

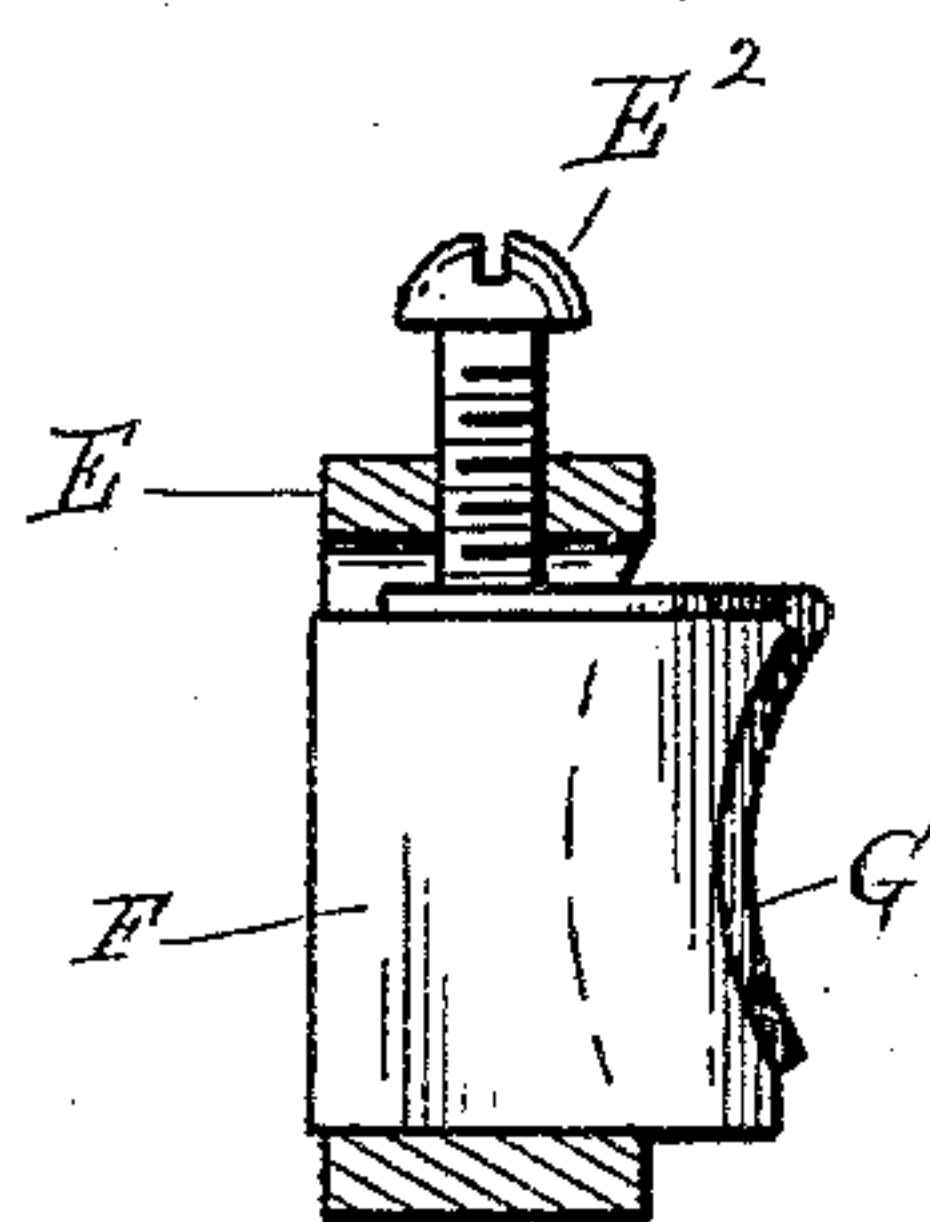
