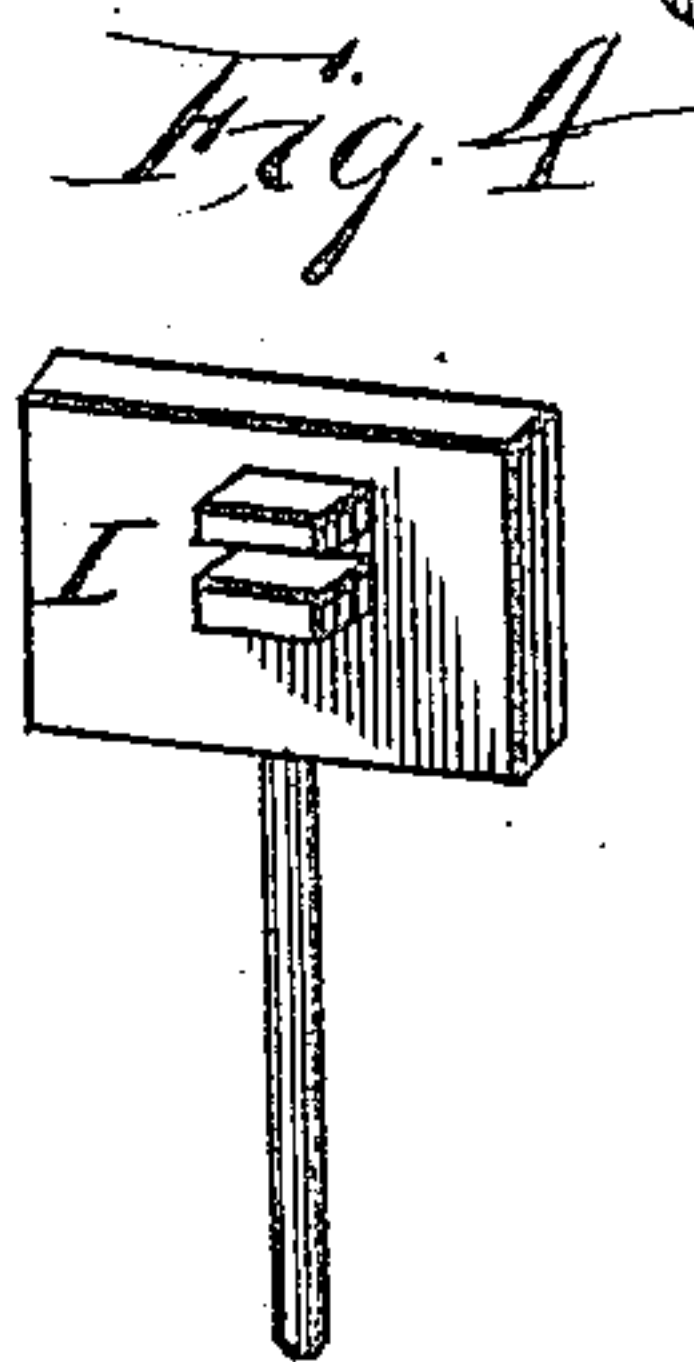
