(No Model.)

H. N. HOPKINS.

BARREL ROLLER.

No. 363,744. Patented May 24, 1887.

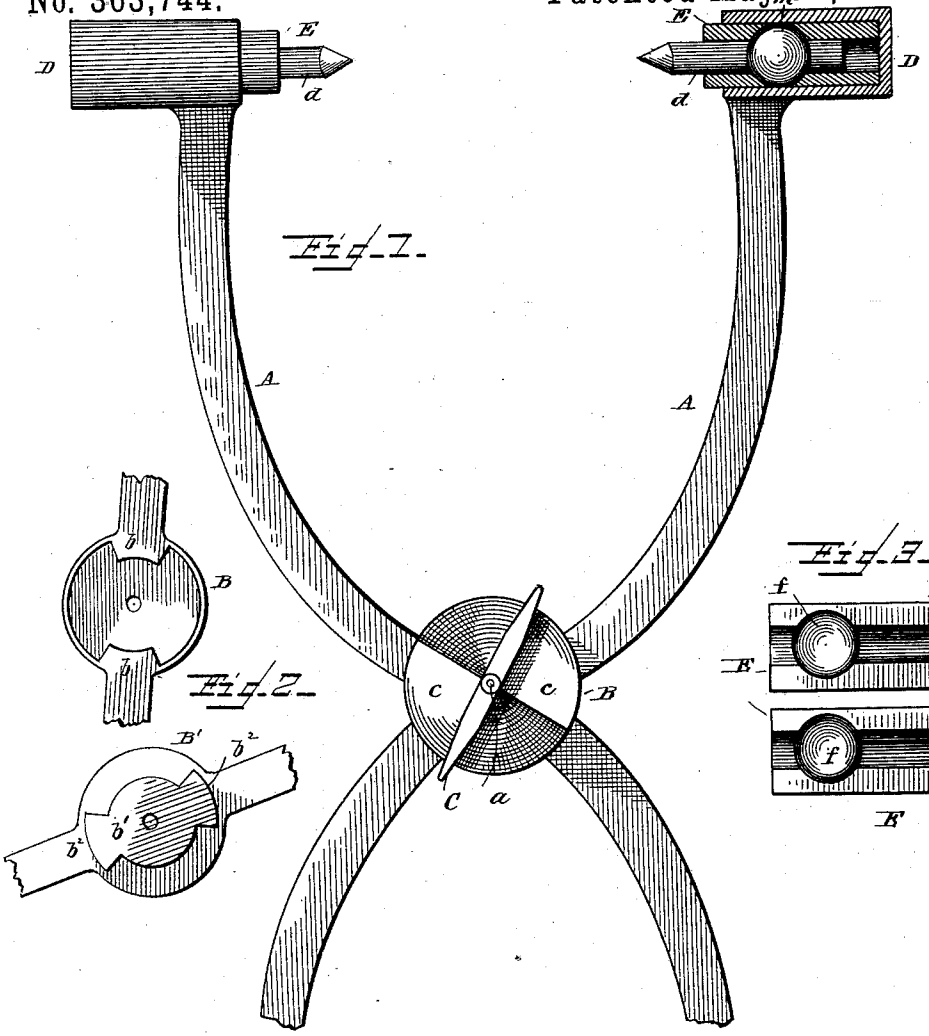


Fig. 1.

Fig. 2.

Fig. 3.

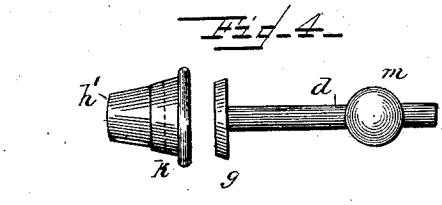


Fig. 4.

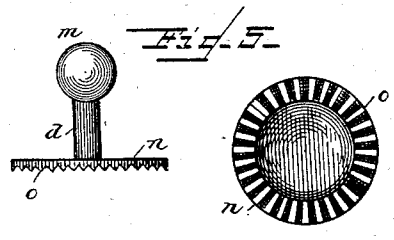


Fig. 5.

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UNITED STATES PATENT OFFICE.

HORACE N. HOPKINS, OF GARNETT, KANSAS.

BARREL-ROLLER.

SPECIFICATION forming part of Letters Patent No. 363,744, dated May 24, 1887.

Application filed February 2?, 1887. Serial No. 229,251. (No model.)

To all whom it may concern:

Be it known that I, HORACE N. HOPKINS, a citizen of the United States, residing at Garnett, in the county of Anderson and State of Kansas, have invented certain new and useful Improvements in Barrel-Rollers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to barrel-rollers; and it has for its object to provide a simple and durable device whereby a barrel may be expeditiously moved from place to place with great ease and without injury to the heads of the barrels, and at the same time relieve the operator of the strain of holding the points of the device against the heads; and it consists of the parts and combinations of parts hereinafter described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side view of the device, the boxing on one of the levers being in section and the grasping or hand ends of the levers being broken away. Fig. 2 is a detail view of the two levers at their point of juncture; Fig. 3, a detail view of the boxing; Fig. 4, a side view of a modified construction of the points, and Fig. 5 detail views of another form of the same.

Similar letters refer to similar parts throughout all the views.

A represents the handles or levers of the device, each having, as clearly shown in Fig. 1, a double or ogee curve, and being pivotally joined together by a pin or bolt, *a*, passing through their enlarged circular parts B B'. These levers are made of some suitable spring metal, steel preferred, and have cast with or otherwise formed on their ends the tubular cylindrical bearing D for the divided slip-boxing E, in which the shafts *d* of the grasping-points are journaled.

