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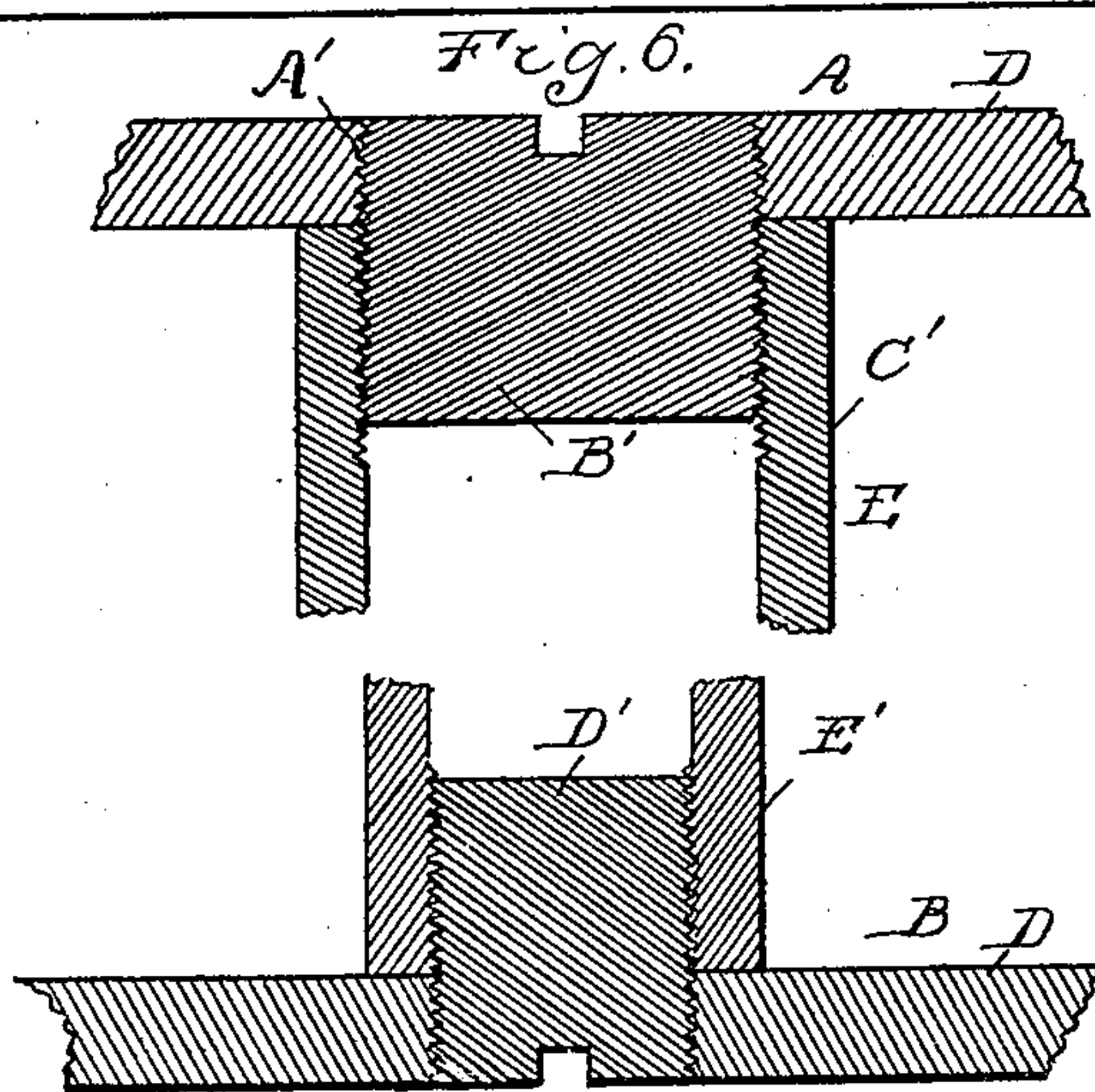
