

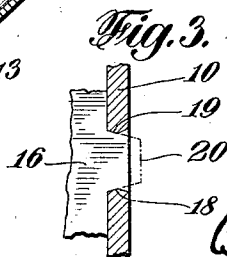
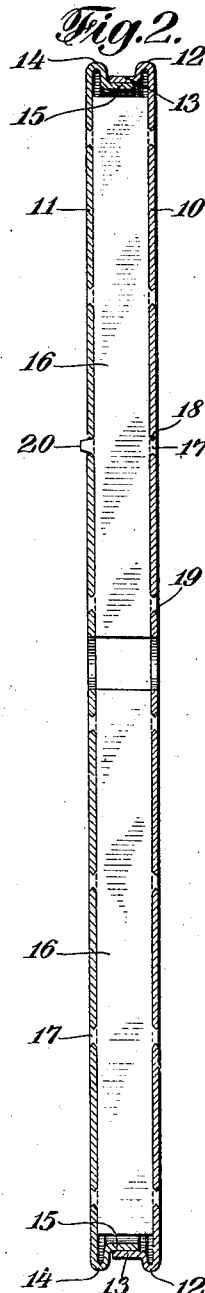
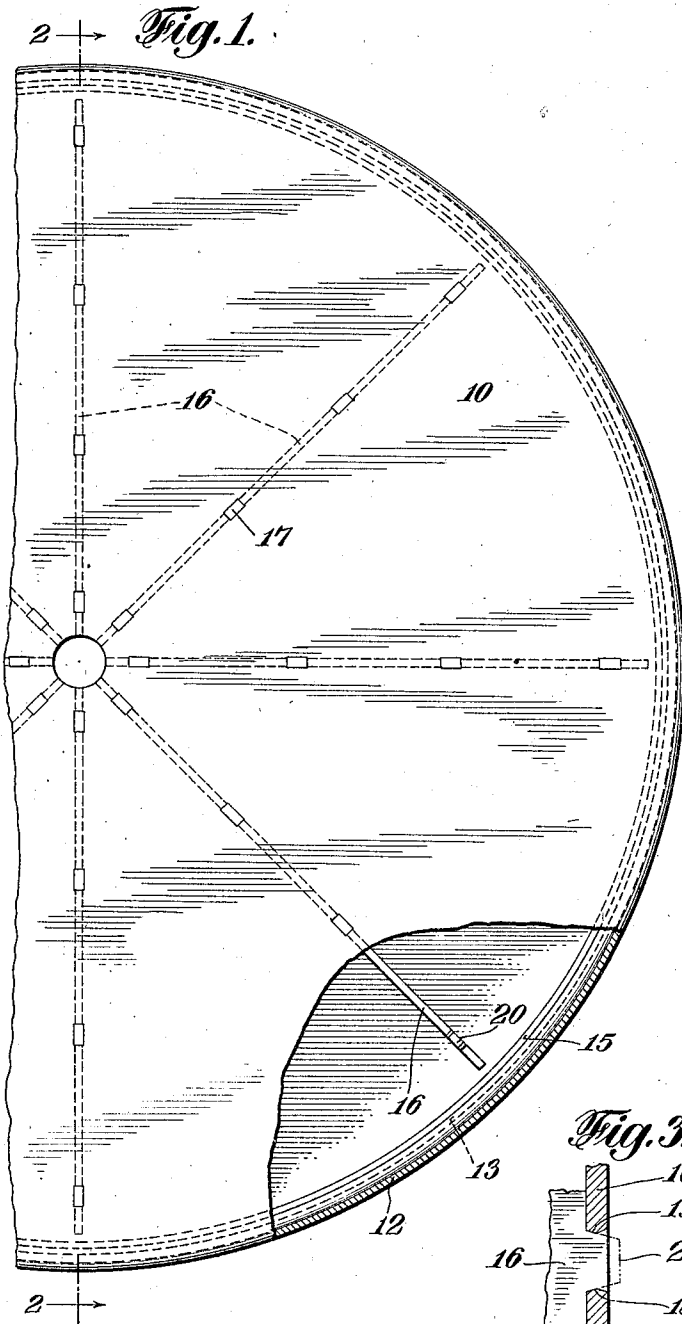
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HEAD CONSTRUCTION FOR BEAMS AND THE LIKE

Filed April 26, 1921



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UNITED STATES PATENT OFFICE.

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HEAD CONSTRUCTION FOR BEAMS AND THE LIKE.

Application filed April 26, 1921. Serial No. 464,758.

To all whom it may concern:

Be it known that I, WALTER I. TUTTLE, a citizen of the United States, and a resident of Providence, in the county of Providence and State of Rhode Island, have invented an Improvement in Head Constructions for Beams and the like, of which the following is a specification.

