

No. 618,910.

Patented Feb. 7, 1899.

F. J. SENG.
FURNITURE SPRING.
(Application filed June 13, 1898.)

(No Model.)

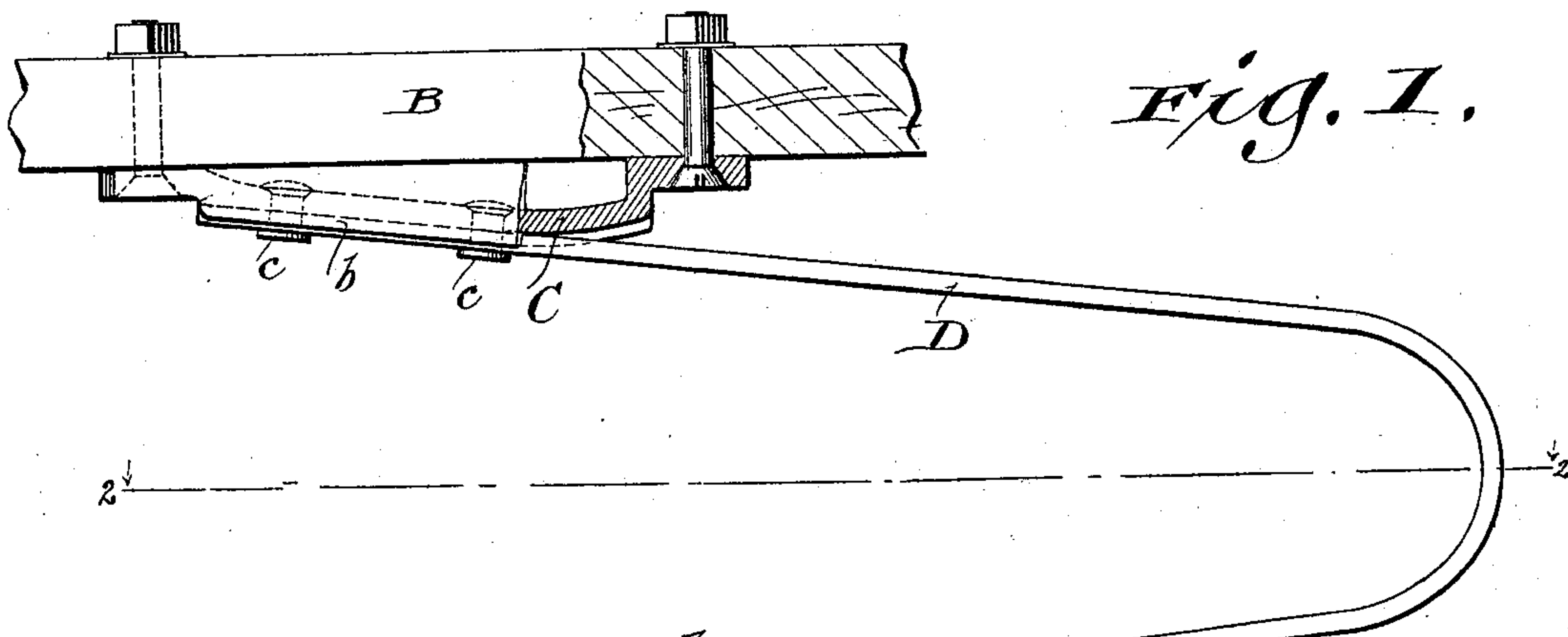


Fig. 1.

