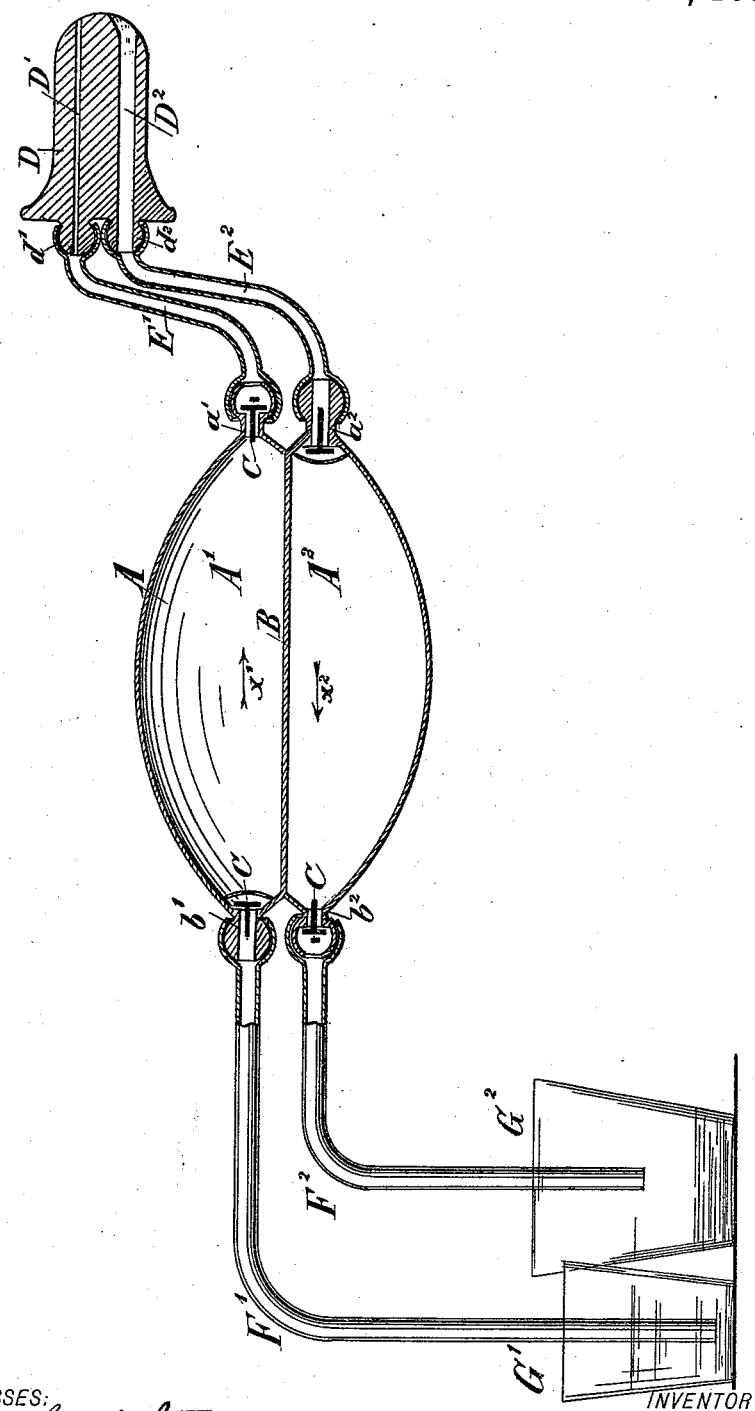
(No Model.)

A. B. CRUICKSHANK.

VAGINAL SYRINGE.

No. 493,208. Patented Mar. 7, 1893.



WITNESSES:
Harry Billard Griffiths
William Duehm

INVENTOR
A. B. Cruickshank
BY Gifford & Gaegner
ATTORNEYS.

UNITED STATES PATENT OFFICE.

