

No. 626,072.

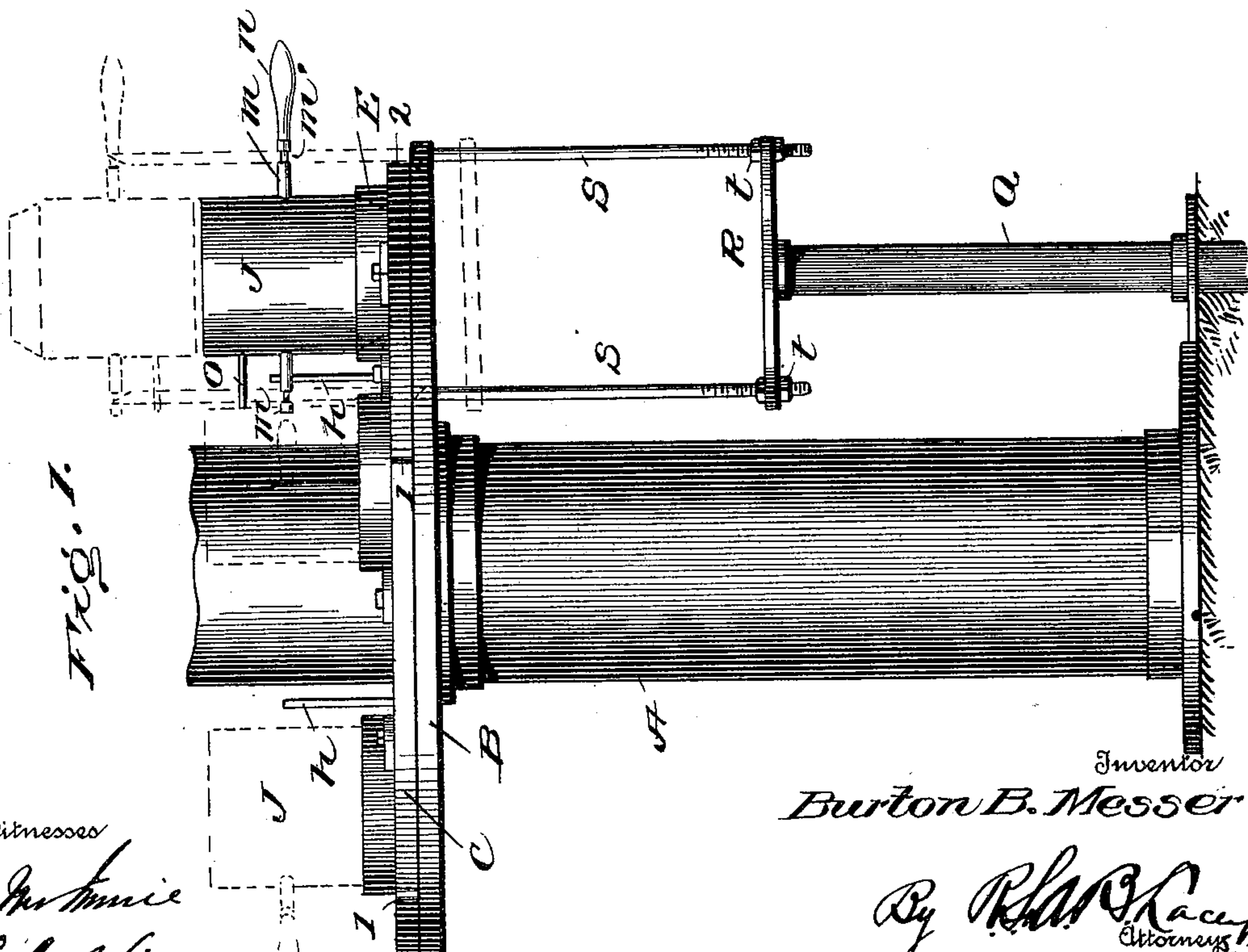
