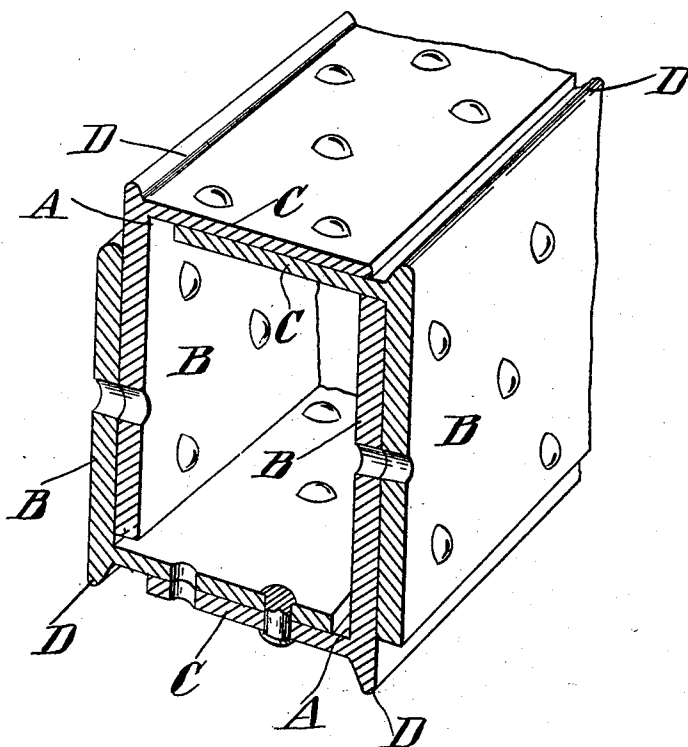


No. 742,809.

PATENTED OCT. 27, 1903.

G. A. WEBER.
COMPOSITE STRUCTURE.
APPLICATION FILED AUG. 28, 1903.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE A. WEBER, OF NEW YORK, N. Y., ASSIGNOR TO WEBER RAILWAY JOINT MANUFACTURING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF WEST VIRGINIA.

COMPOSITE STRUCTURE.

SPECIFICATION forming part of Letters Patent No. 742,809, dated October 27, 1903.

Original application filed February 10, 1903, Serial No. 142,731. Divided and this application filed August 28, 1903. Serial No. 171,089. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. WEBER, a citizen of the United States, and a resident of the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Composite Structures, of which the following is a specification, accompanied by drawing.

This invention relates to built-up metal structures, but more particularly to composite girders, such as box-girders and the like.

The objects of the invention are to improve upon the construction of such composite structures and increase their strength, with simplicity of parts.

Another object of the invention is to enable the different parts of the structure to be changed, since the girders are formed from interchangeable sections or elements.

Further objects of the invention will hereinafter appear; and to these ends the invention consists of a composite structure embodying the features of construction, combinations of elements, and arrangement of parts, substantially as hereinafter fully described and claimed in this specification and shown in the accompanying drawing, which is a perspective view, in transverse section, of a structure embodying the invention.

Referring to the drawing, it will be seen that the structure comprises a number of elements or sections. These elements are shown as angle-plates A, each comprising a base B and a flange or upright C, with a longitudinally-extending strengthening-rib or fillet D at the juncture between the flange and upright. In order to form the box-girder, the angle-plates A are shown overlapping and interlocking. The base of one angle-plate overlaps and is secured to the base of another,

while the flanges of the angle-plates overlap and are secured to each other, as by means of rivets or like devices. In this instance, as shown in the drawing, the bases of the angle-plate form the sides of the girder, while the flanges form the top and bottom of the girder. Other overlapping and interlocking arrangements of the angle-plate might be devised to form a box-girder, and therefore I do not limit the invention to the construction shown and described.

This application is a division of my copending application, Serial No. 142,731, filed February 10, 1903.

I claim and desire to obtain by Letters Patent the following:

1. A box-like beam or girder, composed of a plurality of angle-plates, each having an outside fillet or strengthening-rib, the bases and flanges of adjacent angle-plates overlapping and being suitably secured to each other by rivets or like devices, for substantially the purposes set forth.

2. A box-like beam or girder, comprising a plurality of angle-plates, each having a base, a flange, and a strengthening-rib or fillet extending along the outside of the juncture between the base and flange, the sides and ends of the box-like structure being formed by the overlapping bases and flanges of the angle-plates suitably secured together, thereby forming walls of double thickness, for substantially the purposes set forth.

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

GEORGE A. WEBER.

Witnesses:

E. VAN ZANDT,
A. L. O'BRIEN.