S. C. CARY.

STAND FOR COILED MATERIAL.

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1,239,082.

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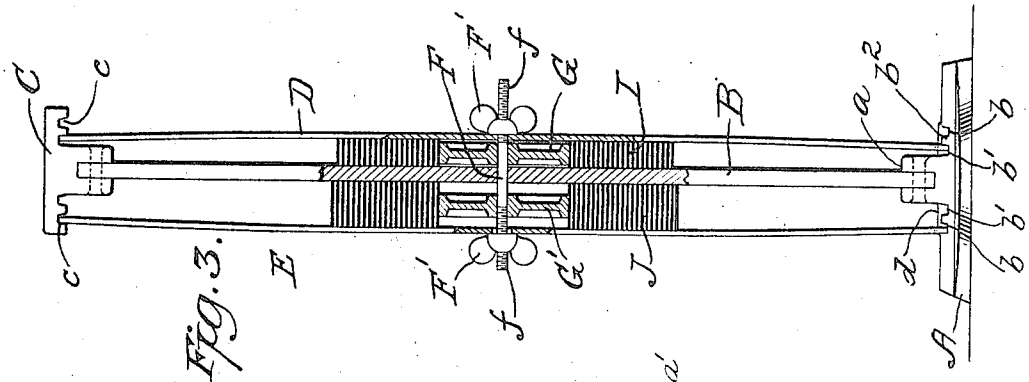


Fig. 3.

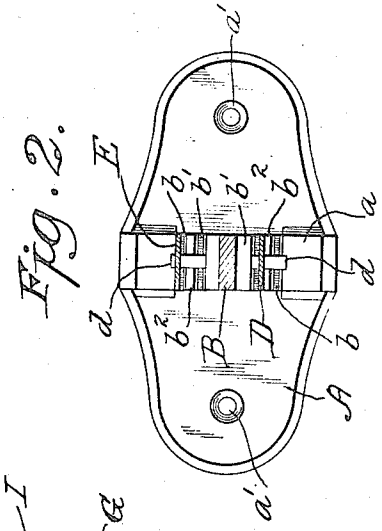


Fig. 2.

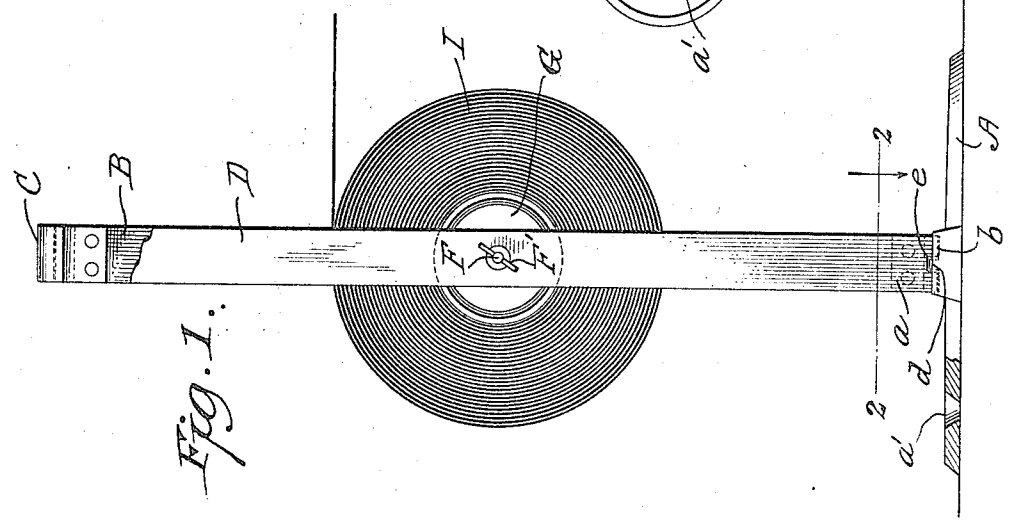


Fig. 1.

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UNITED STATES PATENT OFFICE.

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STAND FOR COILED MATERIAL.

1,239,082. Specification of Letters Patent. Patented Sept. 4, 1917.

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To all whom it may concern:

Be it known that I, SPENCER C. CARY, a citizen of the United States, residing at the city of New York, borough of Brooklyn, county of Kings, and State of New York, have invented a certain new and useful Stand for Coiled Material, of which the following is a specification.

