## J. J. BREAKEY. SPRING SEAT.

(Application filed Apr. 13, 1901.)

(No Model.)

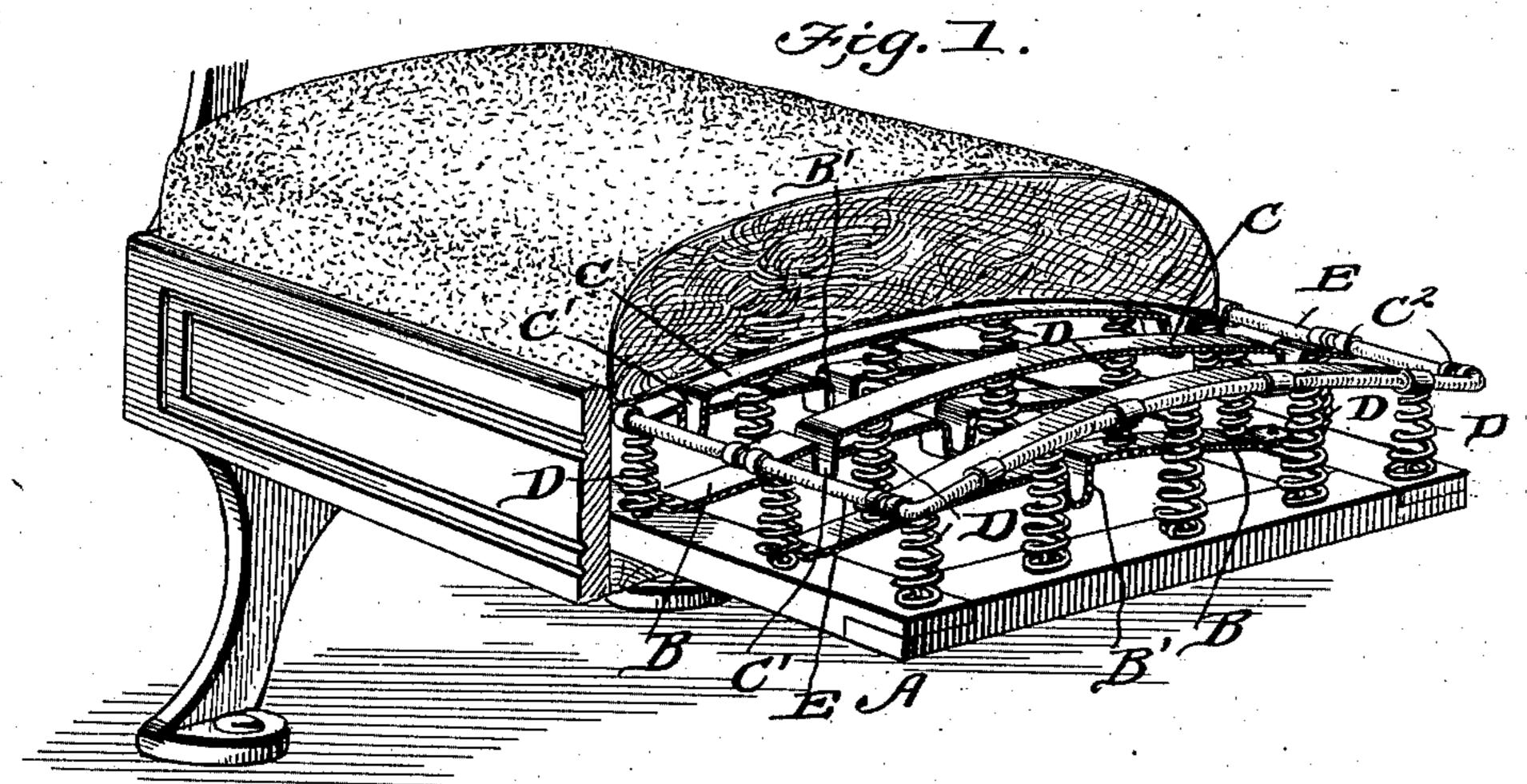


