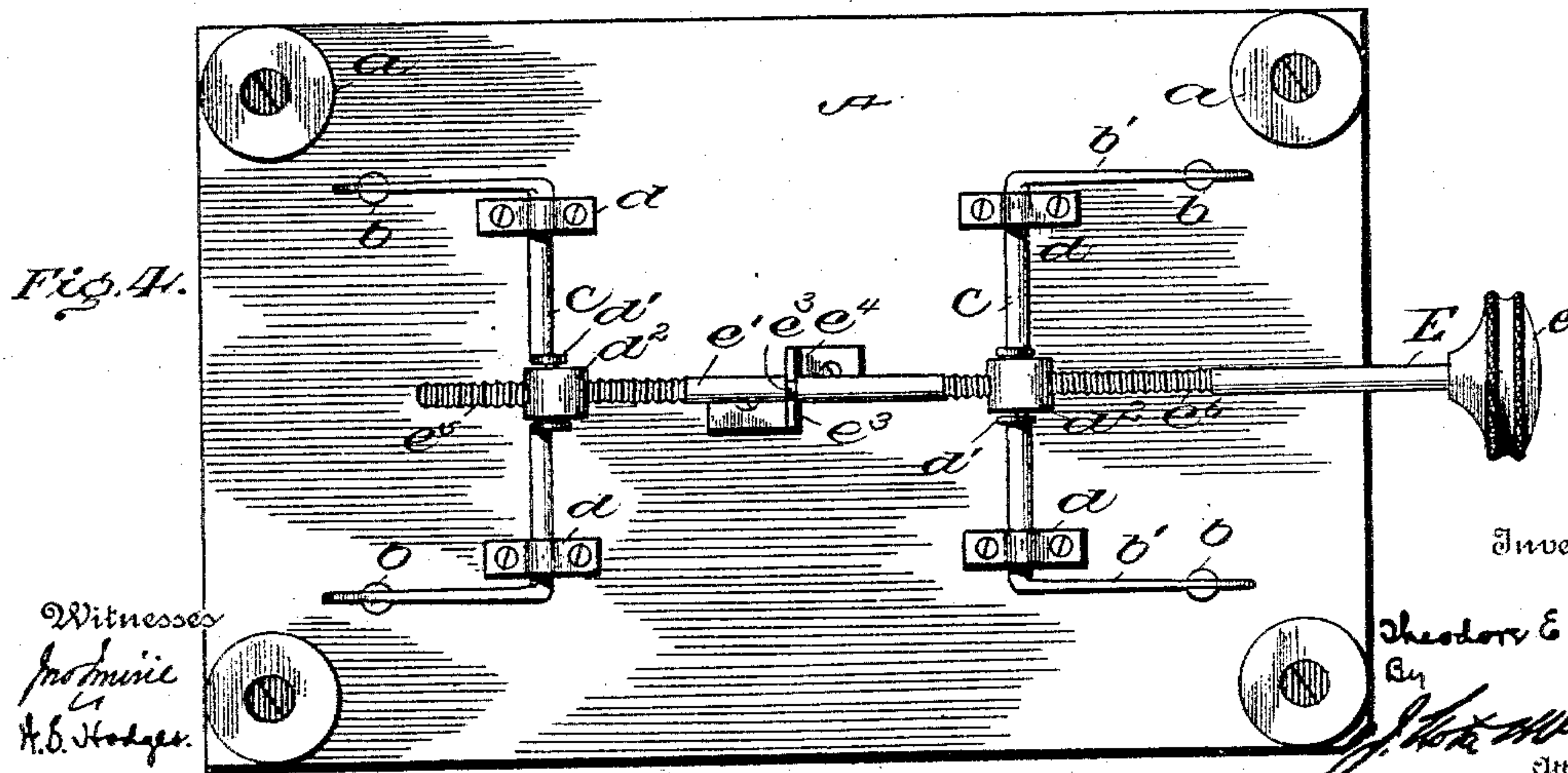
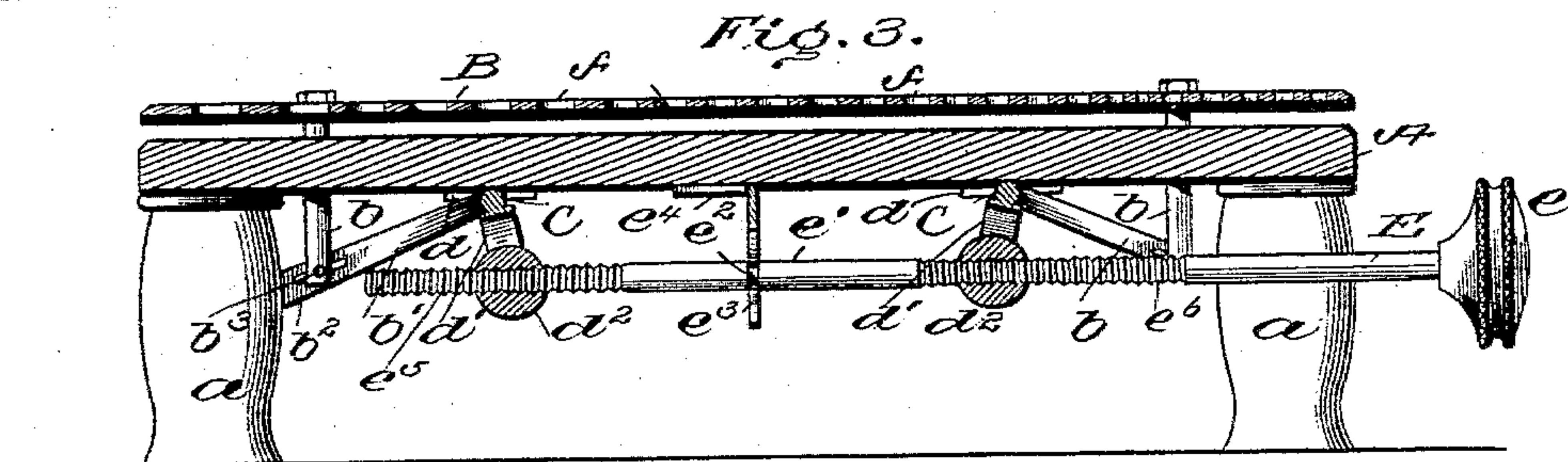