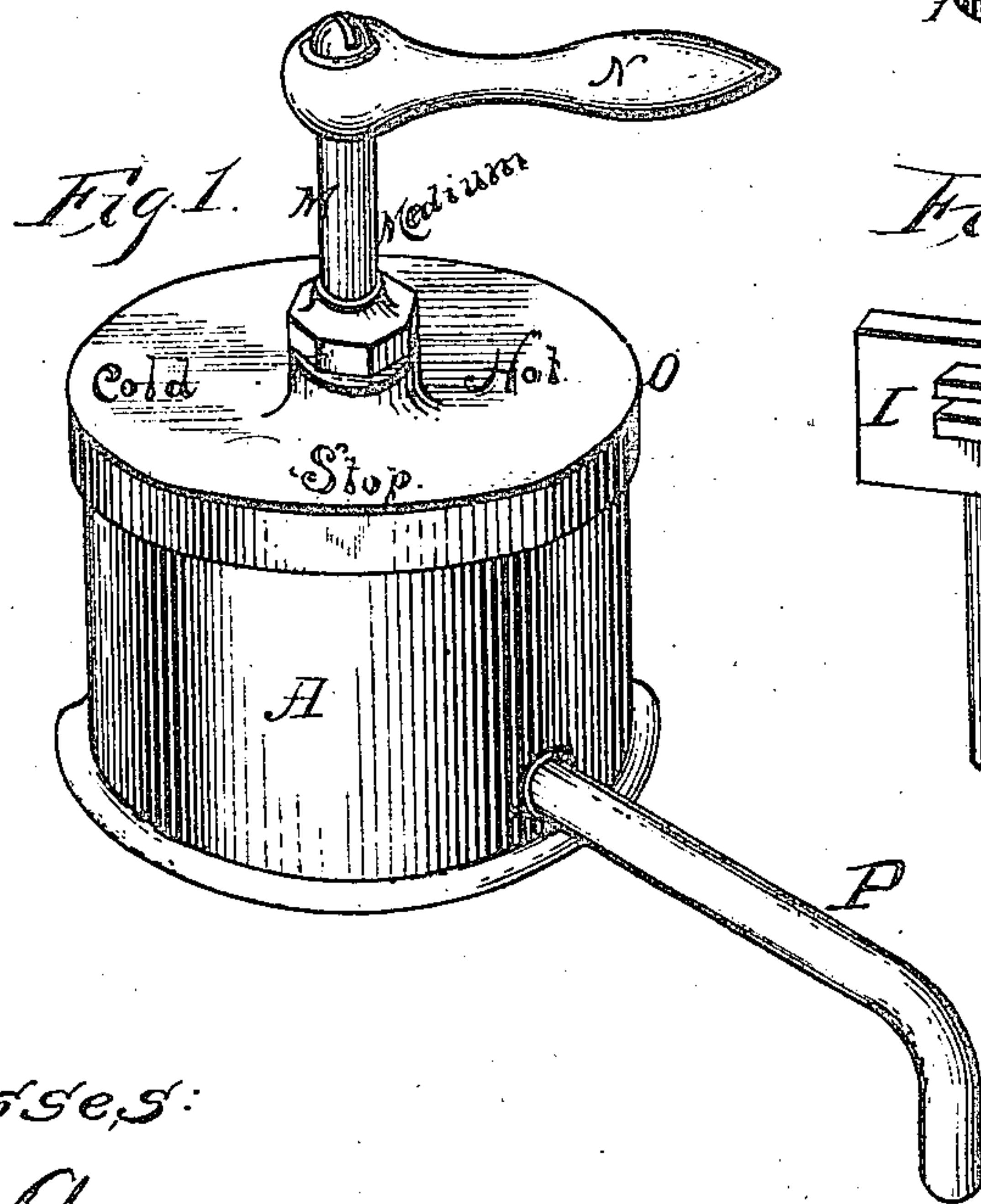
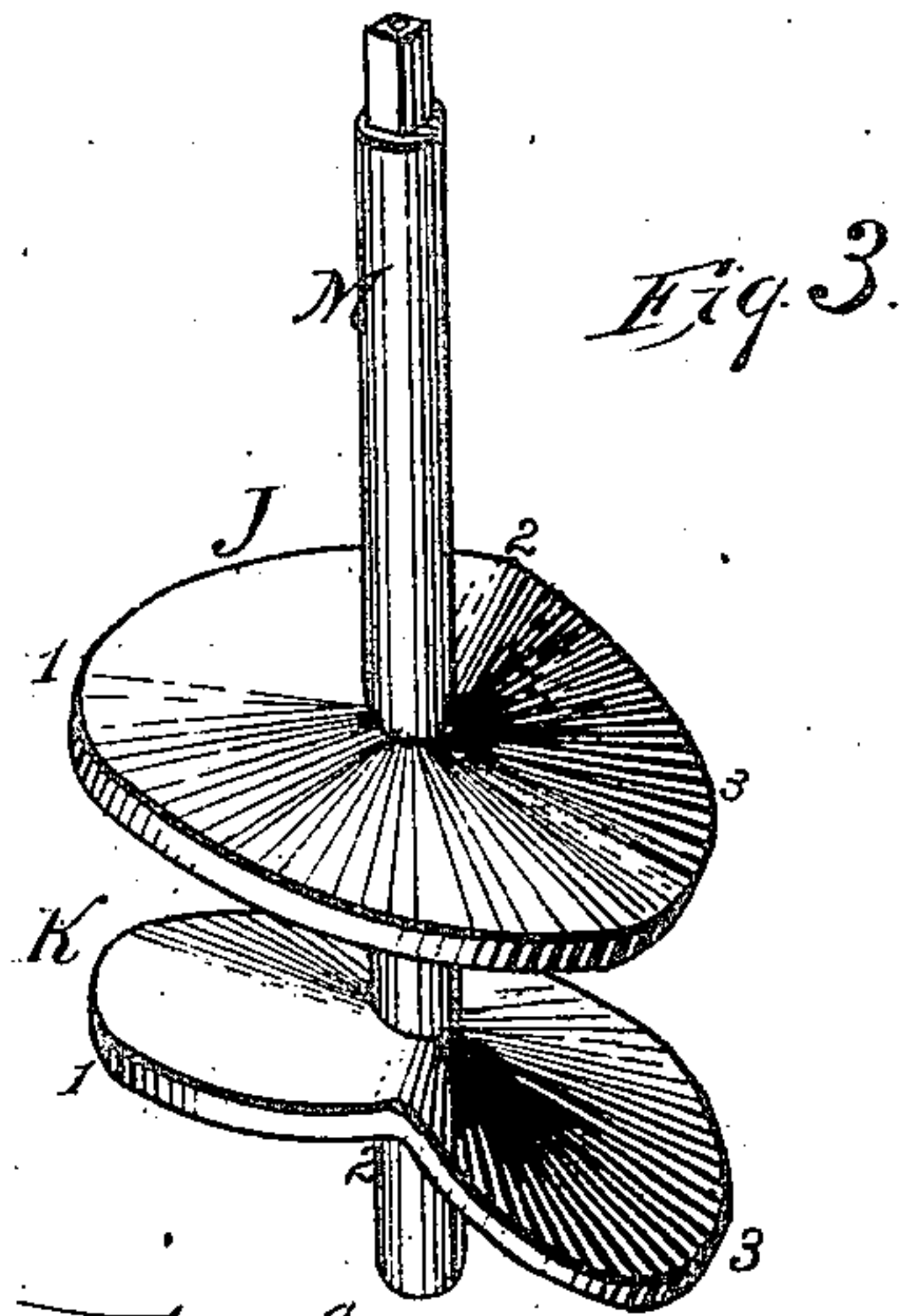
