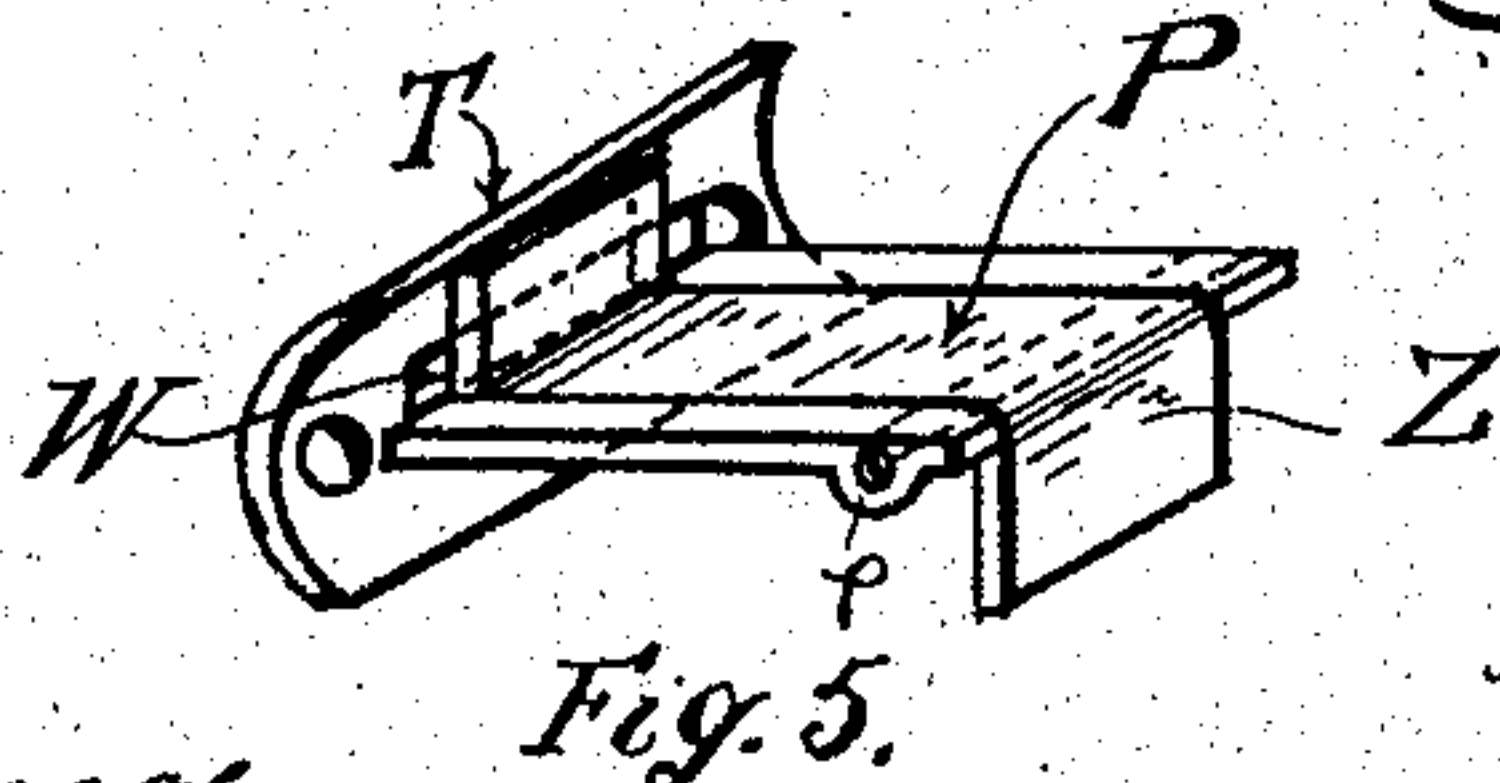
