

(No Model.)

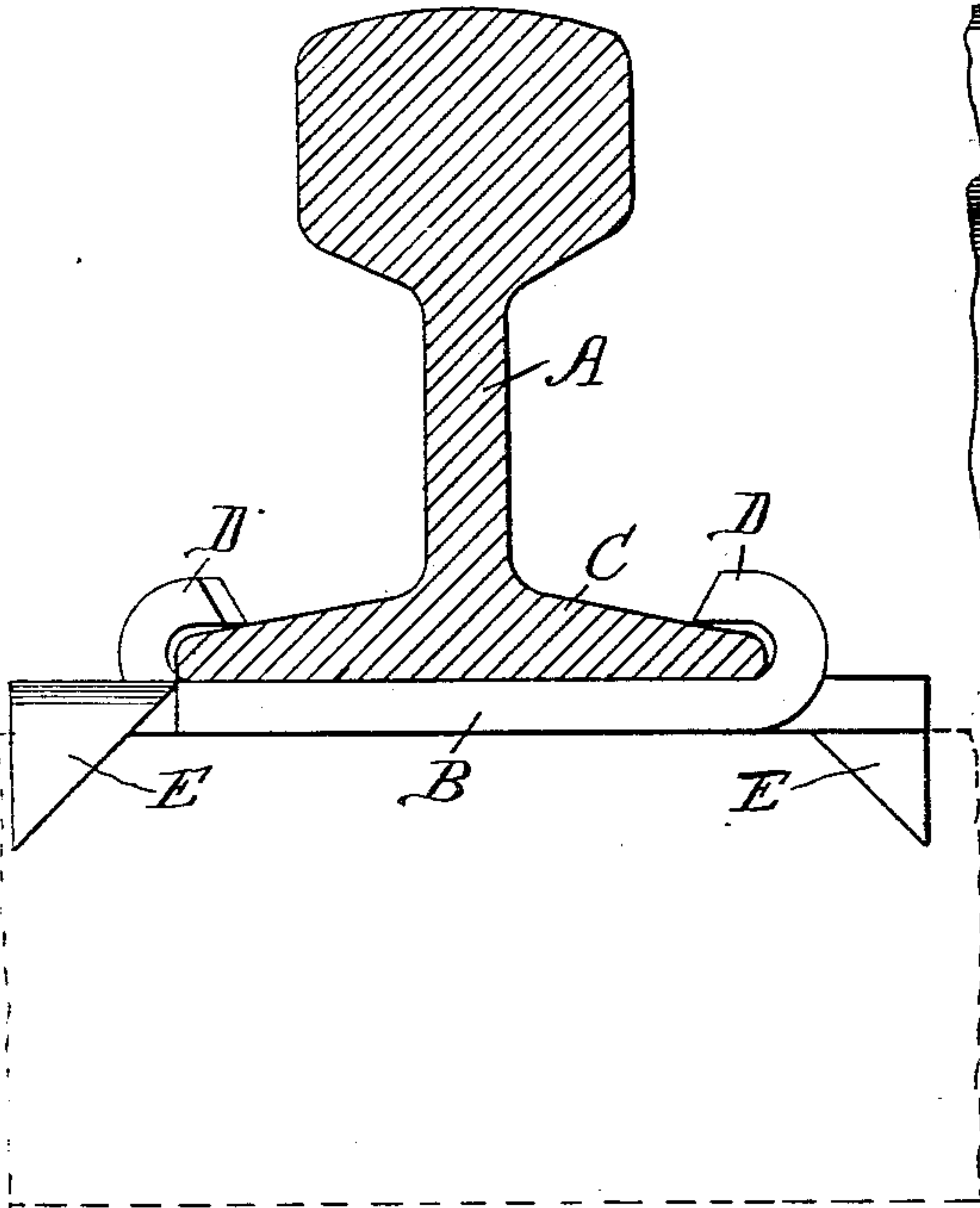
2 Sheets—Sheet 1.

