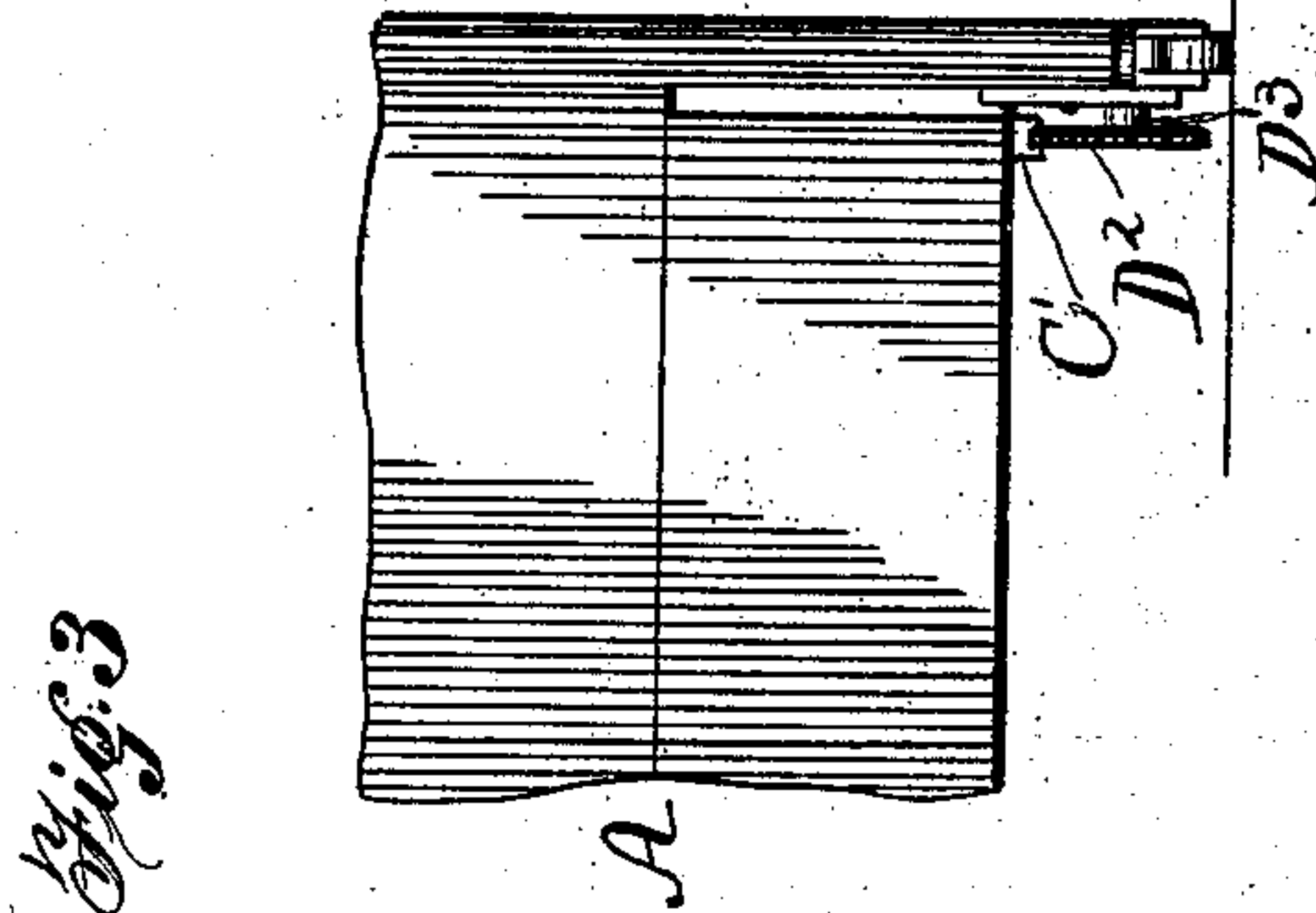
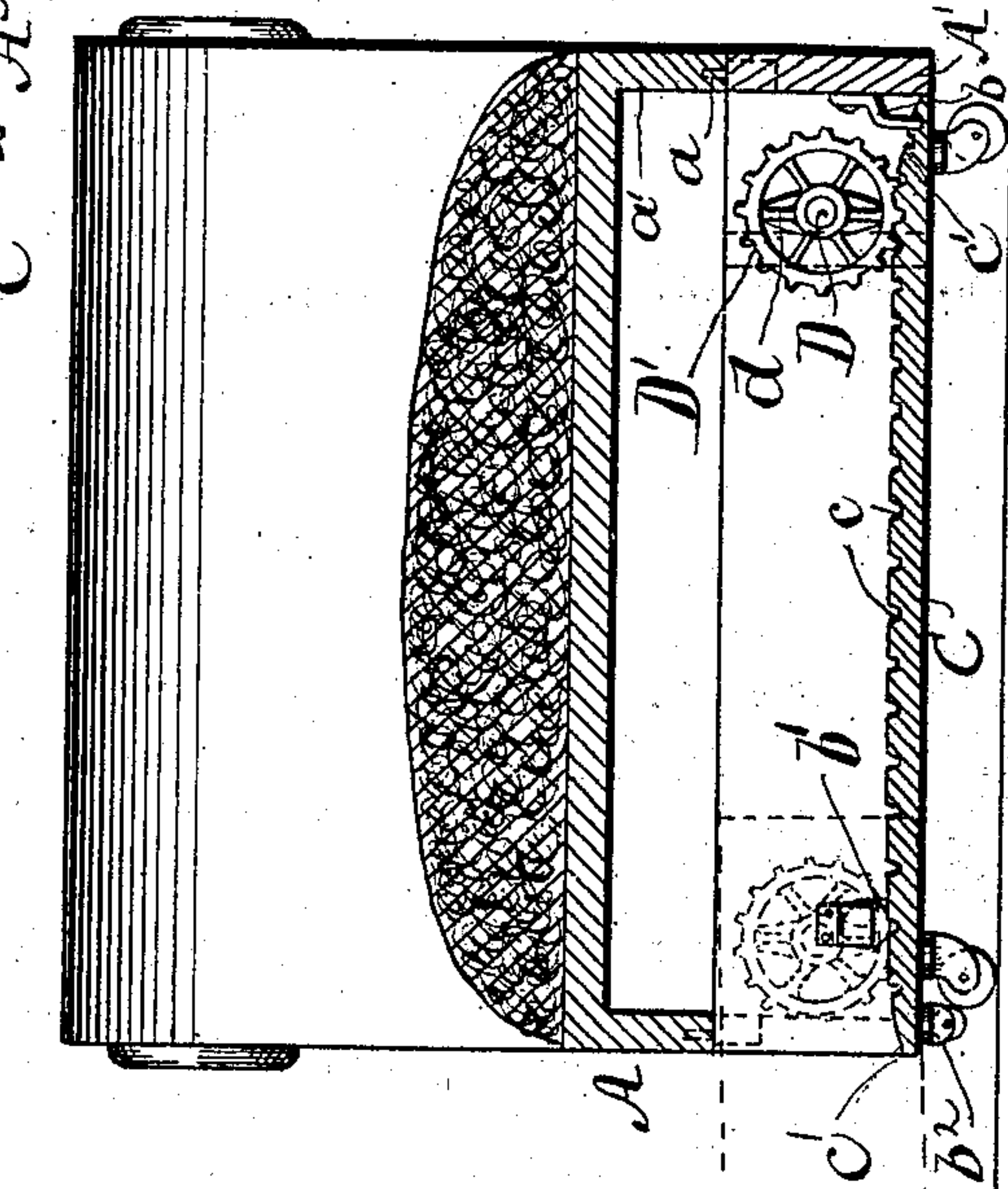
