(No Model.)

R. E. BOORAEM.

MOISTENING DEVICE FOR GUMS, ENVELOPES, &c.

No. 436,822. Patented Sept. 23, 1890.

Fig. 1.

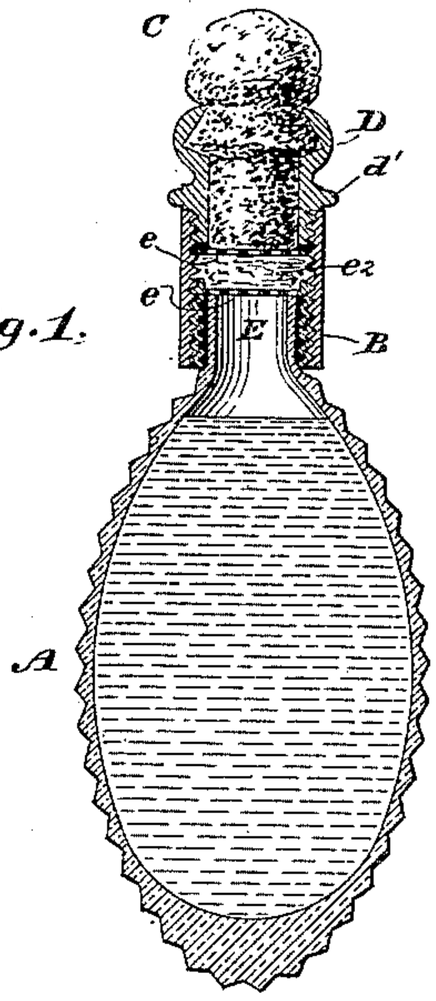


Fig. 4.

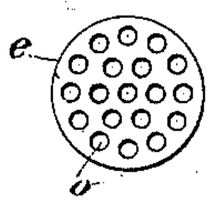


Fig. 3.

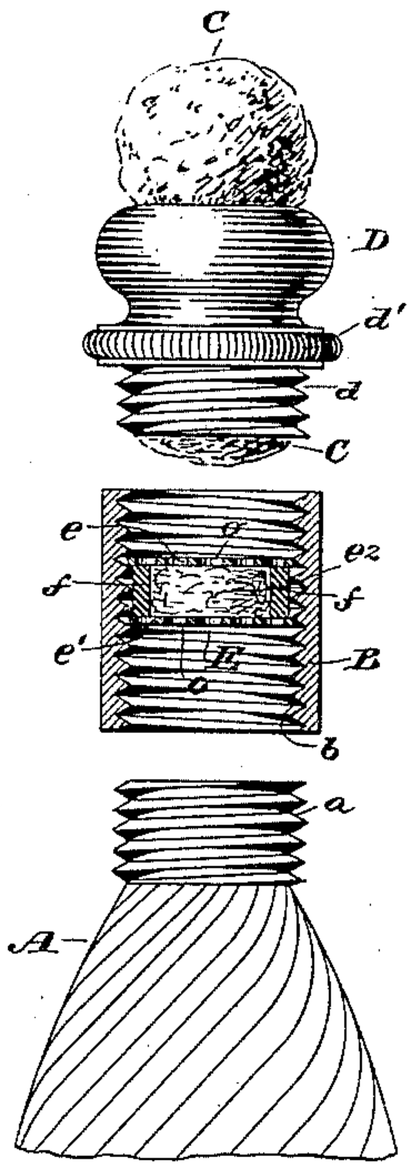
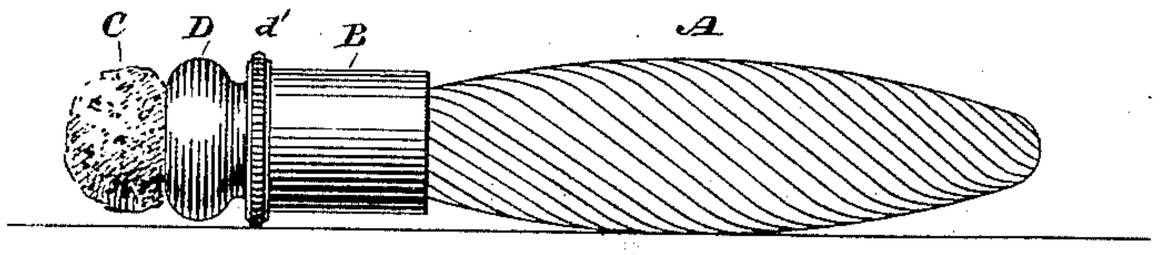


Fig. 2,



Witnesses
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UNITED STATES PATENT OFFICE.

