

F. MOSSBERG.

BEAM HEAD.

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1,380,671.

Patented June 7, 1921.

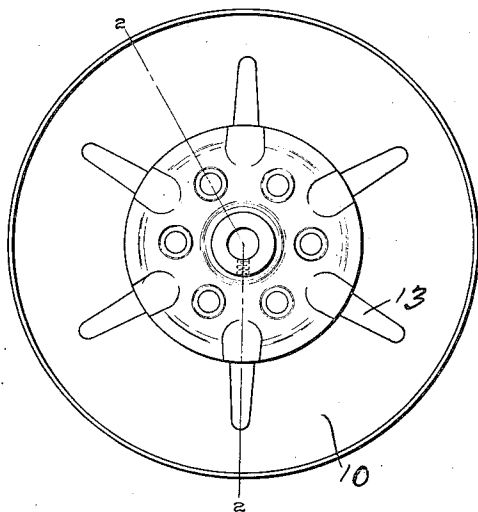


Fig. 1

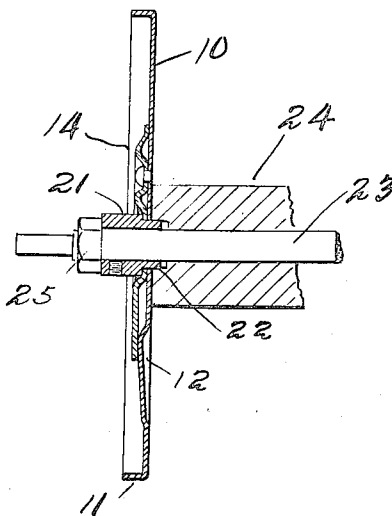


Fig. 2

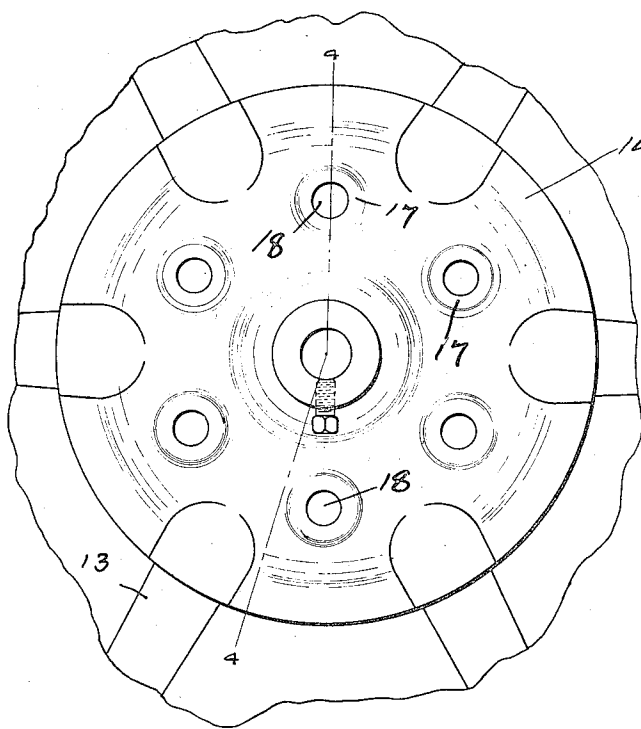


Fig. 3

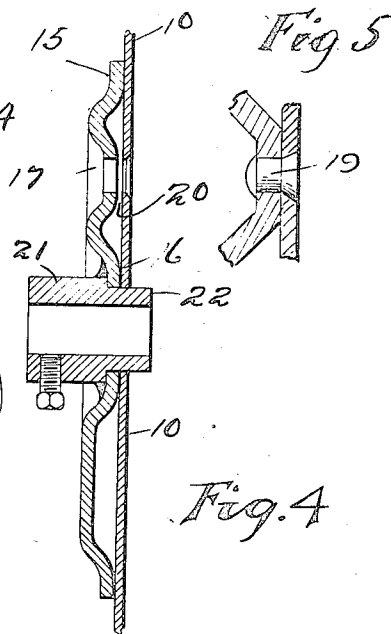


Fig. 4

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# UNITED STATES PATENT OFFICE.

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## BEAM-HEAD.

1,380,671.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, FRANK MOSSBERG, a citizen of the United States, and resident of the city of Attleboro, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Beam-Heads, of which the following is a specification.

This invention relates to beam-heads adapted to be applied to beams on which yarn or other material is wound and is employed more particularly for shipping and transporting purposes; and the object of this invention is to provide a head for beams of this character which is constructed of sheet metal instead of being formed of cast metal as is usually the case; also making such a beam extremely strong and durable in construction and very light in weight and one which not only facilitates its transportation but reduces the cost of the same; and, therefore, to provide a beam-head for accomplishing these objects I have provided a head-plate of sheet metal and secured an auxiliary stiffening plate directly to the outer surface thereof by suitable means, whereby the outer surface of this auxiliary plate is caused to exert a supporting pressure on the comparatively thin and light main plate to support the same and prevent it from becoming broken or injured by hard usage received during transportation and also to prevent the heads from spreading by the outward pressure of the material wound upon the beam.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings:

Figure 1— is an end view illustrating the construction of my improved beam-head.

