

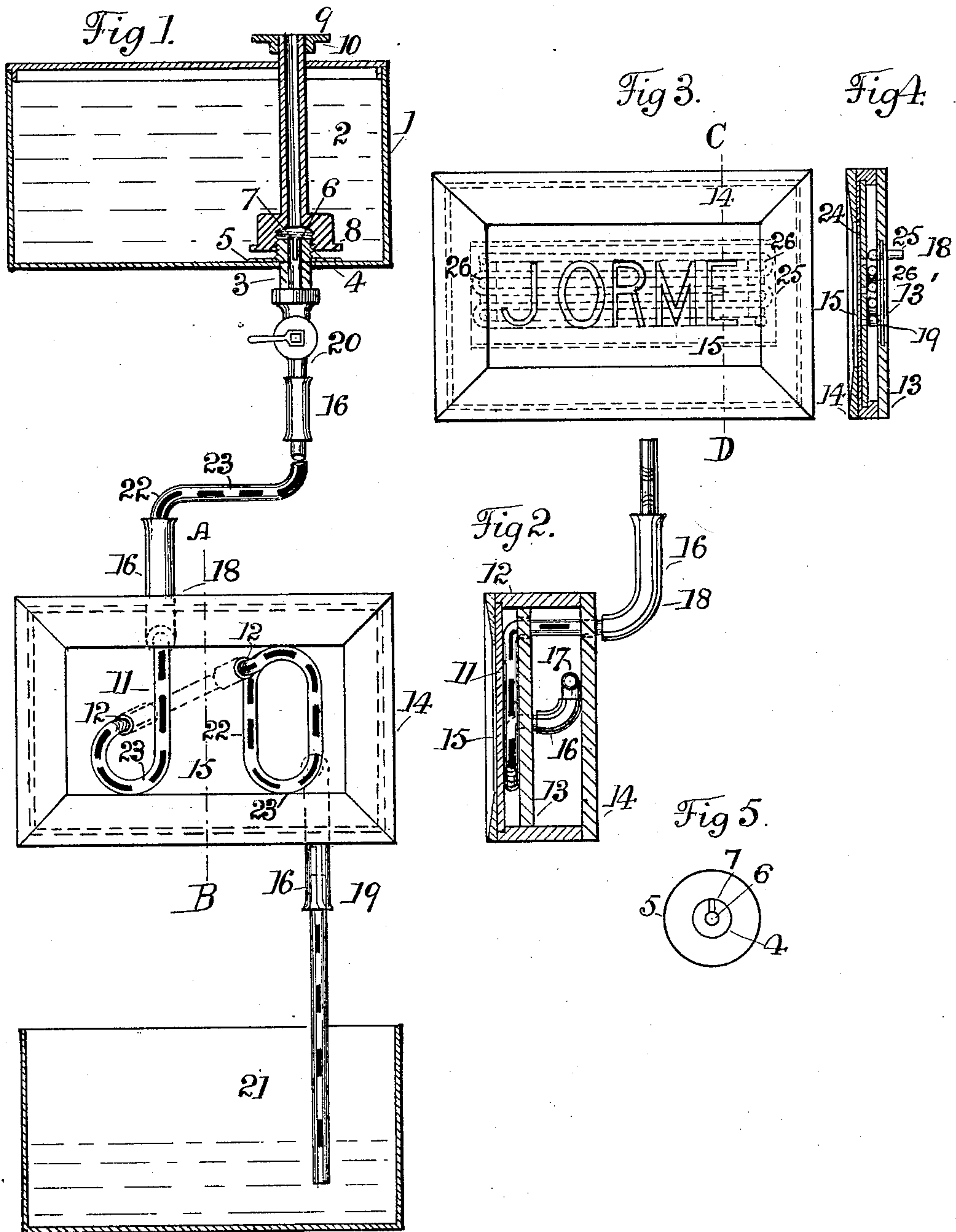
(No Model.)

J. ORME.

APPARATUS FOR ADVERTISING PURPOSES.

No. 452,430.

Patented May 19, 1891.



Witnesses
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UNITED STATES PATENT OFFICE.

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APPARATUS FOR ADVERTISING PURPOSES.

SPECIFICATION forming part of Letters Patent No. 452,430, dated May 19, 1891.

Application filed August 25, 1890. Serial No. 362,948. (No model.)