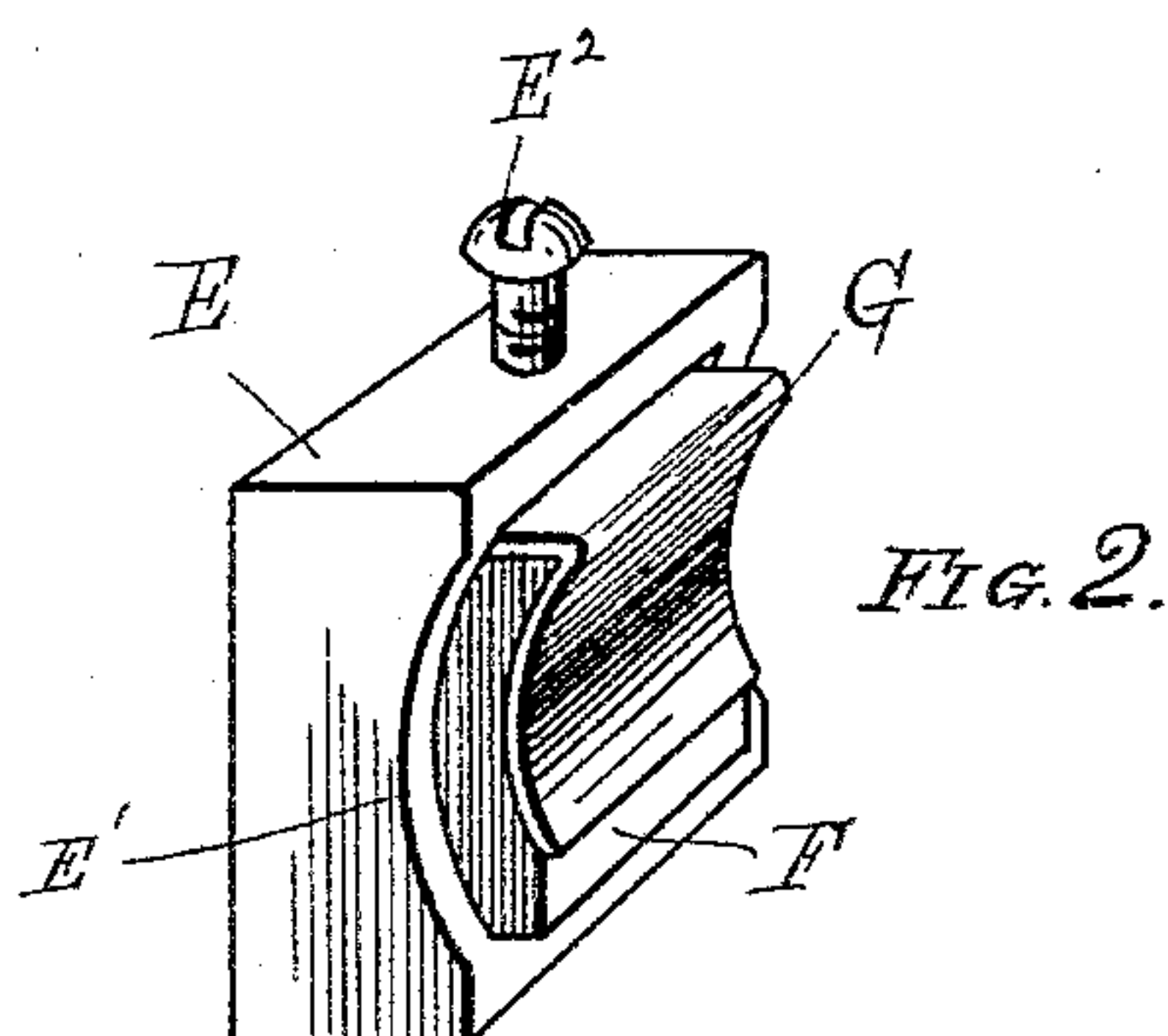
