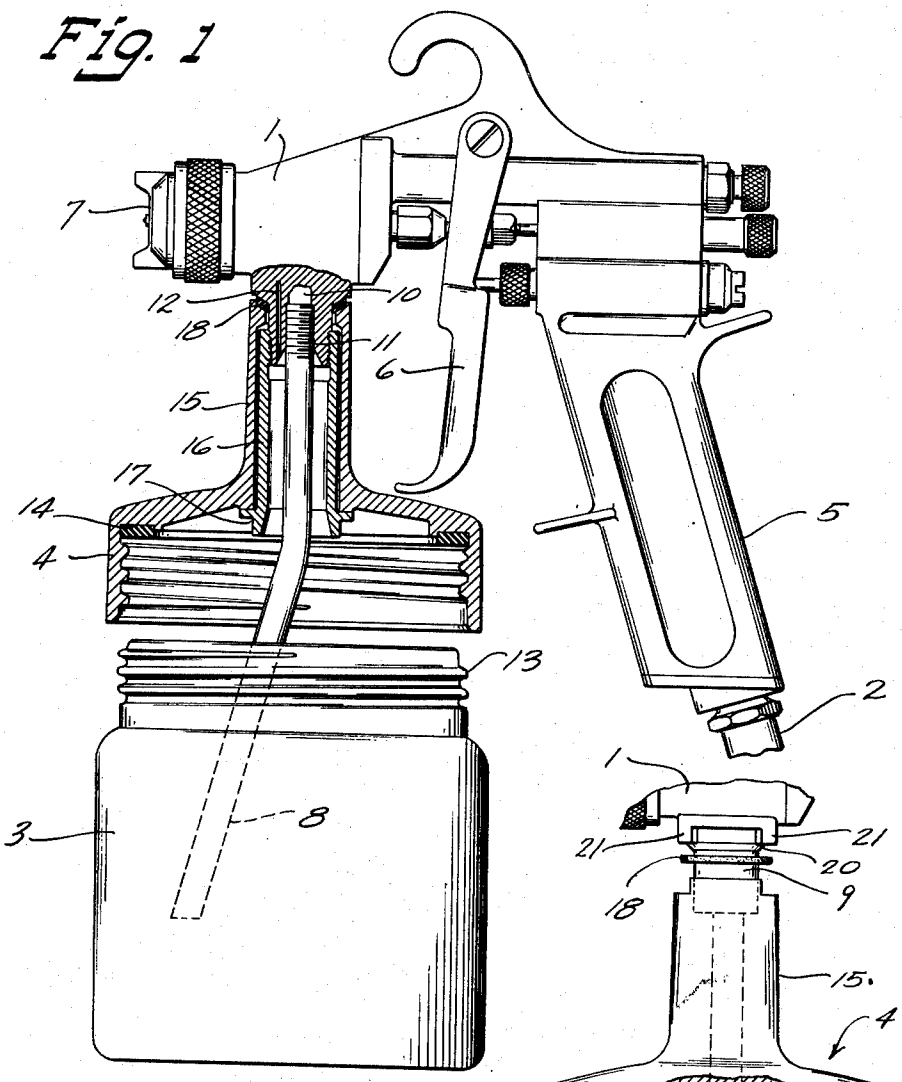
Sept. 9, 1952 M. B. DEUTSCH 2,610,091

AIR-PRESSURE OPERATED PAINT SPRAY GUN

Filed March 10, 1950

Fig. 1



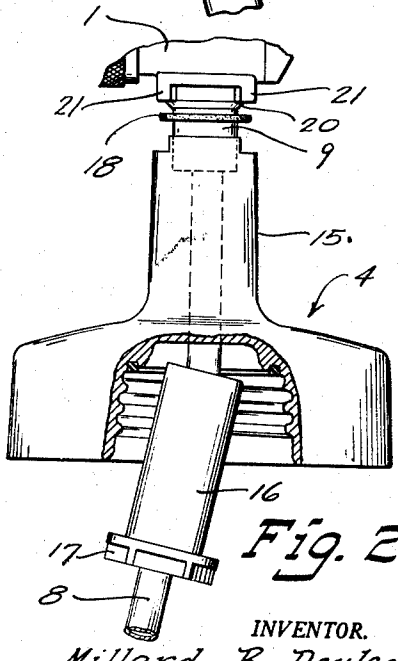
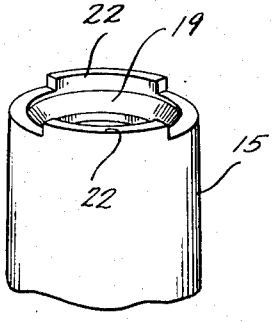


Fig. 2

Fig. 3



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AIR-PRESSURE OPERATED PAINT SPRAY GUN

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2 Claims. (Cl. 299—88)

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This invention relates to air-pressure operated paint spray guns and more particularly to the locking and assembly means securing the paint container cover to the body of the gun.

The invention provides unobtrusive interlocking means between the container cover and the spray gun fixing the same against relative rotation so as to facilitate securing of the same together by other screw means.

A principal object of the invention is to provide better, safer, easier and more positive means of securing the container cover to the gun body.

A more particular object is to prevent improper securing of the container cover and gun.

