(No Model.)

T. W. MOORE.

FURNITURE DRAWER.

No. 287,386. Patented Oct. 23, 1883.

Fig. 1

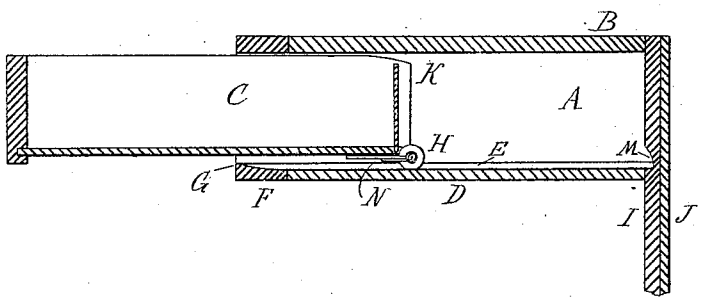


Fig. 2

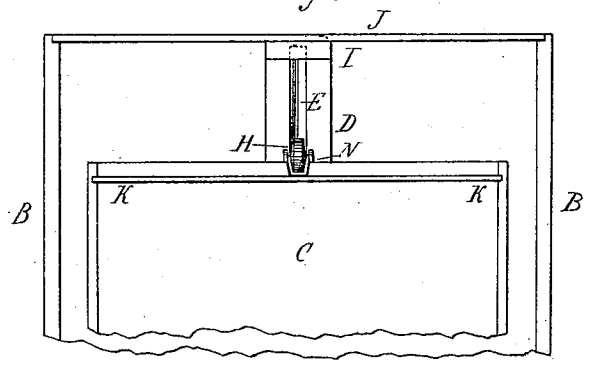


Fig. 3

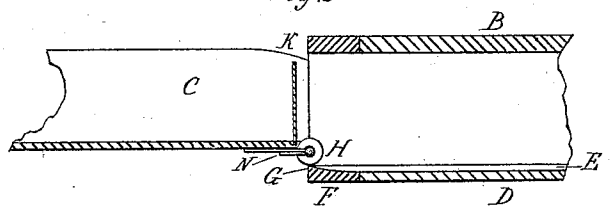


Fig. 4

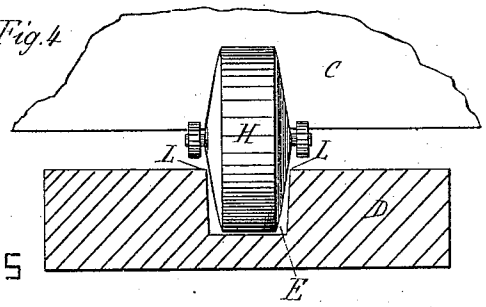
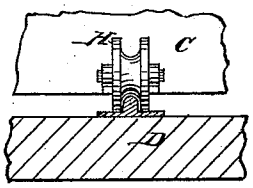


Fig. 5



WITNESSES

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UNITED STATES PATENT OFFICE.

THOMAS W. MOORE, OF PLAINFIELD, NEW JERSEY, ASSIGNOR TO FREDERICK M. MOORE, OF NEW YORK, N. Y.

FURNITURE-DRAWER.

SPECIFICATION forming part of Letters Patent No. 287,386, dated October 23, 1883.

Application filed March 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, THOMAS W. MOORE, of Plainfield, Union county, New Jersey, have invented a new and useful Improvement in Furniture-Drawers, of which the following is a specification.

My invention relates to the arrangement of anti-friction rollers employed with bureau, closet, desk, and other drawers, for enabling them to slide out and in easier than such drawers can without said rollers, as hereinafter described, reference being made to the accompanying drawings, in which—

Figure 1 is a sectional elevation through a bureau-drawer from front to back, also through a portion of a bureau or other case for drawers. Fig. 2 is a top view of a drawer-case and drawers, the top of the case being removed. Fig. 3 is a section of the case and drawer, showing the contrivance whereby the drawer may be entered at the front without having the groove of the rail open through to the front of the case. Fig. 4 is a transverse section of the grooved rail, and front elevation of a portion of the inner end of the drawer with the roller attached, the parts being drawn on a larger scale than in the other figures; and Fig. 5 represents the invention as when a grooved roller is used on a rail-head.

