

No. 706,360.

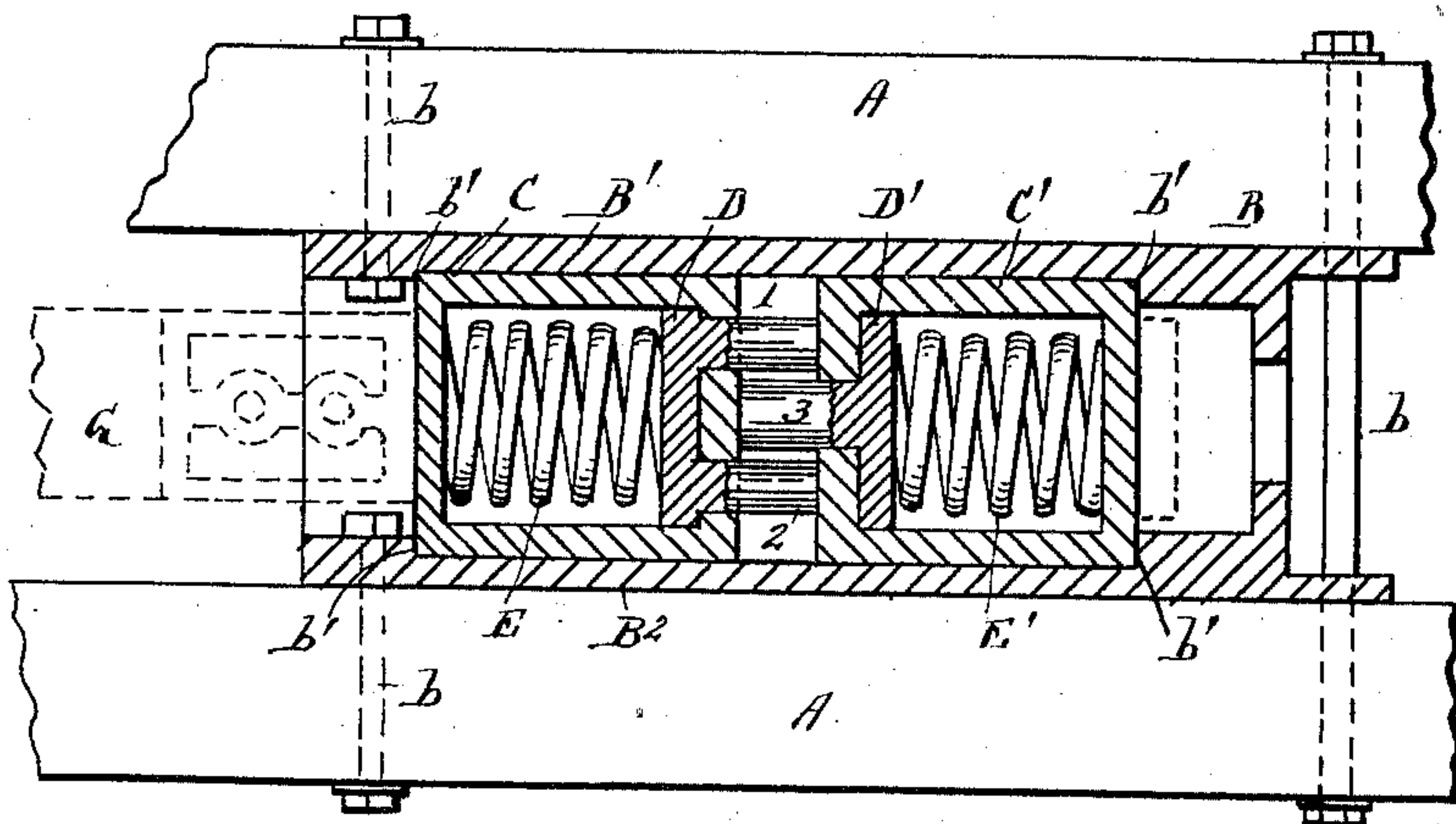
