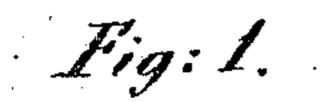
## D. J. STEIN. Book-Racks.

No. 158,751.

Patented Jan. 12, 1875.



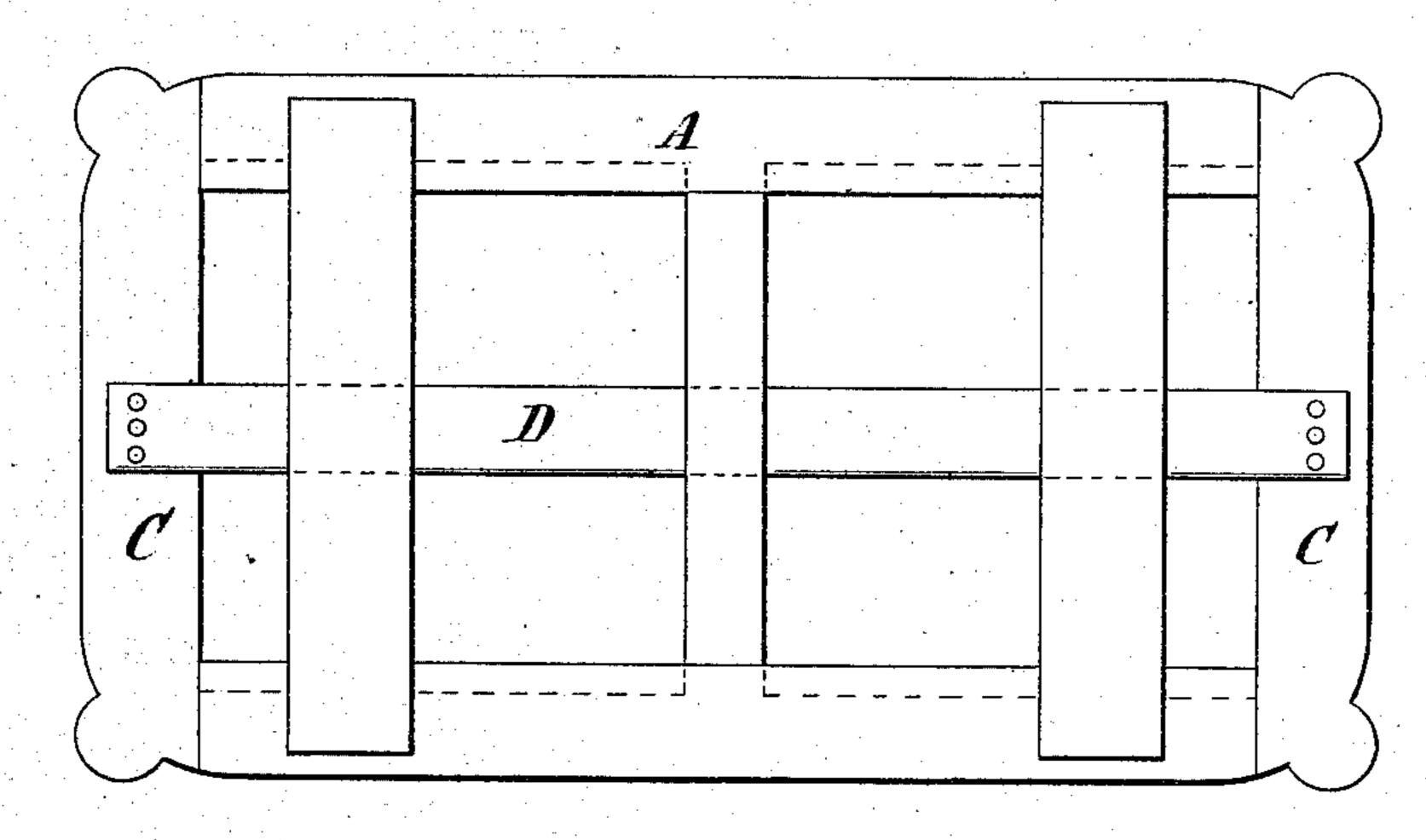
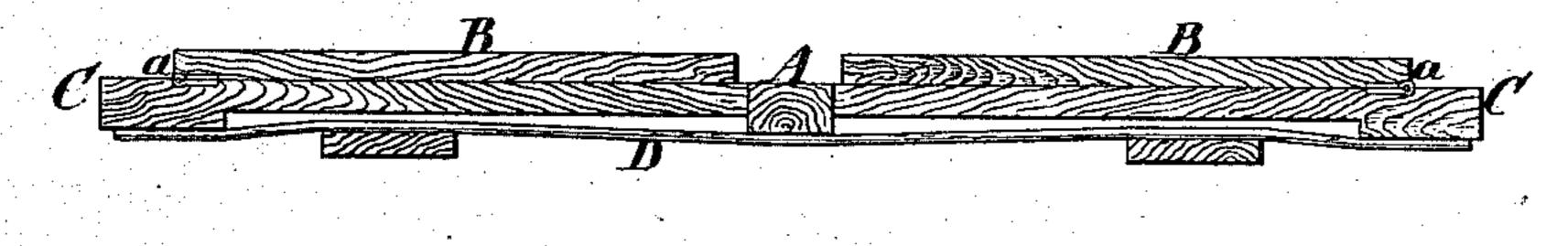
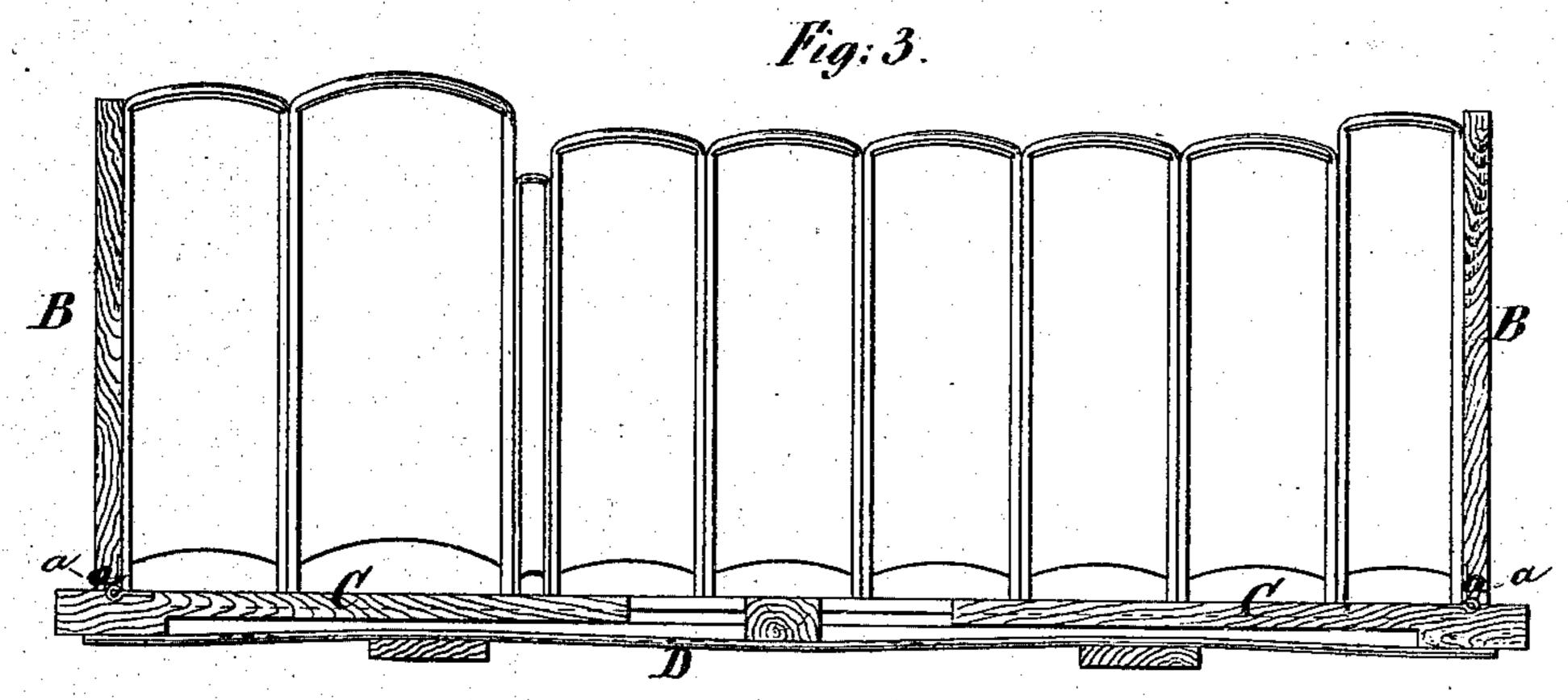