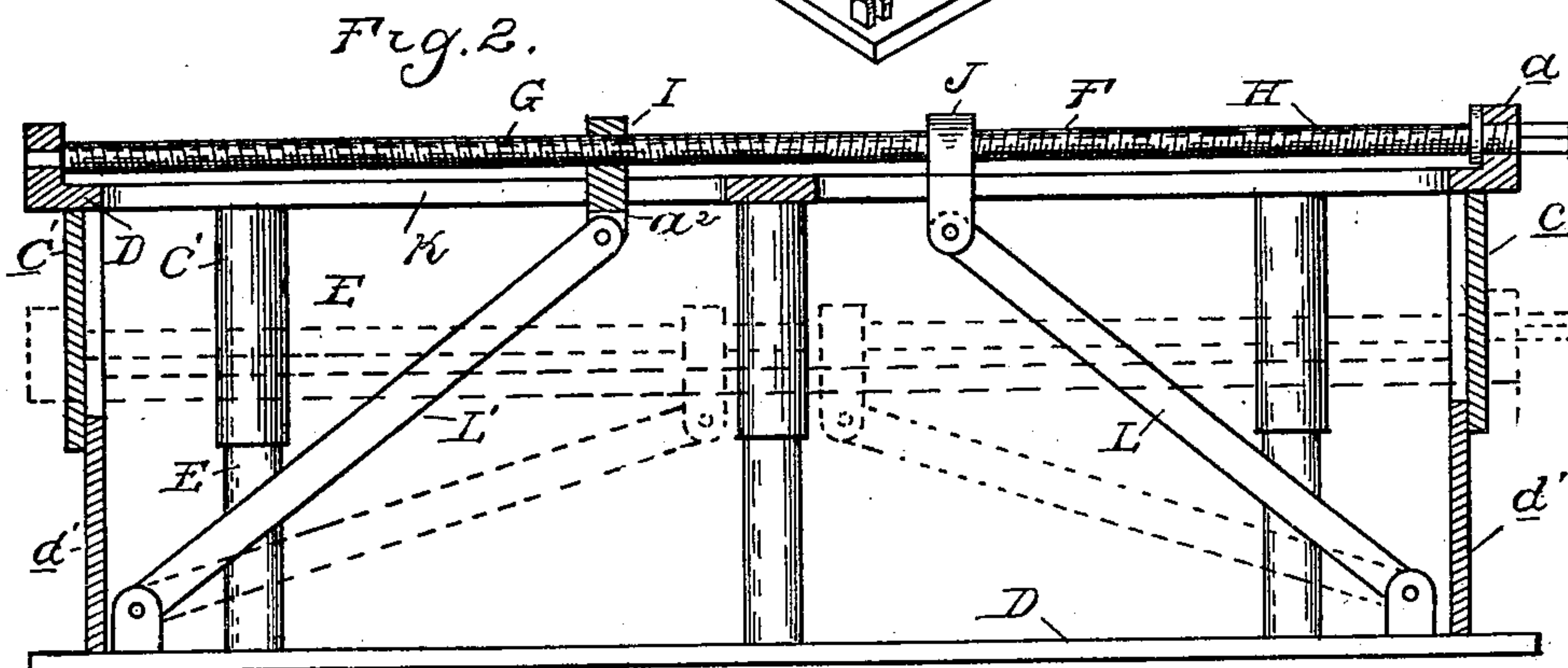
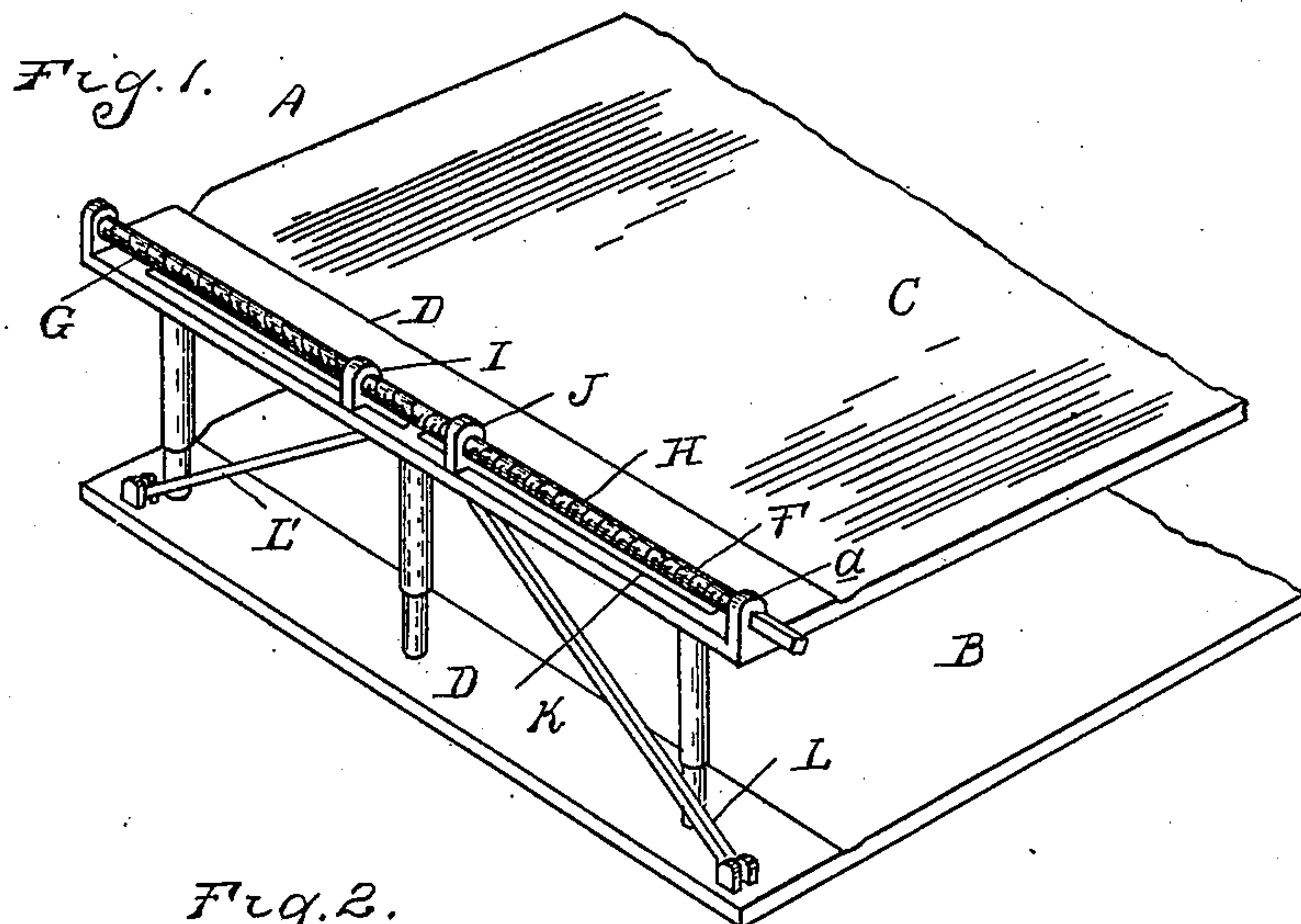
Patented May 20, 1902.