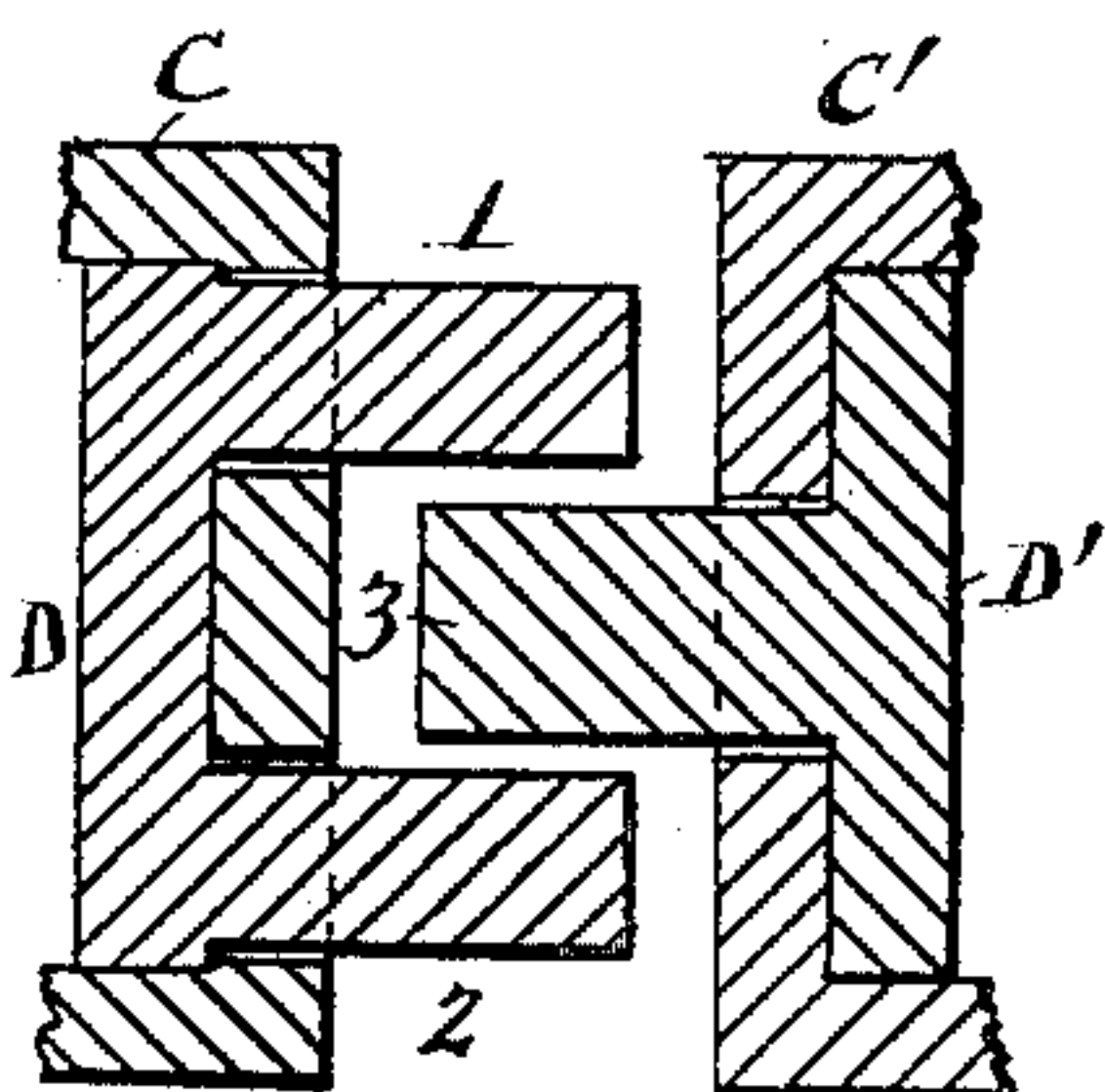
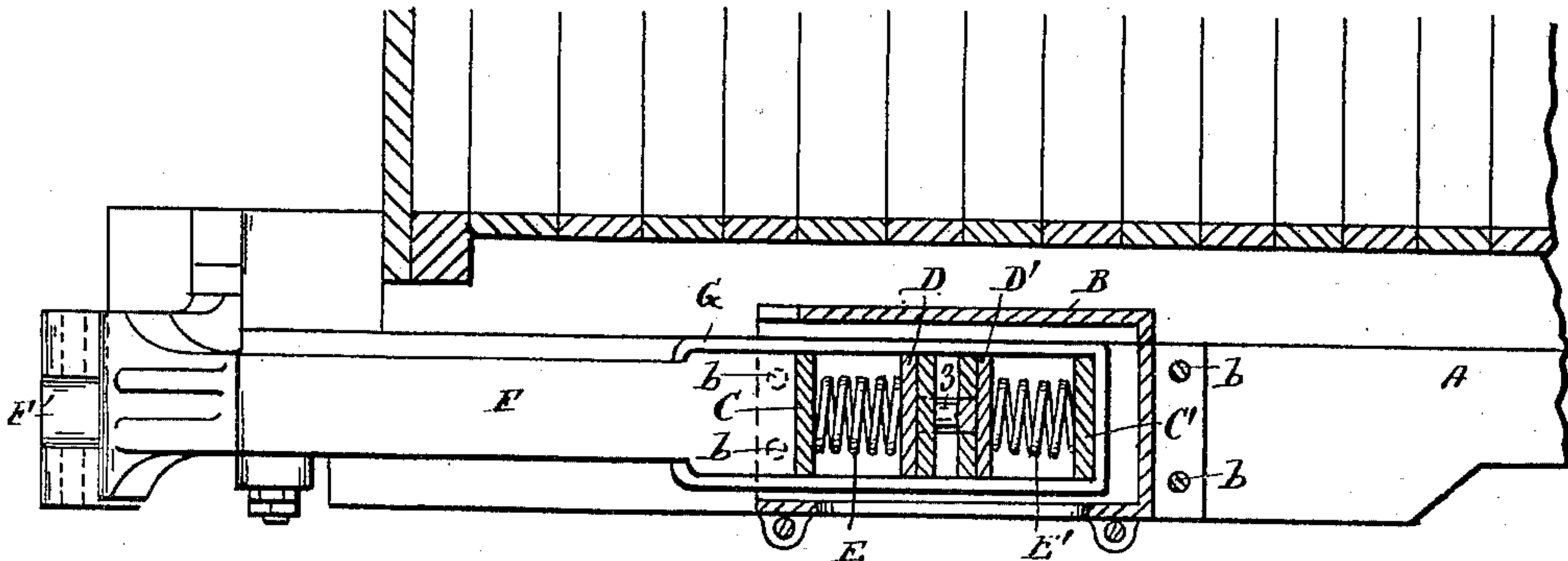