T. A. GRIFFIN.  
TIE PLATE.

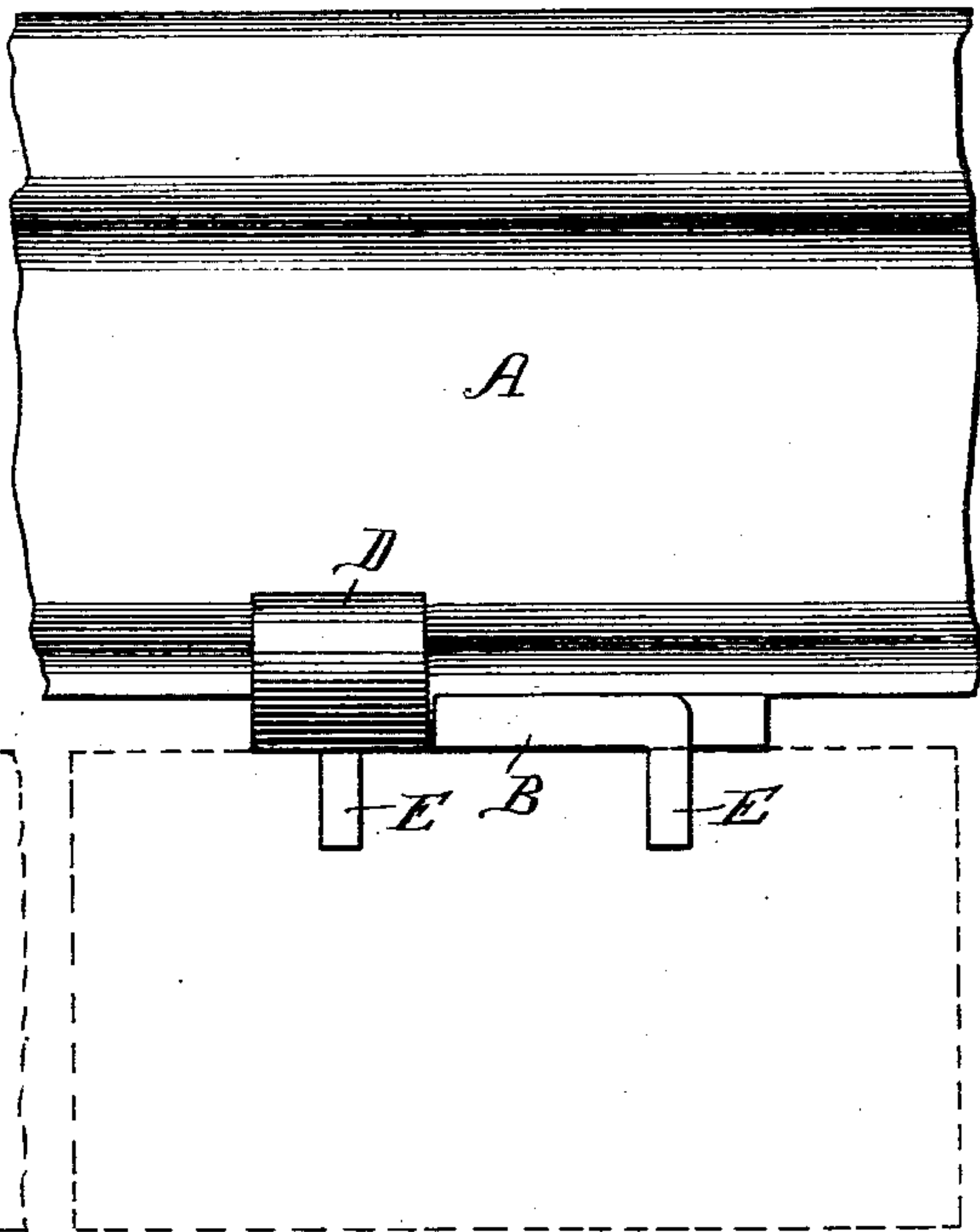
No. 557,667.

Patented Apr. 7, 1896.