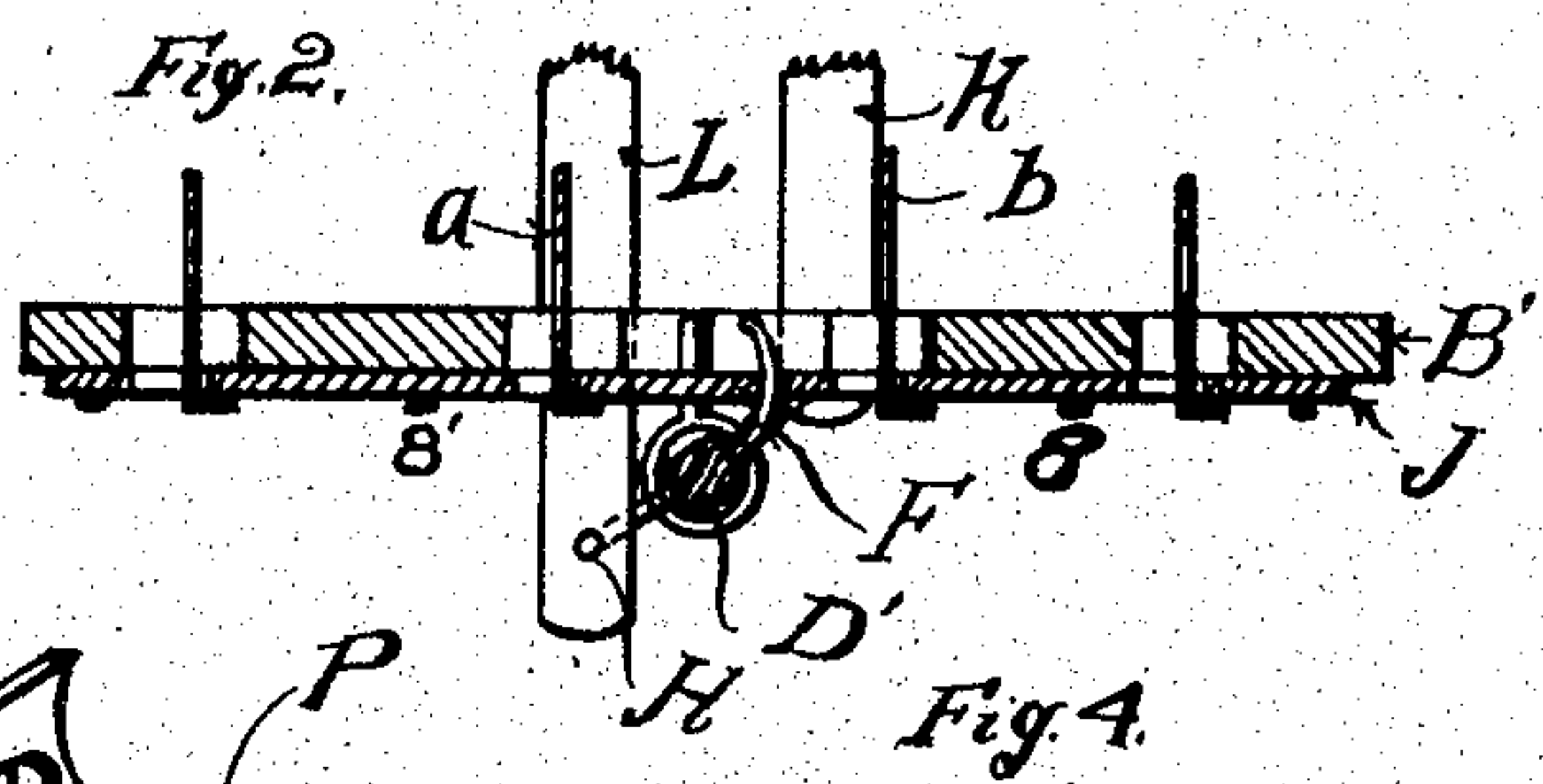
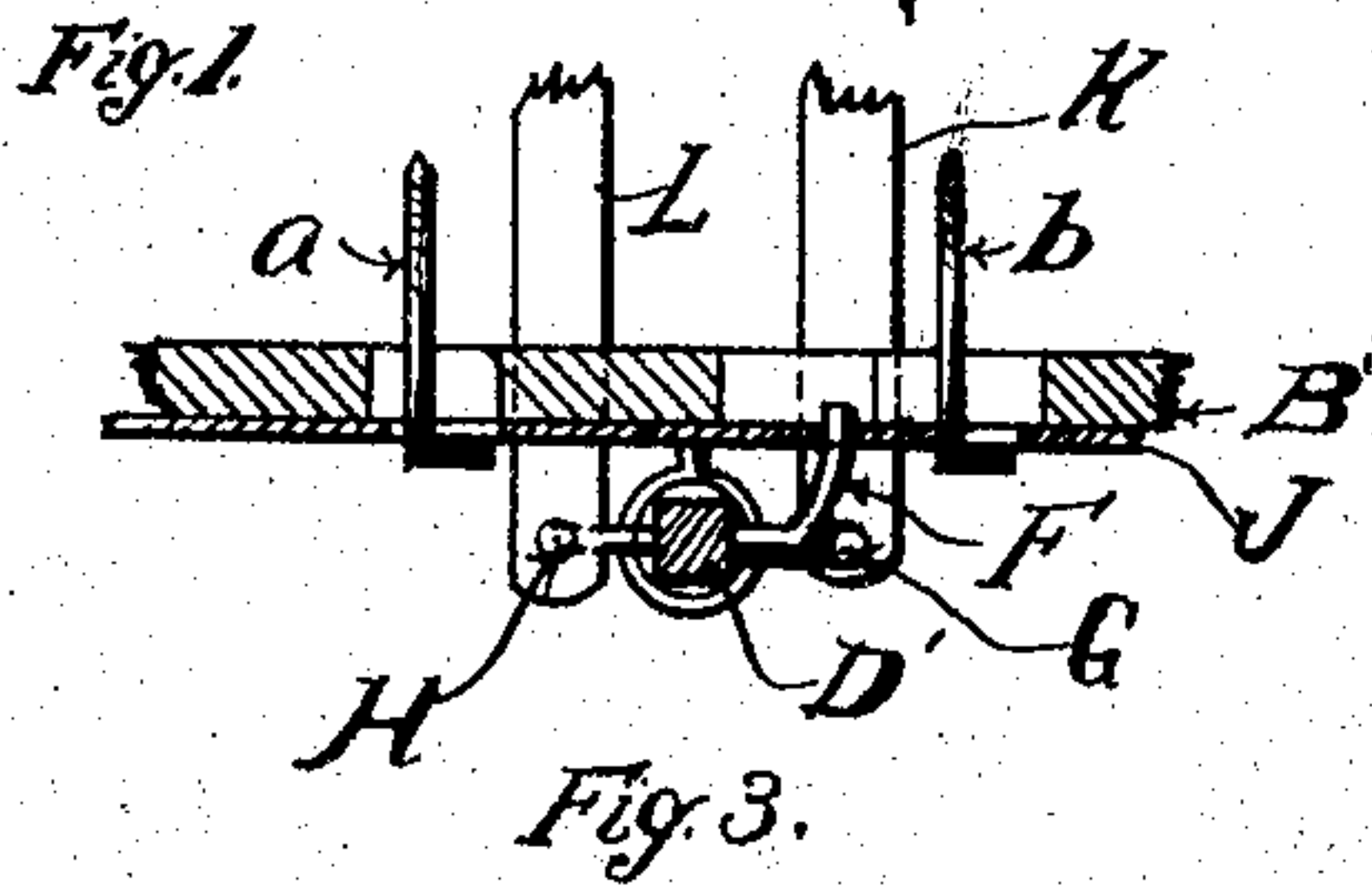
