

966,981.

Patented Aug. 9, 1910.
 2 SHEETS—SHEET 1.

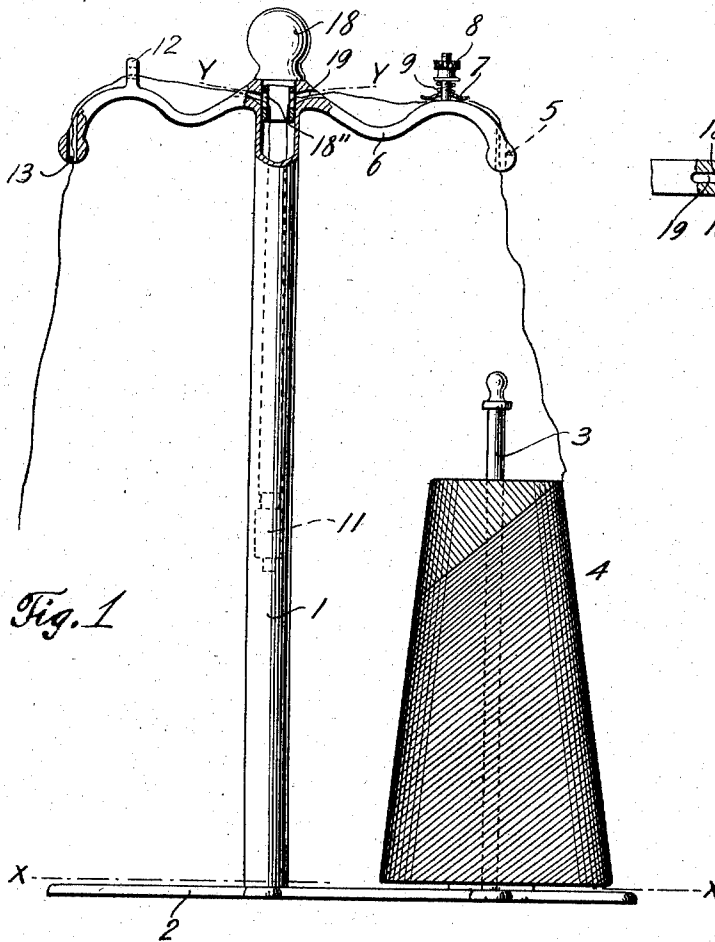


Fig. 1

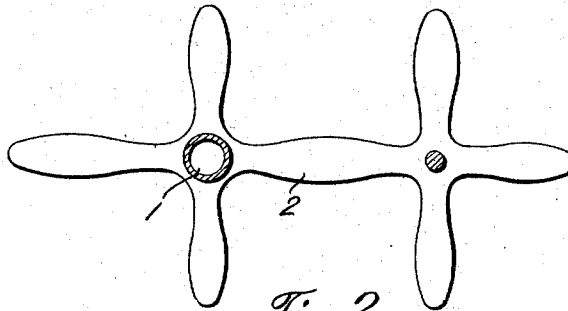
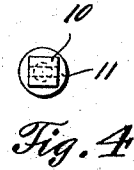
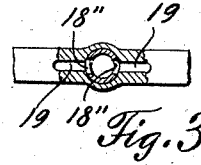


Fig. 2

Witnesses
E. Larson
N. M. Brooks

Inventor
B. C. Algie
 By *Declar & Proctor*
 Attorneys

B. C. ALGIE.
 TWINE HOLDER.
 APPLICATION FILED APR. 13, 1910.

966,981.

Patented Aug. 9, 1910.
 2 SHEETS—SHEET 2.

