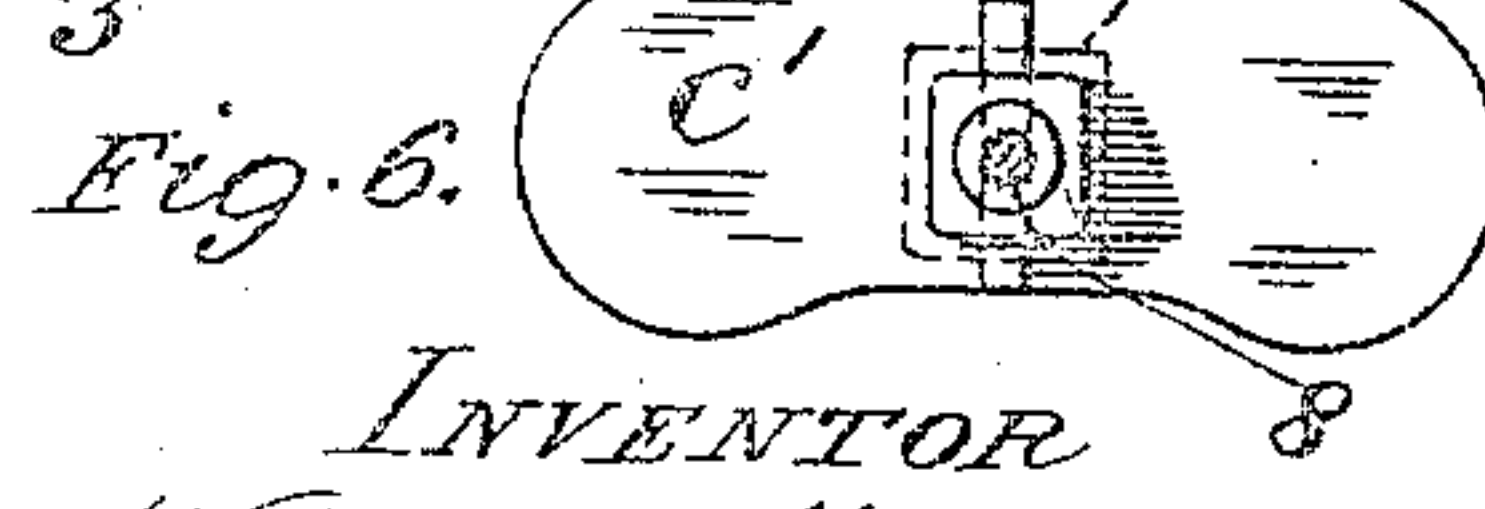
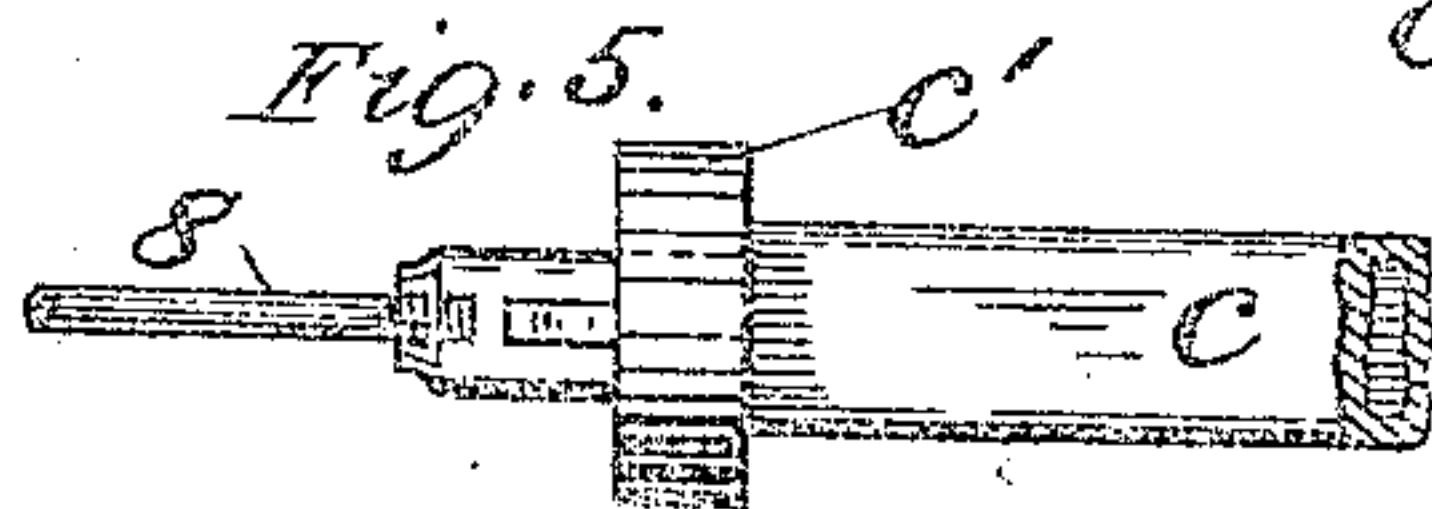
