

No. 681,315.

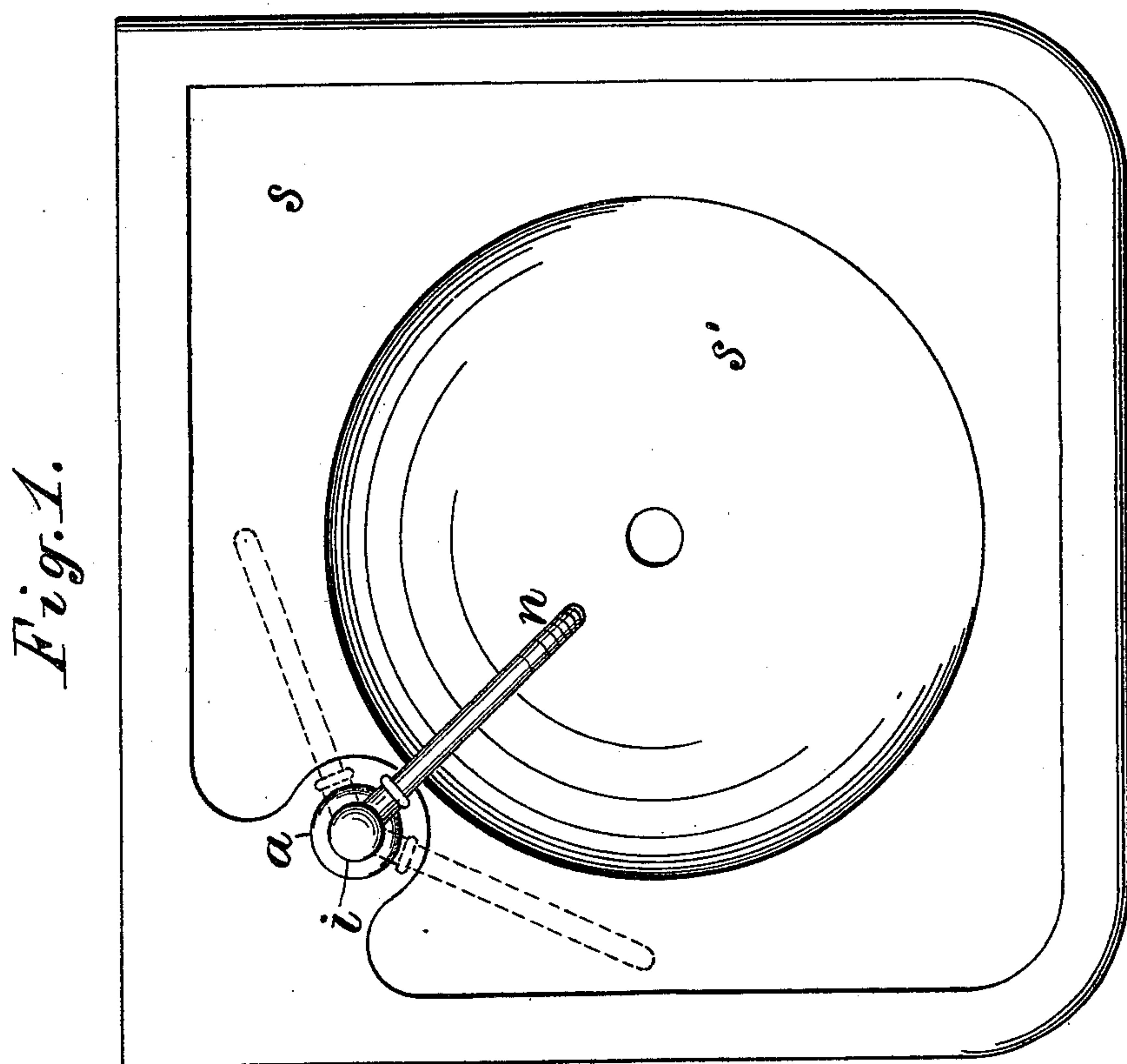
