G. E. BULL.

REEL HOLDER.

APPLICATION FILED JULY 10, 1920.

1,400,936. Patented Dec. 20, 1921.

FIG. 1

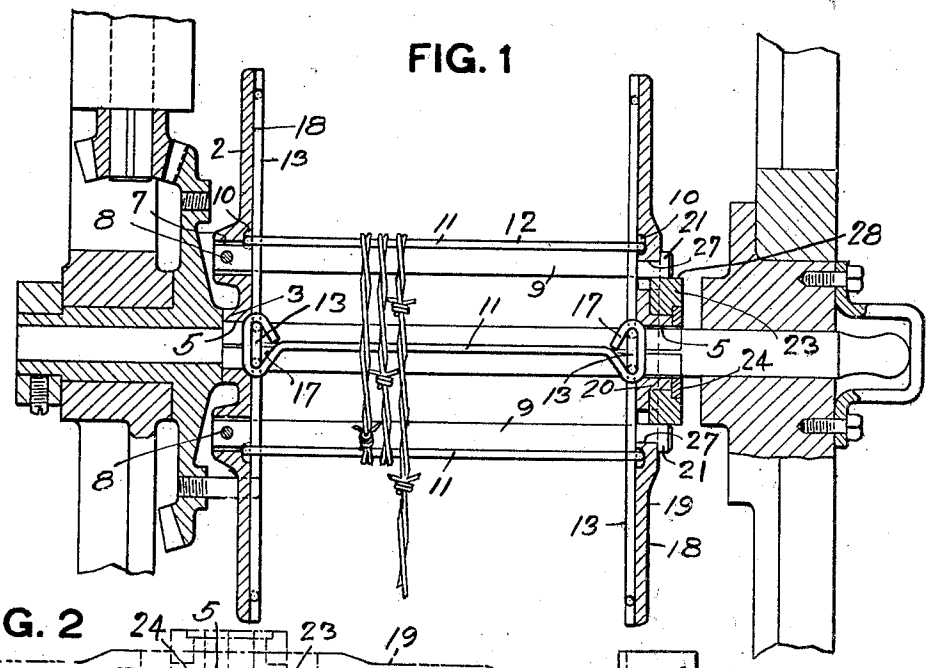


FIG. 2

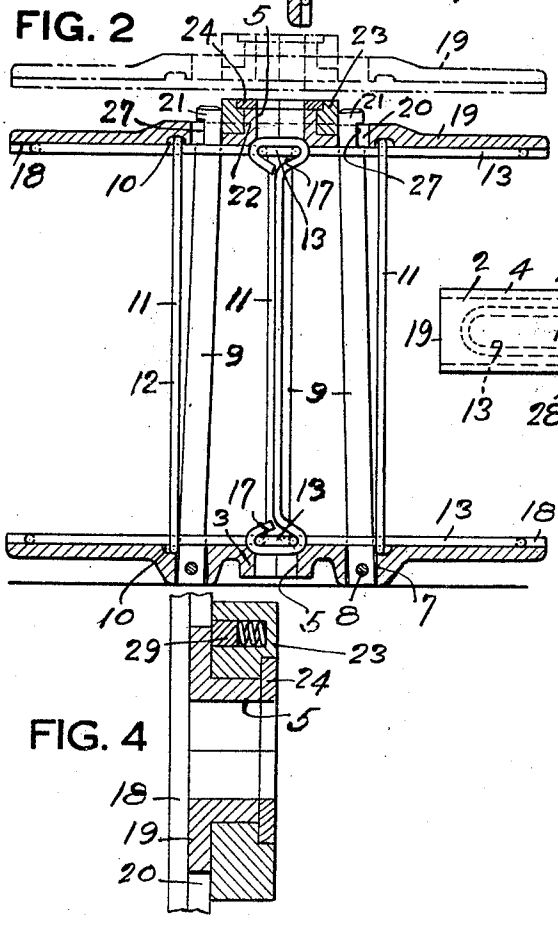


FIG. 3

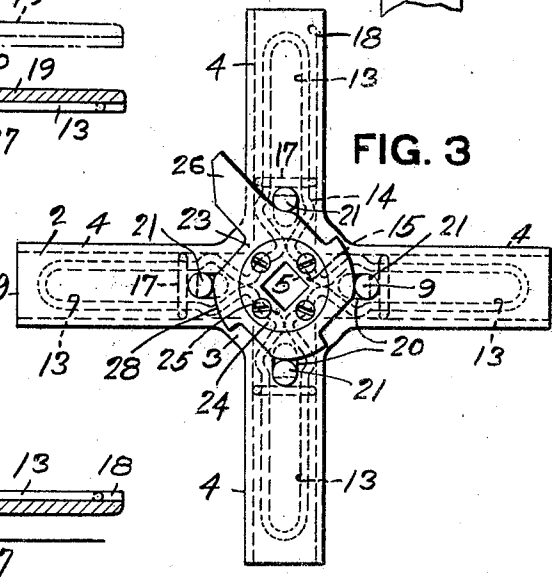


FIG. 4

INVENTOR

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atty

UNITED STATES PATENT OFFICE.

GEORGE E. BULL, OF MONESSEN, PENNSYLVANIA, ASSIGNOR TO PITTSBURGH STEEL COMPANY, OF PITTSBURGH, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

REEL-HOLDER.

1,400,936. Specification of Letters Patent. Patented Dec. 20, 1921.

Application filed July 10, 1920. Serial No. 395,243.