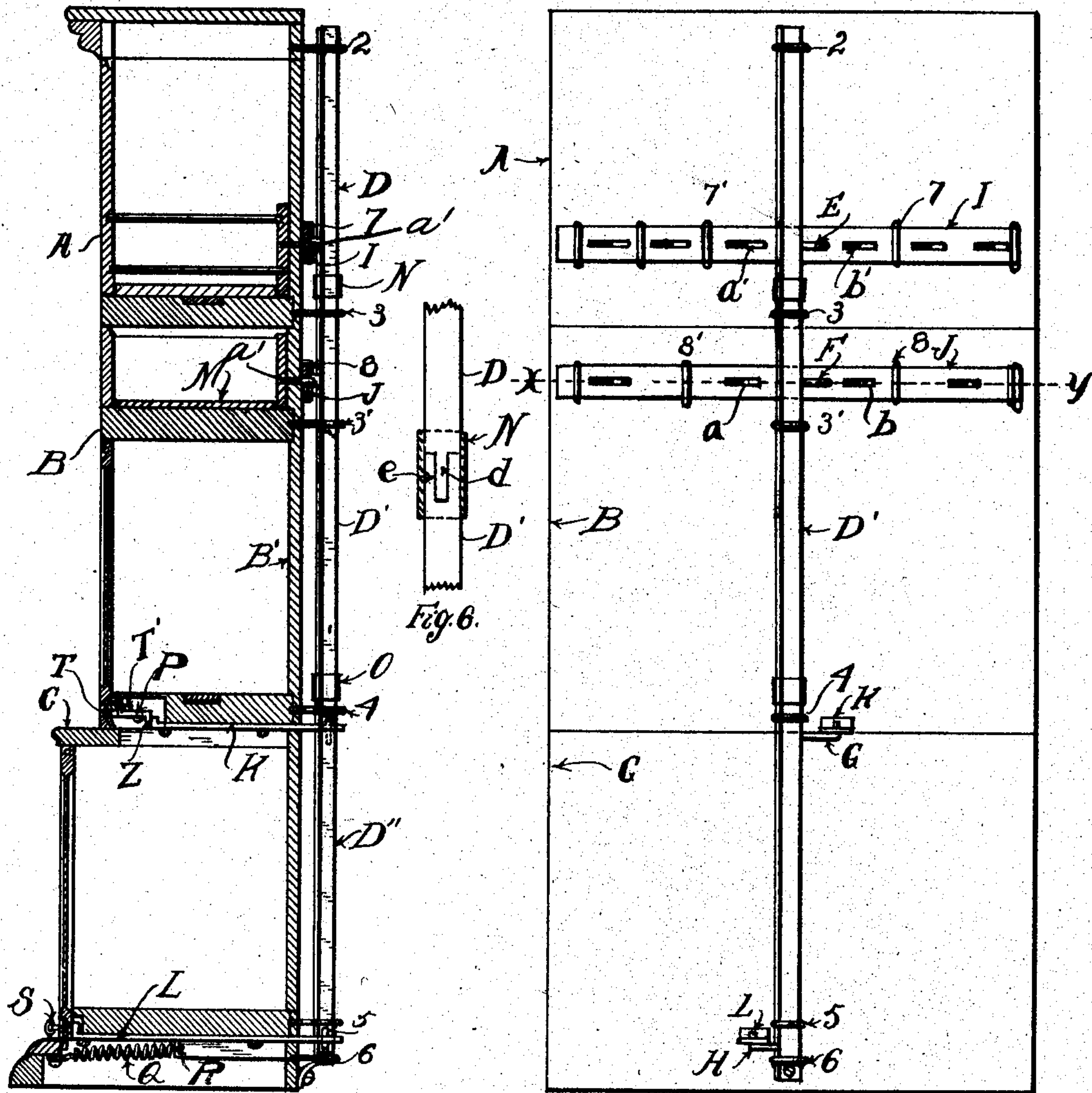


