

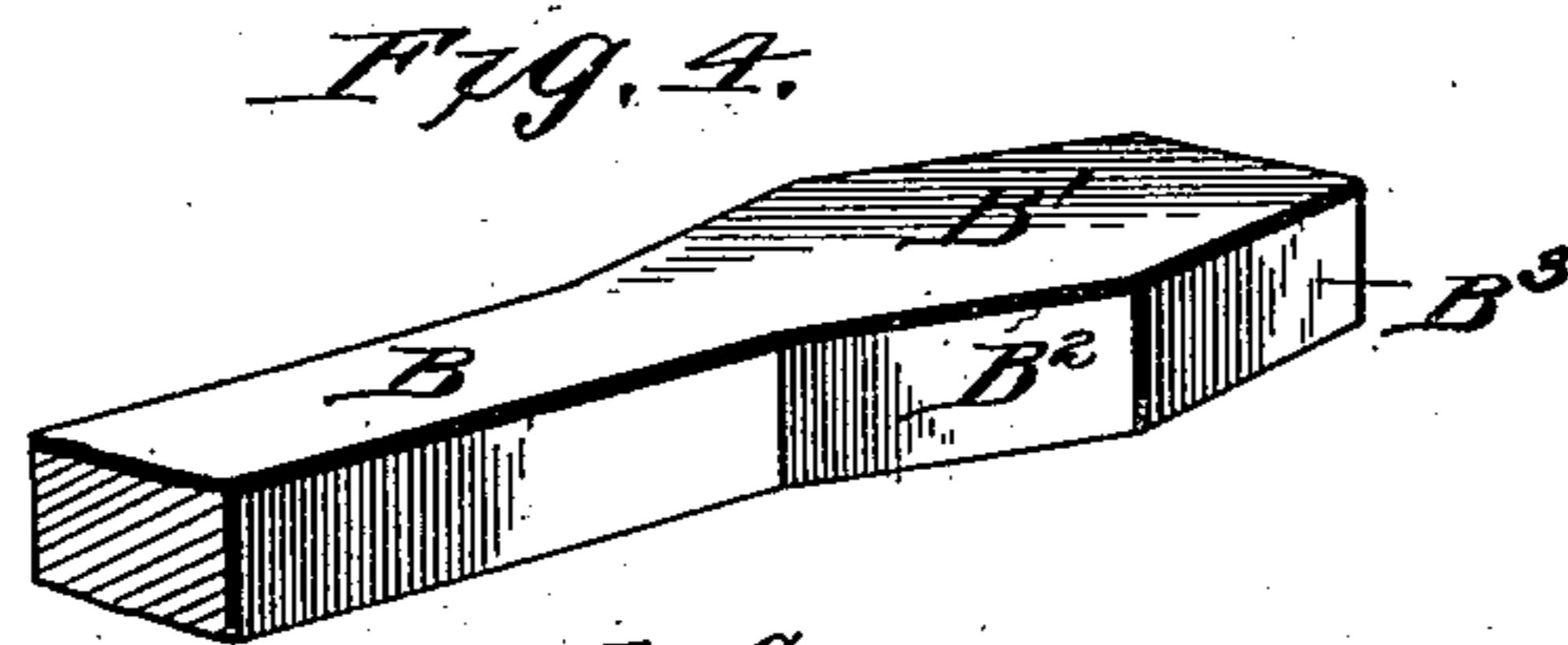
