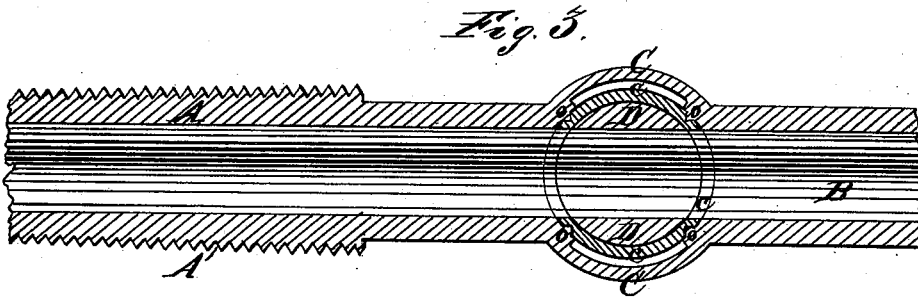
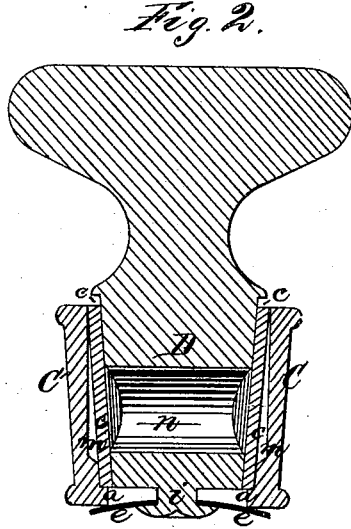
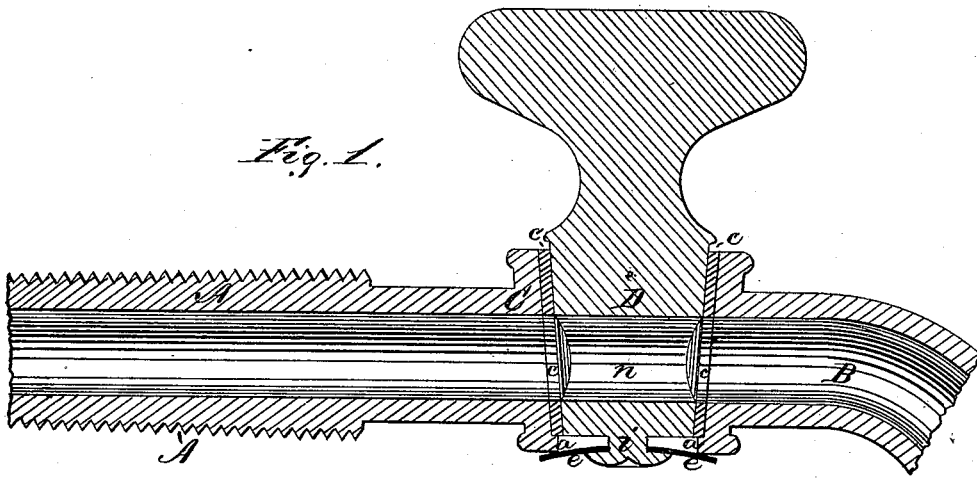


W. CLEVELAND.  
LINING FOR FAUCETS.

No. 193,111.

Patented July 17, 1877.



*Witnesses*  
*H. L. Bennett.*  
*W. H. Isaacs.*

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# UNITED STATES PATENT OFFICE.

WILLIAM CLEVELAND, OF ORANGE, NEW JERSEY.

## IMPROVEMENT IN LININGS FOR FAUCETS.

Specification forming part of Letters Patent No. 193,111, dated July 17, 1877; application filed September 18, 1876.

*To all whom it may concern:*

Be it known that I, WILLIAM CLEVELAND, of the city of Orange, county of Essex, and State of New Jersey, have invented a new and useful Improvement in Linings for Faucets, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing.

My improvement relates to the linings or packings of the bowls of faucets which are provided with plugs or keys, inserted in said bowls, and by means of which the passage of fluids through the faucets is controlled; and my improvements consist in a faucet-lining so prepared as to prevent the said linings from swelling and shrinking, which hinders the key or plug from turning in the first case, and causes the faucet to leak in the latter case.

Great difficulty has been experienced by myself and other extensive faucet manufacturers in the use of leather as a lining on account of this swelling and shrinking, caused by the tendency of the leather to receive moisture, and to part with it, by changes of temperature.

I have entirely obviated the above difficulties, and have also produced a lining which is at the same harder on the surface and smoother in use.

I prefer to use for my lining what is called flesh split leather, it being tough and more durable. It should be thoroughly dried, then cut into strips of the proper width to fit the faucet-bowl, and after that shaved to a proper thickness. I now pass the leather through pure tallow or other suitable grease at the temperature of the boiling-point of said tallow, which, by the great heat, expels all the air contained in the leather and forces into the pores of the leather, in place thereof, the hot tallow, the heat virtually destroying the life of the leather. After taking the leather

from the tallow I scrape the surface of the same over a moderately-sharp edge and the surplus tallow is removed, and then the strip is ready to be made into the linings, which I do by punching it into the exact shape and size.

The effect of my process is to injure the leather for ordinary purposes; but I improve it for a faucet-lining, the life of the leather being of no value in the lining when firmly set in the faucet-bowl, and the lining so made is smooth and impervious to moisture, even when immersed in strong acids. The leather shrinks and hardens, and, being filled with a substance which is greasy, although it has been subjected to a great degree of heat, the key of the faucet turns easily and remains tight.

The drawings annexed represent one of my faucets, and the lining is marked *c c* in all the figures—

Figure 1 being a vertical section through the axis of the faucet; Fig. 2, a vertical cross-section through key; Fig. 3, a horizontal section through axis of the faucet.

I have already patented the method of attaching a lining to my faucet, as shown in the present drawings, so I will only refer to the lining *c c* as being of the kind referred to in this specification.

Having now fully described my improvement, what I claim, and desire to secure by Letters Patent, is—

The faucet-lining described, prepared by saturating leather with tallow or other suitable grease at a temperature about the boiling-point of said tallow, substantially in the manner and for the purposes set forth.

WM. CLEVELAND.

Witnesses:

EDWARD D. PIERSON,  
RICHARD DARNSTAEDT.