

(No Model.)

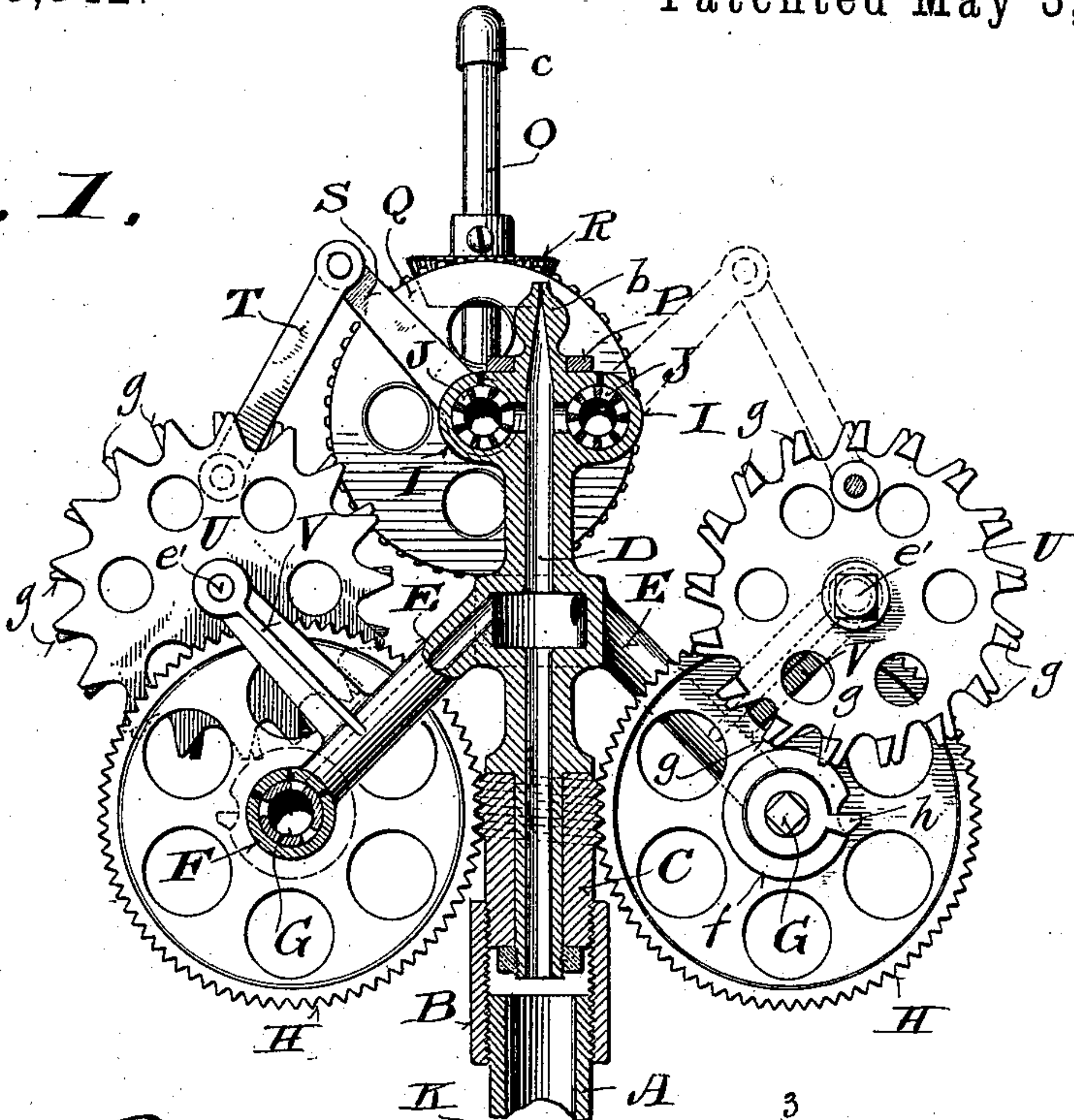
2 Sheets—Sheet 1.