Fig. 2

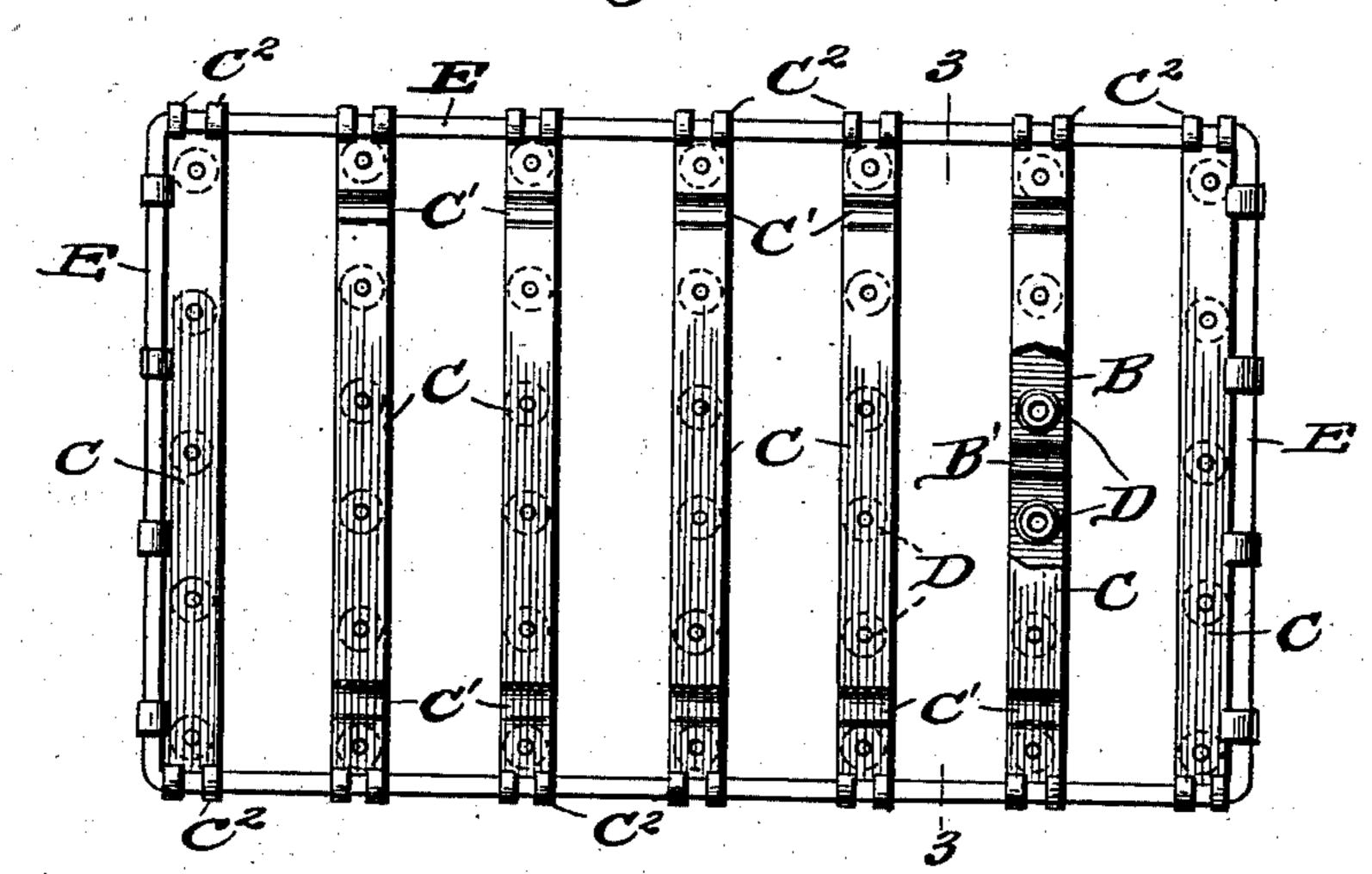
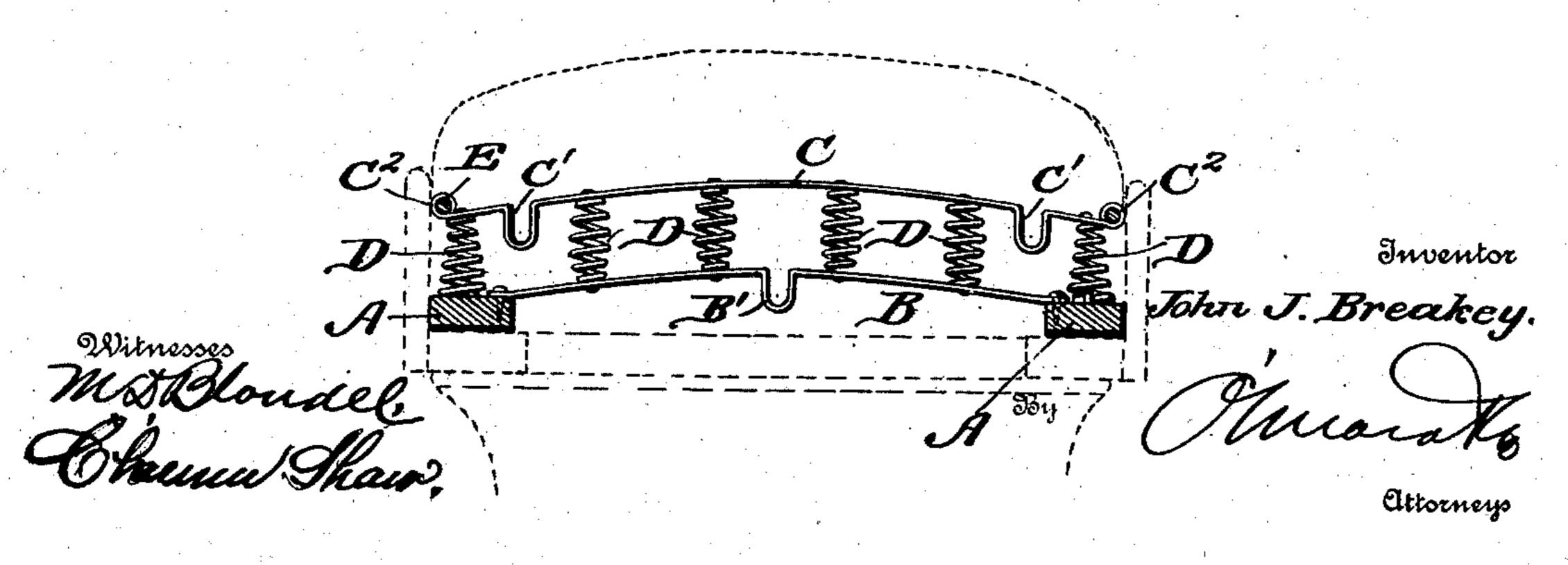