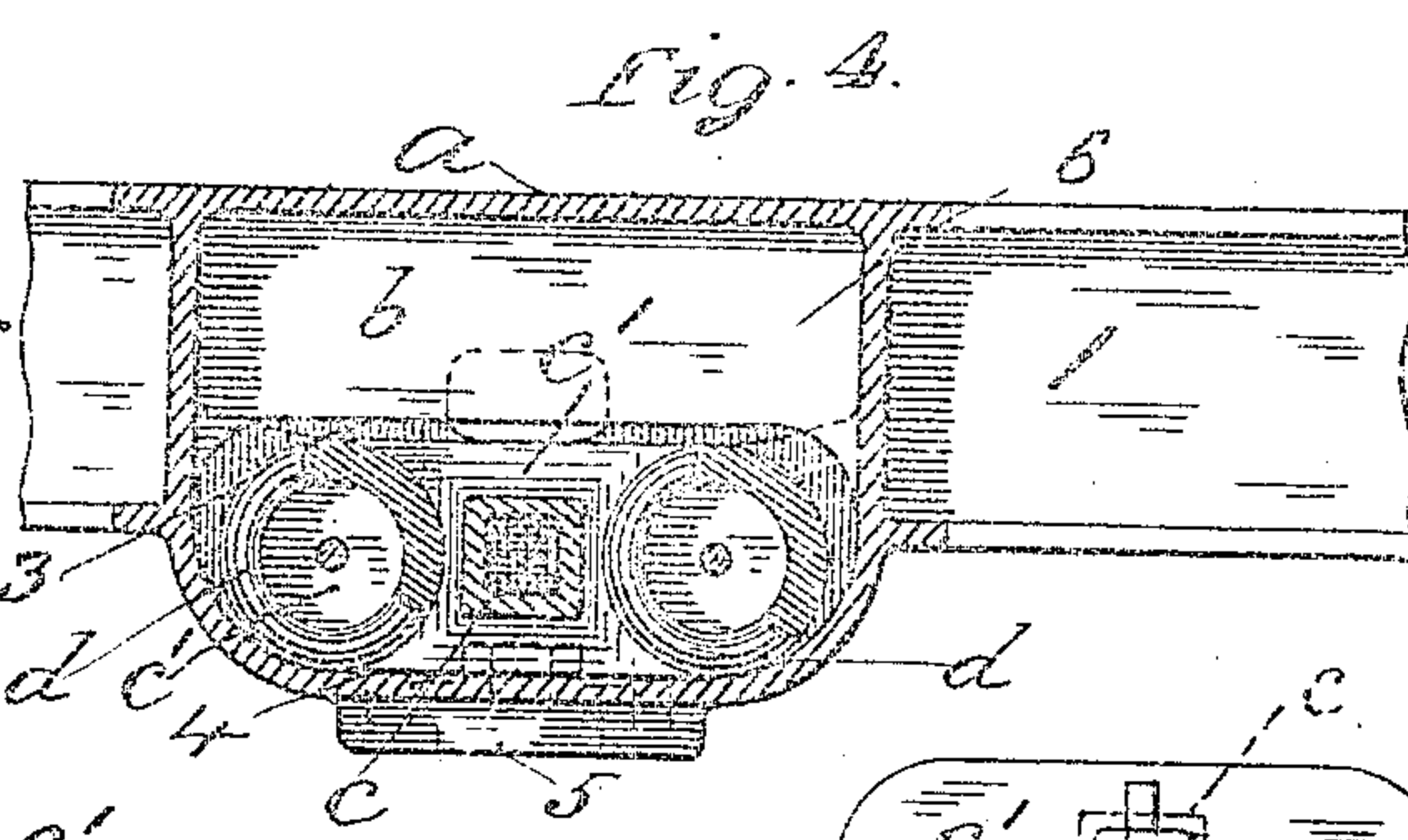