B. OTT.  
FOUNTAIN.

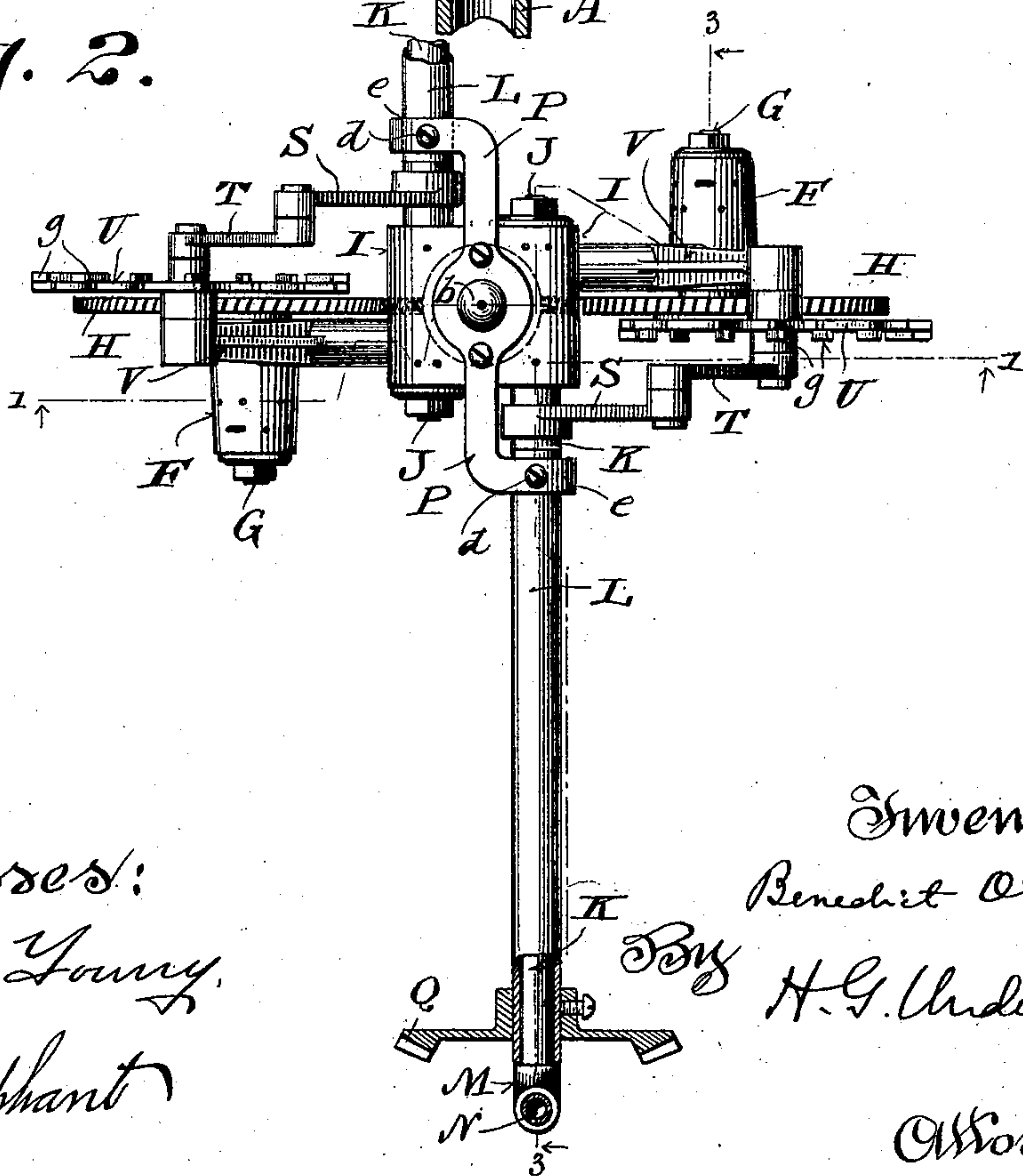
No. 603,342.

Patented May 3, 1898.

