

(No Model.)

C. H. DUNTON.
FAUCET.

No. 525,948.

Patented Sept. 11, 1894.

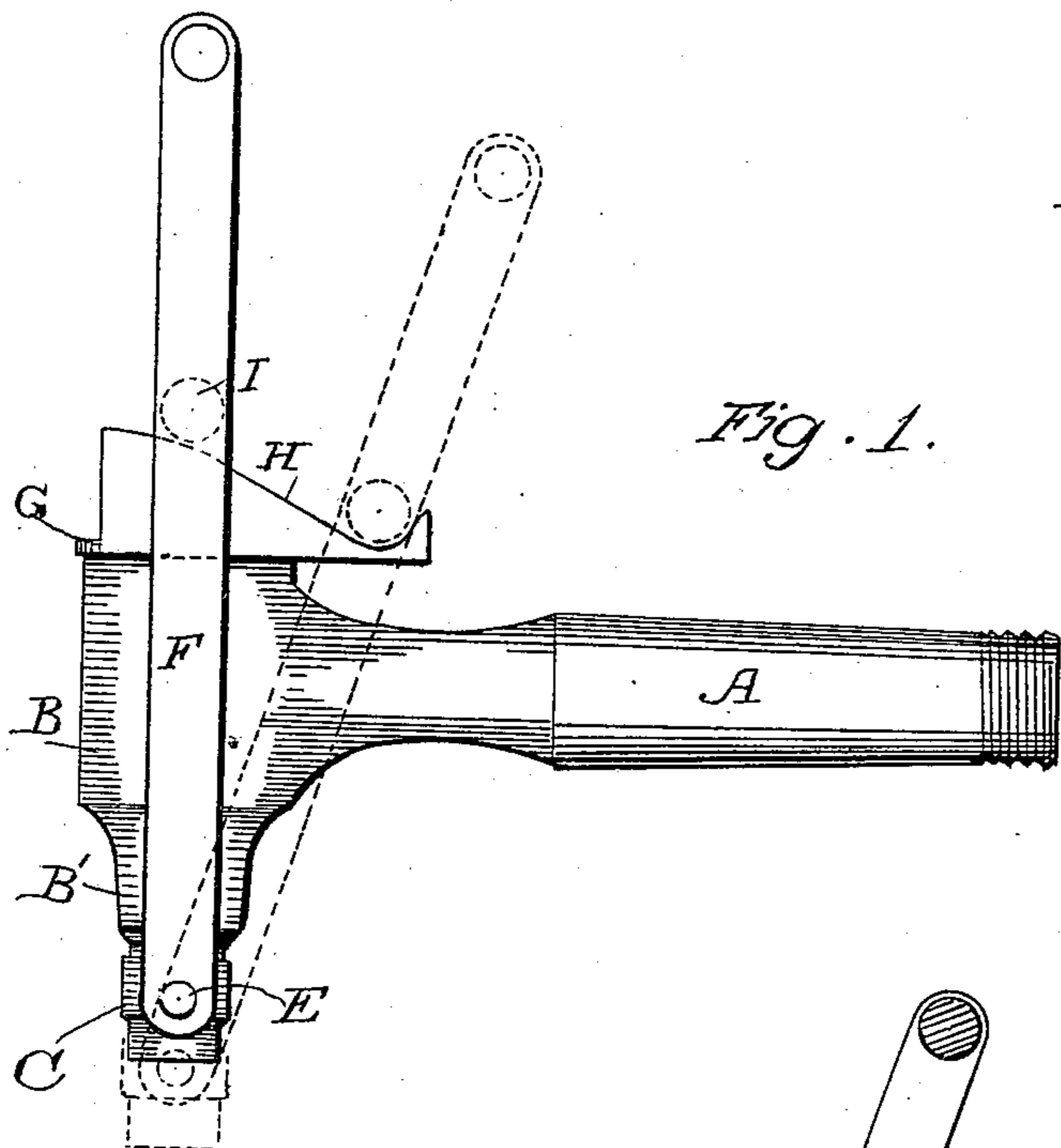


Fig. 1.

