

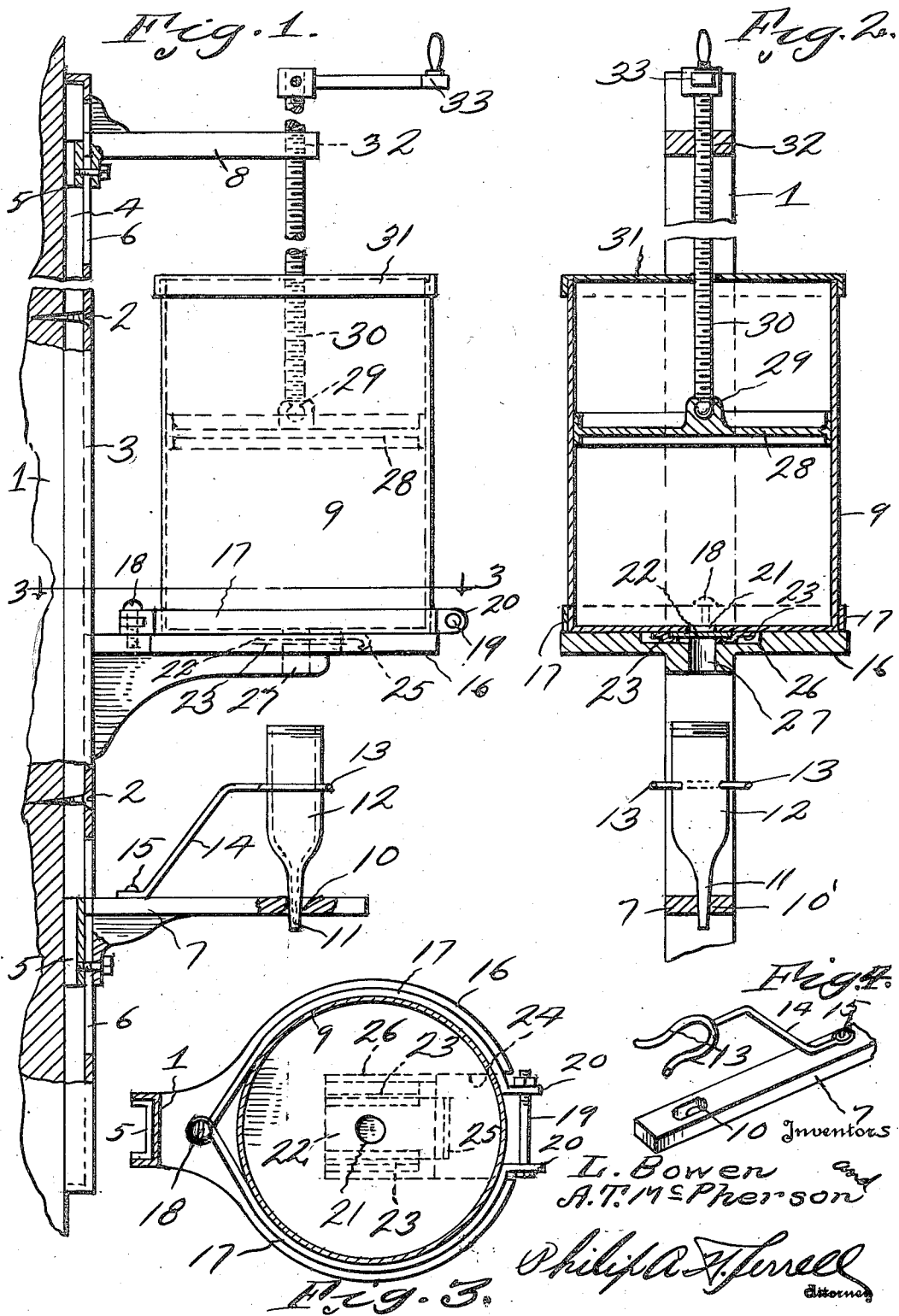
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GREASE GUN FILLING MACHINE

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GREASE GUN FILLING MACHINE

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7 Claims. (Cl. 226—125)

The invention relates to grease gun filling machines, and has for its object to provide a device of this character comprising a bracket adapted to be attached to a support and having thereon a receptacle from which grease is forced downwardly through a discharge port into the chamber of a grease gun supported in a vertical position below the receptacle.