*Fig. 1.*



*Fig. 2.*



Witnesses:  
Geo. W. Loring,  
N. E. Oliphant

Inventor:  
Benedit Ott.  
By H. G. Underwood  
Attorney

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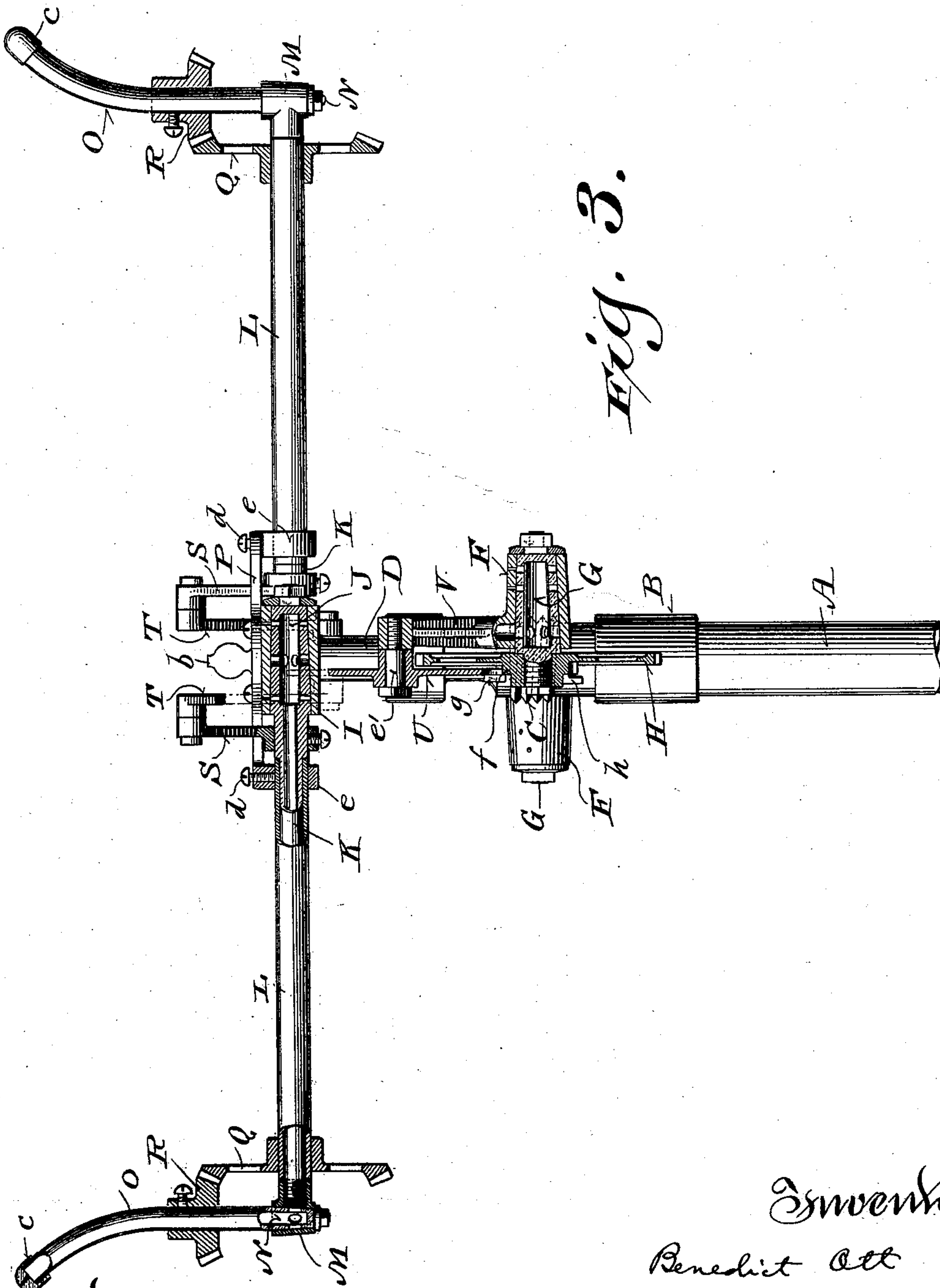


Fig. 3.

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# UNITED STATES PATENT OFFICE.

BENEDICT OTT, OF LA CROSSE, WISCONSIN.

## FOUNTAIN.

SPECIFICATION forming part of Letters Patent No. 603,342, dated May 3, 1898.

Application filed October 28, 1897. Serial No. 656,630. (No model.)

*To all whom it may concern:*

Be it known that I, BENEDICT OTT, a citizen of the United States, and a resident of La Crosse, in the county of La Crosse and State of Wisconsin, have invented certain new and useful Improvements in Fountains; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to provide for automatic variation of fountain display; and it consists in the simple economical construction and combination of parts hereinafter set forth with reference to the accompanying drawings and subsequently claimed.

Figure 1 of the drawings represents a partly-sectional elevation of a variable-display-fountain apparatus in accordance with my invention, the view being indicated by line 1 1 in Fig. 2; Fig. 2, a plan view of the major portion of the apparatus; and Fig. 3, another sectional elevation of said apparatus, this latter view being indicated by line 3 3 in Fig. 1.

