Oct. 12, 1926.

1,602,450

W. S. PRITCHARD

REEL

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Fig. 1.

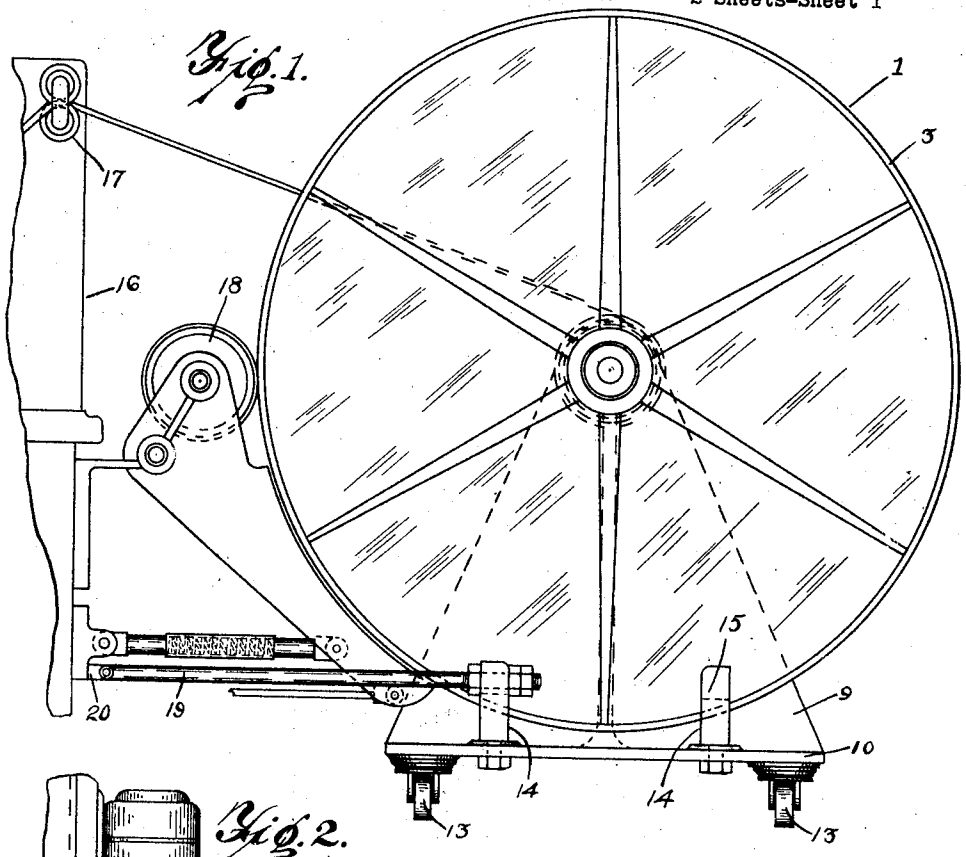
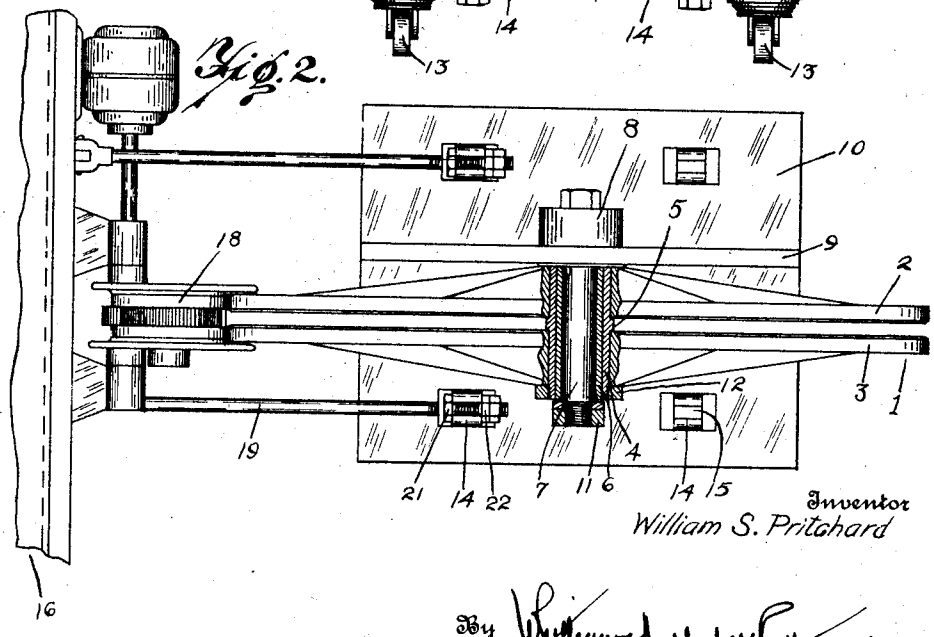


Fig. 2.



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Fig. 3.

