2 Sheets—Sheet 1.

D. LOTHROP.

BOX AND BOOK-SHELF.

No. 193,339. Patented July 24, 1877.

Fig 1

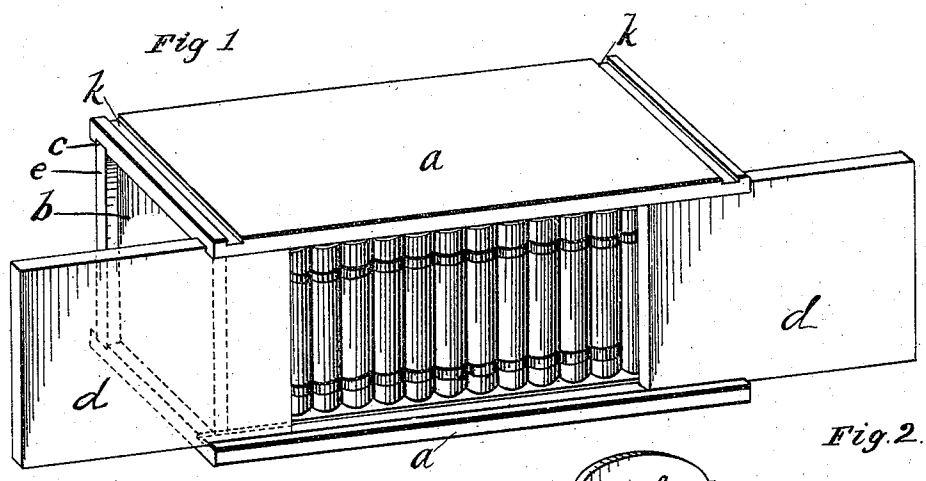


Fig. 2.

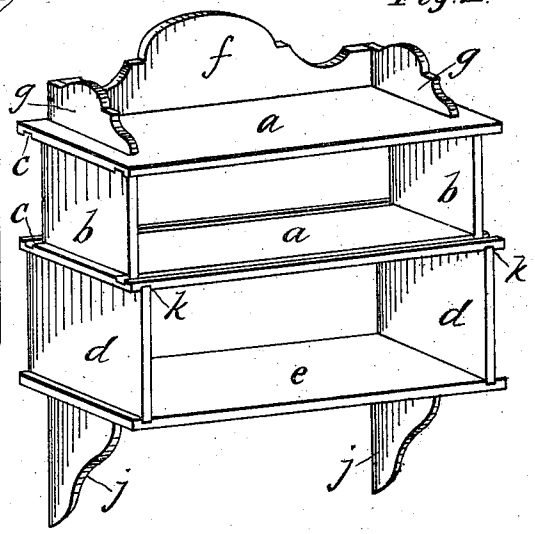
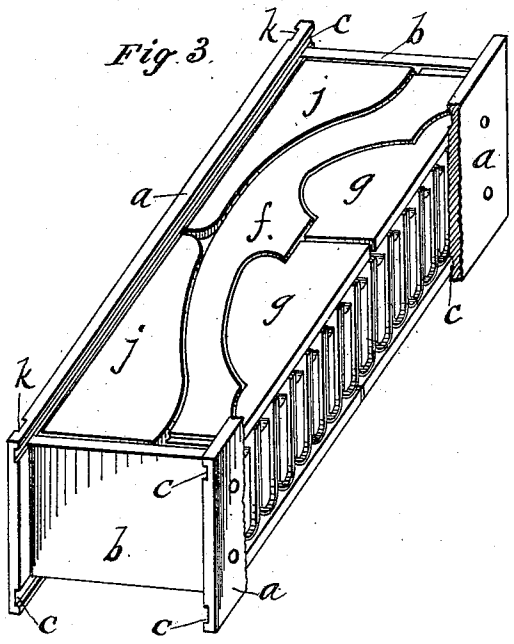


Fig. 3.



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2 Sheets—Sheet 2.

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BOX AND BOOK-SHELF.

No. 193,339. Patented July 24, 1877.

Fig. 4.

