C. W. GILLESPIE.

REELING DEVICE.

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1,141,245.

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Fig. 1.

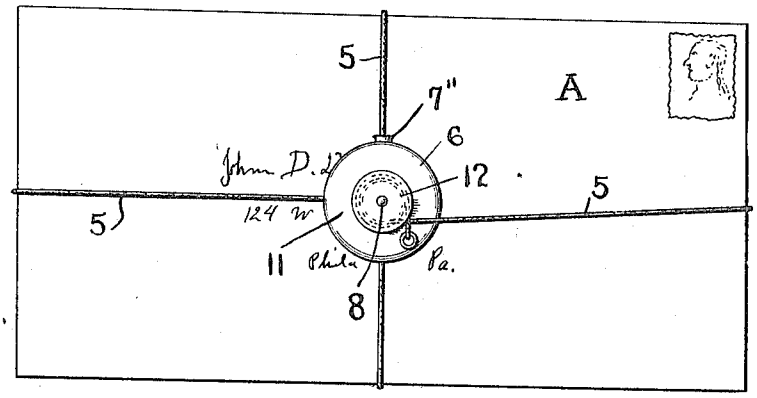
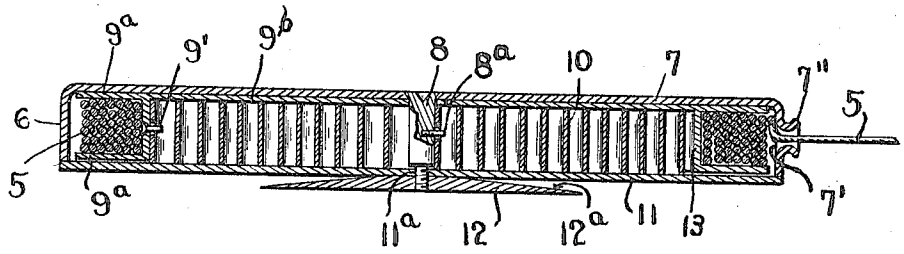


Fig. 2.



Witnesses

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To all whom it may concern:

Be it known that I, CHARLES W. GILLESPIE, a citizen of the United States, residing at El Paso, in the county of El Paso and State of Texas, have invented certain new and useful Improvements in Reeling Devices, of which the following is a specification.

This invention relates to improvements in reeling devices more particularly adapted for tying mail matter or packages of articles easily separable from each other, such as parcels of legal papers, etc.

One of the objects of the invention is to provide a comparatively simple and yet efficient device embodying a tying cord and clamping means, combined in such a manner that the cord may be extended to tie a large package or wound to tie a small package, with a minimum of effort.

Another object of the invention is the provision of a device for tying packages of mail or other matter with a clamping device which will securely hold the cord around the matter, and which contains a rewinding spring actuated reel, arranged in such manner within the case of the clamping device that the tension of the spring may be readily regulated, or the spring readily removed when desired.

A still further object of the invention is the construction of a device which will meet the practical needs of the Federal mail service; that is, be adaptable for use on packages of mail matter of varying sizes, without exposing a portion of the tying cord beyond that actually required to secure the package; provide means for securing packages by the use of cord without requiring the tying of knots or exposing the cord to danger of becoming massed in tangled condition; and be simple of construction, efficient of operation, and economical in design and service, so as to satisfy the requirements for practical economy.

The invention is embodied in a construction which includes a case formed of a cup member and a cover plate, a rewinding spring arranged within the case and having its inner end secured to a post or arbor fixed to the cup member of the case, a reel member, consisting of a flanged ring and a plate, which is connected to the other end of the spring and is rotatable in the cup member, a cord connected to the reel member, and a tension nut which is threaded on the arbor and holds the spring in the case and functions to adjust the tension of the spring and to hold the cord under tension or clamped when secured around the package; the spring also serving to hold the cord under tension around the package.

With the above and other objects in view the invention consists in certain new and useful constructions, combinations, and arrangements of parts, clearly described in the following specification and fully illustrated in the accompanying drawings, in which:—

Figure 1 is a plan view showing the device applied to a package of mail matter. Fig. 2 is a transverse sectional view of the same.

Referring to the accompanying drawings illustrating the preferred embodiment of the invention A designates a package of mail or other matter, which is secured by the cord 5 and the spring rewinding cord clamping device 6.

