(No Model.) 2 Sheets—Sheet 1.

S. C. CARY.

REEL FOR METAL BOX STRAPS.

No. 441,356. Patented Nov. 25, 1890.

Fig. 2.

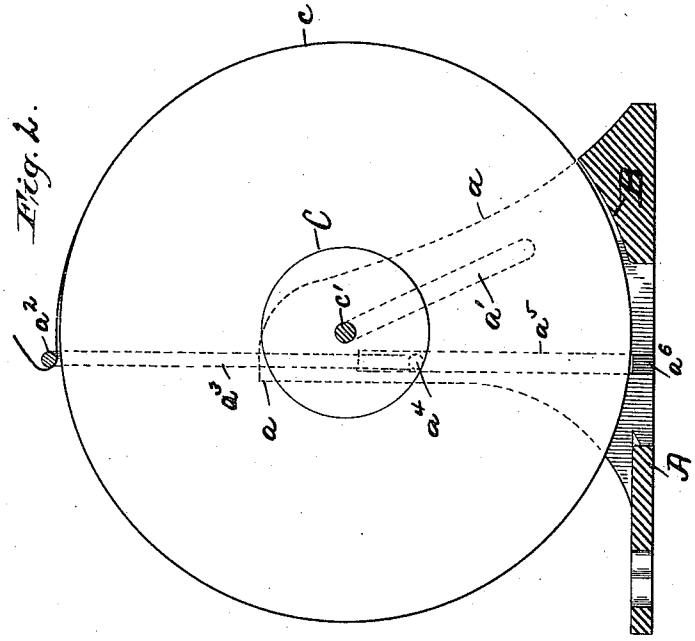
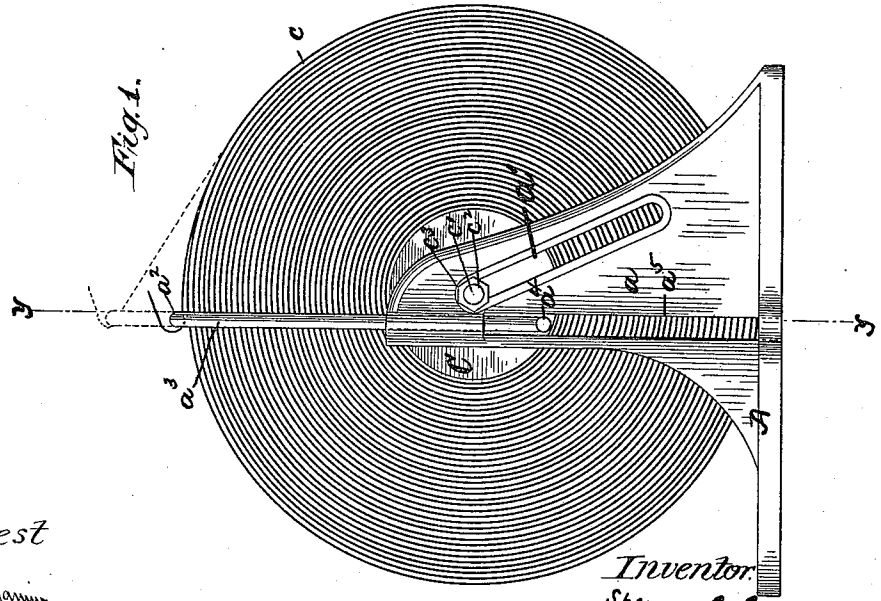


Fig. 1.



Attest
W. H. Benjamin
A. D. Hales.

Inventor
Spencer C. Cary
By Arden S. Folch
His Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 5.