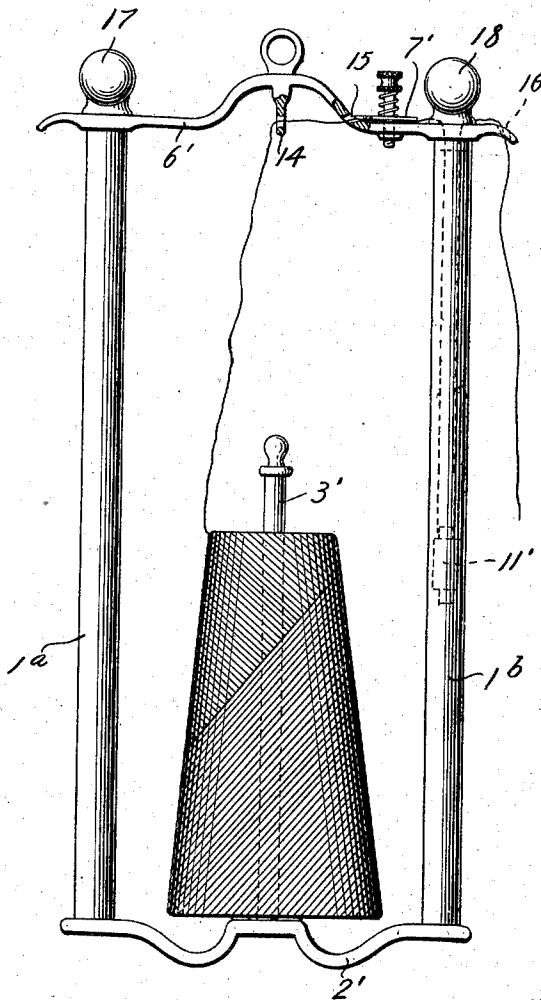


Fig. 5

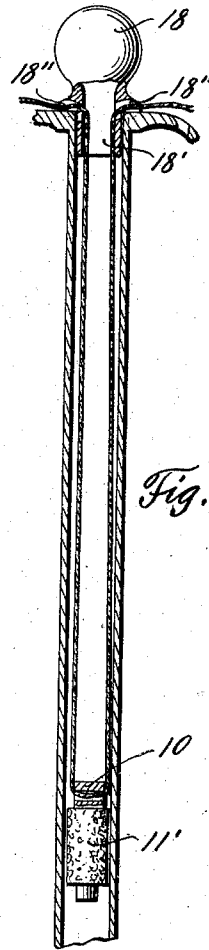


Fig. 6

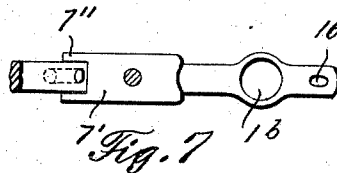


Fig. 7

Witnesses

E. Larson
H. M. Brooks.

Inventor

B. C. Algie

Dulver & Robbins
 Attorneys

UNITED STATES PATENT OFFICE.

BENJAMIN C. ALGIE, OF OGDENSBURG, NEW YORK.

TWINE-HOLDER.

966,981.

Specification of Letters Patent.

Patented Aug. 9, 1910.

Application filed April 13, 1910. Serial No. 555,311.

To all whom it may concern:

Be it known that I, BENJAMIN C. ALGIE, a citizen of the United States, residing at Ogdensburg, in the county of St. Lawrence and State of New York, have invented certain new and useful Improvements in Twine-Holders, of which the following is a specification.

This invention consists of a store fixture comprising a twine holder including a peculiar form of take-up for the free end of the twine and certain parts for facilitating manipulation of the twine and feeding of the same from the ball in the operation of tying packages or the like.

Heretofore it has been proposed to employ take-up devices for twine holders embodying a weight movable in a tubular part with which weight the twine is connected so that the free end of the twine will be pulled upwardly when released after a tying operation. In so far as I am aware twine take-ups of this type have been disadvantageous in construction because of the tendency of the weight to turn in or on the part on which it is mounted, thereby twisting the twine and preventing its proper use. Other constructions of twine take-ups have necessitated the employment of special means for preventing rotation of the weight and twisting of the twine.

The present invention involves a weight operating take-up and a peculiar construction of weight whereby when the twine is connected properly therewith, likelihood of rotation of the weight in the tubular part in which it is mounted is obviated.

For a full understanding of the invention, reference is to be had to the following detail description and to the accompanying drawings, in which—

Figure 1 is a side elevation of one form of the invention, the fixture being a stand adapted to be supported upon a counter, or the like for convenient use; Fig. 2 is a sectional view taken on the line *x—x* of Fig. 1; Fig. 3 is a section taken on the line *y—y* of Fig. 1; Fig. 4 is a top plan view of the take-up weight; Fig. 5 is a side elevation of a modified form of the invention, providing a fixture adapted to be suspended from the ceiling or any other support; Fig. 6 is a fragmentary view shown partly in section, bringing out more clearly the peculiar construction of the take-up standard, and Fig. 7 is a fragmentary top plan view, partly in

section, showing the upper portion of the take-up standard of the modification, with the ball ornament removed.

Throughout the following detail description and on the several figures of the drawings similar parts are referred to by like reference characters.

Referring to Figs. 1 to 4 inclusive, the numeral 1 denotes a round tubular standard, the numeral 2 the base supporting said standard, and the numeral 3 a vertical post to hold the ball of twine 4. The twine passes from the ball 4 upwardly through the opening 5 in a cross piece 6 at the upper end of the standard 1 and from the opening 5 the twine passes into engagement with a tension plate 7 with which coöperates an adjusting nut 8, the latter directly engaging a spring 9. The twine passes from the plate 7 into the tubular standard 1 through a horizontal opening in the square or enlarged head 10 of a take-up weight 11, after which the twine passes from the standard 1 to an eye 12 on the cross piece 6 and thence downwardly through an opening 13 in the end of the cross piece opposite that having the opening 5.

