(No Model.) 2 Sheets—Sheet 1.

O. C. PRICE & A. BITTONG.

BOOK CASE OR STAND.

No. 414,580. Patented Nov. 5, 1889.

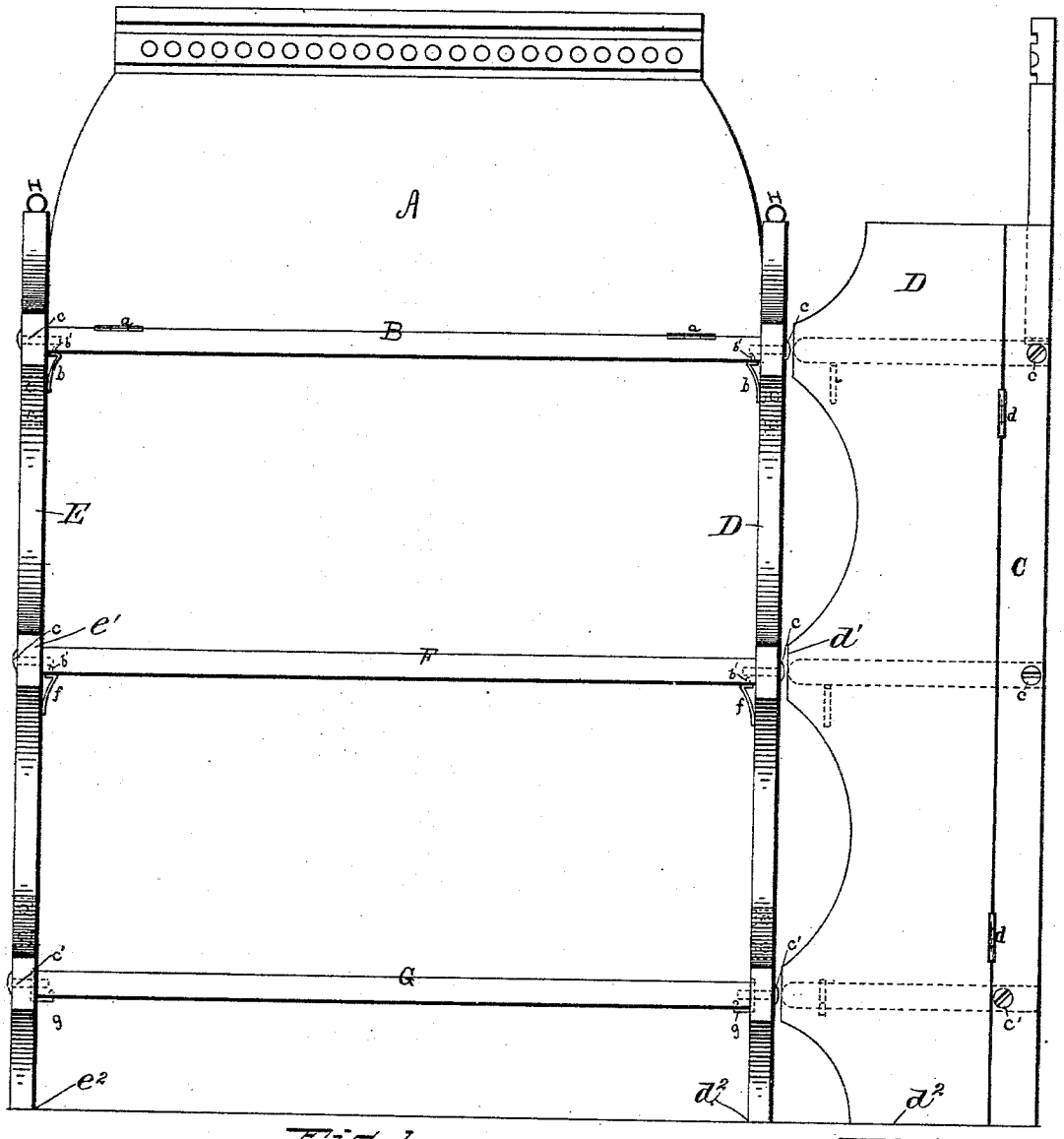


Fig. 1. Fig. 2.

