No. 608,515.

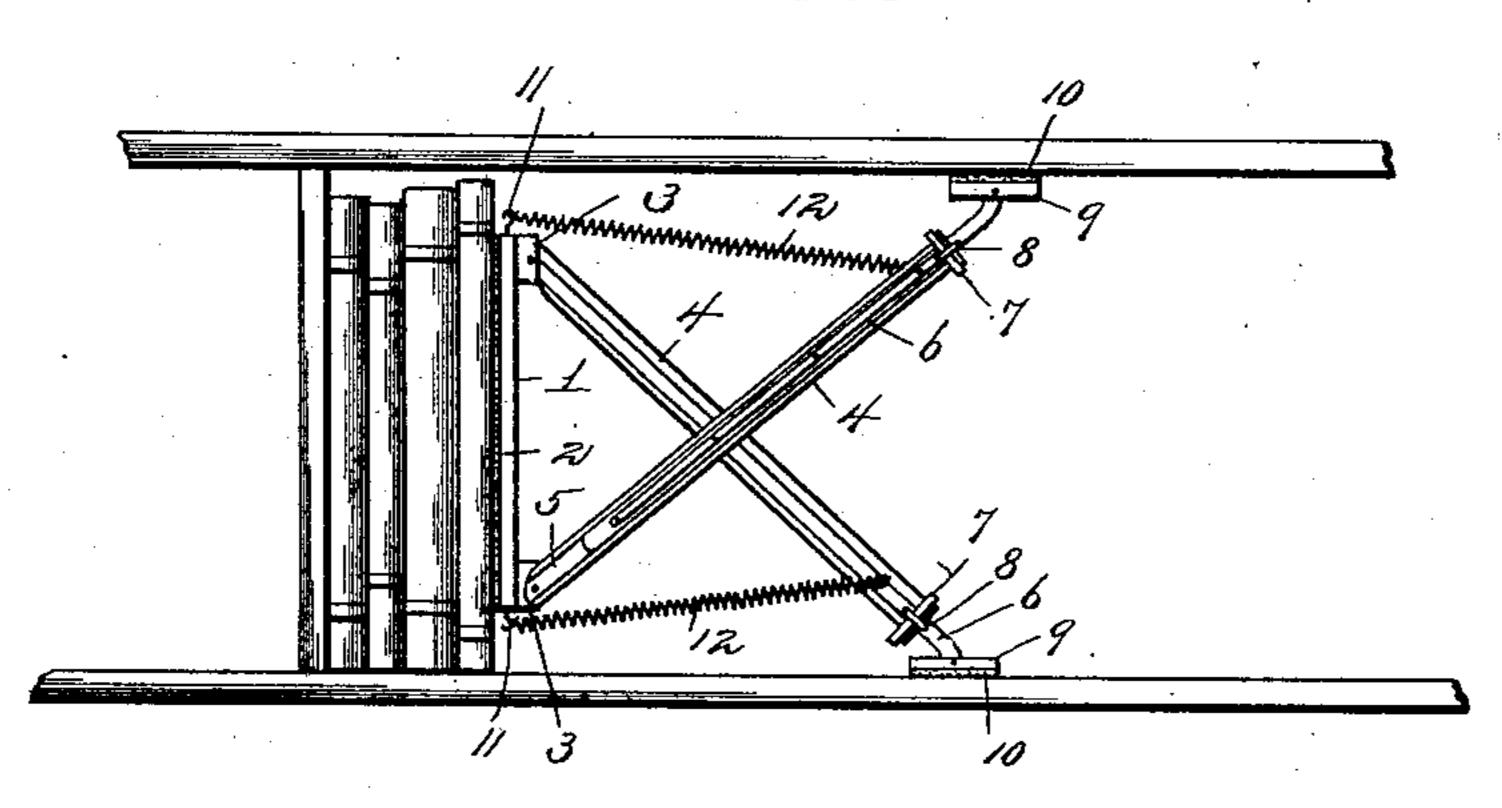
Patented Aug. 2, 1898.