Referring by letter to the drawings, A represents a stand-pipe, B a coupling having screw-thread union with the upper end of the stand-pipe, and C a worm-sleeve in like union with the coupling, although it may be found practical to make this coupling and worm-sleeve in one piece or omit said coupling. The worm-sleeve constitutes a support and bearing for a shouldered hollow stem D, having preferably hollow downwardly-inclined arms E, that extend therefrom in opposite directions, these hollow arms being in communication with the bore of said stem.

Each of the hollow stem-arms E herein shown is in one piece with a perforated horizontal shell F, containing a perforated hollow spigot G, the latter being screw-threaded or otherwise fastened to a worm-wheel H, that meshes with the worm-sleeve C above specified, this arrangement of parts being best illustrated in Fig. 1. The shells F and spigots G constitute faucets from which water under pressure has outlet, the number, duration, and form of streams or jets being in accordance with the shape and arrangement of the perforations in said shells and spigots, the latter being in rotation in the former. The display of water from each faucet is predetermined, and an indefinite variety of more

or less complex recurrent effects may be obtained.

While preference is had for hollow stem-arms and aforesaid faucets, it is practical and within the scope of my invention to make said arms other than hollow and provide them with studs upon which to rotate the worm-wheels H, this variation being possible when other faucets and actuating mechanism in train with said worm-wheels are employed, as hereinafter specified, it being obvious that the variable display of the fountain is somewhat dependent upon the number of faucets and the predetermined recurrent effects from each.

As herein shown, the upper portion of stem D may be provided with perforated horizontal protuberances I in communication with its bore, and hollow perforated spigots J are arranged within the protuberances of said stem, these stem protuberances and spigots therein constituting faucets similar to those above specified. The stem D is also shown as preferably provided with an aperture *b* in its upper end for the escape of a jet of water, and, if desirable, this aperture may be indefinitely multiplied. Each spigot J constitutes the inner terminal of an annularly-shouldered horizontal pipe K, loose in a sleeve L, the other terminal of said pipe being preferably the shell portion M of a ground joint, the plug N of this ground joint being the lower terminal of a vertically-disposed curved pipe O, having an apertured cap *c* for its other terminal. Each horizontal sleeve L is shown made fast by a set-screw *d* or other suitable means in a collar *e*, depending from an arm P, extending laterally from stem D, and as a matter of convenience the sleeve-supports may be branches of a plate made fast on the externally-shouldered upper portion of said stem above its faucet protuberances.

Fast on the outer ends of each sleeve L is a bevel-wheel Q, and in mesh with the same is a bevel-pinion R, the latter being fast on one of the pipes O aforesaid.

A lever S is made fast to each pipe K, and a link T connects this lever with a toothed wheel U, rotative on a stud *e'*, extending from the outer end of a right-angle branch V of a



stem-arm above specified, the stud being preferably in screw-thread connection with the stem-arm branch, as clearly shown in Fig. 3.

5 Each of the aforesaid worm-wheels is shown provided with a notched annular hub-flange *f*, that opposes the teeth of a wheel *U* and constitutes a lock for the same. An offset lug *g* on each tooth of wheel *U* straddles the  
10 hub-flange *f* slightly in advance of the tooth-point, and a wiper *h*, rotative with the adjacent worm-wheel, operates against successive tooth-lugs in order to thereby impart intermittent rotative movement to the correspond-  
15 ing wheel. The wiper is herein shown as a part of the spigot fast to the worm-wheel, although it is practical, and in some instances it may be preferable, to organize the apparatus so as to have said wiper an integral  
20 part of said worm-wheel upon a side of the same; but in any event the wiper is positioned with reference to the notch in the hub-flange *f* so that this notch may afford the clearance necessary to the desired movement of the  
25 toothed wheel.

The construction and arrangement of parts herein described with reference to imparting intermittent rotary movement to each of the tooth-wheels *U* may be somewhat varied  
30 in practice without departure from my invention.

