No. 850,814. PATENTED APR. 16, 1907.

G. A. BURDETT.

LIQUID APPLYING DEVICE.

APPLICATION FILED DEC. 9, 1906.

Fig. 1.

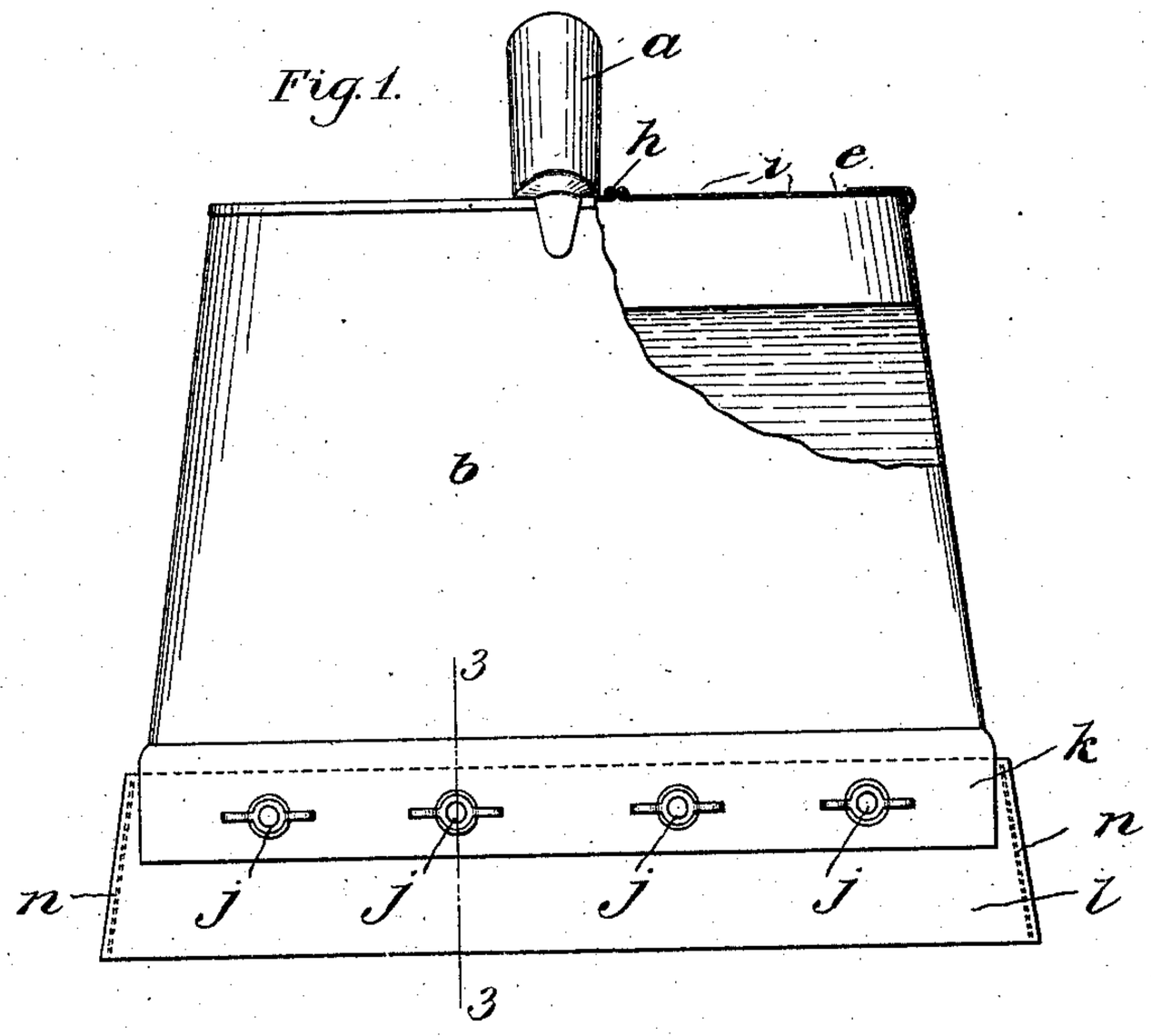


Fig. 2.

