

No. 781,562.

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L. SENGE.
DRAWER OR SLIDE EQUALIZER.
APPLICATION FILED OCT. 10, 1904.

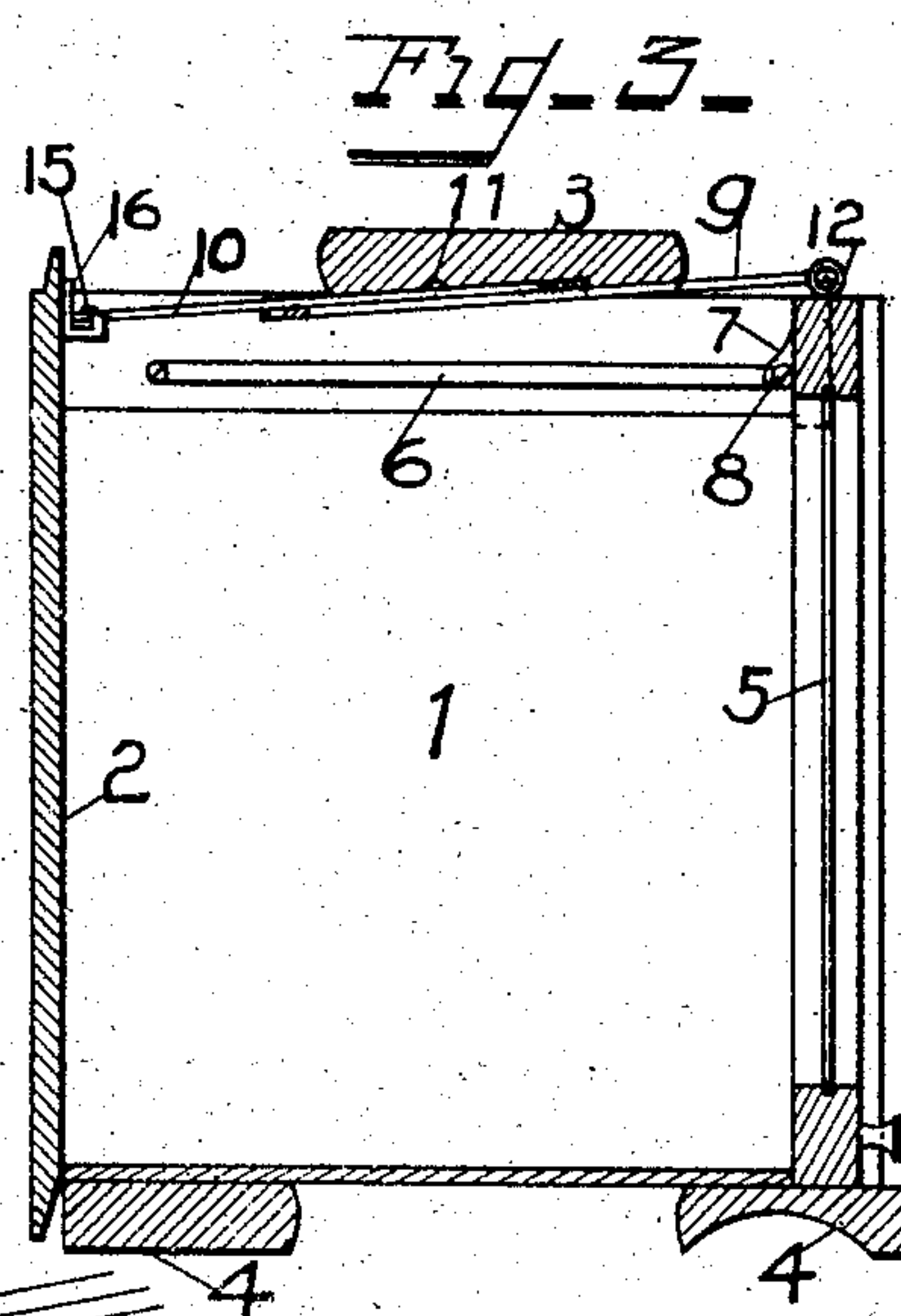
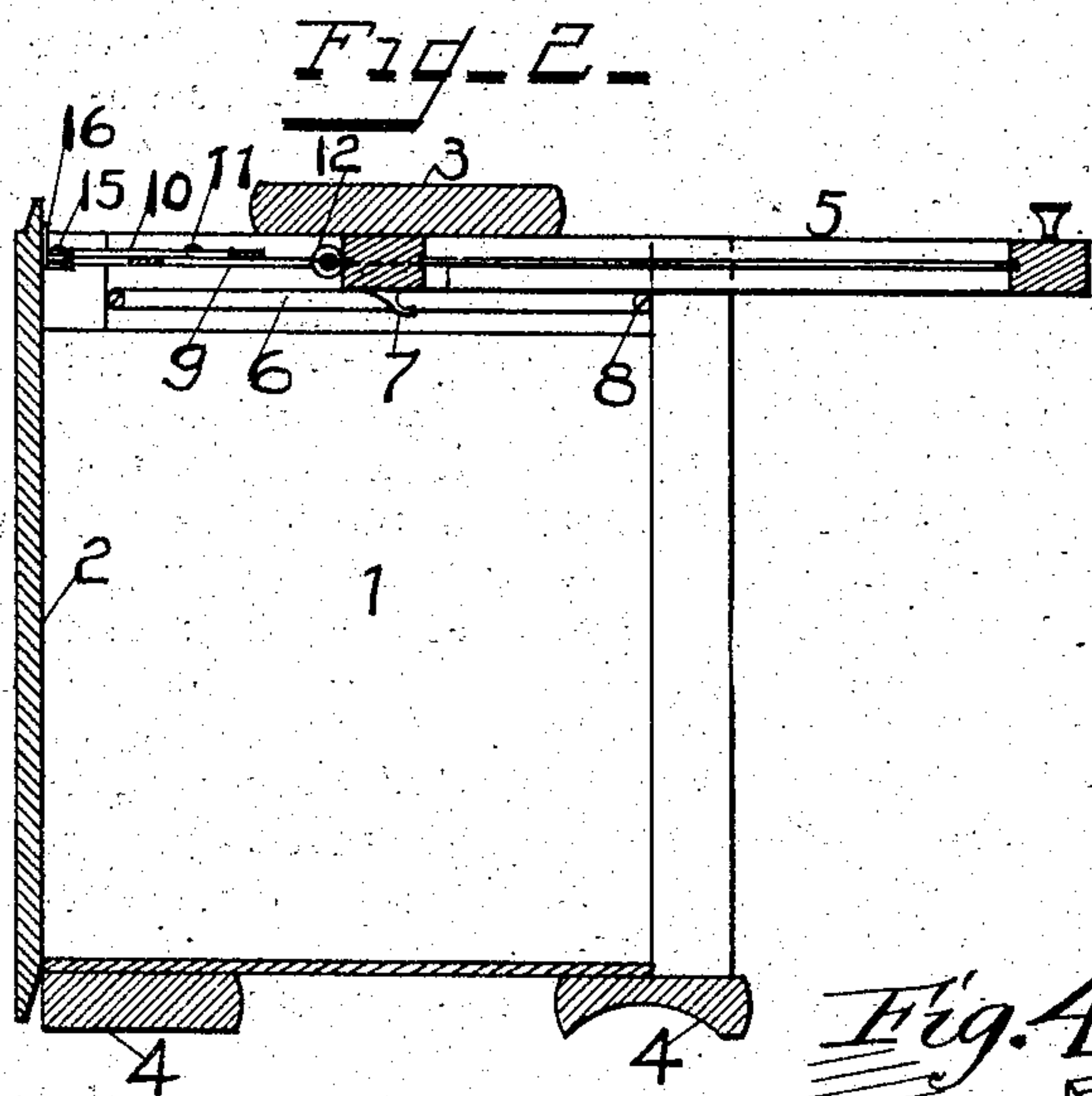
