

(No Model.)

F. HAMILTON.
SLIDING DRAWER SUPPORT.

No. 573,461.

Patented Dec. 22, 1896.

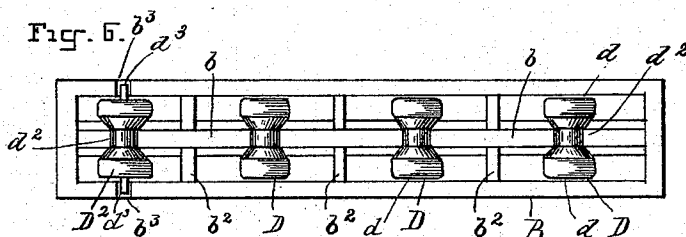


Fig. 1.

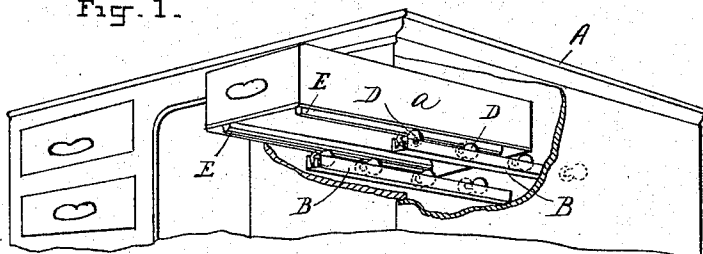


Fig. 2.

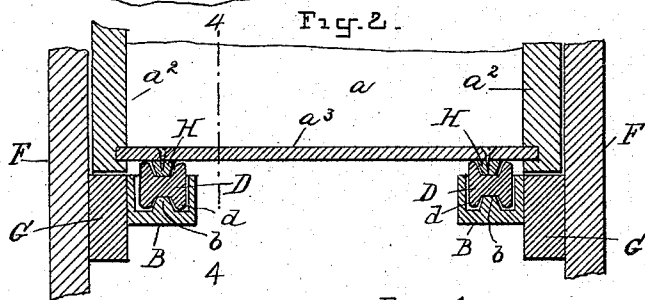


Fig. 3.

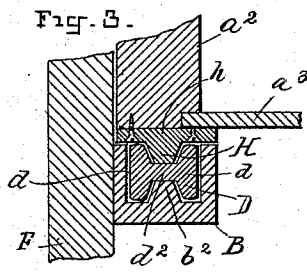


Fig. 4.

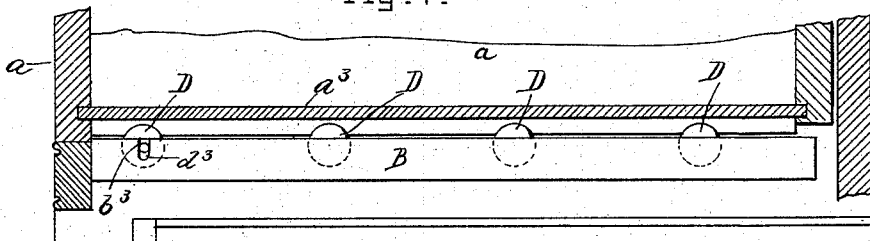
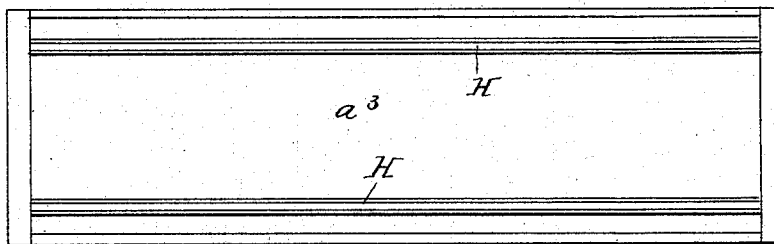


Fig. 5.



WITNESSES:

C. E. Whitney
C. E. Whitney

INVENTOR

Frederick Hamilton

BY
Edgar Tate & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

FREDERICK HAMILTON, OF CRANFORD, NEW JERSEY.

SLIDING-DRAWER SUPPORT.

SPECIFICATION forming part of Letters Patent No. 573,461, dated December 22, 1896.