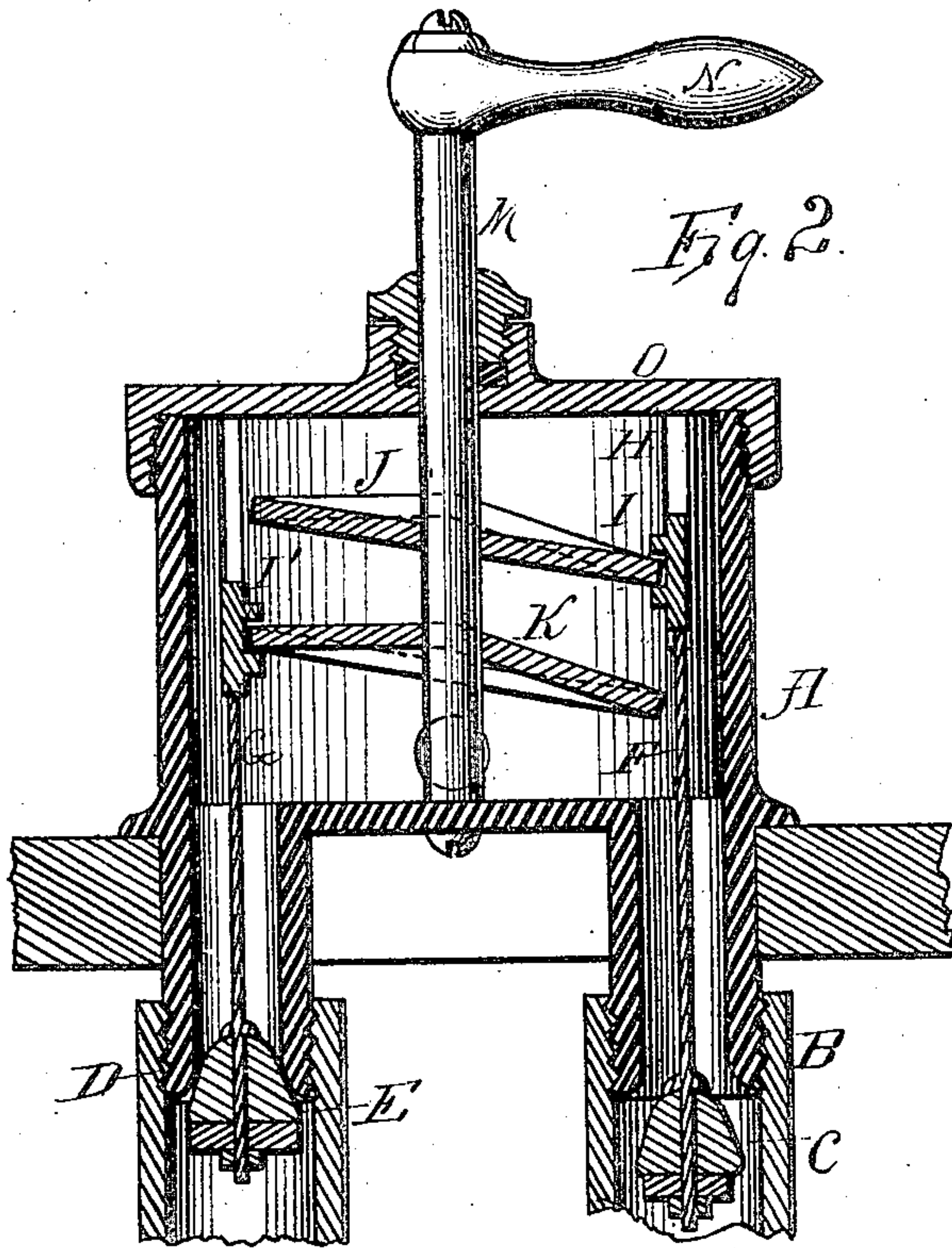


