

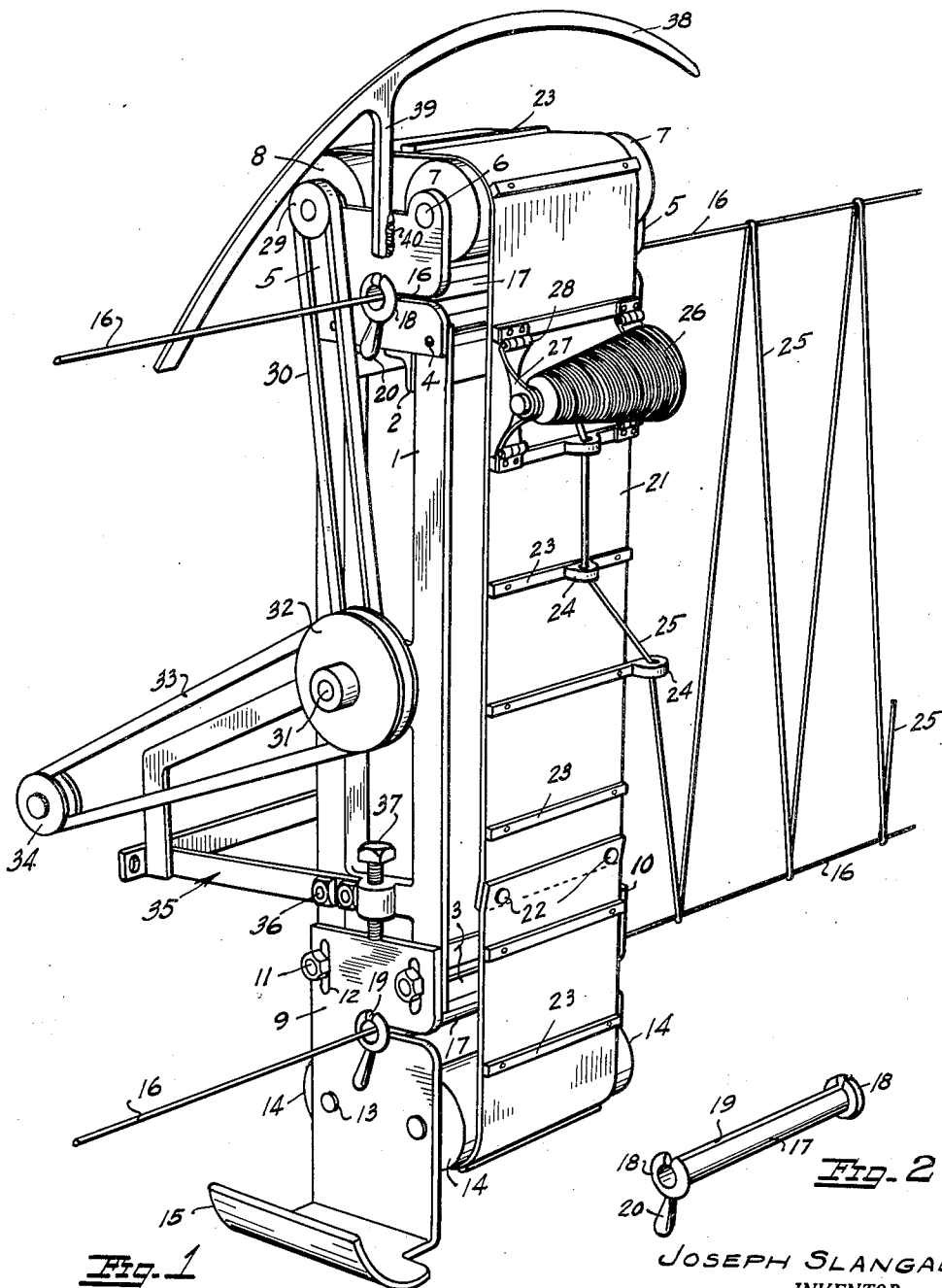
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APPARATUS FOR WRAPPING STRING ABOUT SUPPORTING WIRES

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APPARATUS FOR WRAPPING STRING
ABOUT SUPPORTING WIRES

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7 Claims. (Cl. 57-10)

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This invention relates to improvements in apparatus for wrapping string, soft wire and the like about vertically spaced apart wires strung between garden posts, fence posts and the like, to provide supports for various types of climbing vines of the vegetable and flowering type.