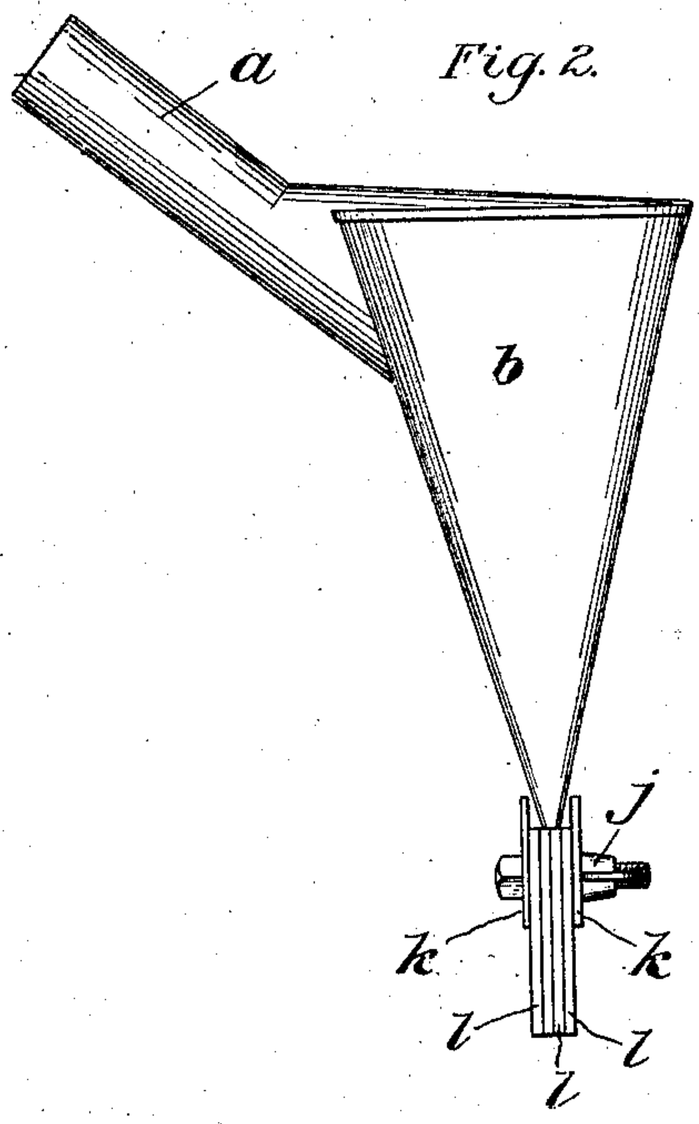
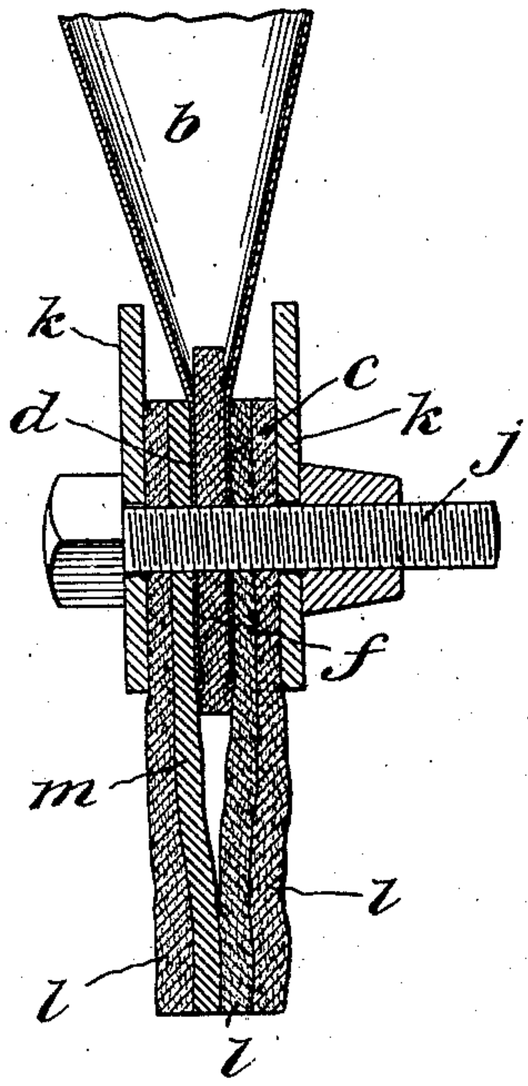


Fig. 3.



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UNITED STATES PATENT OFFICE.

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LIQUID-APPLYING DEVICE.

No. 850,814. Specification of Letters Patent. Patented April 16, 1907.

Application filed December 9, 1905. Serial No. 291,057.

To all whom it may concern:

Be it known that I, GEORGE A. BURDETT, a citizen of the United States, residing at Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented an Improvement in Liquid-Applying Devices, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention relates to devices for applying liquids to surfaces, being more particularly, though not exclusively, intended in the specific embodiment of my invention here illustrated for the application of cleansing fluids to floors or the like.

My invention will be best understood by reference to the following specification when taken in connection with the accompanying illustration of one specific embodiment thereof, while its scope will be best understood from the appended claims.

In the drawings, Figure 1 shows in front elevation, partially broken away, the head of a fountain or reservoir brush embodying one form of my invention. Fig. 2 shows the same in end elevation, and Fig. 3 is an enlarged section taken on the line 3 3 in Fig. 1.

Referring to the drawings and to the specific embodiment of my invention there illustrated, there is provided a head having the socket portion *a*, adapted to receive any suitable handle, (not shown,) and the reservoir or fountain portion *b*. The latter may be of any suitable construction or capacity; but the same here comprises a sheet-metal chamber closed on all sides, but having the front and rear walls *c* and *d*, respectively, converging near the bottom, but having a narrow opening or mouth extending the length of the reservoir, which mouth is closed or obstructed by the strip *f*, preferably of yielding and absorbent material such as felt or the like, past or through which the contained fluid must pass to reach the underlying applying or wiping members.

