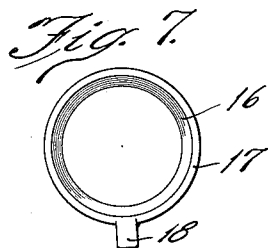
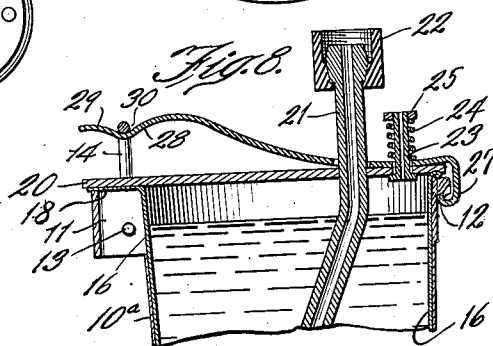
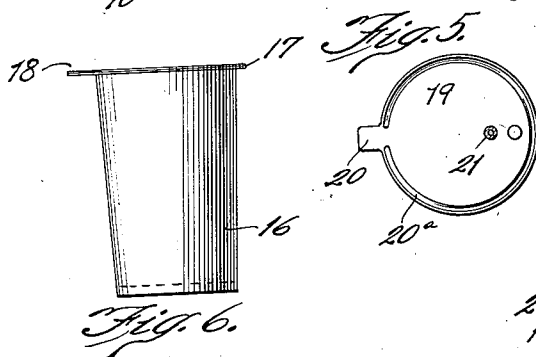
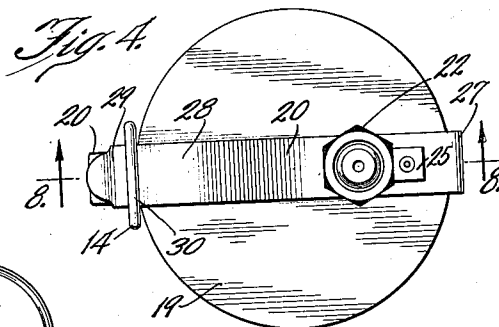
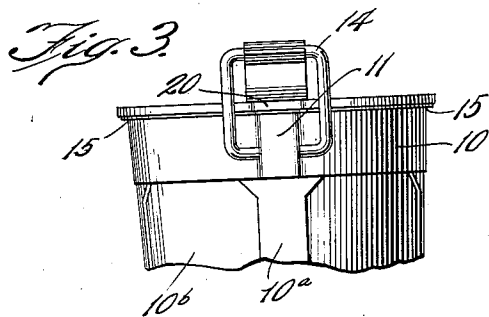
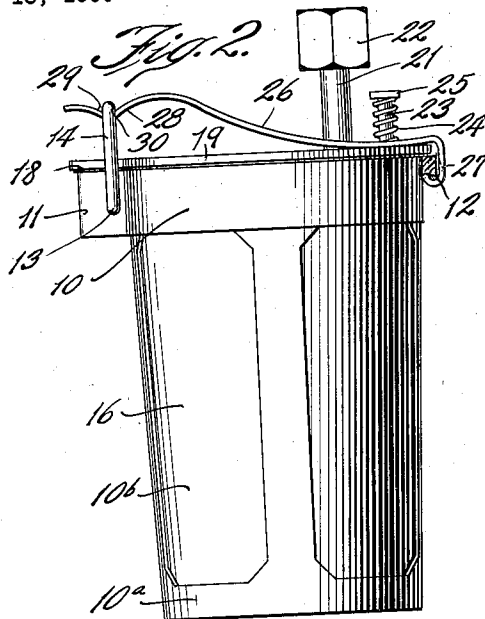
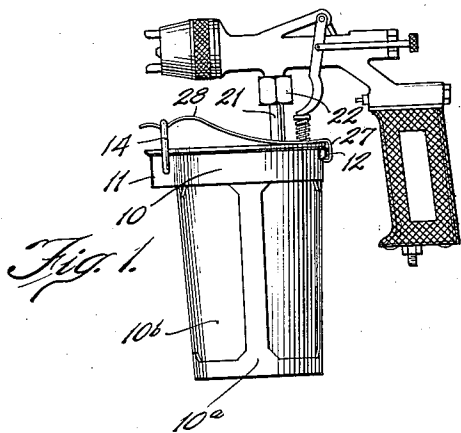


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W. O. GEE, JR
 SPRAY GUN RESERVOIR
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UNITED STATES PATENT OFFICE

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SPRAY GUN RESERVOIR

William Oliver Gee, Jr., Chicago, Ill.