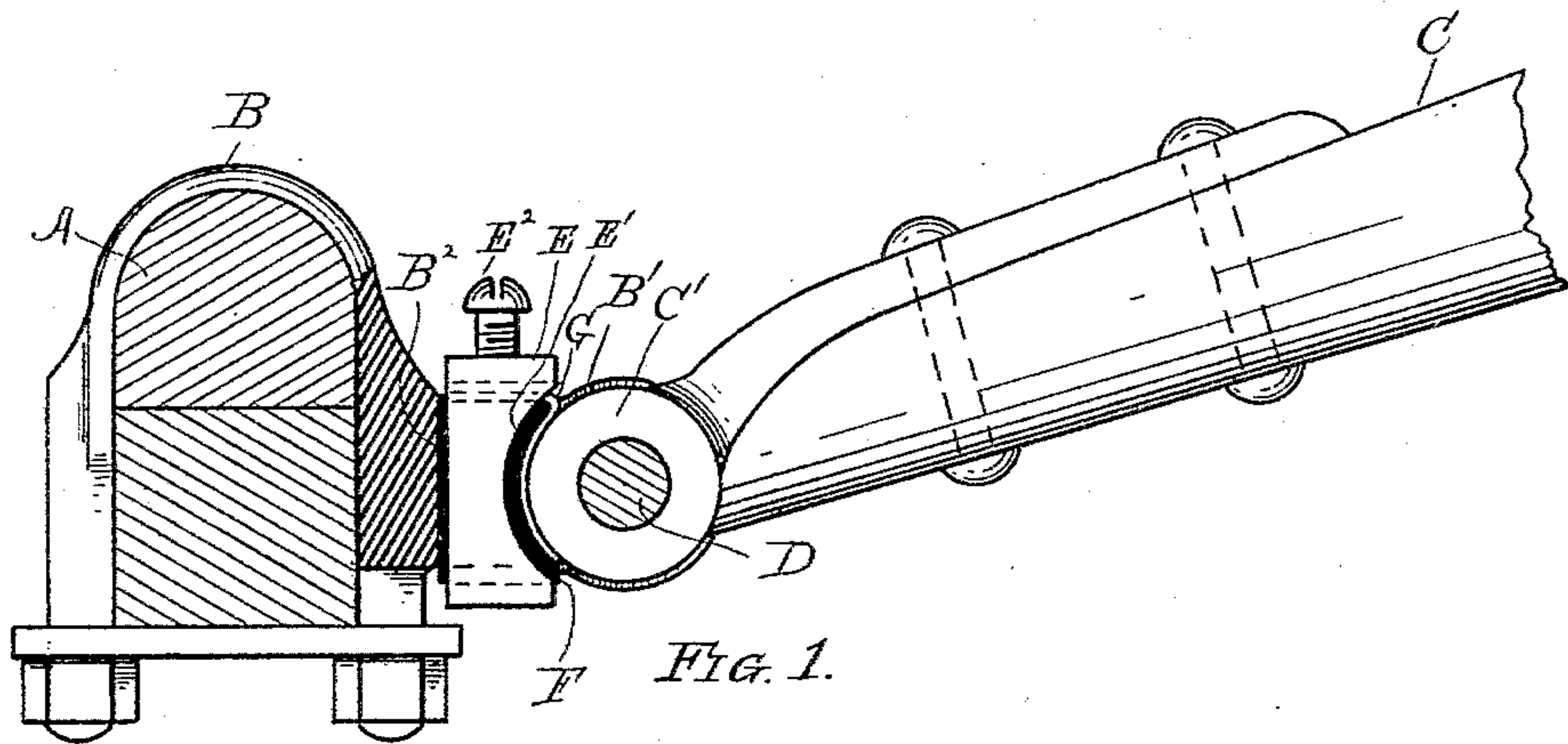
(No Model.)