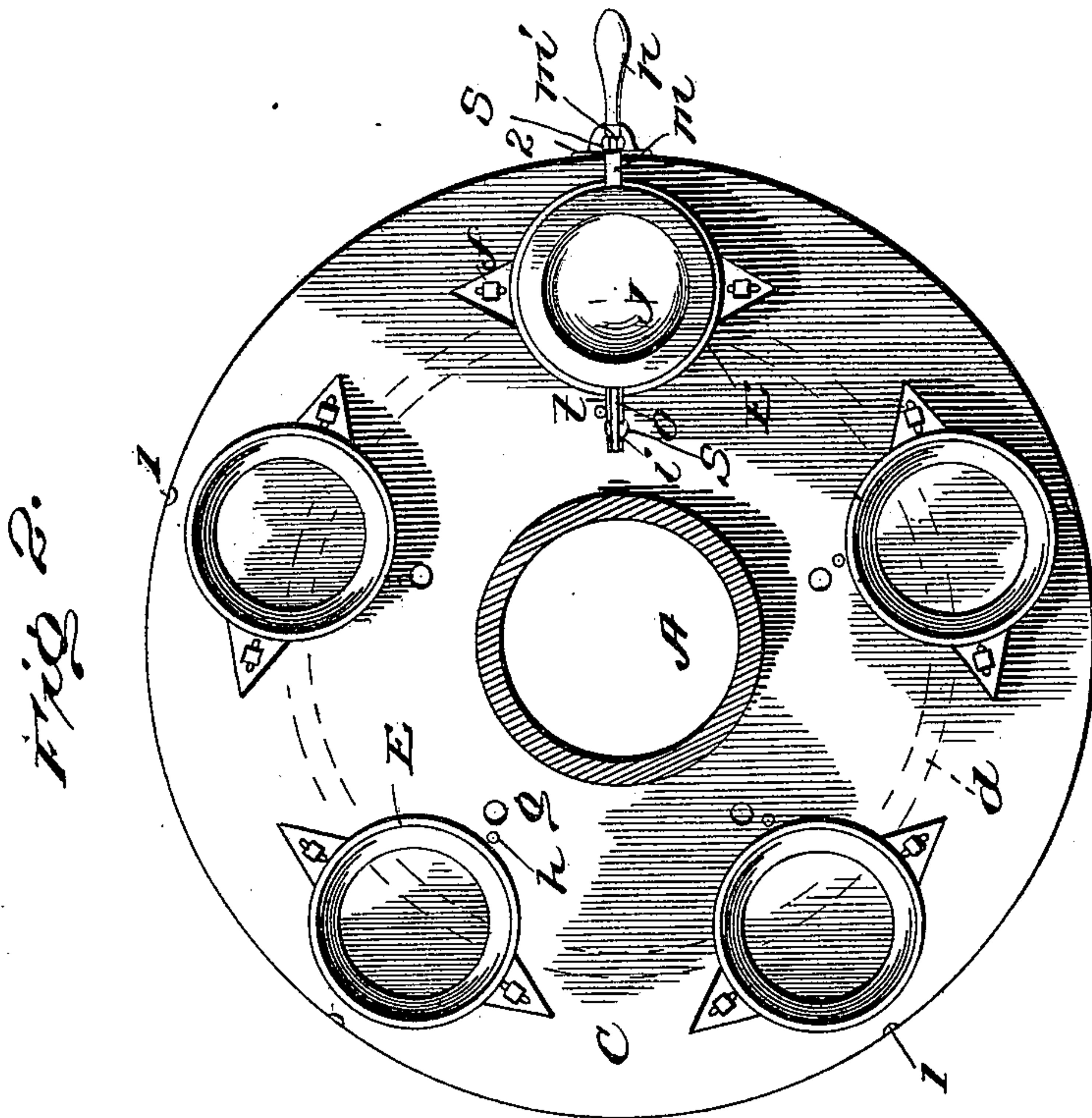
Patented May 30, 1899.