Application February 13, 1933, Serial No. 656,520

6 Claims. (Cl. 299-88)

My invention consists of a reservoir for attachment to atomizers and spraying devices.

Among the primary purposes of my invention are simplicity of structure, great economy of time and service, economy in the material used, rapid replacement of the vital element, and a high grade of practicality in a detachable liquid supply source for an atomizing device such as is commonly known as a spray gun.

In the commonly known line of spraying processes—which are peculiarly illustrated in the decoration of such things as automobiles—it is well known that the liquid used is necessarily exceedingly volatile and when exposed to the atmosphere becomes quickly fixed, wherefore the handling of the same—in preparation for work, and in the care of the vessels used in the process—become matters of constant moment. One of the effects of the types of devices so used is that which is involved in cleaning the parts in the changes of color, as well as the drying incident to a refilling of the vessels used. The standard type of that attachment of the spraying machine which carries the liquid to be sprayed is a metal device which has to be cleaned under processes which involve time and expensive cleaning fluid. My device overcomes these defects, for one of the fundamental characteristics of the present applicant's device is a fluid holder which is so cheap it can readily be thrown away at each emptying and a new vessel of the same character substituted instantly; the type of fluid holder used by the present invention is treated in such a way that the fluid does not attach itself to the container; also in addition thereto the containers are so devised that they can be nested in large quantities so as to occupy very little space and reduce to a minimum the cost of transportation or handling.

I show an embodiment of my device in the accompanying drawing wherein:

Fig. 1 is an elevation of the assemblage in connection with a spray gun.

Fig. 2 is an enlarged detail of the sealing portions of the invention with a protective depending housing.

Fig. 3 is a front elevation, with a portion of the supporting housing cut away.

Fig. 4 is a top plan view of the sealing cover, with attaching members.

Fig. 5 is a plan view of the under surface of the cover showing groove.

Fig. 6 is an elevation of the fluid reservoir, or cup.

Fig. 7 is a plan view of the sealing lip of the cup, with a handle or finger-hold.

Fig. 8 is a cross section along line 8-8 of Fig. 4.

As illustrated, the device in its completeness is devised to be attached by means of a union 22 to an ordinary type of spray gun. The invention consists of a supporting form 10 slightly tapering downward, having a depending basket formation 10a, which may be of either a very thin metal 10b or something in the nature of a wire mesh, which is intended as a protection to the fluid holding vessel. This supporting and basket formation from its lip 15 has the body thereof tapering downward. On what we will term the front side of said supporting member 10 and immediately adjacent to the lip thereof there is provided a lateral projection 11, its upper surface being on a plane with the edge or lip 15 of the supporting member. On the opposite and rear side of the supporting formation 10 and adjacent the lip edge I provide a cleat 12 forming part of a locking arrangement to be hereinafter described. Holes 13 in the member 11 form bearings for a swingingly mounted locking link 14. 16 is a non-metallic container, preferably of a paper or pulp formation, which has been treated to a liquid proof surfacing, and which said container has a flanged rim 17 adapted to be supportingly seated on the lip 15, and extending from a portion of the edge thereof a handle or finger-hold 18 for readily handling the container when inserting it in the seating of the housing or readily removing the said container therefrom—without coming into contact with the fluid used in the said vessel.