Fig: 2.





Mitnesses: Char Wahlers G. F. Kartenhuber

Inventor: David J. Stein Van Santvoord x Slauff Attent

## UNITED STATES PATENT OFFICE.

DAVID J. STEIN, OF NEW YORK, N. Y.

## IMPROVEMENT IN BOOK-RACKS.

Specification forming part of Letters Patent No. 158,751, dated January 12, 1875; application filed October 1, 1874.

To all whom it may concern:

Be it known that I, DAVID J. STEIN, of the city, county, and State of New York, have invented a certain new and useful Improvement in Book-Racks, of which the following is a specification:

This invention is illustrated in the accom-

panying drawing, in which—

Figure 1 represents an inverted plan of my rack. Fig. 2 is a longitudinal section of the same when folded up. Fig. 3 is a similar section of the same when filled with books.

Similar letters indicate corresponding parts. Heretofore self-adjusting book-racks have been constructed of a slotted frame or back with clamps rising from a base, which is made to traverse toward each other for the purpose of clamping books between them, by means of cords connected with the movable base-pieces, said cords passing around a pulley controlled by a spring. Such are complicated and costly in construction, and, further, no provision is made for extending the frame or back, it be-

ing made in one piece.

My invention consists in a rack composed of a supporting-shelf with two heads at its ends, both of said heads being provided with extension-slides, which are exposed to the action of a spring, in such a manner that the slides can be made to move beyond the shelf, so as to lengthen the same when drawn out, so that the rack accommodates itself to the number of books which it contains, and that, by the action of the spring on the extensionslides, the books contained in the rack are compressed between the heads, and by these means said books are retained in position, and prevented from dropping off accidentally.

In the drawing, the letter A designates a shelf, which is provided with two heads, B B. These heads are connected, by means of hingejoints a a, to slides C C, which are fitted into guideways in the shelf A, so that they can be drawn out or pushed in, according to the quantity of books to be received between the

heads B B, said slides serving, when drawn out, as a continuation of the shelf. Said extension-slides are connected together by a spring, D, made of india-rubber or other suitable material, which has a tendency to draw

said slides together.

By these means the slides C C can be drawn out, so that the heads B B will accommodate themselves to the quantity of books to be placed in the rack; and, by the action of the spring D, the slides are drawn toward each other, so that the books are compressed between the heads and retained in position on the rack; and, further, either head with its slide can be moved outwardly beyond the end of the frame or shelf without disturbing the other head and slide, which is, as is apparent, an important and valuable feature in a self-adjusting book-rack.

It is evident that, since the shelf has a central brace, the spring may be divided, and its free ends attached thereto, so that each slide and head will be under the action of its own

spring.

When the rack is not used the heads B B may be, when hinged upon the slide, turned down to the position shown in Fig. 2, for packing for transportation or when not desired for use.

What I claim is—

An extensible book-shelf, constructed as herein shown and described, consisting of the frame A, heads or clamps B, slides C, and spring D, said heads and slides being adapted to be moved outwardly beyond the shelf to lengthen the same, substantially as and for the purposes specified.

In testimony that I claim the foregoing, I have hereunto set my hand and seal this

29th day of September, 1874.

DAVID J. STEIN.

Witnesses:

M. SULYBACHER, W. HAUFF.