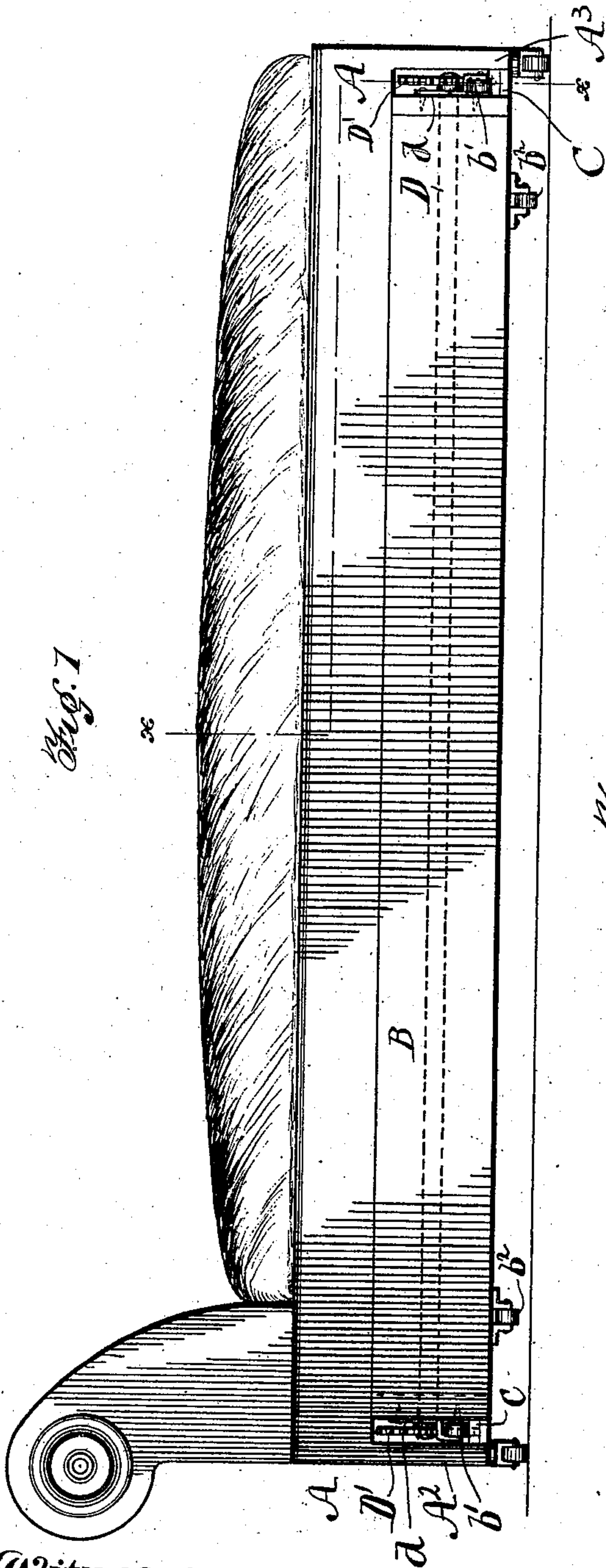


