(No Model.)

J. M. KEENE.

APPARATUS FOR CLAMPING AND STRETCHING LEATHER AND OTHER MATERIAL.

No. 345,699. Patented July 20, 1886.

Fig. 1.

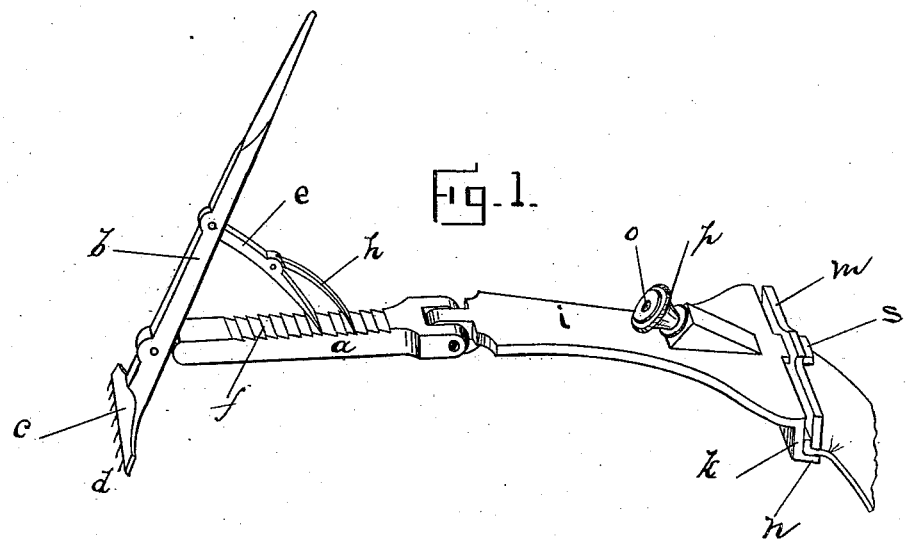
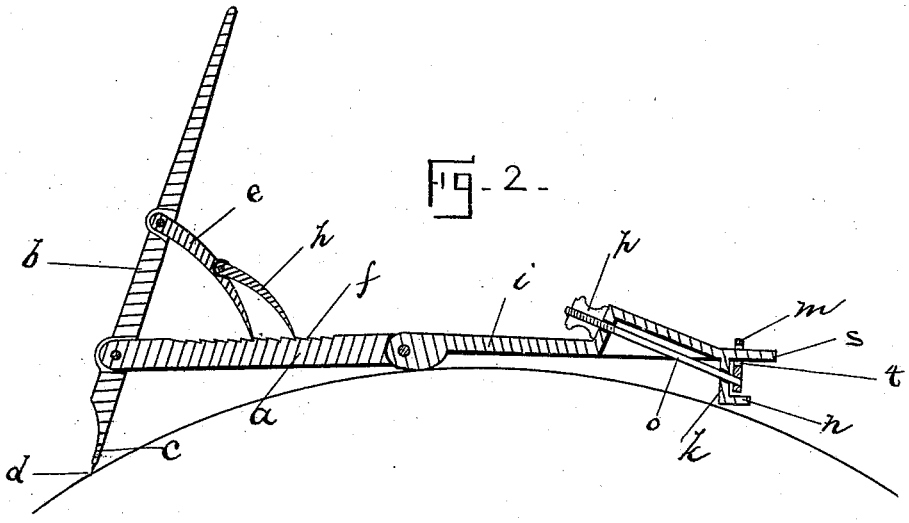


Fig. 2.



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JAMES M. KEENE, OF WAUREGAN, CONNECTICUT.

APPARATUS FOR CLAMPING AND STRETCHING LEATHER AND OTHER MATERIAL.

SPECIFICATION forming part of Letters Patent No. 345,699, dated July 20, 1886.