As before premised, an essential feature of the present invention is the construction of the take-up weight 11. The latter consists of a stem 10', the upper end of which is enlarged to form the head 10 through which the twine passes. The stem 10' of the weight 11 is comparatively slender and surrounding said stem is a jacket of light material such as cork, the latter being clearly shown in Fig. 6 at 11'. The weight 11 is loosely mounted in the tube 1 so that said weight can tilt very slightly with respect to its longitudinal axis, so to speak, and for the purpose now to be described. The twine opening in the head 10 of the weight 11 affords a comparatively long horizontal bearing, as the connection between the twine and the weight so that when the operator pulls upon the free end of the twine, the weight 11 will be tilted into a slanting position inclining at its upper end in a direction opposite to the side of the head against which the tension on the twine is primarily directed. The slight tilting of the weight as above described causes the lower end portion of the weight at the side opposite the upper end inclining away from the inner wall of the standard 1 to be forced into frictional contact with the standard, and such

contact tends to prevent rotation of the weight in ascent and descent. It will be understood of course that when tension is exerted on the free end of the twine, the weight is inclined in one direction in the standard 1, while when the free end of the twine is released, the weight in descending is inclined in the opposite direction by the action of the tension device 7 referred to before.

The modified construction in Figs. 5 to 7 inclusive is to provide a suspension fixture comprising the spaced standards 1^a and 1^b, the latter being constructed so as to receive the take-up weight 11', the twine being carried by a supporting member 3' carried by the lower cross bar 2', said twine passing from the ball upwardly through a guiding eye 14, an opening 15 in the upper cross bar 6', beneath a tension plate 7', thence into the standard 1^b to the point of connection with the take-up weight 11, after which it passes from the standard 1^b through an opening 16 in an extremity of the cross piece 6'. The tension plate 7' is shown more clearly in Fig. 7 as being bifurcated at one end, as shown at 7''. The bifurcated end 7'' receives the adjacent curved portion of the cross piece 6' between the bifurcated portions, the plate being held in proper position by such engagement or coöperation.

The fixtures above described are provided with heads 17 and 18 at the upper ends of the standards, the head 18 performing a useful function in that it is provided with a tubular extension 18' having opposite openings 18'' through which openings the twine passes to its point of connection with the weight 11. Should the standard 1, or the standard 1^b of the modification in Fig. 5 become clogged or the operation of manipulating the twine interfered with in any way, the members 18 may be readily raised from the standards to facilitate lifting out of the take-up weight 11 and access to the interior of the standards.

In the construction in Fig. 1, the openings 18'' register with the openings 19 at the central portion of the cross piece 6.

Having thus described the invention, what is claimed as new is:

1. A store fixture comprising a tubular

take-up standard of round form in cross section, a twine supporting member, a guiding device carried by the standard for coöperation with the twine, and a take-up weight arranged in said standard comprising a round body loosely mounted in the standard, said body being formed at its upper end with a broad head of substantially the same width as the body and having a horizontal opening forming a long bearing for the twine when passed therethrough, whereby the tension on the twine at opposite sides of the head will tilt the body slightly with respect to its longitudinal axis for engagement with the inner wall of the standard for the purpose specified.

2. A twine holding fixture consisting of a supporting member for a ball of twine, a take-up standard connected therewith and of tubular form, a cross piece at the upper end of the standard and having guiding means for the twine, a take-up weight in the standard for connection with the twine at a suitable point in its length and movable freely in said standard, a detachable knob closing the upper end of the standard and consisting of a body having a tubular extension provided with openings at opposite sides through which the twine passes to its point of connection with the take-up weight, whereby removal of the knob will facilitate removal of the weight, and a support for the above members.

3. A twine holding fixture comprising a tubular take-up standard, a support for a ball of twine connected therewith, a cross piece carried by the standard and having guiding means for the twine, said cross piece being curved at a suitable point in its length, a tension device mounted on the cross piece and consisting of a plate bifurcated at one end to receive between its bifurcated portions the curved portion of the cross piece, adjustable spring means engaging the tension plate, and a take-up weight in the standard.

In testimony whereof I affix my signature in presence of two witnesses.

BENJAMIN C. ALGIE.

Witnesses:

THOMAS DENNISON,
LETA C. DANA.