B. B. MESSER.  
GLASS PRESS.

(Application filed Aug 25, 1898.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

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2 Sheets—Sheet 2.

Fig. 3.

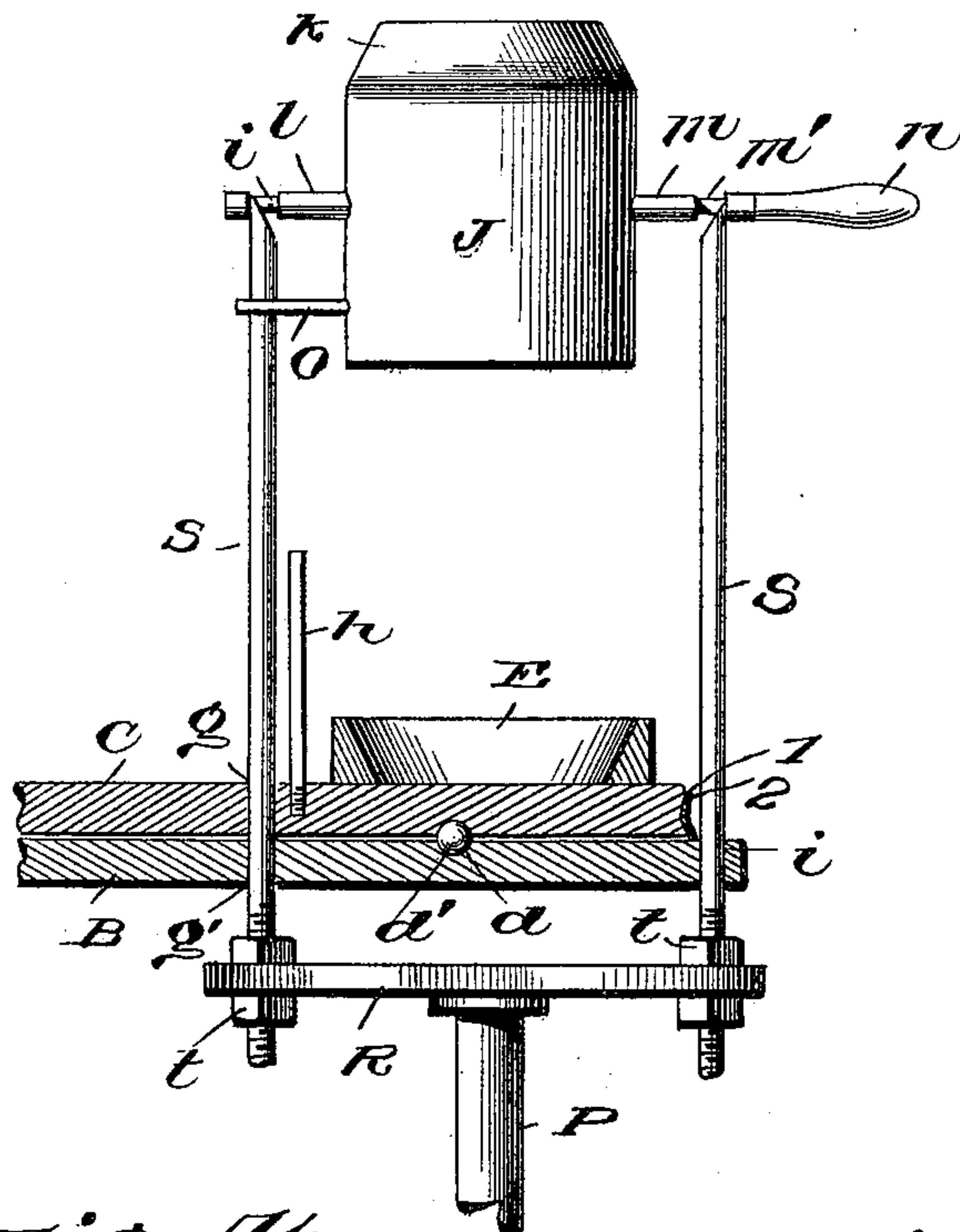


Fig. 4.