No. 781,392.

PATENTED JAN. 31, 1905.

W. H. BLOOMER.
LOCKING DEVICE.
APPLICATION FILED NOV. 12, 1903.



Witnesses
Edward R. Moser.
Mary S. Looker.

Inventor
William H. Bloomer
By Edward Jaggart
His Attorney

UNITED STATES PATENT OFFICE.

WILLIAM H. BLOOMER, OF GRAND RAPIDS, MICHIGAN.

LOCKING DEVICE.

SPECIFICATION forming part of Letters Patent No. 781,392, dated January 31, 1905.

Application filed November 12, 1903. Serial No. 180,889.

To all whom it may concern:

Be it known that I, WILLIAM H. BLOOMER, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented new and useful Improvements in Locking Devices, of which the following is a specification.

This invention relates to a new and useful locking device which may be applied to a sectional bookcase, to a case having a series of drawers, slides, and doors, and to analogous pieces of furniture.

This invention consists in the combination and arrangement of parts hereinafter described and claimed.

The objects of the invention are, first, to lock simultaneously with one lock a plurality of drawers, slides, and doors by one operation irrespective of the height, width, or depth of the sections or the number of slides and drawers; second, to combine with a vertical rocking rod having a rocking motion locking-bars which are operated by said rod to engage with the drawers, doors, or slides; third, to combine with a vertical rod having a rocking motion horizontal moving locking-bars having suitable means for engaging with the rear ends of the drawers or slides and also for engaging with the doors, whether such doors be hinged at the edge or top or bottom of the sections to which they are applied; fourth, other objects hereinafter particularly pointed out and claimed. These objects I accomplish by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a transverse vertical sectional view of a case provided with sections and doors with a locking device, illustrating my preferred form of invention. Fig. 2 is a rear elevation of the same, showing the vertical rod and horizontal locking-bars when used on the outside of the case. Fig. 3 is a sectional view on the line X Y of Fig. 2, showing the position of the locking parts when the case is unlocked. Fig. 4 is also a sectional view on the line X Y, showing the position of the locking parts when the case is locked. Fig. 5 is a detail perspective view of the drop or swing-door lock, the same showing the hook in locking position.

