No. 851,368. PATENTED APR. 23, 1907.

F. MOSSBERG.

REEL.

APPLICATION FILED NOV. 1, 1906.

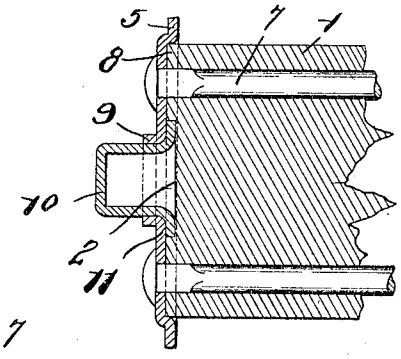


Fig. 1.

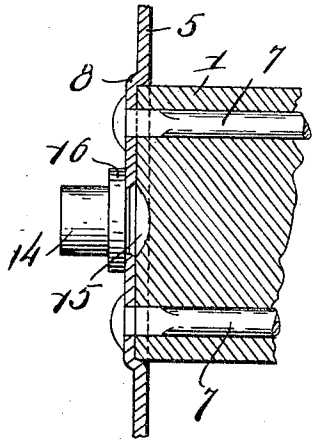


Fig. 4.

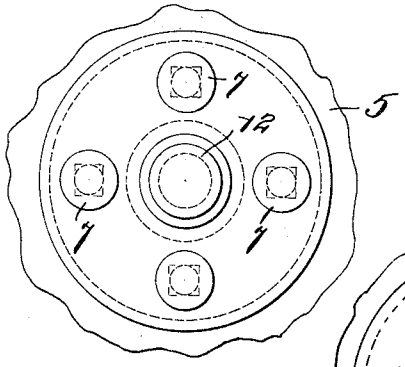


Fig. 2.

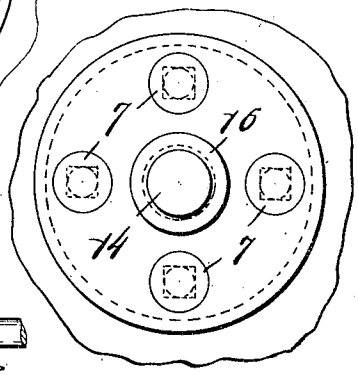


Fig. 5.

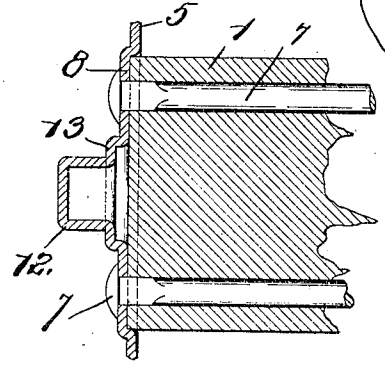


Fig. 3.

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REEL.

No. 851,368. Specification of Letters Patent. Patented April 23, 1907.

Application filed November 1, 1906. Serial No. 341,580.

To all whom it may concern:

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

My invention relates to spools or reels of large size, such as are used for carrying wire, lead-covered telephone cables and the like, and which consequently, require to be very strong and solidly constructed, in order to support the heavy loads and withstand the rough usage to which they are subjected.

Heretofore, reels for the described, and other similar purposes, have been constructed so far as I am aware, either wholly of wood, or partly of wood and partly of cast iron. Such reels are necessarily very heavy and consequently clumsy, and do not prove satisfactory in practice.

The object of my invention is to improve the construction of reels of the class described by making the heads, which are necessarily of large diameter and must be capable of supporting a great weight, out of sheet-metal, which is pressed into shape to admit of ready and secure attachment of the hub to the heads, and to impart great rigidity and stiffness to the latter as well as to the whole structure. The heads are also provided with means whereby the reel may be mounted on bearings, so that it can be rotated, as for instance, while the wire or cable is being wound onto, or unwound from the reel.

The construction of my improved reel will now be described in detail, reference being had to the accompanying drawings, in which,

Figure 1 is an axial section of one end of the hub of my improved reel; Fig. 2 is an end view of the same; Figs. 3 and 4 are views similar to Fig. 1 but showing modifications, and Fig. 5 is an end view of the hub of Fig. 4.

