

No. 886,588.

PATENTED MAY 5, 1908.

J. E. DUNCAN.
CALCULATOR.

APPLICATION FILED MAY 26, 1906.

Fig. 1.

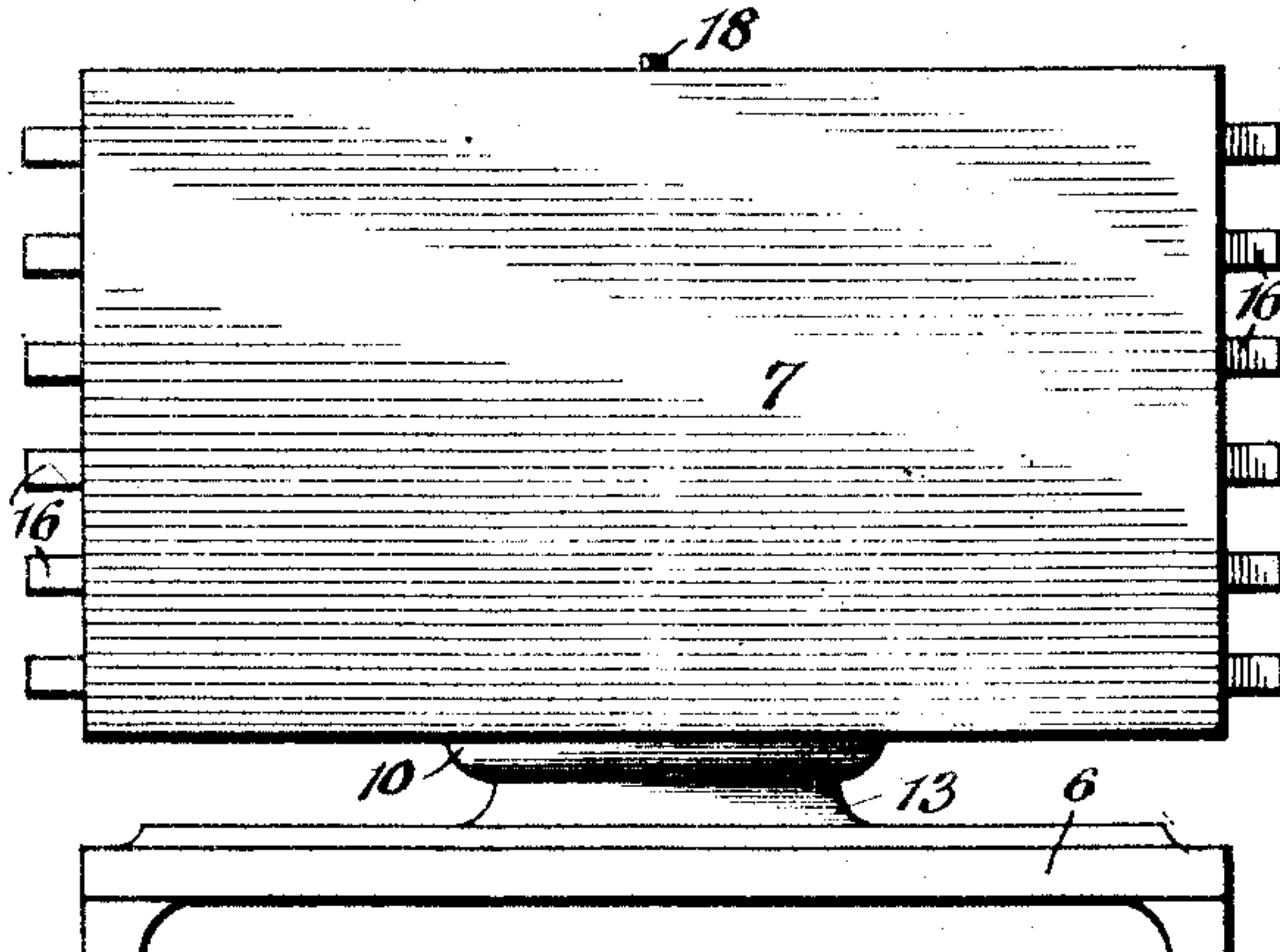


Fig. 2.

