

No. 759,891.

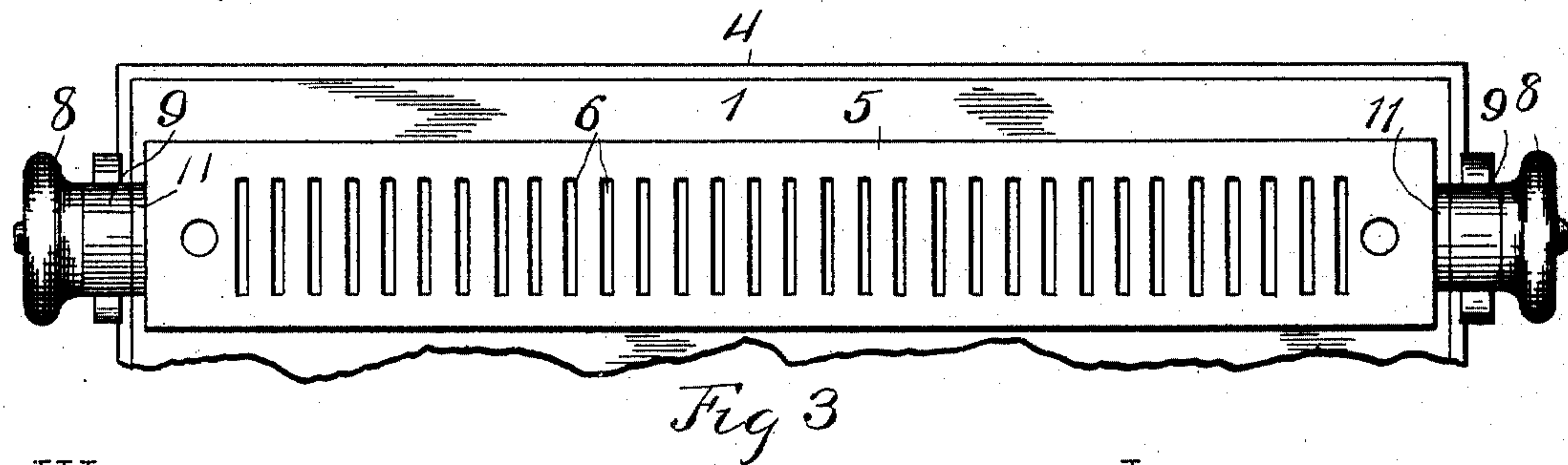
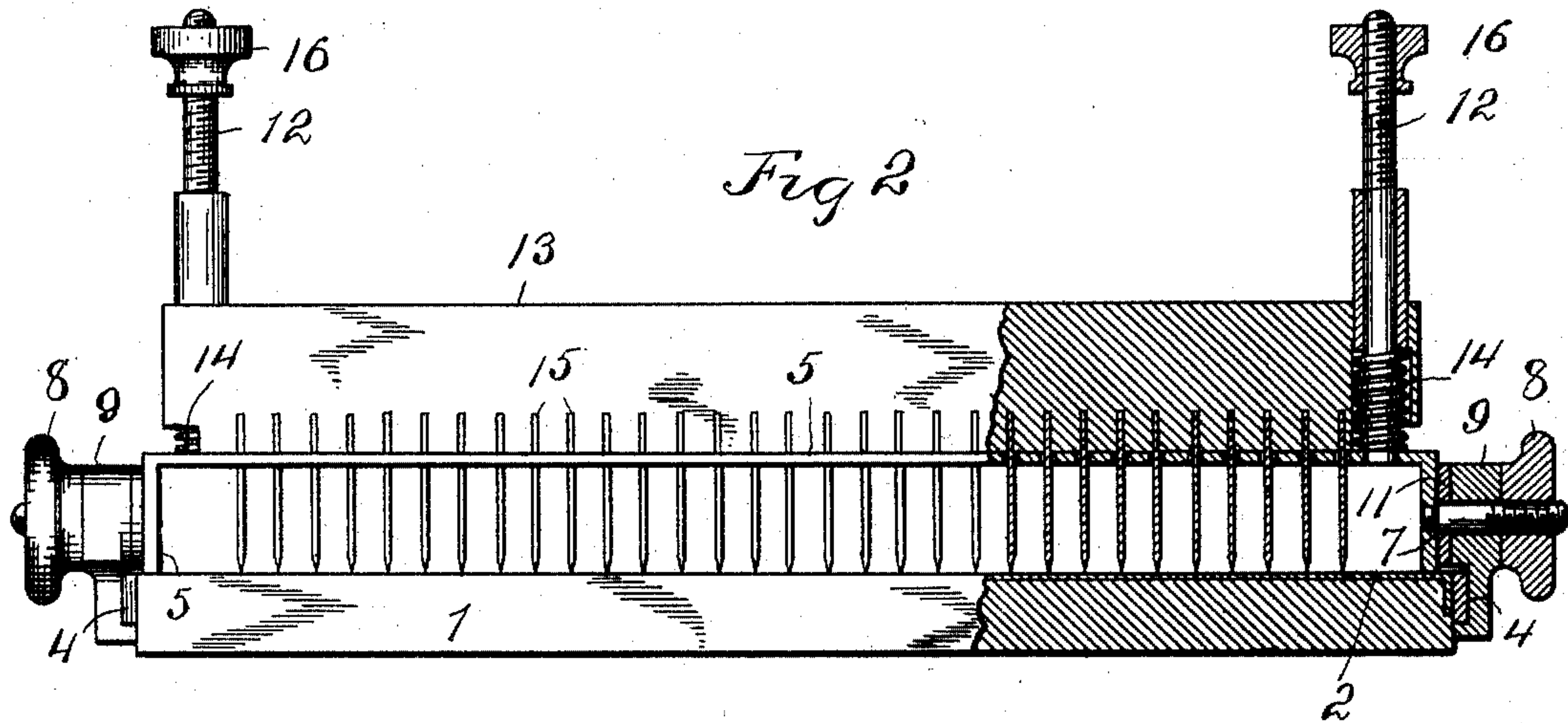