Fig. 2— is a sectional elevation on line 2—2 of Fig. 1, showing the head in section and a portion of the body of the beam.

Fig. 3— is an enlarged end view of a portion of the head.

Fig. 4— is an enlarged edge view of a portion of the head-plate in section, showing the auxiliary plate in position before being riveted or secured to the main plate.

Fig. 5— is a detail showing the auxiliary plate as having been drawn tightly against

the main plate at the point of riveting by the securing means.

The usual head or beam of the character described in my present invention is necessarily formed very strong owing to the fact that it is called upon to transport several hundred pounds of yarn which is wound thereon the whole being shipped from one section of the country to another and after the yarn has been discharged from the beam the latter is returned to the starting point to be reloaded and shipped again. Therefore it is found in practice that the heads of such beams must be of great strength in order to withstand the extremely rough usage received in transportation and it is also of importance that these beams should be formed as light as possible so as to reduce the shipping weight to the minimum.

In order to obtain beam-heads which will comply with the above requirements, I have formed each of the head members with a main disk or plate 10 which is preferably constructed of sheet stock with its outer edge or periphery 11 turned outwardly to stiffen the same.

The inner surface of this main plate is forced outwardly from its inner surface at intervals as at 12 forming a plurality of radially-disposed stiffening ribs 13.

As this main plate, even with its ribs formed therein, is insufficient to provide sufficient stiffening quality and strength to the main head I have provided an auxiliary supporting plate 14 constructed in disk form, the edge or periphery 15 being bent inwardly from the plane of the plate to rest against the outer surface of the main plate some considerable distance outwardly from the center thereof and I also preferably bend or swage this auxiliary plate inwardly at its center portion 16 so that it will rest against the corresponding portion of the main plate 10.

I also form a series of recesses 17 extending inwardly from the outer surface of this auxiliary plate, said recesses being perforated as at 18 to receive rivets 19 or other fastening means. The inner surface of the bottom wall of these recesses is preferably primarily left spaced apart as at 20, see Fig. 4, from the main plate whereby when tension or pressure is brought to bear upon the fas-

tening element such as a bolt, rivet or the like, this inner face of the recess serves to limit the inward spring of the metal about the rivet when it brings up against the main plate and also by primarily leaving this space at 20 at the fastening point, a greater supporting tension or pressure is exerted at the periphery of this auxiliary plate against the main plate 10. A hub 21 is provided with a reduced neck portion 22 which passes through both of these plates, and a binding rod or shaft 23 is usually employed which extends through the wooden body 24 and both heads, all of which are secured or bound together by means of nuts 25.

I do not wish to be limited to securing this auxiliary plate to the main plate by rivets or bolts as the two plates may be secured together by electro-welding or other suitable means.

By my improved construction of beam-head, I am enabled to do away with the usual heavy and cumbersome cast-iron head which heretofore has been employed for this purpose, and have provided one which is much lighter in weight, less expensive to construct, is stronger and more durable and by the use of which the shipping weight of the whole beam is greatly reduced.

The foregoing description is directed solely toward the construction illustrated, but I desire it to be understood that I reserve the privilege of resorting to all the mechanical changes to which the device is susceptible.

I claim:

1. A beam-head comprising a main plate, an auxiliary plate having an inwardly-turned peripheral stiffening flange positioned against the outer surface of said main plate said flange being recessed at intervals to fit over said ribs, and means for binding said auxiliary plate to said main plate caus-

ing the outer edge of said auxiliary plate to support said main plate.

2. A beam-head comprising a main plate, an auxiliary supporting plate having an inwardly-offset peripheral flange positioned against the outer surface of said main plate said auxiliary plate being provided with a central hub extending through said main plate to centralize one relative to the other, means for drawing said plates together causing the periphery of said auxiliary plate to exert a supporting pressure on said main plate.

3. A beam-head comprising a main disk plate having an outwardly-turned peripheral flange, an auxiliary supporting plate having an inwardly-turned peripheral flange positioned against the outer face of said main plate and having a plurality of rivet head receiving depressions in its outer face located intermediate its center and periphery, the bottom wall of said depressions standing primarily spaced apart from said main plate, rivet holes through said walls, and rivets for drawing the two plates together about said holes.

4. A beam-head comprising a main disk plate having an outwardly-turned peripheral flange, said plate also being pressed outwardly from its inner surface at intervals forming a plurality of stiffening ribs, an auxiliary plate having an inwardly turned peripheral flange raised at intervals to fit over said ribs on the main plate and bearing against said main plate between said ribs, said main and auxiliary plates being permanently secured together at points intermediate the circumference and center of said auxiliary plate, and a supporting central hub passing through both of said plates.

In testimony whereof I affix my signature.

FRANK MOSSBERG.