The spring actuated cord clamping device 6 consists of the cup-shaped case member 7, which is circular in form, and which is provided with a centrally located spring post or arbor 8, which carries a small holding pin or stud 8^a. In the chamber of the cup shaped case member 7 a reel 9 is arranged for rotation. This reel or drum consists of a flanged annular ring 13, carried by a circular face plate 9^b forming one wall of the drum, the face plate being extended beyond the ring 13, to form a flange 9^a between which flange and the flange 9^a formed on the ring 13 the cord 5 is wound. The opposite wall of the reel or drum is formed by the bottom or cover plate 11 of the cup-shaped case member 7. As will be seen, an annular chamber is formed for the reception of the volute spring 10, the inner end of which is secured to a pin 8^a carried by the central post 8, the outer end of the spring being secured to a pin or stud 9′, carried by the reel or drum 9. The cover plate 11, is provided centrally with an opening 11^a through which the reduced end of the arbor or post 8, projects. The reduced end of the post is screw-threaded to receive a clamping nut 12, which, in the present instance, is in the form of a disk having a convex inner face 12^a, which nut is adapted to be turned down against the cover plate 11, to hold the parts of the device in operative assembled relation. The cord 5 has its inner end se-

cured to the reel and is adapted to play through an opening 7′ formed in the case member 7, which opening has a small flared guide 7″; which is adapted to prevent wear on the cord.

In using the improved device the clamping member is positioned on the package or mail or other matter and the cord is grasped and wound around the package in the customary manner, that is the cord is passed around the package either longitudinally or transversely, and then wound around the clamping nut or button 12, and again passed around the package and finally secured around the button or nut. A simple pulling action of the cord under the button will secure the cord against slipping.

The spring is not only held in the case by the cord clamping nut, but it may be regulated through the clamping action of the nut in holding the cup-shaped member of the case and the cover case member against relative movement. The side plate of the reel prevents the nut from binding the spring.

To adjust the spring the nut may be loosened and the cup-shaped member rotated while the nut and the case cover member are held against rotation. The nut may be provided with roughened edges, or with flanges, so that the same may be easily held against slipping.

It is obvious that by the use of the device tying cord may be repeatedly used, and that only that portion of the cord actually used in the parcel or package tying operation will be exposed. The necessity of tying knots and of exposing large amounts of cord to become entangled in knotted masses is avoided, and a self contained supply arranged at the point of immediate use. When it is desired to distribute the parts of a package time will not be lost trying to untie the cord knots, as the operator can readily loosen the cord by unwinding it from under the clamping nut or button, the convex underface of which permits of a wedging action between the nut and the case. When the cord has been unwound from the package the spring will react and wind the cord around the reel, thus completely inclosing the cord within the case.

The central portion of the disk-like cover 11, between which and the disk nut 12 the cord is clamped, is supported against inward deflection by the central arbor or post 8. Thus the two walls of the cord clamping parts are made substantially rigid so as to insure a proper clamping action and the binding of the convolutions of the spring by the inward deflection of the cover 11 is effectually prevented. With this construction it becomes possible to employ a spring of maximum breadth and strength with a device of minimum thickness, considerations which are of the utmost importance in devices intended for tying up packages of mail, and which devices must occupy a minimum of space between the packages.

Having described my invention I claim:—

A device of the character specified comprising a cup-shaped case member having a centrally located spring arbor, a reel member journaled on the arbor and having a peripheral cord channel and a central spring chamber, the wall of said reel member extending from the peripheral cord channel to the arbor being arranged parallel with and in proximity to the inner face of the cup-shaped case member whereby a spring chamber of maximum transverse dimensions is provided, a cord secured at one end in the cord channel of the reel member and extending peripherally through the case member, a convolute spring secured at one end to the central arbor and at the opposite end to the reel member, a cover plate closing the open side of the case member and open side of the reel member, said cover plate being centrally supported by the spring arbor against inward deflection, and a clamping nut comprising a disk-like member having a convex inner face secured directly on the end of the arbor outside of the cover plate and forming with said cover plate an inwardly converging clamp in which the free end of the cord may be clamped and held.

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

CHARLES W. GILLESPIE.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."