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MOISTENING DEVICE FOR GUMS, ENVELOPES, &c.

SPECIFICATION forming part of Letters Patent No. 436,822, dated September 23, 1890.

Application filed January 2, 1890. Serial No. 335,627. (No model.)

To all whom it may concern:

Be it known that I, ROBERT E. BOORAEM, a citizen of the United States, and a resident of Jersey City, county of Hudson, State of New Jersey, have invented a new and useful Improvement in Devices for Moistening Gums, Envelopes, Postage-Stamps, &c., and other Kindred Uses, of which the following is a specification.

My invention relates to an improvement in devices for moistening gums, envelopes, postage-stamps, &c., and other similar uses; and the object of the same is to provide a receptacle for holding a supply of water or other liquid which may be conveniently kept as a part of the paraphernalia of any writing-desk and in which the supply of liquid for moistening will be constant and readily regulated.

A great number of portable devices have been constructed for the purpose of supplying mucilage, shoe-blacking, water for cleansing slates, &c., through the medium of a brush or a sponge; but in all of these devices there is either no means of controlling the supply of the liquid or else the devices employed are of such a nature as to so diminish the capillary attraction of the particles of moisture at the point of control that the sponge or brush becomes dry when the article is not in use, and when the moisture is again admitted some time elapses before the liquid commences to flow.

The object of my invention, as before stated, is to provide an article in which these objections are obviated, and I accomplish this by making the receptacle or bottle containing the water or liquid of a peculiar shape, and I provide a controlling device or valve in the neck of the bottle which is easily and completely regulated by the hand.

The invention will be best understood by reference to the accompanying sheet of drawings, in which—

Figure 1 is a longitudinal section of the device; Fig. 2, a side view of the same resting upon a flat surface; Fig. 3, an enlarged view of the neck of the bottle, showing the moisture-controlling device; and Fig. 4, a view of a detail of construction.

Similar letters refer to similar parts throughout the several views.

In the drawings, A represents the bottle or vessel for containing the moisture, which may be of any convenient material, shape, or design. In any case it is imperative to so form the bottle upon its base that it cannot be placed on end, for the reason that an absence of water in actual contact with the regulating device will cut off the supply of water to the sponge or brush entirely; and it will also be found desirable to so form the bottle that when laid down it will assume a practically-horizontal position, as shown in Fig. 2, so keeping the water in its interior in constant contact with the regulating-valve.

The neck of the bottle is provided with a screw-threaded sleeve or collar *a*, which may be formed thereon or attached thereto, over which is screwed a hollow sleeve or nipple B, provided on its inner surface with a screw-thread *b*, which sleeve screws over the screw-threaded collar *a*, so making a tight joint.

In the interior of the sleeve B is placed a compression-pad E for regulating and constantly delivering a supply of liquid to the sponge or brush. This pad is composed of two perforated metal disks *e e*, which fit into the interior of the sleeve B, and the lower of these disks rests upon lugs or is rigidly fastened in the sleeve B in any convenient manner. One of these disks is shown in Fig. 4, the perforations, of which there may be any number, being indicated by *o o*.

A moisture-absorbing compression-pad e^2 is placed between the disks, as shown in the views. It may be composed of cotton, flax, felt, sawdust, paper-pulp, cotton waste, rubber, hair, flannel, worsted, sponge, cloth, glass or slag wool, lamp-wick, asbestus, chamois leather, or any other suitable material, or any combination of these or similar materials that will retain moisture.

The vessel is provided with a hollow stopper D, provided with a screw-threaded projection *d* at the base and fitted to screw into the upper end of the sleeve B. The hollow stopper contains a sponge, brush, wick, or other moisture-distributing medium C, through which moisture may be drawn by capillary attraction, which passes through its hollow interior, and is securely fastened and comes in contact with the upper disk of the compression-pad.

The general arrangement of the disk with reference to the sleeve B and the stopper D is shown in Fig. 3, e^2 representing the filling or material, which is compressed. The compression of the pad is effected by screwing down the cap d so that the extremity of the screw-threaded portion of the cap will come in contact with the upper of the two disks forming the pad and so force the same down. In this way, the lower disk being held firmly in the neck of the vessel, the pad will be compressed, and, by compressing the particles of the material composing it, so bringing them into closer contact with each other, lessens its porosity and the supply of moistening medium is gradually cut off.