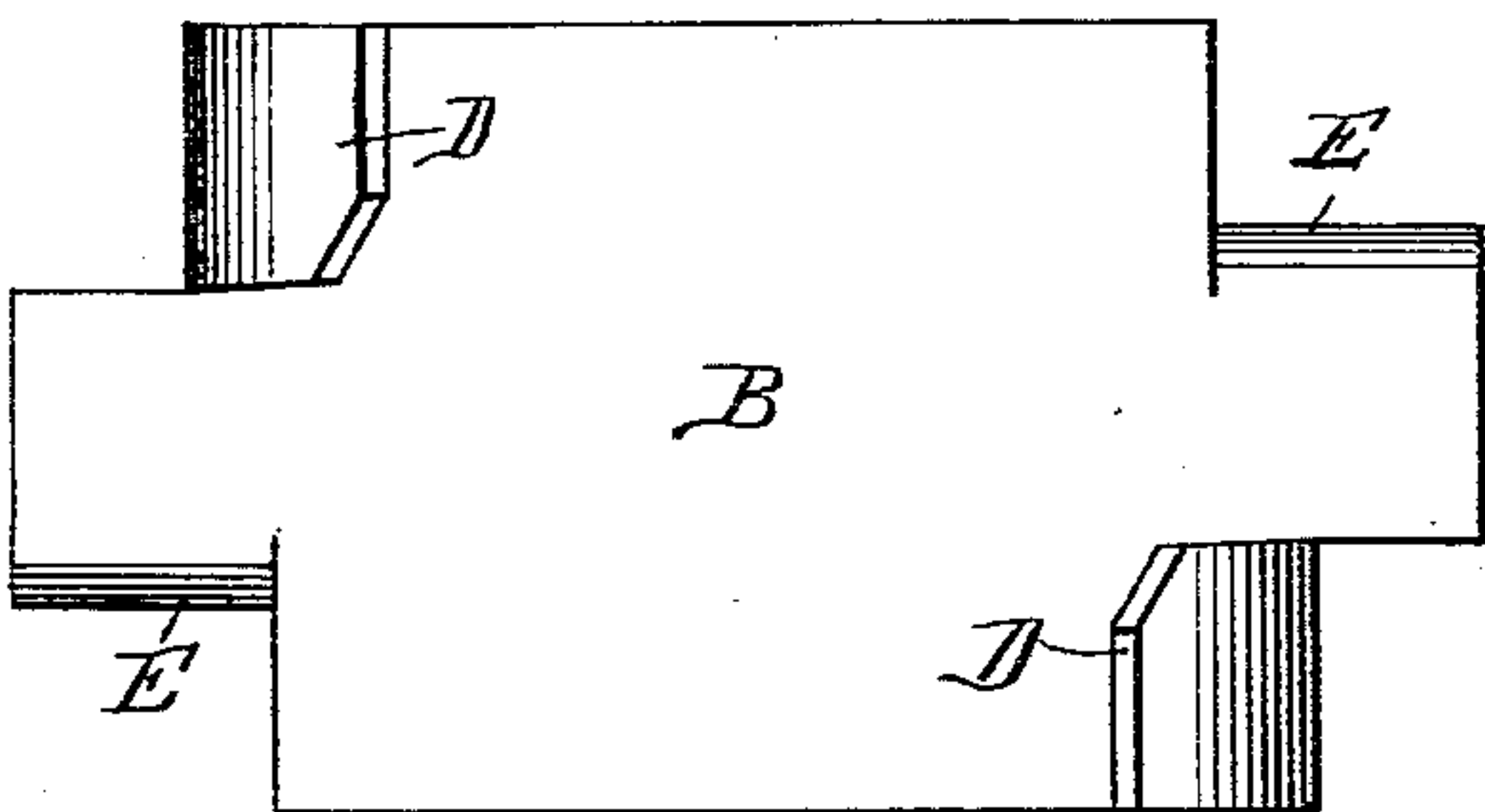
*Fig. 1.*



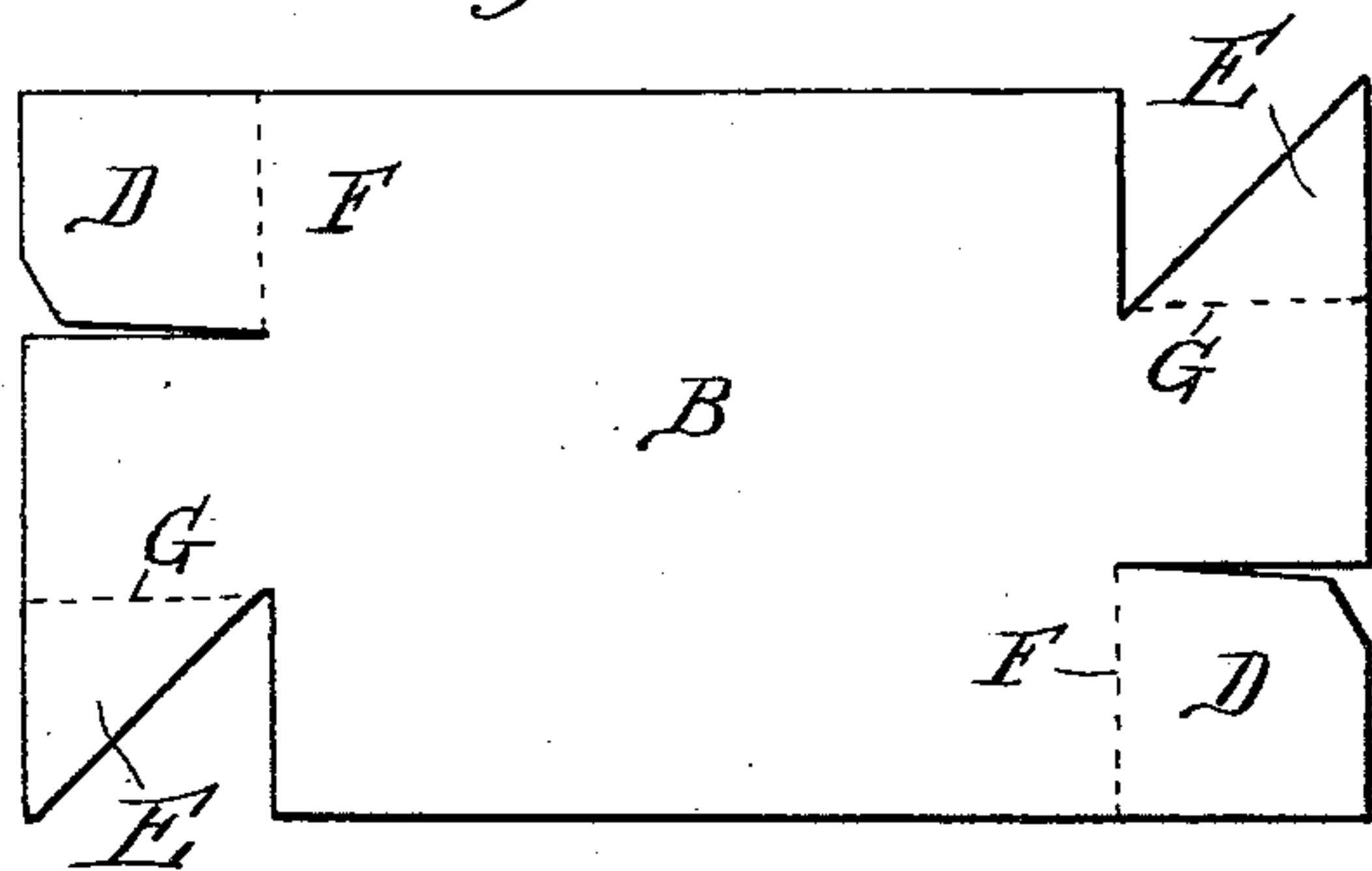
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses.