No. 708,820.

Patented Sept. 9, 1902.

C. MAYER.
DRAWER FOR FURNITURE, &c.
(Application filed Oct. 9, 1901.)

(No Model.)



Witnesses:

W. G. Campbell
Della Patterson.

By his Attorneys

Inventor:
Cornelius Mayer,

Carl Deemer & Co.

UNITED STATES PATENT OFFICE.

CORNELIUS MAYER, OF TRENTON, NEW JERSEY.

DRAWER FOR FURNITURE, &c.

SPECIFICATION forming part of Letters Patent No. 708,820, dated September 9, 1902.

Application filed October 9, 1901. Serial No. 78,060. (No model.)

To all whom it may concern:

Be it known that I, CORNELIUS MAYER, a citizen of the United States, and a resident of Trenton, county of Mercer, and State of New Jersey, have invented certain new and useful Improvements in Drawers for Furniture and the Like, 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.

The subject of the present invention is an improved drawer for furniture and the like; and one of its principal objects is to insure the drawer working perfectly true either when being pulled out or pushed in, whereby liability to jamming or binding is obviated and facility for employing drawers of comparatively large capacity greatly increased.

There are other objects connected with the novel drawer, among which may be noted the automatic pivotal lowering and raising of the drawer when pulled out and pushed in and reversibility of operation relative to the article of furniture or other structure with which it coacts.

With the above and other objects in view the invention consists in providing at both sides of the drawer correspondingly-acting sprocket- and -rack provision whereby the drawer is positively guided as it is moved in or out. An extended shaft also coöperates with the sprocket-and-rack provision to serve as a pivotal bearing for the drawer to permit the lowering and raising of the same in either of its movements, antifriction-rollers secured on the drawer being adapted to coöperate with inclines on the guide-rails to promote such lowering and raising movements. The rear wall of the drawer-recess is removable and capable of being readily adjusted to close the opening at the other side of the same, thus adapting said recess to permit the drawer to work in a manner the reverse of that previously provided for.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical side elevation showing my invention as being employed in connection with a couch. Fig. 2 is a vertical transverse sectional view of the construction illustrated in Fig. 1, the

section being taken in the plane indicated by the broken line xx of said latter figure. Fig. 3 is a fragmentary front view of a part of the couch, illustrating a modification.

The frame A of the couch, mounted on suitable casters, is constructed to provide the bottomless drawer-recess, having both at the front and rear openings through either of which the drawer B is adapted to play. One of the openings in the drawer—that at the rear—is closed by a removable section A' , having at its upper edge dowels a to engage recesses therefor in the depending ledge a' of the couch-frame, dogs b , pivotally mounted on the inner faces of the section A' , being designed to be turned down to engage recesses therefor in the contiguous end portions of the guide-rails $C C$ for the drawer, and thereby hold said section securely in position.

As shown in Fig. 1, the guide-rails $C C$ are firmly secured on the inner sides near the bottom of the frame-walls $A^2 A^3$ at the head and foot of the frame, respectively, and forming the sides of the extended drawer-recess. These rails are provided in their upper faces with a longitudinal series of equidistantly-located notches c . Both extreme portions of each rail are beveled on their upper sides to present outwardly-descending inclines c' .

