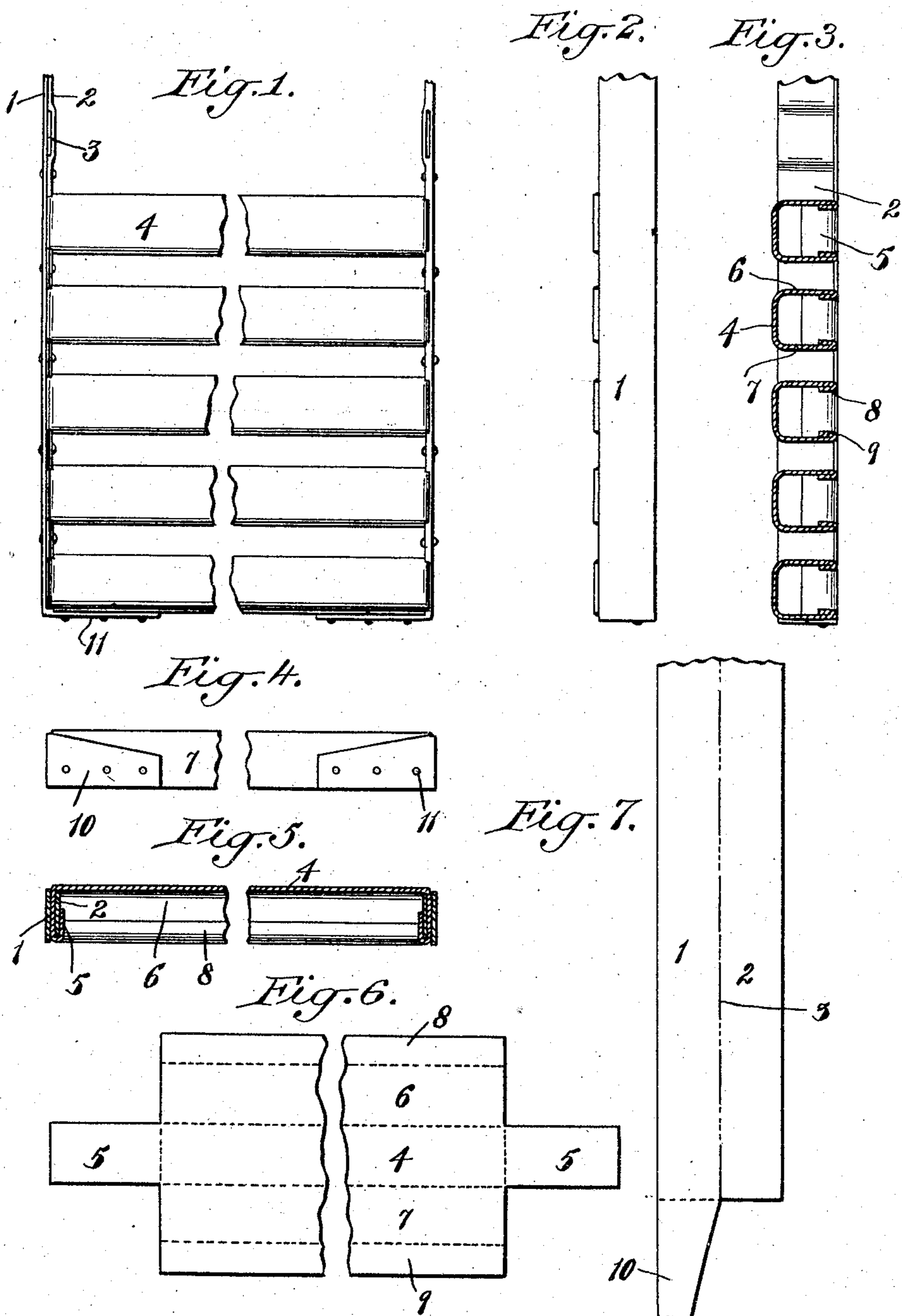


No. 791,156.

PATENTED MAY 30, 1905.

H. P. MACDONALD.
BOOK SHELF.
APPLICATION FILED OCT. 5, 1904.



Witnesses:
F. G. Hachenberg.
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UNITED STATES PATENT OFFICE.

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

BOOK-SHELF.

SPECIFICATION forming part of Letters Patent No. 791,156, dated May 30, 1905.

Original application filed April 29, 1904, Serial No. 205,446. Divided and this application filed October 5, 1904. Serial No. 227,187.

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 is capable of successfully withstanding the weight of the books placed thereon.

This present application is a division of an application filed by me 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 the 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 blank from which one of the transverse bars is formed is so shaped that when the bar is completed it will comprise two vertical portions 1 2, connected along their upper edges, a plurality of slits 3 being formed along the said connected upper edges, the said slits being spaced apart the required distance with reference to the spacing of the longitudinal bars. Each longitudinal bar is formed from a blank so shaped that when the bar is completed it will comprise a horizontal portion 4, end flaps 5 projecting therefrom, downwardly-extended sides 6 7, and upwardly-folded lips 8 9.

In setting up the shelf the end flaps 5 of the longitudinal bar is inserted downwardly through one of the slits 3, and the end of the said flap is bent upwardly a distance along the inner face of the said transverse bar.

The transverse bars are provided at their ends with tongues 10, which are folded along

the outer side of the outermost longitudinal bar and secured thereto by rivets 11 or other suitable fastening devices.

What I claim is—

1. A book-shelf comprising transverse bars and longitudinal bars, each transverse bar having outer and inner vertical portions connected at their upper edges and a plurality of slits formed through the connected upper edges.

2. A book-shelf comprising transverse bars and longitudinal bars, the transverse bars having outer and inner vertical portions connected at their upper edges and slits formed through said connected upper edges, the longitudinal bars comprising horizontal portions, downwardly-extended sides and flaps at the ends of the horizontal portion inserted downwardly through the slits into the space between the inner and outer vertical portions of the transverse bars.

3. A book-shelf comprising transverse bars, and longitudinal bars, the transverse bars having inner and outer vertical portions connected at their upper edges and a plurality of slits formed through the said connected upper edges, the longitudinal bars having horizontal portions, downwardly-extended sides and end flaps inserted downwardly through the slits into the spaces between the inner and outer vertical portions of the transverse bars and bent upwardly along the inner sides of the said bars.

4. A book-shelf comprising transverse bars and longitudinal bars, the transverse bars having inner and outer vertical portions connected at their upper edges and a plurality of slits formed through the said connected upper edges, the longitudinal bars having horizontal portions, downwardly-extended sides, upwardly-turned lips and end flaps projected downwardly through the slits into the spaces between the inner and outer portions of the transverse bars.

5. A book-shelf comprising transverse bars and longitudinal bars, the transverse bars having inner and outer vertical portions connected at their upper edges and a plurality of slits formed through the said connected upper edges, the longitudinal bars having down-

wardly-extended sides and also end flaps inserted through the slits into the spaces between the inner and outer vertical portions of the transverse bars and tongues carried by
5 the transverse bars folded along the outer 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.