Fig. 6 is a detail of the coupling-sections of D and D' of the vertical rod.

Similar characters refer to similar parts throughout the several views.

A represents the filing-section, which is adapted to contain a series of card or letter files which slide into the case, said section being adapted to hold the slides in horizontal tiers, said tiers being placed one above the other and each of the said slides or files being provided at its rear end with a hook, which is adapted to engage with a locking-bar, as hereinafter described.

B is a section of the case having a door and, as shown in the drawings, also provided with a drawer.

B' shows the back end of the section having a door.

C is the lower section, which is also provided with a door, which door in the example of my invention shown in the drawings is hinged at the top, and when said door is closed it moves the locking device into position and locks all the drawers, doors, and slides in the case, and by locking the said doors the case is entirely locked. The door of section C may be locked by an ordinary key, and any suitable kind of lock may be attached thereto.

A vertical rocking rod which has the rocking motion, as shown in the drawings, is composed of three sections, (illustrated by D, D', and D'') These three sections are coupled together so that they rock as one rod.

E is a small hook or stud on the vertical rocking rod, which when the rod is rocked moves into position one of the horizontal locking and sliding bars. These locking-bars are shown by I and J, it being understood that there will be as many of these horizontal locking-bars as there are tiers of drawers or slides to be locked. The locking-bars I and J are slotted so as to allow the hooks attached to the rear end of the drawers to pass through said bars, and when the locking-bar is moved longitudinally by the rocking of the rocking rod the hook on each drawer or slide passes through a corresponding slot and the moving of the bar locks the said hook to the bar.

F is a hook or stud on the vertical rocking

rod, which hook passes through a slot in the locking-bar J, said locking-bar J being moved by the turning of the rocking rod in the same manner and at the same time that the bar I is turned.

G is a hook or stud which moves the slide-bar K to lock the door-section B. This bar K passes transversely at the bottom, or below the section B, and is moved by the turning of the perpendicular locking-rod.

The peculiar arrangement for locking the door of section B will be more fully described hereinafter.

H is a hook or stud on the vertical rocking rod, to which the rear end of the sliding bar L is pivoted. The closing of the door of section C and moving the sliding bar L backward by means of the stud rocks the perpendicular rocking rod and moves the upper locking-bar I in the staples 7 and 7'. The drawers or slides in section A are provided with the hooks *a'* and *b'*, which hooks pass through the slots in the locking-bar I, when the drawer or slide to which they are attached is unlocked, and the longitudinal movement of the locking-bar I causes the same to slide under the said hooks, thereby locking the drawers or slides to which the said hooks are attached. Each hook on the drawers or slides may be so constructed as to automatically engage with the horizontal locking-bars by merely pressing in the drawer or slide without reference to the position of the sliding locking-bars. In the drawings there is one slide or letter-file, (shown in Fig. 1;) but it will be understood that this entire space is filled with letter-files, slides, or drawers. The locking-bar J, which moves in the staples 8 and 8', is also provided with slots, and the drawers M are provided with hooks, two of which are shown, one by *a* and one by *b*. Each of these hooks passes through a slot in the locking-bar J, and as the bar J is moved the hook engages with the said bar.

In the drawings I have shown a single drawer in a section locked, as above described; but it will be understood that one or more tiers of drawers may be used.

K is a slide-bar at the bottom of the section B, extending from front to rear thereof, and is moved, by means of the stud or hook G, to lock the door of section B by pressing against the portion Z of Fig. 5, said Fig. 5 showing the hook P with one end Z bent downward, which contacts with the slide-bar K and which is pivoted to the arms P on the plate T and raises the hook part of P, so as to engage with the staple or loop T' T', passing through the slot W in the plate T. In practical use I attach this plate T to the front edge of a shelf, the same being provided with a slot through which the staple or loop on the door passes when the door is closed, and the pressure upon the part X raises the hook P into engagement with such staple, thereby lock-

ing the door. The plate T is provided with arms, as shown in Fig. 5, to which arms the hook P is pivoted. I prefer to construct the hook P of spring metal, the engaging ends being so shaped that the closing of the door will automatically engage the loop carried by said door with said hook without reference to the position of the vertical rocking rod.

L is a slide-bar at the bottom of section C, passing from front to rear of said section, and is adapted to move the vertical rocking rod when the door is closed. The door pressing upon the front end of the slide-bar L causes the same to move backward and turns the vertical rocking rod, giving it its rocking motion, partially revolving the same, and thereby operating all the locks or catches upon the drawers, slides, and doors above the door on the base C.