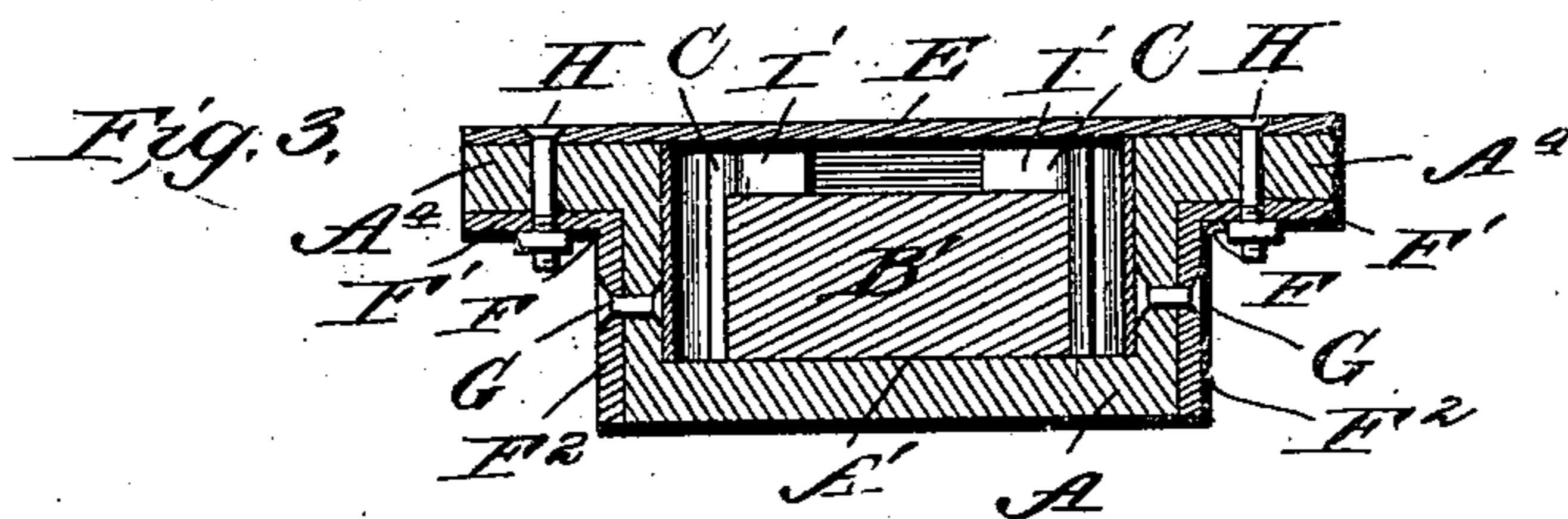
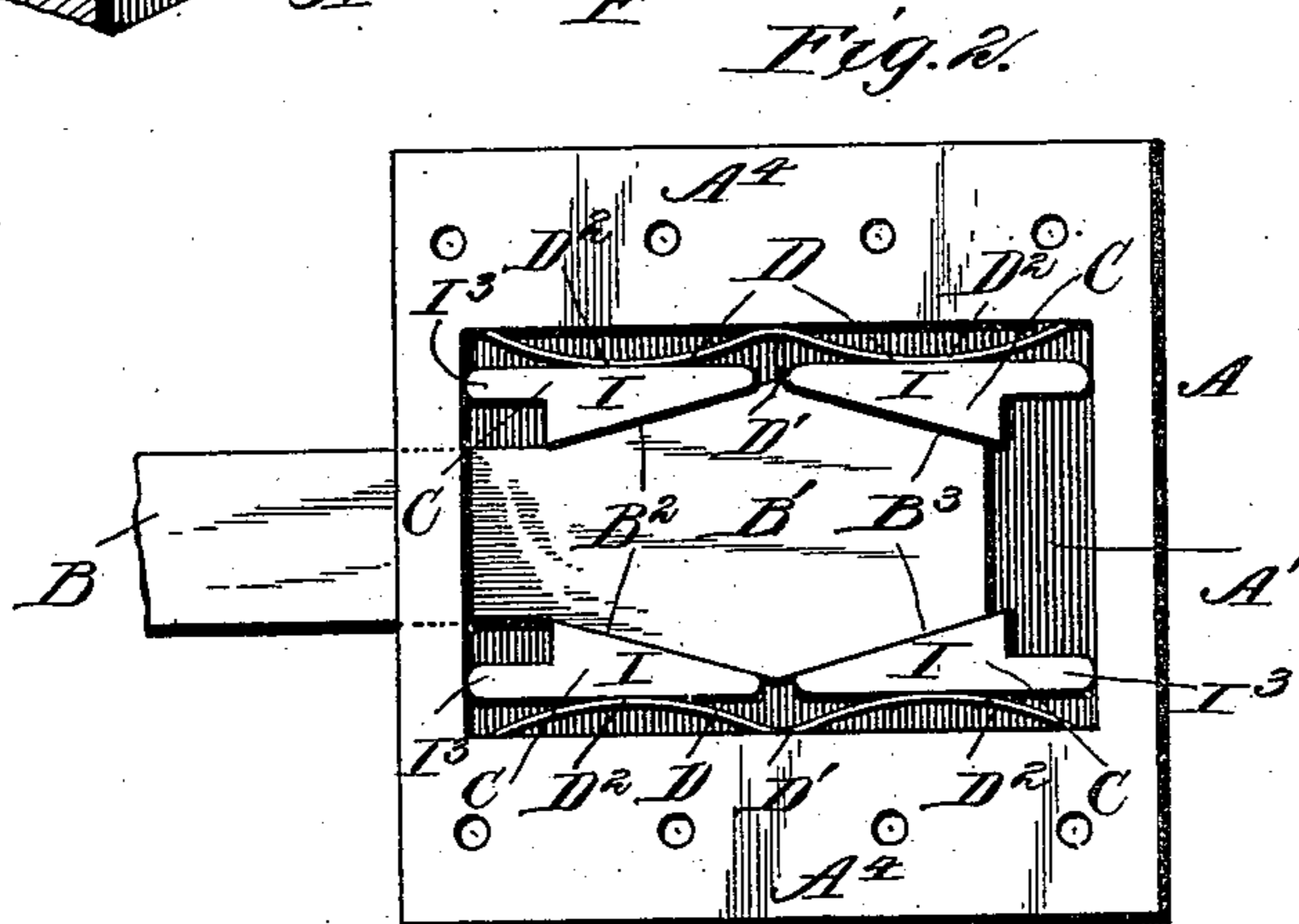
