

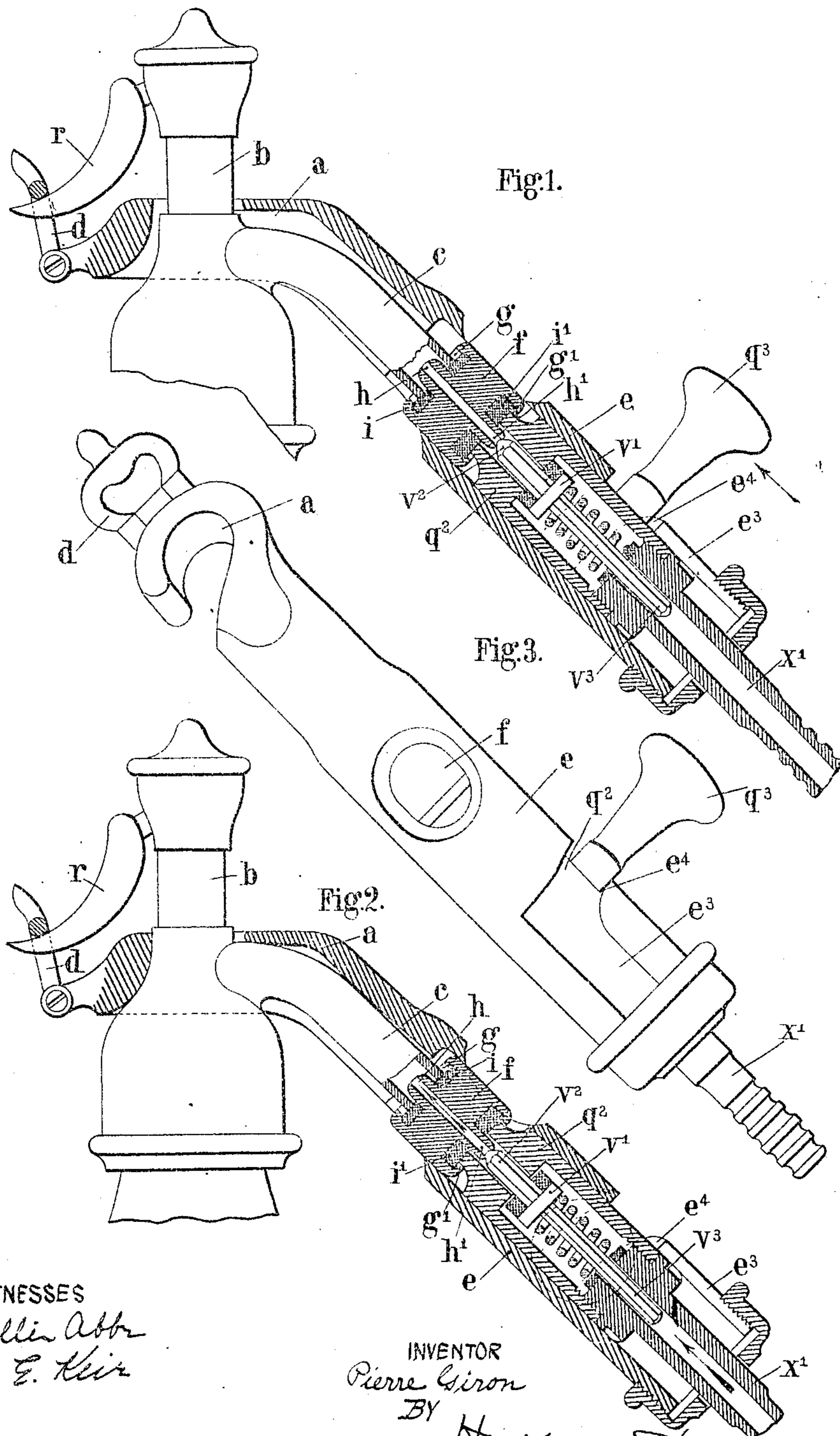
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P. GIRON.

APPARATUS FOR CHARGING SIPHONS WITH CARBONIC ACID.

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WITNESSES

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PIERRE GIRON, OF PARIS, FRANCE.

APPARATUS FOR CHARGING SIPHONS WITH CARBONIC ACID.

No. 885,467.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed July 9, 1907. Serial No. 382,892.

To all whom it may concern:

Be it known that I, PIERRE GIRON, a citizen of the Republic of France, residing in Paris, 9 Rue Castex, have invented an Apparatus for Charging Siphons with Carbonic Acid, of which the following is a specification.

