

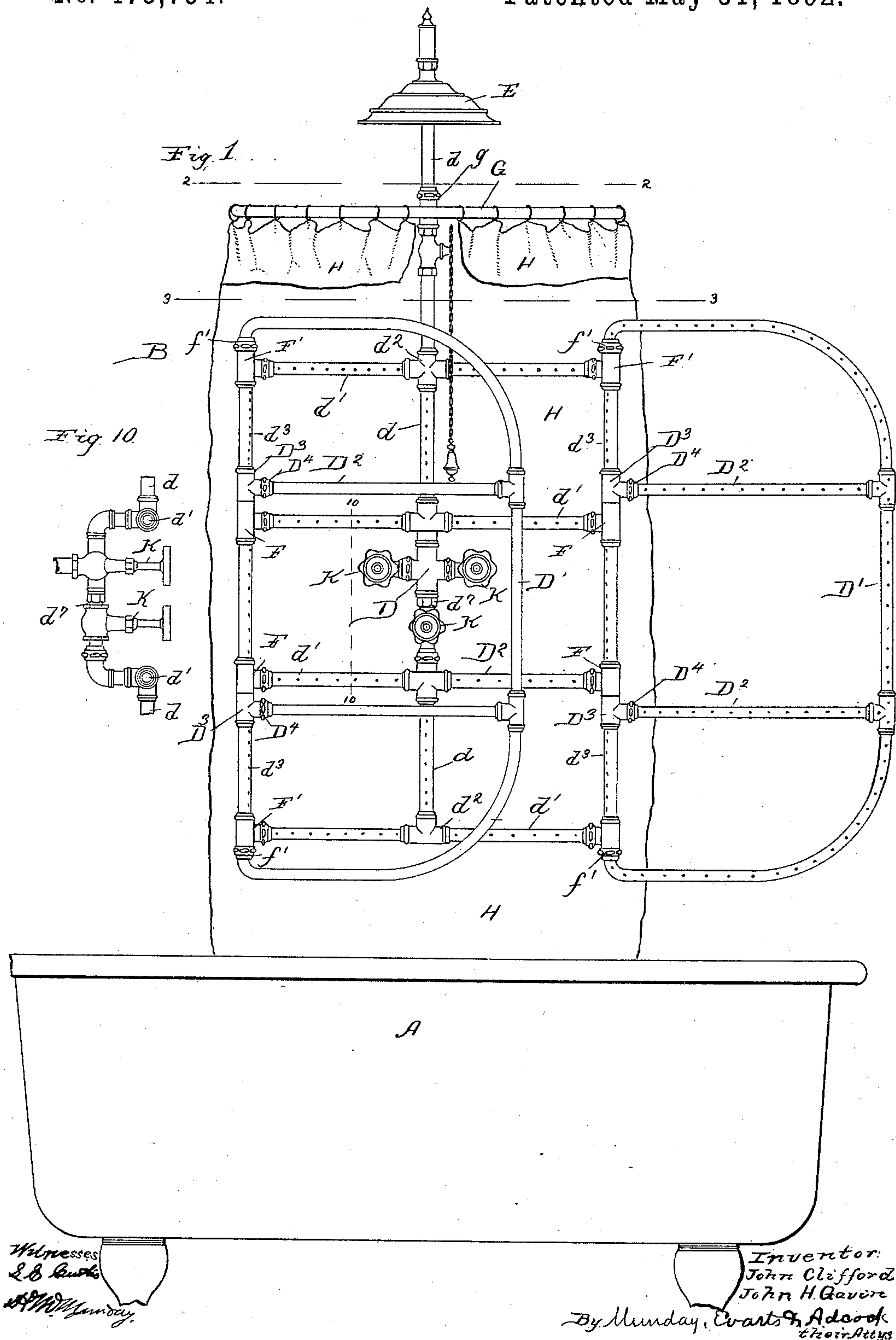
(Nō Model.)

2 Sheets—Sheet 1.

J. CLIFFORD & J. H. GAVIN.  
NEEDLE BATH APPARATUS.

No. 475,754.