J. BARKER.
LOOSE LEAF LEDGER.

(Application filed May. 31, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
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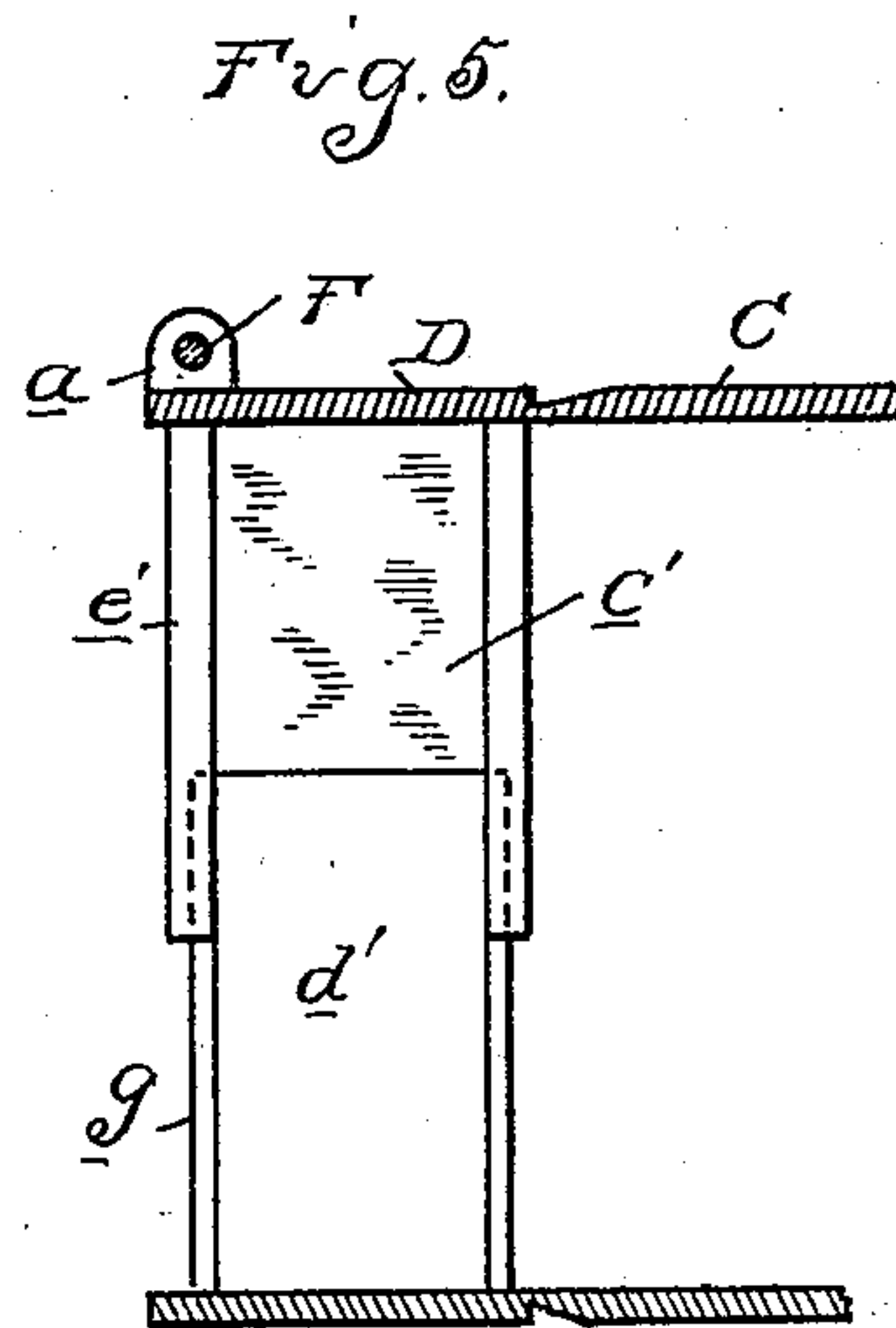
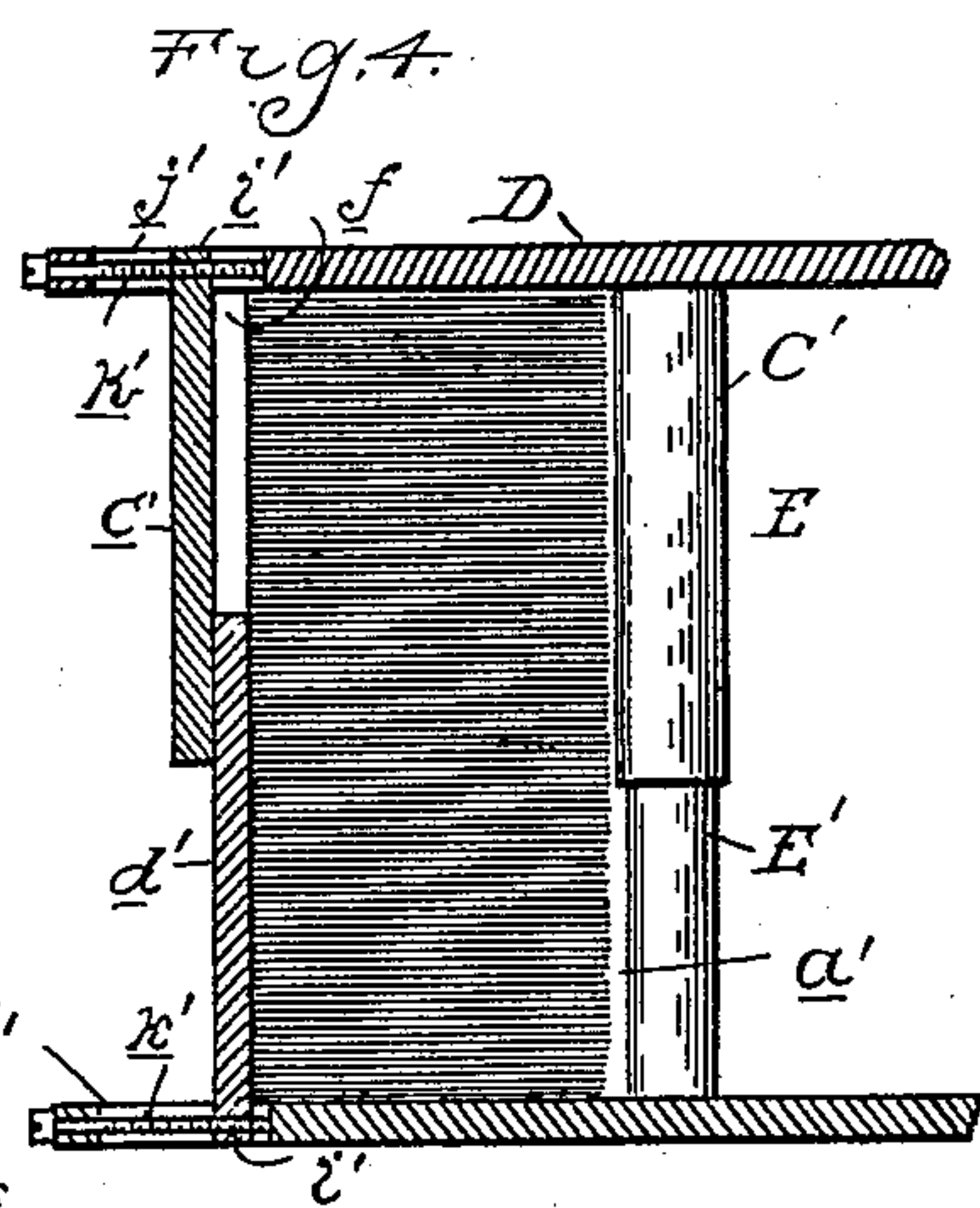
