April 12, 1932. W. S. HUDSON 1,854,033

REEL FOR DISPENSING COILED STRIP MATERIAL

Filed Jan. 24, 1931 2 Sheets-Sheet 1

Fig. 1.

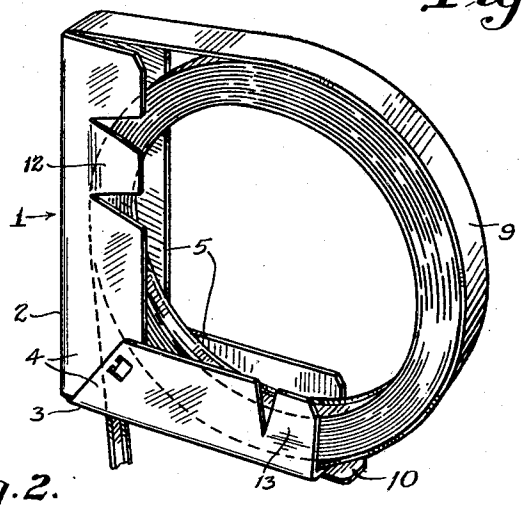
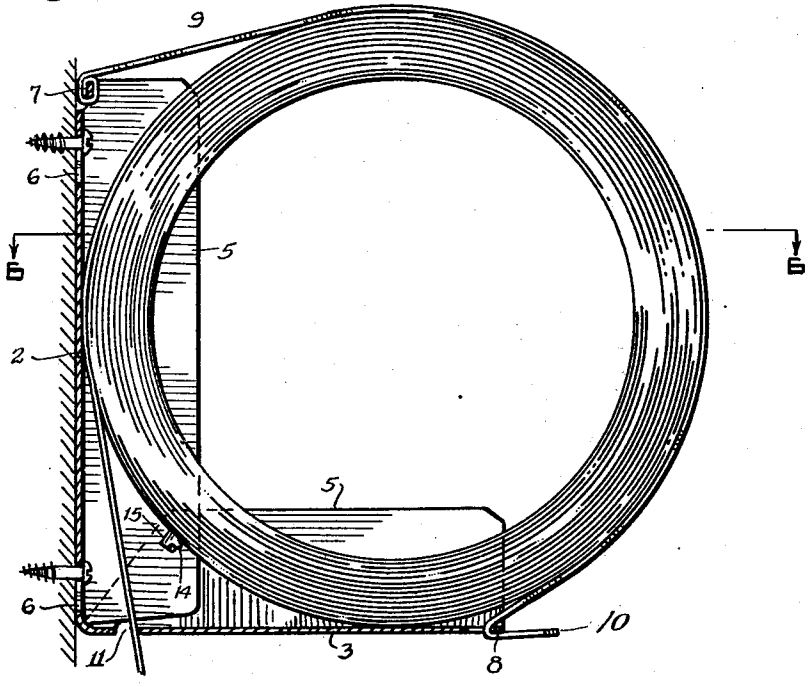


Fig. 2.



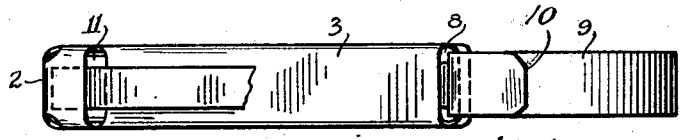


Fig. 3.

Inventor

William S. Hudson

By Mason Fenwick & Lawrence

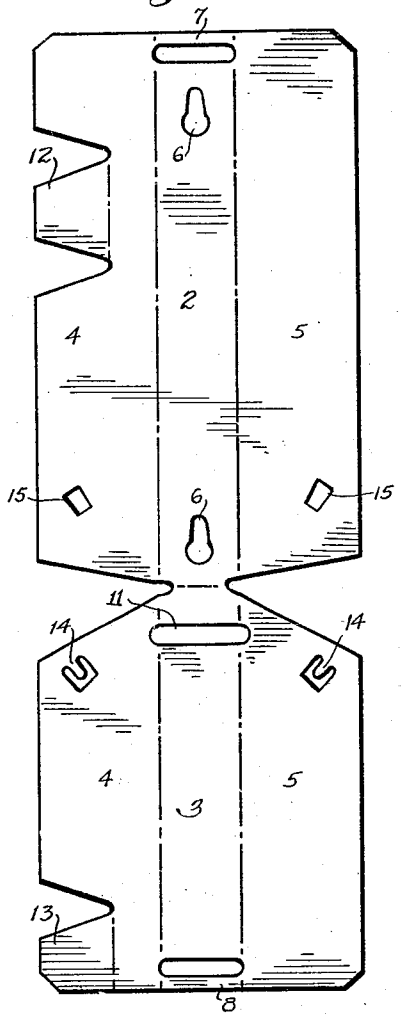
Attorneys

April 12, 1932. W. S. HUDSON 1,854,033

REEL FOR DISPENSING COILED STRIP MATERIAL

Filed Jan. 24, 1931 2 Sheets-Sheet 2

Fig. 5.