This invention is a stand for coiled material, the same being adapted, more particularly, for holding one or more reels of metal box strapping, although it is apparent that the invention may be used in connection with other materials which have a tendency to automatically unwind unless forcibly restrained.

It is customary in the art of metal strapping to coil or wind a strap 300 feet or more in length into a compact bundle. Owing to the fact that a coiled metal strap has a tendency to unwind itself and thereby destroy the bundle, some means must be provided for holding the bundle in position for rotation so as to permit the workman to draw off the strapping as required and, furthermore, provision must be made for precluding the metal strap from uncoiling of its own accord while at the same time the strap can be drawn from the bundle when necessary.

The stand of my invention is designed and intended to secure the functions just stated, and in addition thereto my invention performs other important functions, *i. e.* provision is made for holding a plurality of coils in order that the workman may at one operation draw off two straps of the length required to be applied to the box, etc., at the respective ends thereof; the stand is adapted for holding coiled strapping the width of which may vary from one-half an inch to one inch or more; the coils or reels are easily placed in position; and the stand is simple in construction, efficient in operation, and economical of manufacture.

Broadly stated, the invention consists of a holder, preferably in the form of a stand or fixture, embodying retaining means for frictionally engaging the edge portion of a bundle or coil of material mounted in the holder for rotation on the axis of said bundle or coil, said retaining means operating to restrain the coiled material from unwinding of its own accord but permitting the bundle or coil to rotate when the operator pulls on the strap with sufficient force to overcome the effect of such frictional contact between the edge portion of the strap and said retaining means.

In a practical form of the invention, the stand comprises a post rigid with a base and a cap, an arbor supported by the stand and carrying a plurality of spools, preferably two in number and positioned at the respective sides of the post, yieldable clamping members positioned in coöperative relation to the post, the end portions of each clamping member being detachably and adjustably engaged with the base and the cap, and means for applying pressure to said clamping members so as to frictionally clamp the coils or bundles between the post and the yieldable members, whereby each coil is held from unwinding by reason of the frictional contact between the edges of the strap and the surfaces of the post and of the yieldable member.

Other features and advantages of the invention will appear from the following detailed description.

In the drawings,

Figure 1 is a side elevation, with parts broken away and in section, of a stand for holding one or more coils of box strapping.

Fig. 2 is a horizontal section on the line 2—2 of Fig. 1.

Fig. 3 is an elevation, partly in vertical section, looking toward the left in Fig. 1, and showing the stand adapted for holding a plurality of reels of box strapping, the width of the strapping in one coil being different from the width of the strapping in the other coil.

A is a base and B a post extending upwardly from the base, said post being either integral with the base or made separate therefrom. As shown, the base is provided with an upstanding lug *a* which is recessed to receive the lower end of the post, said post and base being fastened rigidly together by suitable means.

C is a cap either integral with the post or attached thereto. Said cap is preferably cast in a single piece of metal and, as shown, it is provided with a recess to receive the upper end of the post, the post and the cap being fastened rigidly together by suitable means. The width of the cap exceeds the

thickness of the post so that the respective end portions of the cap extend beyond the sides of the post, as shown more particularly in Fig. 3. The extended end portions of the cap C are provided with notches or recesses *c*, the purpose of which will hereinafter appear.

The base A is preferably cast in a single piece of metal, and it is provided with a flat bottom surface and with transverse openings *a'* whereby the base is adapted to rest upon a floor, bench or other support and to be fastened firmly in position by bolts or screws passing through the openings *a'*. In the upper surface of the base are provided notches *b b'* separated by an intervening rib b^2, said notches and ribs being provided in the base at the respective sides of the lug *a*. In addition to the notches and the ribs as described, the base is provided with ribs *d*, the latter extending across the notches and intersecting with the ribs b^2. The notches *b b'* in the base are in the same vertical plane as the notches *c* in the cap C, whereby the notches in the base and the cap are adapted to receive the end portions of clamping members D E, see Figs. 2 and 3. Said clamping members are positioned at the respective sides of post B and they extend vertically from the base to the cap. Each clamping member is composed, preferably, of a single piece of yieldable or bendable metal, and each clamping member is arranged for the upper end portion thereof to be received in a notch *c* of the cap, whereas the lower end portion of the member is fitted in a notch *b* or *b'* of the base. In order to retain the clamping member against displacement relative to the base, a notch *e* is provided in the lower edge of the bendable bar so that the rib *d* of the base will fit into the bar when the lower end of the bar is received in the notch *b* or *b'* of said base, said rib *d* of the base operating to restrain the lower portion of the clamping member or bar from edgewise movement out of the notch in the base.