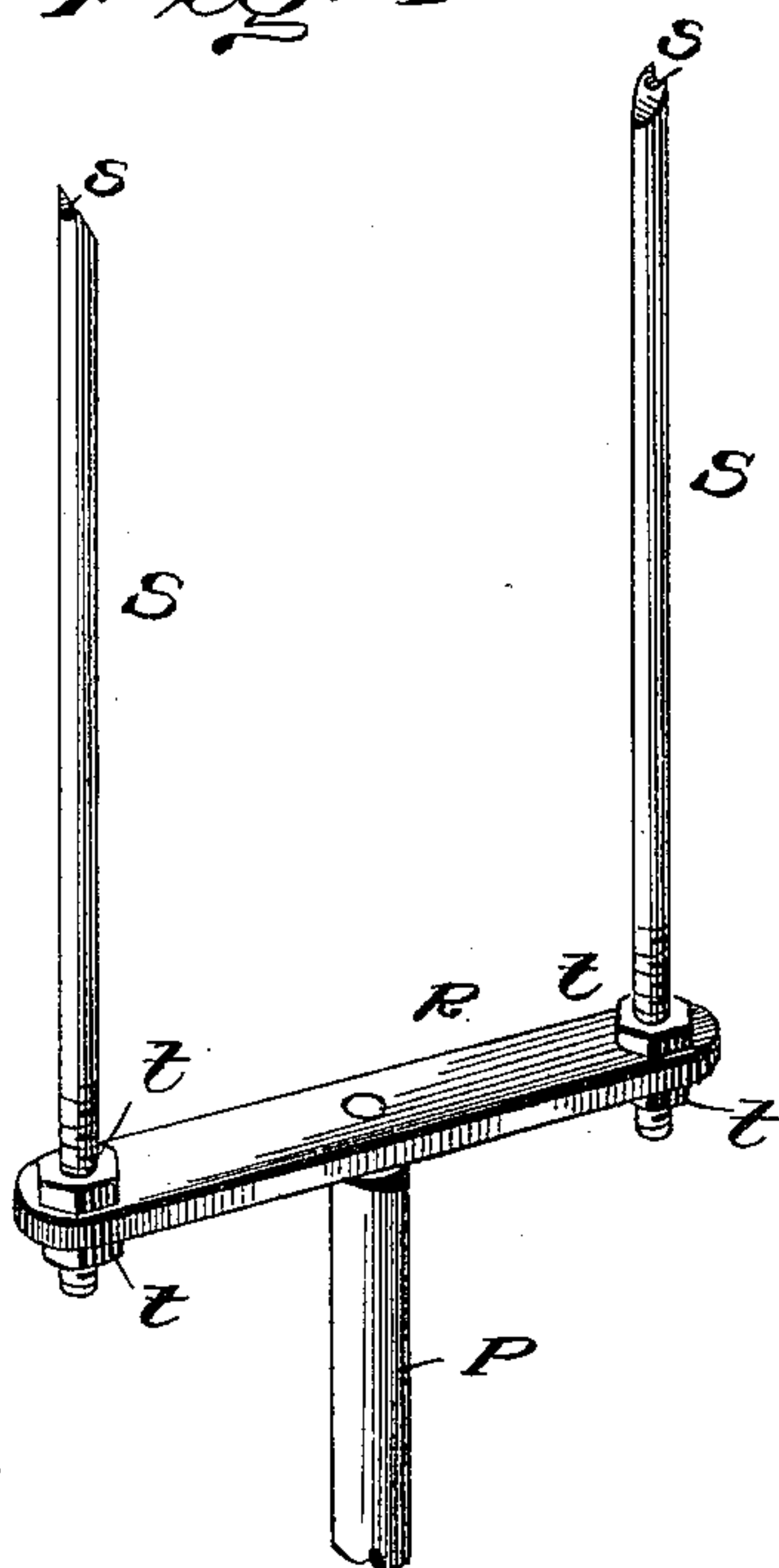


Fig. 5.