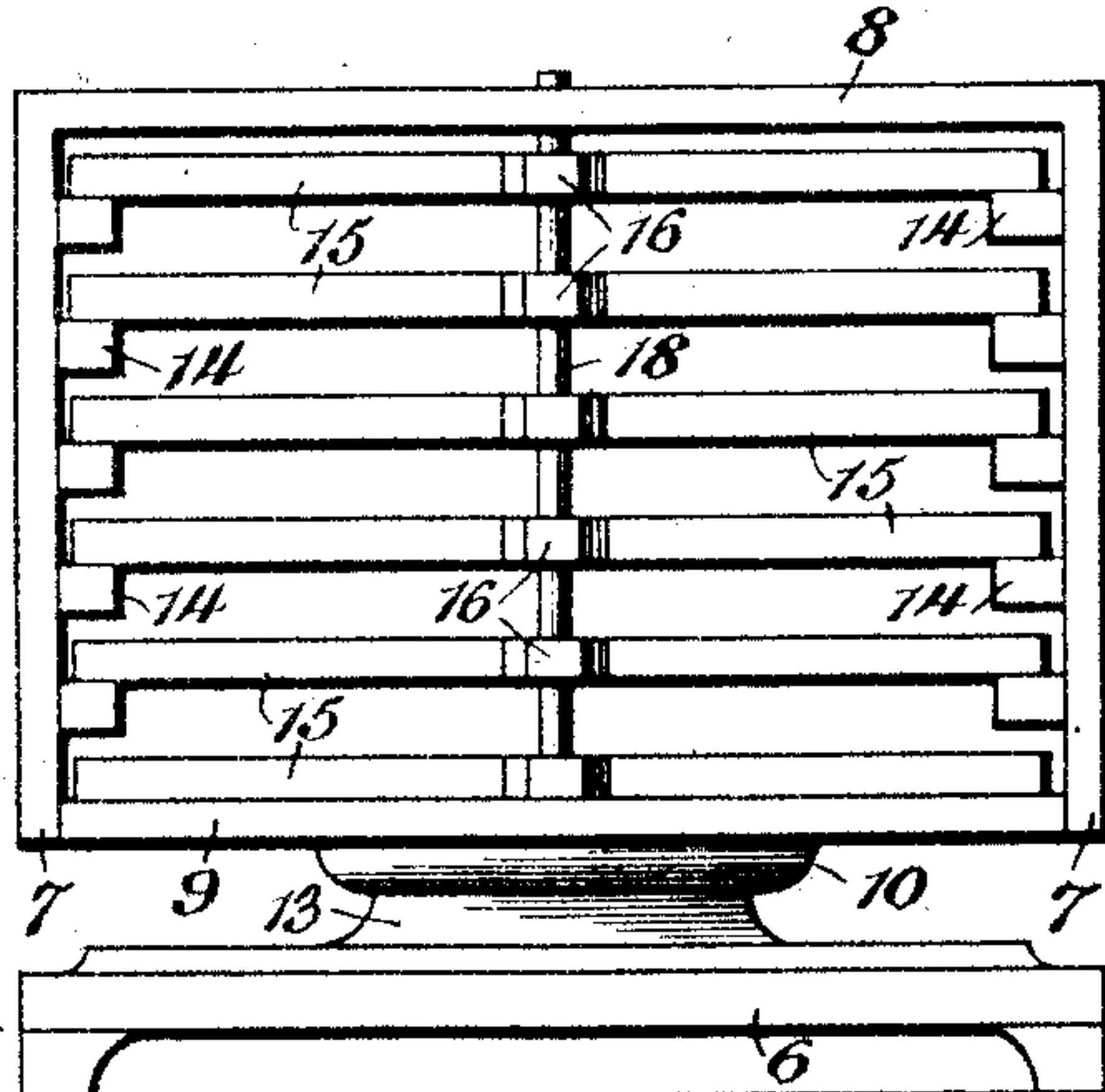


Fig. 3.

