

W. I. TUTTLE.
REEL CONSTRUCTION.
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1,307,526.

Patented June 24, 1919.

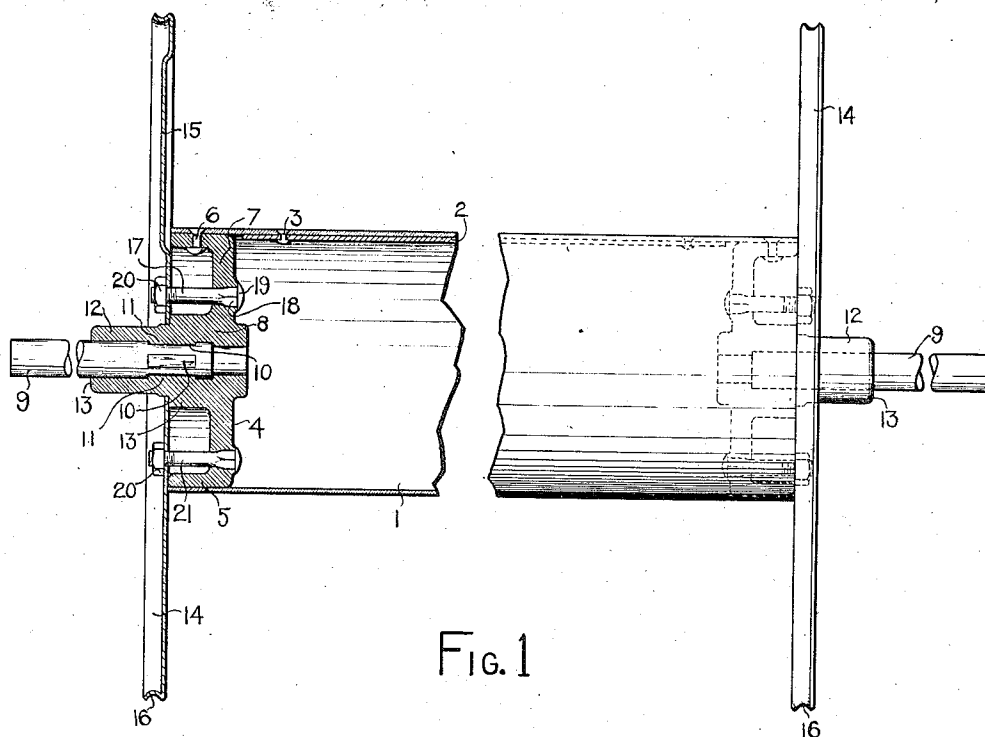


FIG. 1

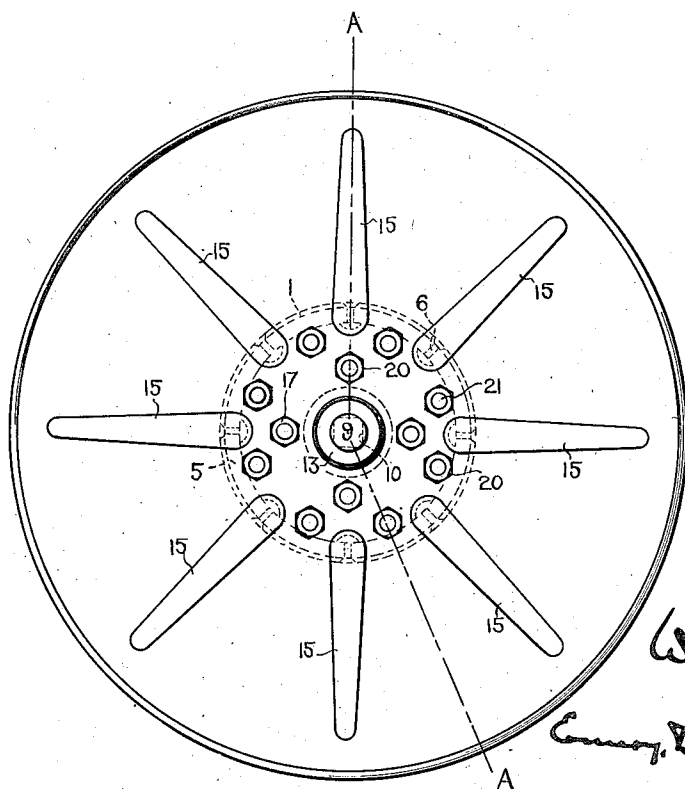


FIG. 2

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WALTER I. TUTTLE, OF PROVIDENCE, RHODE ISLAND.

REEL CONSTRUCTION.

