

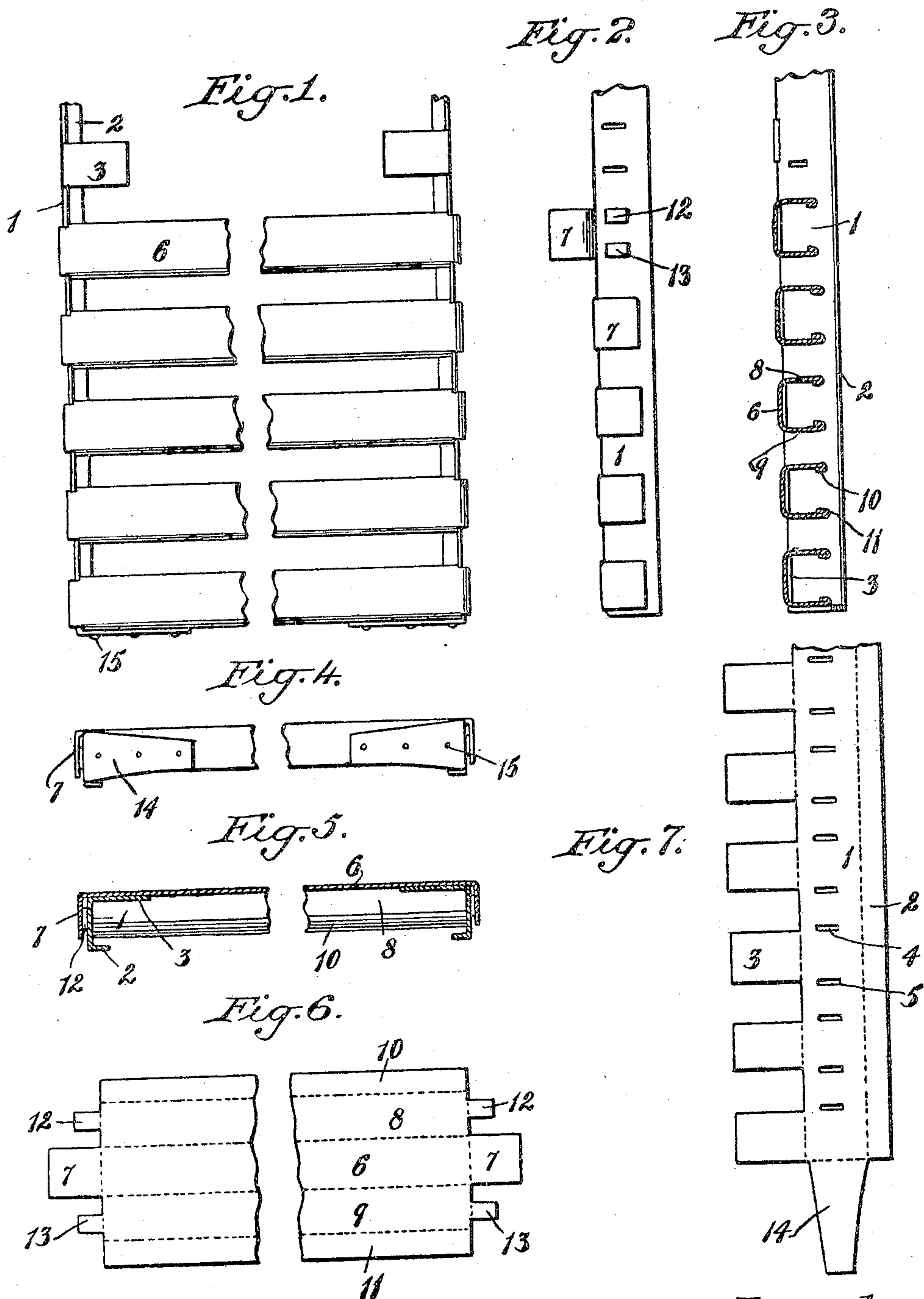
No. 798,431.

PATENTED AUG. 29, 1905.

H. P. MACDONALD.

BOOK SHELF.

APPLICATION FILED OCT. 5, 1904.



Witnesses:-  
J. S. Hachenberg.  
J. George Barry.

Inventor:-  
Harry P. Macdonald  
by attorneys  
Brown & Seward



# UNITED STATES PATENT OFFICE.

HARRY P. MACDONALD, OF JERSEY CITY, NEW JERSEY.

## BOOK-SHELF.

No. 798,431.