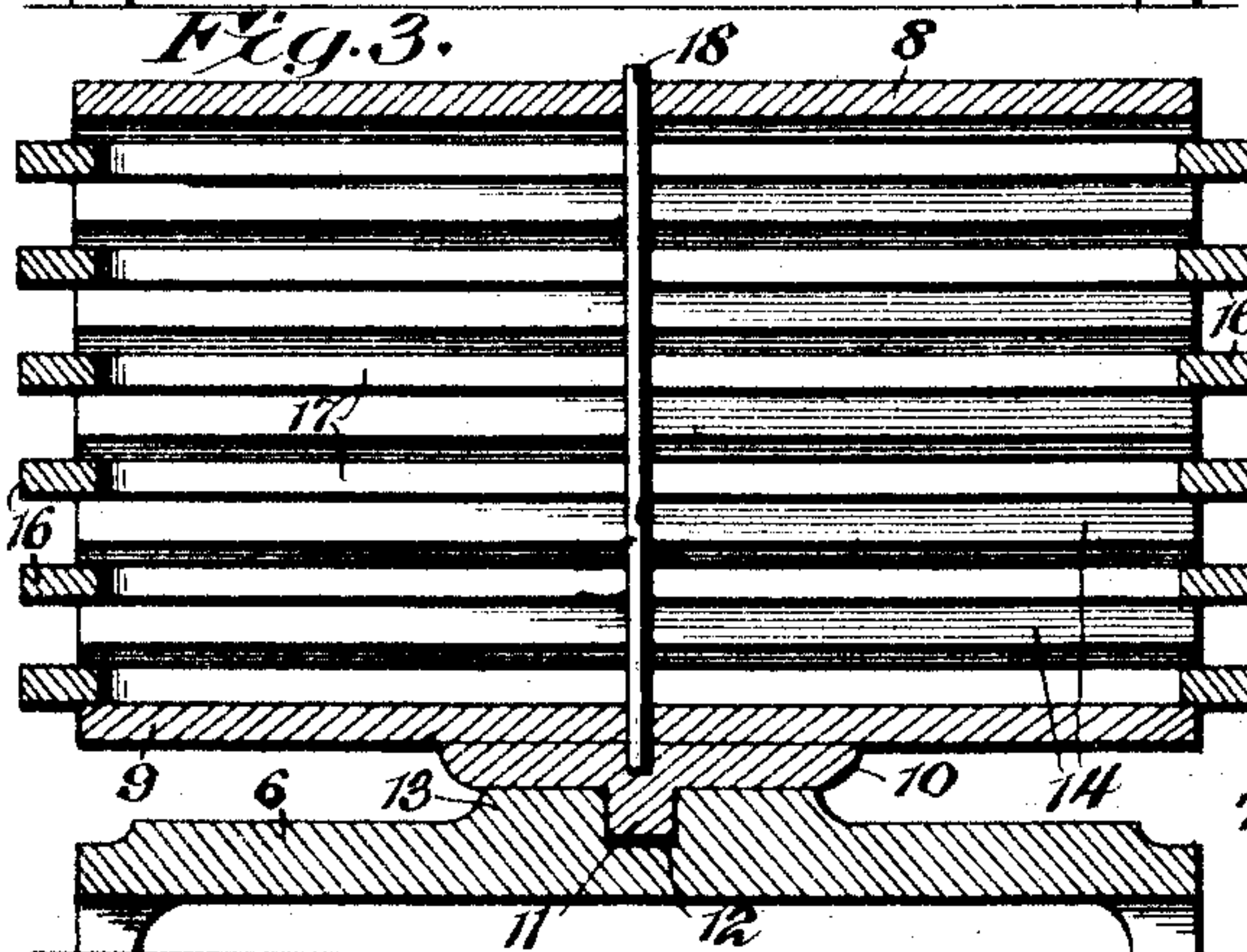


Fig. 4.