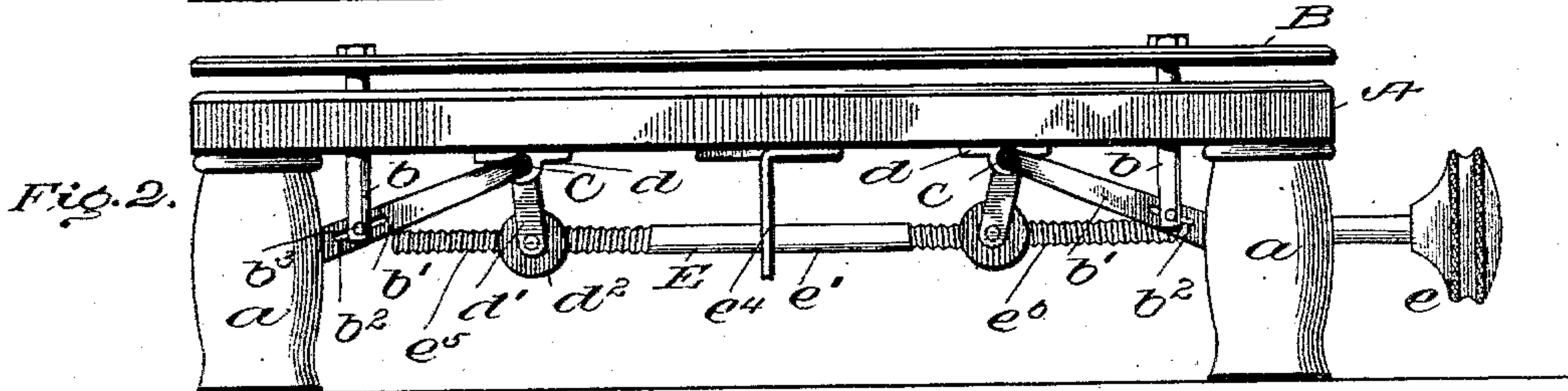
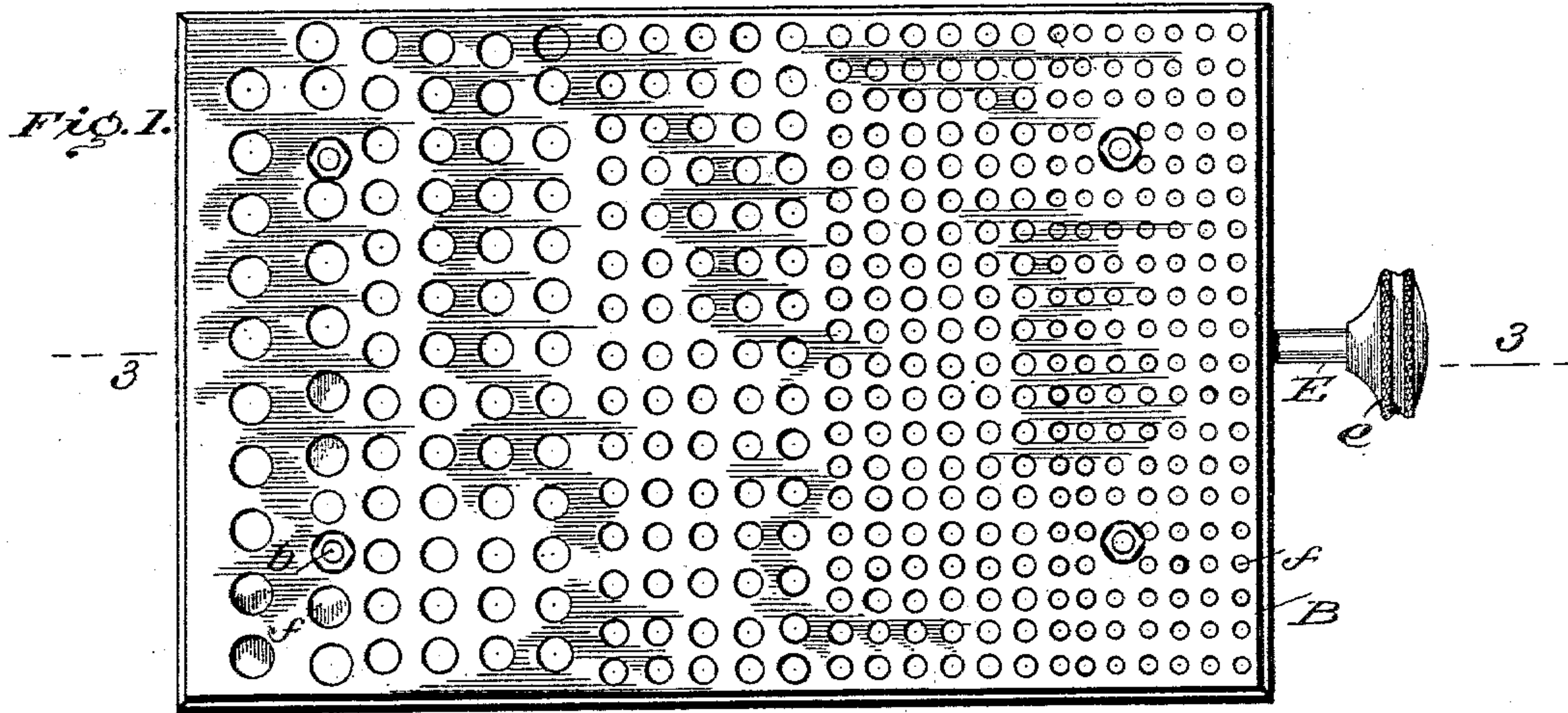