A further object is to provide the bracket with a receptacle shelf on which the receptacle is supported in close engagement therewith and a separable flexible strap anchored to the shelf at one side thereof and extending around the receptacle and forming means for gripping the receptacle and holding the same on the shelf, during the operation of the device.

A further object is to provide the lower end of the receptacle with a discharge opening registering with a discharge opening extending through the shelf and a slidable closure on the outside of the receptacle for closing the discharge aperture therein and disposed in a chamber in the upper side of the shelf.

A further object is to provide a recess in the forward side of the shelf in communication with the chamber of the shelf thereby allowing access to the slidable closure for the receptacle for opening and closing the same.

A further object is to provide a grease gun supporting bracket beneath the receptacle and held in axial relation with the axis of the receptacle and the discharge opening by a member mounted on the bracket and having spring gripping arms between which the body of the grease gun is forced. Also to provide a supporting aperture in the bracket for the discharge spout of the gun and shaped whereby the discharge spout will be received therein and will pivotally move as the gun body is forced between the spring arm.

A further object is to provide means whereby the gun supporting bracket may be adjusted towards and away from the receptacle and a screw actuated piston within the receptacle for forcing the contents from the receptacle as desired.

With the above and other objects in view the invention resides in the combination and arrangement of parts as hereinafter set forth, shown in the drawing, described and claimed, it being understood that changes in the precise embodiment of the invention may be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawing:

Figure 1 is a side elevation of the device with

parts of the bracket broken away to better show the structure.

Figure 2 is a vertical transverse sectional view through the device.

Figure 3 is a horizontal sectional view taken on line 3—3 of Figure 1.

Figure 4 is a detail perspective view of a portion of the grease gun supporting bracket and the gripping member carried thereby.

Referring to the drawing, the numeral 1 designates a support which may be a post or the side of a building, and secured to said support by means of screws 2 is a chambered bracket 3 in the chamber 4 of which is slidably mounted U-shaped members 5, to which are secured through vertical slots 6 in the chambered member 3 the gun supporting bracket 7 and the piston shaft bracket 8. It will be noted by this structure that these brackets may be adjusted upwardly or downwardly as desired according to the size of grease receptacle 9 being used.

The lower bracket 7 is provided adjacent its outer end with a downwardly and inwardly inclined aperture 10, which extends entirely through, and which aperture receives the spout 11 of the grease gun 12 in a manner whereby as the grease gun is moved upwardly and inwardly to the vertical position shown in Figure 1, it will be forced between the spring gripping arms 13 of the gun holding bracket 14, which is preferably formed from spring material and inclines downwardly and inwardly, and is anchored at 15 to the bracket 7. It will be noted that the gun 12 is supported in a vertical axial position in relation to the receptacle 9 with its upper end open so that grease discharged from the receptacle 9 will enter the gun for recharging purposes. By adjustably mounting the bracket 7, it will be noted that different size grease guns may be filled, as said grease guns vary in length.

Extending outwardly from the chambered member 3 is a substantially circular horizontally disposed shelf 16 which supports the receptacle 9 with the lower end of said receptacle in close engagement with the shelf. To hold the lower end of the receptacle 9 in position segmentally shaped flexible straps 17 are provided which arch the opposite sides of the receptacle at its lower end and which straps are pivoted together at 18 and also are pivotally connected to the shelf at said point. The forward ends of the segmentally shaped straps 17 are connected together by a transversely disposed bolt 19, which extends through the ears 20 carried by the straps, hence it will be seen there is a positive gripping opera-

tion. By providing flexible straps different size containers may be gripped if desired.

The lower end of the receptacle 9 is provided with a discharge opening 21, which is normally closed by a slide closure 22 mounted in guides 23, and which closure is adapted to be opened by the operator at the start of a discharge operation and be closed at the end of the discharge operation, thereby cutting off the flow of grease from the receptacle to the grease gun 12. The forward end of the shelf 16 is provided with a recess 24, which allows access to the flanged forward end portion 25 of the closure 22, however said recess 24 merges into a chamber 26 in the upper side of the shelf 16, in the bottom of which is provided a discharge aperture 27, which is in axial relation to the discharge port 21 in the bottom of the receptacle, and the axis of the grease gun 12 to be filled. It will be noted that the guides 23 fit closely in the bottom of the recess 26, so that said recess will not fill with lubricant during a filling operation.