19 is a cover formed to close the opening in the container 16 and rest upon the flange of the container seated upon the lip 15 of the supporting member 10, having a portion 20 adapted to register with and cover the portion 11 of the container and the portion 11 of the supporting member and effect a liquid closure of the container. On the under side of 19 a groove 20a is formed partly surrounding the circular contour of the cover and adapted to register with the lip 15 of the supporting member 10 and the flange of the container 16, to seal the said container flange between the cover and the supporting member. Passing through the cover and fixedly assembled therein is a tube 21 for conducting fluid from the container 16 to the spray gun, and slidably mounted on the said tube external of the cover—is a member 22 of a locking unit for attachment to the spray gun and suspending the

applicant's combination therefrom. I provide a vent tube 23 extending through the cover 19 for free passage of air into the container as the liquid is sucked therefrom by the gun. I provide a spring 26 extending across the cover from the rear to the front adapted to have a portion bear upon the cover; and having perforations therein to register with the tube 21 and the vent 23 positioning the spring in operative relation. Mounted on the vent 23 I provide a spring 24 one end bearing on the spring 26 and held in tensional relation to the spring 26 by a nut 25. I provide a bend 27 of the spring 26 and a locking terminal 28 adapted to lock in the cleat 12 on the member 10. Near the opposite terminal of the spring 26 I provide a lip 29 extending above the edge of the cover 19 for purposes of finger pressure in locking and releasing the locking link 14; and at a point spacedly removed from the front end of the spring 26 I provide an indentation 30 for receiving a portion of the link 14 and lockingly holding the said link against removal until the said spring 26 is manually pressed down to release the same.

The great simplicity of the device is manifest in that the cover and its attachments are demountably attachable to any standard spray gun and in the ordinary operation remain as substantially permanent fixtures and easily handled in cleansing the tube and spray gun. The liquid holding vessel 16 is quickly removable from its supporting mounting and disposed of, at which time a new liquid holder is easily and immediately insertible in the housing ready for attachment to the cover; the parts are united simply by sticking the tube into the liquid container and sliding the cover forward when the rear locking member normally takes its place under the cleat, then a simple pressure downward of the spring 26 in its forward portion permits the locking link 14 to be drawn over and snapped into the indentation provided therefor, whereupon the linking of the spring to the housing member immediately draws the cover assembly tight by reason of the pressure of the spring being distributed over the entirety of the cover. This eliminates substantially all cost of material and expenditure of time in cleaning the liquid container, and there is no condition that necessitates any cleaning of the housing member; subserving convenience, economy of material and time, and simplicity of the device in the hands of any user.

I do not limit myself to the detail of parts as shown and described except in so far as I am limited by the scope of my claims.

I claim:

1. In a device of the class described for use with a spray gun comprising a supporting housing consisting of a band having a flanged edge at its larger opening, a cleat adapted to be one member of a locking device formed on an outer face of the band adjacent the flanged edge, an extension formed on the opposite face of the band in which is loosely mounted a locking member, a reservoir having a flanged lip the said reservoir adapted to nest in the said band its flanged lip registering with the flanged edge of the supporting band, a cover having an edge adapted to register with the reservoir flange and form a closure with the reservoir and the band, a tubular channel transversely assembled in the cover having a portion adapted to extend into the reservoir and an opposite extension having terminal means thereon for being lockingly as-

sociated with the spray gun, a resilient member mounted around the outer extension of the tubular member and having means to co-act with the cleat at one end and with the loosely mounted member on the other end to lock the device in a liquid tight closure.

2. In a device of the class described for use with a spraying gun comprising a slightly tapering supporting body having a flanged edge at its larger opening, a cleat adapted to be one member of a locking device formed on a face of the body adjacent the flanged edge, a swingingly mounted loop member mounted on the opposite face of the body, a slightly tapering reservoir having a flanged lip adapted to nest in the said body with its flanged lip registering with the flanged edge of the supporting body, a cover adapted to register with the flanged lip of the reservoir and form a closure with the reservoir and the flanged lip of the body, a conduit thru the cover having a portion extending into the reservoir to a point substantially adjacent to the bottom thereof and a portion extending external of the cover for conducting fluids from the container to the spray gun, a resilient locking means loosely mounted upon the cover surrounding the conduit having means to lock under the cleat at one end and be resiliently locked at the other end by the swingingly mounted member.