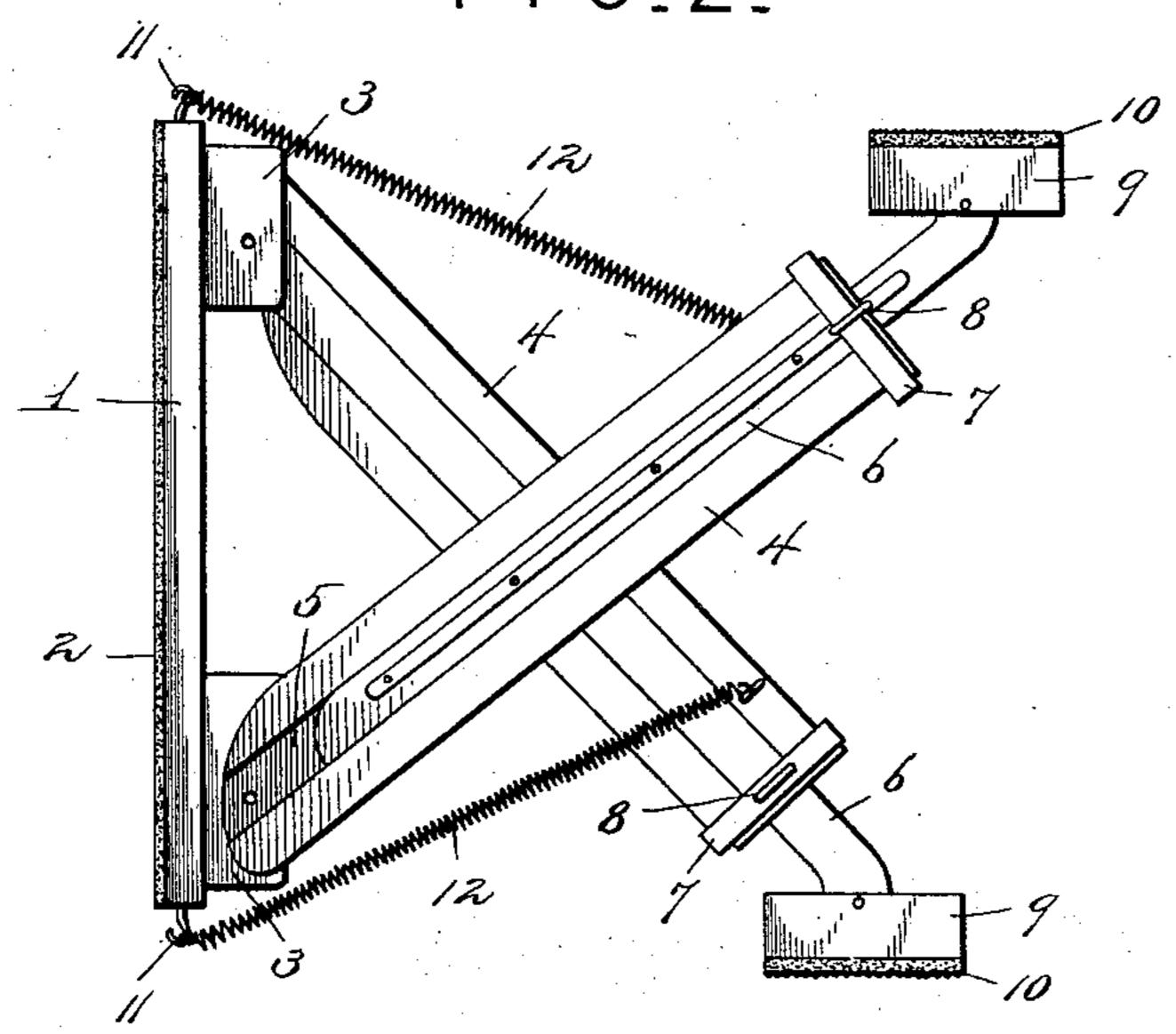
W. F. FRAZEE. BOOK SUPPORT.

(Application filed Sept. 24, 1897.)

(No Model.)

FIG.I.





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## United States Patent Office.

## WALTER FRANKLIN FRAZEE, OF FRUIT HILL, OHIO.

## BOOK-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 608,515, dated August 2, 1898.

Application filed September 24, 1897. Serial No. 652,875. (No model.)

To all whom it may concern:

Beitknown that I, Walter Franklin Fra-ZEE, a citizen of the United States, residing at Fruit Hill, in the county of Hamilton and State 5 of Ohio, have invented certain new and useful Improvements in Book-Supports; and I do hereby 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 10 it appertains to make and use the same.

