

(No Model.)

G. H. REYNOLDS.
T MERCHANT BAR.

No. 497,253.

Patented May 9, 1893.

Fig. 1.

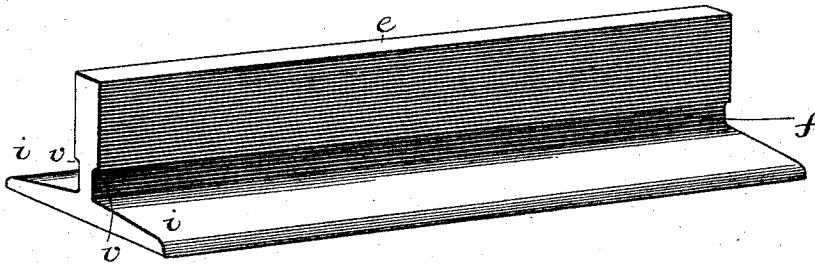


Fig. 4.



Fig. 2.

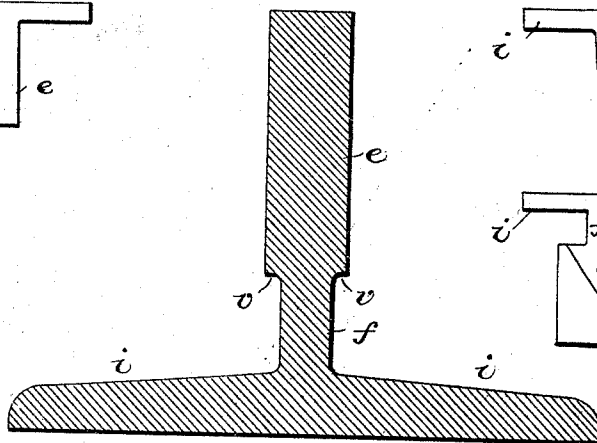


Fig. 5.

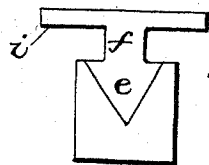
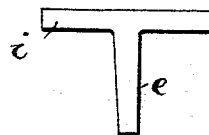
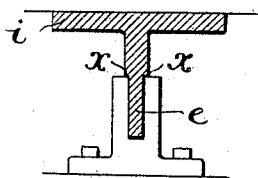


Fig. 3.

Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE H. REYNOLDS, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE NATIONAL COMPANY, OF CHICAGO, ILLINOIS.

T MERCHANT-BAR.

SPECIFICATION forming part of Letters Patent No. 497,253, dated May 9, 1893.

Application filed December 14, 1892. Serial No. 455,162. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. REYNOLDS, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in T Merchant-Bars, of which the following is a specification.

My invention is an improvement in bars of merchant iron of T form in cross-section, and my invention consists in the features of novelty hereinafter fully pointed out and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a T-bar embodying my improvement. Fig. 2 is a cross-section thereof enlarged. Fig. 3 illustrates a somewhat different form of my improved bar. Figs. 4 and 5 are end views of the usual forms of T-bars now upon the market; and Fig. 6 is a cross-section.

Bars of merchant iron of T form in cross-section as usually made and found upon the market, have the cross sectional forms illustrated in Fig. 4 or in Fig. 5, and are serviceable in such shapes for many purposes; but when such bars are to be applied as guides for cross-heads or elevator cages and other similar purposes, it is necessary to plane down the sides of the web *e*, to fit the groove of the guide and to secure absolutely parallel smooth faces, and this planing results in forming shoulders *x, x*, Fig. 6, upon the web which are sometimes objectionable as unduly limiting the play of the part that slides upon the web, or creating friction when the said part moves in contact with said shoulders, while a further objection is, that the entire angle bar must be heavier than is actually needed in order that the web *e*, after being planed or worn down to the requisite size, may be of sufficient strength. In order to overcome these objections, I construct the T-bar with a base, a web having a thick head and thinner intermediate part, as illustrated in perspective in Fig. 1, and in cross-section in Fig. 2, or that shown in section Fig. 3. The base has one or two side flanges *i, i*, as usual and with a web *e*, which instead of being of uniform thickness throughout or thicker at the base than at the extreme edge, is thickened at the outer portion thereby forming a

narrow connecting part *f* with shoulders *v, v*, separating the thickened portion or head from the thinner portion of the web, as shown in Figs. 1 and 2; where the head bearing has to be angular, the sides of the head form a V as shown in Fig. 3. By thus forming the bar with a thick head and thinner part *f*, I secure a sufficient body of material at the head to permit this portion to be planed down at opposite sides to the extent required in order to properly fit the guide, and to afford sufficient thickness after much wear. At the same time there are no shoulders against which the edge of the guide can abut, while a thinner portion of the web is in no way reduced in thickness, so that it is possible to use a much lighter bar than would otherwise be required. In other cases where it is necessary to slot the web, the increased thickness at the outer portion permits said slot to be made without unduly weakening the web.

I am aware that bars of T iron have had at the end of the central portion or web, side flanges which thicken said web for a small proportion of its depth to add to the rigidity of the same. Such a structure would not afford the requisite bearings for an elevator guide where it is essential to secure bearings on the main body of the web. I have therefore made the web with a thickened head constituting the major part of the web, which part is connected to the bars by a short neck *f*.

Without limiting myself to the precise proportions and configurations shown, I claim—

1. As a new article of manufacture, a T-bar of merchant iron having base flanges, and a central web at right angles thereto, with a thickened head *e*, constituting the main body of the web, and a short narrower neck *f*, substantially as described.

2. As a new article of manufacture, a bar of merchant iron having a base and a thick V-shaped head, and narrower connecting part *f*, substantially as described.

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

GEO. H. REYNOLDS.

Witnesses:

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F. L. FREEMAN.