(No Model.)

T. E. IHRIG.
MACHINE FOR HOLDING CAPSULES.

No. 596,813.

Patented Jan. 4, 1898.



Witnesses
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UNITED STATES PATENT OFFICE.

THEODORE E. IHRIG, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO LOUIS EMANUEL, OF SAME PLACE.

MACHINE FOR HOLDING CAPSULES.

SPECIFICATION forming part of Letters Patent No. 596,813, dated January 4, 1898.

Application filed May 12, 1897. Serial No. 636,180. (No model.)

To all whom it may concern:

Be it known that I, THEODORE E. IHRIG, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Holding Capsules; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention contemplates certain new and useful improvements in capsule-holding machines.

The object of the invention is to provide a simple and inexpensive machine of this class by means of which capsules of various sizes can be quickly and easily filled. This I accomplish by providing a table-top vertically movable toward and away from a stationary bed. The table-top is provided with numerous small holes arranged in sets of different sizes to accommodate capsules of all sizes. The latter are fitted in the respective holes of the table-top and rest on the bed, the former being adjusted so that the open top of the capsules will aline with its upper surface, permitting the medicinal preparation to be readily supplied to the several capsules. After they are filled the top is lowered sufficient for the application of the caps, and then it is further lowered, causing the capsules to fall from the holes and onto the upper surface of said top.

The invention will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view. Fig. 2 is a side elevation. Fig. 3 is a longitudinal sectional view on line 3 3, Fig. 1. Fig. 4 is a bottom plan view.