A further object is to secure the container against unintended loosening or becoming disconnected from the gun.

Another object is to provide a locking means which is not subject to breakage and is not obstructive or does not project so as to interfere with the use of other paint supply means also attachable to the gun body.

Another object is to control the seal of the joint between the container cover and gun to prevent use of the gun except when properly assembled.

These and other objects and advantages will be more fully set forth in the following description of a preferred embodiment of the invention as illustrated in the accompanying drawing.

In the drawing:

Figure 1 is a side elevation of a spray gun and container with portions thereof broken away and sectioned to show the construction thereof;

Fig. 2 is a view similar to Fig. 1 showing portions of the disassembled gun and paint container cover and with portions of the latter broken away and sectioned; and

Fig. 3 is a perspective view of the upper end of the neck of the paint container cover showing the locking lugs adapted to engage corresponding abutments formed by recesses in the body of the gun.

The spray gun shown in the drawing comprises the cast gun body 1 adapted to be connected to the air supply hose 2 and the paint container 3 provided with the cover 4 which is supported by connection, as will be described, to the underside of the gun body.

The gun body 1 includes the handle 5 which may be cast integrally therewith and is fitted with a series of valves, not shown, operated by the trigger-finger lever 6 to control the delivery of paint and air supply to the nozzle 7 at the front of the gun. The dip tube 8 extends from

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the shank 9 of the gun through cover 4 into container 3 and provides for the delivery of paint to the nozzle.

The shank 9 is formed integrally with the gun body and is provided with the central passage 10 which communicates with nozzle 7. Passage 10 is threaded as at 11 to receive and support the dip tube 8 which is removable when desired, to allow connection of a paint supply hose, not shown.

Delivery of the paint from container 3 through tube 8 and passage 10 to nozzle 7 may be effected by atmospheric pressure or by the pressure of air controlled by one of the valves and introduced into the container through the passage 12 in shank 9 alongside passage 10.

Container 3 is preferably a flat-bottomed, wide-mouthed vessel provided with the threads 13 at its upper open end and disposed to fit within the threaded cylindrical body of cover 4 and engage the inner seal 14 carried by cover 4.

The neck 15 of cover 4 is adapted at its upper end to fit shank 9 of the gun and to receive inside from the lower end the threaded coupling 16 engaging the threaded end of the shank projecting into the neck. Coupling 16 is tubular to accommodate dip tube 8 and includes the hexagonal head 17 at its lower end which upon tightening of the coupling, as by turning the same with a wrench, not shown, engages the underside of cover 4 to draw the cover up tightly against the underside of gun body 1.

The ring seal 18 around shank 9 is disposed between the upper conically shaped annular face 19 of neck 15 and the opposite face 20 of the underside of gun body 1 and is engaged therebetween to provide an air-tight seal of the assembled container.

According to the invention the complementary abutments 21 are formed in the body 1 of the gun and are spaced to receive the lugs 22 extending circumferentially of seal 18. Lugs 22 are formed integrally with neck 15 of cover 4, and project to engage the corresponding abutments to secure the gun body and cover against any rotation as in tightening coupling 16, described above or in tightening or loosening container 3 by turning in cover 4. Lugs 22 also project to engage endwise the gunbody 1 when not properly disposed, as described above, and prevent cover 4 from being tightened against seal 18.

Seal 18 is protected by lugs 22 against damage as in relative turning of cover 4 and gun body 1 particularly when tightly disposed between faces 19 and 20.

The lugs 22 are carried by container cover 4 so that upon removal of the cover the threaded shank 9 is completely unobstructed. With the removal also of tube 8, other paint supply means such as a hose, not shown, receiving a supply of paint under pressure may be attached to shank 9 and tightened without interference.

The invention provides positive interlocking of the container cover and gun body and allows the unit to be secured by the gun in assembly. The lugs prevent accidental loosening of the cover as in securing the container in the cover or otherwise which could result in the complete release of the container and cover and also prevent use of the gun until the container is properly assembled.

Various embodiments of the invention may be employed within the scope of the accompanying claims.

I claim:

1. In a paint spray gun, a gun body having a threaded tubular member for carrying a paint supply container and having a shoulder at the base of said member, a paint supply container, a cover for said container threaded thereon and adapted to fit over said tubular member, means threaded to said tubular member from inside said container for clamping said cover against said shoulder, a gasket disposed to seal between said cover and shoulder, and interlocking means between said cover and the base of said tubular member and adjacent the outer edge of said gasket to prevent relative turning movement of said cover and gun body during tightening and loosening of said seal and to prevent loosening of said threaded means during threading and unthreading of said container and cover.

2. In a paint spray gun, a gun body having a threaded tubular member for carrying a paint supply container and having a shoulder at the base of said member, a paint supply container, a cover for said container threaded thereon and adapted to fit over said tubular member, means threaded to said tubular member from inside said container for clamping said cover against said shoulder, a gasket disposed to seal between said cover and shoulder, and interlocking abutments between said cover and the base of said tubular member formed by alternately disposed complementary projections of each which serve to enclose and protect said gasket and to prevent relative turning movement of said cover and gun body during tightening and loosening of said seal and to prevent loosening of said threaded means during threading and unthreading of said container and cover.

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