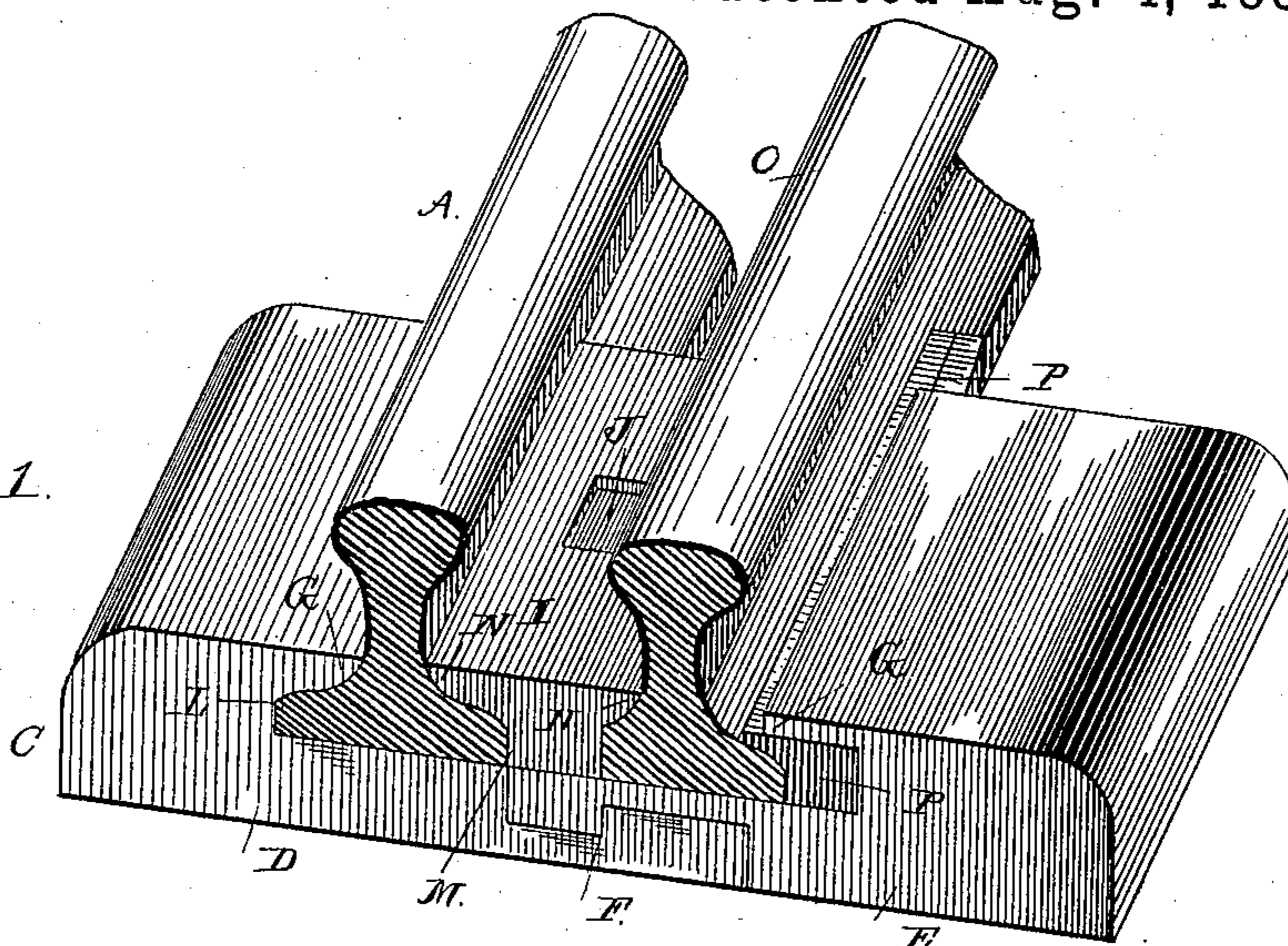
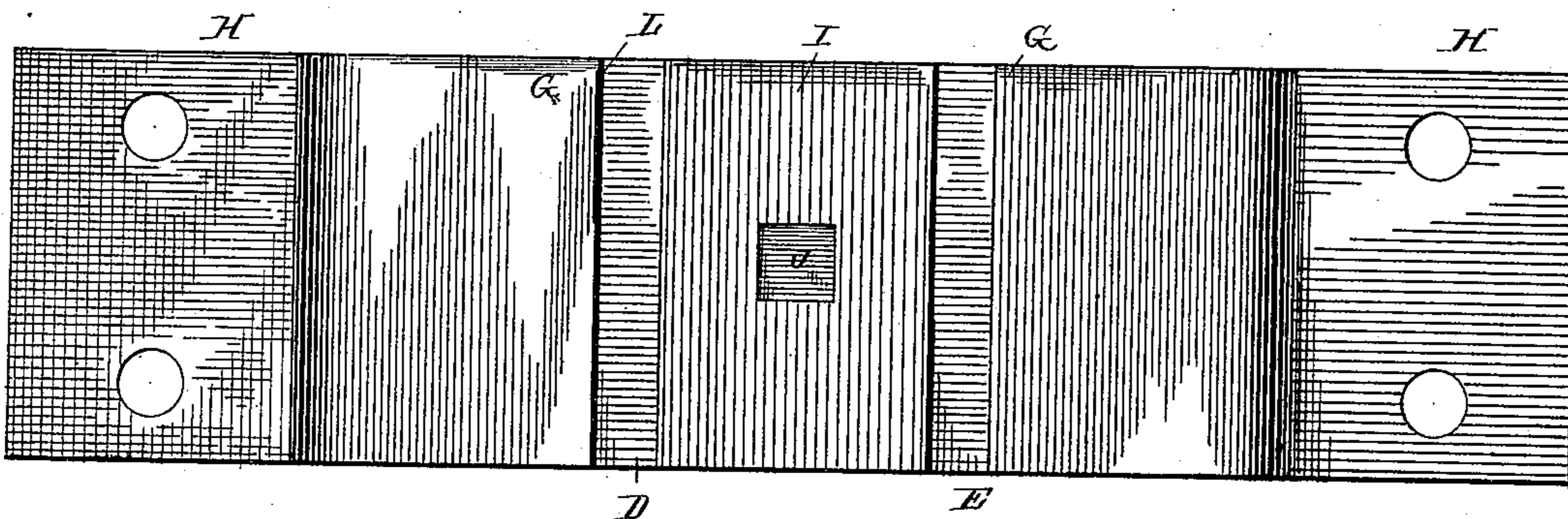