Wm. M. Rheems  
Wm. J. Huming

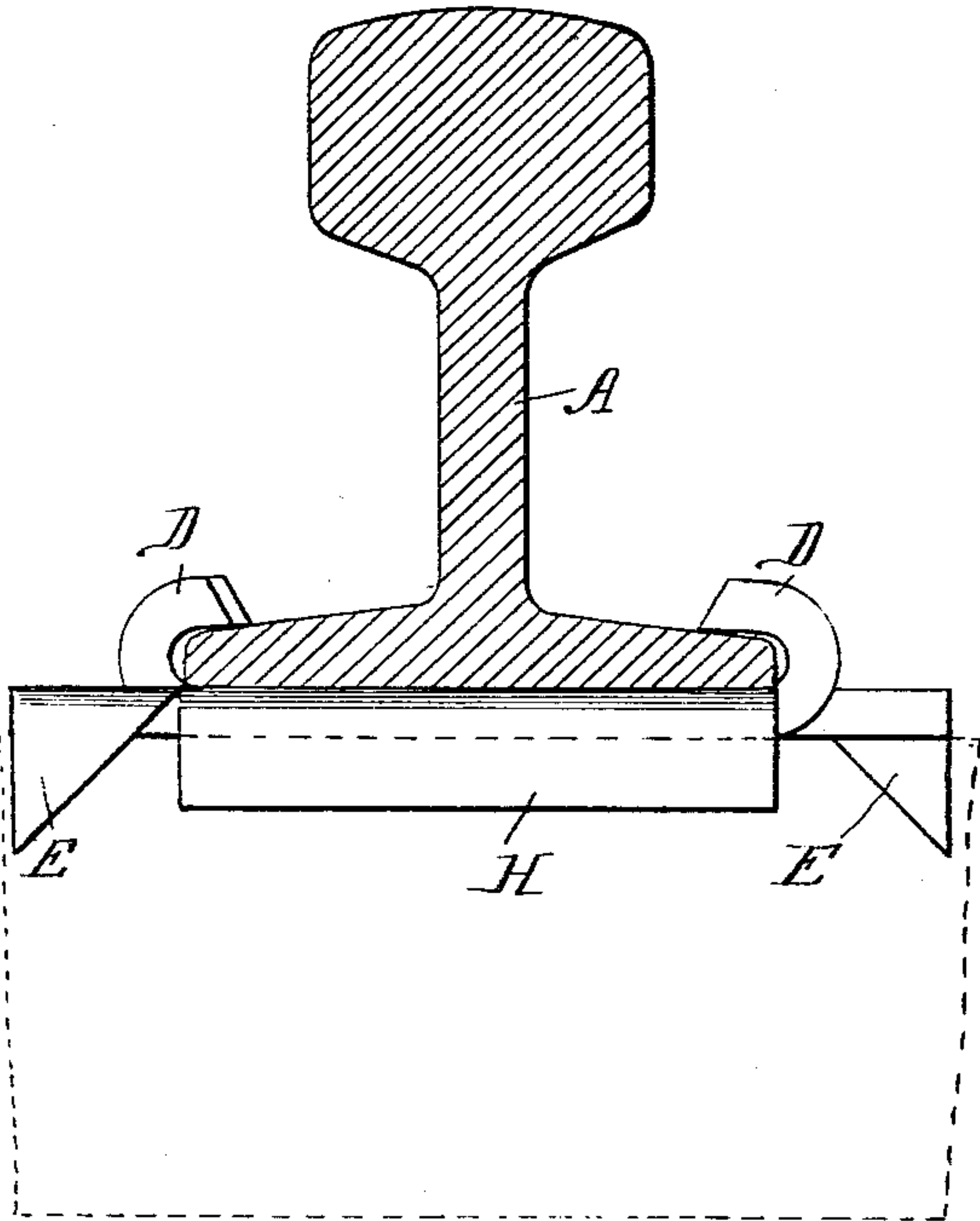
Inventor:  
Thos. A. Griffin  
by Raymond S. Quohundro  
Attys.