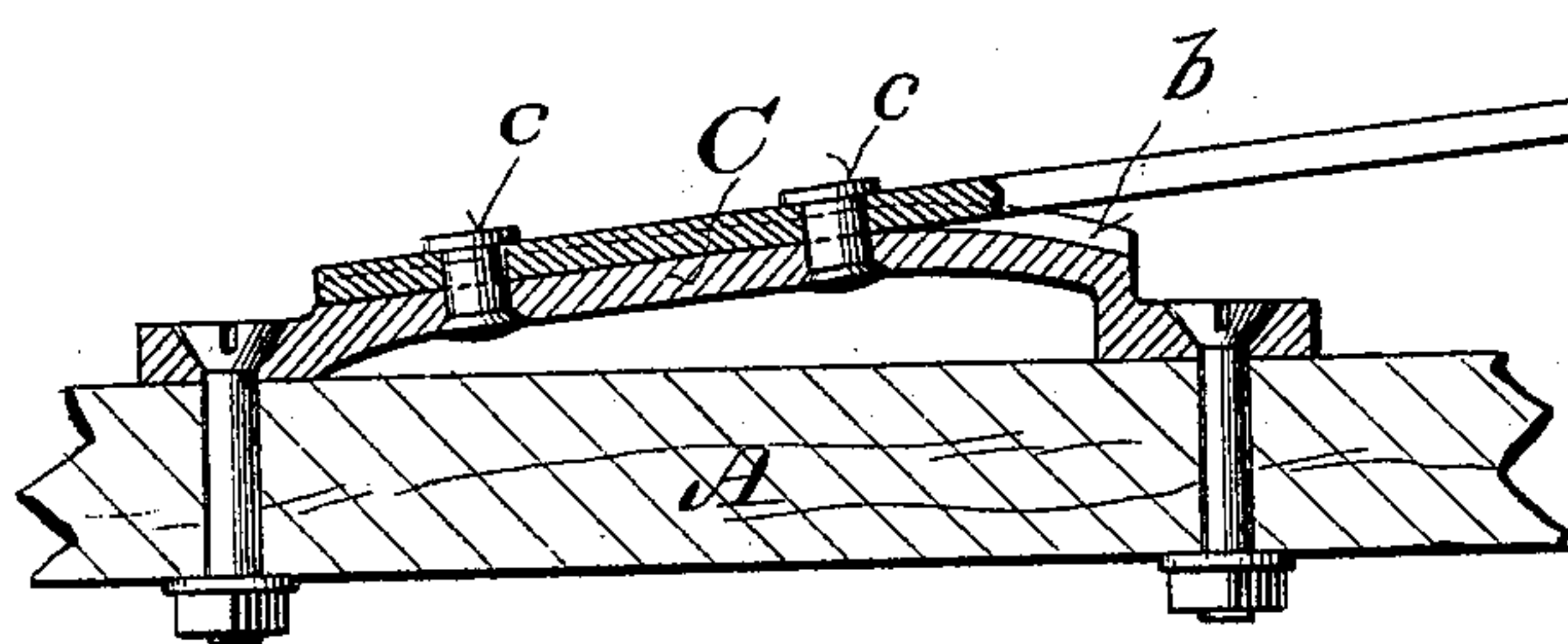


Fig. 2.

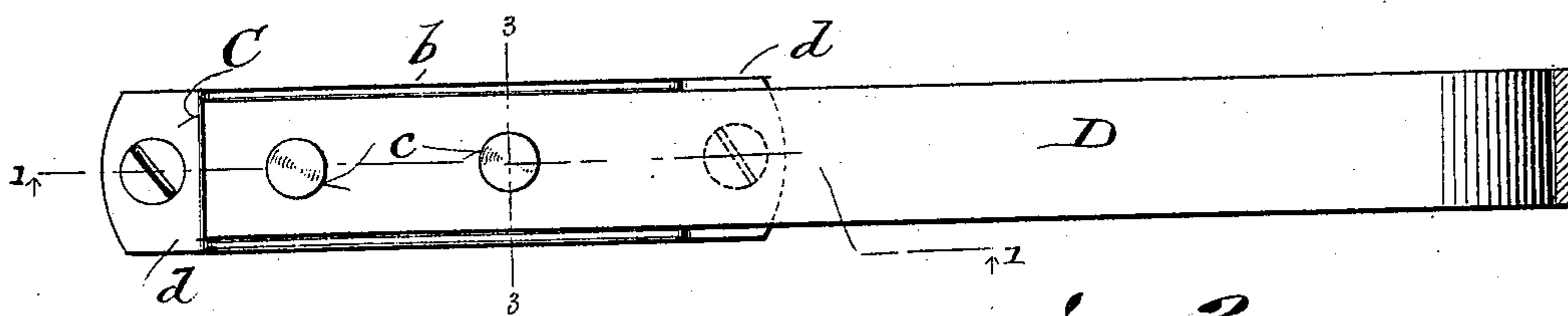


Fig. 3.