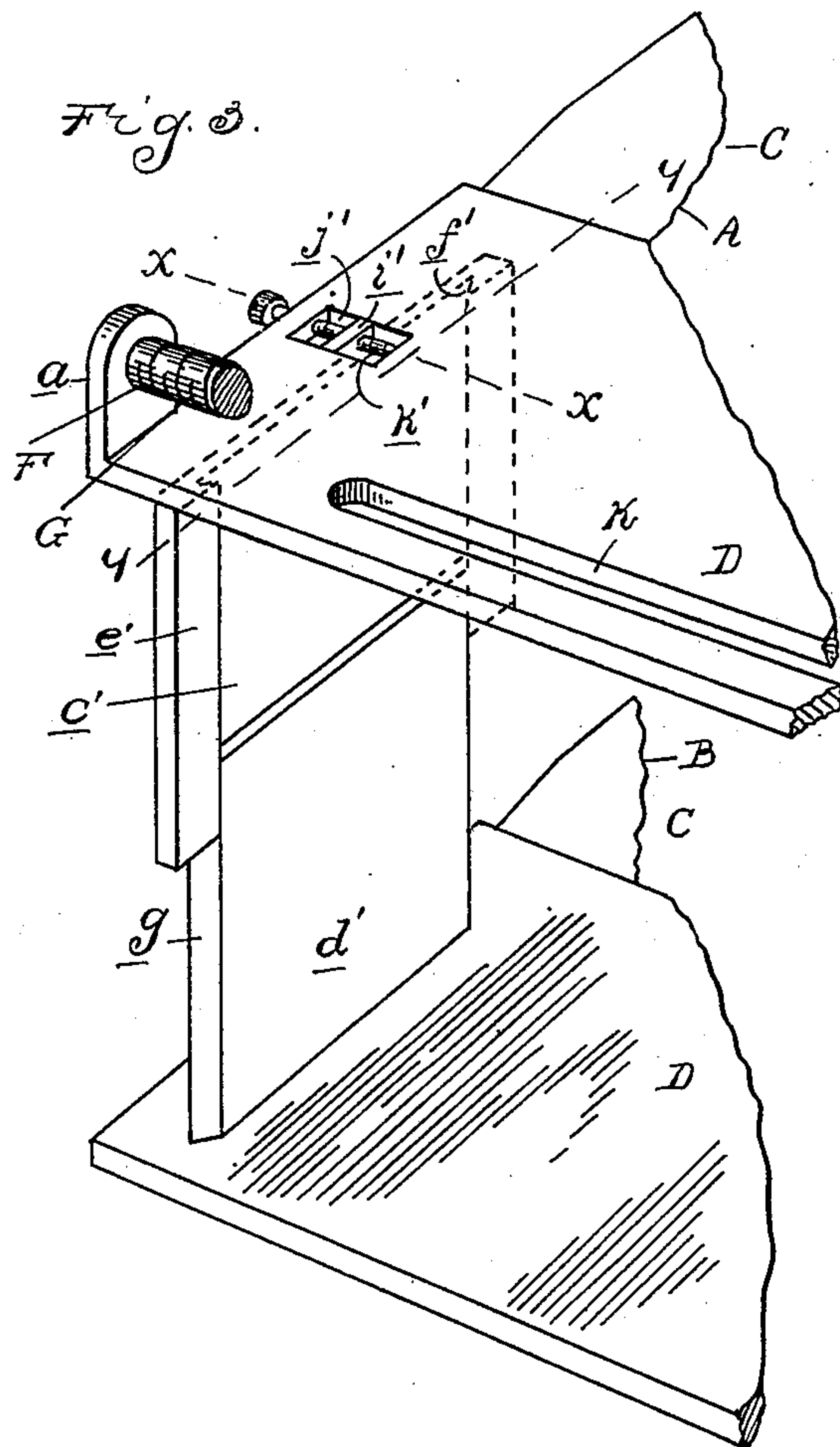
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