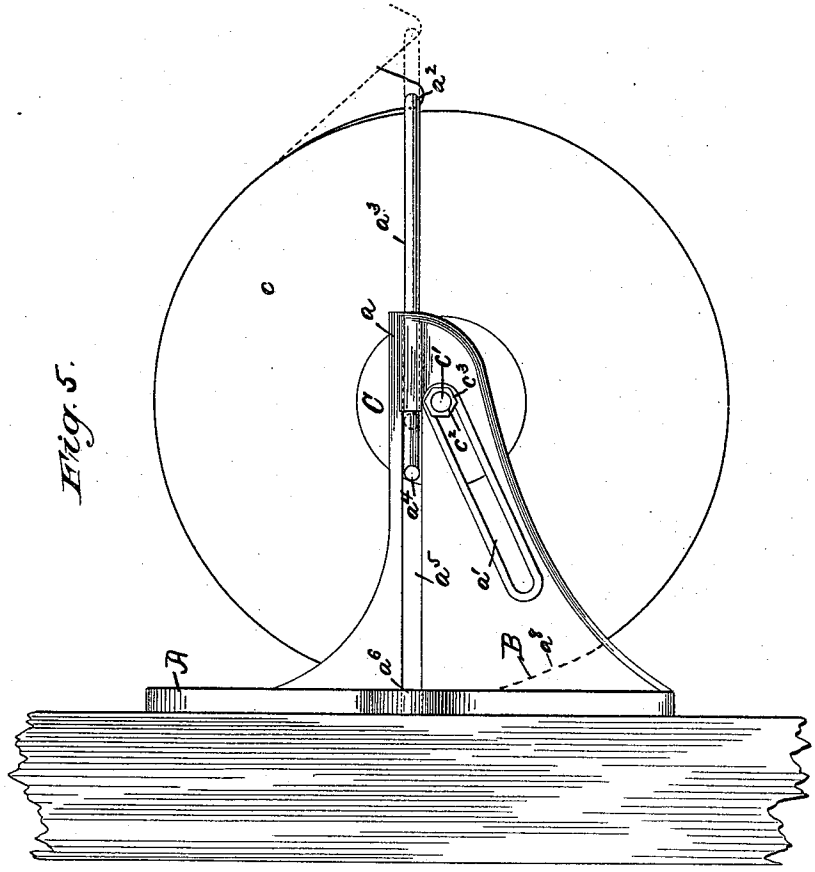


Fig. 3.

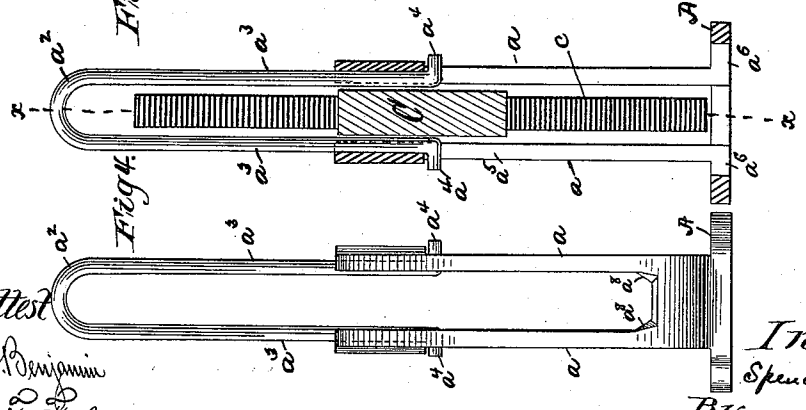


Fig. 4.

Attest
W. M. Benjamin
A. E. Fales.

Inventor:
Spencer C. Cary
By Arden S. Fitch
his Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

SPENCER C. CARY, OF BALDWIN, QUEENS COUNTY, ASSIGNOR TO WILLIAM H. VANDERBILT, OF BROOKLYN, NEW YORK.

REEL FOR METAL BOX-STRAPS.

SPECIFICATION forming part of Letters Patent No. 441,356, dated November 25, 1890.

Application filed February 19, 1890. Renewed October 16, 1890. Serial No. 368,261. (No model.)

To all whom it may concern:

Be it known that I, SPENCER C. CARY, of Baldwin, county of Queens, State of New York, a citizen of the United States, have invented certain new and useful Improvements in Reels for Metal Box-Straps, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a reel for metal box-straps; and it consists in the combination of devices hereinafter described, and as more at length recited in the claims.

Figure 1 is a side elevation of a reel device containing my invention. Fig. 2 is a vertical central section of the same on line $x\,x$, Fig. 3. Fig. 3 is a vertical cross-section of the same on line $y\,y$, Fig. 1. Fig. 4 is a side elevation of the reel device in position at a right angle to that shown in Fig. 1, and Fig. 5 is a rear elevation of the reel-stand.

A is a base or standard, and $a\,a$ are two uprights rising perpendicularly from the base and parallel to each other and adapted to receive and permit play thereof between them of the hereinafter-described spool of coiled box-strap. Between the uprights on the base or standard is a shoe or bearing-surface B, which is inclined to the plane of the under face of said base, and the face of which is preferably a curve, as shown.

At a' are slots which are similarly formed—one in each upright—so that they register with each other therein, and the longitudinal diameters of these slots are in the direction perpendicular to the face of the shoe B or to the chord of the arc described thereby when the shoe-face is curved, as set forth.