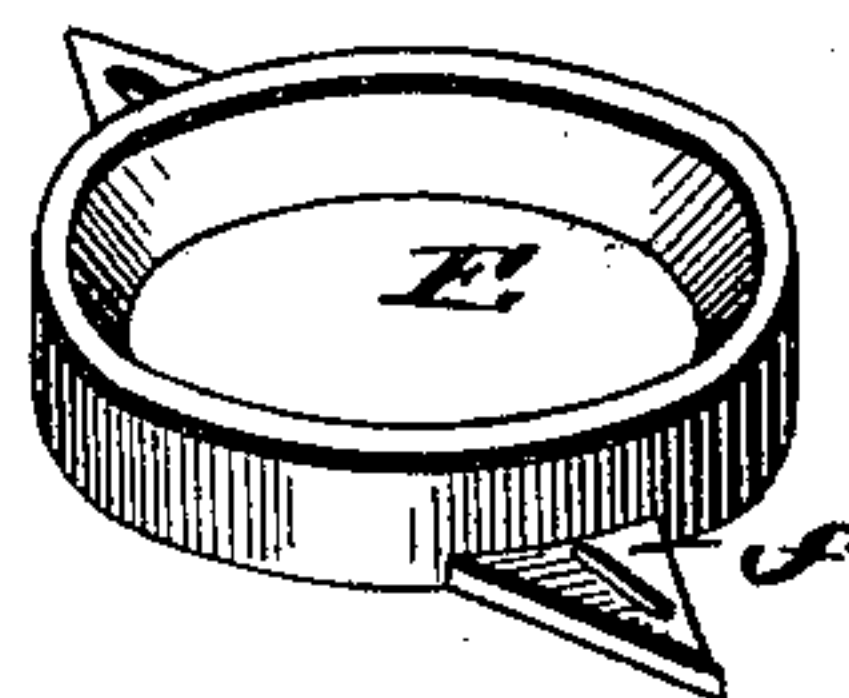
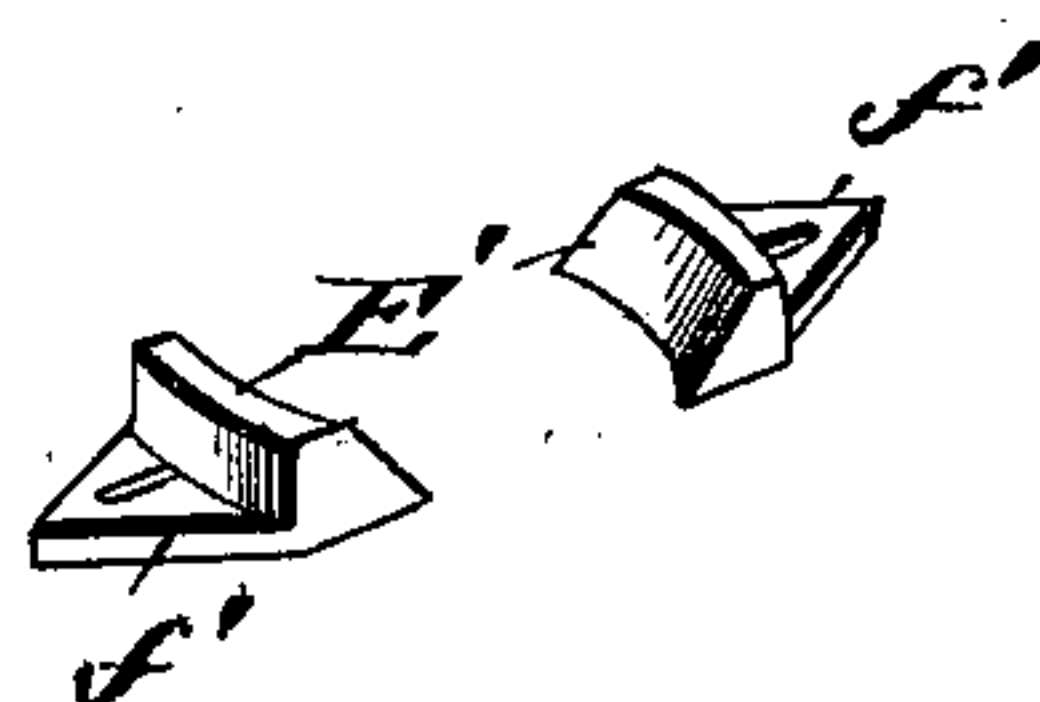


Fig. 6.



Witnesses

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# UNITED STATES PATENT OFFICE.

BURTON B. MESSER, OF WASHINGTON, PENNSYLVANIA.