Specification of Letters Patent.

Patented Aug. 29, 1905.

Original application filed April 29, 1904, Serial No. 205,446. Divided and this application filed October 5, 1904. Serial No. 227,186.

*To all whom it may concern:*

Be it known that I, HARRY P. MACDONALD, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Book-Shelves, of which the following is a specification.

The object of my invention is to provide a shelf which will be extremely cheap to manufacture, in which the parts are easily assembled, and in which the arrangement of the several parts with respect to each other is such that a very strong and light shelf structure may be formed which will be capable of successfully withstanding the weight of the books placed thereon.

This present application is a division of the application filed by me on the 29th day of April, 1904, entitled "Improvement in book-shelves," its serial number being 205,446.

In the accompanying drawings, Figure 1 is a partial top plan view of the shelf. Fig. 2 is an end view. Fig. 3 is a transverse section. Fig. 4 is a side view. Fig. 5 is a longitudinal section. Fig. 6 is a partial top plan view of a blank from which one of the longitudinal bars is formed, and Fig. 7 is a partial top plan view of the blank from which one of the transverse bars is formed.

The transverse bar is formed from a blank which is so shaped that when the bar is completed it will comprise a vertical portion, an inwardly-folded lip 2, and a plurality of flaps 3, spaced apart and projecting inwardly from the upper edge of the vertical portion 1. The vertical portion 1 is provided with a plurality of pairs of vertical slits 4 5 in substantial alinement with the sides of the flaps 3.

Each longitudinal bar is formed from a blank which is so shaped that when the bar is completed it will comprise a horizontal portion 6, end flaps 7 projecting therefrom, downwardly-extended sides 8 9, upwardly-folded lips 10 11, and flaps 12 13, projecting from the ends of the sides 8 9.

In setting up the shelf structure the flaps 12 13 of the longitudinal bar are inserted through the slits 4 and 5 in the transverse bar and folded toward each other. The flaps 3 of the transverse bar extend along beneath the horizontal portion 6 of the bar, and the flap 7 of the longitudinal bar is folded down over the wings 12 and 13 along the outer face of the transverse bar. The transverse bars

are provided at their ends with tongues 14, which may be folded over the outer side of the outermost longitudinal bar and secured thereto by rivets 15 or other suitable fastening devices.

What I claim is—

1. A book-shelf comprising transverse bars and longitudinal bars, each transverse bar having a vertical portion and a plurality of flaps projecting inwardly from the upper edge of the vertical portion.

2. A book-shelf comprising transverse bars and longitudinal bars, each transverse bar having a vertical portion, an inwardly-folded lip along its lower edge and a plurality of flaps projecting inwardly from its upper edge.

3. A book-shelf comprising transverse bars and longitudinal bars, each transverse bar having a vertical portion, pairs of slits therethrough and a plurality of flaps projecting inwardly from the upper edge of the vertical portion.

4. A book-shelf comprising transverse bars and longitudinal bars, each transverse bar having a vertical portion, pairs of slits therethrough, an inwardly-folded lip along its lower edge and a plurality of flaps projecting inwardly from its upper edge.

5. A book-shelf comprising transverse bars and longitudinal bars, the transverse bars having vertical portions with pairs of slits therethrough and flaps projecting inwardly from the upper edges of the vertical portions, the longitudinal bars having downwardly-extended sides and flaps projecting therefrom inserted through the slits and folded against the vertical portions of the transverse bars.

6. A book-shelf comprising transverse bars and longitudinal bars, the transverse bars having vertical portions with pairs of slits therethrough and a plurality of flaps projecting inwardly from the upper edges of the vertical portions, the longitudinal bars having horizontal portions, downwardly-extended sides, flaps projecting from their ends through the slits in the transverse bars and flaps at the ends of the horizontal portions of the longitudinal bars folded down over the side flaps.

7. A book-shelf comprising transverse bars and longitudinal bars, the transverse bars having vertical portions with pairs of

slits therein and a plurality of flaps project-  
ing inwardly from the upper edges of the  
vertical portions and tongues at the ends of  
the vertical portions folded along the outer  
5 sides of the outermost longitudinal bars and  
secured thereto.

In testimony that I claim the foregoing as

my invention I have signed my name, in  
presence of two witnesses, this 4th day of  
October, 1904.

HARRY P. MACDONALD.

Witnesses:

FREDK. HAYNES,

F. GEORGE BARRY.