T. A. GRIFFIN.  
TIE PLATE.

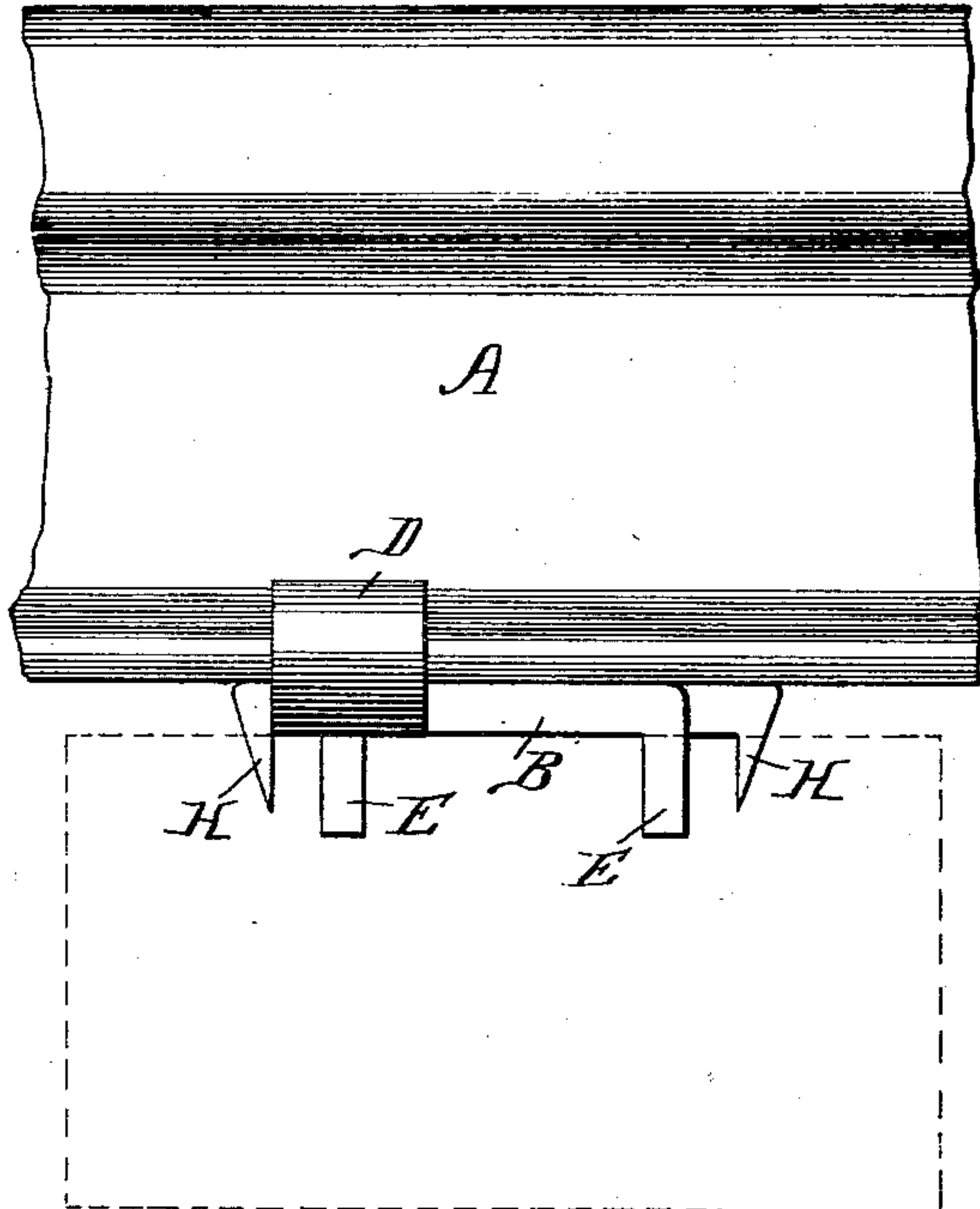