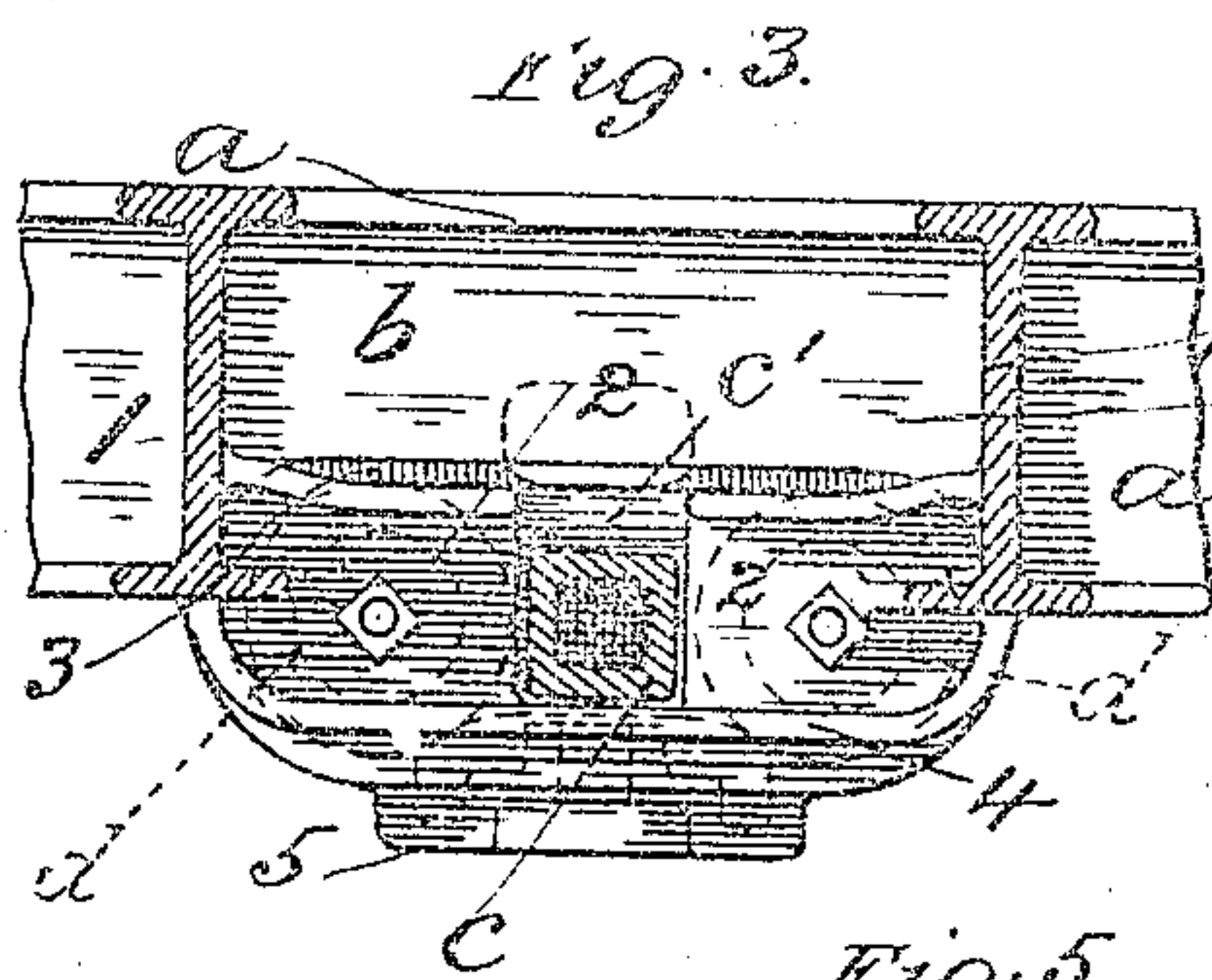
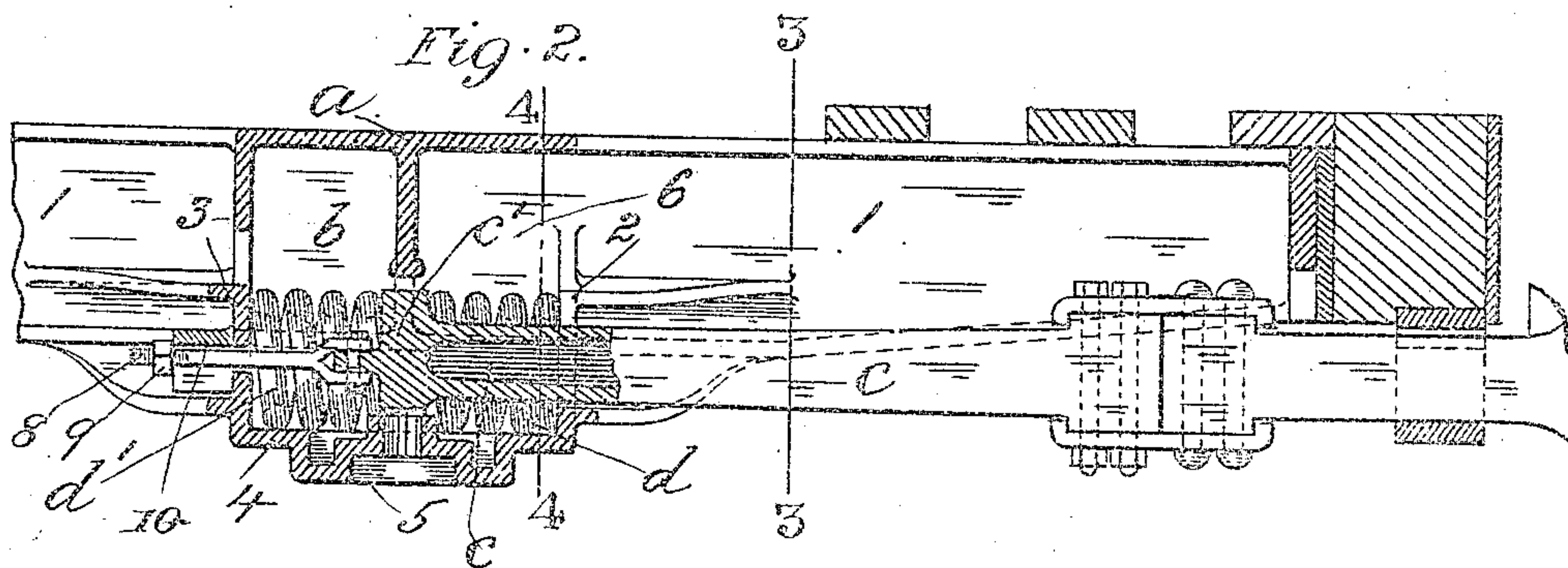