The reservoir-chamber has its front and rear walls diverging near the top to afford ample fluid capacity and its side walls flared or diverging near the bottom, as shown in Fig. 1, to provide ample wiping-surface. Means for admitting the cleansing fluid within the reservoir is provided by some such device as the cover hinged at *h*, and the cover or top is suitably perforated, as at *i*, to obtain the assistance of atmospheric pressure in maintaining a constant downward feed of the contained liquid while the apparatus is in operation, during which time it is naturally held in a substantially upright position, as in Fig. 2, owing to the inclined relation of the handle-socket to the chamber.

When the apparatus is in use, the cleansing fluid passes out of the mouth of the chamber at a rate which can be delicately adjusted within wide limits by compressing the walls *c* and *d* of the chamber more or less against the intervening strip of felt *f*, this pressure being effected evenly for the entire width of the chamber by a series of clamping-screws *j*, each passing transversely through the chamber-walls and the intervening felt. These screws bear directly against a pair of stiffening-strips *k*, one at the front and the other at the rear of the chamber, and extending down flush to the mouth thereof, by which strips the compression of the screws is evenly distributed upon the chamber-walls and the felt for the entire width of the mouth.

The wiping means here illustrated for applying the fluid fed or discharged from the chamber through its mouth to the floor or other surface to be cleaned comprise one or more relatively broad strips *l*, preferably of some absorbent fibrous and flexible material, such as felt, and one or more strips *m*, (of which one only is shown), preferably of some such material as rubber, which is relatively non-absorbent and as compared with felt stiffer or with more body, while sufficiently resilient and yielding to permit the wipers to perform their moistening functions. These strips may be arranged in any suitable way with reference to the mouth of the reservoir—such, for example, as shown in the drawings, where their upper edges are clamped between the stiffening-strips *k* and the walls of the chamber-mouth, while they extend freely below the mouth for a considerable distance and are divided on each side of the mouth, two felt strips on one side and a felt and a rubber strip on the opposite side. It is preferable, however, that the rubber strip should be placed so as to present a non-absorbent surface to the liquid fed from the chamber and distribute it evenly and regularly to an adjacent absorbent surface. Thus in the illustrated arrangement the rubber strip acts as a

feed-regulator, feeding and distributing the discharged liquid to the felt according to its capacity to absorb the same, the felt in turn applying it evenly to the surface over which it is passed. Without the use of a feeding member of some kind the discharge of the fluid between two absorbent surfaces tends toward too profuse a supply and irregular or uneven work. The side edges of the wiping-strips are preferably fastened, as by the stitching *n*, Fig. 1, to prevent separation. When the felt is saturated, the several strips tend to cling to each other and under use act as a composite flexible wiping-body, with the interior intermediate feeding-passage well protected against clogging and delicately controllable by the adjustment described. The rubber or other like strip employed also gives body to the wiper portion of the device and stiffens it, giving it, in addition to its moistening capacity, a broom-like or scraper action, which materially increases its effectiveness as a floor-cleaner. Moreover, while maintaining it free and flexible to perform its intended function, it prevents the felt or other absorbent material used from bunching up, a fault to which I have found felt wipers when saturated particularly open if unsupported, as by the rubber, with the result not only of affecting the moistening capacity of the wiping part of the brush and shortening its life, but particularly of chocking the feed and rendering it irregular, unreliable, and unsatisfactory.

This apparatus is especially useful in the application of thin or penetrating cleansing solutions which in practice are found to be particularly difficult to feed evenly and regularly to the wiping member, although it may be usefully employed with oils or other fluids and upon surfaces other than floors.

In the device disclosed the thumb-nuts of the clamping-screws may be turned by hand to adjust the feed from reservoir-mouth to the exact degree or rate desired for the work to be accomplished and character of solution employed, while the feed or discharged fluid is distributed to the wiping-strips and by them applied without difficulty to the desired surface in an even and regular manner.

I claim—

1. A liquid-applying device comprising a reservoir having a contracted mouth, a strip of compressible material in said mouth, means for adjustably compressing the walls of said mouth against said interposed material, and wiping members projecting beyond said mouth comprising an absorbent member and a relatively non-absorbent member.

2. A liquid-applying device having a reservoir provided with a contracted elongated mouth portion, wiping-strips of absorbent material secured to the walls of said reservoir to lie beyond the mouth thereof, a strip of elastic and non-absorbent material also lying beyond said mouth and presenting a surface to the outcoming liquid and adjacent an absorbent surface and means for regulating the feed.

3. A liquid-applying device comprising a reservoir having a contracted mouth, a strip of compressible material in said mouth, means for adjustably compressing the walls of said mouth against said interposed material, and wiping members projecting beyond said mouth comprising a plurality of absorbent members and an interposed relatively non-absorbent member.

4. A liquid-applying device comprising a reservoir having a contracted mouth, wiping members projecting beyond said mouth comprising a plurality of absorbent members and an interposed relatively non-absorbent member, and adjustable means to compress the walls of the reservoir-mouth and to clamp the wiping members in position.

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

GEORGE A. BURDETT.

Witnesses:
THOMAS B. BOOTH,
WM. T. ABBOTT.