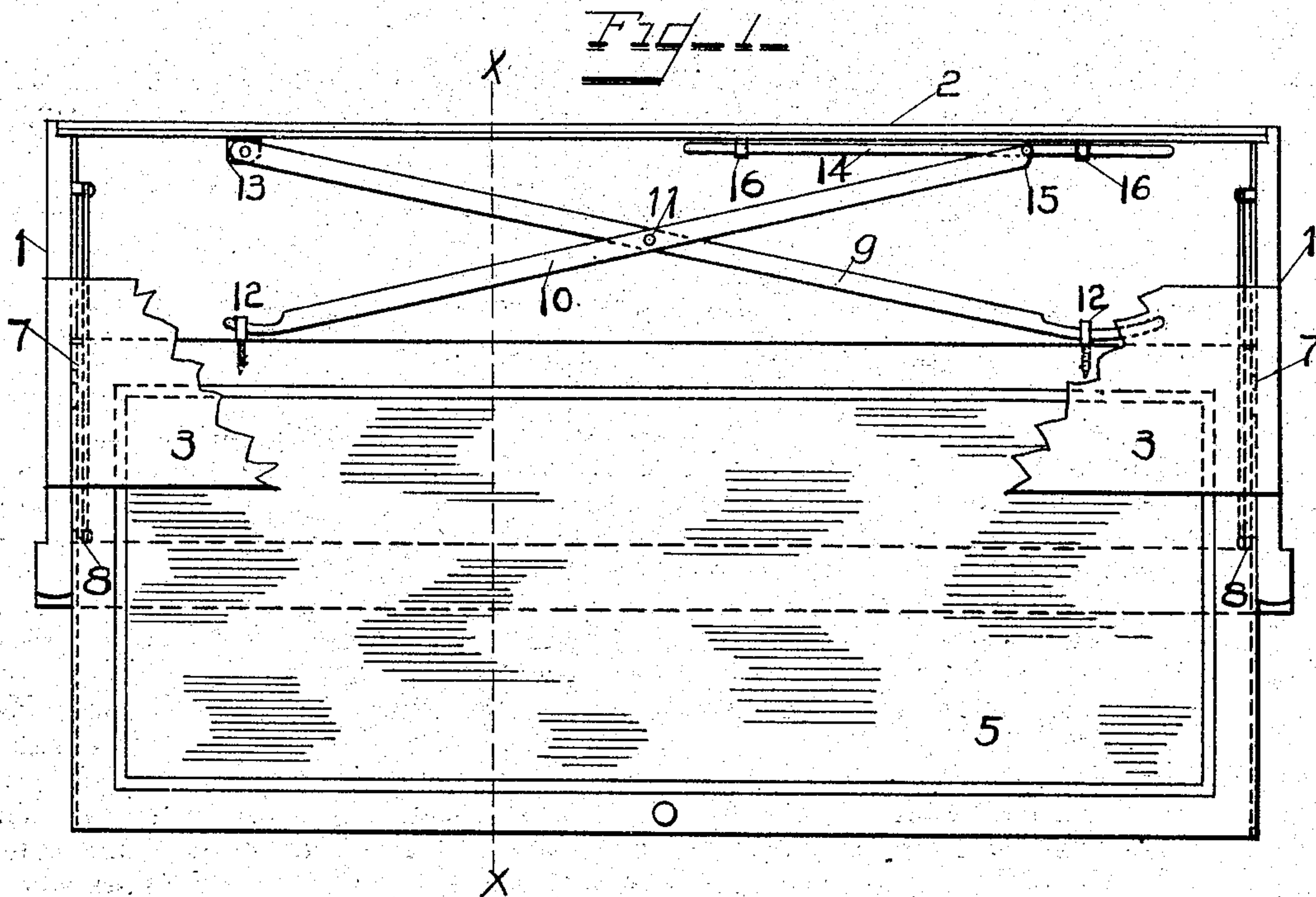
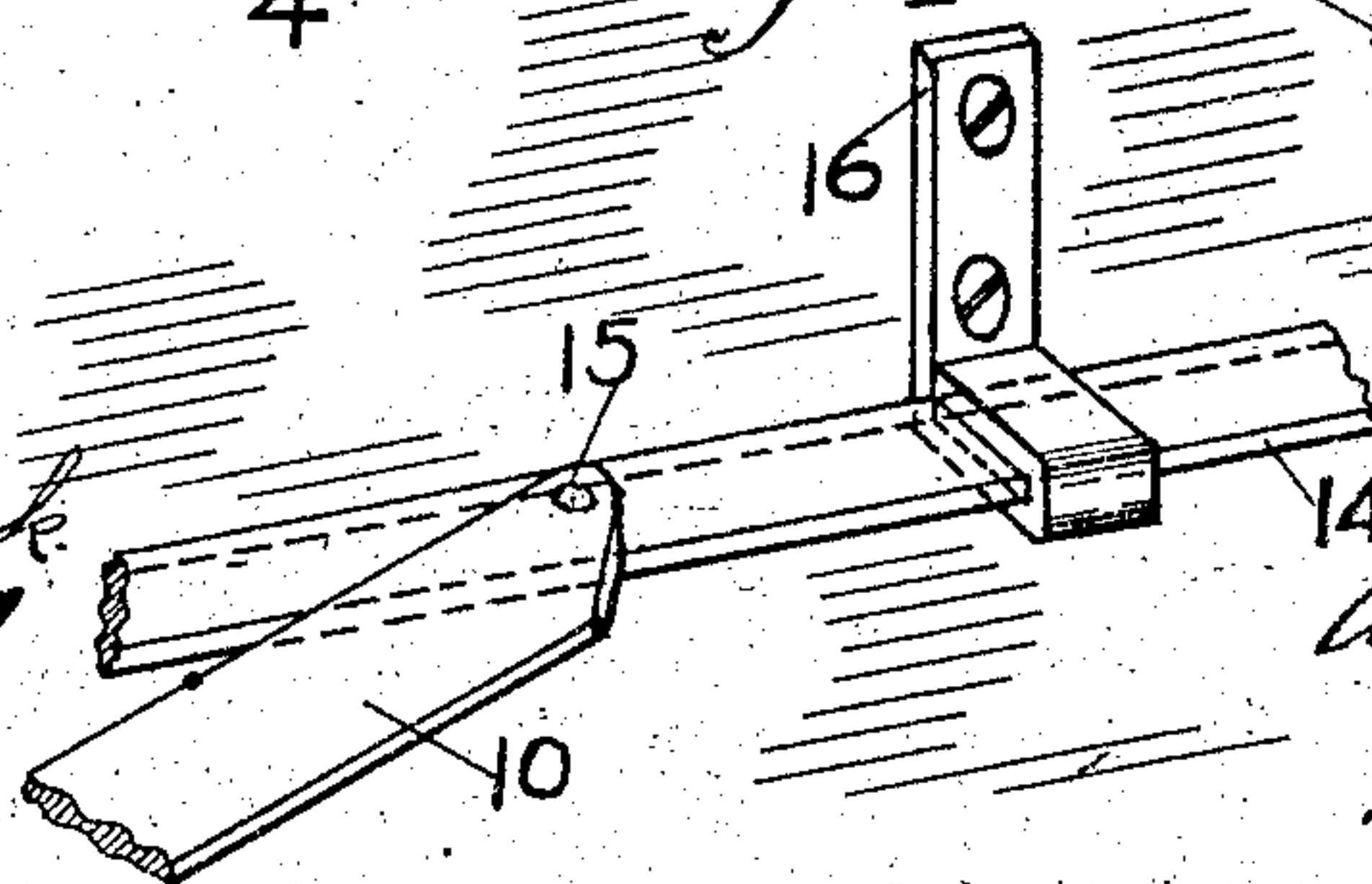