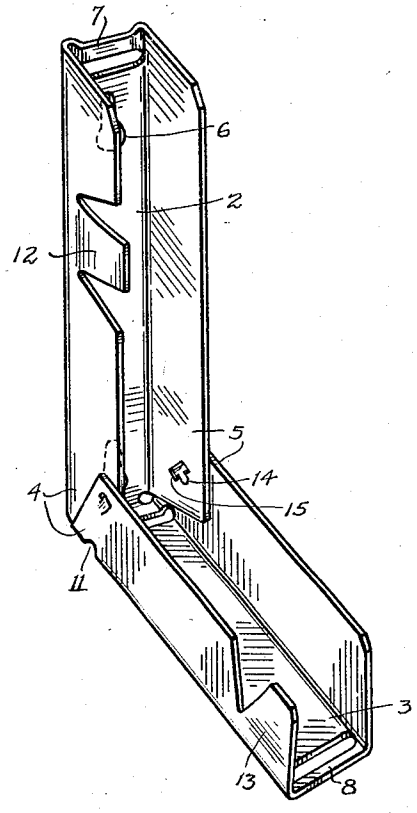
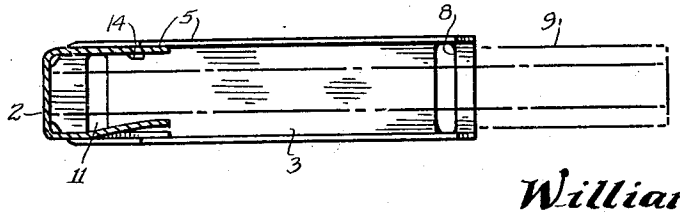


Fig. 4.

Fig. 6.



Inventor

William S. Hudson

By Mason Fenwick Lawrence

Attorneys

Patented Apr. 12, 1932 1,854,033

UNITED STATES PATENT OFFICE

WILLIAM S. HUDSON, OF PAINESVILLE, OHIO, ASSIGNOR TO THE PAINESVILLE METALLIC BINDING COMPANY, OF PAINESVILLE, OHIO, A CORPORATION OF OHIO

REEL FOR DISPENSING COILED STRIP MATERIAL

Application filed January 24, 1931. Serial No. 511,058.

This invention relates to the art of reeling a coiled strip of material and particularly resilient material.

The invention has for its main object the provision of a reel serving as a package for the coiled material, as a bracket for supporting the coiled material in the store in which it is displayed and sold, and as a dispensing device from which desired lengths of the coiled material may be withdrawn and cut off.

Other objects of the invention will appear as the following description of a preferred and practical embodiment thereof proceeds.

The following specification is accompanied by drawings in which similar characters of reference have been employed throughout the several figures to designate identical parts:

Figure 1 is a perspective view of the device of the invention;

Figure 2 is a vertical section through the same;

Figure 3 is a bottom elevation;

Figure 4 is a perspective view of the casing;

Figure 5 is a plan view of the stamped blank from which the casing is formed; and

Figure 6 is a horizontal section through the reel illustrating the function of the guiding lugs.

Referring now in detail to the several figures, the numeral 1 represents a substantially rigid casing which in the illustrated embodiment of the invention is L-shaped and of channel cross section having a back web 2, a bottom web 3 and side flanges 4 and 5.

It will be observed that the back web 2 is provided with means such as the key hole slots 6 by means of which the casing may be secured to screws or like devices inserted in a wall. The casing is preferably provided adjacent its ends with slots forming straps 7 and 8 which afford means by which a flexible band 9 is secured to said casing, confronting the open side of the channel thereof. The flexible band is secured to the straps by folding the ends of said band about said straps. It will be noted that one end 10 of the flexible band protrudes an appreciable distance beyond the strap about which it is folded so as to provide a handle by which said band may be drawn further through the adjacent slot for the purpose of shortening the rotund portion of said band. The casing 1 is provided with a slot 11 adapted to receive the outer end of the coiled material as will presently appear.

Prior to the insertion of the coil the flexible band 9 is secured only at one end to the casing, for example at the strap 7. The closely wound coil is then positioned within the casing 1 with the free outer end thereof protruding through the slot 11. The flexible band 9 is then brought about the coil circumferentially and the free end of said band inserted in the slot adjacent the strap 8, the band being pulled as tightly against the coil as possible and the free end of said band being then folded outward against said strap. The flexible band thus holds the coil firmly in position, the expansion of said coil incident to the resilient nature of the material causes a constant pressure outwardly against the flexible band which maintains the helices of said coil in solid formation and prevents said helices from slipping endwise out of position.

It being assumed that the reel is supported from the wall as described, the desired length of strip is withdrawn from the reel through the slot 11, the coil unwinding within the reel. The pressure of the coil against the flexible band creates a retardative friction which while permitting the coil to unwind, prevents its unwinding so freely as to become loose with the risk of its helices slipping endwise out of place.