Application filed January 22, 1886. Serial No. 189,363. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. KEENE, a citizen of the United States, residing at Wauregan, Windham county, Connecticut, have invented certain new and useful Improvements in Devices for Clamping and Stretching Leather on Cylinders, which improvements are fully set forth and described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my newly-invented device, and Fig. 2 is a vertical longitudinal section through the center of said device.

My invention relates to that class of clamps used to stretch straps of leather, card-clothing or similar material around the periphery of rolls or cylinders of considerable size—as, for example, in the covering of cylinders of carding-machines, and also in the manufacture of leather-covered polishing-wheels.

My object is to produce a cheaply-constructed device in which shall be combined a strong clamp to hold the end of a strap, powerful leverage to draw said strap tightly around the roll or wheel, and which shall also be so constructed that it will adapt itself to wheels of different diameters.

In the covering of carding-machine cylinders it is especially desirable that the so-called "card-clothing" be drawn tightly and smoothly around the cylinder, and also held in place until fastened. This is also true of that class of polishing-wheels in which a strip of leather or walrus-hide is stretched around and glued to the periphery of a wooden wheel.

Referring to the annexed drawings, the letter *a* represents a metallic bar having one end hinged within a lever-handle, *b*, whose longer arm is formed as an operating-handle, and whose lower (shorter) arm is considerably flattened, as at *c*, and is provided in its end with a series of spurs or pins, *d*. Hinged in lever *b*, above the bar *a*, is a pawl, *e*, whose free end is adapted to engage ratchet-teeth *f*, cut on the upper side of bar *a*. In order to obtain a finer adjustment I have hung on pawl *e* an auxiliary pawl, *h*, which in practice serves the same purpose as finer ratchet-teeth, the action of said auxiliary pawl occurring between the engagements of the principal pawl *e*.

The letter *i* represents a cast-metal piece, one of whose ends is hinged to bar *a*, above described, the opposite end being extended laterally and formed with an angular jaw, *k*, which coacts with a movable jaw, *m*, to grasp and hold the end of a strap while in the act of stretching it, as I shall refer to hereinafter. The lower edge of jaw *k* is formed with a ledge, *n*, extending the entire length of said jaw.

The movable jaw *m* conforms in shape to the outer face of the fixed jaw, and is provided with a rod, *o*, extending diagonally up through the piece *i*, being held and operated by a thumb-nut, *p*, as will be understood by reference to the drawings.

On the outer face of piece *i* is an integral lug, *s*, which, when the jaws are assembled, extends through an opening, *t*, in jaw *m*, forming a dowel to keep said jaw *m* in position when not fastened by the thumb-nut.

My device is operated as follows: Jaws *k m* are opened until they will receive an end of the strap to be stretched, the other end having been already secured to the wooden roll or cylinder. Thumb-nut *p* is now turned home, thus causing said jaws to grasp said strap firmly. The spurs *d* are then embedded in the periphery of the wooden cylinder, with the pawls thrown well inward on the ratchets *f*, as shown. It will now be obvious that if the handle of lever *b* is forced outward the jaws *k m* will follow the movement, drawing the strap tightly around the cylinder, in which position it is held by the pawls, which act automatically as the lever-handle is moved outward.

After properly securing the strap to the cylinder the pawls are thrown out of engagement and jaws *k m* are opened to release the end of the strap.

With the exception of the hinge-pins and rod *o*, the several parts may be made of cast metal, (preferably of malleable iron.)

Having thus described my invention, I claim as new and wish to secure by Letters Patent—

A device for stretching leather or similar flexible material on curved surfaces, consisting of a body portion formed of two sections pivotally connected, as described, one section having on its outer end adjustable jaws capa-

ble of grasping and holding the material to be stretched, the outer end of the companion section being hinged by a fulcrum-pin to a lever whose shorter arm is provided with spurs, as described, the elements named being combined with each other, and with a pawl hinged in the said lever and adapted to engage a series of ratchet-teeth in the body-section, all being substantially as herein set forth.

JAMES M. KEENE.

Witnesses:
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