The essential elements of my improved reel are; first, a cylindrical hub 1 made of wood and preferably solid; second, a pair of pressed steel heads 5 only one of which is shown in the drawings and that one only partially. Said heads are made from steel-plate, pressed into shape, with or without flanges, and my present improvement relates solely to the construction at the centre of the same; third, trunnions secured axially of the heads, whereby the reel may be pivotally mounted, and, fourth, bolts for securing the parts together.

Referring to Figs. 1 and 2, the hub 1 consists, as I have stated above, of a solid wooden cylinder, in the ends of which are formed circular recesses 2, for a purpose to be described, and which has a circular series of holes formed therein parallel to the axis for the reception of the securing bolts 7. I will confine my description to one of the heads only, since they are exactly alike. The steel disk, from which the head is made, is placed in dies and pressed, in a well-known manner, so as to form a central circular recess or depression 8 of a diameter corresponding to that of the hub 1 and in which the ends of said hub rest. At the centre of this circular recess 8 the disk has a circular aperture formed therein, the edges of which are turned out to form a flange 9. In this form of my invention the journals by which the reel is pivotally carried are formed separately from the heads. Each of said journals consists of a closed-end hollow cylinder 10, the edges surrounding the open end of which are turned outwardly to form a flange 11, the diameter of which corresponds to that of recess 2 in the end of the hub 1. The outside diameter of the tubular trunnions corresponds to the inside diameter of the flange 9 surrounding the central aperture formed in the head 5.

In assembling the parts, the hollow trunnions 10 are first passed through the said apertures, their flanges 11 bearng against the inside faces of the recesses 8, and then the heads, with the trunnions in place, are placed over the ends of the hub and the bolts 7 are inserted through the latter and the heads. It will be seen that, when the nuts on these bolts are tightened up, the hub is securely clamped between the heads, and the trunnions 10 are firmly secured by means of their flanges 11 between the ends of the hub and the heads.

In Fig. 3 I have shown a modification of my invention in which the trunnions 12 are formed integral with the heads during the pressing operation. In this case the hub 1 does not require to have the circular recess 2 as formed in its ends, and there is, of course, no necessity for the central apertures in the recesses 8 of the heads. The trunnion 12 is formed of two diameters so as to leave a shoulder 13 to bear against the end of the journal in which the reel is carried.

In Fig. 4 the modification consists in making the trunnion 14 from a solid bar of metal and securing the same in the circular aperture formed in the recess 8 of the head 5 by riveting over the inner end of the trunnions as shown at 15. The hub 1 has a circular depression formed therein to accommodate the riveted end of the trunnion which latter has a collar 15 bearing against the outside surface of the head.

Having thus described my invention and without wishing to be limited to the exact form and arrangement of parts shown what I claim is:—

1. A reel of the class described, the same consisting of a solid cylindrical wooden hub, pressed steel heads having central circular recesses fitting over the ends of said hub, trunnions secured to said heads between the same and the ends of said hub and bolts passed through said heads and hub to secure the structure together.

2. A reel of the class described, consisting of a solid cylindrical wooden hub, pressed steel heads having circular recesses fitting over the ends of said hub and each having a central flanged aperture, a closed end tubular trunnion passed through each of said flanged apertures and having a flange on its inner end fitting in a recess formed in each end of the hub and bolts passed through said heads and hubs to secure said parts together.

3. A reel of the class described, the same consisting of a cylindrical hub, pressed-steel heads having circular recesses fitting over the ends of said hub, each of said recesses having a central aperture, trunnions fitting in said apertures and having enlarged heads lying between the ends of the hub and the adjacent faces of the heads, and bolts passing through said hub and heads to secure the parts together.

4. A reel of the class described, comprising a cylindrical hub, sheet-metal heads of larger diameter than said hub, each having a circular depression pressed therein to fit over the end of the hub, the center of said depression being pressed outwardly to form a trunnion, and bolts passing longitudinally through said hub and heads to secure them together.

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

FRANK MOSSBERG.

Witnesses:
ELEANOR I. JONES,
PHILIP E. BRADY.