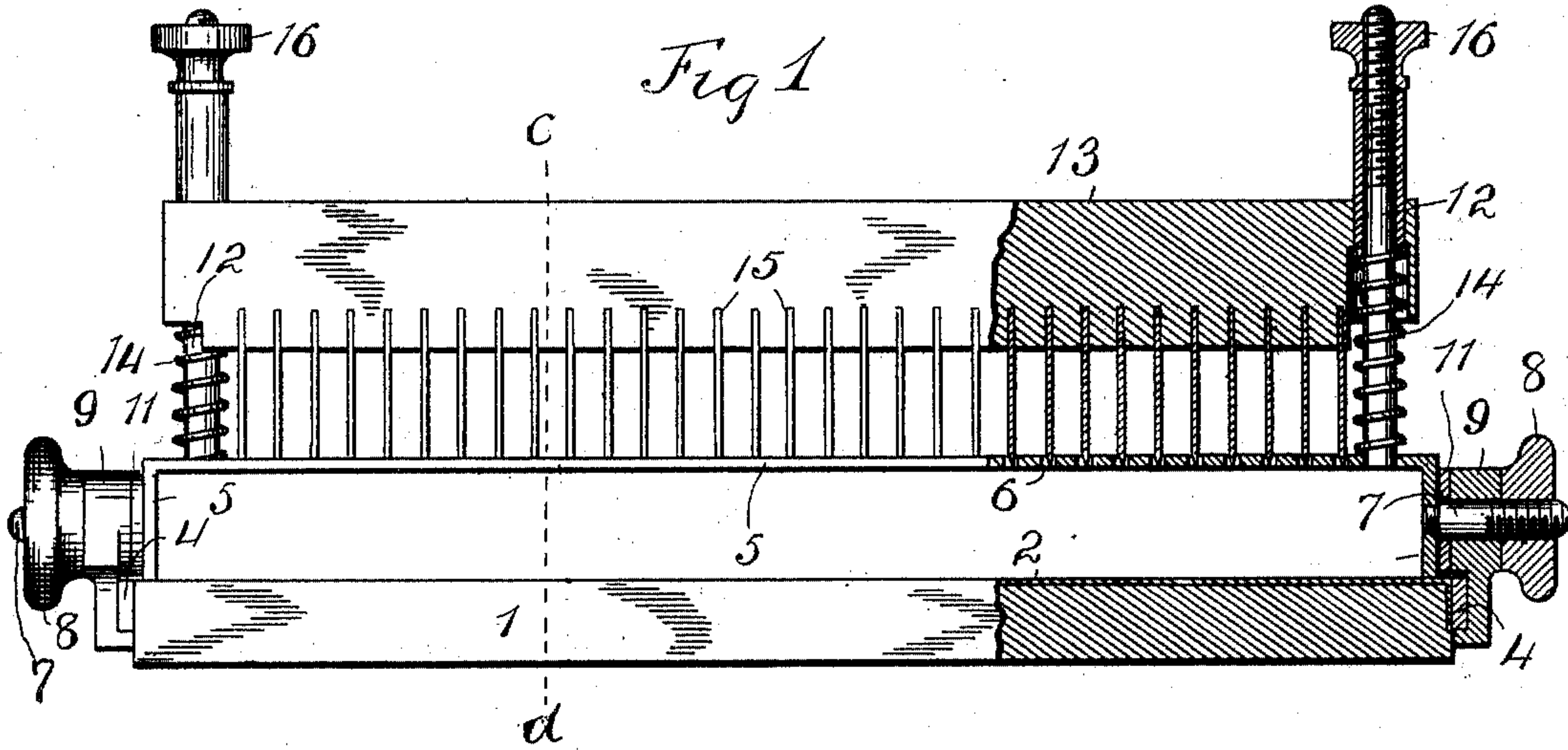
PATENTED MAY 17, 1904.