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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 Reel Construction, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to reel or beam construction. One of the objects thereof is to provide a simple and practical reel or beam of efficient action. Another object is to provide a device of the above type of light, rigid and durable construction. 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 thereof partially in section along the line A—A of Fig. 2;

Fig. 2 is an end view of the device shown in Fig. 1.

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

Referring now to Fig. 1 of the drawing, there is shown a reel, and it may be here noted that the term "reel" is used in a broad sense to comprehend any device of like general nature. This reel comprises a metal barrel or hub 1 preferably formed by forcing it into cylindrical shape and connecting the meeting edges into a butt joint by means of the strip 2 held to each edge as by the rivets 3 or by welding the edges.

Fitted within each end of the hub 1 is a support 4 preferably provided with flanges 5 secured to the end of the hub as by countersunk rivets 6 or other suitable retaining devices. The flanges 5 are connected as by a suitable web 7 with the body portion 8. The latter part is provided with a trunnion or shaft 9. This trunnion although it may removably interlock with the member 4 in so far as certain broad features of this in-

vention are concerned, is preferably provided with recesses or other irregularities 10 cut into its surface and the member 4 cast about the trunnion using the latter as a core. The metal of the member 4 will thus enter the recesses 10 as indicated at 11 and irremovably interlock therewith as it shrinks into place, thus providing a joint which is strong and rigid to the highest degree. The body portion of the support 4 is provided with an outward annular extension 12 which forms a shoulder 13 to limit the endwise movement of the trunnions 9 in bearings with certain uses of the reel.

The member 4 is also shaped to form a shoulder 13 against which rests a head member 14 provided with a central opening which fits about the part 12. The head 14 also rests against the flanges 5 and 6 of the barrel to form a rigid support and thence extends outwardly stiffened as by the radial ribs 15 which are stamped therein. The outer edge of the metallic head is preferably shaped into a concave flange 16 to form a suitable belt race by which the reel may be driven.

The head is held in position by means of two sets of bolts, the inner set of which comprises bolts 17 each preferably having a squared portion 18 adjacent their heads 19 which is forced into the metal of the web 7. These bolts are held in position as by means of nuts 20. The outer set of bolts 21 is similar in form to the bolts 17 and result in the entire head being securely held in place even under the most severe conditions of use. This firm interlocking support of the head, moreover, with respect to the remaining parts of the reel, permits relatively light metal to be employed even though power is transmitted therethrough from the belt race 16.

It is to be understood that the construction at the opposite end of the reel is substantially identical in form and function with that already described, and it may also be noted for the sake of clearness that the term "hub" is used in a broad sense to denote the body portion of a reel or beam beyond which the head portions extend in a radial direction, and that the term "head" is also used with a broad meaning.

The method of assembling the above device and its manner of use will probably be clear from the above description and it will be seen that there is here provided a

light, rigid and essentially practical reel or beam in which the objects of this invention are achieved.

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.

What I claim is:

1. In reel construction, in combination, a sheet metal hub, a member fitted within one end of said hub, and having its outer portion substantially flush with the end thereof, and a central portion extending outwardly beyond said end, means securing said member within said hub, a head having its side resting against said member adjacent its axis and at the outer portions thereof, and longitudinal retaining means holding the said head to said member, said member being provided with means mounting it for rotary movement.

2. In reel construction, in combination, a hub, supporting means fitted within the end of said hub and secured thereto, said supporting means comprising an outward extension of reduced diameter adapted to form a stop shoulder, and a further outward extension of further reduced diameter adapted to mount the same for rotary movement.

3. In reel construction, in combination, a sheet metal hub, a member fitted within the end of said hub comprising an outer flange

which rests against the hub, a central body portion extending outwardly beyond the hub, and a connecting web, retaining means securing said flange to the end of said hub, a trunnion extending outwardly beyond the said extension of said member, a sheet metal head fitted about the extension of said member and resting against said member adjacent its axis and adjacent the end of said hub, and longitudinal retaining means securing said head to said member.

4. In reel construction, in combination, a sheet metal hub, a member fitted within the end of said hub comprising an outer flange which rests against the hub, a central body portion extending outwardly beyond the hub, and a connecting web, retaining means securing said flange to the end of said hub, a trunnion extending outwardly beyond the said extension of said member, a sheet metal head fitted about the extension of said member and resting against said member adjacent its axis and adjacent the end of said hub, and longitudinal retaining means securing said head to said member, said head member being formed of sheet metal having radial depressions extending inwardly beyond the outer portion of the member fitted within the hub.

In witness whereof, I have signed my name to this specification.

WALTER I. TUTTLE.

Witnesses:

MILDRED P. ALBRO,
J. W. MONEY.