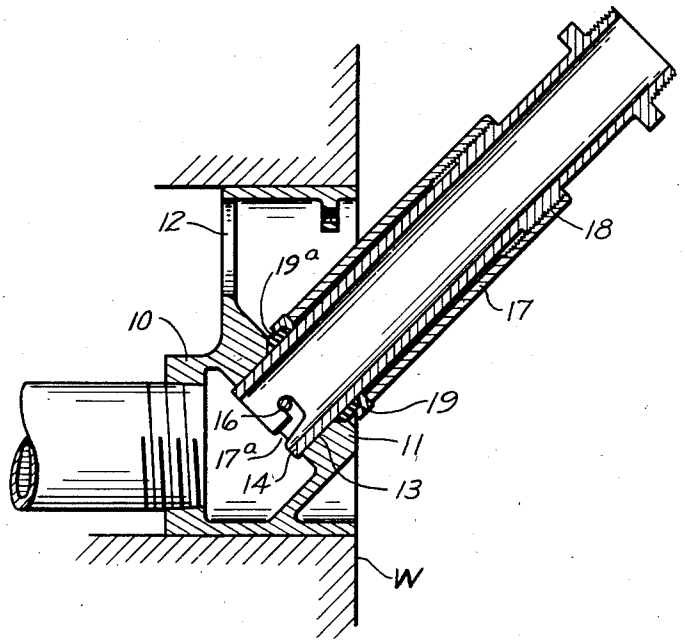
Sept. 28, 1954 R. W. ANSTINE 2,690,345

BAYONET TYPE CONNECTOR FOR TANK FILLING LINES

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FIG. 1



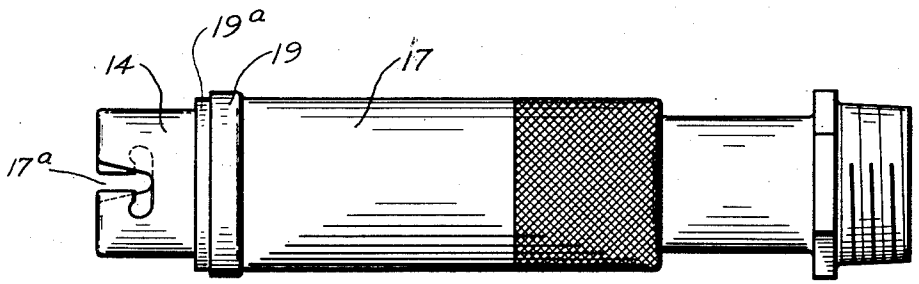


FIG. 3

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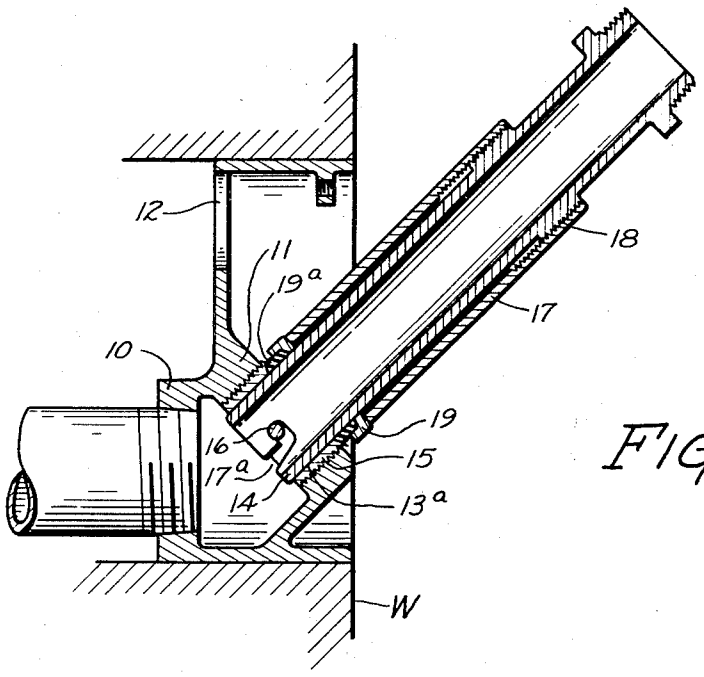


FIG. 2

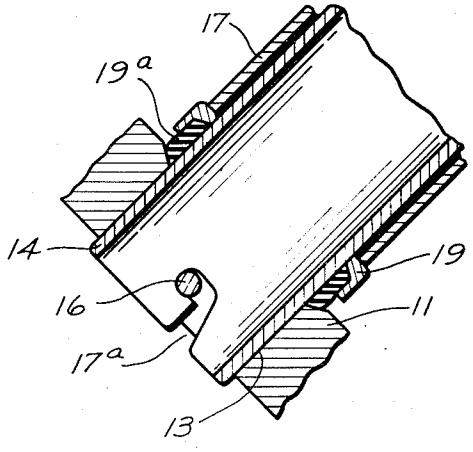


FIG. 4

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UNITED STATES PATENT OFFICE

2,690,345

BAYONET TYPE CONNECTOR FOR TANK FILLING LINES

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Application August 30, 1950, Serial No. 182,262

2 Claims. (Cl. 285—27)

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This invention relates to a connector for tank filling lines and more specifically to a means for providing a leak proof and quickly attachable connection between the discharge lines of delivery tank trucks and the customer's tank filling fitting.