Water under pressure being turned into the stand-pipe *A* will find various outlets and will always discharge from the outer terminals of pipes *O* to impart rotation to the stem  
35 *D*, whereby the worm-wheels *II* in mesh with the fixed worm-sleeve *C* are given continuous rotary motion on their own axes, and spigots *G*, that may be fast to said worm-wheels, are given a like motion in their shells  
40 *F* to thereby vary the display of water issuing from said shells. At the same time the intermittent rotation of the toothed wheels *U* takes place, and thus the links *T* and levers *S* are operated to oscillate the pipes *K* in their supporting-sleeves *L*, whereby the  
45 spigots *J* in the stem protuberances *I* are given corresponding motion to vary display of water escaping from the upper faucets.  
50 At the same time an independent oscillative motion is given the pipes *O* by means of the aforesaid bevel-gearing to vary their angle of discharge.

It is to be understood that the fountain  
55 may be organized with either or both sets of faucets described in connection with the rotative stem and that the pipes *O* may be rigid nozzles of the ones *K* or have the independent oscillation herein set forth, said pipes *O*  
60 being at all times discharge-terminals of said pipes *K* and having their arrangement at suitable angles to insure rotation of the stem *D* when water under pressure is flowing through the apparatus of which this stem constitutes  
65 a central part.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. A worm-sleeve for stationary connection with a fountain stand-pipe, a hollow stem having rotative engagement with the worm-sleeve, pipes extending laterally in opposite directions from the stem and having discharge-terminals at suitable angles, hollow stem-arms extending in opposite directions  
70 and having perforated horizontal shell-terminals, hollow perforated spigots in these arm-terminals, and worm-wheels made fast to the spigots to mesh with said worm-sleeve. 75

2. A worm-sleeve for stationary connection with a fountain stand-pipe, a hollow stem having rotative engagement with the worm-sleeve, arms extending in opposite directions from the stem, worm-wheels in rotative connection with the stem-arms to mesh with said worm-sleeve, other wheels in rotative connection  
80 with stem-arm branches and having intermittent motion imparted thereto from the worm-wheels, pipes having hollow perforated spigot-terminals engaging perforated horizontal protuberances of said stem, the other terminals of these pipes being at suitable angles, pipe-supports in connection with the aforesaid stem, levers fast to the pipes, and links connecting the levers with the intermittently-  
85 driven wheels. 90 95

3. A worm-sleeve for stationary connection with a fountain stand-pipe, a hollow stem having rotative engagement with the worm-sleeve, arms extending in opposite directions from  
100 the stem, worm-wheels in rotative connection with the stem-arms to mesh with said worm-sleeve, other wheels in rotative connection with stem-arm branches and having intermittent motion imparted thereto from the worm-wheels, pipes having hollow perforated spigot-terminals engaging perforated horizontal protuberances of said stem, other pipes in ground-joint union with the ones aforesaid, bevel-pinions fast on the latter pipes and meshed  
105 with bevel gear-wheels fast on supporting-sleeves engaged by the former pipes, levers fast to the sleeve-engaging pipes, and links connecting the levers with the intermittently-driven wheels. 110 115

4. A worm-sleeve for stationary connection with a fountain stand-pipe, a hollow stem having rotative engagement with the worm-sleeve, hollow arms extending in opposite directions from the stem and having perforated horizontal  
120 shell-terminals, hollow perforated spigots in these arm-terminals, worm-wheels made fast to the spigots to mesh with said worm-sleeve, other wheels in rotative connection with stem-arm branches and having intermittent rotation imparted thereto from the worm-wheels, pipes having hollow perforated spigot-terminals engaging perforated horizontal protuberances of said stem, the other terminals of these pipes being at suitable angles, pipe-supports in connection with the aforesaid stem, levers fast to the pipes, and links con-  
125 130



necting the levers with intermittently-driven wheels.

5. A worm-sleeve for stationary connection with a fountain stand-pipe, a hollow stem having rotative engagement with the worm-sleeve, hollow arms extending in opposite directions from the stem, and having horizontal perforated shell-terminals, hollow perforated spigots in these arm-terminals, worm-wheels made fast to the spigots to mesh with said worm-sleeve, other wheels in rotative connection with the stem-arm branches and having intermittent motion imparted thereto from the worm-wheels, pipes having hollow perforated spigot-terminals engaging horizontal perforated protuberances of said stem, other pipes

in ground-joint union with the ones aforesaid, bevel-pinions fast on the latter pipes and meshed with bevel gear-wheels fast on supporting-sleeves engaged by the former pipes, levers fast to the sleeve-engaging pipes, and links connecting the levers with the intermittently-driven wheels.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

BENEDICT OTT.

Witnesses:

N. E. OLIPHANT,  
B. C. ROLOFF.