

(Model.)

J. NUTT.
HAT POUNCING ROLL.

No. 267,363.

Patented Nov. 14, 1882.

Fig-1.

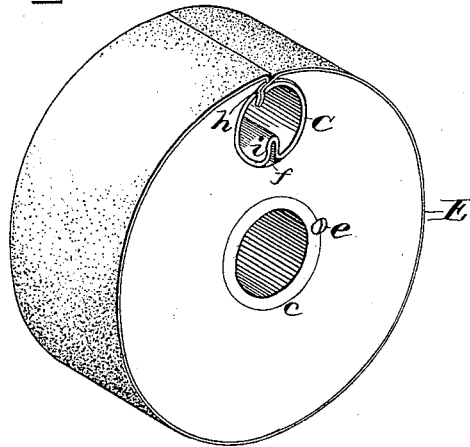


Fig-2.

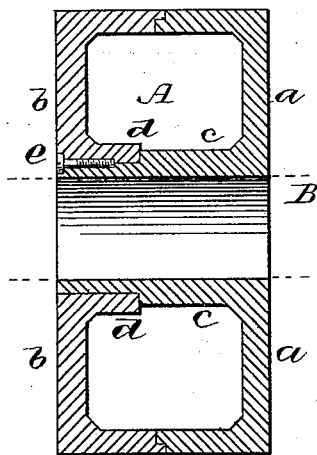


Fig-3.

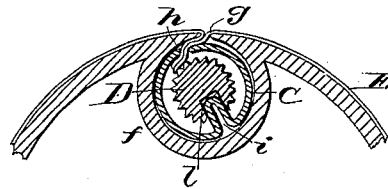


Fig-4.

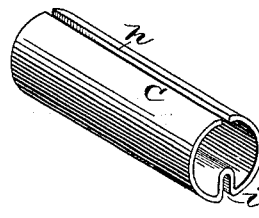
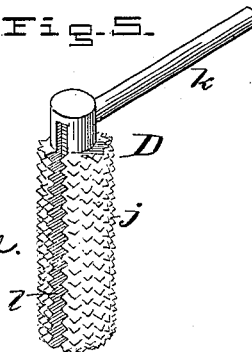


Fig-5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOSEPH NUTT, OF DANBURY, CONNECTICUT.

HAT-POUNCING ROLLS.

SPECIFICATION forming part of Letters Patent No. 267,363, dated November 14, 1882.

Application filed August 22, 1882. (Model.)

To all whom it may concern:

Be it known that I, JOSEPH NUTT, of Danbury, in the county of Fairfield and State of Connecticut, have invented certain Improvements in Hat-Pouncing Rolls, of which the following is a specification.

My invention relates to hat-pouncing rolls, and is designed as an improvement upon the one for which Letters Patent were granted to me bearing date September 28, 1875, No. 168,175.

The improvement consists in substituting for the key or binder used in said former device a tubular key or binder of spring metal, and in a peculiar manner of forming the same to adapt it to receive and to be operated by a wrench or key particularly designed for the purpose.

In the accompanying drawings, Figure 1 represents a perspective view of my improved roll and key or binder with the covering applied to the roll and fastened thereon; Fig. 2, a section longitudinally through the axis of the roll; Fig. 3, an enlarged sectional view through the binding or clamping device; Fig. 4, a perspective view of the key or binder removed from the roll, and Fig. 5 a perspective view of the wrench or key employed in turning the binding key or cylinder.

The object of my invention is to provide a simple and efficient means of securing the covering upon pouncing-rolls, which shall be cheap and easy of construction and which will accommodate sand-paper, emery paper or cloth, or other covering of different thicknesses, and in all cases draw the same tight and smooth upon the roll.

The roll may be of any desired form—cylindrical, conical, or otherwise—and may be made solid or hollow, as preferred. In order, however, to render the roll light and to avoid unnecessary waste of metal, I preferably construct the same as represented in Fig. 2, in which A represents the roll composed of two parts, *a* and *b*, each one-half the length of the completed roll, and one slightly recessed to receive the end of the other, which is correspondingly reduced to fit therein.