3. In a device of the class described for use with a spraying gun comprising a slightly tapering supporting band having a flanged edge at its larger opening, a cleat adapted to be one member of a locking device on an outer face of the band adjacent the flanged edge, an extension formed on the opposite face of the band in which is loosely mounted a swinging locking member, a reservoir slightly tapering having a flanged lip the said reservoir adapted to nest in the said band its flanged lip registering with the flanged edge of the supporting housing, a cover having an edge adapted to register with the reservoir flange and form a closure of the cover the reservoir and the band, a tubular channel transversely assembled in the cover having a portion adapted to extend into the reservoir and an opposite extension having terminal means thereon for being lockingly associated with the spray gun, a resilient locking member mounted around the outer extension of the tubular member and having means to co-act with the cleat at one end and with the loosely mounted member on the other end to lock the device in a liquid tight closure, a tube seated in the disc forming a vent opening into the reservoir having a tension means thereon to co-act with the locking means.

4. In a device for the purposes described for use with a spraying gun comprising a cup slightly tapered having its lip outwardly flanged demountably seated in a slightly tapering housing support having a flanged lip to register with the lip of the cup, a cover for the said housing support consisting of a disc adapted to register with and be seated upon the flanged lip of the cup and form a sealed connection, a cleat adapted to form one member of a locking means formed on one outside wall of the housing support and a loosely hung loop forming a corresponding locking member on the opposite side of the supporting housing, a flat spring member resting upon the cover having one end adapted to lock under the cleat and be resiliently locked with the loosely hung loop at the other end, a tube extending thru the cover whereby to conduct fluid from the cup to the spraying gun there being means to attach the

said tube to the spraying gun, a vent means extending thru the cover.

5. In a device of the class described for use with a spraying gun comprising a circular body having its upper edge outwardly flanged, a cleat adapted to be one member of a locking device on one side of the upright portion, at an opposite point on the upright portion a looped extension the said looped extension having means for sustaining a loosely hung locking member, the upper edge of the said looped extension being parallel with the flanged edge of the body, a cover for the said body comprising a disc with a lip adapted to register with the flange of the body and the loop extension thereon, there being a tube fixedly seated in the said cover having an extension downward for insertion in a receptacle, and an upward extension adapted to be connected with a spray gun, a vent tube in the disc providing a means of air current, a flat spring member superimposed upon the disc having transverse thereof two apertures one of which is adapted to be loosely mounted on the tube forming the line of liquid flow thru the disc and the other being adapted to register with the vent tube, a coiled spring mounted on the vent tube held in tensional position against the flat spring, the spring mounted upon the disc having at one end thereof a U-turned portion adapted to contact with the cleat upon the band and form an anchorage for the flat spring the loosely hung locking member upon the looped portion being adapted to swing

upward and contact with the end of the spring opposite the anchorage end of the spring for tensionally locking the cover to the supporting body, a cup receptacle having a flanged edge to register with the flanged edge of the body and a lip extension to register with the upper edge of the loop portion adapted to be demountably seated in the body.

6. In a device of the class described for use with a spraying gun comprising a housing substantially circular in formation adapted to nest a cup, a demountable cup formed to be nestingly seated in the said housing, the body of said housing and said cup each being registeringly tapering, an outwardly extending flange upon the rim of said housing and an outwardly extending flange upon the rim of said cup adapted to register therewith, a demountable cover comprising a unit consisting of a closure member adapted to register on the flange of the cup above the flange of the housing and a resilient locking member; said cover having a conduit transversely therethrough, there being a portion adapted to extend into the cup and a portion extending outside of the cover; a fixed means an adjustable means upon diametrically opposed external sides of the housing adapted to form parts of a locking means adapted to cooperate with the resilient member on the cover for tensionally locking the demountable cover assembly to the housing.

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