F designates an arbor or spindle, the same being secured to the post B at about the middle part thereof. The arbor extends from opposite sides of the post, the end portions of said arbor being screw-threaded, as at *f*, for the purpose of receiving clamping nuts F', the latter being positioned for frictional engagement with the bars D E, respectively, as shown more particularly in Fig. 3.

G G' designate spools which are mounted loosely on the spindle F for rotation freely thereon, said spools being adapted to receive the coils of box strapping, one of which is indicated at I, and the other at J in Fig. 3.

As hereinbefore explained, it is customary to manufacture box strapping in different widths, and to coil or wind said strapping into a compact bundle which contains several hundred feet of metal strapping. It is customary, also, to wind the strapping of each bundle upon a wooden spool; but by using the stand of the present invention it is not necessary to employ such wooden spool, for the reason that the coil or bundle of strapping is adapted to be slipped upon the spools G or G' of the stand. When it is desired to place two coils of box strapping in the stand the binding nuts are unscrewed from the spindle and the bars D E are sprung out of the notches of the cap in the base, after which only one coil of strapping, as I, is slipped over the spool G, whereas the other bundle of strapping is positioned upon the spool G'. In case a narrow coil of strapping, as I, is fitted upon one of the spools, as shown in Fig. 3, the lower end of the bar D is placed in the notch *d'* so as to engage with the rib *d*, the upper end of said bar being fitted in the notch of the cap C nearest to the post, after which the binding nut F is screwed on an end of the spindle for applying pressure to the bar D, whereby the bar is brought into frictional contact with the edge of the strapping in the coil or bunch I, as a result of which the strapping of said bunch or coil I is clamped between the post B and the bar D. In a similar manner the bar E is engaged at its lower end with the notch *b* in the post, the upper end of said bar being fitted in the notch *c* of the cap farthest removed from the post, and thereafter the nut F' is screwed upon the spindle so as to force the bar E into contact with the edge of the metal strapping in the coil J, the pressure exerted by the nut and the bar upon the coil J operating to clamp said coil between the post B and bar E.

It is apparent from the foregoing description that the separate coils of box strapping are frictionally engaged at their edges by the post and the respective bars D E, so that the coils are gripped or clamped to prevent the metal strapping from uncoiling from the reels. Furthermore, the stand of my invention provides for holding a plurality of reels, which reels may be composed of strapping of similar widths or of different widths, but when the reels are composed of strapping of different widths, then the bars D and E are correspondingly adjusted into engagement with the base and the cap so that the bars coöperate efficiently with the post in gripping the edge portions of the strapping in the coils.

The stand of my invention embodying the yieldable clamping members D E is adapted for holding a plurality of coils of strapping, the width of which coils may vary from $\frac{1}{2}''$, $\frac{5}{8}''$, $\frac{3}{4}''$, $\frac{7}{8}''$ to 1'' or more. By adjusting the bendable bars into engagement with the notches in the base and the cap, respectively,

provision is made for retaining strapping of different widths, and in some instances the bars will bend or bow when pressure is applied by the clamping nuts, substantially as shown in Fig. 3, in order that said bars may have the proper frictional contact with the edges of the strapping.

The stand is constructed so that its parts may be readily separated for the purpose of placing the reels in position upon the spools, after which the bars and the nuts can be easily assembled so as to have the required frictional engagement with the reels. It should be stated that the frictional contact or gripping engagement of the reels with the post and the bars D E is such as to preclude the metal strapping from uncoiling of its own accord, but when using the strapping the operator should pull thereon with sufficient force to overcome the frictional engagement of the reel with the post and the bars, thus allowing the strapping to be drawn off the reel with comparative ease and freedom.

Having thus fully described the invention, what I claim as new and desire to secure by Letters Patent is:

1. A holder for coiled material embodying a base, a top, a member connecting said base and top, means carried by said member for rotatably supporting a coil of material, a retaining member separate from and unattached to said base and top, means for separably and fixedly connecting the respective end portions of the retaining member to the base and the top, and a pressure device positioned intermediate the end portions of the retaining member and operating to deflect said member into contact with the edge portions of the coil of material.

2. A holder for coiled material comprising a supporting base, a top member, means intermediate the base and top member for holding them a predetermined distance apart, means for rotatably supporting a coil of material and retaining means for precluding said coiled material from unwinding, said retaining means being positioned to extend diametrically across the coiled material and comprising resilient strips adjustably mounted at opposite ends in said base and top member and designed to be slightly bowed when in frictional contact with the edge portions of the coiled material.