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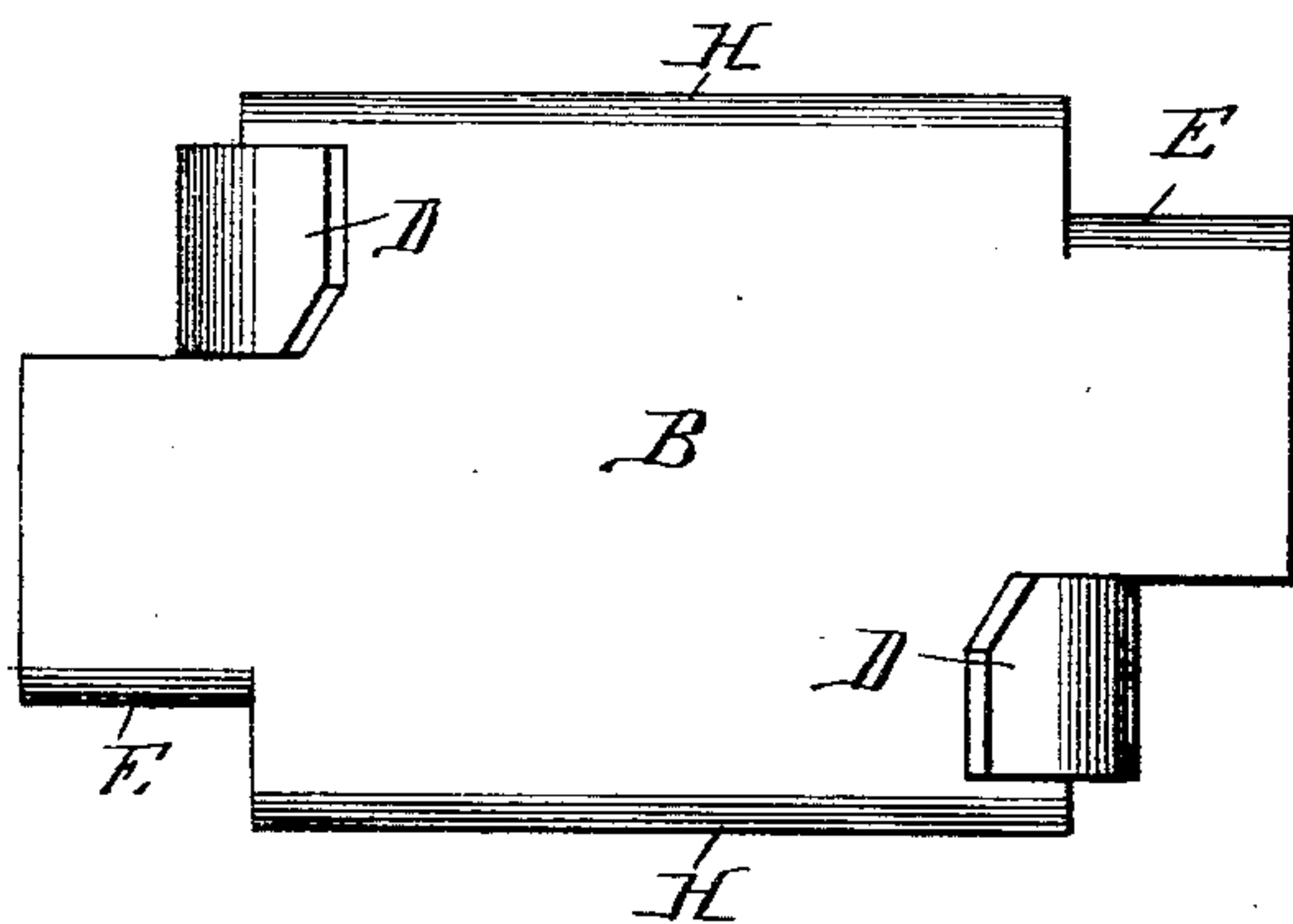
*Fig. 5.*