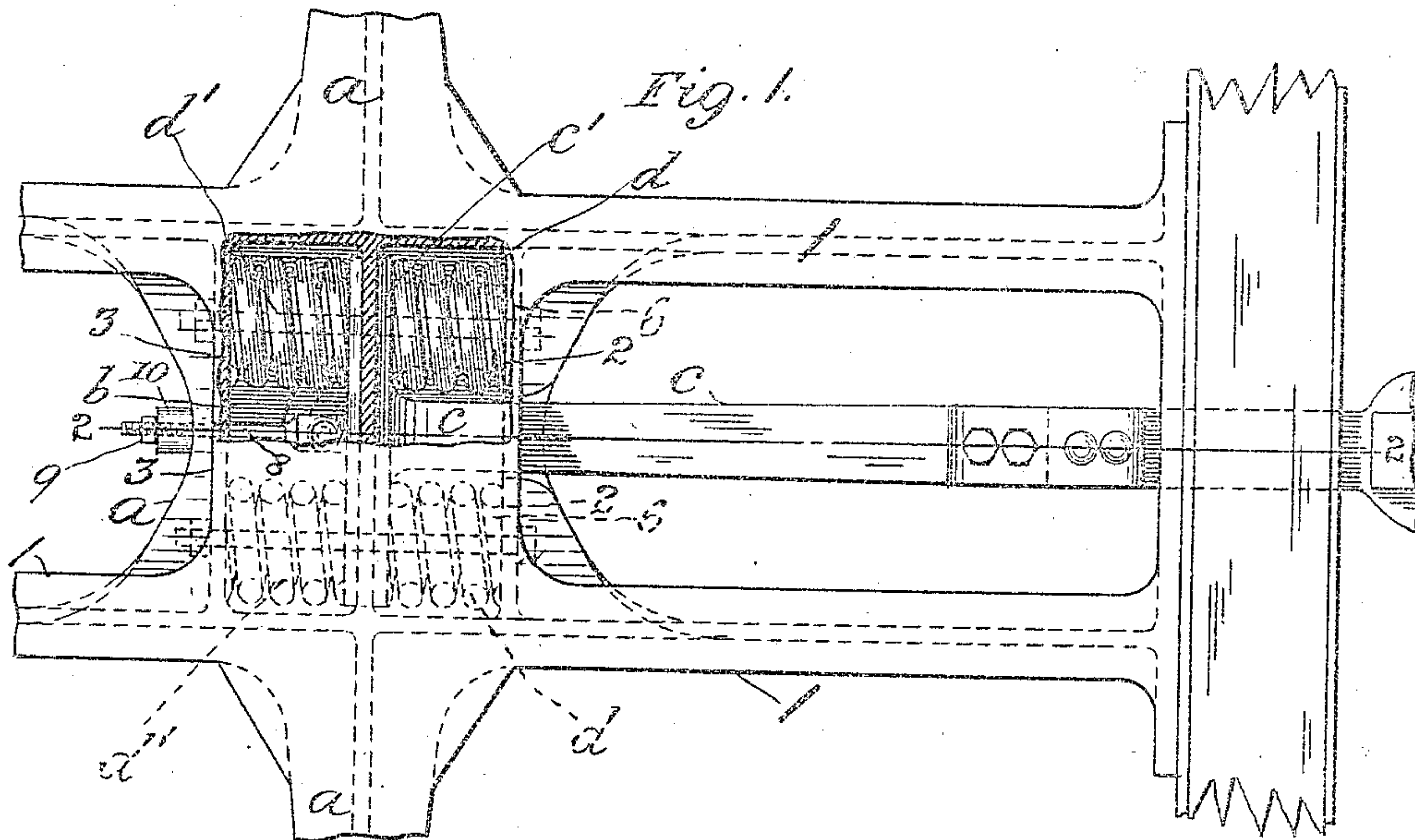