This invention relates to beams and the like. One of the objects thereof is to provide a simple and practical construction of the above nature which shall be well adapted to meet the conditions of hard practical use. Other objects are to provide constructions of the above nature which shall be light and yet strong and rigid to a marked degree and which shall be conveniently and cheaply manufactured. Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements and arrangement of parts which will be exemplified in the structure hereinafter described and the scope of the application of which will be indicated in the following claims.

In the accompanying drawing in which is shown one of various possible embodiments of this invention,

Figure 1 is a side elevation of a portion of a beam head, certain parts being broken away in order to show the construction more clearly;

Figure 2 is a sectional view taken substantially on the line 2—2 of Figure 1; and

Figure 3 is a detail view of a connection between certain of the parts.

Similar reference characters refer to similar parts throughout the several views of the drawing.

Referring now to the diametrical section through the head portion in Figure 2, it will be seen that this element comprises primarily a pair of sheet metal head members 10 and 11 of similar conformation. These members are stamped out of sheet metal of suitable thickness in circular form. Referring first to the member 10, it is forced inwardly at its outer edge to provide the projecting bend 12 and thence in a direction parallel to the axis to form an annular flange 13. The member 11 is similarly formed to provide the bend or fold 14 and the flange 15 of slightly smaller diameter than the flange 13 so as to

fit snugly within the same as shown in the drawing. These flanges may if desired be spot welded one to another or held together by the means hereinafter set forth.

The members 10 and 11 formed as above provide a light hollow head of considerable strength but in order to stiffen the same and gain other advantages, a number of radially disposed webs 16 are fitted therein. These webs which are substantially identical one with another are here shown as eight in number, spaced at equal angles about the head. Each web or stiffener 16 is provided with a number of spaced lugs 17 on its outer edges which fit in openings 18 stamped in the head members 10 and 11. These openings are countersunk on both sides as shown at 19 in the drawing, and the projections or lugs 17 in their original form as stamped integral with the member 16, are slightly tapered in shape as shown in dotted lines at 20. The taper thus given causes them to fit snugly in the countersinking at the inner side of the members 10 and 11 and as the outwardly extending portion of the lugs is headed down, it fits in the outer countersinking and thus results in a connection having a high degree of security. This action is best illustrated in the view given in Figure 3 of the drawing.

With the parts thus assembled and secured together, it will be seen that the outwardly extending webs prevent collapse or bending of the hollow head and greatly increase its strength without materially adding to its weight. It will also be seen that the inward depression formed by the flanges 13 and 15 with respect to the folds 12 and 13 provides a belt-race by which the head and parts secured thereto may be driven, the outwardly projecting folds acting as guides for the belt.

It may here be noted that terms of the nature of "inward" and "outward" are used to designate directions with respect to the longitudinal center of the axis of the head.

As various possible embodiments might be made of the above invention and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

I claim as my invention:—

1. In head construction for beams and the

like, in combination, a sheet metal head member and a plurality of stiffening members extending outwardly in a substantially radial direction and secured to said sheet metal head member by means of spaced lugs passing therethrough and headed.

2. In head construction for beams and the like, in combination, a pair of metal head members, and interposed spacing members between said head members extending outwardly in substantially radial directions and secured to said head members, at least one of said head members having an exterior face presenting a surface extending wholly within a single plane.

3. In head construction for beams and the like, in combination, a pair of sheet metal head members, the outer portion of each of which is laterally extended and secured to the other, and a plurality of substantially radial spacing members interposed between said head members and secured to each of the same by means of spaced lugs passing therethrough and offset to hold them in position.

4. In head construction for beams and the like, in combination, a pair of sheet metal head members, the outer portion of each of which is laterally extended and secured to the other, and a plurality of substantially radial spacing members interposed between said head members and secured to each of

the same by means of spaced lugs passing therethrough and offset to hold them in position, the edge portions of said head members being depressed toward the axis of the head to form a belt-race.

5. In head construction for beams and the like, in combination, a pair of spaced sheet metal head members secured together adjacent their peripheries and radial stiffening members interposed therebetween and secured to the face of one of said sheet metal members, at least one of said head members having an exterior face presenting a surface extending wholly within a single plane.

6. In head construction for beams and the like, in combination, a pair of spaced sheet metal head members, stiffening members therebetween, and means connected to said stiffening members and passing through said sheet metal head members to hold said stiffening members in position therebetween.

7. In head construction for beams and the like, in combination, a pair of spaced sheet metal head members and stiffening members interposed between said head members and secured thereto by means of spaced lugs passing through said sheet metal head members and offset to hold them in position.

In testimony whereof, I have signed my name to this specification this 22nd day of March, 1921.

WALTER I. TUTTLE.