## GLASS-PRESS.

SPECIFICATION forming part of Letters Patent No. 626,072, dated May 30, 1899.

Application filed August 25, 1898. Serial No. 689,509. (No model.)

*To all whom it may concern:*

Be it known that I, BURTON B. MESSER, a citizen of the United States, residing at Washington, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Glass-Presses; 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 relates to improvements in circular or rotary presses for pressing articles of glassware, and has for its object to provide simple and effective mechanism whereby the operation of elevating and tilting the molds to dump the castings may be easily and expeditiously performed.

A further object is to provide means for effectually centering the molds to avoid injury to the castings or molds during the operation of dumping.

With these objects in view the invention consists in certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevational view of a glass-press embodying my improvements. Fig. 2 is a top plan view of the revolving press-plate thereof. Fig. 3 is a vertical section through a portion of the table of the press, showing a mold elevated and inverted to dump the casting. Fig. 4 is a detail perspective view of the mold support and lifter. Fig. 5 is a perspective view of a mold-seat. Fig. 6 is a similar view of a modified form of mold-seat.

Referring now more particularly to the drawings, wherein like letters and figures of reference designate corresponding parts throughout the several views, A represents the column or support of the press rising from the ground or floor or a suitable foundation and carrying a circular table, consisting of a stationary base-plate B and a smaller concentric rotary press-plate C, the opposing faces of said plates being provided in the present instance with concentric grooves *d*, forming a raceway for the reception of antifriction-balls *d'*.

Mounted upon the press-plate are a number of mold seats or receptacles E, arranged in a circle adjacent to the periphery of the plate and equidistant from each other. These seats are annular in form and are beveled interiorly, as shown, and each seat is provided with a pair of laterally-projecting ears *f*, having holes or slots for passage of suitable fastening devices, by which they are detachably secured to the plate. Instead of the annular seat two or more segmented blocks E' of the construction shown in Fig. 5 may be employed, each of said blocks being provided with an ear *f'* for independent attachment to the plate. The press-plate C is formed adjacent to each mold-seat with an opening *g*, and projecting up from the plate between each seat and opening is a gage-pin *h*. The stationary plate B is also provided with a series of openings *g'*, equal in number to the openings *g* and with which the latter are adapted to be brought in register, and with a second series of openings *i*, located close to its periphery and beyond the periphery of the press-plate. The periphery of the press-plate is formed with a notch *l* in line with each mold-seat, and the stationary plate carries a spring-catch *2*, adapted to engage said notches and positively stop the press-plate when the molds arrive at the dumping-point.

The molds J are beveled exteriorly at their lower ends *k* to conform to their seats and to insure quick and accurate seating thereof, also to enable them to be inserted and removed without liability of binding. Each mold is provided on its inner side with a lateral tang or arm *m*, said arms being located centrally of the mold in transverse alinement and formed adjacent to their outer ends with grooves *i'* and *m'*. Connected to the arm *m* is a handle *n*, by which the mold may be manipulated, and projecting from the inner side of the mold above the arm *l* is a stop-pin *o*, which is adapted to limit the tilting of the mold, as hereinafter described.

Arranged below the table and on one side of the column or support A is an elevating device, comprising a rod P, which is shown in the present instance in the form of a piston-rod moving in a cylinder Q and adapted to be operated by fluid-pressure. The rod may, however, be operated by means of a treadle



or in any other desired manner. To the upper end of this rod is attached a cross-head R, carrying a pair of parallel arms S, the upper ends of which are beveled on their inner sides and formed with grooves *s* and normally occupy two of the openings *g'* and *i'* in the stationary plate B, as shown in Figs. 1 and 3. The lower ends of the arms are preferably screw-threaded to receive nuts *l*, by which they are adjustably connected to the cross-head. In operation when the mold from which the casting is to be dumped arrives at the proper point the motion of the press-plate is arrested and the opening *g* alongside the mold brought in register with the said opening *g'*. The elevating device may now be moved upwardly to bring the grooved upper ends of the arms S into engagement with the grooved portions of the arms *b* and *m* of the mold and the upward motion continued to elevate the mold in the manner shown in Fig. 3. The mold may then be freely turned and inverted by the handle *n* to dump the casting, the pin *o* thereon serving to abut against one of the arms S and prevent the mold from turning past the center. By this means the mold is properly centered at all times during the dumping operation. The shoulders and handle at the ends of the grooves in the arms *l* and *m* prevent the mold from moving in or out to an undue extent, while the grooved upper ends of the elevating-arms S serve as bearings on which the mold-arms, which act as trunnions, turn. When the mold is seated, with its stop-pin *o* abutting against the gage-pin *h*, both arms *l* and *m* thereof will lie directly in the path of the arms of the elevating device.