JAMES BARKER, OF DETROIT, MICHIGAN, ASSIGNOR TO CHARLES F. BACKUS,
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LOOSE-LEAF LEDGER.

SPECIFICATION forming part of Letters Patent No. 700,604, dated May 20, 1902.

Application filed May 31, 1901. Serial No. 62,610. (No model.)

To all whom it may concern:

Be it known that I, JAMES BARKER, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Loose-Leaf Ledgers, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The invention has reference to ledgers of the loose-leaf type, the covers of which are adjustable to allow of the insertion or withdrawal of the ledger-leaves.

15 The invention consists in novel and simple means for adjusting the covers and in means for evening the sides of the ledger-leaves after the latter have been inserted in the ledger.

20 The invention still further consists in various other details of construction, as will be more fully hereinafter described and illustrated.

25 In the drawings, Figure 1 is a perspective view of a loose-leaf ledger embodying my invention. Fig. 2 is a sectional elevation thereof. Fig. 3 is a sectional perspective view of a ledger, illustrating the mechanism for evening the ledger-leaves. Fig. 4 is a section taken on line $x x$, Fig. 3. Fig. 5 is a section on line $y y$, Fig. 3; and Fig. 6 is a sectional view of one of the ledger-posts.

30 In the drawings thus briefly referred to the reference-letters A and B designate the top and bottom covers of the ledger, each of which comprises two parts, the cover proper, C, and a clamping member D, hinged to the cover proper in any suitable manner.

35 E designates posts, preferably telescopic in construction, arranged intermediate the covers, forming vertical guides for the clamping members D.

40 The upper clamping member is provided at its ends with bearings a , and in these bearings is swiveled the screw-shaft F, having right and left hand threads G and H, respectively, thereon. One end of the screw-shaft projects beyond one side of the ledger and is squared to permit of its being engaged by a suitable key. The screw-shaft described constitutes the preferable form of operating device for driving either toward or away from each other two movable members I and J,

preferably in the form of nuts, arranged upon the shaft, as shown, one for and engaging each thread. Each nut is also provided with an apertured ear a^2 , which depends from the nut, as illustrated. The upper clamping member D is provided with a vertical slot K, extending longitudinally thereof, and through which the movable members carrying the ears thereon extend, as plainly indicated in Fig. 2.

45 L and L' designate rigid connections extending diagonally from the movable members described to the opposite or lower clamping member. The connections referred to comprise rigid links, each having a pivotal connection with the depending ear upon its respective nut and also with the lower clamping member near one end.

50 The movable members referred to are so arranged upon the screw-shaft that upon the actuation of the operating device in one direction they may be driven toward each other, thereby clamping the clamping members upon the sheets, and upon the movement of said operating device in the opposite direction will separate the covers.