WITNESSES

Jno. H. Longstreet

W. Hudson Phillips

INVENTORS

Oliver C. Price.

Arthur Bittong.

By their Attorney

William H. Powell.

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

O. C. PRICE & A. BITTONG.

BOOK CASE OR STAND.

No. 414,580. Patented Nov. 5, 1889.

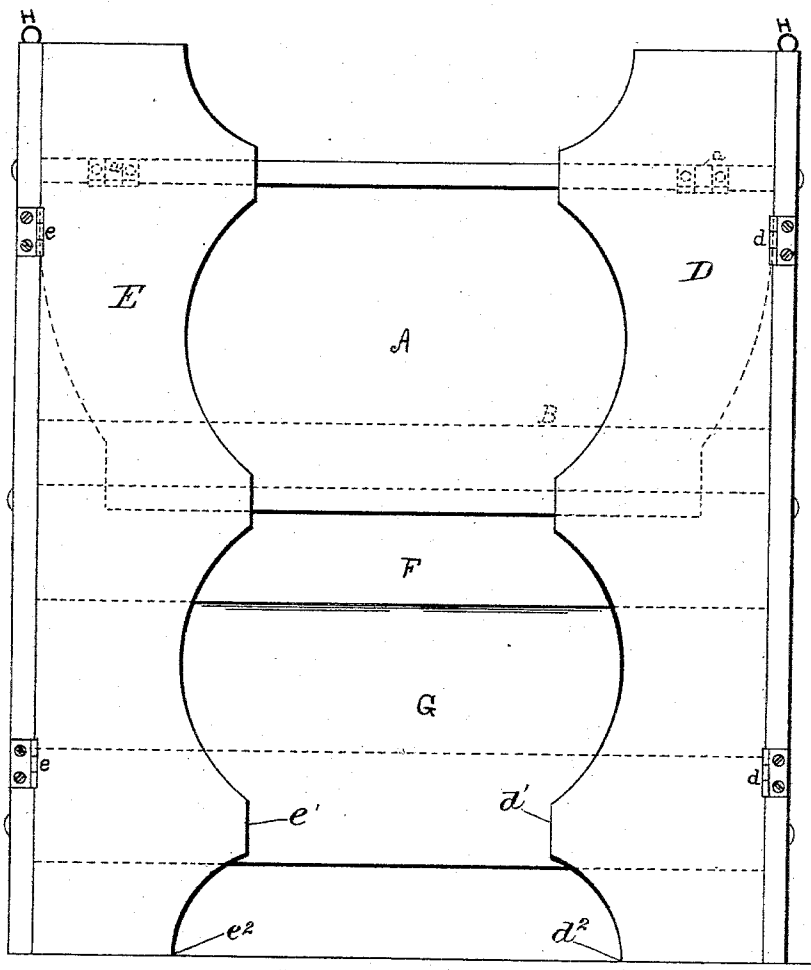


Fig. 3.

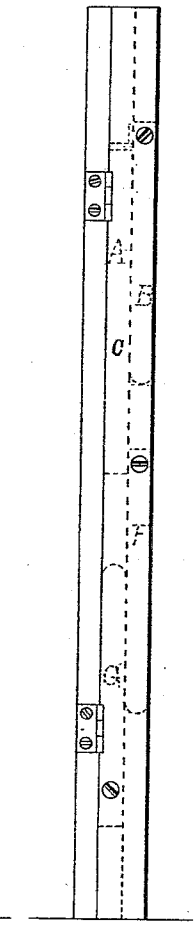


Fig. 4.

WITNESSES

Jno. H. Longstreet

W. Hudson Phillips

INVENTOR

Oliver C. Price.

Arthur Bittong.

By their Attorney

William H. Powell.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

OLIVER C. PRICE AND ARTHUR BITTONG, OF PHILADELPHIA, PENNSYLVANIA.

BOOK CASE OR STAND.