3. A holder for coiled material comprising a supporting frame having end members provided with a plurality of notches, said supporting frame having means to rotatably support a coil of material, and a resilient strip adapted to be positioned parallel with a part of the supporting frame to extend diametrically across the coiled material at the respective sides thereof, said strip being adjustably mounted in the notches between a plurality of end members to accommodate coiled material of different widths and to have the resilient strip frictionally contact with the edge portions of the material.

4. A holder for coiled material provided with a plurality of devices for rotatably supporting a similar number of coils of material, and retaining means for said coils of material, each retaining means including coöperating members positioned for frictional contact with the respective edges of each coil and a device whereby pressure is applied to said coil by the action of said cooperating members.

5. A holder for coiled material provided with a plurality of devices for rotatably supporting a similar number of coils of material, and retaining means for said coils of material, each retaining means including coöperating members positioned for frictional contact with the respective edges of each coil and a device whereby pressure is applied to said coil by the action of said coöperating means, said coöperating members and the pressure device being controllable for the accommodation of coils the width of which varies.

6. A holder for coiled material such as box strapping embodying a base, a top member and a connecting member therefor, means for rotatably supporting a coil of strapping, a gripping member having its ends supported in said base and top member for frictional contact with an edge of the coil of strapping, and a pressure device carried by the coil-supporting means to apply pressure to the gripping member intermediate the end portions thereof.

7. A holder for coiled material such as box strapping embodying a supporting frame, having a post and oppositely positioned ends provided with notches, means for rotatably supporting the coil of material, a bendable gripping member removably mounted in the notches of the ends, which notches are so arranged that the gripping member is bent around the material to frictionally contact with said coil of material, and a pressure device carried by the means which supports the coil of material, which device operates to apply pressure to said bendable gripping member.

8. A holder for coiled material such as box strapping embodying a supporting frame, means for rotatably supporting the coil of material, a bendable gripping member positioned for frictional contact with said coil of material, the end portions of said gripping member being held by the supporting frame, and a pressure device engaging with said gripping member intermediate the end portions thereof.

9. A stand for holding coiled material such as box strapping embodying a base, a post in fixed relation to the base, a spindle on said post, a bendable gripping member positioned for frictional contact with the edge portion of a coil of material adapted

to be rotatably supported by said spindle, and means for applying pressure to said bendable gripping member.

10. A stand for holding coiled material such as box strapping embodying a base, a post in fixed relation to the base, a spindle on said post, a plurality of bendable gripping members positioned at the respective sides of said post and each adapted for frictional contact with an edge portion of the coil of material adapted to be rotatably supported by said spindle, and pressure devices in engagement with said bendable members.

11. A stand for holding coiled material embodying a base, a post, a cap, means for rotatably supporting a coil of material on said post intermediate said base and cap, a bendable gripping member the end portions of which are in engagement with said base and cap, and a pressure device engaging with the gripping member intermediate the ends thereof.

12. A stand for holding coiled material embodying a base, a post, a cap, means for rotatably supporting a coil of material on said post intermediate said base and cap, a bendable gripping member the end portions of which are adjustably engaged by said base and cap, and a pressure device engaging with the gripping member intermediate the ends thereof.

13. A stand for holding coiled material embodying a base, a post, a cap, means for rotatably supporting a coil of material on said post intermediate said base and cap, the base and cap being provided with transverse ribs and notches and other ribs intersecting the transverse ribs, a bendable gripping member the end portions of which are notched to be engaged by the intersecting ribs to prevent movement of the gripping member in one direction, said end portion being seated in the transverse notches of said base and cap, and a pressure device engaging with the gripping device intermediate the ends thereof to retain the same in engagement with the base and cap when said gripping member is bent around coiled material.

14. A holder for coiled material embodying a base, a top, a member connecting said base and top, means carried by said member for rotatably supporting a coil of material, a yielding retaining member separate from and unattached to said base and top, means for adjustably and fixedly attaching the respective end portions of said retaining member to the base and the top, whereby the space intervening the first member and the retaining member may be varied to accommodate coils of different widths of material, and a pressure device positioned for contact with the retaining member intermediate its ends and operating to deflect said retaining member into forcible contact with an edge portion of the coil of material.

In testimony whereof I have subscribed my name to this specification.

SPENCER C. CARY.

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