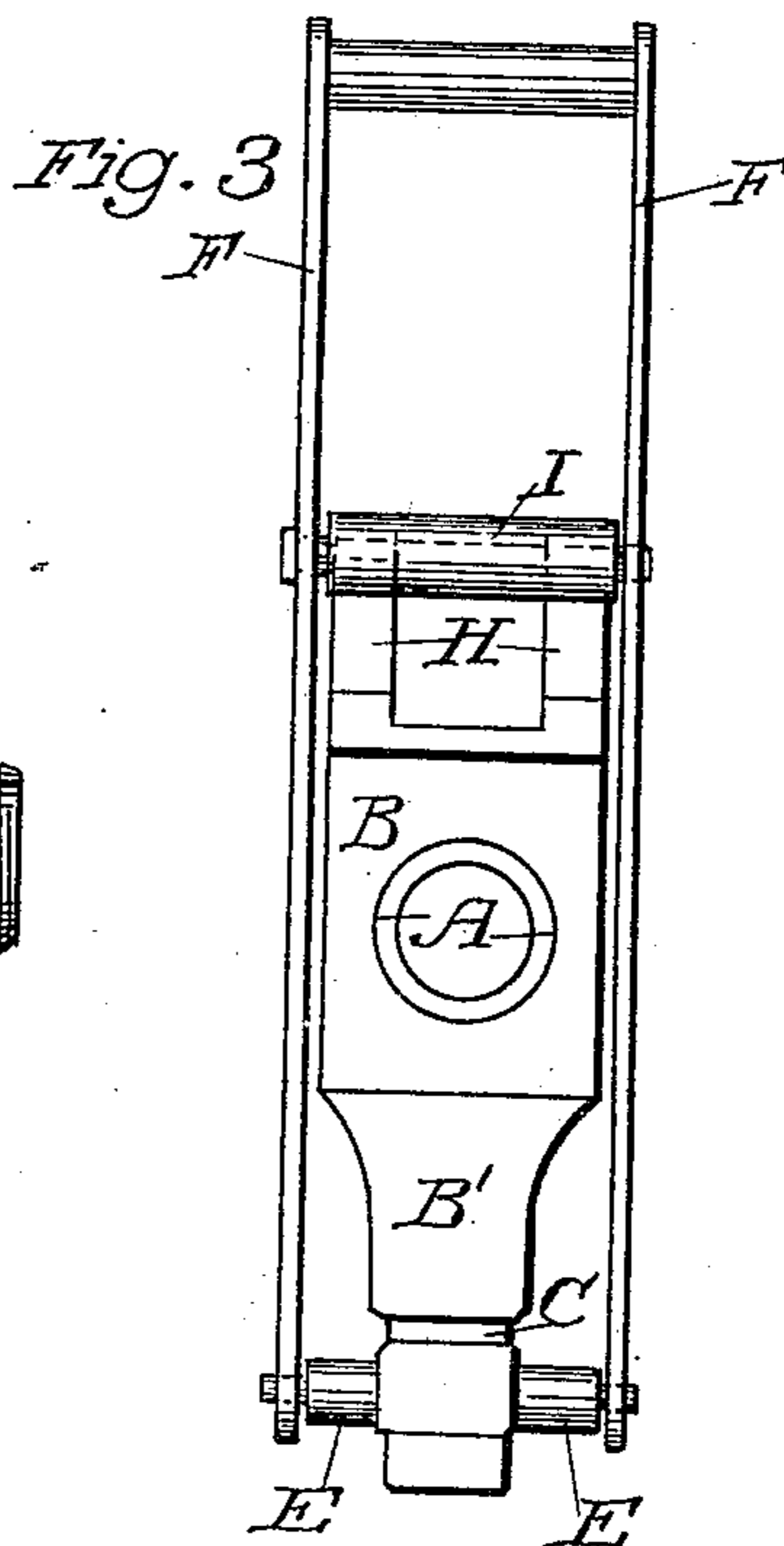


Fig. 3.

