

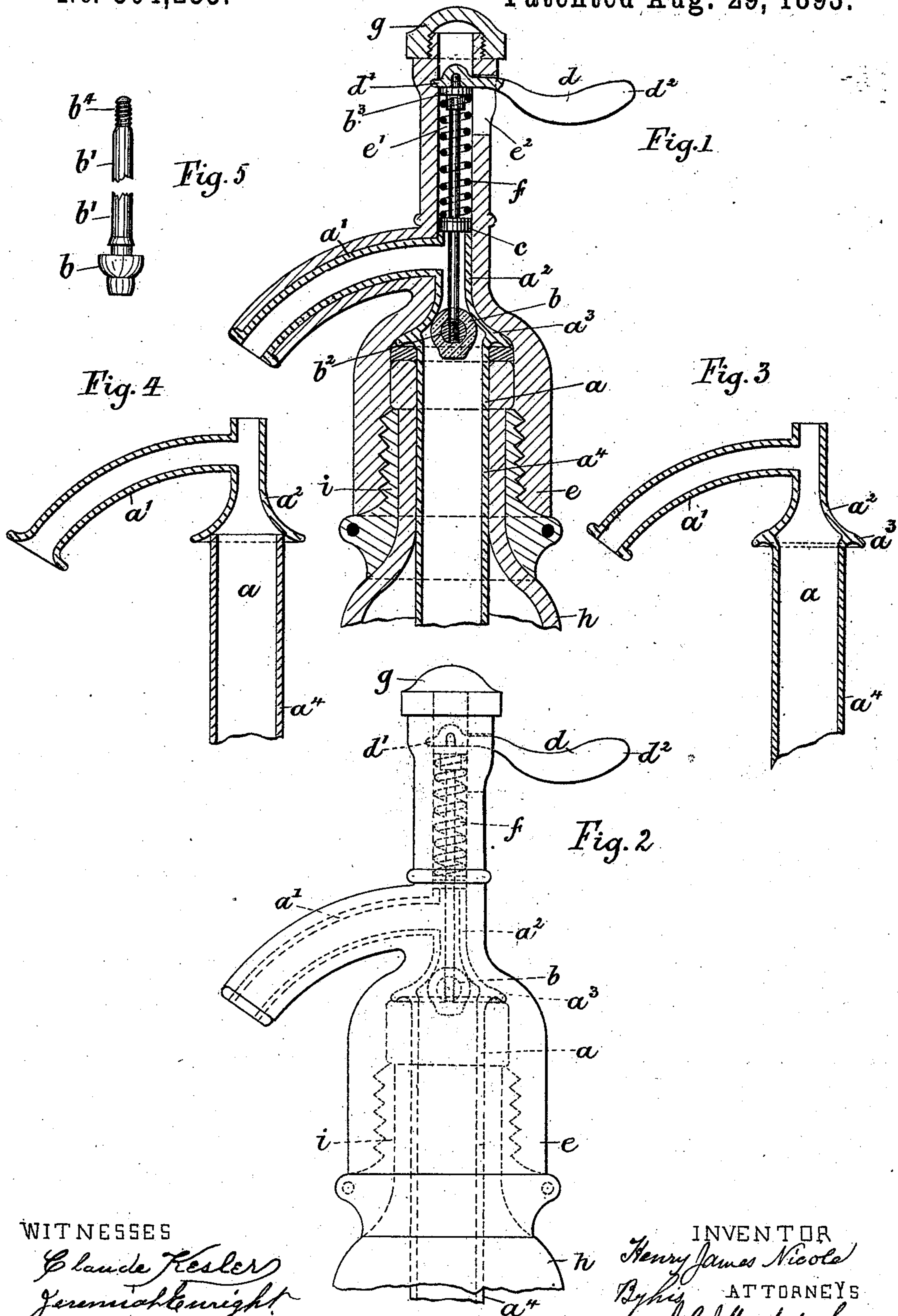
(No. Model.)

H. J. NICOLE.

SIPHON OR SELTZOGENE FOR AERATED WATERS.

No. 504,235.

Patented Aug. 29, 1893.



WITNESSES

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# UNITED STATES PATENT OFFICE.

HENRY JAMES NICOLE, OF LONDON, ENGLAND.

## SIPHON OR SELTZOGENE FOR AERATED WATERS.

SPECIFICATION forming part of Letters Patent No. 504,235, dated August 29, 1893.

Application filed April 12, 1892. Serial No. 428,876. (No model.) Patented in England July 3, 1891, No. 11,320.

*To all whom it may concern:*

Be it known that I, HENRY JAMES NICOLE, of Woodberry Town, London, in the county of Middlesex, England, have invented a new and useful Improvement in Siphons or Seltzogenes for Aerated Waters, (for which I have received Letters Patent in Great Britain, No. 11,320, dated July 3, 1891,) of which the following is a specification.

