Apr. 17, 1923. 1,451,745

J. SOMMER

REEL

Filed Jan. 19, 1922

Fig. 1.

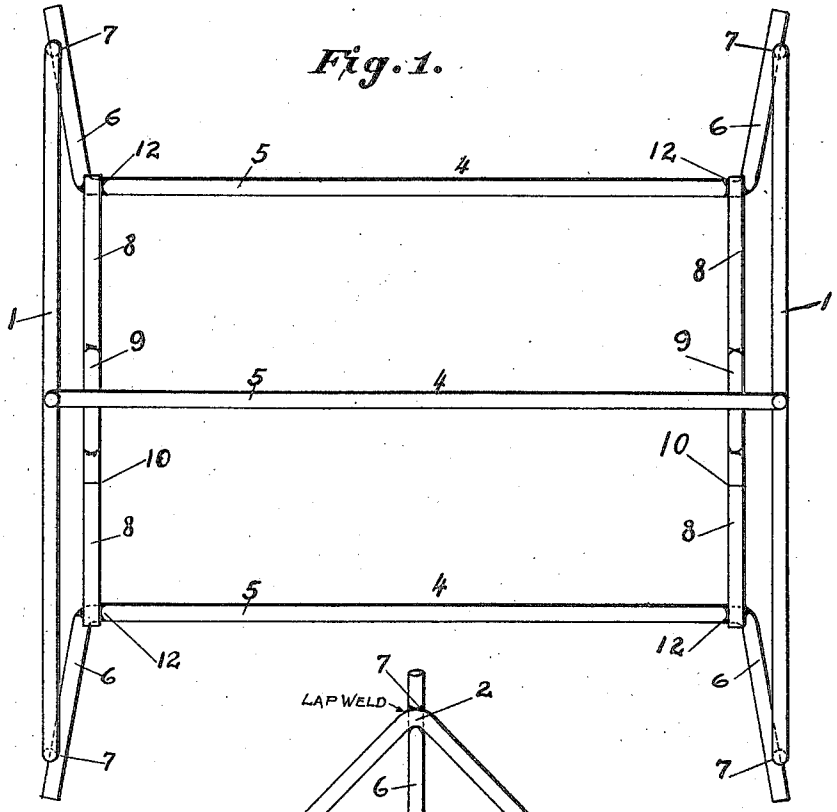
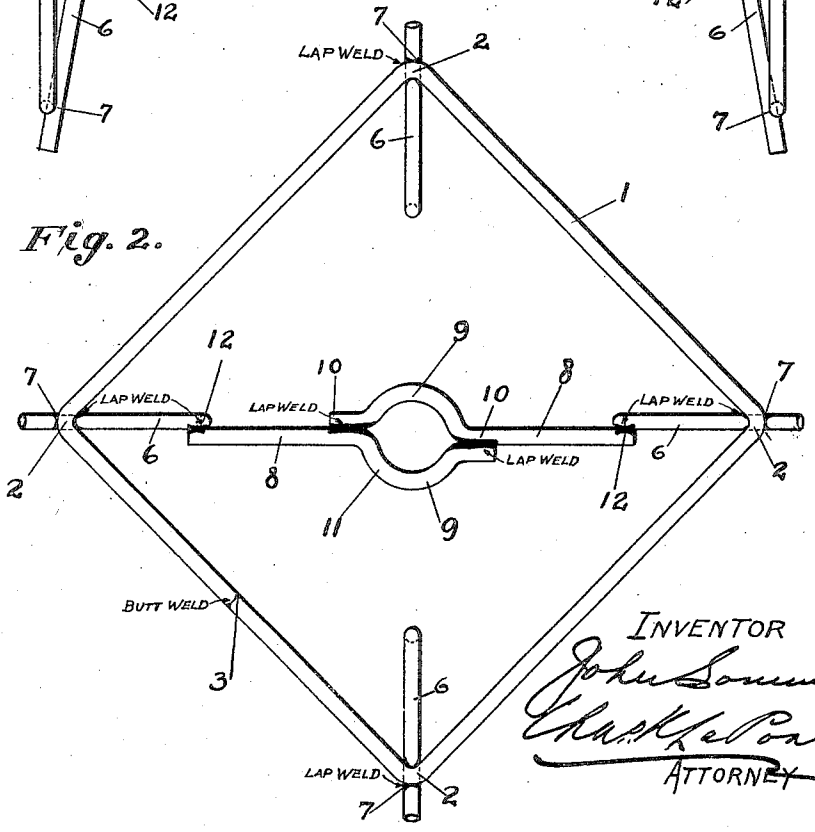


Fig. 2.



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Patented Apr. 17, 1923. 1,451,745

UNITED STATES PATENT OFFICE.

JOHN SOMMER, OF PEORIA, ILLINOIS, ASSIGNOR TO KEYSTONE STEEL & WIRE COMPANY, OF BARTONVILLE, ILLINOIS, A CORPORATION OF ILLINOIS.