Fig 2.



WITNESSES

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B. E. Jones

INVENTOR:—

William P. Wyllly.

Chas. J. Gooch
his Attorney

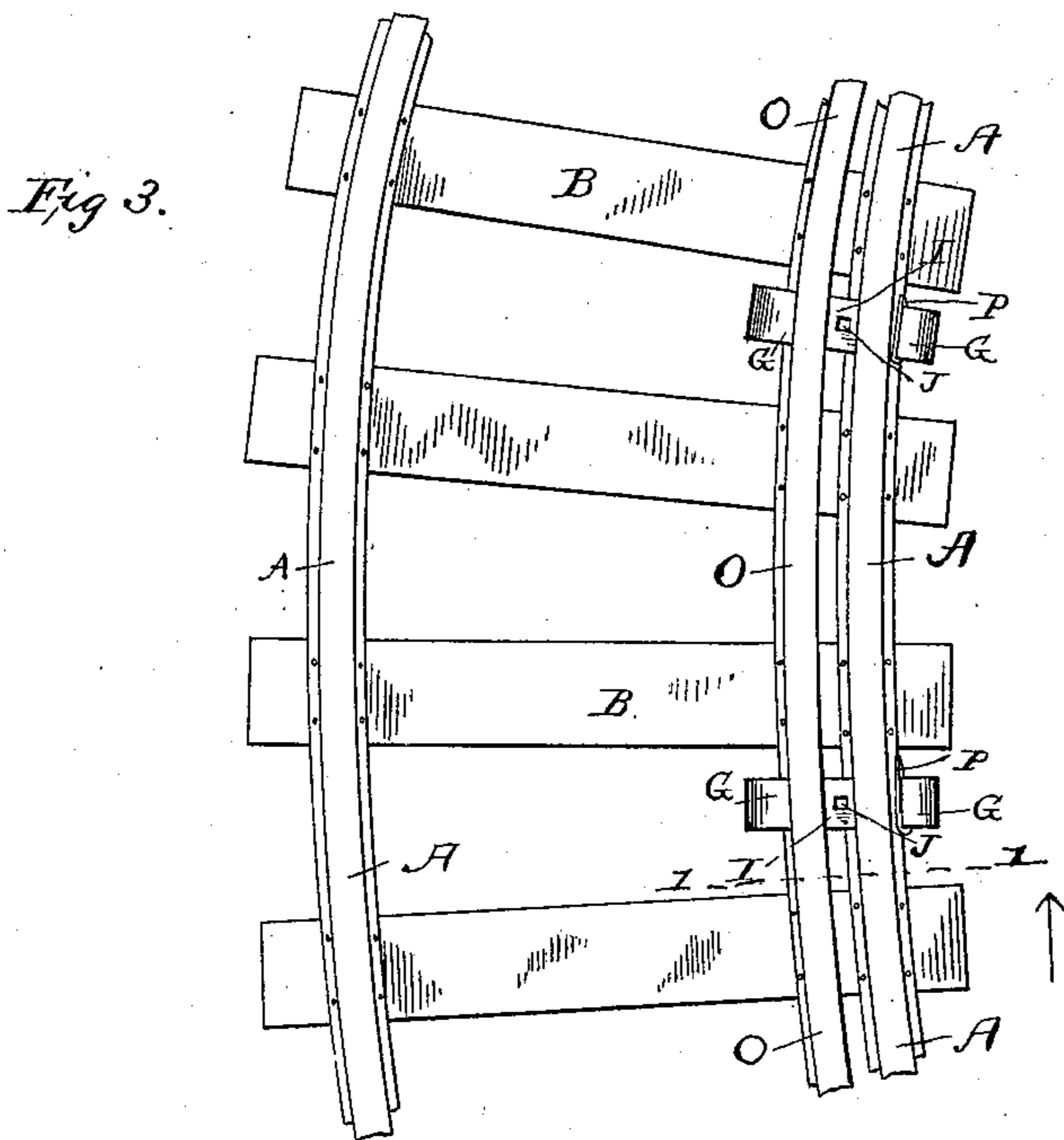
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UNITED STATES PATENT OFFICE

