L. LAVIGNE.

DEVICE FOR APPLYING FLUIDS.

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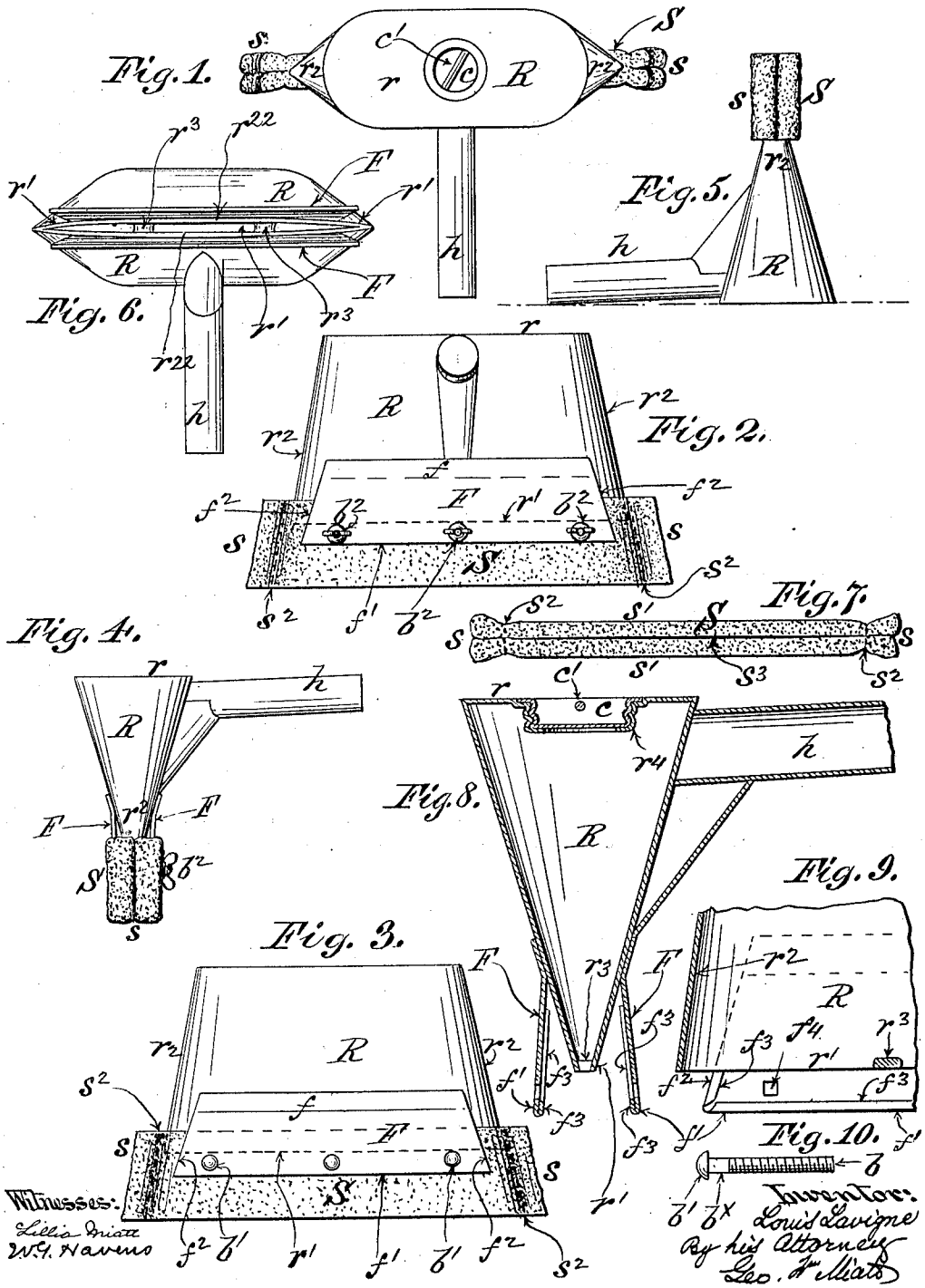
1,048,418. Patented Dec. 24, 1912.



COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

LOUIS LAVIGNE, OF NEW YORK, N. Y.

DEVICE FOR APPLYING FLUIDS.

1,048,418. Specification of Letters Patent. Patented Dec. 24, 1912.

Application filed December 4, 1911. Serial No. 663,927.

To all whom it may concern:

Be it known that I, LOUIS LAVIGNE, a citizen of the United States, residing in the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Devices for Applying Fluids, of which the following is a specification.

My invention relates to the type of fluid distributing devices set forth in Letters Patent No. 567,598 of September 15th, 1896, the object being to improve and perfect the device and render it more effective and convenient in use and application, and particularly to render it adaptable for use for the spreading of oil over surfaces either for lubrication or polish.

The invention consists in the specific arrangement and construction of parts described and claimed, whereby among other results I am enabled to dispense with the clamping strips which are a feature of said Letters Patent, and to simplify and cheapen the structure as a whole.

Another distinctive feature is that my improved structure admits of reversal of the device so that it may rest firmly on the "flat" temporarily when not being actually manipulated, thus rendering it more stable and convenient in use. Another object attained is adapting the device to the spreading of oil or other fluid in corners and other spaces that would be otherwise inaccessible; and in the provision of protruding buffers formed by extensions of the spreading pad whereby injurious contact with extraneous objects is avoided.