SPECIFICATION forming part of Letters Patent No. 414,580, dated November 5, 1889.

Application filed October 10, 1888. Serial No. 287,747. (No model.)

To all whom it may concern:

Be it known that we, OLIVER C. PRICE and ARTHUR BITTONG, citizens of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Book-Stands; and we do hereby declare that the following is a full, clear, and exact description of the invention, reference being had to the accompanying drawings.

Our invention has relation to folding or "knockdown" book-stands or stands for exhibiting articles of merchandise, and has for its object to simplify and cheapen the construction and increase the efficiency of such stands.

Our invention provides a construction of book-stands which will permit of their being readily folded up into a very small compass for purposes of storage or shipment and easily and quickly set up in position for use and securely held in such position without there being the slightest liability of their parts becoming displaced while in use, no matter how much load be imposed upon the shelves. All of the parts composing said stand are permanently joined together, so that none of said parts can become misplaced when the stand is folded, and the shelves are supported in such a manner when the stand is open for use that the sides of the stand cannot be forced out of place while the shelves are loaded, and when such sides are in their opened position a single movement of the shelves will bring them into their proper places and at the same time secure the sides against accidental displacement.

This stand has neither top, bottom, front, nor back, but has a "head-board," which, when the case is used to display articles of merchandise, can be used as an advertising medium.

Our invention consists in certain details of construction and in the combinations of parts, as hereinafter fully described and claimed.

Referring to the accompanying drawings, Figure 1 is a front elevation of the stand in position for use; Fig. 2, a side elevation of the same. Fig. 3 is a front elevation of the stand when folded up, and Fig. 4 an edge view of the same.

A represents the head-board, which is attached to the upper shelf B through the medium of the hinges *a*, one leaf of said hinge being secured to the shelf and the other to the head-board. Shelf B and shelf F are sustained between the long strips C C, having holes therein for the passage of the screws *c*, which enter the edges of the shelves, the heads of said screws preventing disengagement thereof with the strips and the shanks affording pivotal bearings for the shelves. The lower shelf is similarly pivoted on the screws *c'* in the strips C, which screws are nearer the front edge of said strips than screws *c*.

D and E represent the side boards, which are of substantially the same length as the strips C, but considerably wider, and are rounded at their front corners and have the square or flattened portions d' d^2 e' e^2. The portions d^2 e^2, with the flat ends of the strips C, serve as feet for the stand when opened. These side boards are secured to the strips C by means of the hinges *d* and *e*.

b b and *f f* represent catches or supports for shelves B F, made of spring metal, secured at their lower ends to the insides of side boards D E, and are bent near their upper ends, having on the upper surfaces of these bent portions the pins or bosses *b'*, which rest in sockets in the under sides of said shelves when the same are in horizontal positions.

g represents the catch or support for the lower shelf G when the same is in its horizontal position, and is in the form of an L-shaped bracket rigidly secured to each of the side boards and so located that they will pass into the recess below the inner edge of said shelf when the stand is folded, which shelf swings upwardly into its vertical position and in the reverse direction to the shelves B F. The outer or turned-up ends of these brackets rest in sockets in the under side of shelf G when the same is opened for use.

When the stand is to be unfolded from the position shown in Figs. 3 and 4, the side boards D E are swung on the hinges *d e* into positions at right angles with the shelves B F G. Shelf G is next swung downwardly on its pivots *c'* until it rests on the brackets *g*, the ends thereof being in their sockets. Then

shelves B F are swung upwardly on their pivots *c* until they reach a point slightly above the catches *b f*, when the pins *b' f'* will be free to enter the sockets in said shelves, the edges of the latter pressing the upper ends of the catches in passing into the kerfs in the side boards, shelf B carrying with it the head-board A. The shelves are now all horizontally arranged between the strips and side boards, and the latter cannot be unintentionally forced apart no matter what amount of weight is imposed on the shelves, owing to the engagement of the pins on catches *b* and the end of bracket *g* with the sockets in the shelves. With the shelves disposed horizontally head-board A will have accomplished one-half of its movement to the vertical position and rests flatly on the shelf B. A further upward movement of said head-board places it with its inner edge resting on the shelf B, where it will stand until disturbed, the hinge *a* keeping the shelf and head-board in their proper relation.