It is one of the principal objects of the invention to provide apparatus of this character which is of simple, efficient, durable construction, positive and accurate in its operation, for wrapping or looping a string or cord about wires as aforesaid at uniformly spaced intervals and with sufficient tension to retain the string in place, but without distorting the supporting wires from their parallel, vertical spaced relation.

Another object is the provision of means for conveniently detaching the apparatus from the supporting wires to by-pass the spaced apart fence or garden posts.

These and other objects will appear as my invention is more fully hereinafter described in the following specification, illustrated in the accompanying drawing, and finally pointed out in the appended claims.

In the drawing:

Figure 1 is a perspective view of wire stringing apparatus made in accordance with my invention.

Figure 2 is a perspective detail view of means for attaching the apparatus to the wires being dealt with.

Referring now more particularly to the drawing:

The main body of the invention consists of a box frame formed with parallel side members 1 interconnected in spaced relation to each other at their top and bottom ends by cross members 2 and 3 respectively. To the upper end of the frame, I secure by bolts, rivets, or the like, as at 4, a pair of plates 5 in which are journaled, as at 6, two rollers indicated at 7 and 8. At the opposite or bottom end of the frame I adjustably mount a pair of plates 9 and 10 by means of bolts 11 extending through elongated slots 12 formed in the plates. To each plate is journaled, as at 13, a pair of spaced apart companion rollers 14. The plate 9 is of greater length than the plate 10 and its lower end is turned outwardly and curved upwardly, as shown, to form a shoe 15 for moving obstacles out of the path of travel of the apparatus along the supporting wires. For conveniently attaching the frame to wires 16 to be dealt with, I slot each pair of plates 5 and 9 and 10, as at 16. The inner end of each slot is enlarged to rotatably support a cylindrical member 17 flanged at both of its ends as at 18 and slit throughout its

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length as at 19. One of the flanges is provided with a handle 20 for rotating the cylinder into a position to receive and embrace the wire 16 or to be rotated into the positions shown in Figure 1 for locking the wires within the cylinder to prevent accidental or unintentional removal of the apparatus from the wires 16.

Operatively embracing the rollers 7, 8 and 14 is a belt 21 made of any suitable material—such as canvas, leather, or the like. The two ends of the belt are connected together after placement about the rollers by means of any approved type of snap fastener or the like, indicated at 22. For stabilizing the belt and to maintain it in flat operative contact with the rollers, I secure to it a plurality of spaced apart ribs 23. Attached to, or formed integral with two or more of the ribs are apertured lugs 24 arranged in angular relation to each other as shown to provide a guide for string or the like, as indicated at 25 for wrapping about the supporting wires 16 and which is fed from a roll of string 26 rotatably mounted between flexible brackets 27 whose ends are hingedly connected, as at 28, to the ribs 23.

For actuating the rollers and belt 21, I provide the shaft of the driving roller 8 with a pulley 29, which is embraced by a belt 30 driven by a pulley secured to and rotated with a shaft 31 which is rotatably mounted within the frame 1 and driven by a pulley 32 which is embraced and driven by a belt 33 which embraces a power take-off pulley 34 of a garden tractor or the like not shown. The tractor forms no part of this invention since obviously various types of power units could be used and to which the frame is secured by any approved type of fittings or brackets generally indicated at 35 and bolted to the frame 1 as indicated at 36.

For regulating tension on the belt 21, I provide the side members of the frame 1 with adjusting screws 37 whose lower ends contact the upper edges of the lower supporting plates 9 and 10. By this arrangement the apparatus may be adjusted for operative engagement with wires 16 spaced apart at various distances. As a means of deflecting any cross wires that may be encountered over the top of the apparatus, I provide a deflecting arm 38, shaped as shown, and secured by an integral vertically dependent extension 39 to one of the plates 5 by welding, or the like, as indicated at 40.