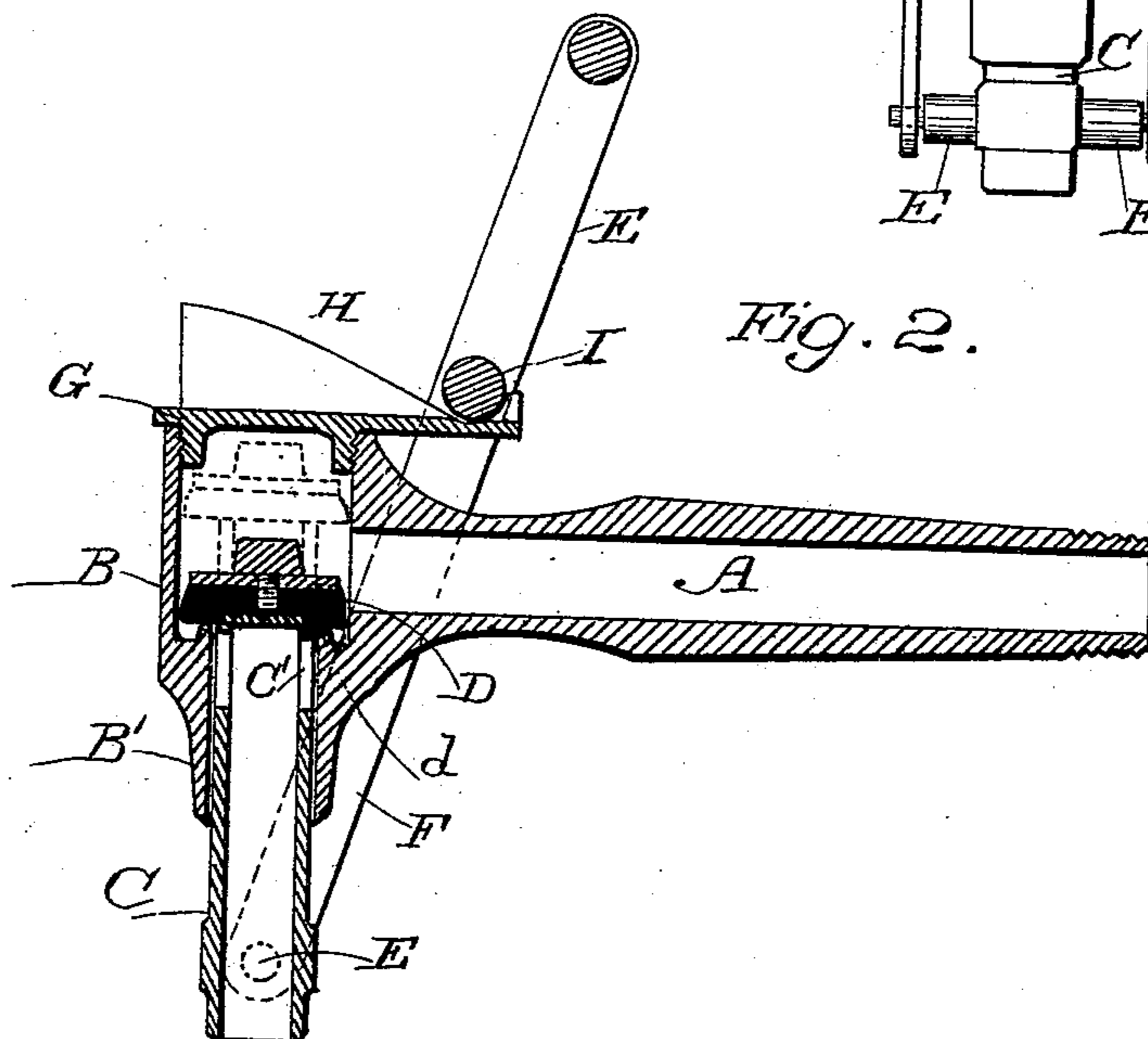


Fig. 2.

Witnesses,
J. H. Nourse
J. A. Bayless

Inventor,
Charles H. Dunton
By Duway & Co
attys

UNITED STATES PATENT OFFICE

CHARLES H. DUNTON, OF SAN FRANCISCO, CALIFORNIA.

FAUCET.

SPECIFICATION forming part of Letters Patent No. 525,948, dated September 11, 1894.

Application filed March 6, 1894. Serial No. 502,556. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. DUNTON, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Faucets; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a novel construction for faucets, which is especially adapted for basins, bath-tubs, and other places where such faucets are available.

It consists in certain details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is an exterior view showing the faucet open in full lines, and closed in dotted lines. Fig. 2 is a longitudinal section showing the interior of the device. Fig. 3 is an end view.

The object of my invention is to provide an automatically closing faucet, which is essentially closed by gravitation, or the pressure of the water or liquid which it is adapted to control.

A is a faucet barrel shown here in a horizontal position.

B is a head formed transversely upon the outer end so that the opening in the faucet barrel connects with the upper portion of the head, which has a larger interior diameter than the lower portion B'. This lower portion is made of such diameter as to receive a loosely moving hollow cylindrical plug C which extends from the bottom up through this lower portion, and into the enlarged chamber in the upper part as shown. This plug has fixed upon its upper end a valve D which is adapted to close upon a seat *d* formed at the junction of the larger and smaller portions B and B' of the vertical chamber. The valve is made of rubber or any suitable material which will form a tight joint upon the seat, and when it is closed upon the seat, it is below the passage in the barrel A so that any pressure of water acts to keep the valve closed. The plug C is hollow up to a point near the bottom of the valve and has a transverse opening C' made through it at this point, so that when the valve is raised by pushing the plug up, this hole is brought into line with

the passage in the faucet barrel, and liquid is then free to flow through the hole and thence down through the plug, and discharge at the bottom. In order to conveniently operate this device, arms E project from each side of the lower end of the plug, and to these arms is swiveled a yoke or handle F which extends up on each side of the head B, and may have any suitable or desirable form of handle at the upper end by which to operate it.