J. W. JACKSON.
DRUGGIST'S MASS DIVIDER.

APPLICATION FILED OCT. 3, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

R. E. Hamilton.
Geo. O. L. Dewey

INVENTOR,

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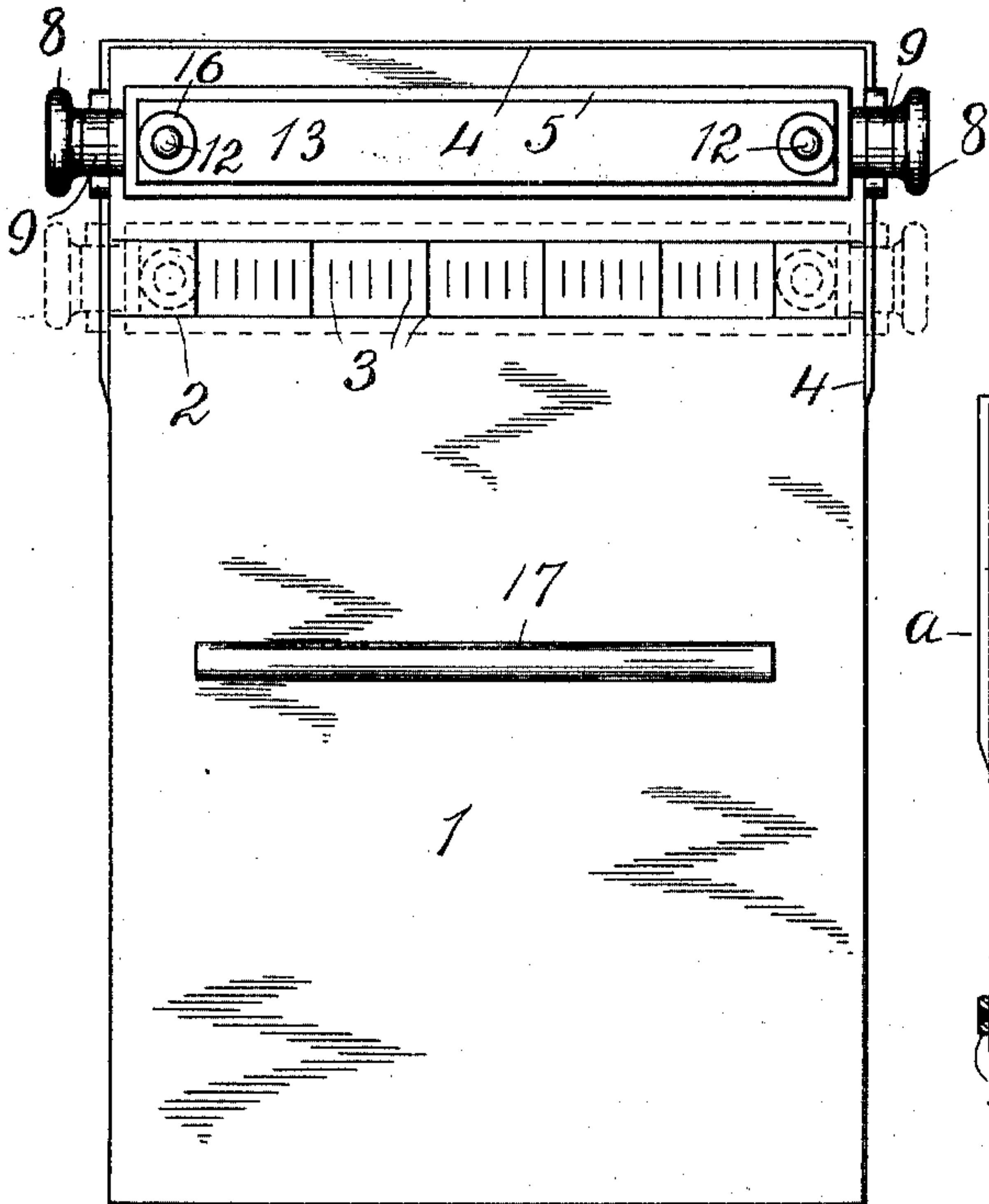