To all whom it may concern:

Be it known that I, JOHN ORME, scientific apparatus manufacturer, a subject of the Queen of Great Britain, residing at No. 65 Barbican, in the city of London, in that part of Great Britain called England, have invented new and useful Improvements in Improved Apparatus for Advertising Purposes, of which the following is a specification.

My invention consists in improved apparatus for advertising purposes.

The objects of my improvements are, first, to circulate by gravity a plain or colored liquid interspersed with air-bubbles, through advertising devices constructed of transparent glass tubing; second, to circulate a plain or colored liquid through transparent tubing, in front of which a stenciled or in part transparent advertising device is so placed as to permit light to pass through it for the purposes of illuminating the same. I attain these objects by means of the apparatus illustrated in the accompanying drawings, in which—

Figure 1 is a front part sectional elevation of complete apparatus for circulating a plain or colored liquid through a transparent tubular advertising device. Fig. 2 is a vertical section upon line A B, Fig. 1. Fig. 3 is a front elevation, and Fig. 4 a vertical section upon line C D, Fig. 3, of stencil advertising device. Fig. 5 is a plan of nipple of regulating-valve, the cap being removed.

Similar figures refer to similar parts in all the views.

1, Fig. 1, is a supply-cistern, formed of thin metal, such as tin or iron, containing the plain or colored liquid 2 for circulating through the tubular advertising device. This may consist of plain water, or aniline, bichromate of potash, or other bright color mixed with water or spirit. In the base of the cistern is mounted a regulating-valve 3, which consists of a screwed nipple 4, having a seat 5 secured by soldering to the cistern. A hole 6 is drilled through the nipple, and a vertical saw cut or slot 7 is formed in the nipple, as shown. (See also Fig. 5.) A cap 8 is screwed to nipple 4, from which a vertical tube 9 ascends to above the level of the liquid in the cistern 1. The end of tube 9 is fitted with a milled nut 10.

11 is the tubular advertising device, which

I have shown as forming the initials of my name. This is constructed of glass tubing from about one-sixteenth of an inch in diameter upward. The tube is bent by heating in a blow-pipe flame into the required letters or other devices, the ends being left generally at a right angle to the device, so as to be readily passed through holes 12, made in a silvered glass or wooden backing 13, mounted on case 14, having a glass cover 15. The ends of each letter or device, as the case may be, are connected to the next by rubber tubing 16 and small bends of lead or composition pipe 17. The inlet 18 and outlet 19 are connected to the cock 20, screwed or otherwise secured to the base of regulating-valve 3, and to the lower cistern 21 by rubber mounts 16.

The operation of this first part of my invention is as follows: The cock 20 is turned on and the cap 8 of regulating-valve 3 screwed up or down by means of the milled-headed nut 10, secured to tube 9 attached to it, so as to regulate the flow of liquid through the vertical slit 7 in the nipple 4. (See also Fig. 5.) Liquid now passes through the slit 7, and also air by the tube 9, with the result that elongated drops of liquid 22, separated by bubbles of air 23, circulate through the transparent tubular device to the tank 21 beneath, producing a very striking effect.

The second part of my invention consists in circulating a plain or colored liquid through transparent tubing, in front of which is placed a stencil, out of which the name or other device is cut or punched. See Fig. 4, in which 14 is the frame; 15, the glazed cover; 24, the stencil; 13, the backing, into which is inserted a piece of glass 13'. The circulating-tubes 25 are of as small diameter as possible, and are bent in the manner shown and supported by blocks 26, glued to the backing. The end of tube 18 is connected to the cock 20, and the outlet-tube 19 to the lower cistern 21, in the manner previously described. Upon turning on the cock 20 the plain or colored liquid interspersed with air-bubbles circulates through the tubes 25, ordinary or artificial light being admitted through the glazed backing, so as to illuminate the letters or equivalent devices cut or punched out of the stencil 24. The stencil-plate may be replaced by one of glass,

the surface of which, other than that occupied by the transparent device, being ground, silvered, or rendered opaque by paper, paint, or the like.

5 If desired, the cock 20 can be dispensed with and the regulating-valve 3 alone used.

What I claim, and desire to secure by Letters Patent of the United States, is—

10 The combination, in or with transparent tubular advertising devices, of the regulating-valve having screwed nozzle 4, slit 7 therein,

cap 8 with air-tube 9, and milled head 10, operating in the manner described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN ORME.

Witnesses:

H. W. W. GRAIN,

J. M. BOULLO,

Clerks to Mess. Grain & Sons, Notaries, 46 Lombard St., London.