The operation of the apparatus is as follows:

For placing the apparatus upon the wires to be strung, I first rotate the cylinders 17 into positions for placement over the wires. The cylin-

ders are then rotated as aforesaid into positions shown in Figure 1 to prevent disengagement of the wires. Following this, the end of the string from the roll 26 is tied to either wire 16 and the belt is set in motion through the medium of the pulleys and belts driven by the garden tractor as aforesaid. The tractor is set in motion to travel along the ground parallel to the wires 16 at a constant speed in timed relation to the movement of the belt whose speed is calculated through the speed of reduction pulleys 34, 32 and 29 to effect uniform spacing between the looped ends of the string as they go over and under the wires 16.

It will be apparent that there is no weight of the apparatus imposed upon the wires 16 since its entire load is carried by the garden tractor as aforesaid.

While I have shown a particular form of embodiment of my invention, I am aware that many minor changes therein will readily suggest themselves to others skilled in the art, without departing from the spirit and scope of the invention. Having thus described the invention; what I claim as new and desire to protect by Letters Patent is:

1. Apparatus of the class described comprising a frame, a belt movable lengthwise about the frame, guides associated with said belt, means carried by the frame for removably attaching it to spaced apart wires, a supply of wrapping cord carried by said belt and payable therefrom through the guides carried by the belt for looping about said wires at uniformly spaced intervals.

2. Apparatus of the class described comprising a frame, power-driven rollers rotatably mounted at each end of said frame, a belt surrounding said rollers and driven thereby, guides associated with said belt, means carried by each end of said frame for slidably embracing a pair of spaced apart wires, a supply of wrapping cord carried by said belt and payable therefrom through the guides carried by the belt for looping about said wires at uniformly spaced intervals.

3. Apparatus of the class described comprising an elongated frame, a pair of rollers rotatably mounted at one end of the frame, a pair of companion rollers rotatably and adjustably mounted at the opposite end of the frame, a driven pulley carried by the frame and operatively connected with said rollers for rotating the same, a belt surrounding said rollers and driven thereby, guides associated with said belt, a tubular member rotatably mounted at each

end of said frame, each tubular member being slotted throughout its length for placement about spaced apart wires for sliding said frame along said wires, a supply of wrapping cord carried by said belt and payable therefrom through the guides carried by the belt for looping about said wires at uniformly spaced intervals, and deflecting means carried by the upper end of said frame for lifting obstacles over the top of the frame in its travel along said wires.

4. Apparatus of the class described comprising a frame, a continuous member movable longitudinally in a closed path about the frame, means carried by the frame for removably attaching to it spaced apart wires, guides associated with said continuous member, and cord carried by said continuous member and payable therefrom through said guides for looping about said wires at uniformly spaced intervals.

5. Apparatus of the class described comprising a frame, a continuous flexible member movable longitudinally in a closed path about the frame, means carried by the frame for removably attaching to it spaced apart wires, guides associated with said flexible member, and cord carried by said flexible member and payable therefrom through said guides for looping about said wires at uniformly spaced intervals.

6. Apparatus of the class described comprising a frame, rotatable power transmitters mounted on said frame, a continuous member surrounding said power transmitters and driven thereby, guides associated with said continuous member, means carried by said frame for embracing spaced apart wires, and cord carried by said continuous member and payable therefrom through the guides carried by the continuous member for looping about said wires at uniformly spaced intervals.

7. Apparatus of the class described comprising a longitudinally adjustable frame, rotatable power transmitters mounted on said frame, a continuous member surrounding said power transmitters and driven thereby, guides associated with said continuous member, means carried by said frame for embracing spaced apart wires, and cord carried by said continuous member and payable therefrom through the guides carried by the continuous member for looping about said wires at uniformly spaced intervals.

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No references cited.