P. G. TURNER.

BRACKET AND SHELF FOR LIBRARY STACKS.

APPLICATION FILED APR. 3, 1914.

1,195,295.

Patented Aug. 22, 1916.

2 SHEETS—SHEET 1.

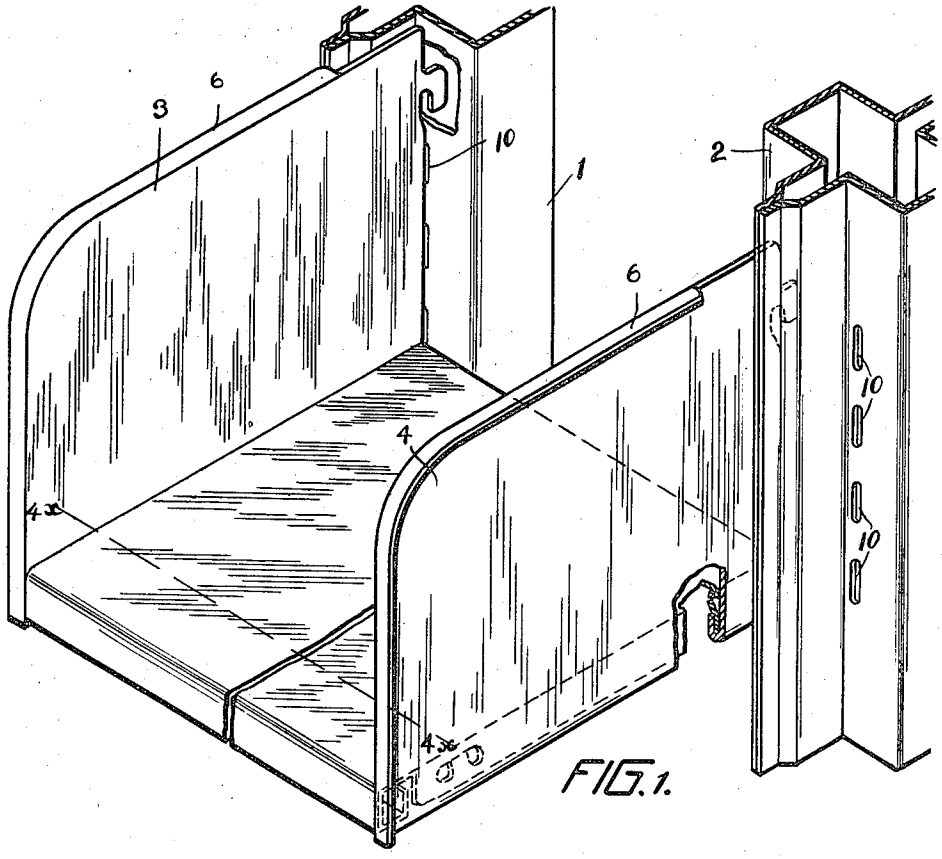


FIG. 1.

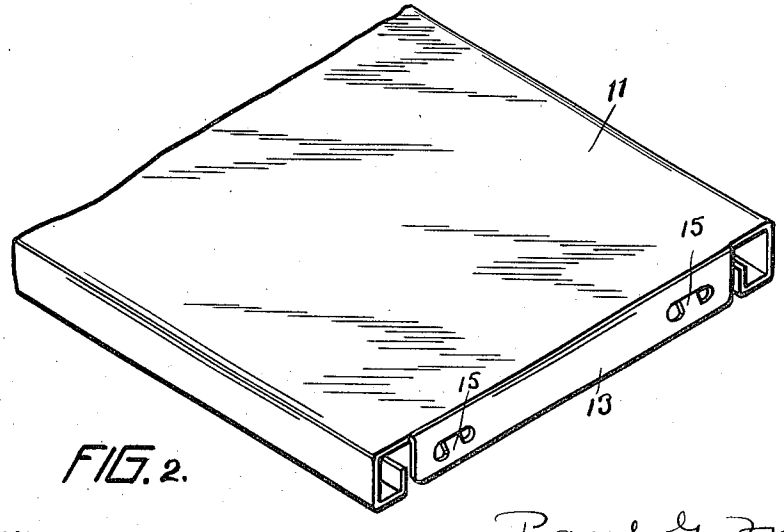


FIG. 2.

Witnesses

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2 SHEETS—SHEET 2.