When it is desired to fold the stand, head-board A is swung on hinges *a* until it lies flat on shelf B. The latter is then slightly raised to allow disengagement of the pins *b'* with their sockets. The catches are then pressed inwardly to permit shelf B and head-board A to swing together into their vertical position. This operation is repeated with shelf F, which also swings downwardly and into a plane with and below the shelf B. Shelf G is next raised or swung on its pivots *c'* into the vertical position, resting on shelf F and in a plane with head-board A. The side boards D E are now swung on their hinges *d e* until they lie flatly on shelf G and head-board A at right angles with side strips C, said strips resting against the edges of the shelves and head-board.

If it be desired to use the stand as a hanging book shelf or rack there may be provided the eyes H, secured in the strips C for such cases.

We are aware that folding book-cases have been heretofore constructed having top, bottom, back, doors, drawers, &c., all the parts of which being permanently joined together. Therefore we do not claim such as being within the scope of our invention, our improvements pertaining to a book-stand without either top, bottom, doors, back, or drawers.

Having fully described our invention, what we claim is—

1. In a folding book-stand, the combination, with the shelves B F G, of the side boards D E, having the flat portions d^2 e^2 and attached to the strips C through the medium of hinges *d e*, said shelves swinging on the screws *c c'* in said strips and held horizontally between said strips and side boards by the catches *b f g*, as and for the purpose described.

2. In a folding book-stand, the combination of the strips C, having attached thereto by the hinges *d e* the side boards D E, with the shelves B F G, pivoted on the screws *c c'* in said strips and supported horizontally between the same and the side boards by the catches *b f g*, said screws maintaining the strips and shelves in their proper relative positions, as and for the purpose described.

3. In a folding book-stand, the combination, with the shelves B F, pivoted on screws *c* in the strips C and held horizontally between the side boards D E by the catches *b f*, said side boards being hinged at *d e* to said strips, of the shelf G, pivoted on screws *c'* in the strips C and held horizontally between said strips and side boards by the L-shaped brackets *g*, rigidly secured to the side boards, the outer ends of said brackets engaging with sockets in the under side of the shelf G, as and for the purpose described.

4. In a folding book-stand, the combination, with the shelf G, pivoted on screws *c'* in the strips C and held horizontally between the side boards D E on brackets *g*, said side boards being hinged at *d e* to said strips, of the spring-catches *b f*, secured at their lower ends to said side boards and having on their upper surfaces the pins or bosses *b'*, which engage with sockets in the under sides of shelves B F, said shelves being pivoted in said strips on the screws *c* and held horizontally between said strips and side boards by said catches, as and for the purpose described.

5. In a folding book-stand, the combination, with the shelves B F G, pivoted on screws *c c'* in the strips C, to which are hinged at *d e* the side boards D E, said shelves being supported horizontally between the strips and side boards by the catches *b f g*, of the head-board A, vertically sustained on the upper surface of the shelf B through the medium of the hinges *a*, secured to said shelf and head-board, which shelf and head-board move coincidently when the stand is folded or unfolded, as and for the purpose described.

6. In a folding book-stand, the combination of the side boards D E, attached by the hinges *d e* to the strips C, which afford bearings for the screws *c c'*, on which shelves B F G are pivoted, said shelves being supported horizontally between said strips and side boards on catches *b f* and brackets *g*, pins *b'* on said catches, and the outer ends of brackets *g* entering sockets in the under sides of said shelves, said side boards having the flat portions d^2 e^2, and shelf B, sustaining vertically the head-board A through the medium of the hinges *a* and carrying the same into its folded and unfolded positions, as and for the purpose described.

Signed this 8th day of October, A. D. 1888, at the city of Philadelphia, State of Pennsylvania.

OLIVER C. PRICE.
ARTHUR BITTONG.

Witnesses:
JNO. H. LONGSTREET,
R. DALE SPARHAWK.