REEL.

Application filed January 19, 1922. Serial No. 530,345.

To all whom it may concern:

Be it known that I, JOHN SOMMER, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented new and useful Improvements in Reels, of which the following is a specification.

This invention has reference to reels, and relates particularly to that type of reel on which is wound barbed-wire during the operation of manufacture and subsequently shipped to jobbers and dealers.

One object of the invention is to provide a reel of the character referred to, which is made entirely of metal to displace the ordinary wooden reels which are expensive, and in most instances cannot be used more than once; whereas, a metallic reel has the advantage of being used over and over again and thus decreasing the cost, which is an item of considerable moment in manufacture.

A further object of the invention is to so construct the reel that the process of electric-welding may be utilized in the manufacture thereof, thereupon cheapening the production as well as affording a reel which will be strong and rigid.

The present invention is an improvement upon the reel for which patent was granted to me March 29, 1921, numbered 1,372,784, and has to do particularly with the construction of the spindle receiving ends of said reel. In the patent referred to the spindle receiving ends are shown as twisted bodies forming webs to which the horizontally disposed parallel rods are connected, or plates with which said rods are connected. In the present invention the spindle receiving ends are rods formed with spindle seats, lap-welded, and the outer ends of said lap-welded rods are lap welded to certain of said horizontally disposed parallel rods, at or near the juncture of their angular ends.

I am aware that metallic reels, as a substitute for wooden reels, have been proposed, but I am not aware of a reel embodying the novel features herein disclosed. And while I have preferred to mention the use of the reel for barbed-wire reeling, it is of course understood that it may also be used for reeling plain wire and other materials.

That the invention may be more fully understood, reference is had to the accompanying drawing forming a part of the specification, in which:—

Fig. 1 is a front elevation of my improved reel, a part being broken away to better illustrate the same, and

Fig. 2 is an end elevation of the reel.

Like characters of reference denote corresponding parts throughout the figures.

The reel comprises the two preferably rectangular shaped wire end members 1, 1. These end members are each preferably formed from a single piece of wire, of the proper gage, so as to have the four corners 2, 2, 2, 2.

The meeting ends 3 of the formed end members where they meet being "butt" welded, as shown.

The end members are connected by, preferably, four substantially U shaped wire bars or rods 4, which form the body of the reel on which the barbed-wire, or other material is wound. These bars or rods 4 have the straight parallel horizontal portions 5 and their opposite ends are bent at right angles and inclined slightly out of the perpendicular, as at 6. The angularly inclined end portions 6 of said bars or rods 4 intersect the corners 2 of the end members 1, and are "lap" welded thereto, as shown, at 7.

The spindle receiving ends of the reel comprise the pairs of rods 8, 8 which extend toward the center of the reel from opposite sides and have seat portions 9, which overlap each other and are lap-welded, as at 10. Said seat portions, when the rods are lap-welded, provide axial openings 11 to receive the spindle, not shown, inserted therethru, as will be understood. The outer ends of the rods 8 overlap the bends in bars or rods 4, and are lap-welded, as shown at 12.

The rigidness of the reel frame, as constituted by the welding of end members 1 to the bars or rods 4 makes it unnecessary to connect the spindle receiving ends to more than two of such bars or rods 4. By employing welding thruout where parts are connected or joined, it has the effect of a single unified structure bent into form. The construction is therefore less complicated, requires less labor and factory cost to assemble and of less material than others heretofore made.

What I claim is:—

1. A wire reel including rectangular shaped end members, a plurality of horizontally disposed and parallel arranged rods connecting said end members, said rods having angular ends intersecting the corners of said end members at or adjacent the ends of said rods, and spindle receiving ends for said reel comprising overlapping rods formed with matching spindle seats, their outer ends connected with certain opposite parallel rods.

2. A wire reel including rectangular shaped end members, a plurality of horizontally disposed and parallel arranged rods connecting said end members, said rods having angular ends intersecting the corners of said end members and "lap" welded thereto at or adjacent the ends of said rods, and other members "lap" welded at their ends to certain of said rods at or near their bends and provided with spindle seats axially of said reel.

3. A wire reel including rectangular shaped end members, a plurality of horizontally disposed and parallel arranged rods connecting said end members, said rods having angular ends intersecting the corners of said end members and "lap" welded thereto at or adjacent the ends of said rods, and end members for said reel comprising rods "lap" welded at their outer ends to certain of said first mentioned rods at or near their bends, and formed with complementary spindle seats at their inner ends "lap" welded to each other.

4. A wire reel including end members formed from a single strand of wire bent into proper shape, a plurality of horizontally disposed and parallel arranged rods connecting said end members, said rods having angular ends connected to the end members at or adjacent the end of said rods by being welded thereto, and spindle receiving ends comprising complementary members welded to each other and to certain of said rods.

JOHN SOMMER.