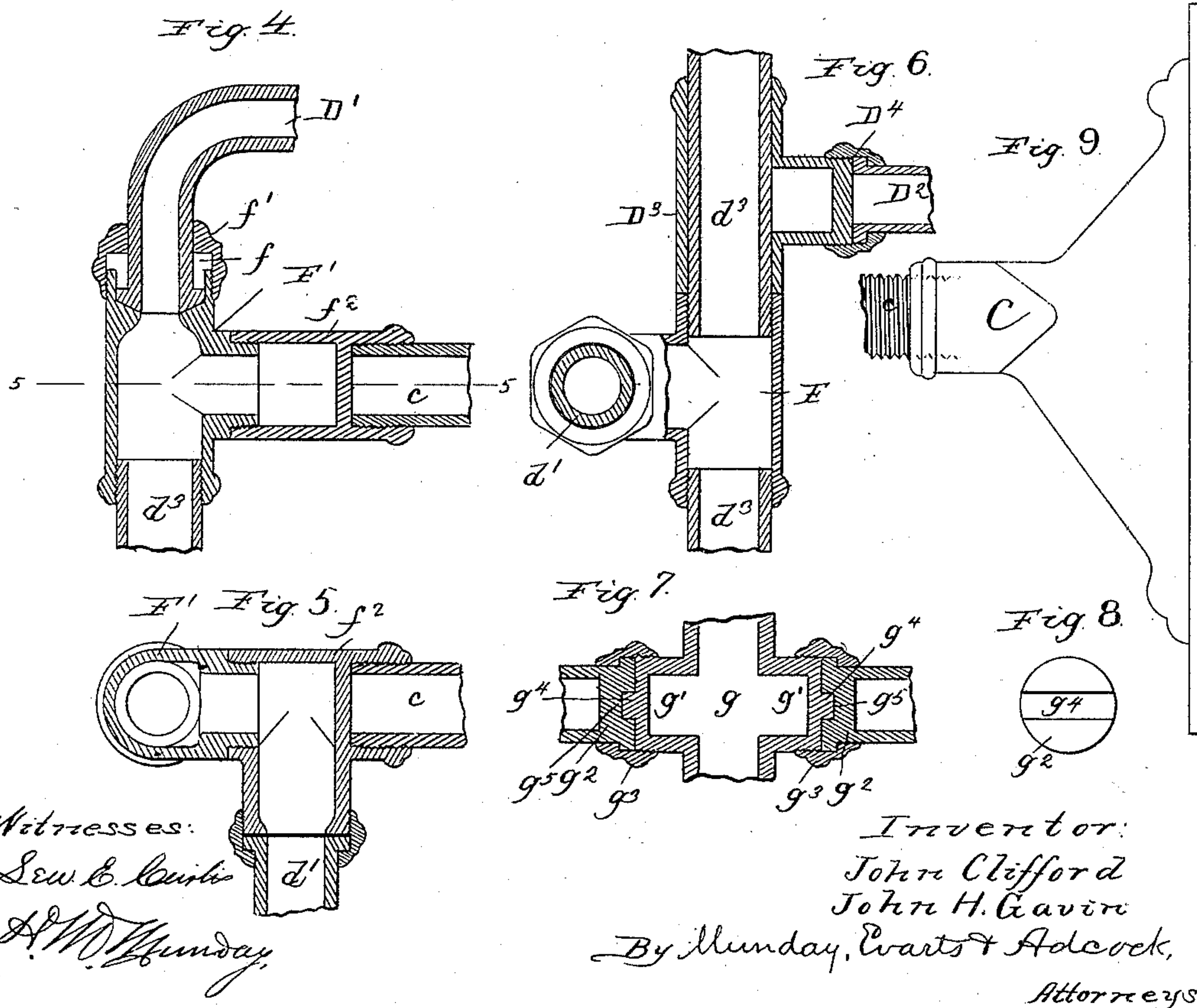
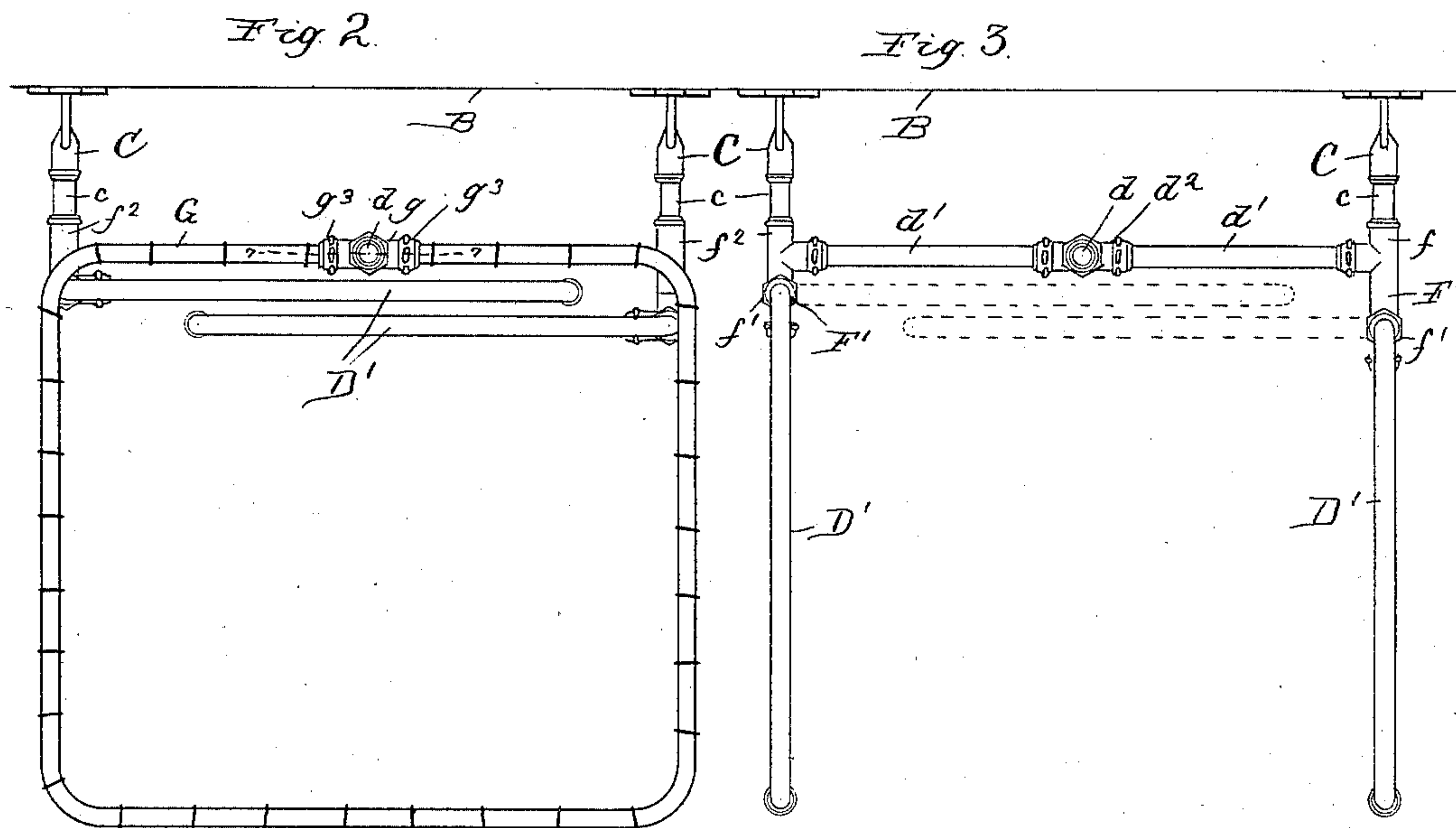
Patented May 31, 1892.