10 This invention relates to improvements in siphons and seltzogenes for containing aerated waters, in which the parts which come in contact with the aerated waters are made of glass and non-metallic materials, and the object of  
15 the invention is to line the composition, vulcanite or metallic parts of the head, tap, or attachment to the bottle which contains the parts which control the outflow of the aerated waters, with glass in as nearly as possible, or  
20 convenient, one piece so as to reduce to a minimum those parts which require to be packed. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

25 Figure 1 is a vertical section through the middle of a siphon head attached to a bottle, of which bottle, the greater portion is omitted from the drawings it being of ordinary construction. Fig. 2 is an external view of the  
30 portion of a siphon shown by Fig. 1. Fig. 3 shows separately the glass lining of the head or tap formed in one piece with the siphon tube. Fig. 4 shows separately the same lining as is shown by Fig. 3 but with the siphon  
35 tube not formed in one piece with the glass of the head lining but butted against the trumpet mouth thereof, the ordinary packing serving to prevent escape of gas or liquid, and Fig. 5 a substitute form of stem and knob.

40 *a* indicates the glass lining of the head or tap parts of the siphon or parts adjoining and co-operating, *a'* being that part lying within the spout or delivery tube, *a<sup>2</sup>* that part lying within the neck or tube above the  
45 valve, and *a<sup>3</sup>* that part that forms the trumpet mouth seating for the valve ball *b*, and *a<sup>4</sup>* that part of the glass which either in one piece as shown by Figs. 1 and 3 or separately from the lining as shown by Fig. 4, forms the  
50 siphon tube or eduction pipe for the water from the bottle, when by the opening of the

valve the internal pressure forces the water up that tube and out by the spout *a'*.

*b'* is a stem which may be of bone or other suitable material furnished with a knob *b<sup>2</sup>* at  
55 its lower end, here shown of rubber sprung over a bone center and secured by screwing to the stem, but this may be very conveniently substituted by a valve knob *b*, and stem *b'*, all in one piece, with the screwed end  
60 *b<sup>4</sup>* to take into the button *b<sup>3</sup>* as shown by Fig. 5 and I include such a device in my invention. This stem passes through a packing piece *c*, which resting on the upper edge of the part *a<sup>2</sup>* of the glass lining prevents egress  
65 of liquid at that part. On the upper end of this stem *b'* is applied, say by screwing, a button *b<sup>3</sup>*, but the form of this may be varied according to the form of the part of the lever *d* which presses it down when pressure is ap-  
70 plied to the end thereof *d<sup>2</sup>*. *d'* is the fulcrum end of said lever which takes a bearing in a recess in the wall of the head.

*e* is the metal covering of the head, which metal is cast on the glass lining, leaving the  
75 space *e'* in which is located the spiral spring *f*, which spring rests on the packing piece *c* as an abutment and presses up against the button *b<sup>3</sup>* so as to cause the stem *b'* normally to keep the valve *b* drawn tightly to its seat-  
80 ing *a<sup>3</sup>*.

*e<sup>2</sup>* is a slot in the metal wall in which the lever *d* works.

*g* is a screw metal cap applied over the top of the hollow part *e'*.  
85

*h* is the portion of the ordinary glass siphon bottle to which the metal *e* is connected in usual manner, here shown as by screwing, to a metal bushing *i* correspondingly threaded, and cemented to the bottle.  
90

Consequent upon the metallic or other parts of the head liable by contact to foul the contained waters, being isolated from the contained liquids, solvent action thereupon is prevented, and danger of poisoning or con-  
95 tamination is avoided.

I am aware that it has long ago been proposed to line siphons or seltzogenes with porcelain and also with glass but such plans as have been published have not so far as I  
100 am aware been practically effectual, or have not been economically useful, and capable of

commercial utilization. The glass has been proposed to be used in pieces butted together, but contamination has still eventually resulted, while by my improvements this is entirely avoided.

My improved lining glass parts may be and are manufactured from tubing by the aid of heat and the blow pipe.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

A siphon-head having within it and in direct contact therewith a glass lining as shown

and described having a spout or delivery tube, neck  $a^2$ , trumpet-shaped seating  $a^3$  and a siphon tube  $a^4$  projecting beyond the trumpet mouth, such spout, neck, trumpet-shaped seating and siphon tube being all in one and the same piece.

In testimony whereof I, the said HENRY JAMES NICOLE, have hereunto set my hand this 5th day of August, 1891.

HENRY JAMES NICOLE.

Witnesses:

JOHN COODE HOW,  
STANLEY G. V. DICKER.