Fig 4

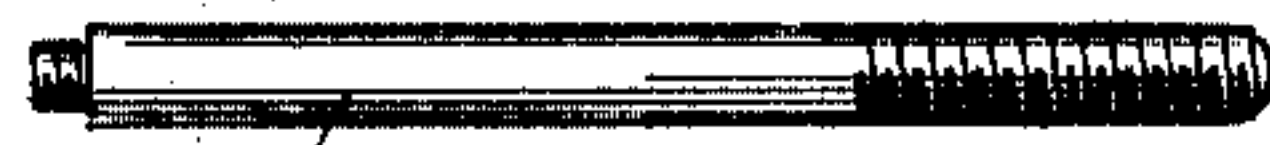


Fig 5

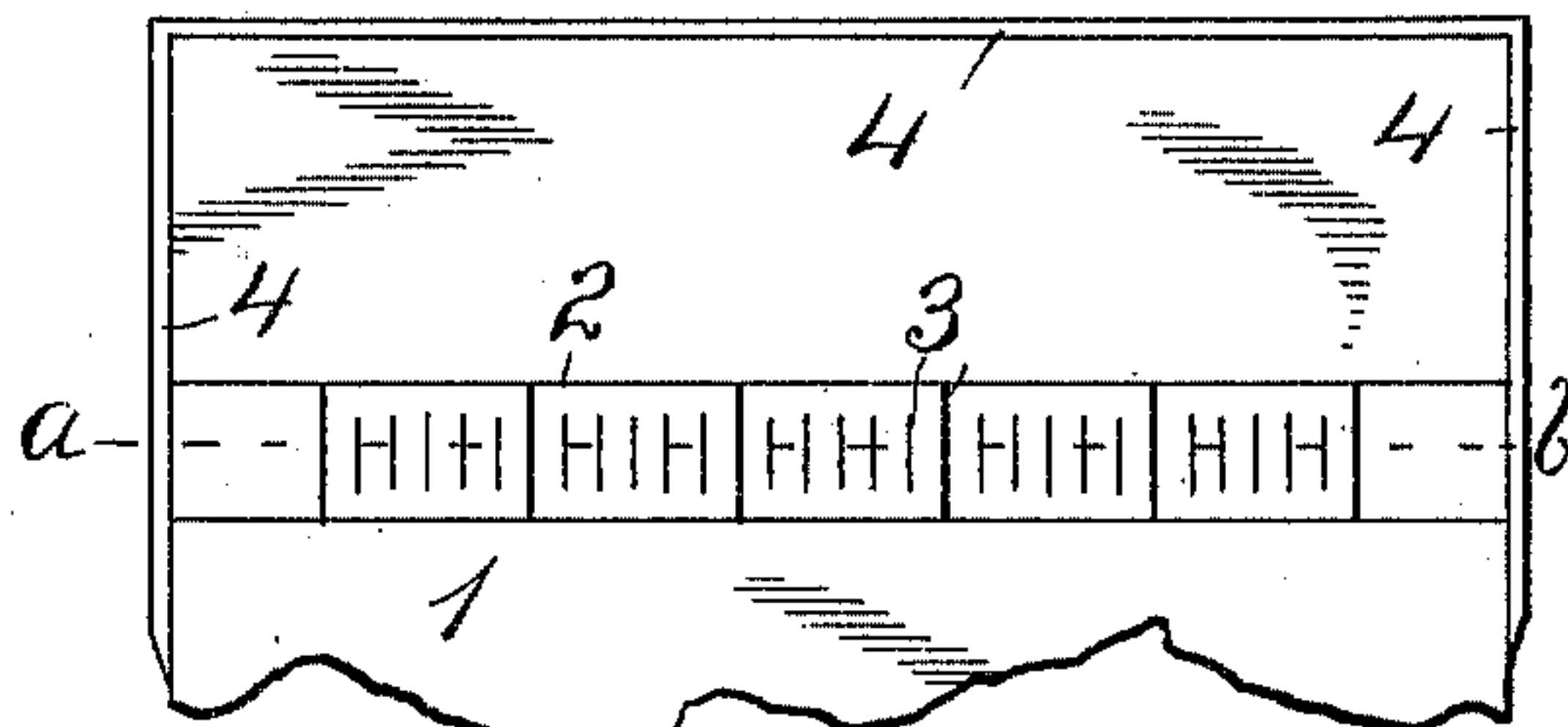


Fig 6

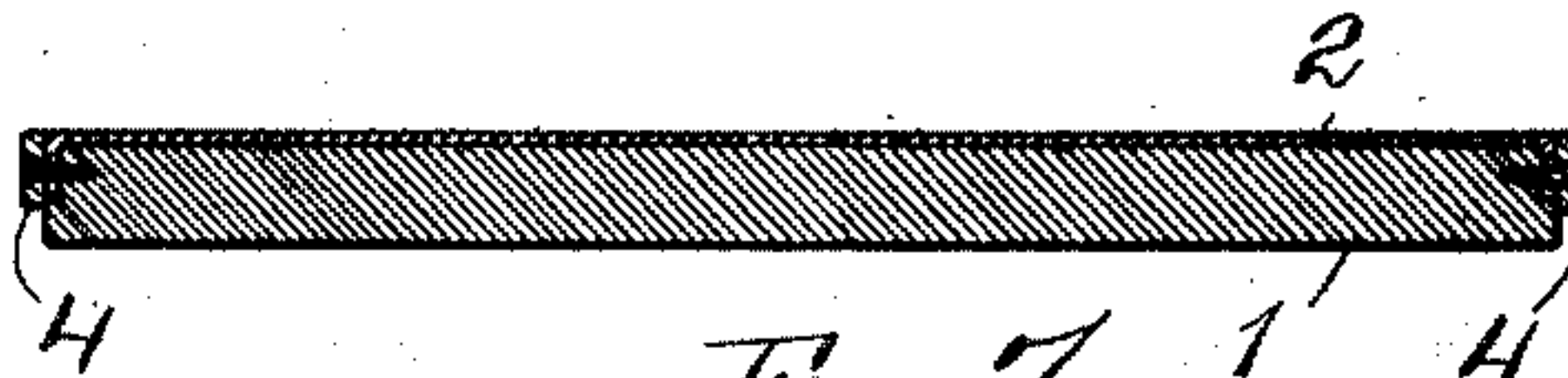


Fig 7

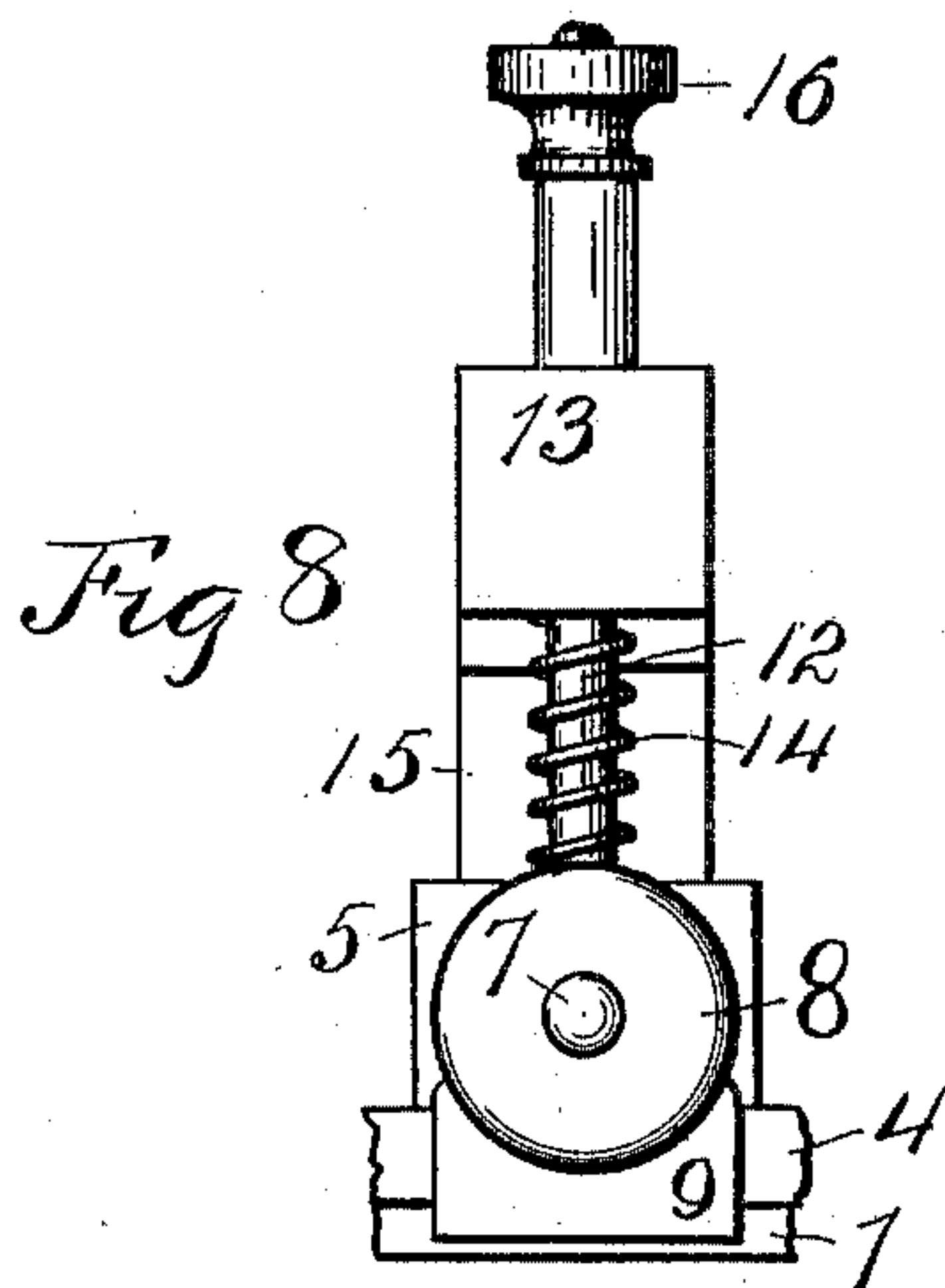


Fig 8

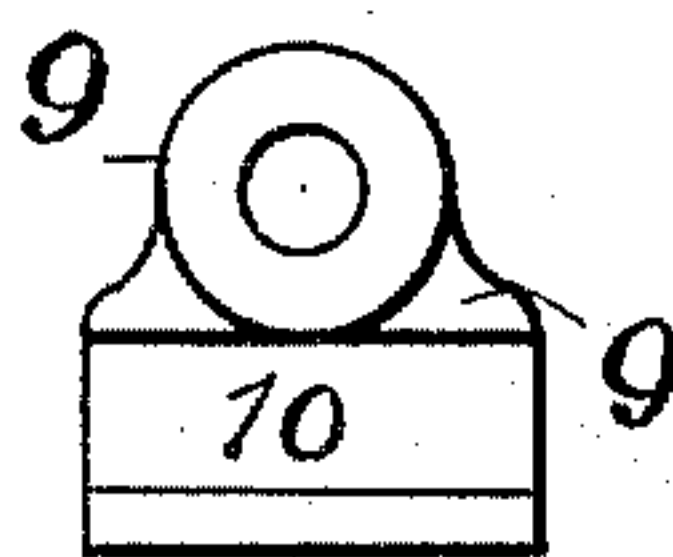


Fig 9

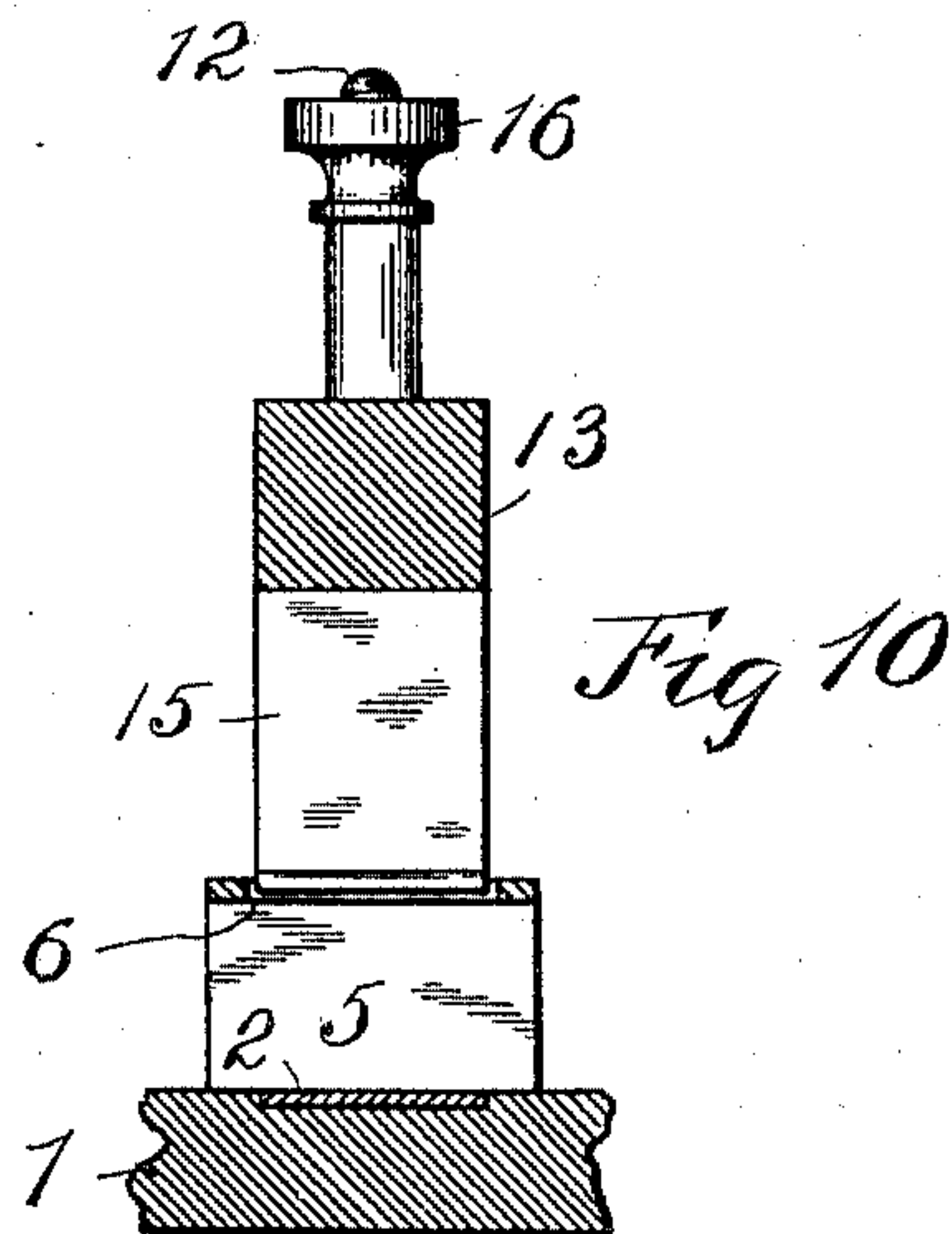


Fig 10

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UNITED STATES PATENT OFFICE.

JOHN W. JACKSON, OF WESTON, MISSOURI.

DRUGGIST'S MASS-DIVIDER.

SPECIFICATION forming part of Letters Patent No. 759,891, dated May 17, 1904.

Application filed October 3, 1903. Serial No. 175,563. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. JACKSON, a citizen of the United States, residing at Weston, in the county of Platte and State of Missouri, have invented certain new and useful Improvements in Druggists' Mass-Dividers, of which the following is a specification.

My invention relates to improvements in druggists' mass-dividers.

This invention is an improvement on one for which I obtained Letters Patent of the United States, bearing date of June 6, 1903, No. 731,188.