Revolubly supported in the drawer sides is a shaft D , which extends the entire width of the drawer and projects beyond the sides of the same, and metal facing-plates d , secured thereon for the rigid attachment of sprocket-wheels D' , the teeth of one of which are in such register with those of the other that both can have their teeth maintained in similar engagement with the notches c of the rails $C C$ beneath. Secured to the drawer sides at a low point and contiguous to the front thereof are brackets in which are suspended antifriction-rollers b' , which ride along the adjacent inclines c' of the rails and control the lowering and raising movements of the drawer when moved out or in. These movements are important, inasmuch as the extended character of the drawer would result in the weight of the same being imposed upon and the consequent strain borne by the frame at the drawer-opening if it were not for the presence of lower casters b^2 at the front portion of the drawer

which support the same when drawn out independently of the frame and rise with the same and clear the floor when the drawer is pushed in.

5 From the description thus far it will be understood that the shaft D, with the sprocket-wheels D' revolving therewith and having their teeth correspondingly matching in the guide-rails, maintains the drawer in strict parallelism within its recess during its move-
10 ments therein and prevents all tendency to slewing and consequent jamming and binding, as is common in all drawers, and particularly those of extended width. Moreover, such provision greatly reduces the amount of effort
15 required to move the drawer in or out. The presence of the inclines c' and the rollers b' results in the automatic lowering and raising of the drawer without any specific exertion
20 for this purpose on the part of the person operating the drawer.

By completely removing the drawer, disengaging the dogs b of the section A', the latter can be similarly applied and secured at the
25 front side of the frame to close the opening thereat. The drawer can be introduced from the rear and work in and out in a manner the reverse of that shown in full and dotted lines, Fig. 1.

30 I do not wish to be understood as limiting myself to the particular construction and arrangement of the parts shown and described, as the same may be modified and changed and still be within the spirit of my invention. For
35 instance, as disclosed in Fig. 3, guide-rails C', with their notches inverted, may be secured to the drawer-bottom at the side extremities thereof and be engaged by the teeth of sprocket-wheels D², mounted on horizontal
40 stub-shafts D³, suitably supported on the inner faces of the ends of the frame. The front panel of the drawer can be provided with a lock, the bolt of which will engage a keeper located on each of the frame-ledges, according
45 to which opening the drawer works through.

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

50 1. In drawer provision for furniture and similar structures, the combination with a drawer and parts forming its recess, of rollers b', located on said drawer contiguous to the front thereof; parallel side rails located in said drawer-recess, having end inclines
55 over which said rollers ride for effecting the raising and lowering of the drawer during the

movements; and an outer bottom-support connected with the drawer.

2. In drawer provision for furniture and similar structures, the combination with a
60 drawer and parts forming its recess; of notched parallel side rails located on the parts forming the recess of said drawer; and sprocket-wheels located upon the drawer and provided with teeth correspondingly engag-
65 ing the said rails, rollers b', mounted on said drawer, contiguous to the front thereof; the parallel side rails having end inclines over which said rollers ride; and an outer bottom-support connected with said drawer. 70

3. In drawer provision for furniture and similar structures, the combination with a drawer and parts forming its recess; of notched parallel rails secured within the lat-
75 ter, at the sides thereof; a shaft revolvably extending through the drawer sides and having sprocket-wheels secured thereon; the teeth of which correspondingly engage the rail-notches; rollers b', mounted on the drawer sides, contiguous to the front thereof;
80 the rails having end inclines over which the rollers ride to effect the raising and lowering movements of the drawer with the shaft as a shifting fulcrum; and an outer bottom-sup-
85 port connected with said drawer.

4. In drawer provision for furniture and similar structures, the combination of a drawer, and parts forming its recess, with both front and rear drawer-openings, and an interchangeable section adapted to close
90 either opening, and means for detachably securing said section in position.

5. In drawer provision for furniture and similar structures, the combination of a
95 drawer, and parts forming its recess with both front and rear drawer-openings and including front and rear frame-ledges with dowel-recesses, and notched parts, and an interchangeable section A', having dowels lo-
100 cated on the upper edge thereof, and pivoted dogs, mounted on the inner faces of said sections, the latter for engaging the notched parts.

In testimony that I claim the foregoing as my invention I have signed my name, in pres-
105 ence of two witnesses, this 13th day of September, A. D. 1901.

CORNELIUS MAYER.

Witnesses:

THOMAS S. MILEWSKI,
MARTIN MAYER.