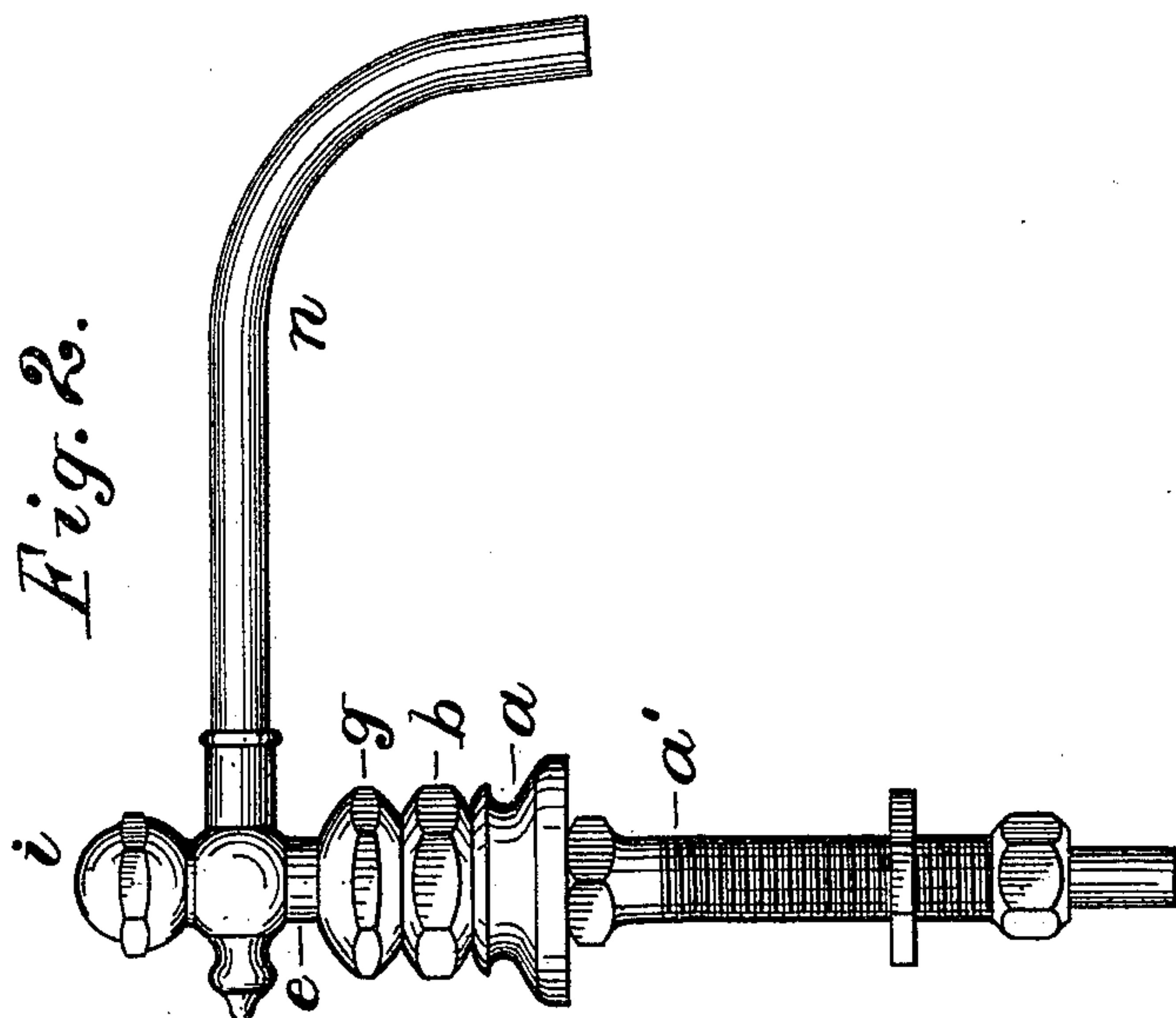
Patented Aug. 27, 1901.