C is the spool upon which the metal strap is coiled, as at c. The spool is journaled loosely upon a shaft c', having loose bearings in the corresponding slots a' in the uprights a. The shaft c' is preferably threaded at c^2 and provided with a nut c^3 on said threaded end to permit the shaft to be unseated when it is desired to remove or replace the spool C.

The uprights a are preferably of a length or height to adapt them to reach to and somewhat beyond the circumference of a full spool of strap, as shown, and the outer ends of the uprights are desirably united by a cross-bar a^2. It is furthermore preferable that the uprights be constituted of a lower portion a, rigid on the base, and an upper portion a^3, adapted to play longitudinally in or upon the rigid portion a, the upper or outer ends of the portions a^3 being united by the cross-bar a^2. This is desirably accomplished by forming the parts a^3 and the cross-bar a^2 of a piece of metal rod, which is bent upon itself, the parts a^3 having at their ends the lateral lugs a^4 and being seated in apertures or grooves a^5 in the portions a of the uprights, which portions a are slotted longitudinally to permit the play therein of the lugs a^4, respectively. The base may be slotted at a^6 at the lower ends of the longitudinal slots a^7, so that the parts a^2 and the cross-bar may be withdrawn or seated through the base.

The inner sides of the uprights a, where they meet the shoe B, are desirably inclined inwardly toward the shoe-face, as shown at a^8.

It is evident that when the spool of strap is in position on its shaft between the uprights the direction of the slots a', in which the said shaft has bearing, will permit and enable the coil to rest by gravity upon the face of the shoe B, as illustrated in the drawings, this result being effected whether the reel device is placed horizontally with its base resting on a floor or placed vertically with its base hung against a wall, post, or other such support, as shown in Fig. 4. It is also evident that spools having upon them straps of different widths may be placed successively in the same reel-stand, and when seated will be prevented from binding at their edges against the inner sides of the uprights, but, by means of the inclined portions a^8 on the uprights, will be seated centrally on the shoe B between the uprights. It is also evident that as the strap is uncoiled from the spool the play of the spool-shaft in the slots a' will enable the circumference of the remainder of the coil to continue by gravity to rest and bear upon the shoe, thus preventing the coil from unwinding by the tension of the metal strap when the reel is idle, and, furthermore, that when the reel is idle the cross-bar a^2 may serve to detain the free end of the strap-

coil, as shown in the several figures of the drawings.

It will be noted that when the uprights are formed with the upper portions a^3 having play in or on the fixed lower portions a as the coil is unwound the movable parts a^3 may be forced or be permitted to drop by gravity longitudinally, as set forth, and the cross-bar a^2 be thus maintained in contact with the circumference of the coil as the coil diminishes in diameter, and thus act to detain the free end of the coil until it is wholly consumed.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a reel device for metal box-straps, the combination, with a base A, of a shoe B, the bearing-face of which is inclined to the plane of the under face of said base, and the uprights a, parallel to each other on said base on either side of said shoe and provided with corresponding slots a', the longitudinal diameters of which are in the direction perpendicular to the bearing-face of said shoe, substantially as and for the purpose set forth.

2. In a reel device for metal box-straps, the combination, with a base A, of a shoe B, the bearing-face of which is inclined to the plane of the under face of said base, and the uprights a, parallel to each other on said base on either side of said shoe, and having the portions of their inner faces a^8 inclined inwardly toward the shoe-face, and provided with corresponding slots a', the longitudinal diameters of which are in the direction perpendicular to the bearing-face of said shoe, substantially as and for the purpose set forth.

3. In a reel device for metal box-straps, the combination, with a base A, of a shoe B, the bearing-face of which is inclined to the plane of the under face of said base, the uprights a, parallel to each other on said base on either side of said shoe and adapted in height to extend to the circumference of a spool of box-strap C, seated between them on said shoe, and provided with corresponding slots a', the longitudinal diameters of which are in the direction perpendicular to the bearing-face of said shoe, and the cross-bar a^2, rigidly uniting the outer ends of said uprights, substantially as and for the purpose set forth.

4. In a reel device for metal box-straps, the combination, with a base A, having a shoe B, whose bearing-face is inclined to the under face of said base, of two uprights on said base on either side of said shoe, and composed of the lower portions a, rigid on the base, and the upper portions a^3, united at their upper ends by the cross-bar a^2 and having play longitudinally in their respective lower rigid portions, substantially as and for the purpose set forth.

SPENCER C. CARY.

Witnesses:
A. S. FITCH,
A. T. FALES.