WILLIAM P. WYLLY, OF PATTERSON, GEORGIA.

GUIDE-RAIL CLAMP.

SPECIFICATION forming part of Letters Patent No 323,895, dated August 4, 1885.

Application filed July 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. WYLLY, a citizen of the United States of America, residing at Patterson, in the county of Pierce and State of Georgia, have invented a certain new and useful Improved Guide-Rail Clamp, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention consists in an improved adjustable clamp for securing guide-rails to the track and to the fixed rails without danger of displacement, said clamp being adapted to be placed in position on a way without disturbing the rails, and being adapted to secure rails of different sizes and shapes, all as hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents in perspective a section of a track on the line 11 of Fig. 3, looking in the direction of the arrow, with my improved clamp in position. Fig. 2 represents a top plan view of a modified form of clamp. Fig. 3 represents a plan view of a portion of a railroad-track with the clamps in position thereon.

The use of a guide-rail is imperative wherever a frog is put into the main line for a side track or crossing, and the guide-rail requires to be so close to the main rail that it is necessary to cut off that part of the base or flange of the guide-rail that comes next the main line, leaving no lip or flange on the inner base of the guide-rail and no hold for spikes, and they invariably work loose and frequently turn over or are forced over by the flanges of the wheels of a locomotive or car. The usual plan now adopted for fastening guide-rails, is by means of cast-iron lugs having projections which take hold of one side of the guide-rail, and with a flange having spike-holes therein by which said lugs are attached to the ties. This plan is altogether insufficient and involves constant vigilance, as the lateral motion of locomotives and cars are constantly forcing out the spikes, and many accidents occur from loose bars.

It is the object of my invention to produce a clamp which can be readily placed in position without disturbing the main rails and will hold the main and guide rails securely together in position without possibility of the guide-rail becoming loose by the action

thereon of the flanges of the wheels of passing locomotives or cars, said clamp being adapted to grip the inner flanges or faces of the respective rails and to rigidly secure in position guide-rails, whatever their size, irregularity of shape, or width of flange.

A represents the rails of the main line, which are secured to the ties B in the usual manner. The rail-clamp is constructed of any suitable metal. The base plate C is formed in two pieces, D E, having at their inner ends a tenon-joint, F, by means of which said pieces can be slid along beneath the rails and into the locking position shown in the drawings without disturbing the rails. This permits of the clamp being readily and quickly placed between the cross ties, their proper position, by simply excavating enough of the road-bed to admit the base-plate and then sliding the respective members D E of said plate toward each other until the inturned lips or flanges G come in contact with the outside base-flanges of the main and guide rails, respectively, and the tenoned inner ends of the two members D E engage together.

While I prefer to employ the construction of base-plate shown in Figs. 1 and 3 and to place the clamp in position between the cross-ties, still the outer end of each member D E of the base-plate C may be provided with a flange, H, by means of which said base-plate may be attached to the cross-ties by rivets, spikes, bolts, or other suitable means, and I reserve to myself the right to such a modification in the construction of the base-plate of my clamp. The base-plate having been thus placed in position, with the flanges G in contact with the outside base-flanges of the respective rails, the two members D E of the base-plate are secured together by a central block, I, through which and through the tenon-connection is passed a bolt, J, which is held in position by a nut. The head of this bolt J is preferably square, and rests within a similarly-shaped recess in the upper portion of the block J, in order that additional security may be afforded against the turning of said bolt by the jarring or concussion of passing trains.