This invention relates to improvements in apparatus employed for charging siphons from a cylinder of carbonic acid at a very high pressure.

The arrangement forming the object of the present invention permits of speedily charging siphons, the pressure being regulated by a pressure reducing valve; it is characterized by the fact that the connection of the apparatus with the spout of the siphon and the communication of this latter with the cylinder of carbonic acid gas are effected automatically by one and the same operation of a lever solid with a movable cylinder, and acting in the manner of the movable breech of a gun. This arrangement is represented in the accompanying drawing, in which:—

Figure 1 is a longitudinal section through the apparatus with the parts in the position corresponding to the moment at which the apparatus is attached to the siphon head. Fig. 2 is a similar view of the parts in the position corresponding to the moment of charging the siphon. Fig. 3 is a plan view of the apparatus only corresponding to Fig. 2.

The block *f* moves freely in the tubular part *e*; this block comprises on the side toward the siphon spout the cup *g*, the socket *h* and the elastic ring *i*, and on the opposite side the same parts *g*¹, *h*¹ and *i*¹. Following this part *f* there is arranged in the cylinder *e* a cylindrical block *q*² with lever *q*³, to which there is screwed a socket *x*¹ connected by an india rubber tube to the pressure reducing valve which is itself fixed to the high pressure carbonic acid gas cylinder.

Inside the cylinder *q*² there is arranged a spring-controlled valve *v*¹ guided by the stems *v*² and *v*³ in the head of the cylinder *q*², and in the socket *x*¹. The base of the lever *q*³ moves in a longitudinal groove *e*³ and a groove *e*⁴ with helicoidal incline.

The apparatus so constructed is employed in the following manner:—The lever *q*³ being drawn back in the groove *e*³ the head *b* of the siphon is seized with the claw *a*, and the yoke *d* is arranged upon the lever *r* of the siphon (Fig. 1); when this has been done, in order to fix the siphon and charge it, it is only necessary to press the lever *q*³ forward and de-

press it to the right hand side, during the first movement a joint is established between the block *f* and the siphon spout *c*, in the cup *g*, the claw *a* is depressed and by means of its yoke *d* opens the siphon, then on continuing to depress the lever *q*³, completely on the right hand side, the rod *v*² of the valve *v*¹ strikes against the socket *h*¹ of the block *f*, and the cylinder *q*² continuing its movement, the valve *v*² uncovers the passage *t*¹, thus placing it in communication with the passage *t* of the block *f* and the carbonic acid gas enters the siphon, the liquid in which is saturated with it to the predetermined pressure by the pressure reducing valve. When the latter indicates that this pressure has been reached in the siphon it is only necessary to operate the lever *q*³ in the opposite direction, that is to say, to lift it, the cylinder *q*² descends and the stem *v*² of the valve *v*¹ being no longer pressed by the socket *h*¹ the valve *v*¹ again obturates the passage *t*¹ thus cutting off the siphon from the source of gas; by continuing to lift the lever *q*³ the claw *a* is raised and its yoke *d* allows the lever *r* to rise (Fig. 1) and the siphon is closed, then the joint at *i* is disestablished and the apparatus may be removed and fixed to the head of another siphon which is charged in the manner just explained.

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

1. A device for charging siphons and the like comprising an arm adapted to engage the means for opening the discharge valve of the siphon, a part slidably secured to said arm and having a passage for the charging gases or the like adapted to be opened into a port leading past said discharge valve into the interior of the siphon, a valve normally closing said passage and means for moving said part and said arm with relation to each other to effect the simultaneous opening of said discharge valve of the siphon and the valve in said passage, substantially as described.

2. A device for charging siphons and the like comprising an arm adapted to engage the means for opening the discharge valve of the siphon, a part slidably secured to said arm and having a passage for the charging gases or the like adapted to be opened into a port leading past said discharge valve into the interior of the siphon, a valve normally closing said passage and a button on said part engaging said arm through a helicoidal slot in the same whereby on moving said button

through said slot, the discharge valve of the siphon and the valve in the passage mentioned are simultaneously opened.

8. A device for charging siphons and the like comprising an arm adapted to engage the means for opening the discharge valve of the vessel, a part slidably secured to said arm and having a passage for the charging gases or the like therethrough, a valve normally closing said passage, a cushion piece having a corresponding passage and adapted to be interposed between said sliding part and a port opening into the interior of the siphon, in
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combination with means for moving said part and cushion piece with relation to said arm to effect the simultaneous opening of said discharge valve and the valve in said passage, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

PIERRE GIRON.

Witnesses:

BENJAMIN BLOCHE,
H. C. COXE.