

(No Model.)

S. STUART.
CHANNEL IRON.

No. 428,291.

Patented May 20, 1890.

Fig. 1.

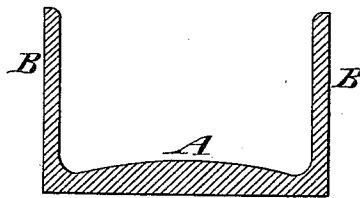


Fig. 2.

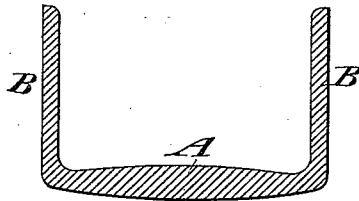
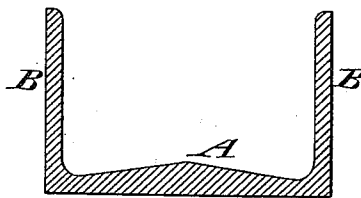


Fig. 3.



Witnesses:

O. Sundgren
W. H. Haywood

Inventor

Sinclair Stuart
by attorneys
Brown & Griswold

UNITED STATES PATENT OFFICE.

SINCLAIR STUART, OF PLAINFIELD, NEW JERSEY.

CHANNEL-IRON.

SPECIFICATION forming part of Letters Patent No. 428,291, dated May 20, 1890.

Application filed November 14, 1889. Serial No. 330,352. (No model.)

To all whom it may concern:

Be it known that I, SINCLAIR STUART, of Plainfield, in the county of Union and State of New Jersey, have invented a new and useful Improvement in Channel-Irons, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to the "channel-iron," commonly so termed, used in various engineering and other structures and which is composed of a web and two flanges projecting from opposite edges of the web. Such channel-iron has been heretofore commonly constructed with the web and flanges of uniform thickness, or, if the web has been thicker than the flanges, it has been of uniform thickness throughout its width. It is found in practice that the web of the channel-iron so constructed, especially when the web is made no thicker than the flanges, is apt to buckle or bend along the middle of its length.

The object of my invention is to give strength to the web of the channel-iron without unnecessarily increasing its weight, and to this end I make the web of greater thickness along the middle than near the flanges and than the flanges; and my improvement consists in a channel-iron having the central part of its web of greater thickness than the parts near the flanges and than the flanges themselves.

Figures 1, 2, and 3 in the drawings represent, respectively, transverse sections of three different examples of my invention.

A designates the web or back of the channel-iron, and B B designate the flanges thereof projecting from the edges of the web or back at the sides thereof. In all these examples the central part of the web or back is thicker than those parts thereof adjacent to the flanges and thicker than the flanges themselves. In Fig. 1 the outside of the web or back is flat, and the extra thickness is produced by giving the inner face a salient curvature. In Fig. 2 the greater thickness is produced by giving both the outer and inner faces of the web or back salient curvatures. In the example shown in Fig. 3 the greater thickness is produced by giving one of the faces an angular form.

What I claim as my invention, and desire to secure by Letters Patent, is—

As an article of manufacture, channel-iron the web or back of which increases in thickness from the flanges toward the central portion, substantially as set forth.

SINCLAIR STUART.

Witnesses:

FREDK. HAYNES,
GEORGE BARRY.