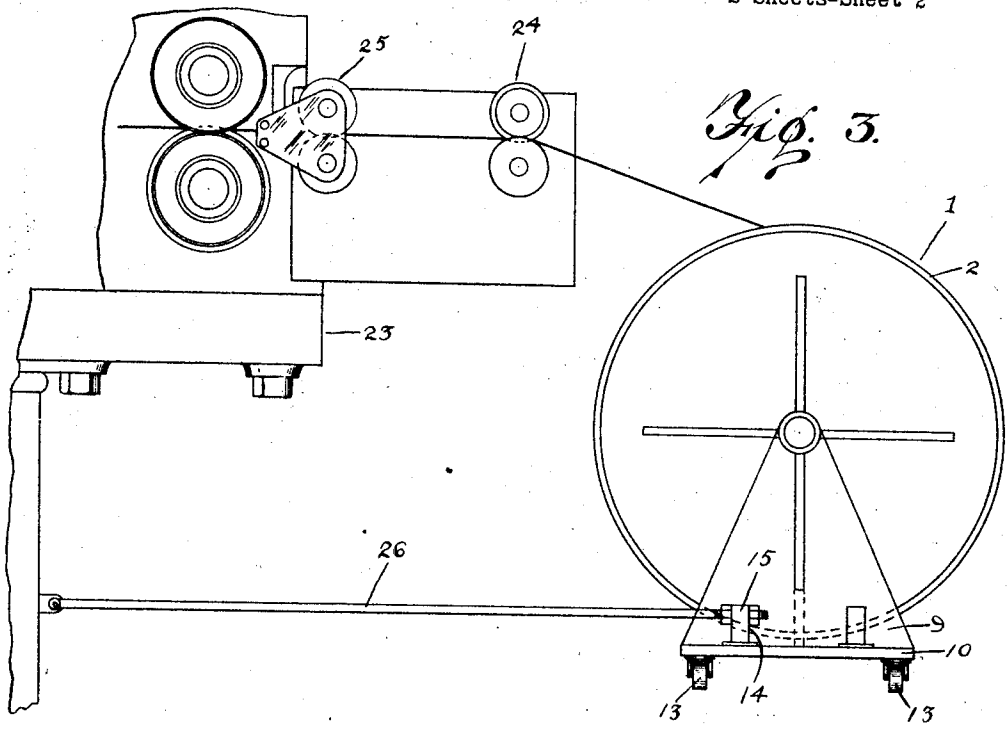
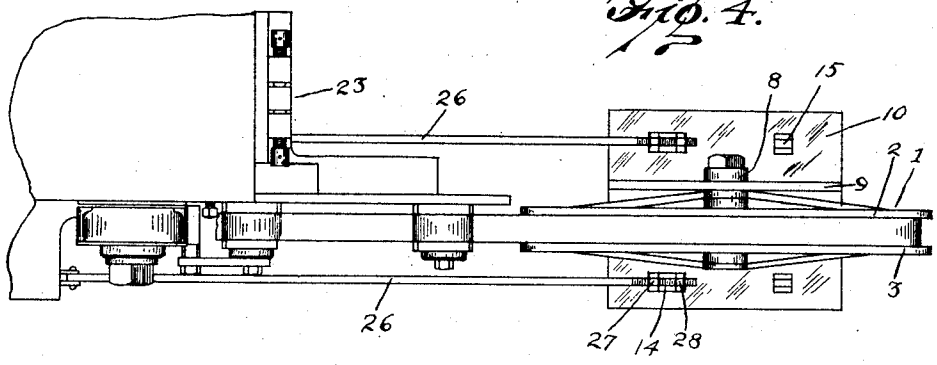


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM S. PRITCHARD, OF DETROIT, MICHIGAN, ASSIGNOR, BY MESNE ASSIGNMENTS, TO MOTOR PRODUCTS CORPORATION (1926), OF DETROIT, MICHIGAN, A CORPORATION OF NEW YORK.

REEL.

Application filed September 10, 1920. Serial No. 409,452.

The invention relates to reels and is particularly adapted for use in machines for manufacturing metallic tubing. One of the objects of the invention is to provide a portable construction of reel which is adapted to alternatively operate with a machine for welding the ends of metallic ribbon together and with a machine for forming a tube from the ribbon. Another object is to provide means for positioning the reel with respect to the machines, which means may be quickly applied and detached. Other objects of the invention reside in the novel arrangements and combinations of parts as more fully hereinafter set forth.

In the drawings:

Figure 1 is a side elevation showing the reel in operative relation to the rear end of a machine for welding the ends of metallic ribbons together;

Figure 2 is a top plan view thereof;

Figure 3 is a side elevation showing the reel in operative relation to the front end of a tube-forming machine;

Figure 4 is a top plan view thereof.