In glass-presses of this character the operation of lifting the mold above or off the table and inverting the same for dumping the casting has been heretofore performed by hand or by mechanical devices more or less complicated in construction, and owing to the fact that no adequate provision has been made for insuring the accurate centering of the mold when inverted by hand or mechanical means the castings are frequently improperly dumped, resulting in either the molds or castings, or both, being marked or otherwise injured. My invention provides simple and effective means by which this objection is entirely overcome.

Having thus described the invention, what is claimed as new is—

1. In a glass-press, the combination, with a press-plate, of a vertically-movable device for elevating the mold at the discharge-point, and a mold adapted to turn on said device so as to be inverted to dump the casting.

2. In a glass-press, the combination, with a rotary press-plate, of a vertically-movable device for elevating the mold at the discharge-point, a series of molds each provided with trunnions to turn on said elevating device so that the mold may be inverted to dump the casting, and means for arresting the move-

ment of the press-plate as each mold arrives at the discharge-point.

3. In a glass-press, the combination with a table provided with openings therein, of an elevating device movable vertically through said openings, and a mold having arms to rest and turn on said device and a stop to abut thereagainst to limit the tilting of the mold.

4. In a glass-press, the combination with a table provided with openings therein, of an elevating device comprising a rod, a cross-head attached thereto and carrying a pair of parallel arms movable vertically in said openings, and a mold having arms to rest and turn upon the elevating-arms and a stop to engage one of said arms to center the mold when inverted.

5. In a glass-press, the combination with a column or support, of a table comprising a stationary plate provided with openings, a rotary press-plate carrying mold-seats and provided with an opening on the inner side of each seat adapted to be brought in register with one of the openings in the stationary plate and a gage-pin alongside said opening, a mold having a pair of arms, one of which is adapted to abut against the gage-pin and the other having a handle, and a stop-pin above the former arm, and an elevating device provided with a pair of arms movable vertically through the openings in the table and adapted to engage the arms of the mold, substantially as described.

6. In a glass-press, the combination of a rotary press-plate, a vertically-movable device for elevating the molds at the discharge-point, a series of molds each having trunnions to turn on said device so that the mold may be inverted to dump the casting, and means for preventing the inverted mold from turning past the center.

7. In a glass-press, the combination of a press-plate provided with openings, an elevating device having a pair of arms adapted to move vertically up through said openings to elevate the mold at the discharge-point, and a series of molds each having trunnions to rest and turn on said arms, whereby the mold may be inverted to dump the casting.

8. In a glass-press, the combination of a press-plate provided with openings, an elevating device having a pair of arms adapted to move vertically up through said openings to elevate the mold at the discharge-point, a series of molds each having trunnions to rest and turn on said arms, whereby the mold may be inverted to dump the casting, means to center the inverted mold, and means to insure an accurate stopping of the press-plate as each mold arrives at the discharge-point.

9. In a glass-press, the combination of a table comprising a stationary plate and a rotary press-plate carrying mold-seats, said plates being provided with openings adapted to register as each mold arrives at the discharge-point, an elevating device adapted to



move upward through said registering openings and elevate the mold at the discharge-point, a series of molds mounted on the press-plate and each provided with trunnions to rest  
5 and turn on said elevating device, whereby the mold may be inverted to dump the castings, and means on the stationary plate to engage and arrest the rotary movement of

the press-plate as each mold arrives at the discharge-point.

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

BURTON B. MESSER.

Witnesses:

HIRAM E. STEWART,  
MILO W. McDONALD.

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