To all whom it may concern:

Be it known that I, GEORGE E. BULL, a citizen of the United States, and resident of Monessen, in the county of Westmoreland and State of Pennsylvania, have invented a new and useful Improvement in Reel-Holders; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to reel-holders, and more especially to a holder adapted for use in supporting a wire-reel while barb or other wire is being wound on said reel.

Owing to the scarcity of wood, wire-mills are adopting reels made of wire which are lighter in weight and more compact than the wooden-reel, thereby resulting in a saving in freight cost and space in freight-cars.

The object of my invention is to provide a holder for such a wire-reel which will support the reel properly when the wire is being wound thereon to prevent the collapsing of the reel, and at the same time one in which the reel is quickly adjusted in position and withdrawn therefrom thereby effecting a saving in time and labor.

To these ends my invention comprises the novel features hereinafter set forth and claimed.

In the drawing, Figure 1 is a vertical elevation of my improved reel-holder with the reel supported therein; Fig. 2 is a vertical section showing the reel holder collapsed; Fig. 3 is an end view showing the parts locked; Fig. 4 is a detail view showing the cam locking device.

The numeral 2 designates one of the end-members which has the central hub-portion 3 and the radiating arms 4. This end-member 2 is preferably made of cast metal and the hub-portion has the central square opening 5 to receive the shaft upon which the holder is mounted when the holder is secured in the reeling-frame which is of the ordinary type.

Within the openings 7 formed in the end-member 2 are pivotally secured by pins 8, the rods 9, the openings 7 being sufficiently larger than said rods to allow for a certain amount of play of said rods therein.

Formed on the inner face of the end-member 2 are the grooves or seats 10 to receive the ends of the cross-wires 11 of the wire-reel 12. This wire-reel may be of any suitable construction, that illustrated being a form of reel illustrated and described in an application of August G. Johnson, filed March 13, 1920, Serial No. 365,610, and composed of end-members made up of elongated wire loop-sections 13 with the shoulders 14, the wire being bent inwardly at the end of these elongated loop-sections to form the circular opening 15. These end-members are connected by the cross-pieces 11 which have loops 17 at their ends fitting over the loop-sections 13.

The end-member 2 has the longitudinally extending recess 18 to receive the loop-sections 13.

The holder is provided with the removable end-member 19 which is a duplicate of the above-described end-member 2, with the exception that said removable end-member 19 has the openings 20 to receive the ends 21 of the connecting rods 9. Furthermore, fitting around the collar 22 of the hub-portion of the end-member 19, is the cam-member 23 which is held in place by the plate 24 secured in place by screws 25. This cam-member is provided with the lug 26.

The outer ends 21 of the rods 9 are recessed as at 27 to over-lap the hub-portion of the removable end-member 19, as clearly shown in Fig. 2.

In securing the reel in position in the holder, the reel is first adjusted in position with its loop-sections 13 resting in the grooves 18 in the end-member 2 and the loop-portions of the connecting pieces 11 fitting in the seats 10, the rods 9 being inside of said connecting members 11. The removable end-member 19 is then adjusted in position, the rods 9 being moved inwardly so that the ends of said rods will pass through the openings 20. The cam member 23 is then turned by striking the lug 26 with a hammer or other instrument, the curved portions 28 of said cam-member moving into engagement with the rods 9 and forcing the rods outwardly and locking them in position indicated in Fig. 2. A spring-pressed plunger 29 seated in the cam-member bears against the end-member, and holds the cam in locked position.

In this manner the reel is locked securely in the holder and is rigidly supported therein so that the holder is then ready to be mounted in the reeling-frame in the ordinary manner.

When the wire has been wound around the

reel to its full capacity, the machine is stopped and the reel-holder removed from the reel-holding frame, whereupon the operator by striking the lug 26 frees the cam-member from engagement with the rods 9, and the said rods will retract due to the action of the wire wound upon the reel and the operator then lifts the removable end member 19, whereupon the reel can be quickly stripped from the holder with the wire wrapped thereon.

By my invention I provide a very simple and efficient form of reel-holder which is applicable for use in connection with wire-reels, or any other style of reel to which it is suited and by means of which the reel can be quickly and conveniently adjusted in position and withdrawn from the holder, and when once secured in place is locked rigidly in position to prevent its displacement during the rapid rotation of the reel in the reeling of the wire thereon.

What I claim is:

1. A wire-reel holder comprising oppositely arranged end-members, connecting rods pivotally attached to only one of said members, elongated openings formed in the other end-member through which the free ends of said rods pass, and means for forcing the free ends of said rods simultaneously against the outer ends of said elongated openings, and for locking the same in said position.

2. A wire-reel holder comprising oppositely arranged end-members, rods pivotally connected to only one of said end-members, elongated openings formed in the other end-member through which said rods pass, and a rotary cam-member on said last-named end-member adapted to engage the free ends of said rods and lock same in said elongated openings.

3. A wire-reel holder comprising oppositely arranged end-members, rods pivotally connected to only one of said end-members, elongated openings formed in the other end-member, the outer ends of said rods being recessed to receive said last-named member, and a rotary cam member on said second-named end-member for locking said rods in said opening.

4. A wire-reel holder comprising oppositely arranged cross-shaped end-members, rods pivotally connected to one of said end-members, openings formed in the other end-member to receive the opposite end of said rods, and a rotary cam-member mounted on said second-named end-member adapted to lock said rods in said openings.

In testimony whereof, I, the said GEORGE E. BULL, have hereunto set my hand.

GEORGE E. BULL.

Witnesses:
ROBT. D. TOTTEN,
JOHN F. WILL.