

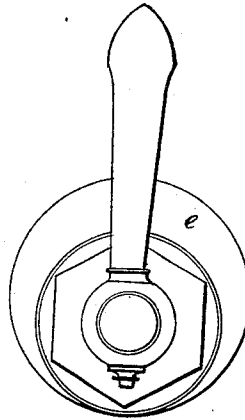
*A. D. Puffer,*

*Patent.*

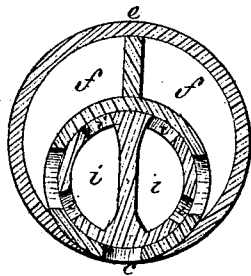
*No. 104,880.*

*Patented June 28, 1870.*

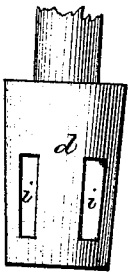
*Fig. 1.*



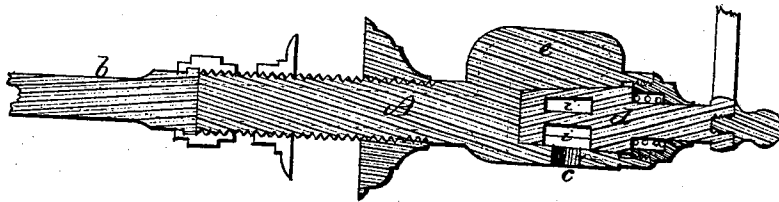
*Fig. 2.*



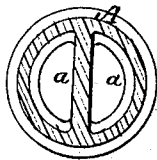
*Fig. 4.*



*Fig. 3.*



*Section through Pipe A.*



*Witnesses.*

*E. Griffith*  
*Geo. A. Spring*

*Alvin Davis Puffer.*

*by his Attorney,*  
*Frederick Curtis.*

# United States Patent Office.

ALVIN DAVIS PUFFER, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 104,880, dated June 28, 1870.

## IMPROVEMENT IN FAUCETS.

The Schedule referred to in these Letters Patent and making part of the same.

To all to whom these presents shall come:

Be it known that I, ALVIN DAVIS PUFFER, of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have made an invention of a new and useful Construction of Faucets; and do hereby declare the following to be a full, clear, and exact description thereof, due reference being had to the accompanying drawing making part of this specification, and in which—

Figure 1 is a front elevation,

Figure 2 a vertical and transverse section, and

Figure 3 a longitudinal section of a faucet, embodying my improved construction—

Figure 4 being a view of the gate of such faucet detached from its body.

This invention relates to a novel and highly useful construction of a multitubular liquid-faucet for soda-fountains, or other uses, whereby I not only secure a compact and simple form, but prevent a liquid of one flavor or nature from contact with a different one, a marked peculiarity of the invention being the creation of two or more passages or ports through the plug or gate of the faucet, to coincide and communicate, at proper times, with a like number of ducts formed within the body of the faucet, by which means different liquids possess an individual channel from the source of supply to the discharging-outlet.

The invention consists in the employment of a multitubular cylinder, the interior channels or conduits of which connect, at their inner ends, with the tanks containing the various flavoring-sirups, with which many, if not most, soda-fountains are now provided, the outer extremity of said cylinder being formed with an eccentrically-arranged offset or chamber, which surrounds the tapering plug or gate, constituting part of the faucet, this offset being formed with a number of channels, which constitute prolongations or continuations of those within the cylinder first named, the gate above referred to being, in turn, formed with orifices or ports corresponding in number with that of the offset, the arrangement of these ports being such as to open communication between the channels of said offset and of the cylinder and the discharging-outlet of the faucet, the whole arranged and operating as hereinafter explained.

The accompanying drawing represents, at A, a straight cylinder or tube, the outer periphery thereof, for a portion of its length, being provided with a male screw, for properly securing it in place.

The cylinder A is multitubular, that is to say, it is produced with two or more channels, *a a*, extending longitudinally through it, such channels being connected with two or more branch-pipes, *b b*, which extend to a like number of tanks or vessels, which contain the various flavoring-sirups now found with all soda-fountains.

The cylinder A is formed with a discharging-outlet,

*c*, near its outer end, while opposite such orifice, and partially surrounding the tapering plug or gate, which is shown at *d*, will be seen an integral eccentrically arranged enlargement or boss, *e*, this enlargement being formed with a number of channels, *f f*, coinciding with, and constituting part of, the channels *a a* before mentioned, the purpose of the enlargement *e* being to enable sirups or liquids to gain access to the outside of the gate, and, through one or the other of its ports, as the case may be, to the discharging-outlet *c* before alluded to.

Although the accompanying drawing represents the channels *a a* and *f f* as only two in number, it will doubtless be apparent that the number of these channels may and will be increased to correspond with the number of the sirups contained within the body of the fountain, it being understood that the plug or gate *d*, which, in the present instance, is a "two-way" one, is to be formed with a number of cross-passages or ports, *i i*, corresponding to those of the offset *e*, the channels *a a*, as well as the ports *f f*, being arranged at regular and coinciding intervals.

The plug or gate *d* may be turned into such a position as to entirely close at once all the ports *f f*, &c., or it may be turned into such a position as to present any one of its ports to the neighboring or proper channel *f*, which will permit sirup to flow through such channel to, and be discharged through, the outlet-port, the disposition and extent of each port of the plug being such as to extend from one of said channels to such outlet.

As each channel or conduit *f f* coincides alone with some one of the ports of the gate which constitutes a continuation thereof, it results that but one liquid can ever come in contact with such channel and port, thus obviating one great objection to the present construction of soda-fountains, which exists from the fact that all the sirups pass through, at some point in their flow, a single passage, thus causing a small portion of the sirup, which may be last drawn, to be taken up with the next, and, by so doing, change or injure its flavor.

As the channels for passage of sirup are contained within a single pipe, an ornamental appearance is imparted to the faucet, which the numerous branch-pipes now impair.

### Claim.

I claim the combination of the multitubular pipe A with the channeled enlargement *e* and the gate *d*, under the arrangement and for operation as herein shown and set forth.

ALVIN DAVIS PUFFER.

Witnesses:

FRED. CURTIS,  
E. GRIFFITH.