In certain cases, where a maximum amount of moisture is suddenly required, it may be found desirable to add agencies for causing the two disks to separate by some force other than the mutual expansion of the filling when the pressure of the stopper is relieved by unscrewing, in order that the filling may more readily expand, and so permit the moisture to flow out. In such cases a ring of rubber f may be used, as shown in cross-section in Fig. 3, which ring will be compressed with the filling by the screwing down of the stopper, and when the pressure is removed it will expand and assume its original shape and carry the disk e upward with it, increasing the porosity of the pad and allowing moisture to pass freely. Instead of this rubber ring any other device that will accomplish the same purpose may be used—such as a spiral spring placed between the two disks, or one or more disks of perforated soft rubber as part of the compression-pad. The addition of soft-rubber perforated disks to the moisture compression-pad will have twofold advantages: first, it will serve as a spring to separate or expand the material composing the compression-pad, and, secondly, when the soft-rubber perforated disks are compressed or squeezed the perforations or holes between become closed or partially closed by the protruding rubber, and thus serve to check or partially check, as may be desired, the flow of water moistening the pad, thus becoming a valve or regulator in itself.

The operation of the invention will be apparent from the foregoing description. The bottle portion of the device may be filled with the desired liquid by unscrewing the sleeve B at the lower end from the neck of bottle A. After filling, the sleeve B is screwed down tight and the supply of moisture to the sponge is regulated by turning the cap D. The bottle should be kept upon a flat surface, as shown in Fig. 2, so that the compression-pad shall be kept continually moist, and to prevent the sponge or brush C from conveying moisture to the surface upon which the device rests a flange d', with a milled edge, is provided on the cap D for raising and supporting the same, as shown in Fig. 4.

When it is desired to use the device, it is simply taken in the hand, the cap D is turned so as to allow the compression-pad to expand, and the moisture will then be supplied continuously through the pad to the sponge or brush C and from the sponge or brush to the surface where it is desired.

I claim as my invention—

1. In a device for moistening gums, envelopes, postage-stamps, &c., and other similar uses, the combination, with the moisture-containing receptacle, of a stopper adjustable in its neck, and a compression-pad placed in said neck of the same and arranged to be compressed by the turning of the stopper.

2. In a device for moistening gums, envelopes, postage-stamps, &c., and other similar uses, the combination, with the moisture-containing receptacle, of a compression-pad composed of two perforated disks, combined with a filling, substantially as described, placed in the neck of the receptacle and arranged to be adjusted by the turning of the stopper of the receptacle.

3. In a device for moistening gums, envelopes, postage-stamps, &c., and other similar uses, the combination, with the moisture-containing receptacle, of a compression-pad, substantially as described, placed in the neck of the vessel, and a hollow stopper arranged to screw upon the neck, containing a suitable distributing medium, the inner extremity of which passes through its interior and comes in contact with the compression-pad, so arranged that by screwing the stopper down or up the pad will be compressed or expanded and the supply of moisture regulated or cut off, as may be desired.

4. In a device for moistening gums, envelopes, postage-stamps, &c., and other similar uses, the combination, with the moisture-containing receptacle A, provided with the screw-threaded neck a, of the screw-sleeve B, the compression-pad F in the interior of the sleeve, the hollow screw-stopper D, screwing into the sleeve, and the distributing medium C, passing through the stopper D, for the purposes set forth.

5. In a device for moistening gums, envelopes, postage-stamps, &c., and other similar uses, the combination, with the moisture-containing receptacle having a stopper longitudinally adjustable in its neck, of a compression-pad, substantially as described, arranged to be adjusted by the movement of the stopper, having one or more elastic substances in its interior, for the purposes set forth.

6. In a device for moistening gums, envelopes, postage-stamps, &c., and other similar uses, the combination, with the moisture-containing receptacle having a stopper longitudinally adjustable in its neck, of a compression-pad, substantially as described, arranged to be adjusted by the movement of the stopper, having one or more disks of soft rubber within and forming a part of the same, for the purposes set forth.

7. In a device for moistening gums, envel-

opes, postage-stamps, &c., and other similar uses, the combination, with the moisture-containing receptacle, of a compression-pad placed in the neck of the vessel, composed of two perforated disks containing between them one or more perforated soft-rubber disks, combined with a filling, substantially as described, and arranged to be adjusted by turning the stopper of the receptacle.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 23d day of December, 1889.

ROBERT E. BOORAEM.

Witnesses:
C. H. WARD,
WM. GUEDELHOEFER.