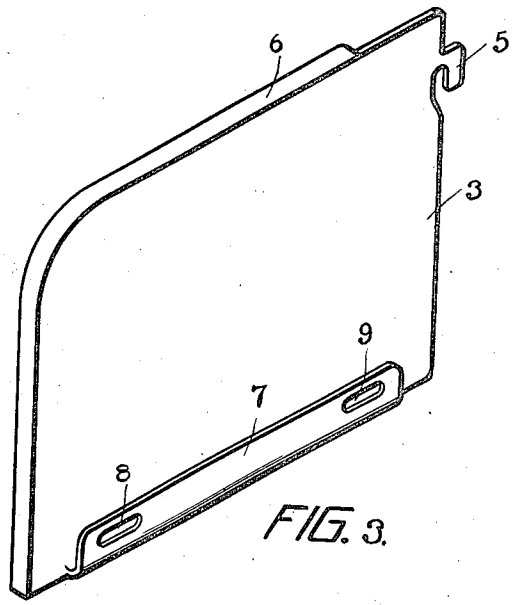


FIG. 3.

Fig. 5.

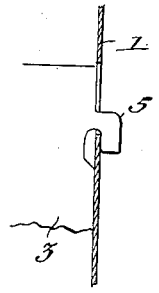
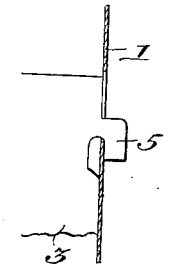


Fig. 6.



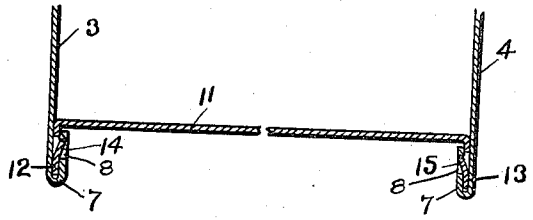


FIG. 4

Witnesses

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UNITED STATES PATENT OFFICE.

PAUL GARFIELD TURNER, OF JAMESTOWN, NEW YORK, ASSIGNOR TO ART METAL CONSTRUCTION COMPANY, OF JAMESTOWN, NEW YORK, A CORPORATION OF NEW YORK.

BRACKET AND SHELF FOR LIBRARY-STACKS.

1,195,295. Specification of Letters Patent. Patented Aug. 22, 1916.

Application filed April 3, 1914. Serial No. 829,201.

To all whom it may concern:

Be it known that I, PAUL G. TURNER, a citizen of the United States, residing at Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Brackets and Shelves for Library-Stacks, of which the following is a specification.

The object of this invention is to provide a new and improved shelf for library stacks and an improved bracket for supporting said shelf. These and other objects of my invention will be fully illustrated in the drawings, described in the specification and pointed out in the claims at the end thereof.

In the drawings, Figure 1 is a perspective view of the stack supports and bracket and shelf. Fig. 2 is a detail view of the shelf. Fig. 3 is a detail view of one of the brackets and Fig. 4 is a sectional view on the line 4×—4× of Fig. 1, showing the brackets partly broken away and the shelf. Figs. 5 and 6 are sectional views of the bracket and its hook engaged with the upright, the upright being shown in different thicknesses.

In the accompanying drawings, reference numerals 1 and 2 indicate the library stack supports.

3 and 4 indicate the brackets. These brackets are each formed with a hook 5 at the rear thereof near the top, the flange 6 by which the exposed edge is widened and the flange 7 at the bottom. The flange 7 is provided with the openings 8 and 9 therein. The bracket 3 is illustrated in Fig. 3 and it will be understood that the bracket 4 is the same as bracket 3 except that the flanges 6 and 7 extend in the reverse direction from left to right.

The uprights 1 and 2 are perforated with the openings 10, 10 with which the hooks 5 engage for the purpose of supporting the brackets 3 and 4 at any desired height.

The shelf 11 is provided with the flanges 12 and 13 on the sides thereof each of which flanges has the lugs 14 and 15 struck up therein, one of these lugs being provided for each opening 8 and 9 in flange 7 at the bottom of the brackets.

