(No Model.)

J. BARNS.

ANTI FRICTION ROLLER FOR DRAWERS.

No. 383,689. Patented May 29, 1888.

FIG. 1.

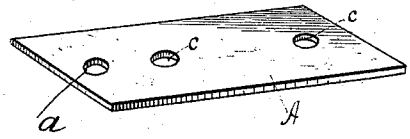


FIG. 2.

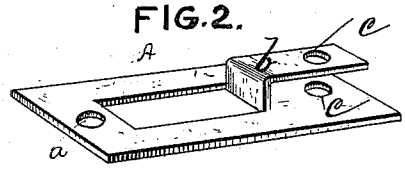


FIG. 3.

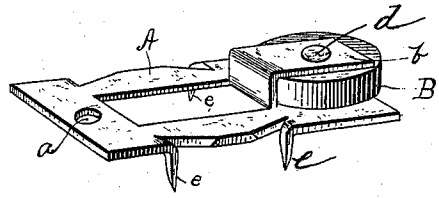
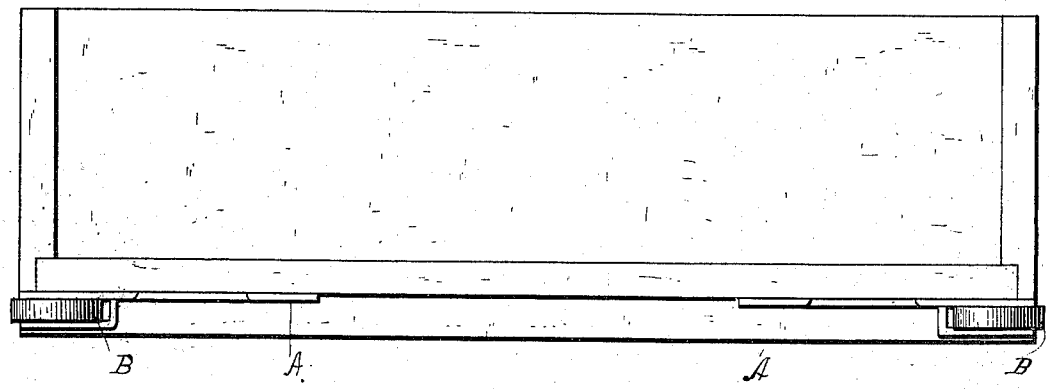


FIG. 4.



ATTEST.

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UNITED STATES PATENT OFFICE.

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ANTI-FRICTION ROLLER FOR DRAWERS.

SPECIFICATION forming part of Letters Patent No. 383,689, dated May 29, 1888.

Application filed December 20, 1887. Serial No. 258,407. (No model.)

To all whom it may concern:

Be it known that I, JOHN BARNS, a subject of the Queen of Great Britain, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Anti-Friction Rollers for Drawers, &c.; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures and letters of reference marked thereon.

This invention relates to certain improvements in anti-friction rollers, particularly such as are applied to the bottom and sometimes the top of drawers to cause them to move easily in and out; and the invention consists in certain novel features of construction and combinations of parts, to be hereinafter described, and pointed out particularly in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a perspective view of the plate from which the frame is formed. Fig. 2 is a view of the same after the central tongue has been turned over to form the bearing on one side of the roller. Fig. 3 is a view of the complete device, and Fig. 4 is a view showing its application to a drawer.

Similar letters of reference in the several figures indicate the same parts.

In forming my improved roller a rectangular piece of sheet metal, A, is first taken and suitable apertures, *c c*, drilled or punched through to form the bearings for the roller, and as many other apertures, *a*, for the passage of screws to hold the device in position being made as is found desirable. The portion of the plate having one of the apertures *c* therein is then bent over to a position parallel to the portion containing the other one of said apertures, said apertures being coincident or in line to form bearings for the pivot or axle *d* of the roller. The bent-over portion of the plate referred to, as shown in the drawings, consists of a tongue, *b*, struck out of the center of the plate and bent over until its end is substantially in line with the edge of the plate, (see Fig. 2,) a screw-hole, *a*, being in this instance preferably formed in the plate beyond the slot left by the tongue, this portion of the plate being left to form an extended bearing on the drawer. The flat roller B is now placed between the tongue *b* and plate A, and the pivot or axle, consisting of a rivet, is inserted and its end upset to hold it in place, as will be readily understood.

The roller and the length of the tongue *b* and the distance of the apertures from the edge of the plate are so proportioned that only a small portion of the circumference of the roller will project beyond the said edge to bear on the track or drawer-guide, thus giving a greater bearing for the plate and aiding materially in holding it in position; but at the same time room enough is left between the roller and base of the tongue to allow the former to turn freely.

For the purpose of holding the plate and roller in place, and when screws are employed as a supplement thereto, particularly to resist strain bearing directly upward on the roller, points or projections *e* are formed thereon, usually by making diagonal cuts in the edges of the plate and turning the cut portions down to substantially right angles, as shown in Fig. 3, this mode of construction having the important advantage of forming the projections pointed in the first instance.

The device is preferably applied to the sides of the drawer at top and bottom, or, as shown in Fig. 4, the roller itself projecting a slight distance beyond the same to engage the guides or tracks and roll thereon.

As the whole device is very thin, it occupies very little room and may be placed on drawers now in use, the free space usually left around the drawers being sufficient.

As is obvious, instead of employing a pivot for the roller riveted in position, a screw may be passed through the bent-over portion, roller, and base-plate and into the drawer to aid in holding the device in position, in which instance the screw-holes in the plate may be dispensed with.

I do not wish to be limited to the particular location of the roller on the drawer, as it may be applied in position to bear on any of the drawer-guides on which a frictional bearing is usually had.

Having thus described my invention, what I claim as new is—

1. The combination, with a base-plate having portions thereof bent out at substantially right angles thereto to form holding projections or points and a portion bent over parallel with said base-plate, of a roller between said bent-over portion and base-plate, and a pivot for said roller carried by the bent-over portion and base-plate, respectively, substantially as described.

2. In an anti-friction roller for drawers, the combination, with the extended base-plate having a portion thereof bent over substantially parallel therewith at one end, of a roller located between said bent-over portion and base-plate, the pivot therefor being held by said bent-over portion and base-plate, respectively, substantially as described.

3. In an anti-friction roller for drawers, the combination, with the extended base-plate having a tongue cut out of the center of the same and bent over parallel therewith at one end, of a roller located between said bent-over portion and base-plate, the pivot therefor being held by said bent-over portion and base-plate, respectively, substantially as described.

Subscribed in presence of two attesting witnesses on this the 14th day of December, A. D. 1887. Witness my hand.

JOHN BARNS.

Witnesses:
E. B. WHITMORE,
L. C. TOWER.