(No Model.)

C. WHITTAKER.
FAUCET.

No. 248,970.

Patented Nov. 1, 1881.



Witnesses:

E. J. Asmus
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UNITED STATES PATENT OFFICE.

CHARLES WHITTAKER, OF CHICAGO, ILLINOIS.

FAUCET.

SPECIFICATION forming part of Letters Patent No. 248,970, dated November 1, 1881.

Application filed April 12, 1881. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WHITTAKER, a citizen of the United States, residing at the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Faucets; 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, reference being had to the accompanying drawings, and to the letters or figures marked thereon, which form a part of this specification.

My invention relates to improvements in that class of faucets which are adapted to be connected with both hot and cold water pipes, and by which the hot and cold water may be mingled together in equal proportions or in any proportions desired before escaping, and by which either the hot or cold water may be drawn separately. An index-plate is provided which shows the proper places to adjust the handle, whereby the temperature of the stream may be known without testing the same.

My invention is further explained by reference to the accompanying drawings, in which—

Figure 1 represents a vertical section. Fig. 2 is a perspective view. Fig. 3 is a perspective view of the cams and stem. Fig. 4 is a perspective view of one of the slides.

A is the valve-chamber.

B is the hot-water inlet, which is provided with stopper C.

D is the cold-water inlet, which is provided with stopper E. The stoppers C and E are respectively provided with valve-rods F and G. Ways H H are formed upon the respective sides of the chamber for the reception of the slides I I'. The slides I I' are moved upward and downward by the respective cams J K, whereby the respective hot and cold water passages are opened and closed. The cams J and K are rigidly secured to the stem M, and are revolved with it as the handle N is moved. O is the index-plate, upon which the words "Hot," "Cold," "Medium," and "Stop," are written at uniform distances apart, thus indicating the proper places of adjusting the handle to produce the results thus indicated.