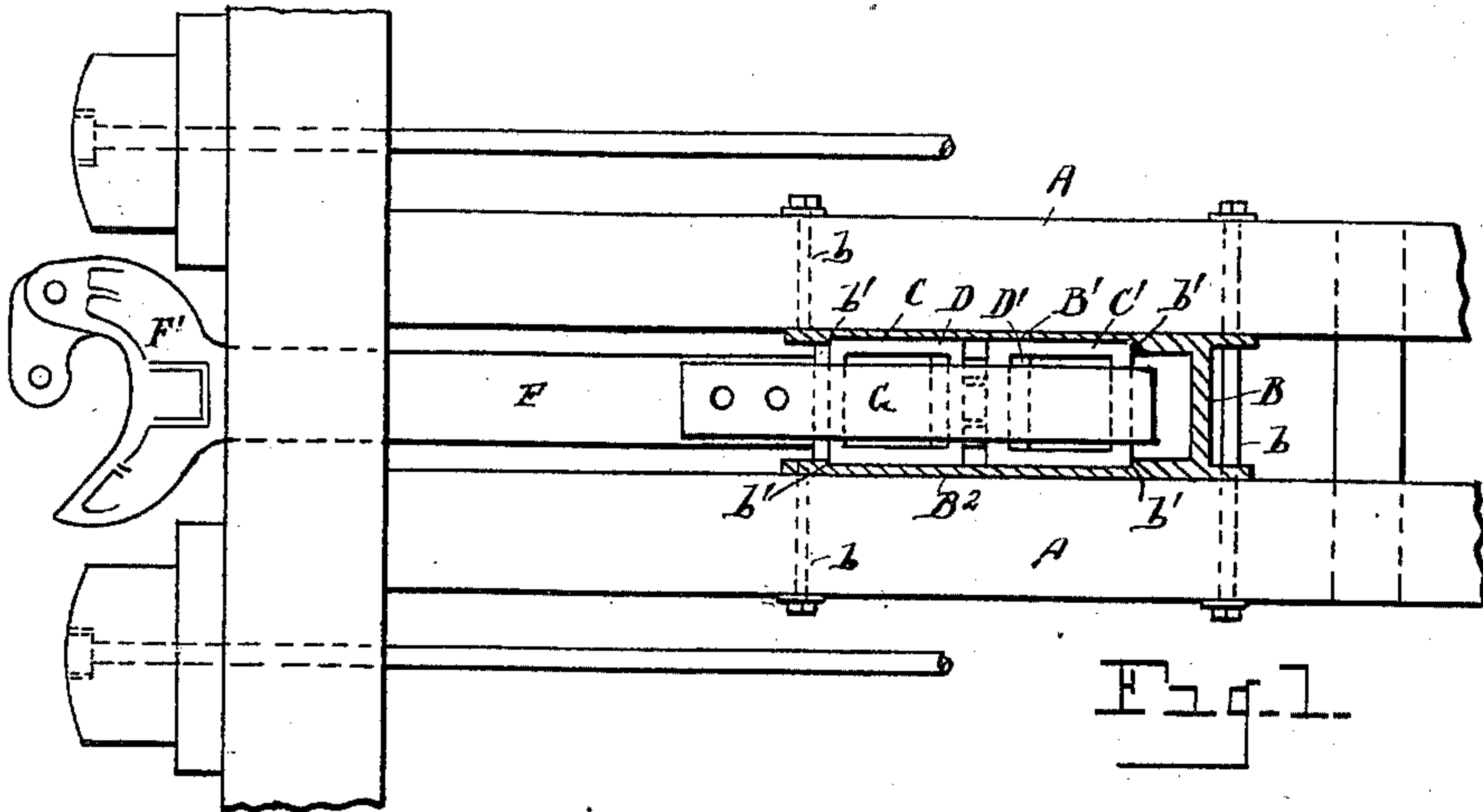
Patented Aug. 5, 1902.