W. McINTOSH.
DRAFT GEAR FOR RAILROAD CARS.
APPLICATION FILED JUNE 15, 1907.

898,772.

Patented Sept. 15, 1908.



WITNESSES
J. M. Flager.
B. M. ...

INVENTOR
William McIntosh
By Edward W. Furrell
His Atty

UNITED STATES PATENT OFFICE.

WILLIAM McINTOSH, OF PLAINFIELD, NEW JERSEY, ASSIGNOR TO TRANSOM DRAFT GEAR COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF DELAWARE.

DRAFT-GEAR FOR RAILROAD-CARS.

No. 898,772.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed June 15, 1907. Serial No. 379,275.

To all whom it may concern:

Be it known that I, WILLIAM McINTOSH, a citizen of the United States, residing at Plainfield, in the county of Union and State of New Jersey, have invented a new and useful Improvement in Draft-Gears for Railroad-Cars, of which the following is a specification.

My invention relates to that class of draft-gear in which the draw-bar or draw-bar extension (as the case may be) with its follower-plates and springs is combined directly with the body-bolster without the use of draft-timbers and separate housings with their respective fastenings, and is in the nature of a modification of the invention for which Letters Patent of the United States were granted to Harry M. Pflager, October 18, 1904, Number 772,370, for improvement in draft-gear for railroad cars.

My invention has for its object to simplify the construction, and consists in features of novelty as hereinafter described and claimed, reference being had to the accompanying drawing forming part of this specification, whereon,

Figure 1, is a top plan view of my improved draft-gear as applied to one of the transverse members or "body-bolsters" of a locomotive tender (or railroad car) under-frame; Fig. 2, a vertical longitudinal section through the same on line 2, 2, in Fig. 1; Figs. 3, and 4, vertical transverse sections thereof on lines 3, 3, and 4, 4, respectively in Fig. 2, and Figs. 5, and 6, side and end elevation respectively, of the inner end portion of the draw-bar extension, showing a modification of the attachment thereto of the cross-head forming part of my invention.