When the coil becomes somewhat depleted and its pressure against the flexible band diminishes, the slack of the flexible band may be taken up by pulling the end 10 further

through the slot from which it extends and securing it in its new position by again folding it about the strap 8.

It may happen that the coiled strip is formed with a bead or flange along one edge as for instance, in metallic binding so that it has a tendency to refuse to wind evenly but to slant off to one side of the coil continually as it is reeled or unreeled. It is therefore desirable to provide means for closely engaging the edges of the coil of material. With this end in view, the side flanges of the casing may be cut out to form lugs 12 and 13 which may be bent inwardly so as to closely engage the side edges of the coil for holding the helices thereof in place.

In Figure 5 is shown a blank from which the casing 1 is constructed and it will be noted that the flanges 4 and 5 are provided with interengaging means comprising a tongue 14 stamped inward from one flange engageable with the walls of a slot 15 in the other flange. Figure 4 shows how, when the web is bent at right angles so as to form the back and bottom portions, and the flanges are turned up at right angles so as to form the channel, the tongues 14 may be alternately received in the slots 15.

It is to be understood that the specific form of the blank is immaterial to the invention, and that the invention does not concern itself particularly with the means provided for securing the side flanges together.

What is essential to the invention is a reel serving as a package, a bracket and a vending device for the coiled strip, having a portion which not only engages the coil to hold the same in place, but also inhibits the expansion of the coil, and which acts as a brake in retarding the unwinding movement of said coil imparted to it when the free end of the strip is drawn out for the purpose of cutting off desired lengths of the same.

It is to be understood also that the details of construction as shown and described are to be considered as merely exemplary, and not as imposing any limitations upon the invention which are not included in the scope of the appended claims.

What I claim is:

1. Reel for a coiled strip comprising means forming a substantially rigid casing for embracing a portion of said coil, and a flexible member secured to said means and embracing the outer circumferential face of all of that portion of said coil not embraced by said casing.

2. Reel as claimed in claim 1 including means for adjusting the effective length of the flexible member.

3. Reel for a coiled strip comprising a channel shaped casing having a web and side flanges, adapted to embrace a portion only of the coiled strip, and a flexible member secured to said casing and adapted to embrace the outer circumferential face of the remaining portion of said coiled strip.

4. Reel for a coiled strip comprising a channel-shaped casing having a web and side flanges, adapted to embrace a portion only of the coiled strip, and a flexible band secured to said casing confronting the open side thereof and adapted to embrace the outer circumferential face of the remaining portion of said coil.

5. Reel for a coiled strip comprising a channel-shaped casing having a web and side flanges, adapted to embrace a portion only of said coiled strip, and a flexible band secured to the ends of said casing confronting the open side thereof and adapted to embrace the outer circumferential face of the remaining portion of said coil, said casing having a slot from which the free end of said coiled strip is adapted to protrude and be withdrawn in unwinding said coil.

6. Reel for a coiled strip comprising a channel-shaped casing having a web and side flanges, adapted to embrace a portion only of the coiled strip, the ends of said casing being formed with slots defining straps, and a flexible band secured about said straps confronting the open side of said casing and adapted to embrace the outer circumferential face of the remaining portion of said coil.

7. Reel for a coiled strip as claimed in claim 6, the casing being provided with a slot through the free end of the coiled strip is adapted to protrude and be withdrawn in unwinding said coil.

8. Reel for a coiled strip comprising a channel-shaped casing having a web and side flanges adapted to embrace a portion only of the coiled strip, the ends of said casing being formed with slots defining straps, and a flexible band secured to said straps and adapted to embrace the outer circumferential face of the remaining portion of said coil, one end of said band protruding beyond the strap to which it is secured thereby providing a handle for shortening the effective length of said band.

9. Reel for a coiled strip comprising a channel-shaped casing having a web and side flanges, adapted to embrace a portion only of the coiled strip, certain of said webs being formed with lugs bendable toward said coiled strip for maintaining the helices thereof against endwise displacement, and a flexible member secured to said casing and adapted to embrace the outer circumferential face of the remaining portion of said coil.

10. Reel for a coiled strip comprising an L-shaped casing adapted to embrace a portion only of the coiled strip, and a flexible band secured to the ends of said casing and adapted to embrace the outer circumferential face of the remaining portion of said coil, said casing being provided with means for sup-

porting the same and with a slot for receiving the outer free end of said coiled strip.

11. Reel for an expansible coil of strip material comprising a casing formed as a bracket having two adjacent sides diverging at an angle, and a flexible strip circumscribing said angle of divergence and secured to said sides, between which strip and said sides, said coil is adapted to be retained, said flexible strip conforming in part to the circumference of said coil and functioning as a brake to retard the unwinding of said coil.

In testimony whereof I affix my signature.

WILLIAM S. HUDSON.