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Witnesses:

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# UNITED STATES PATENT OFFICE.

JOHN CLIFFORD AND JOHN H. GAVIN, OF CHICAGO, ILLINOIS, ASSIGNORS TO  
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## NEEDLE-BATH APPARATUS.

SPECIFICATION forming part of Letters Patent No. 475,754, dated May 31, 1892.

Application filed August 29, 1891. Serial No. 404,081. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN CLIFFORD and JOHN H. GAVIN, citizens of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Needle-Bath Apparatus, of which the following is a specification.

Our invention relates to bathing apparatus. Our invention consists in the combination, with a bath-tub, of a folding or movable needle-spray apparatus supported over the tub and adapted to be folded or moved out of the way when the needle-spray is not in use, and thus not interfere with the convenient use of the bath-tub in the ordinary usage thereof.

It also consists in a needle-spray bathing apparatus furnished with one or more (preferably two) folding arms, limbs, or members to enable the perforated spray-pipes to be brought closer to or farther from the person of the bather to vary the impacting force of the jets against the person, as desired, and also to accommodate the apparatus to persons of different sizes. The folding arms or members also adapt the apparatus to be folded or nested together compactly when not in use and thus put out of the way.

Our invention also consists in the novel devices and novel combination of parts and devices herein shown and described, and more particularly pointed out in the claims.

In the accompanying drawings, which form a part of this specification, and in which similar letters of reference indicate like parts, Figure 1 is a side elevation of a device embodying our invention. Fig. 2 is a top or plan view looking down from line 2 2 of Fig. 1 and showing the needle-spray apparatus folded. Fig. 3 is a similar view looking down from line 3 3 of Fig. 1, showing the folding arms extended. Fig. 4 is a vertical sectional view through one of the packed joints of the folding arm. Fig. 5 is a horizontal section on line 5 5 of Fig. 4. Fig. 6 is a vertical section through one of the supporting-joints of the folding arm. Fig. 7 is a vertical section on line 7 7 of Fig. 2. Fig. 8 is an end view of the curtain rod or ring at its supporting-joint. Fig. 9 is a detail view of one of the adjustable

brackets upon which the needle-spray apparatus is supported in position, and Fig. 10 is a partial side elevation or vertical section on line 10 10 of Fig. 1.

In the drawings, A is a bath-tub; B, the wall adjoining the bath-tub at the side or end thereof, preferably at the side, as shown in the drawings, and to which are secured the adjustable brackets C C, which support the needle-bath apparatus D and shower E.