W. THORNBURGH.

SPRING PROTECTING DEVICE FOR RAILWAY CAR COUPLING ATTACHMENTS.

(Application filed Apr. 8, 1901. Renewed Nov. 15, 1901.)

(No Model.)



WITNESSES.

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# UNITED STATES PATENT OFFICE.

WILLIAM THORNBURGH, OF DETROIT, MICHIGAN, ASSIGNOR TO THE THORNBURGH COUPLER ATTACHMENTS COMPANY, LIMITED, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

SPRING-PROTECTING DEVICE FOR RAILWAY-CAR-COUPLING ATTACHMENTS.

SPECIFICATION forming part of Letters Patent No. 706,360, dated August 5, 1902.

Application filed April 8, 1901. Renewed November 15, 1901. Serial No. 82,408. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM THORNBURGH, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Spring-Protecting Devices for Railway-Car-Coupler Attachments; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My present invention is designed to provide certain new and useful improvements in spring-protecting devices for railway-car-coupler attachments, and has for its object superior construction and efficiency.

To these ends my invention embodies the construction, combination, and arrangement of appliances hereinafter described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is an inverted plan view showing parts in section. Fig. 2 is a view in side elevation, showing parts in vertical longitudinal section. Fig. 3 is a view in horizontal section through the draft-spring housing and related parts. Fig. 4 is a detail view, also in horizontal section, showing the box-followers with their respective plate-followers separated one from the other.

I carry out my invention as follows:

In the drawings, A A represent timbers of a car.

B represents any suitable draft-spring housing, the same being shown provided with side walls B' and B<sup>2</sup>. The housing may be attached to the customary draft-timbers in any desired manner, as by bolts, (indicated at b.) I would have it understood that I do not limit myself to any special construction of the draft-spring housing in my present invention. As shown, the side walls B' B<sup>2</sup> are formed toward their forward and rear extremities with shoulders b'. Within said housing are located plural box-followers, (indicated at C C',) said box-followers having a movable en-

gagement in the draft-spring housing, the shoulders b' of the housing limiting the movement of the box-followers toward the front and rear of the housing. Within each of the box-followers is a plate-follower, (indicated at D and at D',) movable in the corresponding box-follower. Each of the plate-followers is provided with one or more arms having a sliding engagement in the corresponding box-follower. I prefer that one of the plate-followers, as the plate-follower D, for example, should be provided with two arms (indicated by the numerals 1 and 2) and that the other plate-follower, as the follower D', should be provided with an arm 3, the arms 1 and 2, as shown, projecting through the corresponding end wall of the box-follower C, while the arm 3 of the plate-follower D' projects through the adjacent end wall of the box-follower C'. The outer extremities of said arms normally seat against the corresponding end wall of the opposite box-follower from that with which the corresponding plate-follower is engaged. Thus, as shown, the arms 1 and 2 of the plate-follower D project through the adjacent end of the box-follower C and seat against the adjacent end of the box-follower C', while the arm 3 projects through the adjacent end of the box-follower C' and against the adjacent end of the box-follower C. The arms of the plate-followers may or may not have a fixed engagement with the corresponding plate-followers. To this end they might either be made integral with the corresponding plate-follower or be arranged simply to contact thereagainst. I have shown said arms in the drawings as formed integral with the corresponding plate-followers; but I would have it understood that I do not limit myself solely thereto. Within each of the box-followers is a corresponding draft-spring, (indicated at E and E',) one end of each spring bearing against one end wall of the corresponding box-follower, the opposite end of each spring bearing against the corresponding plate-follower, as shown.

