(No Model.)

R. P. GARSED.

AIR PUMP.

No. 325,926. Patented Sept. 8, 1885.

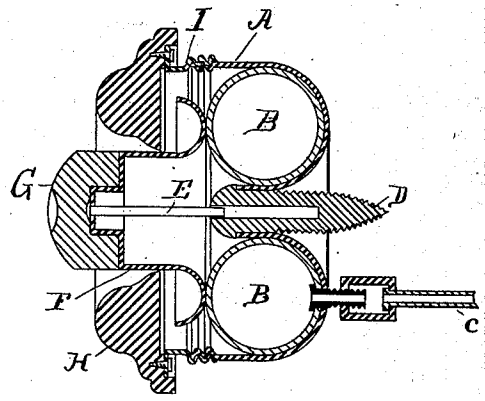


Fig. 1.

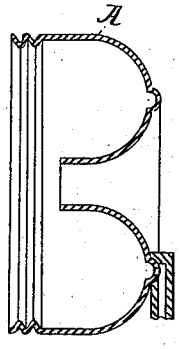


Fig. 2.

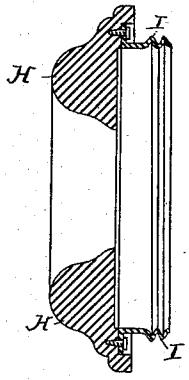


Fig. 4.

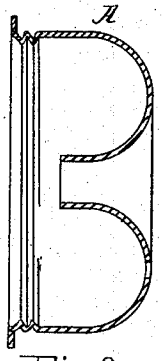


Fig. 3.

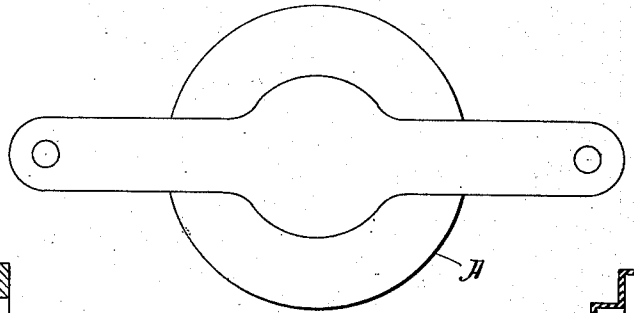


Fig. 7.

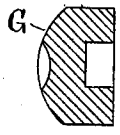


Fig. 5.

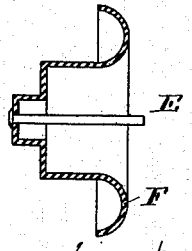


Fig. 6.

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UNITED STATES PATENT OFFICE.

ROBERT P. GARSED, OF NORRISTOWN, PENNSYLVANIA.

AIR-PUMP.

SPECIFICATION forming part of Letters Patent No. 325,926, dated September 8, 1885.

Application filed July 3, 1885. (No model.)

To all whom it may concern:

Be it known that I, ROBERT P. GARSED, a citizen of the United States, and a resident of Norristown, Montgomery county, and State of Pennsylvania, have invented a new and useful Improvement in Air-Pumps, of which the following is a specification.

The object of my invention is to furnish an improved and reliable air-pump whose simplicity, compactness, and adaptability for forcing air through a pipe, mostly for bell-ringing, shall be its recommendation.

In the accompanying drawings, forming part of this specification, and in which similar letters of reference indicate like parts throughout the several views, Figure 1 represents a side sectional view of the device; Fig. 2, a side sectional view of a modification of the metal cup for holding the rubber air-container, and differs from Fig. 3 in that it has a peripheral channel upon its inside bottom, through which air may pass to pipe C; Fig. 3, such metal cup with a flange by which the device may be additionally supported in place; Fig. 4, a sectional view of the wooden cover with screw-rim attached, which parts, when in place, are seen in Fig. 1. Fig. 5 represents a section of a bone or wooden tip, G, which, when in place, fits over top of metal plunger F. Fig. 6 is a section of this metal plunger with guide-stem attached, which stem fits within a correspondingly-shaped cavity through the center of screw shown in Fig. 1, and which screw, as well, holds the pump in position in a desired place. Fig. 7 is a bottom view of pump with a cross-plate adapted also, when desired, to hold the pump in place.

A, Figs. 1, 2, 3, and 7, represents a metal cup of suitable shape to contain a hollow flexible annulus-shaped air-container, B, through which there is a hole for the passage of air to the pipe or coupling C, which in turn may be attached to a bell or other signaling device.

D is a screw, the under side of whose head, abutting against top of central projection of cup A, holds the cup in place, and also affords support by stem E for the metal plunger F, which expels air from the container B.

H is a wooden top or cover with central opening for passage of plunger-tip, and also with space cut from its lower face to receive edges of screw-rim I (which is held by screws) and allows upwardly-curved face of plunger F to rest within it when said wooden top, by screw-rim I, is held by threads to the metal cup A, as shown.

The pipe or coupling C has a shouldered end through cup A to within container B, and secures this pipe and container in place when required.

The operation of the device is as follows: It being in place upon a door, desk, or other suitable place, the tip G is pressed upon in the ordinary way by a person's thumb, with the effect that the air in the container B, by collapsion of container, is forced to a desired place, the plunger F returning to its normal position by the elasticity of the rubber of which container B is made, the shape of inside of plunger F allowing the inside fold of container B and head of screw D to fit within it when the plunger is pressed fully downwardly, and thus, with screw D serving two purposes—holding the device in place and supporting plunger F—and the shape of plunger F, adapted to collapse the container and affording storage-room for parts of the apparatus on the inside and holding thumb-tip on the outside of no larger diameter than itself, and yet extending within it, whereby compactness and few parts are maintained, I claim the device as novel over my other patents.

The part of plunger F to receive end of screw may be extended downwardly and used in lieu of stem E.

The cross-plate shown in Fig. 7 may be either of metal or wood, and in shape a disk of larger diameter than cup A; and the screw D may either extend through or within it, for the purposes before mentioned. The center of this plate may also be projecting, to enter a wall or partition, if desired.

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

1. In combination, in an air-pump, a cup, A, an annulus-shaped flexible container, B, held within said cup, a hollow screw, D, and a plunger with stem E, the screw D adapted to support the device in place and guide the plunger in its motions, substantially as and for the purposes set forth.

2. In an air-pump, the combination of cup A, container B, held thereby, plunger F, with a projecting part adapted to hold a thumb-tip and afford room for end of screw D, said screw D, and the thumb-tip G, substantially as and for the purposes set forth.

3. In an air-pump, the combination of metal cup A, with connecting threads, the rubber container B, the plunger F, the wooden top H, with metal screw-rim attached, and a screw, D, adapted to hold the device in place and guide plunger F in its motions, substantially as and for the purposes set forth.

4. In an air-pump, the combination of metal cup A, rubber annulus-shaped container B, held thereby, a plunger with projecting top, a screw adapted to hold the device in place, the top or cover H, with central opening and with its threaded connections, and the coupling C, extending within cup A and container B, and serving as a means to convey air.

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