No. 879,905. PATENTED FEB. 25, 1908.

C. E. RHORER.

CLIP FOR STRUCTURAL IRONWORK.

APPLICATION FILED DEC. 26, 1906.

Fig. 1.

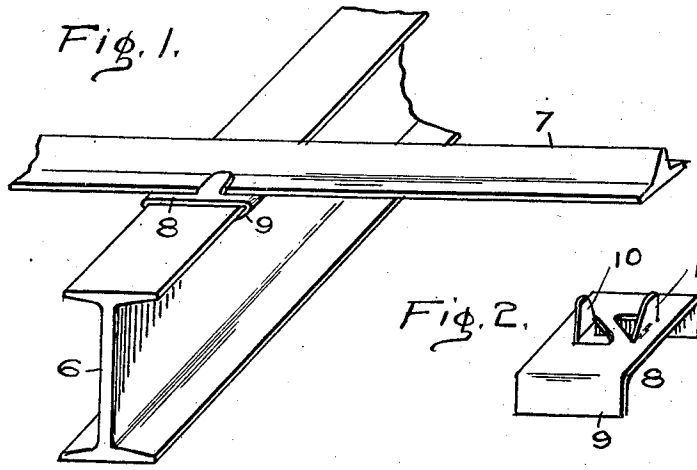


Fig. 2.

Fig. 3.

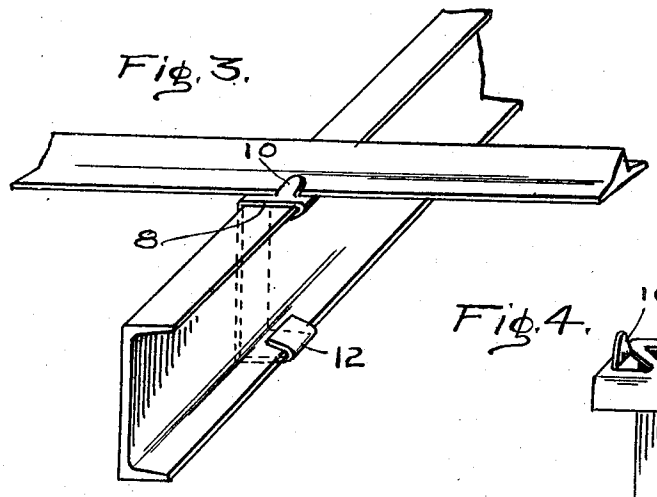
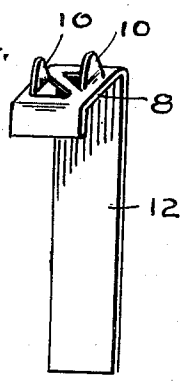


Fig. 4.



WITNESSES:

L. B. Worner

T. C. Dyne.

INVENTOR:

Chas E. Rhorer,

By Minturn & Worner,

Attorneys.

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES E. RHORER, OF COLUMBUS, INDIANA.

CLIP FOR STRUCTURAL IRONWORK.

No. 879,905. Specification of Letters Patent. Patented Feb. 25, 1908.

Application filed December 26, 1906. Serial No. 349,509.

To all whom it may concern:

Be it known that I, CHARLES E. RHORER, a citizen of the United States, residing at Columbus, in the county of Bartholomew and State of Indiana, have invented certain new and useful Improvements in Clips for Structural Ironwork, of which the following is a specification.

This invention relates to improvements in metal plates, or clips, for securing the transverse members of structural iron and steel constructions to the girders and other supporting members, and the object of the invention is to provide plates or clips which may be clamped to the girders by being bent around them, and which will have tongues punched up from the body of the plate to embrace the base-edges of the transverse members resting thereon.

I accomplish the object of the invention by the mechanism illustrated in the accompanying drawing in which—

Figure 1, is a perspective view of a transverse member fastened to an **I**-beam or girder by means of my improved clip. Fig. 2, is a perspective view of the clip shown in Fig. 1, preliminary to its application to the girder. Fig. 3, is a perspective view of a channel bar with a transverse member fastened thereto by means of a modified form of clip, and Fig. 4, is a perspective view of this modified form of clip.

Like characters of reference indicate like parts throughout the several views of the drawing.

6 represents a steel or iron **I**-beam or girder of usual construction, and 7 is a transverse member to be fastened thereto.

8 is my improved clip comprising a body or plate which rests upon and extends across the **I**-beam, with the ends 9 of said plate bent down and then back under the edges of the top flange of the beam so as to prevent the removal of the clip. Portions of the body or plate are punched up to form the two parallel tongues 10, which are separate from each other a distance equal to the width of the base of the transverse member 7. These two tongues are "staggered" that is, are placed at diagonal opposite corners of the plate in order to tighten the clip on the transverse member and **I**-beam by bending the tongues down upon the base flanges of the transverse member. This is due to the staggered or diagonal arrangement of the tongues which cants the clip so as to cause it to bind. After the clip is fastened to the beam or girder 6, by clamping its ends around the top of the beam as shown, the transverse member is laid between the tongues of the clip and is secured in that position by bending the tongues towards each other so as to embrace the base-edge of the transverse member as shown.

In applying the invention to other forms of girders, such as the channel-bar shown in Fig. 3, the end 12, of the plate is extended down at right angles to the bottom of the girder and then horizontally to the edge of the lower flange and then it is bent around the latter in a manner as shown. In other respects this clip is the same as the one used in the construction shown in Fig. 1. Other modifications along this line may be necessary to adapt my improved clip to different forms of girders, and I do not desire to limit my invention to the exact form shown, but

What I claim as new and wish to secure by Letters Patent of the United States is—

The combination with a girder and a member transverse thereto, of a clip for attaching the transverse member to said girder, said clip comprising a plate laid between the transverse member and the girder, having tongues struck out and upright from the body of the plate, said tongues being adapted to be struck down upon the flanges of the transverse member and thereby place the plate adjacent to the base of said tongue additionally in tension, the ends of said plate being extended and bent around the girder to embrace the latter and lock the clip thereto.

In witness whereof, I, have hereunto set my hand and seal at Indianapolis, Indiana, this 18th day of December, A. D. one thousand nine hundred and six.

CHARLES E. RHORER. [L. S.]

Witnesses:

J. A. MINTURN,

J. F. HUTCHINGS.