A represents the drawer-chamber in a bureau, B, or other case of drawers, and C the drawer sliding therein.

D is a rail or bar traversing the space under the drawer from front to back, about midway between the two sides of the drawer, wherein a grooved way, E, is made from front to back, but not opening out through the front, so as to make an unsightly notch thereat, the bottom being sloped up to the surface of the front bar, F, at G, or a rail for a grooved roller, Fig. 5, may be placed on the bar.

H is a roller attached by its pivots to the back end of the drawer, suitably to run in the groove, or being itself grooved to run on the rail, whereby a single roller may carry and also guide the drawer as well as or better than rollers for carrying the drawer and others for guiding it.

When the improvement is applied to a bureau, I propose to apply a vertical bar, I, to the back J of the case, to serve for the support of the rails D of all the drawers and afford more substantial support for them than the thin back J can, and, if necessary, will notch said bar, as at M, to make space for the roller when the drawer is shoved in.

In order to allow the roller to pass over the front G into and out of the groove, the corners K may be cut off, as shown, to allow the drawer to rise, so that the wheel may pass over edge G; but it will be noticed that by the arrangement of the roller, as I have it, on a bearing projecting beyond the back of the drawer, so that the roller will pass over the front of the edge G into the groove before the drawer enters, the corners need not be cut off at K, especially if the roller projects about as much beyond the back of the drawer as the distance from the front of the edge G to where the slope of the groove terminates in the bottom, which I propose to do in practice, and I do not limit myself to the bevel-corner K.

Although I have shown a grooved rail for the wheel to run in, it is to be understood that the roller may be grooved or flanged, so as to run on a rail, as shown in Fig. 5; but I prefer this arrangement, and I prefer to diminish the breadth of the wheel on its face, as a means of preventing it from running up on the sides of the groove in resisting the lateral thrusts of the drawer. Besides being greatly superior to the common anti-friction arrangement of drawers, on account of simplicity, the arrangement is cheaper, because stock for only one rail D, and fitting for the same, is required in this case, while the stock and fitting of two or more is required in the other, one being used at each side of the drawer. The roller may be pivoted in the notched end of a flat strip of iron, N, and the latter screwed to the bottom of the drawer, as shown, or to the end, if preferred.

I am aware that a grooved rail has been attached to the bottom of the drawer to run on a ribbed or tongued bar of the frame, the said rail and the tongue being located about midway between the sides of the drawer; but such an arrangement is subject to about the same friction by the binding of the one with the other when the drawer is pushed or pulled at one side, as when the drawer slides at both sides between two rabbeted bars, in which

arrangement the friction increases with the increase of the force applied to the arms, whereas in the roller arrangement the action of the roller tends to free the cramping of the drawer, besides lessening the friction by the more easy way that it carries the load.

I am also aware that rollers have been arranged under each side of a drawer for the drawer to roll on, but without being arranged for guiding it to prevent it from cramping, and together with such rollers other rollers have been attached to the sides for guides. By my invention one roller is made to serve for the drawer to roll on and for guiding it so as to prevent it from cramping, which is much cheaper and better.

In the manufacture of cheap furniture, of which the quantity is large, the profit is materially affected by a saving of a few cents on an article like a bureau. Hence a contrivance of devices such as I propose, whereby such a saving is effected, is of great importance in the aggregate, although it is trifling in a single article.

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

1. The combination, with a bureau or other drawer, of a roller attached thereto, and a grooved rail for the roller, said groove being sloped up to the surface of the front bar, F, and the roller being extended beyond the back of the drawer to pass over the front of the bar to and from the groove, substantially as described.

2. The combination, with a bureau or other case having a series of drawers and provided with a guiding-roller, H, and rail D therefor, located midway between the sides of the drawer, of a vertical bar-support, I, for said rails, located and arranged at the back of the case and at the middle of the drawer, substantially as described.

THOMAS W. MOORE.

Witnesses:
W. J. MORGAN,
T. H. MORGAN.