Application filed January 25, 1896. Serial No. 576,827. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK HAMILTON, a citizen of the United States, and a resident of Cranford, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Sliding-Drawer Supports, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to desks, bureaus, cabinets, store-fixtures, and all such articles or devices that have or employ sliding drawers, compartments, or receptacles for containing or the storage of articles of any character or description; and the objects thereof are to provide an improved support or bearing for such drawer or receptacle consisting of a casing provided with rollers so constructed and arranged as to support the weight of the drawer or receptacle and permit its easy movement back and forth, and also to prevent the twisting, derangement, or cramping or locking of the drawer by means of injury, faulty construction, or other defects, such as frequently occur. These objects and other advantages I secure by means of the construction described herein, and the invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a perspective view of the upper part of a desk, showing the application of my improvement and part thereof being broken away; Fig. 2, a transverse section of one side of a desk or other drawer-receptacle, showing one form of my improvement; Fig. 3, a similar view of a detail, showing another form of the construction; Fig. 4, a longitudinal section on the line 4 4 of Fig. 2; Fig. 5, a bottom plan view of a drawer provided with one form of my improvement; and Fig. 6 is a plan view of a casing which I employ, in which the rollers which support the drawer are placed, and in practice one of said casings is placed beneath in each side of the drawer.

Referring to the drawings, the reference-letter A designates a desk of any desired form of construction, in which is placed a drawer *a*, each side of which is supported by a casing or box B, which is provided with

rollers D, and the bottom of the drawer is provided with tracks or ways E.

A plan view of the casing B is given in Fig. 6, and said casing consists of an oblong box open at the top, and in the bottom thereof is formed a track or way *b*, which extends the full length thereof and the sides of which are preferably slightly inclined outwardly and downwardly, and at regular intervals said box or casing is divided by transverse partitions *b*², which extend to a level with the tops of the sides, and in Fig. 6 three of these transverse partitions are employed, but the number thereof and the number of the rollers D will be controlled to some extent by the length of the box or casing and the size of the drawer which is to be placed thereon. The rollers D are of the form shown in Figs. 3 and 6, and consist of end or head pieces *d*, united by a central portion or shaft *d*², and said rollers are free to move back and forth between the partitions or projections *b*², and, as will be understood, are supported entirely upon the track or way *b*, the central portion or shaft *d*² thereof resting on the said track or way, and the inner sides of the ends or heads *d* are inclined outwardly to correspond with the inclined sides of the track or way *b*.

In practice I prefer to provide the outer end of the box or casing B with a stationary roller, as shown at D², this roller being exactly the same as the others, with the exception that it is provided with pivots or tenons at each end, which are placed in vertical notches or recesses *b*³, formed in the sides of the box or casing B. This roller is also supported by the track or way *b*, and the object of the tenons or pivots *d*³ and the notches or recesses *b*³ is to prevent the longitudinal movement thereof, while at the same time it is free to turn or revolve on the track or way *b*.

In Fig. 2 I have shown the means for applying my improvement to ordinary desks or to old desks as now constructed, and in this figure F represents the sides of the desk, and G the cleats, which are secured to the inner sides thereof, on which the drawer *a* rests, the sides *a*² of the drawer being placed upon and free to slide upon the cleats or strips G. In this form of construction the boxes or casings B are secured to the cleats or strips G in any desired manner, and secured to the

bottom a^3 of the drawer are metal tracks or ways H, which are exactly similar in form to the tracks or ways b , and which are adapted to fit in the annular groove formed in the rollers D and to rest upon the central portion thereof, as clearly shown in said figure.

In Fig. 3 I have shown the preferred means for applying my improvement to new desks or similar articles employing sliding drawers, and in this construction the box or casing B is secured to the side F of the desk or other article in any desired manner, and the side a^2 of the drawer has secured to the bottom thereof a metal plate or strip h , on which the track or way H is formed, and the metal plate or strip h serves to hold the bottom a^3 in place, as will be readily understood and as is clearly shown in said figure, and in this form of construction the sides of the box or casing B may be continued to the top of the rollers, and in both forms of construction I prefer to form said rollers D so that they will approximately fill or extend approximately across the same, and the heads or ends d thereof are so formed as to extend approximately to the bottom of said box or casing, as is clearly shown in Figs. 2 and 3.