E. G. HEDGES.  
COMPRESSION SWING BASIN COCK.

(Application filed Oct. 17, 1900.)

(No Model.)

2 Sheets—Sheet 1.



*Attest:*  
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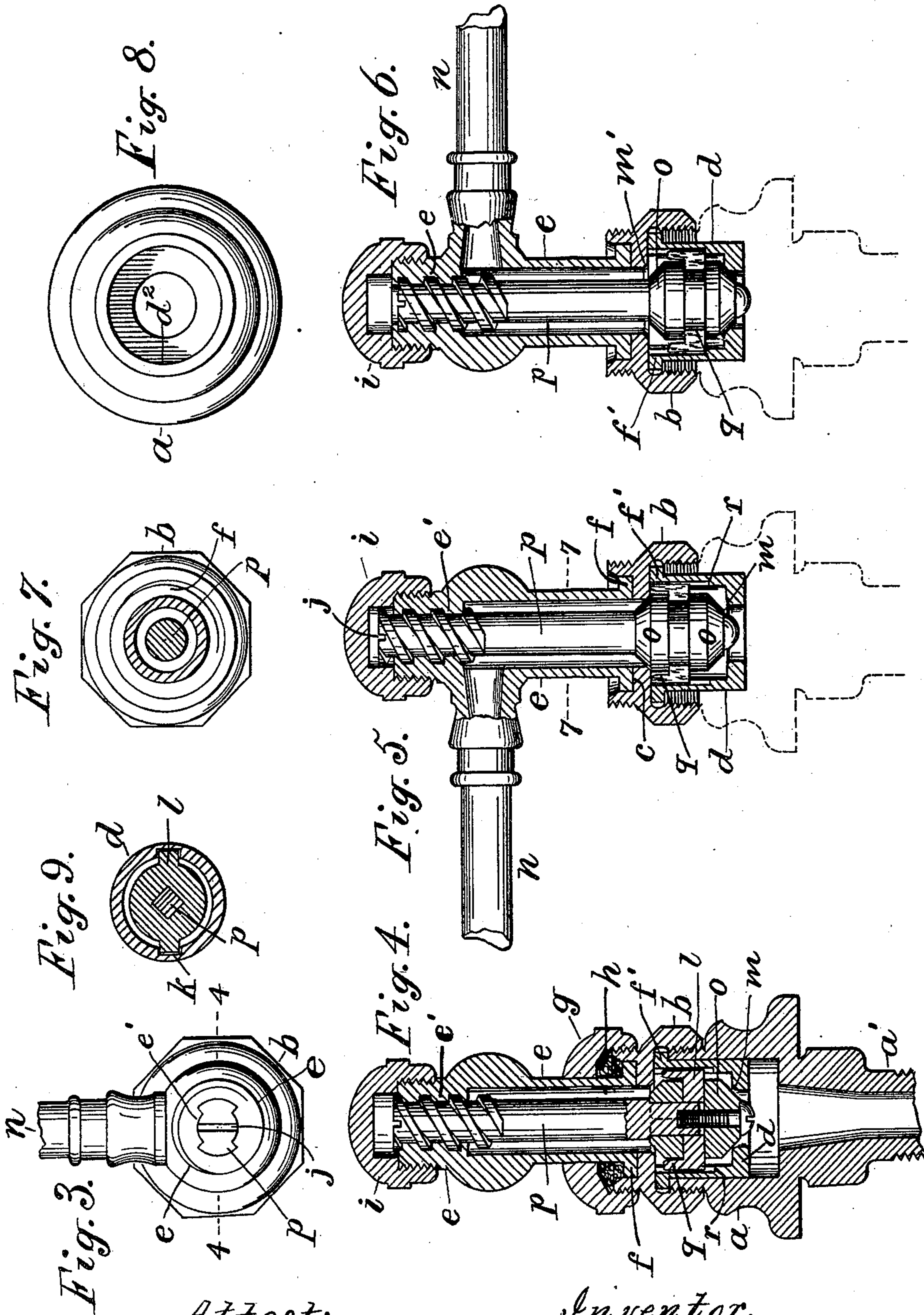
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*Edward G. Hedges, per*  
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2 Sheets—Sheet 2.



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Inventor.  
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# UNITED STATES PATENT OFFICE.

EDWARD G. HEDGES, OF NEWARK, NEW JERSEY.

## COMPRESSION SWING BASIN-COCK.

SPECIFICATION forming part of Letters Patent No. 681,315, dated August 27, 1901.

Application filed October 17, 1900. Serial No. 33,335. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD G. HEDGES, a citizen of the United States, residing at 269 Belleville avenue, Newark, county of Essex, State of New Jersey, have invented certain new and useful Improvements in Compression Swing Basin-Cocks, fully described and represented in the following specification and the accompanying drawings, forming a part  
10 of the same.

The object of this invention is to furnish a compression-cock with a non-rotatable valve-stem which may be actuated by a swing nozzle or arm and in which the flow of water  
15 may be stopped by moving such nozzle or arm in either direction from a central position.

The invention also furnishes means for adjusting the compressible valve-plug in relation to its seat from the exterior of the standard, and thus avoid disconnecting the parts  
20 in screwing up to compensate for the wear of the plug.