It is designed to make the flanges or lips G integral with the respective members of the base-plate, although, if desired, they may be made separate therefrom and attached thereto

in any suitable manner so as to be perfectly rigid therewith. These flanges and the base-plate and central block are formed of any desired thickness and weight of metal, depending upon the size of the rails to be clamped and the extent of the wear and tear to be provided for. The flanges G extend upward from the top face of the base-plate, and have each at their upper portion an inturned lip, which construction permits of the lower portion of the flange of the rail resting within the recess L in said rail clamps and of the flanges extending across the rail-flanges and gripping them. The inner edges of the flanges G rest against the sides of the rails, and with their recessed portions assist in holding said rails from lateral and upward movement. The central block, I, is on each side face formed at its lower portion with a straight face, M, against which the inner base-flanges or portions of the rails impinge. Extending upwardly and outwardly from these straight faces M are lips or flanges N N', of such a curvature as to adapt them to fit and rest against the inner faces of the respective rails, so that when the clamping device is placed in position against a rail the lip or flange G upon the base-plate will securely grip one side of said rail, and by screwing down the central block, I, the flange N thereon will securely grip the other face of such rail, and as the respective edges of the rail flange impinge against the straight lower faces of the flange G and central block, I, respectively, it will thus be seen that such rail will be securely held from both lateral and vertical displacement, however great may be the concussion or oscillation of the wheels of a passing locomotive or train. By making the rail-gripping flanges G integral with the base-plate C (the preferred mode) there will be absolutely no spikes or equivalent holding devices to shake loose by concussion or jarring, but, on the contrary, by such construction, coupled with the central block, I, gripping the rail on the side opposite to that on which the flanges G exert a gripping pressure, and which is held from possibility of movement by the square-headed bolt and nut, the rails will be held perfectly secure and rigid whatever strain they may be subjected to. The guide-rail O has the inner flange of its base cut away to allow the crown or top of the rails to approach each other close enough to govern the flange of the wheel or wheels of passing locomotives or cars. The cutting of the base of guide-rails is usually done by the section-master on the line of road, and with rough implements, and it is impossible to have the rails cut properly. The lip or flange N' of the central block, I, is narrower than the flange N, in order to adapt it to fit and firmly grip the cut-away portion of the inner flange of the guide-rail O.

P represents a split key or wedge, which, when the base-plate C and central block, I, are placed in gripping contact with the main rail and the inner face of the guide-rail, is slid

in between the outer face of the guide-rail and the lip or flange G adjacent thereto, so as to force and grip the inner face of the guide-rail against the central block, I. This key P not only securely holds the guide rails in position, but also serves to accommodate the clamp to rails having a diversity in the width of their base-flanges, and is especially adapted for use where the inner flange of the guide-rail is cut away, as before described, as thereby, however roughly or unevenly such flange may have been cut away, the use of the key or wedge secures the perfect adjustment and clamping of said rail in position. When the key or wedge P has been driven into position, its split end is opened out, by which means it is prevented from working out, and consequently the entire rail-clamping device and rails are thus rigidly held together, unaffected by the jarring or oscillation of the wheels passing over them. Two or more clamps are used to clamp each guide rail to the main rail, and they may be made of any width or thickness desired, according to circumstances.

Having thus described my invention, what I claim is—

1. A rail-clamp for securing guide rails immovably in position, consisting of a base-plate having inturned end flanges adapted to impinge against the outside faces of the guide-rail and adjacent main-line rail, respectively, and a removable block attached to the center of said base-plate, and having at its lower portion straight side faces and lips or flanges, one of less width than the other, to adapt said block to impinge against the inner flanged portion of said rails and clamp them in position, substantially as and for the purpose set forth.

2. A guide-rail clamp having a base-plate formed in two parts, each portion having an inturned lip or flange adapted to engage the outer faces of the rails, and an outwardly-extending attaching-flange, the inner ends of the respective parts of the base-plate being adapted to lock together, substantially as and for the purpose set forth.

3. Jointly with a guide-rail having a cut-away base, a guide-rail clamp consisting of a base-plate having at or near each end an inturned lip or flange to grip the outer faces of the rails, a central block detachably bolted to said base-plate, and having side faces or edges adapted to impinge against and grip the inner flanges and faces of the main-line rail and the cut-away portion of the base of the guide-rail, respectively, and a key or wedge for the purpose of clamping guide-rails of varying sizes and shapes in position, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WM. P. WYLLY.

Witnesses:

F. C. WYLLY,
H. H. VERNON.