M is a drawer which is provided with a hook *b*, which passes through one of the slots in the locking-bar J, as above described, and is locked by the longitudinal movement of the locking-bar J.

N is a ferrule or sleeve used in connecting together the two portions of the vertical rod D and D'. O is another ferrule or sleeve connecting the sections D' and D'' of the vertical rod.

P is the hook of the locking device for the door in section B and has already been described.

Q is a spring attached in any suitable manner to the rod L, and when the door of the section C is opened it moves forward, said rod L turning the rocking rod D D' D'', moving therewith the locking-bars I and J and also moving the transverse rod K, thereby unlocking all the doors, drawers, and slides in the case.

R is a small hook to which in the example of my invention shown in the drawings the spring Q is attached to the slide-bar L. Any other means of attachment, however, may be used.

S is the lock of any ordinary construction for locking the door of section C when the same is closed.

In the drawings, *a* and *b* show the hooks on the drawers M. *a'* and *b'* are the hooks on the end of the slides which pass through the slots in the locking-bar I for the purpose of locking such sections in the case, these slides being in section A.

In attaching together the sections of the vertical rod I use tenon and mortise joints *d* and *e*; but any other form of coupling may be used, and the coupling by means of sleeves or ferrules alone, in my opinion, is sufficient.

2, 3, 3', 4, and 5 are eyebolts or screws for holding the vertical rod, composed of the sections D, D', and D'', in position. Other means for supporting the same may be used, and I do not limit myself to the supporting of the rod and locking-bars upon the outside of the case, as shown in the drawings. Beneath the

bottom of the section D' of the rod I prefer to have a metallic disk or support, as shown in the drawings by 6.

7, 7', 8, and 8' are staples for supporting the locking-bars I and J and allow said bars to move longitudinally. Any other form of support which will allow the longitudinal movement, however, may be used.

This invention, although peculiarly adapted to cases made in sections, may be applied to cases of solid construction.

Having thus described my invention, what I claim to have invented, and desire to secure by Letters Patent of the United States, is—

1. In a sectional case having a plurality of movable members, a plurality of locking-bars for certain of said members, a rocking rod supported in bearings upon said case extending across said locking-bars and having means for directly operating said locking-bars in unison, and means actuated by another member of the case for turning said rocking rod.

2. In a case having a plurality of drawers, the combination with a rod having a rocking motion, of a plurality of horizontal bars longitudinally moved, means carried by the rod for actuating the bars, a series of sliding drawers, each provided at its rear end with means for locking engagement with said horizontal bars, and suitable means for giving the rocking motion to the rod, whereby the horizontal locking-bars are simultaneously engaged with all of said drawers, and a spring for-reversing the movement of said rocking rod for the purpose of unlocking the said drawers.

3. In a case having drawers, the combination with a rocking rod, of a plurality of horizontal locking-bars, means for giving a rocking motion to the said rod, means carried by the rod for longitudinally moving the said horizontal bars, means carried by the drawers for engagement with slots in the horizontal bars whereby the said drawers and bars are locked together, and a transverse bar operated by closing one of the section-doors, whereby the vertical rod is rocked into posi-

tion to lock all the drawers and doors, substantially as described.

4. In a case composed of sections placed one above the other, a rod composed of sections coupled together and placed vertically, said rod being capable of rocking motion, movable locking-bars operated by said vertical rod, suitable means for engaging said bars with the drawers in said case-sections, and suitable means for giving the rocking motion to said rod, whereby the bars are locked to the drawers in sections.

5. In a case composed of a series of sections placed one above the other, a part of said sections having drawers and a part having doors, a rocking rod, said rod being composed of sections coupled together, a locking-bar for each tier of drawers, suitable means carried by the said drawers for engagement by the bar, a transverse bar for each section having a door, means connecting the same with said rocking rod, and a door adapted to press back upon the transverse bar for the purpose of giving the rocking motion to said rod, whereby all the drawers in the said case are locked to the bars, and the doors, with the exception of the one having the lock, are locked by means of a transverse bar operated directly from the rocking rod.

6. In an article of furniture having doors the combination with a rocking rod, of a transversely-movable bar K connected to the rod, a locking device consisting of the hook P properly supported by a door, and having a projection Z against which said movable bar K presses to raise the hook in a locking position for the purpose of locking the door and means for moving the rod, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM H. BLOOMER.

Witnesses:

EDWARD TAGGART,
MARY S. TOOKER.