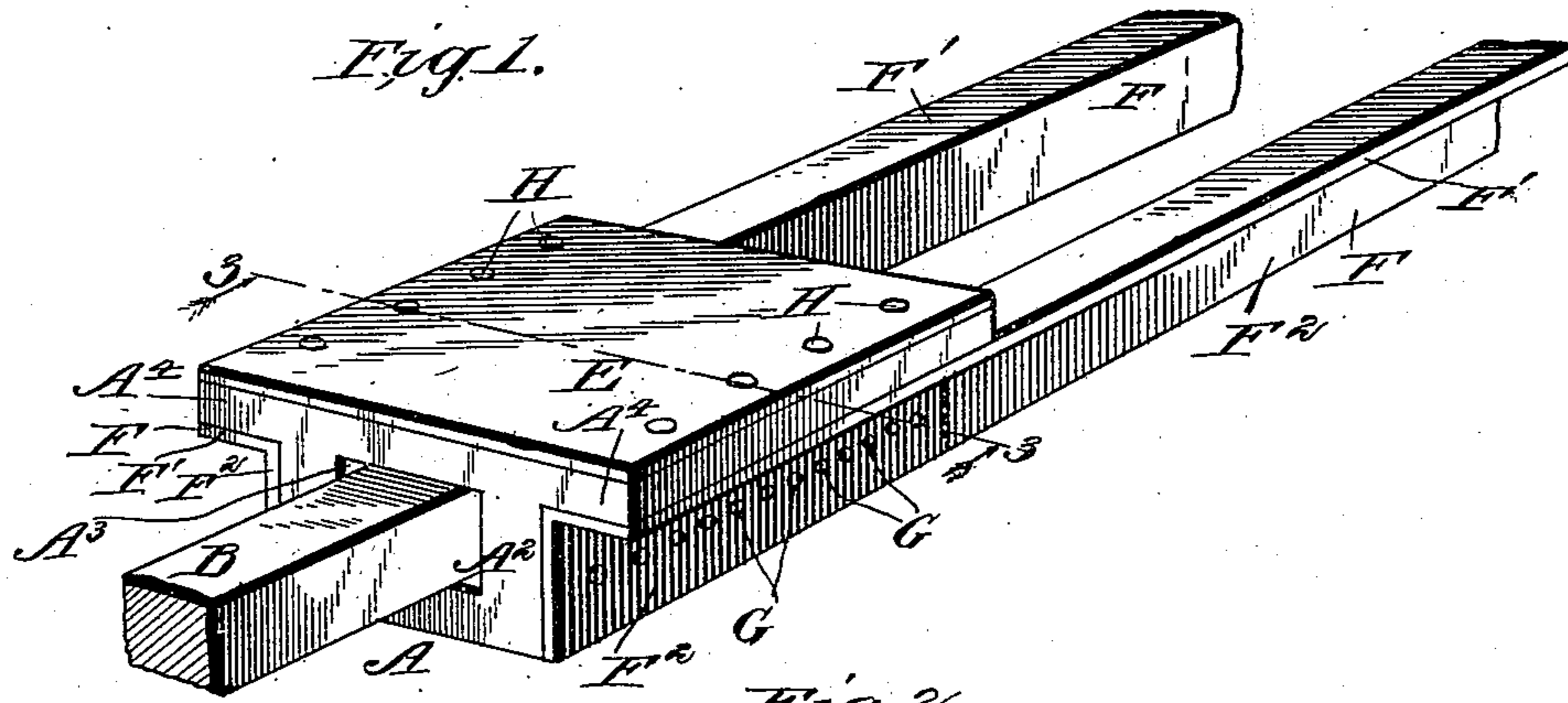
No. 711,822.