Grease is forced from the grease receptacle 9 by means of a piston 28 slidably mounted therein, and which piston has pivotally connected at 29 to the upper side thereof a threaded shaft 30, which extends upwardly through the receptacle cover 31, which may be raised for refilling purposes along with the piston, and is threaded at 32 through the upper adjustable bracket 8 and terminates in a crank 33 adapted to be grasped by the operator for forcing the piston 28 downwardly or upwardly as desired.

From the above it will be seen that a grease gun filling machine is provided which is simple in construction, the parts reduced to a minimum, and one wherein a grease gun is supported in a vertical position beneath a grease receptacle for filling purposes. It will also be seen that the lower end of the receptacle is positively gripped by the straps 17 and that the slidable closure carried by the lower end of the receptacle is received in a chamber in the upper side of the shelf through which the discharged grease is forced. The device is particularly adapted for use in connection with garages, however it is to be understood it is applicable for general use if desired.

The invention having been set forth what is claimed as new and useful is:

1. A grease gun filling machine comprising a bracket, a grease receiving receptacle entirely supported on the upper side of said bracket, means for forcing grease from said receptacle, means carried by the bracket and gripping the receptacle adjacent the lower end of the receptacle and the upper side of the bracket and means for supporting a grease gun in a position where the grease forced from the receptacle will enter the grease gun.

2. The combination with a grease gun filling machine comprising a receptacle from the lower end of which grease is forced through a discharge port, of means for supporting a grease gun in axial relation to the discharge port, said means comprising a bracket beneath the receptacle and having a grease gun receiving aperture therein

in axial relation to the discharge port of the receptacle, and spring gripping arms carried by the bracket and spaced above the bracket and adapted to grip opposite sides of a grease gun and maintain the same in axial relation to the discharge port of the receptacle.

3. A grease gun filling machine comprising a bracket, a shelf carried by said bracket, a grease receiving receptacle mounted on said shelf, means for forcing grease from said receptacle in a downward direction through a port in the shelf, means for supporting a grease gun beneath said port and a separable flexible strap surrounding and gripping the lower end of the receptacle and anchored to the shelf.

4. A device as set forth in claim 3 including a hinged connection between the parts of the separable flexible strap and located to one side of the receptacle and securing means connecting the free ends of said strap.

5. A device as set forth in claim 3 including a slidable closure carried by the lower end of the receptacle and disposed in a chamber in the shelf, said chamber terminating in a recess in the forward end of the shelf into which the closure extends, thereby allowing access to the closure for opening and closing the same.

6. A grease gun filling machine comprising a bracket adapted to be attached to a support, a horizontal shelf carried by said bracket, a grease receiving receptacle mounted on said shelf, the lower end of said receptacle being in close engagement with the shelf, a discharge port closure slidably mounted on the lower end of the receptacle and within a chamber of the shelf, a gripping member mounted on the shelf and encircling the lower end of the receptacle and positively anchoring said receptacle to the shelf, a piston slidably mounted in the receptacle and adapted to be forced downwardly for forcing grease from the receptacle, an operating screw for said piston, an adjustable bracket through which said operating screw extends, a discharge port extending through the shelf in axial relation to the discharge port in the bottom of the receptacle, a grease gun supporting bracket beneath the receptacle, gripping means carried by the bracket for supporting said grease gun and means whereby said grease gun bracket may be adjusted upwardly and downwardly.

7. The combination with a grease gun filling machine from which grease is forced downwardly into a vertically supported grease gun, of means for supporting said grease gun, said means comprising a bracket, a downwardly and inwardly inclined grease gun spout receiving aperture extending through said bracket and in which said grease gun spout will engage opposite sides of the aperture when moved to a vertical position and a member carried by said bracket and adapted to grip opposite sides of the grease gun above the bracket and maintain the same in a vertical position.

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