My invention relates to novel and useful improvements in devices for supporting the end books in upright position upon shelves before the shelves are entirely filled; and it 15 has for its object, primarily, to provide a simple and inexpensive device of this character that can be readily moved along between the shelves as the number of books thereon is increased.

With this and other objects in view, which will become apparent in the course of the following description, all looking toward improving and simplifying devices of this character generally, my invention consists in the 25 novel combination and arrangement of simple parts, which will be hereinafter fully described, and the points of novelty will be particularly set forth in the appended claims.

With these ends in view I have devised the 30 book-support illustrated in the accompanying

drawings, in which—

Figure 1 is a side elevation of the device in position for use. Fig. 2 is a side view of the same removed from the shelf. Fig. 3 is a transverse section of one of the pivoted arms.

Referring to the drawings, the numeral 1 indicates a plate, which may be constructed of any suitable material and formed in any convenient shape and which, in carrying out 40 my invention, I preferably cover with felt or soft material 2 for the obvious purpose of preventing the books from being scratched or their covers in any way injured. I form upon the opposite side of said plate, near the 45 bottom and top thereof, two ears 3, and to each ear I pivot an arm 4, provided with a longitudinal groove or channel 5 for the reception of arms 6, which are guided in said grooves by metallic keepers 7, having set-50 screws 8 in their centers, adapted to be turned to adjust the arms 6 at any desired point.

having a strip of rubber, felt, or the like secured thereto, as indicated by the numeral 10, for the purpose of more firmly securing the 55 device in position upon the shelf. The upper and lower edges of the plates are provided with hooks 11 for the reception of rings at the forward ends of spiral springs 12, which have their rear ends similarly connected with 60 the arms 4, said springs being adapted to normally rock said arms upon their pivots

toward the plate.

In use, when it is desired to apply the device to a book-shelf, the free ends of the 65 crossed arms are rocked toward each other against the tension of the springs until the device can be placed between the shelves, when the pivoted shoes are rocked to proper position and brought in contact with the top 70 of one shelf and the bottom of the shelf immediately above, when said arms are allowed to be rocked upon their pivots by the springs, thus bringing the shoes in close contact with the shelves. As the shelf is filled the device 75 is moved sufficiently to permit a book to be added to the incompleted row, when the plate is again brought in contact with the cover of the book, maintaining all the books in upright position.

It is obvious that the invention herein set forth is susceptible to minor changes and modifications involving mechanical skill, which may be made within the scope of the invention without departing from the spirit 85 thereof, and changes in proportion and minor details of construction are resorted to without sacrificing any of the advantages of the invention or departing from the spirit thereof.

Having thus described the invention, what 90 I claim as new, and desire to secure by Letters

Patent, is—

1: A device of the character described, comprising a suitable plate having arms pivoted to one side near the top and bottom thereof, 95 said arms being crossed and having shoes pivoted to their free ends adapted to engage the upper side of one shelf and the under side of the shelf immediately above, means for keeping said shoes normally in engage- 100 ment with the shelves, substantially as and for the purpose set forth.

2. A device of the character described, com-Pivoted to the ends of the arms 6 are shoes 9, | prising a suitable plate adapted to engage the

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last book in an incomplete row, arms pivoted to said plate and crossing each other, said arms being provided with grooves, sliding arms in said grooves having shoes pivoted to their outer ends, said shoes being adapted to engage the upper side of one shelf and the under side of the shelf immediately above, means for securing the shoe-carrying arms in adjustable position, means for keeping said shoes in close contact with the shelves when the device is in position to support the books, substantially as and for the purpose set forth.

3. A device of the character described, comprising a suitable plate adapted to engage the last book in an incompleted row, arms pivoted to said plate and having grooves therein, extensible arms in said grooves provided at their outer ends with pivoted shoes, and

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suitable keepers spanning said grooves and having set-screws therein adapted to engage 20 the extensible arms to secure the same in any adjustable position, rings connected with the plate and having connections with the first-mentioned pivoted arms whereby said arms are rocked on their pivots toward the 25 plate and the shoes are held in close contact with the shelves when the device is in position for use, substantially as and for the purpose set forth.

In testimony whereof I have signed this 30 specification in the presence of two subscrib-

ing witnesses.

WALTER FRANKLIN FRAZEE. Witnesses:

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JOANNA JOHNSON, A. L. HOPPER.