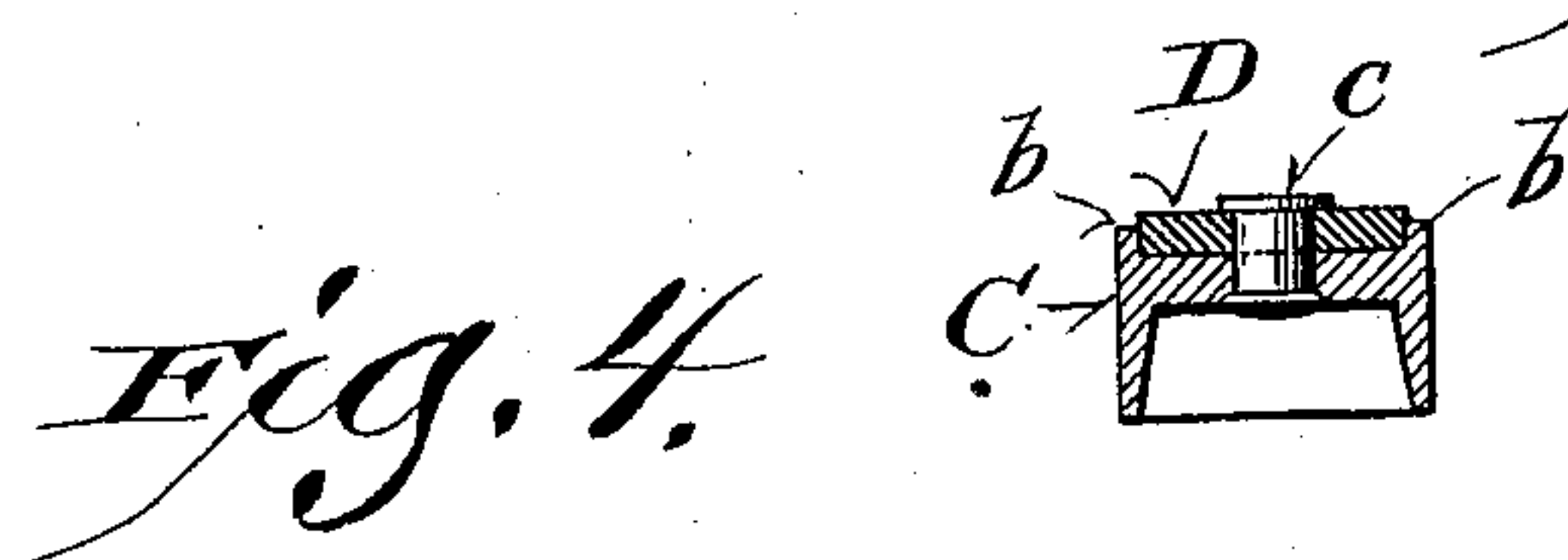
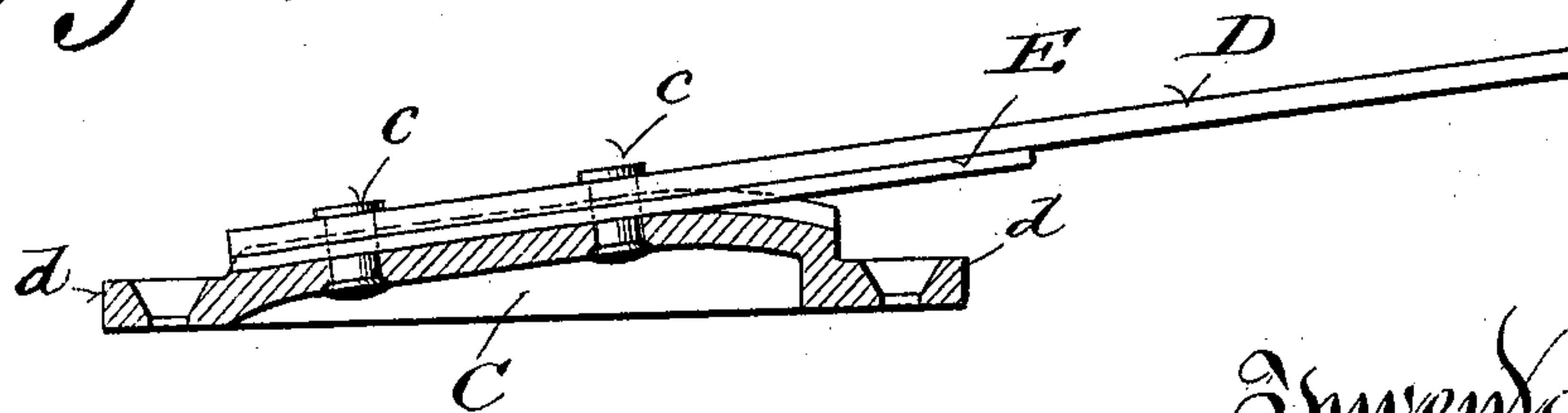


Fig. 4.



Witnesses:
Geo W. Young,
H. E. Oliphant

Inventor:
Frank J. Seng,
By H. G. Underwood
Attorney

UNITED STATES PATENT OFFICE.

FRANK J. SENG, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE SENG COMPANY,
OF SAME PLACE.