The needle-bath apparatus D is furnished with one or more, preferably two, folding arms, wings, or members D' D'. The main or stationary portion D of the needle-bath apparatus consists of a vertical supply-pipe  $d$ , furnished with a series of perforated horizontal pipes  $d'$ , connected to the vertical pipe by cross or T couplings  $d^2$ . At the ends of the stationary perforated pipes  $d'$  and connected thereto by suitable T-couplings F F' are the stationary hinge-pipes  $d^3$   $d^3$ , which serve to connect the arms  $d'$  together, and also as the pivots or hinge-rods upon which the swinging arms or members D' D' turn. The T-couplings F F' for the intermediate pipes  $d'$  serve simply to connect the vertical pipes  $d^3$  to the horizontal pipes  $d'$ ; but the two extreme elbow T-couplings F' F' are furnished with packing-rings  $f$  and coupling-nuts  $f'$  to form water-tight joints with the ends of the swinging arms D' D'. The perforated swinging arms or members D' each have one or more intermediate horizontal perforated pipes D<sup>2</sup>, and each of the horizontal pipes D<sup>2</sup> is furnished with a T coupling or joint D<sup>3</sup>, secured thereto by a nut D<sup>4</sup>, and which serves to stop or close the end of the perforated pipe D<sup>2</sup> and also to hinge it to the stationary pivot-pipes  $d^3$ . This obviates the necessity of employing a tight joint for connecting the pipes D<sup>2</sup> of the swinging members D' to the pivot-pipe  $d^3$ , and these bearing or supporting joints or hinges D<sup>3</sup> relieve the packed joints  $f f'$  of the members D' from weight and wear.

The shower E may be of any ordinary construction and is connected to the pipe  $d$  at its upper end.

G is the curtain rod or ring, to which the usual rubber curtain H is supported. To



support this ring-shaped curtain-rod G the pipe *d* is provided with a T-shaped coupling *g* having closed arms *g'* to which the adjoining ends *g*<sup>2</sup> of the curtain-rod G are secured  
 5 by coupling-nuts *g*<sup>3</sup> *g*<sup>3</sup>. The abutting ends *g'* and *g*<sup>2</sup> of the coupling *g* and curtain-rod G are provided with tongues and grooves *g*<sup>4</sup> *g*<sup>5</sup> to hold the curtain-rod rigidly in position and prevent its turning or sagging under the  
 10 weight of the curtain H. The upper elbow T-couplings F' F' are each provided with a backwardly-projecting screw-threaded arm *f*<sup>2</sup>, to which the adjustable section *c* of the supporting-bracket C is secured. The adjustable  
 15 section *c* of the bracket C is screw-threaded to the main section thereof, so that by shortening or lengthening the bracket the shower and needle bath apparatus may be properly adjusted over the bath-tub A.  
 20 The section *d'* of the supply-pipe *d*, which carries the valve K, is offset, as indicated in Fig. 10, so that the handles of the valves may not project in the way of the bather.

By hinging the swinging or folding portion  
 25 D' of the needle-spray apparatus to the stationary portion D thereof by two hinges or two sets of hinges or joints, one a water-tight or packed joint and the other a simple bearing or supporting joint, the latter serves to  
 30 take the wear and support the weight of the hinged portion D', and thus relieves the packed or liquid-tight joint therefrom.

We claim—

1. The combination, with a bath-tub, of a  
 35 movable or folding needle-spray apparatus supported over the tub and adapted to be moved or folded out of the way when the needle-spray is not in use, and thus not interfere

with the convenient use of the bath-tub for bathing therein, substantially as specified. 40

2. The needle-bath apparatus comprising a stationary portion mounted upon suitable brackets affixed to the wall and one or more swinging or folding portions hinged to said stationary portion, substantially as specified. 45

3. The combination, with bath-tub A, of bracket C, having adjustable section *c*, needle-spray apparatus having a stationary portion D, secured to the adjustable section of said bracket, folding or swinging portions D', 50 and a curtain and curtain-supporting rod, substantially as specified.

4. The combined bathing apparatus consisting of bath-tub A, needle-spray apparatus D, having folding arms or members D' D', and 55 shower E, substantially as specified.

5. The combination, with supply-pipe *d*, having T-couplings *g*, furnished with closed arms *g'*, of ring-shaped curtain-rod G, having its adjoining ends *g*<sup>2</sup> connected to the arms of 60 said T-coupling *g* by coupling-nuts *g*<sup>3</sup>, the abutting ends being furnished with tongues and grooves, substantially as specified.

6. In a needle-bath apparatus, the combination, with a stationary portion, of one or 65 more hinged or folding portions having two joints or hinges to the stationary portion, one of said joints being a liquid-tight packed joint and the other being simply a supporting or bearing joint to relieve said packed joint from 70 weight and wear, substantially as specified.

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