Fig.3.



## United States Patent Office.

JOHN JOSEPH BREAKEY, OF PULLMAN, ILLINOIS.

## SPRING-SEAT.

SPECIFICATION forming part of Letters Patent No. 698,365, dated April 22, 1902.

Application filed April 13, 1901. Serial No. 55,723. (No model.)

To all whom it may concern:

Beitknown that I, JOHN JOSEPH BREAKEY, a citizen of the United States, residing at Pullman, in the county of Cook and State of Illi-5 nois, have invented a new and useful Spring-Seat, of which the following is a specification.

This invention relates generally to springseats, and more particularly to the springsupporting frame adapted to receive the cush-

10 ion or other upholstering.

The object of the invention is to provide a simple and inexpensive spring mechanism which can be applied to any of the seats now in use and which can be quickly and easily 15 repaired whenever it becomes necessary.

While this invention is particularly adapted for car-seats, it will be understood that it can be applied to and used upon any other seat.

The invention consists also in the peculiar 20 construction of the various parts and in their novel combination and arrangement, all of which will be fully described hereinafter and pointed out in the claims.

In the drawings forming part of this speci-25 fication, Figure 1 is a perspective view of the frame of the seat embodying my invention. Fig. 2 is a plan view of the same. Fig. 3 is a cross-section on the line 3 3 of Fig. 2.

In carrying out my invention I employ a 30 main supporting-frame A, essentially rectangular in shape, and to which are attached the lower springs B, said springs being connected at each end to the front and rear members of the main frame. The springs B are prefer-35 ably made from flat band-steel and are arched, as shown, and at the center each spring is bent centrally upon itself, as most clearly shown at B', thus increasing the resiliency or yielding power of the arched spring B. As 40 before stated, I employ a series of these springs B, arranged in parallel order, and I also employ a corresponding top spring C, each top spring being arranged directly above the bottom springs B, said top springs being held in 45 such elevated position and by means of the coiled springs D arranged between the top and bottom springs, as most clearly shown.

The springs C are also arched slightly, and adjacent to their ends they are bent or looped, as shown at C', in order to increase the elas- 50 ticity or yielding power of the band-spring C. Each band-spring C is also formed with an eye C<sup>2</sup> upon its end and through which the reed or rod E is passed, said rod E passing entirely around the entire series of springs, 55 providing an essentially rectangular frame adapted to receive and support any form of cushion or seat. The rod E may be of metal or it can be of cane or willow, as preferred. In case any of the flat or coiled springs should 60 become impaired they can be quickly and easily removed and new ones substituted, and thereby avoiding discarding the entire springframe. By having the flat metal springs formed with reëntrant or looped portions the 65 elasticity of the spring-frame as a whole is greatly increased.

Having thus fully described my invention, what I claim as new, and desire to secure by

Letters Patent, is—

1. In a spring-seat, the combination with the main frame, of the lower flat metal springs, the upper flat metal springs, the ends of the upper springs having eyes formed thereon, and the upper frame supported and held in 75 the said eyes, and the springs arranged between the upper and lower flat springs, and connected thereto, substantially as described.

2. A spring-seat comprising a main frame, the lower flat metal springs connected there- 80 to, the upper flat metal springs, the intermediate coil-springs connecting the upper and lower flat springs, the upper springs having eyes at their ends and downwardly-bent portions adjacent to said ends, the lower flat 85 springs each having a downwardly-bent portion at its center, and the upper frame, supported in the eyes at the ends of the upper flat springs.

## JOHN JOSEPH BREAKEY.

Witnesses:

EUGENE MAGINESS, PETER H. LESSLER.