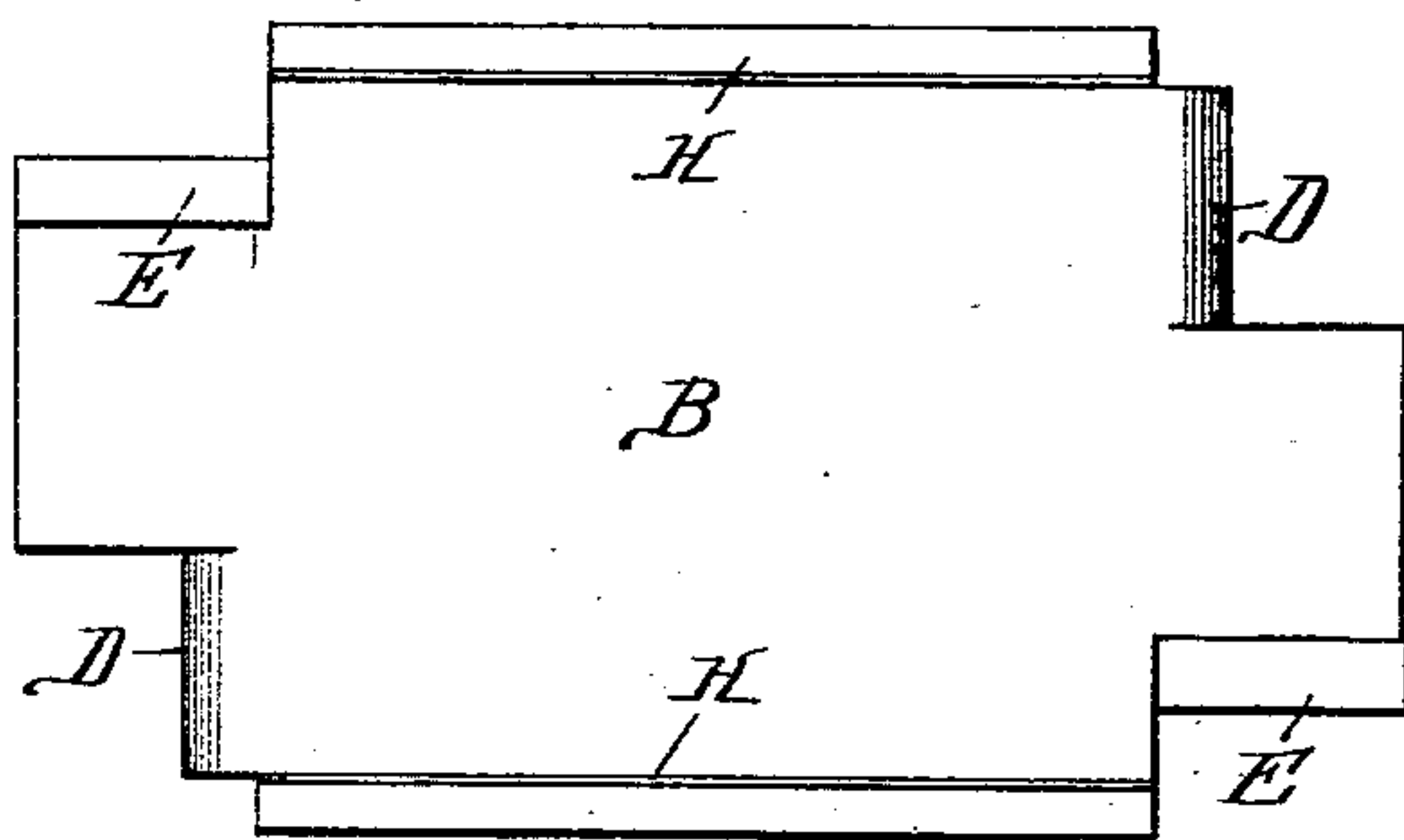
*Fig. 6.*



*Fig. 7.*



*Fig. 8.*



Witnesses  
Wm. J. Hanning.  
J. M. Rheum.