In the accompanying drawings, Figure 1, is a top view of my improved liquid spreader; Fig. 2, a rear view of the same; Fig. 3, a front view thereof; Fig. 4, an end elevation; Fig. 5, a similar view, showing the device reversed and resting on the "flat"; Fig. 6, a bottom view of the reservoir &c., the spreader pad being removed; Fig. 7, an edge view of the spreader pad detached; Fig. 8, a transverse central section of the reservoir &c., upon an enlarged scale, the spreader pad and clamps being omitted; Fig. 9, is a sectional detail taken at right angles to Fig. 8; Fig. 10, is a view of one of the clamping screws.

While my improved device is applicable for the spreading or distribution of different liquids for various purposes, I will hereinafter, for convenience describe it as applied to spreading of oil either for the purpose of lubricating or polishing surfaces.

The main peculiarity about the shape of the reservoir R, is that it flares downward and outward longitudinally from the ends of the crown r, to the ends of the elongated nozzle r', as shown more particularly in Figs. 2 and 3, so that the extremities of said nozzle protrude some distance beyond the crown and upper portion of the reservoir. This construction, and the fact that the ends s, s, of the spreader pad S, are made so as to protrude still farther beyond the ends of the nozzle r', enable me to attain convenient access to corners and other spaces and surfaces that would otherwise be inaccessible, and this is an important practical advantage, especially where the device is used for oiling or polishing floors, and for similar purposes. Furthermore the ends s, s, of the spreader pad S, also perform the function of buffers to prevent injurious contact with furniture or other extraneous objects.

The spreader pad S, (Fig. 7) is made of two strips or thicknesses s', s', of felt or other suitable fibrous or absorbent material adapted to act as a vehicle for the transmission and spreading of the oil. These strips are of suitable length, to include the buffing ends s, s, which are cut diagonally to parallel the angle of inclination of the end walls r^2, r^2, of the reservoir R, and are sewed or otherwise secured together, as at s^2, s^2, to create the central longitudinal loop or opening s^3, into which the elongated nozzle r', of the reservoir may be inserted.

The sheet metal side flaps F, F, between which the main portion of the spreader pad S, is clamped in order to hold in position and regulate the flow of oil therethrough, are soldered at their upper edges f, f, as heretofore to the broad sides of the reservoir R. In order to dispense with the clamping strips shown and described in Letters Patent 567,598, heretofore mentioned, I fold over and inward the metal at the free edges f', and f^2, f^2, of the flaps F, F, to form reinforcing strips f^3, which stiffen each flap F, sufficiently to admit of the application of the clamping devices directly thereto without danger of warping or impairing the shape of the said flaps. These stiffeners f^3, are shown in Figs. 8 and 9, and may consist of separate strips soldered in place, although obviously the preferable manner of formation is to bend over and double the thickness

of the metal at the edges as above stated. Thus reinforced the heads b', of the bolts b, and the thumb nuts b^2, may be made to bear directly against outer surfaces of the controlling flaps F, F, as shown in Figs. 2 and 3, thereby simplifying and cheapening the structure, and rendering it more durable and convenient in use. In this connection it is to be noted that I use a screw bolt b, having a square shank $b^\times$, and form one of the flaps F, with square bolt holes f^4, one of which is shown in Fig. 9, thereby securing the bolts against rotation on their longitudinal axes and facilitating the manipulation of the parts in regulating the flow of oil.

In order to attain and maintain a nozzle area of uniform size and shape I reinforce the lips r^{22}, r^{22} of the nozzle r', by means of braces r^3, r^3, situated between the positions assigned to the screw bolts b, b. This prevents the compression of the lips with relation to each other and insures a uniform flow to the spreading pad S, the compression of which latter alone is the proper and most satisfactory method of regulating the flow of the oil to the surface to be treated.

In order that the device may be laid "flat" on its back, or crown when reversed, as shown in Fig. 5, which I find in actual practice to be a great desideratum, I countersink the filling cap c, directly within the crown r, of the reservoir R, as shown more particularly in Fig. 8, of the drawings. That is to say the perforated screw seat r^4, for the reception of the screw cap c, protrudes into the reservoir so that the cap when screwed home is flush with the outer surface of the crown r, and hence allows the crown to rest smoothly and evenly on any flat surface, such at that of the floor or other surface under treatment, or on any other convenient flat support. For this reason the handle h, is attached direct and only to a side of the reservoir, and is arranged at such an inclination with relation thereto (according to its length) as not to interfere with the placing of the device in the reverse position with the crown r, flat and even upon the supporting plane, as clearly illustrated in Fig. 5.

The screw cap c, is formed with a cross bar c', or otherwise provided with means for facilitating its manipulation.

What I claim as my invention and desire to secure by Letters Patent is,

A device of the character designated comprising a reservoir formed with an elongated non-compressible nozzle of greater length than the crown of the reservoir so as to project laterally beyond the same at either end, a spreader pad applied to the nozzle and protruding beyond the end of the nozzle, integrally stiffened controller flaps on the sides of the reservoir engaging directly with said pad, and means for compressing the spreader pad between and by means of said controller flaps, said means passing through said flaps and pad only, independently of the nozzle, and transverse braces interposed between and secured to and reinforcing the side walls of said nozzle, said flaps being extended beyond the discharge end of the nozzle and serving solely for retaining and compressing said flaps.

LOUIS LAVIGNE.

Witnesses:
GEO. WM. MIATT,
LILLIA MIATT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."