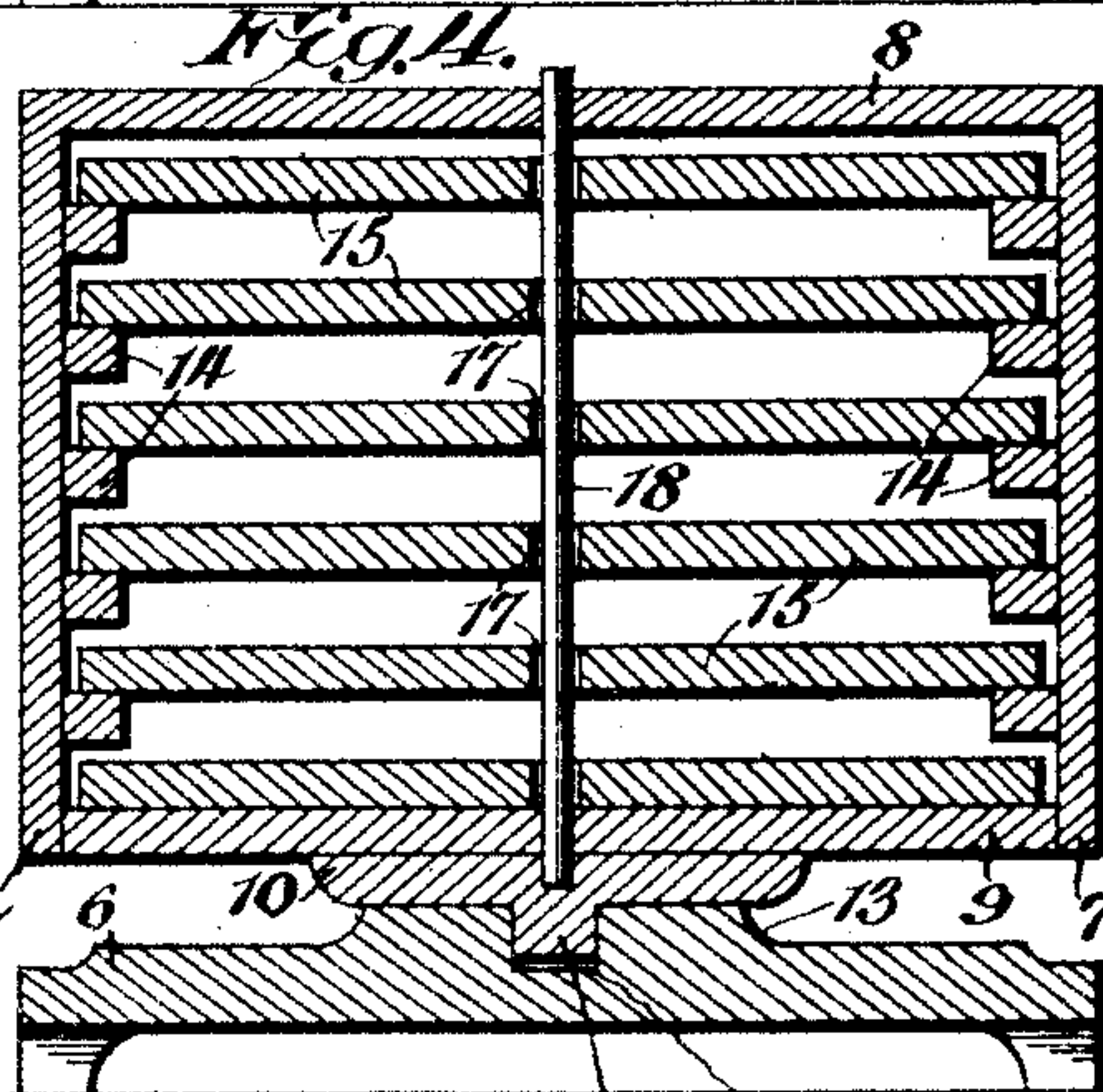
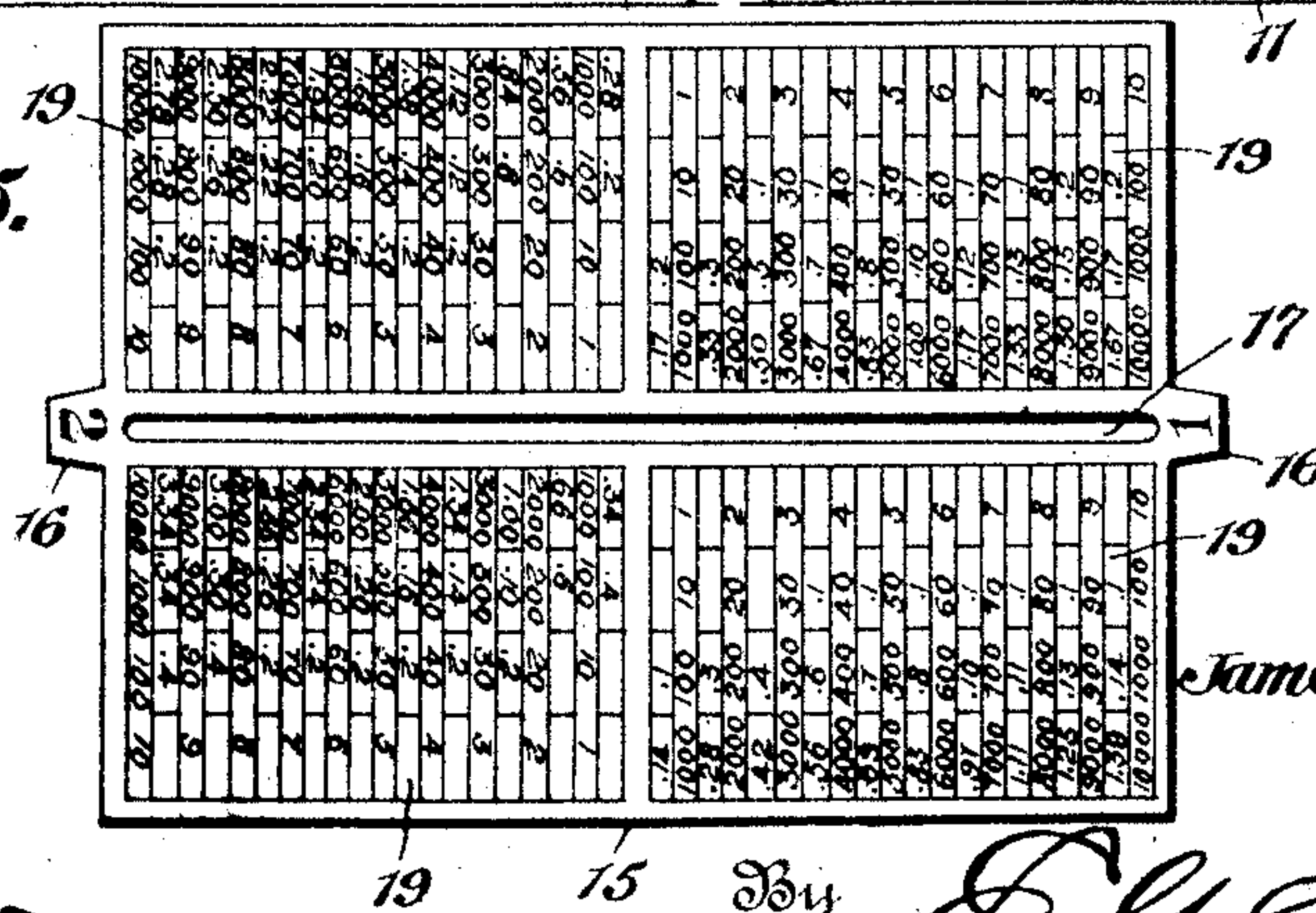


