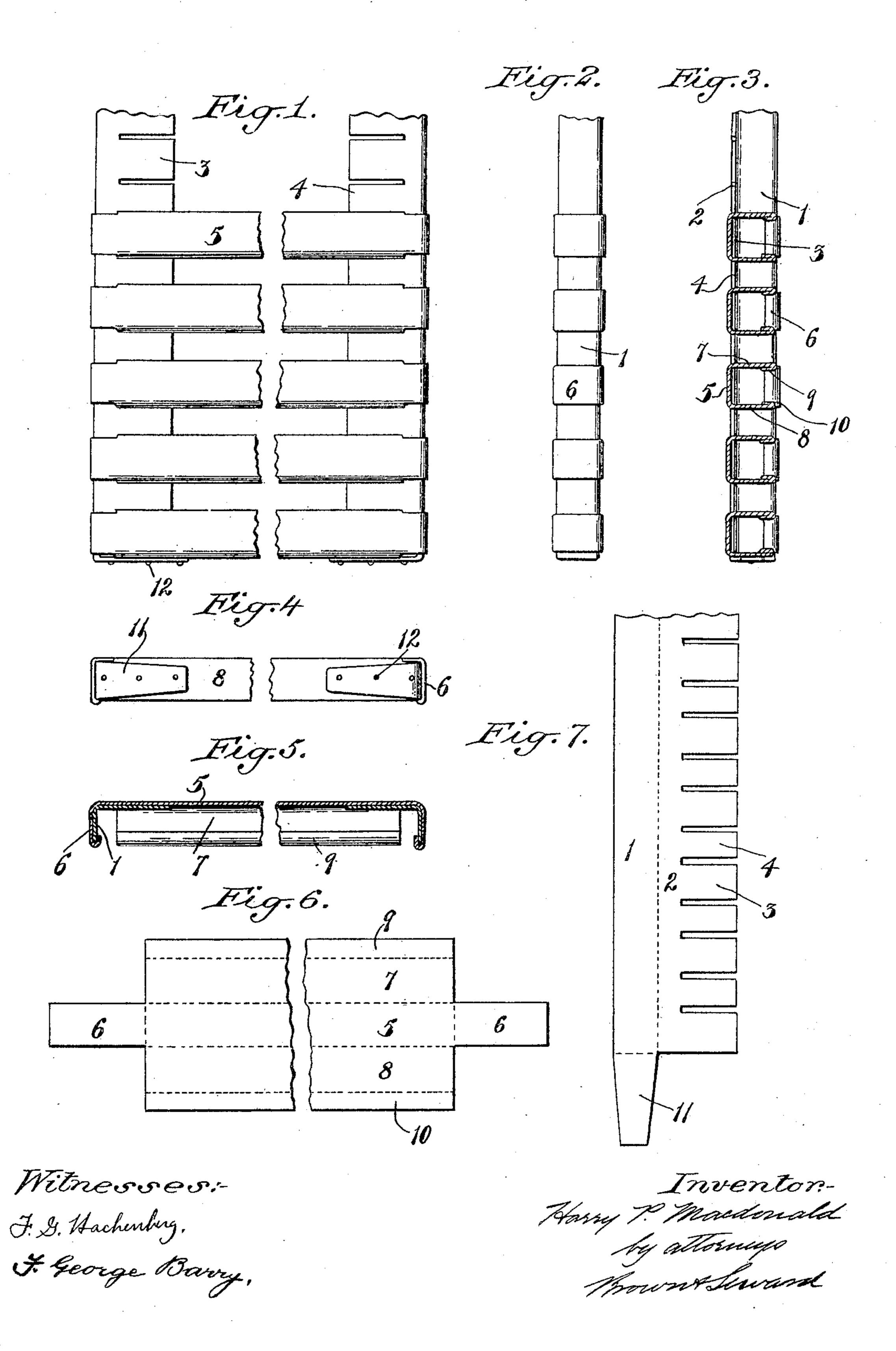
H. P. MACDONALD. BOOK SHELF.

APPLICATION FILED OCT. 5, 1904.



UNITED STATES PATENT OFFICE.

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

BOOK-SHELF.

No. 798,432.

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. 227,188.

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 this invention is to provide a shelf which will be extremely cheap to manufacture, in which the parts are readily 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.

My 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 blank from which a transverse bar is formed is so shaped that when the bar is completed it will comprise a vertical portion 1 and a horizontal portion 2, connected at the upper edge of the vertical portion, said horizontal portion having a plurality of flaps 3 alternating with a plurality of flaps 4.

Each longitudinal bar is formed from a blank which is so shaped that when the bar is completed it will comprise a horizontal portion 5, end flaps 6, depending sides 7 8, and upwardly-folded lips 9 10.

In setting up the shelf the flaps 3 are inserted within the longitudinal bars beneath their horizontal portions 5 and the flaps 4 are inserted into the space between the sides of the longitudinal bars. The end flaps 6 extend a short distance along the top portions 2 of the transverse bars and are folded downwardly along the outer sides of the same and 5° thence upwardly a short distance along the inner sides of the transverse bars. The trans-

verse bars are provided at their ends with tongues 11, which are folded along the outer side of the outermost longitudinal bars and secured thereto by rivets 12 or other suitable 55 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 horizontal portion, said horizontal portion having a plurality of flaps fitted to enter within the longitudinal bars and a plurality of flaps alternating therewith fitted to be inserted between the longitudinal bars.

2. A book-shelf comprising transverse bars and longitudinal bars, the transverse bars having vertical portions and horizontal portions, the horizontal portions having flaps entering the longitudinal bars and flaps insert- 70 ed between the longitudinal bars, the said longitudinal bars having downwardly-extended sides and also end flaps folded over the outer sides of the transverse bars.

3. A book-shelf comprising transverse bars 75 and longitudinal bars, the transverse bars having vertical portions and horizontal portions, the horizontal portions having flaps entering within the longitudinal bars and flaps inserted between the longitudinal bars, the 80 longitudinal bars having downwardly extended sides and also end flaps folded downwardly along the outer sides of the transverse bars and upwardly on the inner sides of the said transverse bars.

4. A book-shelf comprising transverse bars and longitudinal bars, the transverse bar having vertical and horizontal portions, the horizontal portions having flaps entering the longitudinal bars and flaps inserted between 90 the longitudinal bars and also tongues 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 pres- 95 ence of two witnesses, this 4th day of October, 1904.

HARRY P. MACDONALD.

Witnesses:

FREDK. HAYNES, F. GEORGE BARRY.