ARTHUR B. CRUICKSHANK, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF ONE-HALF TO KAMPFE BROTHERS, OF NEW YORK, N. Y.

VAGINAL SYRINGE.

SPECIFICATION forming part of Letters Patent No. 493,208, dated March 7, 1893.

Application filed October 3, 1892. Serial No. 447,693. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR B. CRUICKSHANK, a subject of the Queen of England, and a resident of San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Vaginal Syringes, of which the following is a specification.

This invention relates to improvements in vaginal syringes.

The object of my invention is to provide a new and improved vaginal syringe which is constructed so that immediately after the liquid has been injected into the vagina it is drained from the same, and while the syringe is operated the liquid is alternately injected into and drained from the vagina.

The invention consists in the construction and combination of parts and details, as will be fully described and set forth hereinafter, and finally pointed out in the claims.

In the accompanying drawing, a longitudinal sectional view of my improved vaginal syringe is shown.

The bulb A is divided by the partition B into two compartments A′ and A². At one end of the bulb the two necks a' and a^2 are formed and at the opposite ends the necks b' and b^2 are formed in which necks valves C of the usual construction are arranged, the valves in the compartment A′ opening in the direction of the arrow X′ and the valves of the compartment A² opening in the direction of the arrow X². The nozzle D which is preferably made of hard rubber is provided with two bores D′ and D², of which the bore D² is of greater diameter than the bore D′ and is flared at the point of the nozzle. Said nozzle is provided with two necks d' and d^2 which are connected by the flexible tubes E′ and E² with the necks a' and a^2 of the valve A respectively. Flexible tubes F′ and F² are connected with the necks b' and b^2 of the bulb, the tube F′ extending into a vessel G containing the liquid to be injected into the vagina, and the tube F² being inserted into the vessel G² for receiving the liquid drained from the vagina.

The operation is as follows:—Assuming that the bulb A is empty and the same is compressed and then released, a vacuum will be formed in both compartments and thereby air is drawn into the lower compartment A² and the liquid from the vessel G′ passes through the pipe F′ into the compartment A′. If then the bulb is again compressed the liquid in the compartment A′ is discharged through the pipe E′ and bore D′ into the vagina. If the bulb is then released, the vacuums are produced and thereby the liquid that has just been injected into the vagina is drained from the same through the larger bore D² of the nozzle, the tube E² into the compartment A² of the bulb, and at the same time a fresh supply of liquid is drawn from the vessel G′ through the pipe F′ to the compartment A′ of the bulb. The bulb is now again compressed, the liquid is forced from the compartment A′ into the vagina, as above described, and the liquid in the compartment A² is forced into the vessel G². The bulb is then again released whereby fresh liquid is drawn into the compartment A′ and the liquid just injected into the vagina is withdrawn into the compartment A², and so on. The liquid is thus alternately injected into the vagina and withdrawn from the same, but this injecting and withdrawing or draining of the liquid does not take place simultaneously but alternately, so as to leave the liquid in the vagina a short time to permit the same to act on the walls of the vagina, for example, when a strong or astringent medical preparation is to be injected into the vagina. As the liquid is drawn from the vagina by suction, all of the same is removed and there is no danger that quantities of a medical preparation might remain in the vagina and act injuriously on the walls of the same.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a compressible bulb having two compartments, of a nozzle having two bores, each of which is connected by a tube with one of the compartments of the bulb, and two tubes connected with the opposite ends of the compartments of the bulb, substantially as set forth.

2. In a vaginal syringe, the combination,

with a compressible bulb having two compartments, a valve at the end of each compartment, the valves of one compartment opening in one direction and the valves of the other compartment opening in the opposite direction, a nozzle having two bores, which bores are connected at one end of said bulb with the two compartments of the bulb and tubes connected at the opposite end of the bulb with the two compartments, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

ARTHUR B. CRUICKSHANK.

Witnesses:
OSCAR F. GUNZ,
MARION HALL.