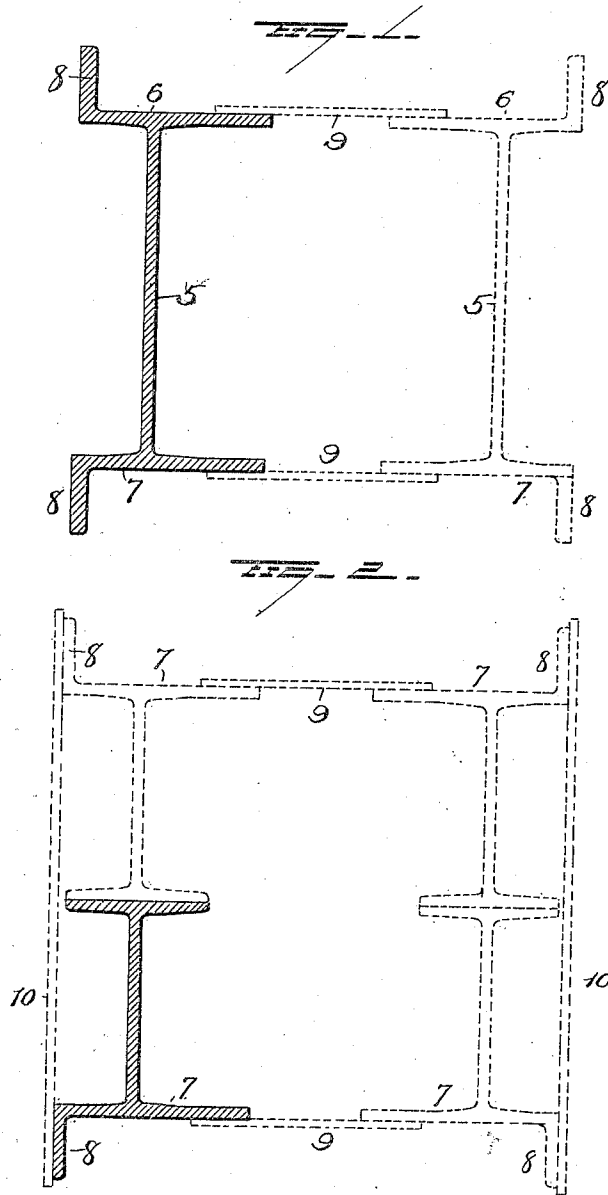


A. L. ROBERTS.
ROLLED METAL SECTION.
APPLICATION FILED NOV. 25, 1919.

1,362,438.

Patented Dec. 14, 1920.



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ALVIN L. ROBERTS, OF PHILADELPHIA, PENNSYLVANIA.

ROLLED-METAL SECTION.

1,362,438.

Specification of Letters Patent.

Patented Dec. 14, 1920.

Application filed November 25, 1919. Serial No. 340,572.

To all whom it may concern:

Be it known that I, ALVIN L. ROBERTS, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Rolled-Metal Sections; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improvement in rolled metal sections adapted particularly for built-up columns, and it consists in the detail of construction as will be more fully explained and pointed out in the claims.

In the accompanying drawings Figure 1 is a view in cross section of one of my improved shapes or sections, showing in dotted lines a built-up column made from said section, and Fig. 2 is a similar view of a modified form adapted for use in constructing larger columns.

The section comprises a web 5 with top and bottom flanges 6 and 7, the portion of the upper and lower flanges at one side of the web being straight and flat on the outer faces and the portion at the other side of the web being bent outwardly at right angles as at 8. The inner and outer faces of the straight sections of the flanges 6 and 7 are parallel for a portion of their width and then slightly thicken up as they near the web, the parallel faces particularly adapting them for the attachment thereto of plates or lattice bars 9 which may be riveted to them. When the surfaces are not parallel the heads of the rivets securing the plates to the flanges do not have solid and equal contact throughout, but with the parallel faces, the plates or lattice bars 9 have equal bearing throughout their overlapping portion, and the heads of the rivets have solid and evenly distributed bearing at all sides.

The outwardly turned or right angled flanges 8 at the outer side of the flanges add

stiffness and strength to the section, and when these shapes are united to form a column, they provide flat surfaces for the attachment of plates which add still greater strength and stiffness to the section.

In forming a column two sections shaped as described placed with their straight flanges 6 and 7 in line, are secured by plates or lattice bars 9 as shown in dotted lines in Fig. 1 and if desired they can be still further strengthened by the attachment of plates to the surfaces of the right angle flanges which are parallel to the web.

In the construction shown in Fig. 2, the flange at one edge of the web is narrower than the other, and this narrower flange is minus the right angle bend so as to permit the narrower flanges of two sections to be riveted together as shown to form a wide member, and two such wide members are united by plates or lattice work 9 as in the previous construction.

In Fig. 2 I have shown plates 10 secured to the right angle section 8 of the outer flanges 6 and 7.

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is:—

1. A rolled I-shape metal section one flange of which is bent at right angles at one side only of the web so that the outer portion of the flange is parallel with the web and the inner end at right angles to the web.

2. A rolled I-shape metal section both flanges of which are bent at right angles at one side only of the web so that the outer part of each flange is parallel to the web and the inner end of the flanges at right angles to the web.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

ALVIN L. ROBERTS.

Witnesses:

GEORGE WARD,
C. C. HARDING.