The top of the chamber B is, in the present case, closed by a screw cap G, and this screw cap has an inclined surface H formed upon its upper side.

Across the yoke F is pivoted a loose anti-friction roller I which is adapted to travel upon the inclined face H so that when the lever or yoke F is moved to cause the roller to travel up the incline, it will, through its action upon the plug C, lift the latter up, thus bringing the transverse passages in the plug in line with the passage in the faucet barrel, and the liquid will be allowed to escape through the opening in the bottom of the plug. As soon as the handle is released, the roller will travel down the inclined path by the effects of gravitation and by the pressure of the liquid which is flowing until the valve has reached its seat when the supply will be at once cut off. The incline preferably extends a little below the point reached by the roller when the valve is seated, so that the pressure upon the valve will compress it slightly and seat it firmly, the roller having sufficient space to move a little farther down the incline to accommodate this final closing movement of the valve. At the foot, the incline may be turned up or any suitable form of stop applied so that the roller will not move too far.

It will be manifest that the incline may be made in either direction from the top of the chamber or faucet. If the incline is downward toward the faucet barrel, then the valve will be opened by drawing the yoke or handle forward which is a convenient manner when it is applied to wash basins where the operator stands considerably above the faucet.

In the case of ordinary bib cocks which are situated higher, it may be convenient to reverse the incline so that the handle would be pushed from the operator to open the valve, and swing forward when the valve closes, but

it will be manifest that it is only a matter of construction, that the operation will be the same in either case.

The anti-friction roller may be made of any
5 suitable or desirable material, or combination
of materials. To prevent noise, it is preferable to make that portion which travels upon the inclined surfaces of rubber or some similar suitable material. It will be seen that
10 there is only one joint where the cap G screws into the top of the chamber B, and this may be removed at any time for the purpose of repairing or replacing a valve without disturbing the other parts. The plug C slides very
15 loosely in the part B' so as not to present any obstruction to the easy movement of the parts by reason of friction, and there is no danger of leakage at this point, because when the valve is opened there is a sufficiently large
20 passage for the water to flow through the plug, and when it is closed the water will have no access to the plug below the valve.

It will be seen from the inclined construction of the cap edge H, which is the path and
25 guide of the roller, that the closing down of the valve must be gradual thereby preventing sudden shocks of closing and what is known as "water-hammer." It will also be seen that there is no stuffing-box or packing
30 used in constructing this faucet, neither is there any spindle or other device for operating the faucet which enters the water passage or chamber.

As all operative parts are on the outside,
35 they are in no way subject to fluid pressure and there is no chance for leakage.

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

40 1. The combination with the faucet barrel and its vertically movable valve, of an incline

or cam on the top of the barrel, a yoke connected at its lower end with the valve and having a cross piece between its ends working on the said incline or cam, substantially
45 as herein described.

2. The combination with the barrel having a valve chamber open at both ends and a vertically movable valve mounted therein and extending through the lower end of said chamber, of a plug closing the upper end of the
50 said chamber and provided on its upper side with an incline or cam, and a yoke pivotally connected at its lower end to the said valve and provided with a cross piece working on the
55 said incline or cam, substantially as herein described.

3. A faucet consisting of a barrel having a vertical chamber at the end, the upper portion of which is larger than the lower and having a valve seat at the junction of the two and
60 below the passage in the faucet barrel, a hollow plug loosely slidable in the lower portion of the chamber, a valve fixed to the upper end of the plug adapted to close upon the seat or
65 to be raised therefrom to expose openings in the side of the plug below the valve, an inclined surface situated above the chamber, a yoke having its lower end swiveled to arms connected with the lower projecting end of
70 the plug, and a traveler adapted to move upon the inclined plane whereby the plug is lifted and the valve opened by moving the handle so that the traveler moves up the inclined plane and is closed by gravitation and pressure
75 when the handle is released as described.

In witness whereof I have hereunto set my hand.

CHARLES H. DUNTON.

Witnesses:

S. H. NOURSE,
J. A. BAYLESS.