Referring to the drawings, A designates a solid bed of rectangular form having supporting-legs *a*.

B is a table-top, which consists of a board corresponding in length and width to bed A. The table-top is so mounted that it can be raised and lowered—that is, moved toward and away from the bed A. It is mounted on four upright rods *b*, which extend through corresponding holes in the bed. The lower ends of these rods are bifurcated to receive

and accommodate the right-angular arms *b'* of two rock-shafts C. These arms *b'* are formed with slots *b²*, through which cross-pins *b³* project, said pins serving to retain the arms in contact with the rods. The slots in the arms allow the rods to always remain truly upright in raising and lowering the table-top. Each shaft C is journaled to the under side of the bed by bearings *d*. From the center of each shaft depend two rigid arms or links *d'*, suitably spaced apart to accommodate nuts *d²*, to opposite sides of which they are pivoted. Each of these nuts has a central internally-threaded hole.

E is the operating-rod extended longitudinally beneath bed A. At one end it is provided with a milled head *e* and at about its center with a smooth portion *e'*, in which is a groove *e²*, designed to accommodate the forks *e³* of a plate *e⁴*, depending from the under side of the bed. This plate serves to prevent longitudinal movement of the operating-rod. On this latter are formed right and left hand screw-threads *e⁵* and *e⁶*, which engage with the correspondingly-threaded holes of nuts *d²*. Hence by turning the rod E the two nuts on the threads thereof will be moved toward or away from each other, and this movement causing the partial rotation of shaft C will, through rods *b*, effect the raising or lowering of the table-top B.

In the table-top B are formed numerous small holes *f*, preferably arranged in separate series of different sizes. In this way the machine may be used for filling capsules of all sizes, from the smallest to the largest, and the number of capsules of any one size to be filled at a time depends upon the number of holes in the respective series.

In practice the operator so adjusts the perforated table-top that its upper surface will aline with the upper open ends of the capsules, the latter resting upon the stationary bed A. The medicated compound being spread over that portion of table-top B supporting the capsules will fall into the several capsules. This being accomplished, the operator by turning rod E will lower table-top B sufficient to allow the caps of the filled capsules to be inserted on the latter. After this the operator further turns rod E and

lowers the table-top to the full limit, causing the filled capsules to fall onto the upper surface of said table-top, from which they can be readily and easily removed.

5 The advantages of my invention are apparent.

It will be seen that by making the upper perforated table-top adjustable not only can the capsules be easily positioned for filling, but when filled they can at once be ejected from the holes in said table-top.

While I have shown and described the preferred means for operating the table-top, yet I do not restrict myself thereto, since changes may be made without departing from the scope of my invention.

By providing the table-top with numerous holes or perforations arranged in series of different sizes I avoid having to employ separate perforated boards for the various size capsules, since all sizes of the latter can be filled by a table-top perforated as herein described.

I claim—

25 1. A capsule-holding machine having a stationary bed, a vertically-adjustable table-top above said bed having a series of holes therein, means mounted on said bed for raising and lowering said table-top, and guides for the latter, substantially as set forth.

2. A capsule-holding machine having a stationary bed, a perforated table-top above said bed, guide-rods secured to said table-top extended down through said bed, and means connected to the latter for engaging said guide-rods, whereby said table-top can be raised and lowered, substantially as set forth.

3. A capsule-holding machine having a stationary bed, a perforated table-top above said

bed, guide-rods secured to said table-top extended down through said bed, a single operating-rod, and connections between the latter and said guide-rods, whereby said table-top can be adjusted relatively to said bed, substantially as set forth.

4. A capsule-holding machine having a perforated board for the capsules, and means for raising and lowering said board comprising a rod having right and left hand screw-threads, nuts thereon, and connections between said nuts and said board, substantially as set forth.

5. A capsule-holding machine comprising a solid bed, a table-top having perforations, guide-rods depending from said table-top through said bed, rock-shafts on the latter engaging said guide-rods, an operating-rod having opposite screw-threads, nuts on the latter, and pivoted connections between said nuts and said rock-shafts, substantially as set forth.

6. The combination with the bed, of the perforated table-top, the guide-rods depending therefrom, the rock-shafts mounted on said bed having slotted arms engaging said guide-rods, arms or links extending from said rock-shafts, an operating-rod having opposite screw-threads, nuts thereon to which said arms or links are pivoted, and a forked plate with which said screw-rod engages, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

THEODORE E. IHRIG.

Witnesses:

D. C. HUNTER,
M. W. WESSON.