Patented Oct. 21, 1902.

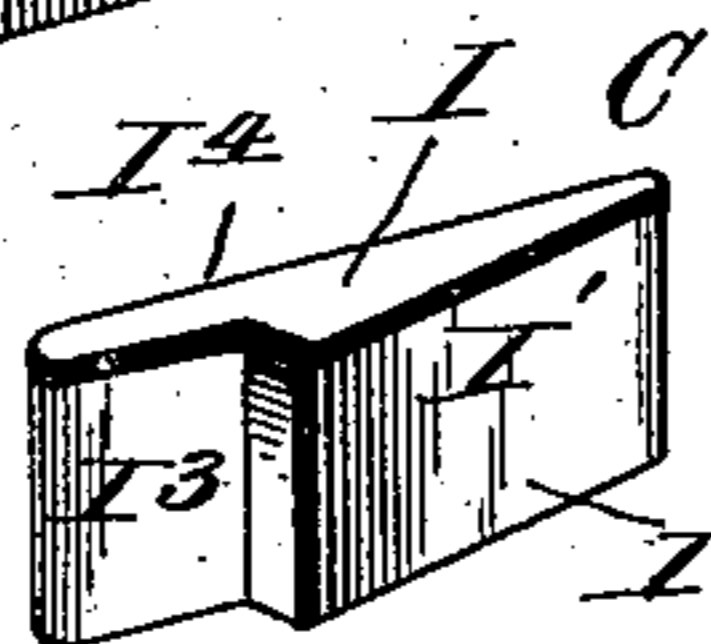
P. M. CANTY.  
DRAFT RIGGING.

(Application filed Aug. 5, 1902.)

(No Model.)



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

PATRICK M. CANTY, OF ALTOONA, PENNSYLVANIA.

## DRAFT-RIGGING.

SPECIFICATION forming part of Letters Patent No. 711,822, dated October 21, 1902.

Application filed August 5, 1902. Serial No. 118,459. (No model.)

*To all whom it may concern:*

Be it known that I, PATRICK M. CANTY, a citizen of the United States, and a resident of Altoona, in the county of Blair, in the State of Pennsylvania, have invented certain new and useful Improvements in Draft-Rigging, of which the following is a specification.

My invention is an improvement in draft-rigging for railway-cars, and particularly in the means whereby the draw-bar is yieldingly connected with the car so it can yield longitudinally to a limited extent in both directions, and thus cushion the longitudinal strains on the said bar; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of my improvement in connection with the longitudinal angle steel stringers of a car-frame. Fig. 2 is a top plan view of the boxing and the parts therein, the lid being omitted. Fig. 3 is a cross-sectional view on about line 3 3 of Fig. 1. Fig. 4 is a detail perspective view of the rear end of the draw-bar. Fig. 5 is a detail perspective view of one of the wedge-blocks.

In carrying out my invention I provide a boxing A, whose interior A' is adapted to receive the double frusto-conical end B', the wedge-blocks C, and the springs D, the interior or recess A' of the boxing A being open at the top and closed in practice by the plate E, as shown in Figs. 1 and 3. The boxing A is provided in its front plate A<sup>2</sup> with an opening A<sup>3</sup>, in which operates the draw-bar B, as will be understood from Figs. 1 and 2, the said draw-bar being in practice provided with any suitable form of coupling device. At its upper end the boxing A is provided with lateral flanges A<sup>4</sup>, which rest upon the horizontal wings F' of the stringers F, the body of the boxing fitting between the upright wings F<sup>2</sup> of said stringers and being secured rigidly thereto by means of the rivets G, as will be understood from Figs. 1 and 3. The top plate E is secured by rivets H to the lateral flanges A<sup>4</sup> of the boxing. By this means the boxing is firmly secured to the framing of the car and the top plate is secured in place over the recess or interior of the boxing, wherein

are secured the several operating parts above referred to.