Like letters and numerals of reference denote like parts in all the figures.

a represents one of the transverse members or "body-bolsters" of a locomotive tender (or railroad car), which in the present case is preferably composed of cast steel integral with the end portions of the middle (and side, not shown) longitudinal sills 1 of the under-frame, but may be of separate construction and attached to the longitudinal sills in the usual manner.

In the body-bolster *a* at its middle portion, is formed a suitable housing *b* for the draft-gear, having a front wall 2, and a rear wall 3, and preferably closed at the bottom 4, on the underside of which is formed the body cen-

ter-plate 5. The front wall 2 is divided in the middle at its lower portion adjacent to the bottom 4, for the passage and play there-through of the draw-bar extension *c*, and formed above its divided portions with a suitable opening 6 for the purpose hereinafter specified.

Within the housing *b* are arranged horizontally on each side of and parallel to the longitudinal center of the tender (or car), a front or "draft" spring *d*, and a rear or "buffing" spring *d'*, which are in alinement and separated from each other between their inner ends by a suitably shaped cross-head *c'* preferably formed on and integral with the inner end of the draw-bar extension *c* at right angles thereto, the rear ends of the front springs *d* and the front ends of the rear springs *d'* in their normal position bearing against the front and rear sides respectively, of the cross-head *c'*, while the front ends of the front springs *d* bear against the divided portions of the front wall 2, and the rear ends of the rear springs *d'* against the rear wall 3 of the housing *b*.

From the rear side of the cross-head *c'*, in central alinement longitudinally with the draw-bar extension *c*, projects a bolt 8 which passes through an opening therefor in the rear wall 3 and is provided at a suitable distance therefrom with a nut 9 between which and the rear wall 3 is initially interposed a block or ferrule 10 for the purpose hereinafter referred to.

In assembling the draft-gear thus constructed, the rear or "buffing" springs *d'* and the inner end portion of the draw-bar extension *c* with its cross-head *c'* are first inserted through the opening 6 and adjusted within the housing *b*, and the bolt 8 being then coupled to the cross-head *c'* and its nut 9 with the temporary block 10 adjusted thereon, on tightening the nut 9 against the latter the cross-head *c'* is drawn rearward and compresses the rear springs *d'* against the rear wall 3 for allowing the front springs *d* inserted through the opening 6 into the housing *b* to be adjusted between the front wall 2 thereof and the cross-head *c'* when the temporary block is removed and the draft-gear assumes its normal position.

In operation, when pulling on the draw-bar extension *c*, the front or "draft" springs *d* are compressed by the cross-head *c'* against the divided portions of the front wall 2, and

when buffing, the rear or "buffing" springs d' are compressed by the cross-head c' against the rear wall 3 of the housing b thereby dispensing with follower-plates and simplifying the construction.

If desired, the cross-head c' in lieu of being integral with the draw-bar extension c as described, may be of separate construction and attached thereto by keying as shown in Figs. 5 and 6, or in any other suitable manner.

What I claim as my invention and desire to secure by Letters Patent is:

1. In draft-gear of the class described, the combination with the car body-bolster, of a draw-bar, two springs horizontally alined to each other at each side of the longitudinal center of the said bar, a housing for the springs integral with the bolster, one of the said springs being adapted to bear at its outer end against the front wall of the housing and the other said spring at its outer end against the rear wall of the housing, and a cross-head on the said bar extending between and adapted to bear against the inner ends of, and to compress the said springs against the corresponding said walls respectively, in the "draft" and "buffing" move-

ments of the said bar, the said housing having an inlet for the said springs and cross-head, and for the play of the said bar, substantially as described.

2. In draft-gear of the class described, the combination with the car body-bolster, of a draw-bar, a front spring and a rear spring at each side of the longitudinal center of the said bar, a housing for the springs integral with the bolster, the said rear springs being adapted to bear at their outer ends against the rear wall of the housing, a cross-head on the said bar adapted to bear against the inner ends of the rear springs, a bolt projecting from the cross-head and adapted to play through, an opening therefor in the said wall, a nut on the bolt, and a block removably interposed between the said nut and wall, substantially as described and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM McINTOSH.

Witnesses:

JOSEPH T. VAIL,

WINFIELD WAINWRIGHT.