Inventor.  
Thos. A. Griffin  
by Raymond G. Quinlan  
Attys.



# UNITED STATES PATENT OFFICE.

THOMAS A. GRIFFIN, OF CHICAGO, ILLINOIS.

## TIE-PLATE.

SPECIFICATION forming part of Letters Patent No. 557,667, dated April 7, 1896.

Application filed June 5, 1895. Serial No. 551,755. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS A. GRIFFIN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Tie-Plates, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to improvements in tie-plates for use upon railways, and has for its object the production of a tie-plate of simple, durable, and economical construction, and one which, when applied to a tie, cannot creep thereon nor become detached from the rail. These objects, and such others as may hereinafter appear, are attained by the devices illustrated in the accompanying drawings, in which—

Figure 1 represents a cross-section of a railway-rail in connection with a tie-plate embodying my invention, the plate being shown in end elevation. Fig. 2 represents a side elevation of the same. Fig. 3 is a top or plan view of the tie-plate detached from the rail and cross-tie. Fig. 4 represents a plan view of the blank from which the tie-plate is formed. Figs. 5 and 6 are end and side views, respectively, of a modification of my tie-plate, shown in conjunction with a rail. Fig. 7 is a top or plan view of the modified tie-plate, and Fig. 8 is an inverted plan view of the same.

Similar letters of reference indicate the same parts in the several figures of the drawings.

Referring by letter to the accompanying drawings, A indicates an ordinary railway-rail, and B the body of the tie-plate, upon which the flange or foot C of the rail rests, the tie-plate being provided at diametrically-opposite corners with overhanging lips D, between which the flange of the rail is embraced, and from the two other diametrically-opposite corners of the plate are bent-down spurs E, which are driven into the cross-ties, so as to prevent the plate from creeping on the ties along the rails or from moving longitudinally out on the ties, which would result in "spreading" the rails.

My tie-plate is stamped out of sheet metal

and bent into the form shown without the use of heat or rolling.

In Fig. 4 I have shown a blank for the simplest form of my tie-plate, which is made in the first instance from a rectangular sheet of metal which is cut and slitted while flat in the manner shown in Fig. 4. The ends D are then bent upwardly on the dotted lines F to form the overhanging lips of the finished tie-plate and the ends E are bent downwardly on the dotted lines G to form the spurs of the finished tie-plate.

It will thus be seen that with very slight waste of material my tie-plate is formed out of a rectangular sheet of metal and provided with engaging-lips for the flange of the rail and with spurs to engage with the cross-ties, and this is done without heating or rolling the metal.

If preferred, additional security may be afforded by providing along the forward and rear edges of the tie-plate sharpened or beveled flanges H, which may be formed by upsetting the edge metal of the blank, or by using a slightly wider blank, along the edges of which this flange may be formed by bending the metal and afterward sharpening the same by hammering or grinding, or any other suitable method commonly practiced in the art. These flanges, when sunk into the cross-tie, serve to reinforce the spurs E in maintaining the tie-plate firmly in position against movement in any direction, either along the rail or laterally with the rail.

A tie-plate constructed in accordance with my invention is exceedingly simple, cheap, and durable, easy of application and performs the useful service of preventing the spreading of the rails as well as undue wear upon the cross-ties.

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

1. A tie-plate composed of sheet metal having upwardly and inwardly bent overhanging lips at diametrically-opposite corners thereof to embrace the sides and upper surface of the flange of the rail, and downwardly-bent spurs at the other diametrically-opposite corners

thereof to engage the cross-tie, portions of said plate being slitted longitudinally and also transversely, said spurs and lips being formed by bending the slitted edges of said tie-plate, 5 substantially as described.

2. A tie-plate composed of sheet metal having upwardly and inwardly bent overhanging lips for embracing the sides and upper surface of the flange of the rail, downwardly- 10 bent spurs at each side thereof for engaging the cross-tie, and a downwardly-bent flange at the front and rear edges thereof for engaging the cross-tie, portions of said plate being

slitted longitudinally and also transversely, said lips and spurs being formed by bending 15 the slitted edges of said tie-plate, substantially as described.

3. A blank for a sheet-metal tie-plate comprising a body portion B, the rectangular ends D at opposite corners thereof and the triangular ends E at the other corners thereof, sub- 20 stantially as described.

THOMAS A. GRIFFIN.

Witnesses:

M. E. SHIELDS,

CHAS. B. BOWEN.