F indicates the draw-bar, and F' the draw-bar head.



G indicates the usual yoke engaging the box-followers with the draw-bar.

It will be apparent that the box-followers C and C' are so arranged as to limit each other's movement the one toward the other. It will also be obvious that when one of the box-followers is moved toward the other the inner end of the box-follower contacting with the arm or arms of the plate-follower in the opposite box-follower will force said plate-follower in a corresponding direction with the movement of the box-follower, thereby compressing the springs in both of said box-followers. Thus, for example, should the box-follower C' be moved toward the box-follower C the inner end of the box-follower C' contacting with the adjacent ends of the arms 1 and 2 will force the plate-follower D forward. The movement of the box-follower C' forward will of course compress the draft-spring therewithin, while also the movement above described of the plate-follower D forward will compress the draft-spring in the box-follower C. Should the box-follower C be moved rearward, the inner end thereof will contact with the adjacent end of the arm 3, forcing the plate-follower D' in a corresponding direction, said movements compressing the springs in both the box-followers.

I have shown in the drawings a single spring in each of the box-followers; but one or more springs may be located in each of the followers, as may be desired, and arranged in any desired manner. The box-followers are shown made of box shape, each having two sides and two end walls; but I do not limit myself to any special construction of the box-followers, only so that they serve to contain a draft spring or springs.

What I claim as my invention is—

1. In a spring-protecting device for railway-car-coupler attachments, box-followers, springs within said followers, and additional means to communicate pressure from one of said box-followers to the spring in the opposite box-follower.

2. In a spring-protecting device for railway-car-coupler attachments, box-followers normally separated the one from the other, springs located in said box-followers, and additional means to communicate pressure from one of said box-followers to the spring in the opposite box-follower.

3. The combination with box-followers and their associated instrumentalities, of a spring in each follower, a pin extension from one follower entering the other follower and engaging the spring thereof, and a pin extension from the other follower entering the first-

mentioned follower and engaging the spring thereof, substantially as described.

4. The combination with box-followers each having a spring therein, of pin extensions from the respective followers entering the opposite follower and engaging the spring therein, substantially as described.

5. In a spring-protecting device for railway-car-coupler attachments, box-followers, plate-followers within the box-followers, draft-springs within the box-followers located between the corresponding plate-follower and the opposite end of the corresponding box-follower, and means whereby each plate-follower may communicate pressure applied thereto to the opposite box-follower.

6. In a spring-protecting device for railway-car-coupler attachments, box-followers, plate-followers within the box-followers, and draft-springs within the box-followers between the corresponding plate-follower and the opposite end of the corresponding box-follower, and arms projecting through the adjacent end wall of the box-followers, whereby each plate-follower may communicate pressure applied thereto to the opposite box-follower.

7. In a spring-protecting device for railway-car-coupler attachments, box-followers normally separated one from the other toward their adjacent ends, plate-followers within the box-followers, and draft-springs within the box-followers between the corresponding plate-follower and the opposite end of the corresponding box-follower, and arms projecting through the adjacent end walls of the box-followers, said arms contacting at their outer extremities with the adjacent end wall of the box-follower opposite that through which the arms project, whereby each plate-follower may communicate pressure applied thereto to the opposite box-follower.

8. In a spring-protecting device for railway-car-coupler attachments, the combination with a draft-spring housing, of box-followers having a movable engagement therein and constructed to abut the one against the other at their adjacent ends, draft-springs within the box-followers, and additional means to communicate the spring tension in one of the box-followers to the spring in the other box-follower, the draft-spring housing constructed to limit the movement of the box-followers toward opposite ends thereof.

In testimony whereof I sign this specification in the presence of two witnesses.

WILLIAM THORNBURGH.

Witnesses:

N. S. WRIGHT,  
M. HICKEY.