Fig. 4



WITNESSES

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UNITED STATES PATENT OFFICE.

LIBORIUS SENGE, OF CRESCENT SPRINGS, KENTUCKY, ASSIGNOR TO THE GLOBE-WERNICKE COMPANY, OF CINCINNATI, OHIO, A CORPORATION OF OHIO.

DRAWER OR SLIDE EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 781,562, dated January 31, 1905.

Application filed October 10, 1904. Serial No. 227,840.

To all whom it may concern:

Be it known that I, LIBORIUS SENGE, a citizen of the United States, residing at Crescent Springs, in the county of Kenton and State of Kentucky, have invented certain new and useful Improvements in Drawer or Slide Equalizers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and useful device for equalizing the movements of drawers, slide-doors, desk-shelves, and the like; and the same consists in the combination and arrangement of parts hereinafter described.

The objects of the invention are, first, to furnish a device which will prevent a drawer, door, or slide which moves horizontally into and out of its case from binding and cause both ends to move uniformly; second, to simplify and cheapen the construction of equalizing devices of this character, and, third, to so arrange the equalizing devices that they will give the greatest area or capacity possible in compartments in which they are fitted, as in bookcase units, to permit taller books to be placed in such compartments than could be if equalizing devices of old and well-known kinds, somewhat resembling mine, were used.