Fig. 5.



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CALCULATOR.

No. 886,588.

Specification of Letters Patent.

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Application filed May 26, 1906. Serial No. 318,970.

To all whom it may concern:

Be it known that I, JAMES EUGENE DUNCAN, a citizen of the United States of America, residing in Siloam Springs, State of Arkansas, have invented a new and useful Calculator, of which the following is a specification.

The present invention relates to calculators, and the principal object is to provide a simple structure, which is easily understood, and by which computations that ordinarily require much time, may be quickly and accurately made.

Another object of the present invention is to provide a construction that will admit of the substitution of parts having different tables of calculations thereon, so that computations of different kinds may be made.

In the accompanying drawing:—Figure 1 is a side elevation of the preferred form of construction. Fig. 2 is an end elevation of the same. Fig. 3 is a vertical longitudinal sectional view. Fig. 4 is a cross sectional view. Fig. 5 is a plan view of one of the slides.

Similar reference numerals designate corresponding parts in all the figures of the drawing.

In the embodiment illustrated, a base 6 is employed, on which is rotatably mounted a casing comprising side walls 7, a top 8, and a bottom 9, the ends of the casing being open. The mounting for the casing preferably consists of a boss 10, carried by the bottom wall, and having a central depending gudgeon 11 that is rotatably mounted in a socket 12, formed in the central portion of an upstanding boss 13, carried by the base.

The inner faces of the side walls 7 of the casing are provided with inwardly extending horizontal ribs 14 constituting guide-ways on which are slidably mounted slide plates 15 of substantially the same length as the casing, and having end tabs 16 projecting from the open ends of said casing. The slides are provided with central longitudinally disposed slots 17 extending the full length thereof, and through these slots pass a common stop in the form of a pin 18 that extends downwardly through the top wall 8 of the casing, and has its lower end embedded in the bottom 9 and boss 10. The pin is readily detachable, and for this purpose, it preferably projects a slight distance above the top 8 in order that it may be grasped for the purpose of removal. Upon the upper faces of the slides are placed

tables of calculations 19, said tables being disposed on opposite sides of the slots and on opposite end portions of the slide, as disclosed in Fig. 5.

