M. J. RABAT.
FOUNTAIN SYRINGE PRESSURE CLAMP.
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1,102,953.
To all whom it may concern:

Be it known that I, MILFORD J. RABAT, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Fountain-Syringe Pressure-Clamp, of which the following is a full, clear, and exact description.

In the different forms of fountain syringes most generally used, the flow from same is obtained by suspension of the bag, thus forming a hydrostatic head, producing a stream having a certain impinging force at the tip end of the syringe, which often is insufficient. To obviate this objection, and also to dispense, in some instances, with the necessity of suspending the bag, I have invented a clamp, which, when applied to the surface of the bag, will increase the impinging force of the stream of a suspended bag, and will create pressure on a bag not suspended, which would not otherwise be possible during voyages or wherever there is no convenient means for the suspension of the fountain syringe.

My invention has reference to clamps for fountain syringes of the flexible-bag type, and comprises two hinged plates, having resilient means, co-acting with a cam associated with said plates.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference, to the same parts, are indicated corresponding parts, in both views.

Figure 1 is a face elevation of an embodiment of my invention; and Fig. 2 is a vertical section of the same on the line 2--2.

Before proceeding to a more detailed description of my invention, it must be clearly understood that the plates contacting with the flexible bag may be of any desired form or shape, and preferably will have the con tour of the bag to which they are to be applied. They may be on their surface any ornamental design, cut through or formed on the surface of same, and the upper clamp, provided for bags without stoppers or plugs, may be of any known type which will suit the purpose of closing the mouth of the bag.

Referring to the drawings, 10 is an ordinary rubber bag of a fountain syringe, forming the container for the liquid, and is provided with the customary suspension lip, 11, and mouth, 12, through which the liquid is poured into the bag. At the lower end of the bag, opposite the mouth, is attached the customary rubber conveyor tube, 13, with the end tip and valve not shown in the drawings. Contacting with the faces of the bag are two similar facing plates, 14, hinged at their lower constricted ends, 15, the plates being preferably of the same contour as the faces 16 of the bag. The constricted portion, 15, is preferably bulged out to form a resilient portion. An aperture, 17, is formed in the inside of the portions, 15, through which the rubber conveyor tube, with the usual valve 18 attachment, is adapted to pass freely when putting the clamp on the bag. Two similar standards, 18, positioned on the inner surface of one of the bulging portions, are projected through the slots, 19, formed in the other bulging portion, 18, the upper projecting portions of said standards being preferably offset toward the major part of the plates and provided thereby with bearing orifices, 20. A resilient cam member, 21, preferably formed of steel wire, has the upper part, forming a convenient handle, 22, and in the lower portion the two branches form hooks, 23, and have their extremities, 24, bent normally to the hook portion and bearing in the orifices, 20, of the standards, 18. The hook portions of the resilient cam member, 21, form the cam surface bearing against the bulging resilient portion, 15, of one of the plates, 14, when brought in contact with the same by rotating about its bearing ends, 24. The pressure applied by this resilient cam member, 21, while in contact with the bulging portion, 15, is transmitted to the bag between the plates until the entire contents are expelled from the bag.

To prevent the flow of liquid from the mouth of a bag not provided with a stopper or plug, a clamp or clip, 25, of any suitable form, which will fit the bag and close its mouth, to prevent any outflow from same, is applied.

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

1. The combination of a flexible fountain syringe bag, containing a liquid, having a closed mouth and a controlled conveyor tube extending from end of bag, two facing plates having their lower ends constricted and hinged, engaging said bag, said constriction forming a resilient portion of said.
plates, and a cam co-acting with said resilient portion whereby the liquid in said bag is subjected to a predetermined pressure.

2. The combination of a flexible fountain syringe bag, containing a liquid, having a closed mouth and a controlled conveyer tube extending from end of bag, two facing plates having their lower ends constricted and hinged at the extremities of said constrictions and having an aperture common thereto, said plates engaging said bag, having said conveyer tube projecting through said aperture, said constriction forming a resilient portion of said plate, and a cam associated with said resilient portions, whereby a predetermined pressure is produced by said plates on said bag.

3. In a fountain syringe, the combination with the flexible bag of two facing plates, constricted at their lower ends and hinged at the extremities of said constrictions, said plates engaging said bag, the constricted portions being resilient, one of said constricted portions having standards, said standards projecting out of the other of said constricted portions, and a cam pivoted in said standards and co-acting with said constricted portion whereby a pressure is produced by said plates on said bag.

4. In a fountain syringe, the combination with the flexible bag of two facing plates, constricted at their lower ends and hinged at the extremities of said constrictions, and having a central common aperture in said hinge, said plates engaging said bag, having its conveyer tube projecting through said aperture, said constricted portions being made to bulge outwardly, and one of said constricted portions being centrally provided on its inner surface with two standards, means in the other of said constricted portions for said standards to project through, and a resilient cam member position in the projecting end of said standards and adapted to rotate in said ends, said resilient cam member co-acting with said constricted portions whereby the contact of said cam member with said portion produces a predetermined pressure by said plates on the said bag.

5. The combination of a flexible fountain syringe bag, containing a liquid, having an open mouth, closed by a convenient clamp or clip, and a controlled conveyer tube extending from the end of said bag, two facing plates, having constricted ends and hinged to each other, and having a common central aperture in said hinge, said plates engaging the bag, the conveyer tube projecting through said aperture, said constricted ends bulging outwardly and constituting a resilient portion of the plate, two standards positioned centrally on the inner surface of one of said constricted ends, means in the other of said constricted ends to allow the said standards to project through the same, said standards being offset toward the major part of said plates and provided thereby with bearing a resilient cam member positioned in said bearings and rotating in same and co-acting with said bulging portions, whereby said plates may be made to engage or disengage the said bag and produce a pressure, when engaging the same, on the contents to form a flow of a predetermined force.

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

Witnesses:

BENEDICT JOFFE,
PHILIP D. ROLLHAUS.

MILFORD J. RABAT.