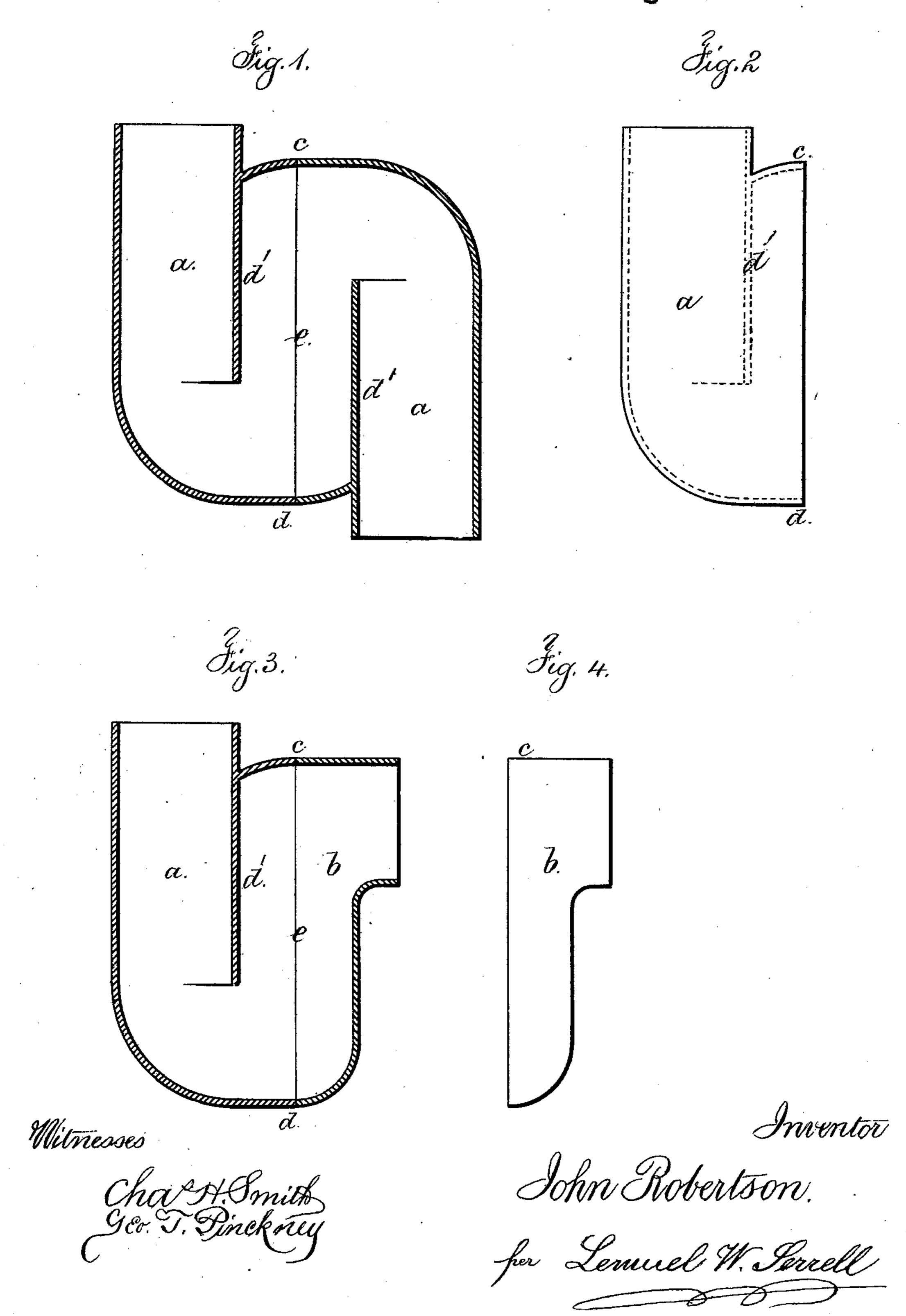
## J. ROBERTSON. Manufacture of Plumbers' Traps.

No. 206,829.

Patented Aug. 6, 1878.



## UNITED STATES PATENT OFFICE.

JOHN ROBERTSON, OF MONTREAL, QUEBEC, CANADA, ASSIGNOR TO FRED. ERICK ADEE AND JAMES FOLEY, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN MANUFACTURE OF PLUMBERS' TRAPS.

Specification forming part of Letters Patent No. 206,829, dated August 6, 1878; application filed May 2, 1878.

To all whom it may concern:

Be it known that I, John Robertson, of the city and district of Montreal, in the Province of Quebec, Canada, engineer, have invented certain new and useful Improvements in the Manufacture of Plumbers' Traps; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

Plumbers' traps have been made of two pieces, joined together by a seam. In some instances the parts have been similar and united by a curved seam in forming the S-trap, and in other instances the seam has been horizontal.

zontal.

My present invention relates to a peculiar construction of half-trap with vertical seam. By using two such halves an S-shaped trap is formed, and one of the same castings answers for one side of the P-trap. This lessens the number of molds required in making traps and the stock required for different varieties of traps.

In the drawings hereunto annexed similar letters of reference indicate like parts, and Figure 1 is a vertical section of an S-trap. Fig. 2 is an elevation of half of Fig. 1. Fig. 3 is a vertical section of a P-trap. Fig. 4 is an ele-

vation of part of Fig. 3.

I cast in molds, constructed in accordance with the principle already in use, and arranged for the various sizes required, any desired quantity of the parts a and b (see Figs 2 and 4) of the configuration shown, care being taken in constructing the mold that the configuration in cross-section of the top at c agrees with

the configuration at the bottom d, (see Fig. 2,) and the edges between c and d are throughout in the same plane, and the bridge d' is cast in one piece with the parts a a; so, by placing two of the pieces a together in the position in Fig. 1, they agree throughout the joint c; and if an S-trap is required in this position, I solder, sweat, or unite them by any of the ordinary means used for this purpose, thereby forming a complete and perfect trap.

In forming the **P**-trap I take one of the parts a and place with it the part b, in the position shown in Fig. 3, the cross-section of the uniting-edge of b being made to agree exactly with the cross-section of the uniting-edge of a. The two parts are united in the same manner as the two a a, before described.

In consequence of constructing the trap in two sections, united by a vertical seam, the section shown in Fig. 2 forms each half of the S-trap and one-half of the P-trap, thereby lessening the number of molds required.

I claim as my invention—

1. The half-trap made with a vertical edge parallel or nearly so to the dam, and united with the other part of the trap by a vertical seam, substantially as set forth.

2. The combination of the sections a and b to form a P-trap, such sections being united

by a vertical joint, as set forth.

Signed by me this 4th day of July, 1876.

JOHN ROBERTSON.

Witnesses:

CHARLES G. C. SIMPSON, E. L. STILLWELL.