The tables of calculations shown in Fig. 5, represent the calculations of interest at five percent. and six percent. on from one to ten thousand dollars for one day and two days respectively, the designations on the tabs 16, shown in Fig. 5, representing the number of days calculated. The tables, as shown, are divided by transverse lines and every other line is subdivided. The figures in the undivided lines are the amounts on which the interest is calculated, while the figures in the subdivisions are the results, or in other words, the amounts of interest.

To find the interest on any amount, for example, the interest on \$1,570, at five per cent for one day, it is only necessary to draw out the end of the slide having the "1" tab thereon, thereupon it can be ascertained that the interest on \$1,000 for one day will be fourteen cents; for 500 in the hundreds column will be seven cents, and for \$70. in the tens column will be one cent, making a total of twenty-two cents on the amount above stated at five per cent for one day. If two days' interest is to be calculated, it is only necessary to revolve the casing, and draw out the opposite side of the slide having the designation "2" on the tab, whereupon the same process is carried out. It will thus be seen that the tables of calculations are double the number of slides employed and the stop pin will prohibit the exposure of more than half the slide in either direction. Moreover by removing the pin, the slides can be removed from the casing, and others substituted therefor.

From the foregoing, it is thought that the construction, operation, and many advantages of the herein described invention, will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In a calculator of the character set forth, the combination with a casing having an open end, of a plurality of slides movably

mounted in the casing and movable outwardly through the open end thereof, said slides being provided with tables of calculations, and a common stop device carried by the casing and engaging all the slides for limiting their said outward movement.

2. In a calculator of the character set forth, the combination with a casing having an open portion, of a plurality of slides movably mounted in the casing and movable outwardly through the open portion thereof, said slides being provided with tables of calculations and having slots, and a removable device engaging in the slots for limiting the said outward movement of the slides, said device when removed permitting the detachment of the slides.

3. In a calculator of the character set forth, the combination with a casing having an open portion, of a plurality of slides movably mounted in the casing and movable outwardly through the open portion thereof, said slides being provided with tables of calculations and having slots, and a pin passing through the slots of the various slides to limit the outward movement of said slides.

4. In a calculator of the character set forth, the combination with a casing having opposite open ends, of a slide movably mounted in the casing and having its end portions respectively moved outwardly through the open ends of the casing, and tables of calculations located on said slide and exposed in its outward movement in opposite directions.

5. In a calculator of the character set forth, the combination with a casing having opposite open ends, of a slide movably mounted into the casing and having its end portions respectively movable outwardly through the open end of the casing, tables of calculations located on said slide and exposed on its outward movement in opposite directions, and means for limiting the outward movement of the slide in either direction.

6. In a calculator of the character set forth, the combination with a casing having oppo-

site open ends, of a slide movably mounted in the casing and having its end portions respectively movable outwardly through the open ends thereof, said slide being provided with a longitudinally disposed slot, tables of calculations located on the end portions of the slide and exposed on its opposite outward movement in opposite directions, and a slot engaging in the slot and limiting the movement of the slide in both directions.

7. In a calculator of the character set forth, the combination with a casing having open ends and provided with guide-ways on its side walls, of a plurality of slides movably mounted on the guide-ways and movable in opposite directions outwardly through the open ends thereof, said slides being provided with longitudinally disposed slots, tables of calculations located on the end portions of the slide and exposed on their outward movement, and a stop pin extending through the casing and through the slots in the slides.

8. In a calculator of the character set forth, the combination with a casing consisting of a top, bottom and sides, of a plurality of slides movable in the casing and having centrally disposed slots, and a rod located vertically and centrally within the casing and extending from top to bottom thereof, said rod being located in the slots of the slide.

9. In a calculator of the character set forth, the combination with a casing consisting of a top, bottom and sides, of guide-ways located horizontally on the inner walls of the sides of the casing, a plurality of slotted slides having tables of calculations thereon and mounted to operate on the guide-ways in the casing, a rod or stop pin vertically and centrally located within the casing and disposed in the slots of the slides, and a base upon which the casing is rotatably mounted.

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