The end B' of the draw-bar is double frusto-conical in form and is made of a length less than the length of the recess or chamber A' of the boxing A, so the said end may yield longitudinally from the position shown in Fig. 2 in both directions. This end B' is provided at its opposite sides with the inclined faces B<sup>3</sup>, so formed that the front portion of the end B' tapers inwardly toward the front and the rear end will taper inwardly toward the rear.

The end B' of the draw-bar operates between the front and rear wedge-blocks, of which I employ four, as shown in Fig. 2. The wedge-blocks are alike in construction, so that the illustration and description of one will answer for all. In Fig. 5 I show the block I as provided with the body portion I', sloped on its inner face I<sup>2</sup>, and the shank I<sup>3</sup> at one end of said body portion, the outer side of the wedge at I<sup>4</sup> being straight from the outer extremity of the shank I<sup>3</sup> to the point of the wedge, as will be understood from Figs. 2 and 5. The spring D bears between the outer straight sides of the wedges I and the walls of the chamber A' of the boxing and is preferably in the form of a plate bent at its middle at D' and between said middle and its ends to produce the bows D<sup>2</sup>, which operate upon their respective wedge-blocks, as shown in Fig. 2. By the described construction the draw-bar may be moved in either direction to such extent as to flatten the springs D against the side walls of the chamber A' without in any way injuring any of the parts and will when so adjusted have a solid surface to prevent it from further movement in such direction. The shanks I<sup>3</sup> operate to properly space the body portions of the wedge-blocks away from the ends of the chamber A' and preserve said blocks in position to properly operate in connection with the double frusto-conical head of the draw-bar, as will be understood from Fig. 2 of the drawings.

By my invention I provide a construction which is simple, can be readily applied to the framing of the car, will yield properly in both directions, will afford an unyielding bearing for the draw-bar at the end of its

movements in both directions, and which cannot be pulled out of the car in the use of the latter. I am also by the described construction able to employ solid wedge-blocks and to arrange the springs to bear between the outer sides of such solid wedge-blocks and the walls of the chamber in which they operate.

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

1. The improvement in draft-rigging herein described comprising the boxing having a chamber for the wedge-blocks and rear end of the draw-bar and having in its front end an opening for the draw-bar and at its upper side the lateral flanges for connection with the stringers of the car-frame, the draw-bar operating in the front opening of the boxing and having a double frusto-conical end operating in the chamber of the boxing, the wedge-blocks having the body portions sloped to coincide with the double frusto-conical end of the draw-bar, and the shanks by which said body portions are spaced away from the ends of the boxing, the plate-springs bent to form the bows operating between the wedge-blocks and the adjacent sides of the boxing, and the top plate secured over the chamber of the boxing, substantially as set forth.
2. The combination with the boxing and the draw-bar having a double frusto-conical end operating in the boxing, of wedges having body portions sloped to coincide with the frusto-conical end of the draw-bar, and shanks

by which the body portions are spaced away from the ends of the boxing, and springs operating upon the wedge-blocks, substantially as set forth.

3. The combination with the boxing, of the draw-bar having a double frusto-conical end portion operating in the boxing, the wedge-blocks having sloped portions coinciding with those of the double frusto-conical end of the draw-bar, and the plate-springs bent between their ends and forming the bows operating between their respective wedge-blocks and the sides of the boxing, substantially as set forth.

4. In a draft-rigging the combination with a draw-bar and the wedge-blocks having end tongues for spacing them away from the ends of the boxing, of the boxing in which said devices operate, said boxing being provided with lateral flanges whereby it may be secured to the car-frame, substantially as set forth.

5. The combination with the boxing, of the draw-bar having a double frusto-conical end portion operating within the boxing, of the wedge-blocks sloped on their inner faces to bear against the corresponding faces of the frusto-conical end of the draw-bar and bearing at their outer ends against the ends of the boxing, and springs operating between the outer sides of the wedge-blocks and the boxing, substantially as set forth.

PATRICK M. CANTY.

Witnesses:

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