The object of the invention is to provide a mechanism with which a pill mass may be severed into a number of equal portions. In my former invention above referred to when it was desired to place the pill mass upon the graduated portion of the tile the cutting mechanism was removed from the tile until the mass had been properly positioned or in the event that the said mechanism was not removed it was with some difficulty that the mass was properly positioned thereunder. With my present invention the pill-tile is provided with longitudinal guides, upon which the cutting mechanism is slidably mounted. When a mass is to be positioned over the graduations, the cutting mechanism may be slid along the tile out of the way and then quickly replaced for the purpose of cutting the mass.

My invention provides, further, a convenient means by which the cutting mechanism may be quickly adjusted transversely with respect to the graduations.

My invention provides, further, a novel form of tile in which the tile has one end and two side edges embraced by a plate which when the tile is made of wood or other material liable to warp retains the tile in proper shape, the side portions of the binding-plate serving also as the guides upon which the cutting mechanism slides.

Other novel features are hereinafter fully described and claimed.

In the accompanying drawings, illustrative of my invention, Figure 1 is a view, partly in elevation and partly in vertical section, the plunger being shown in the elevated position.

Fig. 2 is a view similar to that shown in Fig. 1, the plunger being shown depressed. Fig. 3 is a plan view with a portion of the tile and some of the parts of the cutting mechanism removed. Fig. 4 is a plan view showing the cutting mechanism in solid lines moved above the graduated plate on the tile, so that a "pencil" or mass may be properly positioned on the graduated plate. A formed pencil is also shown below the graduated plate. In dotted lines the cutting mechanism is shown over the graduated plate. Fig. 5 is a side elevation view of a stud adapted to be secured to the supporting-plate. Fig. 6 is a plan view of the upper end of the tile, the cutting mechanism being removed. Fig. 7 is a vertical sectional view taken on the dotted line *a b* of Fig. 6. Fig. 8 is an end elevation view of the cutting mechanism. Fig. 9 is an inner end elevation view of one of the guiding devices. Fig. 10 is a vertical sectional view taken on the dotted line *c d* of Fig. 1.

Similar characters of reference indicate similar parts.

1 indicates the pill-tile, comprising, preferably, a flat piece of wood provided on one side near one end with a transverse groove in which is located a plate 2, provided with a series of transverse graduations 3, disposed at equal distances apart and indicating the divisions into which a pill mass is to be divided. Embracing the upper end of the tile or the end in which is located the plate 2 is a binding-plate 4, the ends of which are turned at right angles and embrace the side edges of the tile and form guides upon which the pill-cutting mechanism is slidable. The ends of the graduated plate 2 are turned downwardly and embrace the side edges of the tile, the ends of the plate 4 being extended past the plate 2, so as to securely bind the same to the tile. The plates 2 and 4 serve to prevent warping of the wooden tile, as well as serving the functions already referred to. Above the pill-tile is disposed a horizontal supporting-plate 5, having vertical ends which rest upon the upper side of the tile. The plate 5 is provided with a series of transverse slots 6, adapted to be disposed, respectively, above the graduations 3 when the plate 5 is prop-

erly positioned on the tile. Extending outwardly across the adjacent side of the guide-plate 4 from each vertical end of the plate 5 is a stud 7, the inner end of which is screw-threaded and fitted to a screw-threaded hole in the plate 5. The outer end of each stud 7 is also screw-threaded and has fitted on it a nut 8, adapted to bear upon the outer end of a guiding device or plate 9, longitudinally movable upon the stud and provided on its inner side with a transverse groove 10, fitted to the adjacent portion of the guiding-plate 4. By properly turning the nuts 8 on the studs 7 the guiding devices 9 may be adjusted upon the studs 7 to positions in which the slots 6 of the supporting-plate 5 will be disposed vertically over the graduations 3. The studs 7 may be made of any desirable length to correspond with the width of the tile employed. Between the guiding devices 9 and the plate 5 may be inserted washers 11, against which the guiding devices may be firmly clamped, thus rigidly securing the guiding devices on the studs 7. Two vertical posts 12 are secured at their lower ends to the plate 5 and are disposed one near each end thereof. A horizontal plunger 13 is reciprocally mounted upon the posts 12. In recesses provided in the lower side of the plunger 13 and encircling the posts 12, respectively, are two coil-springs 14, the lower ends of which bear upon the upper side of the plate 5 and the upper ends of which bear against the plunger. The tension of said coil-springs is such that they normally hold the plunger in the elevated position, as shown in Fig. 1. Secured at their upper ends transversely in the lower side of the plunger 13 are a series of cutting-blades 15, which are also disposed one in each slot 6. The upper ends of the posts 12 are screw-threaded and have mounted thereon the nuts 16, which limit the upward movement of the plunger 13.

17 indicates the mass to be divided and formed on the tile into a pencil.