In the manufacturing of tubing from metallic ribbon, it has been the usual practice heretofore to mount small coils of ribbon at the forward end of the tube-forming machine and as one coil is used, mount another in its place. This operation requires considerable time and furthermore entails a loss of ribbon. With my construction the small coils of ribbon are formed into a large coil of ribbon, which latter is positioned in operative relation to the tube-forming machine. For the purpose of easily and quickly transporting the large coil of ribbon from the machine which welds the ends of the small coils together to the tube-forming machine, I have provided a portable reel which may be quickly secured in operative relation to either of the machines.

1 is the reel comprising the side flanges 2 and 3, which are mounted upon the sleeve 4 and the inner faces of the hub portions of which abut the shoulders formed by the annular projection 5 upon the sleeve 4. 6 is a suitable bearing within the sleeve 4 and surrounding the spindle 7, which extends through the hub 8 at the upper end of the standard 9 upon the truck 10. 11 is a nut at the outer end of the spindle 7 for retaining the bearing 6 and sleeve 4 in place. 12 is a nut threadedly engaging the outer end of the sleeve 4 and abutting the outer face of the hub portion of the outer side flange 3. The outer face of the hub portion of the inner side flange 2 abuts against the inner face of the hub 8.

With this arrangement the side flanges of the reel are held in spaced parallel relation to each other and will permit of coiling a metallic ribbon therebetween. Also the reel is mounted upon the truck to be rotatable in a vertical plane, while another advantage is that the parts may be readily removed and assembled.

The truck 10 is carried upon the castors 13 so that it may be readily moved from one machine to another and upon the base of the truck are secured the lugs 14 located upon opposite sides of the reel 1 and having U-shaped upper ends 15. 16 is a machine for welding the ends of metallic ribbons together, which ribbons after being welded pass through the pairs of tensioning rolls 17 and are wound upon the reel 1 by means of the motor-driven drive wheel 18, frictionally engaging the peripheries of the side flanges 2 and 3. 19 are bars pivotally connected at their inner ends to the frame 20 of the welding machine 16. The outer ends of these bars are adapted to engage in the slots in the upper ends of the lugs 14 and are provided with the nuts 21 and 22, which engage the front and rear faces respectively of the lugs to space the reel at the desired distance from the machine and to hold the reel in its proper plane. To detach the reel from the machine, it is merely necessary to raise the outer ends of the bars 19. As shown in Figures 3 and 4, the reel is positioned in operative relation to the tube-forming machine 23 such that the ribbon upon the reel can be unrolled and pass through the straightening rolls 24 and 25 at the forward end of the machine and subsequently through the tube forming rolls. There are bars 26 pivotally connected at their inner ends to the frame of the machine 23 and provided at their outer ends with the nuts 27 and 28, which are adapted to engage the opposite faces of the lugs 14 upon the truck, the portions of the bars between the nuts engaging in the slots in the upper ends of the lugs.

From the above description it will be

readily seen that I have provided a simple construction of portable reel which may be alternatively positioned in operative relation to either a ribbon-welding machine or a tube-forming machine. Furthermore, the means for positioning the reel with respect to the machines may be readily attached or detached. Still another important consideration is that the construction of reel itself is simple.

What I claim as my invention is:

1. The combination with a truck having an upwardly-extending standard, of a pivot extending transversely of and mounted upon said standard, a sleeve rotatably mounted upon said pivot and provided with an annular projection, and side flanges detachably mounted upon said sleeve and abutting opposite sides of said annular projection.

2. The combination with a portable truck having an upwardly-extending standard with a hub at its upper end, of a pivot extending transversely of and mounted upon said hub, a sleeve rotatably mounted upon said pivot and having an annular projection near its middle, a nut at the outer end of said pivot for maintaining said sleeve in place, side flanges detachably mounted upon said sleeve and abutting said annular projection, and a nut threadedly engaging the outer end of said sleeve for holding the outer of said side flanges in place.

3. The combination with a portable truck having an upwardly extending standard, of a pivot extending transversely of said standard, spaced parallel side flanges, and a member rotatably mounted upon said pivot and detachably carrying said side flanges, said member having provision for spacing said side flanges.

4. The combination of a truck and a reel rotatably mounted thereon and operable with a machine, said machine having bars connected thereto and said truck being provided with symmetrically arranged lugs engageable in by said bars to position said reel in operative relation to the machine.

5. The combination of a truck and a reel rotatably mounted thereon and operable with any one of a plurality of different machines, said machines each having bars pivotally connected thereto and said truck having lugs on opposite sides of said reel with U-shaped upper ends removably engageable in by the bars of any one of the machines to position said reel in operative position.

6. The combination of a truck and a reel rotatably mounted thereon and operable with any one of a plurality of different machines, said machines each having bars connected thereto and said truck having lugs on opposite sides of said reel and on opposite sides of the axis of said reel, said lugs being engageable in by the bars of any one of the machines to position said reel in operative position.

In testimony whereof I affix my signature.

WILLIAM S. PRITCHARD.