FURNITURE-SPRING.

SPECIFICATION forming part of Letters Patent No. 618,910, dated February 7, 1899.

Application filed June 13, 1898. Serial No. 683,299. (No model.)

To all whom it may concern:

Be it known that I, FRANK J. SENG, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Furniture-Springs; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to provide the furniture trade with simple, strong, light, durable, and noiseless springs applicable as means for connecting stationary bases and rocking or vertically-reciprocative superstructures. It therefore consists in certain peculiarities of construction and combination of parts hereinafter set forth with reference to the accompanying drawings and subsequently claimed.

Figure 1 of the drawings represents a side elevation of one form of my improved spring in connection with a stationary base and movable superstructure, certain of the parts being in longitudinal section, indicated by line 1 1 in the succeeding figure of the series; Fig. 2, a plan view, partly in horizontal section, indicated by line 2 2 in the preceding figure; Fig. 3, a transverse section, indicated by line 3 3 in the second figure of said series; and Fig. 4, a side elevation, partly in longitudinal section, illustrating a portion of the spring embodying a stiffening-plate.

Referring by letter to the drawings, A represents a portion of a stationary base, and B a portion of a movable superstructure, both of which are connected to the extremities of a spring in accordance with my invention, this spring comprising a pair of castings C C and a recurved spring-metal plate D, the latter having its diverging ends riveted or otherwise securely fastened to the castings with or without interposed straight spring-metal stiffening-plates, one of the latter being shown and lettered E in Fig. 4.

Each casting constituting part of the spring is made to have a portion of its outer surface inclined longitudinally thereof, the inclination being at the same angle as the end of the recurved spring-metal plate D, fastened thereto. In the preferred form of casting herein shown the inclination is succeeded by

a curve in a direction away from the recurved spring-metal plate, this curve being at that end of said casting toward the bend of said plate. Owing to the curved surface of each casting, the recurved spring-metal plate D and the stiffening-plates (if the latter be utilized as parts of the spring) cannot strain on edges when there is expansion of said spring incidental to rocking motion of the superstructure in connection therewith.

A pair of longitudinal flanges *b*, projecting beyond the outer surface of each casting, serve as guards to prevent lateral slip of the corresponding end of the recurved spring-metal plate D should the rivets *c* or other fastenings become loose.

The ends of each casting have the former of horizontal apertured ears *d*, and between these ears the inclined portion of said casting is preferably hollow in order to economize metal and lessen weight.

In practice the spring is made fast to a base and superstructure by bolts and nuts, the bolts being extended through the apertured ears *d* of the castings constituting parts of said spring.

It is obvious that the rigidity of the spring is increased by the employment of stiffening-plates arranged similar to the one herein shown, and the inclusion of said plates is desirable when springs in accordance with my invention are utilized in connection with a stationary base and rocking superstructure; but if said springs are to connect such a base and a vertically-reciprocative superstructure the aforesaid stiffening-plates may be omitted.

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

1. A furniture-spring comprising a recurved spring-metal plate, and a pair of castings each of which has an inclination at the same angle as the plate end to which it is fastened and is also provided with a curve succeeding the inclination in a direction away from the plate, said castings being for connection with a stationary base and a movable superstructure.
2. A furniture-spring comprising a pair of opposite castings having inwardly-extending

longitudinally-inclined portions and horizontal apertured ears at the extremities of these inclined portions, straight stiffening-plates on the inclined surfaces of the castings, a re-
5 curved spring-metal plate having diverging ends parallel to the stiffening-plates upon the same, and means serving to effect a rigid union of the plates and said opposite castings.

3. A furniture-spring comprising a recurved
10 spring-metal plate, a pair of castings each of which has an inclination at the same angle as an end of said plate and is also provided with a curve succeeding the inclination, spring-metal stiffening-plates interposed be-
15 tween the former plate and inclinations of the castings, and means for fastening the plates to said castings, the latter having their curves in a direction away from the interposed stiffening-plates and being for connec-

tion with a stationary base and movable su- 20
perstructure.

4. A furniture-spring comprising a recurved spring-metal plate, and a pair of castings each of which has an inclination at the same angle
25 as the plate end to which it is fastened and is provided with longitudinal flanges constituting guards opposed to lateral slip on the part of said plate end, said castings being for connection with a stationary base and a movable superstructure. 30

In testimony that I claim the foregoing I have hereunto set my hand, at Chicago, in the county of Cook and State of Illinois, in the presence of two witnesses.

FRANK J. SENG.

Witnesses:

W. P. SENG,

G. J. BIEHL.