The parts are assembled as follows: The brackets 3 and 4 are hooked onto the upright supports 1 and 2 at the desired elevation and the shelf 11 is placed between the brackets 3 and 4 with its flanges 12 and 13 engaging the flange 7 on the bottom of the brackets. As the shelves are placed in position, the lugs 14 and 15 pass down and snap into the openings 8 and 9 with which they form a locked engagement holding the shelves in position. The shelves may be released and removed by pressing back the lugs 4 and 5 and raising the shelves.

As will be seen in Fig. 3 the forward edge of the hook 5 projected is slightly back of the rear edge of the bracket projected, both of which are formed out of one and the same sheet of metal. In the bracket forward of the hook is formed a recess, the lower edge of which is below the hook and inclines upward and forward. The upper part of the hook is connected to the bracket by a bridge, the lower edge of which is concave or has the shape of a curved fillet. In the rear of the bracket forward of the lower end of the hook is formed a recess, the lower edge of which starts below the hook and inclines upward and forward into the bracket. This shape of the hook and bracket gives ample clearance for the metal of the stack for all positions in which the bracket is held while being applied to the stack and, after it has been attached thereto in its final working position, makes it possible for the bracket to make a firm engagement with the upright, even though the upright is made of any one of several gages of metal. The rounded upper or forward edge of the hook will engage with the metal of the upright and will hold the hook high or low according to whether the metal of the upright is thick or thin, in either case holding the bracket firmly in place and taking up any lost motion that might otherwise exist between them and making it easy to release the bracket from the upright by simply tipping it forward at the bottom or back at the top, after which it can be removed. In this manner the bracket accommodates itself to several different thicknesses of metal in the upright and at the same time takes a firm grip thereon.

I claim:

1. In a library shelf, the combination of two brackets, flanges thereon forming a channel at the bottom of each of said brackets, slots through one of the sides of each of said channels, a shelf having a flange on each side thereof engaging said channels on said brackets, spring lugs on said flanges of said shelf to snap into said slots to hold

and lock said shelf between said brackets, the flanges on the shelf moving transversely into engagement with the channels.

2. In a library shelf the combination of two brackets, flanges forming a channel on each of said brackets at the bottom thereof, openings in said flanges, a shelf having flanges on two sides thereof engaging said channels, lugs struck up on each of said flanges of said shelf, said lugs being pressed back during the insertion of said flanges into said channels and being adapted to spring back into said openings in said channels to prevent said shelf from disengaging itself from said brackets.

3. In a library shelf construction, the combination of uprights having openings therein, brackets each having a downwardly extending hook formed integral therewith on the rear side near the top thereof to engage in an opening in said upright to support the bracket, the back of said bracket immediately in front of said hook being cut away and out of line with the back of said bracket to prevent said hook from clamping itself on said upright, said cut away portion permitting the top of said bracket to rock into said stack, permitting the hook to be readily disengaged from the stack.

4. In a library shelf construction, the combination of uprights, openings in each of said uprights, brackets each having a downwardly extending hook formed integral therewith on the rear side near the top thereof to engage in the openings in said uprights to support the bracket, the edge of the bracket opposite the lower end of said hook being upwardly inclined away from said hook, leaving a recess between the rear edge of said hook and said bracket with a curved fillet at the top connecting said bracket and hook, a shelf supported between adjacent brackets, means for locking said shelf to said brackets.

5. In a library shelf construction the combination of uprights, openings in each of said uprights, brackets each having a downwardly extending hook formed integral therewith on the rear side near the top thereof, the edge of said bracket opposite the lower end of said hook being upwardly inclined away from said hook, the inner edge of the hook being slightly projected beyond the rear edge of the bracket, said hook being shaped so as to engage in the opening in said upright and draw the top of the bracket firmly against the upright.

6. In a library shelf construction, the combination of uprights having openings therein, brackets each having a downwardly extending hook formed integral therewith on the rear side near the top thereof to engage in an opening in said upright to support the bracket, the forward edge of said hook being concaved at the top where it joins the bracket to allow the edge of the opening in the upright to engage thereon according to the thickness of the upright, holding the bracket closely to the side of the upright, the back of said bracket immediately in front of said hook being cut away and out of line with the back of said bracket to prevent said hook from clamping itself on said upright, said cut away portion permitting the top of said bracket to rock into said stack, permitting the hook to be readily disengaged from the stack.

In testimony whereof I affix my signature in presence of two witnesses.

PAUL GARFIELD TURNER.

Witnesses:
R. F. FISHER,
H. C. FOSBERG.