In operating my invention the guiding devices are adjusted upon the studs 7 so as to slidably engage the ends of the guiding-plate 4, the washers 11 employed being sufficiently thick to prevent the guiding devices 9 tightly clamping the guiding-plate. The supporting-plate 5 may then be moved lengthwise of the tile 1 to the position shown in solid lines in Fig. 4. The mass is then formed into a pencil 17 in the ordinary manner. The pencil is then placed over the graduated plate 2, after which the supporting-plate 5 is slid on the guides to the position shown in dotted lines in Fig. 4 or over the graduated plate 2. The plunger 13 is then forced to the position shown in Fig. 2, thus causing the cutting devices or blades 15 to pass through the slots 6 and the pencil 17, thus dividing the pencil into the proper number of parts for forming pills having each the required size. The plunger

is then released, and the coil-springs 14 retract the plunger to its original position, thus stripping, by means of the plate 5, the divided mass, the several parts of which are then rolled into pill form. With this form of mechanism the cutting mechanism may always remain upon the tile, and the mass may be readily positioned upon the graduated plate after the supporting-plate has been slid upon the guides to a position beyond the graduations.

It is obvious that numerous variations of structure may be resorted to without departing from the spirit of the invention.

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

1. The combination with a pill-tile provided with a series of graduations and having longitudinal guides disposed parallel with each of said graduations, of a support slidable lengthwise upon said guides and adjustable at right angles thereto, a plunger reciprocative upon said support to and from said tile and disposed transversely with respect to said graduations, and a series of cutting devices carried by the plunger and disposed parallel with and adapted to register with said graduations when the said support is properly positioned upon the tile.

2. The combination with a pill-tile provided with a series of graduations and having longitudinal guides disposed parallel with said graduations, of a support mounted upon said tile and provided with two screw-threaded studs disposed one at each end of the support and extending in opposite directions from each other at right angles to said guides, two guiding devices mounted one upon each of said studs and movable lengthwise thereon and slidably engaging each the adjacent guide on the tile, two nuts mounted one on each stud and adapted to bear respectively against said guiding devices, a plunger reciprocative upon said support to and from said tile, and a series of cutting devices carried by the plunger and adapted to register with the said graduations when the support is properly positioned upon the tile.

3. The combination with a tile provided with a plate extending across one end and along two opposite side edges thereof thus providing guides along said edges, and provided with a series of graduations disposed parallel with the said side edges of the tile, of a support slidable lengthwise upon the said guides and adjustable transversely across said graduations, a plunger reciprocative upon said support to and from the tile, and a series of cutting devices carried by the plunger and disposed parallel with and adapted to register with the graduations when the support is properly adjusted.

4. The combination with a pill-tile provided with a series of graduations and having longi-

itudinal guides disposed parallel with the said graduations, of a support comprising a horizontal plate the ends of which are turned at right angles to the body and rest upon the tile, the said supporting-plate being provided also with a series of slots and having two screw-threaded studs mounted horizontally one upon each vertical end of the supporting-plate, two guiding-plates longitudinally movable one upon each of said studs and engaging respectively the guides upon the tile, two nuts mounted one on each of said studs and bearing against the adjacent movable guiding-plate on the stud, a plunger reciprocative toward and from the tile upon the supporting-plate, and a series of cutting devices carried by the plunger, reciprocatively mounted in said slots, and adapted to register with the graduations on the tile when the supporting-plate is properly positioned.

5. The combination with a pill-tile, of a plate embracing one end and two side edges thereof, the plate at the side edges forming guides, the tile being provided with a series of graduations disposed at right angles to said guides, a series of cutting devices, means by which said cutting devices may be reciprocated toward and from the tile, and a support for said cutting devices movable lengthwise upon said guides and adjustable transversely with respect to said guides.

6. The combination with a pill-tile provided with a transverse groove in its upper side, of a plate embracing one end and two side edges of the tile, and a transversely-graduated plate disposed in said groove and having downwardly-turned ends clamped between the side edges of the tile and the plate embracing said side edges.

7. The combination with a pill-tile provided

in its upper side with a transverse groove, of a graduated plate disposed in said groove and having turned ends embracing the side edges of the tile, two guides disposed on the said side edges, a support movable lengthwise on said guides and adjustable lengthwise of said graduated plate and transversely respective to the graduations thereon, and a series of cutting devices reciprocatively mounted on said support and adapted to register with the said graduations when the support is properly adjusted.

8. The combination with the pill-tile provided with a series of transverse graduations and having two side guides disposed parallel with said graduations, of a supporting-plate having a horizontal portion provided with a series of transverse slots and having two vertical ends adapted to rest upon the tile, the said supporting-plate being further provided with two horizontal screw-threaded studs extending outwardly beyond said side guides and secured one to each vertical portion of the supporting-plate, two guiding devices movable lengthwise one on each of said studs and engaging respectively said side guides, two nuts mounted one on each stud and bearing against the said guiding devices respectively, two posts mounted vertically on the supporting-plate, a plunger reciprocatively mounted on said posts, and a series of cutting devices carried by said plunger and movable vertically through the said slots to and from said tile.

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

JOHN W. JACKSON.

Witnesses:

J. H. BRILL, Jr.,

W. H. BRILL.