The stoppers are formed of rubber or other elastic substances in the ordinary manner.

The case or chamber A may be cast in a single piece, and the cover or index-plate O secured thereto by a screw-joint, as shown.

That portion of the cam J between 1 and 2 forms a true horizontal plane, which extends at right angles to the vertical stem M. The part between 2 and 3 inclines downward, forming an obtuse angle from the highest to the lowest point in the cam. Between 3 and 1 the cam gradually inclines upward to the starting-point. Cam K or its peculiar curves and angles are conversely arranged in their relative position to the stem M. While in cam J the horizontal plane between 1 and 2 and the downward and upward inclines between 2 and 3 and 3 and 1 extend from right to left, the horizontal plane and the downward and upward inclines in cam K extend from left to right. The two horizontal planes and the length of the respective downward and upward inclines of the respective cams are equal.

P represents the spout or outlet of the faucet.

My faucet is operated as follows: When the handle N is moved to the word "Hot," as shown in Figs. 1 and 2, the slide I is moved downward by the cam J, whereby the hot-water valve C is opened, while the slide I' is simultaneously acted upon by cam K and moved in the opposite direction, whereby the cold-water valve E is closed. When the handle is moved from the word "Hot" to "Stop," the rear side of cam J, acting upon the slide I, draws the stopper C upward and closes the hot-water valve, while the horizontal portion of cam K moves through the slide I without changing its level, while it retains the stopper E removed in its closed position. Thus both passages are closed and the flow of water stopped. When the handle is moved on from the word "Stop" to the word "Cold" the horizontal portion of cam J between 1 and 2 moves through the recess in slide I without changing its position, while it retains the stopper C unmoved in its closed position, while the angular portion of cam K, between 2 and 3, acts upon slide I', forcing it downward, whereby the cold-water valve or stopper E is opened. When the handle is moved on from "Cold" to "Medium" the respective slides are acted upon by that portion of the respective cams between 3

and 1, and they are both thereby simultaneously thrown half-way open, whereby the hot and cold water is mingled together in equal proportions.

5 It is obvious that by moving the handle from the word "Medium" toward the word "Hot" the hot-water valve will be thrown more widely open, while the cold-water valve will be partially closed, whereby an excess of hot water
10 is caused to flow; also, that when the handle is inversely moved from the word "Medium" toward the word "Cold" the opposite result is produced. Thus it is obvious that the flow of
15 water from the faucet may be readily graduated from cold to hot or from hot to cold to any temperature desired.

It is also obvious that, if desired, the respective hot and cold water passages may be formed upon the sides of the chamber, and the stop-
20 pers operated in a horizontal position by substituting for the angular cam used a horizontal disk arranged at right angles to the stem provided with grooves or flanges formed upon a horizontal plane adapted to communicate the
25 required reciprocating horizontal movement to the stoppers.

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

30 1. In a hot and cold water graduating faucet, the cams J and K, the angles or inclines

of which are conversely arranged in their relative position to each other and the stem, as connected with and adapted to be operated by a single stem and handle, slides I I', valve-
35 rods F G, and stoppers C and E, substantially as set forth.

2. In a hot and cold water graduating faucet, the conversely-arranged angular cams or disks J and K, as connected with and adapted
40 to be operated by a single stem and handle, in combination with the slides, valve-rods, and the hot and cold water valves or stoppers as adapted to move the stoppers either simultaneously or alternately in opposite di-
45 rections, or retain them both at the same time in a closed position, as set forth.

3. In a hot and cold water graduating faucet, the combination of index-plate O, handle N, stem M, cams J and K, slides I and I', valve-
50 rods F and G, and valves or stoppers C and E, said cams being adapted to move the slides upward and downward, whereby the hot and cold water passages are opened and closed as the handle is turned, substantially as and for
55 the purpose specified.

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

CHARLES WHITTAKER.

Witnesses:

JAS. B. ERWIN,
DAVID WHITTAKER.