The novelty of my invention will be hereinafter more fully set forth, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a partially-broken plan view of a well-known form of bookcase unit with the slide-door raised and partially pushed in. Fig. 2 is a sectional side elevation of Fig. 1 on the dotted line *xx* of Fig. 1 looking to the right. Fig. 3 is a corresponding section with the door drawn entirely out and closed. Fig. 4 is an enlarged detail of a part of the sliding-equalizing mechanism.

The same numerals of reference are used to indicate identical parts in all the figures.

In the drawings is shown a single bookcase unit of well-known construction, of which 1 represents the end walls; 2, the back wall; 3 and 4, the interlocking top and bottom pieces

connecting the end walls, and 5 the sliding and swinging door, which is usually a glass-filled frame adapted to entirely close the front opening of the unit when pulled out and let down and which can be raised and swung up on a pivot and pushed back into the top of the case to give free access to the interior thereof. The edges of the door when pushed back rest upon and slide upon any suitable guides secured to the side walls. In this instance they rest and slide upon metal strips 6, secured to and slightly projecting from the side walls, and hook-like projections 7 on the under side of the top rail of the door are adapted to engage with the front screws 8, which serve to secure the strip 6 in place and also serve as stops to prevent the door from being drawn out too far, and, further, serve as pivots upon which the door can be swung down to a closed position, as seen in Fig. 3. The equalizing mechanism which holds the door straight in its movements in and out of the case consists of two cross-arms or thin flat bars 9 and 10, loosely pivoted together at their middle, as at 11, Fig. 1, and having their forward ends slightly reduced and curved and passed through guide-eyes, which may be ordinary screw-eyes 12, secured to the top edge of the door-frame 5. The rear end of the bar 9 is fixedly pivoted, as at 13, in any suitable manner to the rear wall of the case, while the rear end of the bar 10 is pivoted to a rod or bar 14, as at 15, (see Figs. 1 and 4,) which rod or bar is confined in bracket-guides 16, secured to the rear wall of the case near its upper edge.

This construction forms a very simple lazy-tongs arrangement by which the door is held from binding in its movements in and out, and thus constitutes a perfect equalizer, while at the same time it is placed so high up in the case that it permits the entire capacity of the case to be utilized without interfering with the working of the door, as will be readily understood.

Having thus fully described my invention, I claim—

1. In a drawer or slide equalizer, the com-

10 bination with a case, of a sliding hinged door
or drawer adapted to cover the open front of
the case when drawn out and lowered and to
be raised and pushed back into the top of
5 the case to give free access to the same, cross-
bars pivoted at or near their middle and having
their forward ends slidably connected to the
top edge of the door at each side and having
their rear ends, the one of them stationarily
10 pivoted to the back of the case and the other
pivoted to a slide guided in brackets secured
to the back of the case, the connections of the
cross-bars with the door and the case at their
ends being substantially opposite each other
15 and located at the extreme top of the case, sub-
stantially as described.

20 2. In a drawer or slide equalizer, the com-
bination with a case, of a sliding hinged door
or drawer adapted to cover the open front of
the case when drawn out and lowered and to
be raised and pushed back into the top of the
case to give free access to the same, guides at
the ends for the sliding of the door, stop-
hinges at its forward end to limit its outward
25 movement and to permit it to be lowered to
close the case, cross-bars pivoted at or near
their middle and having their forward ends
slidably connected to the top edge of the door

at each side and having their rear ends, the
one of them stationarily pivoted to the back 30
of the case and the other pivoted to a slide
guided in brackets secured to the back of the
case, the connections of the cross-bars with
the door and the case at their ends being sub-
stantially opposite each other and located at 35
the extreme top of the case, substantially as
described.

3. In a drawer or slide equalizer, the com-
bination with a case, of a sliding hinged door
or drawer adapted to cover the open front of 40
the case when drawn out and lowered and to
be raised and pushed back into the top of the
case to give free access to the same, the cross-
bars 9 and 10 pivoted at or near their middle
and having their forward ends slidably con- 45
nected to the top edge of the door at each side
by screw-eyes 12 and having their rear ends,
the one of them stationarily pivoted to the
back of the case as at 13 and the other pivoted
to a slide 14 guided in brackets 16 secured to 50
the back of the case, substantially as and for
the purpose specified.

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Witnesses:

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