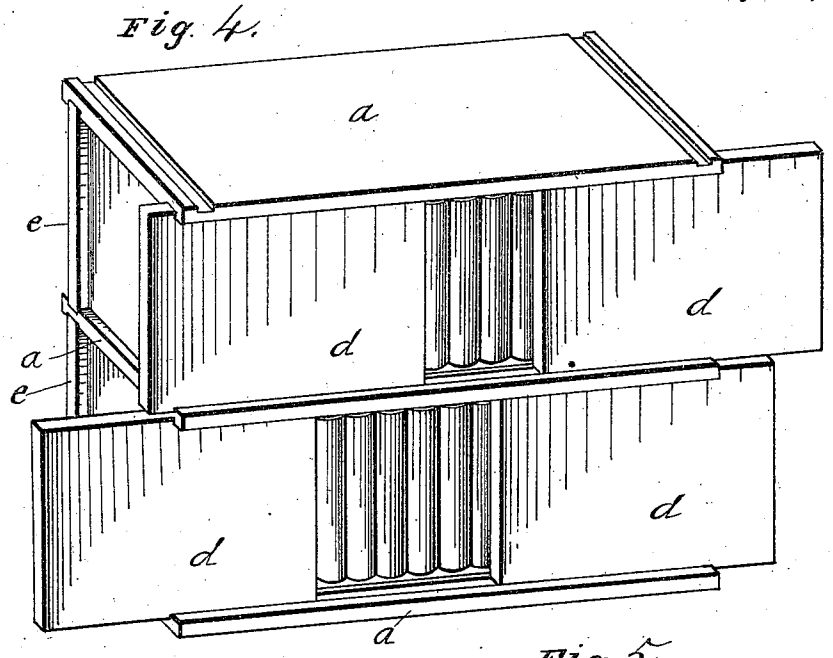


Fig. 5.

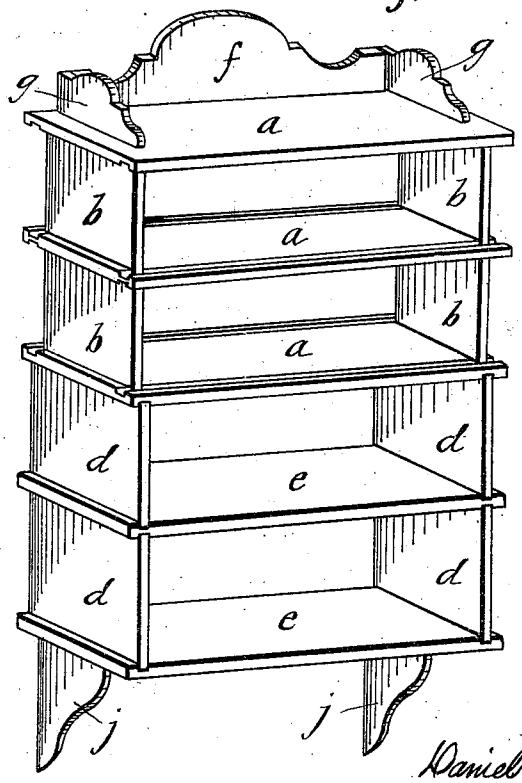
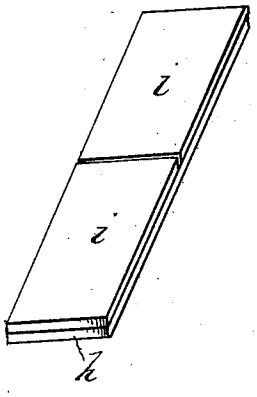


Fig. 6



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UNITED STATES PATENT OFFICE.

DANIEL LOTHROP, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN BOX AND BOOK-SHELF.

Specification forming part of Letters Patent No. **193,339**, dated July 24, 1877; application filed March 8, 1877.

To all whom it may concern:

Be it known that I, DANIEL LOTHROP, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Book Box and Rack or Shelves; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to boxes adapted for holding and sending to market a set or series of books; and consists in a special construction of such boxes, whereby they are also adapted to be readily converted into a set of ornamental book-shelves, or a book-rack capable of holding several times as many books as the box can contain.

Figure 1, Sheet 1, represents a single box made in accordance with my invention; Fig. 2, the same, turned over, the bottom being removed to show the brackets and ornamental top pieces for the shelves, and Fig. 3 these parts converted into book-shelves. Fig. 4, Sheet 2, shows a double box; Fig. 5, the same, converted into shelves, and Fig. 6 an extra shelf and its uprights.