The object in securing the roller D² in the forward end of the box or casing or providing means whereby it will be held in a stationary position while allowed to freely revolve is to secure at all times a support for the drawer at the forward end of said box or casing and as near as possible to the front of the desk or other article in which the sliding drawer is mounted, in order that the drawer may be supported on a roller which is located at the extreme limit of the box or casing when said drawer is withdrawn or partially withdrawn therefrom.

By means of the transverse partitions b^2 I also prevent the rollers from moving beyond certain limits and thus secure retention thereof within certain portions of the box or casing, and by this arrangement the drawer is equally supported at all points.

It is not absolutely essential that the rollers should be supported entirely upon the tracks or ways b in the bottom of the box or casing, and the necessary results will be accomplished if the heads or ends of the rollers are so formed as to rest upon or be supported on the bottom of the box or casing, and the central track or way b extended upwardly approximately to the central portion or shaft of the rollers, and this is also true of the tracks or ways H, which are secured to the bottom of the drawers. By means of this construction I avoid the use of shafts by which the rollers are usually supported and on which they revolve, and said rollers are held securely in position and are prevented from wobbling or twisting, and the drawers are securely supported thereon and are free to be moved back and forth thereover, the tracks or ways H, operating in connection with the tracks or ways B, serving to retain said rollers in the

desired position at all times and to prevent the twisting, cramping, or locking of the drawer or drawers.

In practice I form the rollers D so that they will extend approximately across the box or casing and will not be capable of any appreciable lateral movement, and this improvement will be found to be of great service and value in all forms of desks, office or store furniture, or compartments employing movable drawers or receptacles, and especially in such cases where drawers of considerable size are employed, which when filled are of great weight, and it is evident that changes in the construction herein described may be made without departing from the spirit of my invention or sacrificing its advantages, and I reserve the right to make all such alterations therein and modifications thereof as fairly come within the scope of the invention.

The box or casing and the rollers D may be cast in the exact form herein described, and the manufacture thereof will thus be simplified and rendered comparatively inexpensive, and the absence of shafts or similar devices for the rollers will render this device much more simple and much more durable than those of this class heretofore employed.

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

1. A support for sliding drawers, and other receptacles, constructed as herein shown and described, consisting of an oblong box or casing the top of which is open, said box or casing being provided with a longitudinal track or rail in the bottom thereof, and transverse partition-plates, and rollers which are spool-shaped or provided with peripheral grooves, said rollers being placed on said track or rail between said partition-plates, and said rollers being adapted to support or receive corresponding tracks or rails, which are secured to the bottom of the drawer or other article to be supported, and said box or casing being provided at its forward end with a similar roller, which is provided with side projections or tenons which are mounted in vertical recesses in the sides of the box or casing, as and for the purpose set forth.

2. The combination with a desk or analogous article, of a sliding-drawer support, constructed substantially as herein shown and described, consisting of an oblong open-top box set beneath each side of the desk-drawer, a longitudinal track or rail, in the bottom of each box, transverse partitions in each box, spool-shaped rollers set on the rail between the said partitions, corresponding rails on the drawer-bottom, and a roller at the forward end of each box, set on a shaft, journaled in recesses in the box sides, all arranged as set forth.

3. The combination with a desk or other article, provided with a sliding drawer, of supports for the sides thereof, each of which consists of an oblong box or casing which is open

at the top and provided centrally of its bottom with a longitudinal track or way, said box or casing being also provided with rollers having annular grooves which are adapted to be placed on said track or way, and said drawer being provided with a similar track or way which is adapted to be placed in the annular grooves of said rollers, said box or casing being also provided with transverse partitions between which said rollers are placed, and at the forward or outer end thereof, with a roller similar to the rest but provided with end ten-

ons or projections which are adapted to rest in vertical notches or recesses formed in the sides of said box or casing, substantially as shown and described. 15

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 23d day of January, 1896.

FREDERICK HAMILTON.

Witnesses:

C. GERST,
L. M. MULLER.