The section *a* is formed with a central sleeve or neck, *c*, bored to fit the shaft B, upon which the roll is mounted, and extending the entire length of the roll. The outer end of this sleeve

or neck is somewhat reduced and is encircled by a shorter collar or sleeve, *d*, formed upon the section *b*. A screw-hole is tapped half into the sleeve *c* and half into neck or collar *d*, and a screw, *e*, is inserted into said hole to firmly unite the two parts.

The roll is formed with a circular hole or opening, *f*, extending from end to end parallel with and close to its circumference, and a slit or opening, *g*, extends from said hole to the outer face of the roll, as shown, the purpose being to permit the ends of the covering of the roll to be passed into the circular hole or opening and clamped by a rotary key or binder, as in my former patent.

C represents the key or binder, which I now make of tubular form, preferably bending the same up from sheet-steel or other highly-elastic metal, leaving a slit or opening, *h*, at one side, through which the edges of the covering or clothing of the roll may be drawn to the interior of the key or binder. This construction of the binder, besides being cheap, affords ample space for the ends of the covering material, thus greatly facilitating its application to the roll, and it also permits the edges of the key or binder to spring inward to accommodate the material between its outer face and the inner wall of the hole or opening *f*.

In order to adapt the key or binder to receive a wrench or key by which to rotate it, I form a bend or fold, *i*, in its side from end to end, as shown in Figs. 1, 3, and 4, preferably at a point directly opposite the slit or opening *h*, in order that each leaf or half of the cylinder may be the same and possess equal elasticity, it being the intention to have the key operate both ways, as heretofore.

The edges of the key or binder at both sides of the slit are slightly curled inward, to cause the covering material of the roll to enter the more readily between its outer surface and the inner wall of the hole or opening in which it is placed.

The device being thus constructed and the key or binder placed in its hole, with the slit *h* opposite or in line with the slit or opening *g*, the material with which the roll is to be clothed is cut of proper width and of a length slightly greater than the circumference of the roll. The ends of the material are passed

through the slits *g h* after said material is carried about the roll, and then the key or binder is turned by a suitable wrench or key, drawing the material tight and smooth upon the roll and clamping it in the manner above explained between the inner surface of opening *f* and the outer face of key C.

For the purpose of turning the key or binder C, I provide a wrench or key, D, consisting of a grooved or slotted barrel or cylinder, *j*, provided with a stem or handle, *k*. The groove *l* receives the rib or fold *i* of the key or binding-cylinder within which it is inserted, and in order that the covering E may be drawn tight the surface of the barrel or cylinder *j* of the wrench is serrated or roughened to take hold of the ends of said material and draw upon the same as the binder is turned.

Having thus described my invention, what I claim is—

1. In combination with roll A, having opening *f* and slit *g*, a tubular key or cylinder, C, having a slit or opening in its side, and mounted and free to rotate within the opening *f*, as and for the purpose set forth.

2. In combination with a roll having a hole

or socket and a slit or opening extending therefrom through the circumference of the roll, a slotted elastic cylinder or key placed and free to rotate within the socket, whereby it is adapted to receive the ends of a covering material and to wind the same between its outer surface and the interior of the socket, and to adapt itself to the thickness of such material.

3. In combination with roll A, having socket or opening *f* and slit *g*, the tubular cylinder C, having slit *h* and rib or fold *i*, as and for the purpose set forth.

4. The herein-described pouncing-roll, consisting of roll or body A, covering E, and tubular key or binder *c*, all combined and arranged as shown and described.

5. In combination with roll A, having key or binder C, provided with rib *i*, and covering E, extending around the roll and into said tubular binder, the wrench or key D, having its body grooved and serrated, as shown, for the purpose explained.

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