I first put together, in any well-known manner, the two side pieces *a a* and the two end pieces *b b*, so as to compose a box having, as yet, neither top nor bottom. The side pieces overlap a little the end pieces, and such overlapping edges are each grooved longitudinally, as shown at *c c*, in order that the top and bottom pieces *d d* and *e* may be slid therein, and when so inserted in these grooves the whole forms a box closed at all sides, and adapted to contain a series or row of books, and preferably having a height of space within the box in excess of the length or height of the individual books. This surplus space affords room for placing within the box, before the books are packed therein, an ornamental back piece, *f*, and sides *g g*, for the top shelf of the book-rack, into which the box is convertible; and, if need be, it may be large enough, also, for an additional shelf, *h*, and two uprights or supports, *i*, for the same, or for a pair of brackets, *j*, on which the shelves may rest after securing such brackets to a wall of a room.

The sliding bottom *e* and one of the sides *a* have each two transverse grooves, *k k*, one near each end, and when it is desired to change the use of the article from a box to a book-rack, this bottom is withdrawn endwise from the grooves *c*, and the two top pieces *d d* are each similarly withdrawn from the grooves which held them to place, and the bottomless and topless box, being next turned upon its side, affords two shelves for books. Then, by placing the edges of the pieces *d d* in the transverse grooves *k k*, formed in one of the boards or sides *a*, and placing upon the ends of *d d* the bottom piece *e*—the grooves *k k* in which are adapted to receive their edges—a third shelf is formed, and the ornamental back piece *f* and the side pieces *g g* may now be put to place by their pins or dowels, or in any simple manner.

Brackets *j j* may accompany the box, and they and the ornamental pieces *f* and *g g* may all be given such shape and size that the whole of them may lie on the bottom or side of the box beneath the books when the box is filled and closed. (See Fig. 3.)

On the same principle of construction, and without departing at all from the essence or spirit of my invention, still another shelf and its two corresponding uprights may be employed, and they may be packed with the books within the box. In such case this supplemental shelf would be a trifle shorter and narrower than those composing the box, and the transverse grooves would be positioned accordingly. But as it is designed to send my improved book-rack and its set of books to market inclosed within a strong paper box, such as is now usually employed in the trade to contain a series of books, this supplemental shelf may be made of full length with the wooden box, and placed on top of this box when closed, and all put together within the paper box.

The box may be made double instead of single—that is, adapted for containing two distinct and separate series of books, as shown in Fig 4—the whole, except its top and bottom, being firmly fastened together. Upon turning such box upon its side and removing

its top and bottom pieces, it will be evident that the box itself affords three shelves or supports for books, and that upon putting to place thereon, in the manner above described, the two bottom pieces, and the four top or cover pieces to serve as uprights for the same, two for each shelf, there is at once produced a book-rack having five available shelves. When thus made double, one compartment, when the box is to be packed, may contain the ornamental pieces and the brackets, and the other may contain an extra shelf or uprights, or both, if desired, such as are shown in Fig. 6.

The cheapness and simplicity of this invention will allow of its being provided by the book-seller without adding to the regular price of the same books furnished in the customary paper boxes, because the usefulness of the box as a book-rack, and its durability and ornamental character, will tend to enlarge sales sufficiently to warrant its being sent as a gratuity to every purchaser of the set of books, or of any books sufficient to fill the box.

I prefer to make the whole wood-work of black-walnut, mahogany, or other neat or ornamental wood.

The uprights, or the grooves of the shelves which receive them, may have an almost imperceptible curve or a departure from a straight line, to secure a tighter fit when the uprights are inserted in such grooves, or they may be slightly dovetailed.

Cords may be used, if desired, to suspend the whole body of shelves, such cord being attached to, or passing under, that board which constitutes the lowermost shelf.

The parts *d d* and *e* may constitute the upper instead of the lower shelf or shelves.

The pieces *d d*, which form the top of the box, and also serve as uprights, when required, may each have dowels and corresponding dowel-holes in their ends, so that they may fit closely together when employed as a cover, and when used as uprights these dowels may enter corresponding holes made in that portion of the box or board which forms a shelf. This may be, instead of the transverse grooves, made to receive the uprights. Such grooves when used may be dovetailed in shape, so that the uprights may dovetail therein.

I claim—

1. The convertible box and book-rack described, having one of its sides separately removable, to form a shelf, and its opposite side composed of two pieces, *d d*, of equal length, also removable, to form uprights, these parts being adapted, in conjunction with the remainder of the box, to afford a set of book-shelves, all substantially as shown and described.

2. The convertible box and book-rack described, consisting of the sides *a a*, one or both having slots or channels *k k*, the ends *b b*, and the removable divided front *d*, the whole constructed and combined as and for the purpose set forth.

DANIEL LOTHROP.

Witnesses:
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