The invention is applicable to basin-cocks, wash-tray cocks, and faucets of all descriptions.  
25

In the preferred construction the standard is divided transversely between the base and its connection with the swing nozzle or arm, the upper half of the standard (which is termed the "shank" of the nozzle herein) being connected with the lower half by a swivel-coupling joint. Such swivel is made doubly secure from leakage by means of a flanged ground joint and a yielding packing pressed  
30 upon such flange by a screw-cap.

The annexed drawings show the invention embodied in a basin-cock, two opposed valve-seats being arranged within the standard, a double valve-plug fitted between the seats  
40 with valve-stem extended upward from the same through the swivel connection and provided with a screw-thread upon the top. The valve-stem is held normally from rotation by a guide, and the swinging of the nozzle in opposite directions thus moves the valve-plug into contact with one or the other of the  
45 opposed seats.

To prevent excessive pressure of the yielding valve-plug upon the seats, a stop is provided which limits the movement of the valve-stem and the swing nozzle or arm. The  
50

valve-plug permits the flow of water when in its central position.

To adjust the closing of the valve in the required position of the nozzle, a guide for  
55 the valve-stem is formed in a socket which is fitted rotatably inside the standard, but can be turned from the outside by applying a screw-driver or wrench to the top of the valve-stem and then clamped to hold it stationary. The socket carries the lower valve-  
60 seat, and when thus turned is clamped upon the standard by a screw-collar, which in practice carries also the upper valve-seat.

In the annexed drawings, Figure 1 is a plan  
65 of a basin-slab *s* and bowl *s'* provided with my improved cock, the cock being shown in full lines in its central position, as when drawing water, and in dotted lines in the two lateral positions in which the water would be  
70 shut off. Fig. 2 is an elevation of the fixture complete detached from the basin-slab and drawn upon a larger scale. Fig. 3 is a plan of the head of the standard with the cover *i* removed and the nozzle broken off for want  
75 of room. Fig. 4 is a vertical section of the parts on line 4 4 in Fig. 3, the valve-plug and nozzle being in the central position. Fig. 5 is a similar section of the parts connected with the valve with the nozzle turned to the  
80 left and the plug in contact with the upper seat. Fig. 6 is a similar section with the nozzle turned to the right and the plug in contact with the lower seat. Fig. 7 is a section on line 7 7 in Fig. 5, showing the swivel-seat  
85 and flange. Fig. 8 is a plan of the standard with the guide-socket removed and also the seat for the swivel, and Fig. 9 is a horizontal section of the guide-socket and valve-guide.

The standard is shown formed with the base  
90 portion *a* and a swivel portion comprising a screw-collar *b*, containing the swivel-seat *c* and valve-seat *m'*. The base portion is provided with the usual threaded shank *a'* for securing it to the basin-slab. Within a cavity  
95 *d*<sup>2</sup> in the base portion *a* the guide-socket *d* is fitted rotatably, having a ring *f'*, which rests upon the top of the base. The screw-collar *b* serves to clamp such ring tightly to the base. The nozzle *n* is provided with an  
100 integral tubular shank *e*, formed upon the bottom with flange *f* fitted to the seat *c*.



Such shank may be regarded as the upper half of the divided standard. The seat *c* is sunk in a recess upon the collar *b*, which thus embraces the periphery of the flange and holds the nozzle steady as it is turned upon the standard. A coupling-cap *g* encircles the shank *e* above the flange *f* and is screwed upon the collar *b*, by which means it presses a yielding packing *h* downward upon the top of the flange *f* to hold the same elastically against its seat. The ground joint and the yielding packing form a double preventive of leakage. A valve-seat *m* is formed in the bottom of the guide-socket and an opposed valve-seat *m'* in the under side of the swivel-seat *c*, and the valve-plug *o* works between the two, with the valve-stem *p* projecting above the standard and formed with a coarse thread to engage a nut *e'* within the shank *e*. The guide-socket *d* is provided with grooves *k*, and a cross-bar *l* is fitted to a squared portion of the valve-stem and its ends fitted to such grooves to hold the valve-stem normally from rotation. The cross-bar *l*, when the upper end of the valve-plug is suitably pressed upon the seat *m'*, contacts with a stop formed by the under side of such seat, and when the plug is suitably pressed upon the valve-seat *m* the cross-bar contacts with a stop formed by shoulders *r* in the bottoms of the grooves *k*. Such stops restrict the normal movement of the valve-stem and of the nut *e'* and attached nozzle or arm. With this construction the valve-plug may be adjusted when the nozzle is in the central position, as shown in Figs. 3 and 4, to stand between the two seats and permit the flow of water to the nozzle; but when moved from either side of such central position the rotation of the nut moves the valve-stem up or down, and thus closes the passage by pressing the plug against the upper seat, as shown in Fig. 5, or against the lower seat, as shown in Fig. 6. The valve-plug is adjusted to a central position between the two seats when the nozzle is in the central position (shown in full lines in Fig. 1) by slacking the screw-collar *b* to permit the turning of the valve-stem and the guide-socket within the standard and applying a screw-driver or wrench to the top of the valve-stem to turn the stem and socket until the plug is properly adjusted. The screw-collar *b* being again clamped, the guide-socket is held firmly in its adjusted position, and the turning of the nozzle operates to raise and lower the valve equally.