The bearing D is closed at its rear end and the boxing E fits snugly within the same, only sufficient thereof projecting to permit of its being grasped to remove the same. The boxing is divided or formed of two semi-cylindrical halves, each having a rounded recess or concave, *f*, formed in the interior of the same at a short distance from one end, so that when the two halves are brought together the concaves will form a spherical recess. The grasping-point shown in Fig. 1 consists of a round shaft, *d*, having one end sharpened or cone-shaped, and a ball or sphere, *m*, formed thereon at a short distance from its other end.

In Fig. 4 I show another form of the point. This consists of a shaft and ball similar to the above-described construction, excepting that the end is not conical, but has instead a disk, *g*, formed thereon, the edge of which is tapered. This construction is intended to be used in connection with the grasping-point shown in said figure, which consists of a truncated cone of rubber, *h'*, and a band, *k*, the rubber *h'* being firmly held against the disk *g* by the band *k*, the former being fitted in the latter, and the band either cast with the disk and contracted around the rubber or the band may be secured to the disk by screws. The first-described grasping-point is intended to be used in handling barrels in which the marring of the heads by the grasping-points being driven therein is not objectionable, and the rubber grasping-point is to be used where such marring is objectionable, the frictional hold of the rubber on the heads being sufficient to hold the point rigid while the shaft turns in the boxing E. In some cases the barrels may contain substances or liquids which would dissolve rubber and where the marring of the heads is objectionable. To provide for such cases I have invented the point shown in Fig. 5. This point consists of a shaft, *d*, having a ball or sphere, *m*, formed on one end thereof, and a disk, *n*, having a concaved middle portion and serrated periphery *o*. In using this point the boxing E is reversed in the cylindrical bearing D, so as to bring the recess *f* near the front end of the bearing, and thus permit the free movement of the point, something after the manner of a ball-and-socket joint.

Referring, now, to the enlarged parts B B' of the levers, it will be seen that one of them, B, is hollowed out or recessed on one side, so as to leave two projecting stops, *b*, opposite each other, and having their sides inclining toward each other and their ends formed on the arc of a circle. These stops are in a line with each

other and with the levers A, which project therefrom. On the other or outer side of the part B, I form two inclined planes, *c c*, inclining in opposite directions, (see Fig. 1,) and to or on the pin or bolt *a* passing through the same I secure a lever, C, which, when turned so as to ascend the inclined surfaces, will force the parts B B′ together in close contact, so as to increase the friction between these parts and virtually form a lock to hold the device at any desired adjustment, or to clamp it tightly against the barrel-heads.

The part B′ has a raised portion, *b′*, having the lugs b^2, which correspond in shape to the hollowed-out or recessed portion of part B, only on a smaller scale, so that when the two parts B B′ are brought together the raised portion *b′* of part B′ will fit snugly in the recess of part B at its center, but will permit a limited movement of the lugs b^2 back and forth in the space between the stops *b*. The object of thus constructing the pivotal point of the levers is to prevent all lateral strain on the pivot, owing to the fact that the lugs b^2 will work against the rim of part B, and the raised portion *b′* against the ends of stops *b*, and I also thus provide greater surface for the creation of friction, and the stops will prevent the points coming together to their injury or damage when not in use.

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

1. The combination, in a barrel-roller, of the levers A, pivotally joined together and having the cylindrical bearings D, the divided boxing E, having the spherical recess *f*, and a suitable grasping-point having a sphere formed on the body thereof, as set forth.

2. The combination, in a barrel-roller, of the levers A, provided with suitable grasping-points, and the enlarged circular parts B B′, the former being recessed or hollowed out and having the stops *b*, and the part B′ having the raised portion *b′*, adapted to fit within the recess of part B, substantially as described.

3. The combination, in a barrel-roller, of the levers A, having suitable grasping-points, and the enlarged circular parts B B′, the former being recessed on one side and having the stops *b*, and having the inclined planes *c* on its other side, the part B′ having the raised portion *b′*, provided with lugs b^2, and the lever C, pivotally secured on said part B, substantially as described.

4. The combination, in a barrel-roller, of the levers A, having the hollow cylindrical bearings D, the halved or divided boxing E, having the spherical recesses *f*, the shafts *d*, having the spherical enlargements *m*, and suitable grasping-points, as set forth.

5. In a barrel-roller, the combination of the levers A, having the hollow cylindrical bearings D, the divided or halved cylindrical boxing E, having the spherical recesses *f*, the shafts *d*, having the spherical enlargements *m*, and points adapted to grasp the heads of a barrel, substantially as described.

6. The combination, in a barrel-roller, of the levers A, the hollow cylindrical bearings D, the halved boxing E, having the spherical recesses *f*, and shafts *d*, having spherical enlargements *m*, whereby said shafts may have universal movement, as set forth.

7. The combination, with the grasping-points of a barrel-roller, of the levers A, having the hollow cylindrical bearings D, and the enlarged circular parts B B′, the former being hollowed out or recessed on one side and having the stops *b* and inclined planes on its other side, the part B′ having the enlarged central projection, *b′*, and lugs b^2, whereby said points are prevented being brought forcibly together, as set forth.

8. A grasping-point for a barrel-roller, consisting of the shaft *d*, spherical enlargement *m*, and a non-marring grasping-point, as set forth.

9. A grasping-point for a barrel, consisting of the shaft *d*, spherical enlargement *m*, a disk, the band or ferrule *k*, and a rubber point, *h′*, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HORACE N. HOPKINS.

Witnesses:

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B. F. WHITNEY.