55 In constructing ledger-leaves for loose-leaf ledgers each leaf is provided with openings, such as a' , through which the connecting-posts of the ledger extend, and in order to allow the leaves to be readily detached from the posts or to be adjusted vertically thereon the openings are necessarily of considerably larger magnitude than the diameter of the posts. As the result of this some of the ledger-leaves project at the sides beyond others, and on account of their not being evened up at the sides the leaves are liable to be torn or bent. I have provided means for obviating this defect, which consists, preferably, of one or more guides and in means for adjusting the guides so as to force them in contact with the sides of the sheets for the purpose of evening the latter. The evening devices are preferably of the type shown in Fig. 3, wherein the guides are each shown to consist of two members c' and d' , the members having a sliding engagement one with the other and being carried, respectively, by the top and bottom covers. The member c' is cut away on one face in proximity to each edge or side and the side

portions e' are undercut, as at f' . The complementary member d' has its edges beveled, as at g , to permit of its engaging within the recess and the undercuts. The parts are also
 5 proportioned in such manner that the outer face of the member d' will lie in the same plane with the outer face of the strips c' , so that a plain surface will be presented by each guide to the sides of the ledger-leaves. As
 10 shown, the members of the sectional guide are preferably connected to the clamping members of the covers in such manner as to be adjusted transversely of the ledger. Each of the section members is provided with a
 15 head i' , which extends within a transverse slot j' , formed in its clamping member.

k' designates screws extending within the clamping members and swiveled therein and projecting through the heads i' , as indicated.
 20 The ledger-leaves being inserted within the ledger, the sides of the leaves are evened by adjusting, through the mechanism described, the sectional guides transversely of the covers. In cases where the connecting posts or
 25 guides intermediate the ledger-covers are of the same diameter throughout only one sectional guide is required for the purpose of evening the sides of the leaves. Where the posts are of the telescoping type, as illus-
 30 trated in the present case, it will be obvious that two evening devices will be necessary, one on each side of the ledger, on account of the two diameters of the single post.

While I have shown the preferable type of
 35 eveners to be used in connection with the ledger, I do not desire to be limited to the same, as my invention embraces any mechanism or device by the use of which the sides of the ledger-leaves may be evened after the
 40 insertion of the leaves within the ledger.

A further feature of my invention resides in the manner of securing the post sections or guides to the ledger-covers, the novel means employed being of the following construction:
 45 A' designates a series of threaded apertures formed within the cover A of the ledger in proximity to its rear edge.

B' represents members in the form of threaded plugs arranged within the apertures and
 50 projecting beyond the inner face of the cover. The outer ends of the plug members, as shown, are flush with the cover-top. The sections C' of the telescopic posts E are internally thread-

ed at their upper ends and engage the plug projections that extend beyond the cover. 55
 The bottom cover B is apertured in a manner similar to the top cover and is provided with similar plug members D' of less diameter than the plugs B' to permit of their carrying the smaller post-sections E' . 60

It will be obvious from the construction of the securing means that the posts are capable of being readily attached or detached from the ledger and that no portion of the posts or their connections project beyond the outer 65 surfaces of the covers.

What I claim as my invention is—

1. In a loose-leaf ledger, the combination with the top and bottom covers, of connecting-posts intermediate the covers, a series of 70 ledger-leaves loosely connected to the posts, and means for evening the sides of the leaves after their insertion within the ledger.

2. In a loose-leaf ledger, the combination with the top and bottom covers, of telescoping 75 posts connecting the covers, a sectional guide at each side of the ledger and intermediate the covers, and means for adjusting said guide transversely of the covers.

3. In a loose-leaf ledger, the combination 80 with the top and bottom covers, connecting-posts therebetween, a sectional guide at one side of the ledger, the guide members being adjustably secured to the upper and lower covers, respectively, and adjusting-screws 85 swiveled upon the covers for operating the guides.

4. In a loose-leaf ledger, the combination with the ledger-covers each having a plurality of threaded apertures formed therein in proximity to the rear edge, the apertures in one cover being of less diameter than the corresponding apertures in the complementary cover, of threaded plugs engaging within the apertures flush with the outer sides of the 95 covers and projecting beyond the opposite inner sides, and tubular post-sections threaded upon the projecting portions of the plugs, the sections on one cover telescoping with the sections on the complementary cover. 100

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

JAMES BARKER.

Witnesses:

M. B. O'DOHERTY,
 H. C. SMITH.