To reach the valve-stem for turning it to adjust the valve-plug, the stem is projected upward to or through the top of the shank *e*, where a wrench or screw-driver may be applied to it, a cover or ornamental cap *i* being screwed upon the top of the shank to inclose the stem when adjusted.

A screw-driver notch *j* is shown in the top of the stem in Figs. 3 to 6, inclusive, to rotate the valve-stem for adjusting it.

It will be observed by reference to Figs. 5

and 6 that when the screw-plug *b* is removed from the base of the standard the valve-plug is wholly exposed and may be repaired in the usual manner by supplying new rubber collars or so-called "washers." When the plug is thus exposed, it may be turned by the fingers and the valve-stem entirely withdrawn from the nut in the shank of the nozzle. When the screw-collar *b* is removed from the base, the guide-socket *d* is wholly exposed and can thus be inspected and replaced by another, if required. This construction thus affords most convenient access to the working parts for repairs and presents a great advantage over constructions in which the standard must be removed from the slab to effect repairs.

In Fig. 1 the nozzle *n* is shown in dotted lines extended over the slab at opposite sides of the central position; but the end of the nozzle may, if desired, be made to project down below the level of the slab, so as to strike the edge of the slab when turned in either direction to shut off the water. The rotation of the nut *e'* is thus regulated, and any excessive pressure upon the yielding valve-plug may be avoided.

Having thus set forth the nature of the invention, what is claimed herein is—

1. A compression-cock having a standard with opposed valve-seats, a valve-plug fitted between the seats and provided with valve-stem having a screw-thread, a swing arm or nozzle having a nut fitted to the said thread to reciprocate the stem, a projection upon the valve-stem, as the cross-bar *l*, and stops to restrict the movements of such projection and limit the opposite movements of the valve-stem and arm, as and for the purpose set forth.

2. A compression-cock comprising a standard supporting opposed valve-seats, a double valve-plug fitted between the seats and having valve-stem with guide inside the standard, and an end with screw-thread projected above the standard, and the nozzle having shank swiveled upon the standard about the valve-stem, and with nut fitted to such thread to press the plug upon the opposite valve-seats as the nozzle is turned in opposite directions.

3. A compression-cock having a standard with valve-seat and compressible valve-plug inside the same, and a valve-stem extended to the top of the standard and provided with means for turning such stem to adjust the valve in relation to the seat, means to hold the stem and valve-plug normally from rotation, and a swing lever or nozzle, with suitable connections for reciprocating the valve-stem in the standard, substantially as herein set forth.

4. A compression-cock comprising a standard containing opposed valve-seats and having the flat ground seat *c* recessed in its top and the standard provided around such seat with screw-thread as described, the swing



arm or nozzle with shank having a nut in the  
top and collar *f* upon the bottom fitted to the  
recessed and ground seat *c*; the coupling-cap  
*g* fitted to the shank and threaded upon the  
5 standard, a valve-plug fitted between the  
seats and having a non-rotatable valve-stem  
extended through the joint of the standard  
and shank into the upper part of the shank,  
and provided with thread fitted to the nut in

the shank, the whole arranged and operated so  
as and for the purpose set forth.

In testimony whereof I have hereunto set  
my hand in the presence of two subscribing  
witnesses.

EDWARD G. HEDGES.

Witnesses:

THOMAS S. CRANE,  
WILLIAM N. RAPP.