

G. W. FIELDS & V. A. BOYNTON.
TWINE HOLDER.

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Fig. 5.

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UNITED STATES PATENT OFFICE.

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TWINE-HOLDER.

SPECIFICATION forming part of Letters Patent No. 574,317, dated December 29, 1896.

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To all whom it may concern:

Be it known that we, GEORGE W. FIELDS and VICTOR A. BOYNTON, citizens of the United States, and residents of Shannon City, in the county of Union and State of Iowa, have invented certain new and useful Improvements in Twine-Holders; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Our invention relates to twine-holders for holding spools or tubes of cord or twine of that class or description which are suspended above counters of stores and other places where bundles or packages are to be tied up; and its object is to provide an improved construction of the same whereby the requisite quantity of cord may be unrolled or run off the spool or tube, and when the bundle or package is tied and the string or twine broken off the suspended end will be automatically elevated or drawn up out of the way, yet still be within convenient reach.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a cord or twine holder constructed in accordance with our invention. Fig. 2 is a side elevation showing a modified construction. Fig. 3 is a detail view showing the manner of forming the spindle or mandrel for holding the spool or tube of twine. Fig. 4 is a detail view showing the loop or eye for holding the shaft or rod. Fig. 5 is a detail view of another modification.

In the said drawings the reference-numeral 1 designates a frame made of a single piece of wire bent at its center, forming a loop 2, two downwardly-extending curved arms 3, which are bent outwardly in opposite directions, forming two horizontal arms 5, then extended downwardly, forming two vertical arms 6, and then inclined inwardly, forming arms 7. The ends are then bent upwardly and twisted together, forming a spindle or mandrel 8 (see Fig. 3) for receiving the spool or tube of twine 9, as seen in Fig. 1.

At one side of the frame the arms 5 are bent outwardly at right angles, forming arms 10, which are then bent at right angles, forming arms 12, and then formed with a loop 13, which clamps and holds securely a short shaft or rod 14, on which are journaled double pulleys 15 and 16, preferably made integral, although they may be made separate and secured to each other. The large pulley 15 is formed with a peripheral groove 17, and with an opening 18, extending from the rim to near the center, and with a slot 19, intersecting the said opening. Secured to the said shaft 14 is a guide-rod 20, provided with a loop 21 at its free end.

The numeral 23 designates a vertically-movable weight having a central aperture through which passes one of the arms 6, and is connected by means of a cord 24 with the small pulley 16, so that as the latter is rotated, as hereinafter described, the cord will be wound thereon and the weight elevated.

The operation is as follows: The frame is suspended from a ceiling, wall, or other place, and the spool or tube of twine is placed on the spindle or mandrel 9, as seen in Fig. 1, and the end of the twine passed through the loop 2 and then passed through the slot 19, so as to engage with the opening 18, the object of the slot being to facilitate the cord or twine being inserted in the opening, and thus obviating the necessity of threading the twine through the opening. The twine is then given a few turns around the large pulley, according to the height the end of the cord or twine is to be above the counter, lying in the groove thereof, so as to prevent its slipping off. The end of the twine or cord is then extended downward to the proper distance above the counter. In using the device the depending end of the string is seized and drawn downward, which, by reason of its being wound on the pulley, will rotate it and the small pulley connected therewith, winding up the cord 24 and elevating the weight.

When the cord or twine is all unwound from the large pulley, the outer end of the opening therein will coincide with the loop of the guide-arm, and the cord or twine will be pulled through said opening and loop 2 and unwound from the spool or tube.

When the requisite quantity or length of

cord or twine has been unwound, it is broken off, and the suspended end will be elevated above the counter by the weight falling, which will unwind the cord from the small pulley, 5 rotating it and the large pulley in the opposite direction, which will wind up the surplus cord or twine on the large pulley, so that the operation can be repeated.

In the modification shown in Fig. 2 we have 10 shown a basket or other receptacle for holding a ball of cord or twine, the mandrel or spindle in this case being made shorter and the basket secured thereto. Instead of a weight, it is obvious that a spring may be employed, so connected with the large pulley as 15 to be wound up as the latter is rotated by pulling out the cord or twine.

In the modification shown in Fig. 5 the weight is dispensed with and the pulley provided with short journals which travel in a 20 slanting or inclined track, so that after a sufficient length of cord or twine has been unwound from the spool and broken off and the end released the pulley will roll down the 25 track and wind up the slack.

Having thus fully described our invention, what we claim is—

1. In a twine-holder, the combination with the frame, provided with means for holding

a spool or ball of twine or cord, of the large 30 pulley having a peripheral groove, a cord or twine opening and an intersecting slot and the small pulley moving therewith, of the cord secured to said small pulley, the vertically-movable weight through which one of 35 the arms of the frame passes, and the guide-rod formed with a loop; substantially as described.

2. In a twine-holder, the combination with the frame consisting of a single piece of wire 40 bent to form the arms and loops, as described, and the ends twisted together forming a vertical spindle or mandrel, and a shaft or rod, of the large and small pulleys rotatable on said shaft, the large pulley being formed with 45 a peripheral groove, a cord or twine opening, and an intersecting slot, the cord secured to the small pulley, the vertically-movable weight, and the guide-rod formed with a loop; substantially as shown and set forth. 50

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

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Witnesses:

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