S. J. BINGHAM.

ANTI RATTLER FOR THILL COUPLINGS.

No. 369,427.

Patented Sept. 6, 1887.



Witnesses:  
J. B. Halpenny.  
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# UNITED STATES PATENT OFFICE.

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## ANTI-RATTLER FOR THILL-COUPPLINGS.

SPECIFICATION forming part of Letters Patent No. 369,427, dated September 6, 1887.

Application filed March 18, 1887. Serial No. 231,354. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL J. BINGHAM, of Binghamton, in the county of Broome and State of New York, have invented certain  
5 new and useful Improvements in Anti-Rattlers for Thill-Couplings, of which the following is a description, reference being had to the accompanying drawings, forming a part of this specification, in which—

10 Figure 1 is a side view, in detail, of a portion of a buggy-shaft, showing the usual shaft-eye and axle-clip to which my improved attachment is applied. Fig. 2 is a perspective view, in detail, of the compressing frame, block,  
15 and friction face-plate; and Fig. 3 is a side view of the same, the frame being shown in transverse section.

Like letters of reference indicate like parts in the different figures.

20 In devices heretofore in use in connection with thill-couplings for the prevention of the rattling of the thills it has been found that the rubber blocks soon expand laterally and become permanently flattened, thereby failing  
25 to exert the necessary elastic pressure against the shaft-eye. Moreover, it has been found objectionable to pass a bolt through the rubber block for the purpose of compressing it.

30 The object of my invention is to overcome these objections and to provide means whereby the lateral expansion of the rubber may be prevented, while a metallic friction-surface may be provided to receive the wear of the shaft-eye and to form a bearing-surface for the  
35 screw by which the compression is produced, all of which I accomplish substantially in the manner hereinafter more particularly described and claimed.

40 A in the drawings represents a carriage-axle; B, the axle-clip; C, the shaft; and C', the shaft-eye secured to the eye B' of the clip in the usual manner by means of a bolt, D.

45 E represents a hollow metallic frame cast from malleable iron or other suitable material, and of such size as to be readily interposed in the space between the face B<sup>2</sup> of the clip and the rounded surface of the shaft-eye. A portion, E', of the respective sides of said frame is cut away to conform to the curve of said shaft-  
50 eye. Within said frame I place a compression-block, F, of rubber, of sufficient size to fill

or substantially fill said frame, and the space between the clip-face B<sup>2</sup> and the eye C, the front face of said block being preferably concave, as shown. A metallic facing, G, preferably of heavy tin, bent to fit the top and front, respectively, of said compression-block, is then placed against the same and normally secured in position by means of a screw, E<sup>2</sup>. The frame E, with the compression-block and facing, is then placed in position between the clip and shaft-eye, as shown in Fig. 1, when, upon turning the screw E<sup>2</sup>, the block F is compressed, and as the frame E prevents its lateral expansion, it presses against the shaft-  
55 eye; the interposed plate G serving as a frictional bearing-surface for the screw and shaft-eye.

This construction is wholly effective in preventing the rattling of the thill, while it is much more durable than the forms heretofore employed.

I am aware that it is old to insert a compression-block within a case which covers the top, bottom, sides, and back thereof, a follower  
75 plate and screw being employed to compress the block, which has its cut-out portion arranged to bear directly against the thill-eye. I am also aware that the yoke of the clip has been extended forward beneath the clip to  
80 form a support for a wedge-block having a concave inner surface, between which and the thill-eye is inserted a compression-block faced with metal, the compression being accomplished by means of a set-screw in the yoke;  
85 but I do not claim either of said constructions.

What I do claim, and desire to secure by Letters Patent, is—

An anti-rattler for thill couplings, consisting of the elastic compression-block F, in combination with the frame E, plate G, and set-screw e, said plate covering the top of the compression-block to form a bearing for the set-screw, and being bent over the front of said block to form a friction bearing-surface, all of  
95 said parts being constructed and arranged as described, and for the purposes specified.

SAMUEL J. BINGHAM.

Witnesses:

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