An important object of the invention is to provide a device of this character which may be readily adapted to the present discharge lines and customer's fitting.

Another object of the invention is the provision of novel and improved sealing means for the connection which may be readily and cheaply produced, which may be readily incorporated in the standard filling nozzle and which may be readily and rapidly operated to effect a tight seal.

These and other objects I attain by the construction shown in the accompanying drawings wherein for the purpose of illustration I have shown a preferred embodiment of my invention and wherein:

Figure 1 is a vertical sectional view through a connector constructed in accordance with my invention wherein the customer's fitting is constructed as an element of the connector;

Figure 2 is a similar view showing a construction where the customer's fitting is adapted for use with the remaining elements of the coupling;

Figure 3 is an elevation of element of the connector which is attached to the truck discharge line, and

Figure 4 is an enlarged detail sectional view illustrating the seal between the elements of the connector.

Referring now more particularly to the drawings the numeral 10 designates a customer's fitting of the type generally referred to as a flush box. These usually contain an inlet for fuel oil indicated at 11 and an adaptation for an outlet 12 for air and fumes displaced from the customer's tank (not shown). In the usual construction (see Figure 2) the inlet 11 is threaded for the reception of a nipple (not shown) which receives the nozzle. In such usual construction if the threads of the inlet become worn or if the fuel oil is introduced at a rate building up back pressure, oil leakage results and stains are formed on the wall W in which the customer's fitting is built or inserted.

In accordance with my invention the inlet 11 is provided with a smooth bore 13 snugly receiving the tube 14 forming the supply line terminal. In the preferred form this bore is formed in the fitting and in the converted form, where the inlet 11*a* is internally threaded for the reception of the nipple referred to above, is provided by means of

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a nipple 15 in which the bore 13*a* is formed. In either case the bore 13 or 13*a* is traversed by a pin 16 forming one element of a bayonet joint the other element of which is provided by forming inverted L-shaped slots in the 17ª in the lower end of tube 14. In the case of nipple 15, the pin 16 is located entirely within the periphery of the nipple.

A sleeve 17 surrounds tube 14 and is longitudinally adjustably connected thereto by coacting threads as at 18. Mounted on the tube 14 between the slotted end thereof and the end of sleeve 17 is a metal compression ring 19, L-shaped in cross section to provide a chamfer and having one leg of the L facing the end of the sleeve 17 and the other paralleling the tube 14. A relatively soft elastic packing ring 19ª of material such as "neoprene" is mounted in the cavity thus formed and is adapted for engagement with the outer end of inlet 11 which as shown forms an inwardly bevelled socket in which the packing element is, under pressure of compression ring 19, which ring in turn is pressed onto the packing by the lower edge of sleeve 17, whereby sleeve 17 is caused to crowd inwardly against tube 14 effectually sealing the connection against the escape of gases or liquids. The packing element 19ª, being readily compressed, will ordinarily be sufficiently compressed in effecting the coupling to provide a seal without adjustment of the sleeve.

It will be obvious that the constructions shown are purely illustrative and that an adaptor nipple 15 such as shown in Figure 2 may be employed in conjunction with any form of customer's inlet fitting. Since the construction is capable of other modification I do not wish to be understood as limiting myself to those shown and described except as hereinafter claimed.

I claim:

1. A connector for use in filling an oil tank in a building, comprising a flush box adapted to be set into a suitable opening in the wall of a building with its front face flush therewith, said flush box being provided with an outlet adapted to be connected to the oil tank, said flush box being further provided with a relatively thick inlet member angularly disposed with its upper part positioned inwardly from the outer face of said flush box, said inlet member having an inlet opening the axis of which is perpendicular to the outer surface of said inlet member, whereby the axis of said inlet opening extends angularly upwardly away from the building, a transversely extending pin located in said inlet opening, and a straight nozzle member having a straight tubular end portion

provided with a bayonet slot in its lower end for detachable engagement wtih said transverse pin, said nozzle member having a rotatable operating sleeve surrounding the major portion of said straight portion of said nozzle member and threadably engageable only with the outer part of said straight portion of the nozzle, a compression ring carried near the lower end of the nozzle and surrounding the nozzle, and an annular packing surrounding said nozzle and positioned adjacent said compression ring, the lower edge of said operating sleeve acting to force said compression ring against said packing to form a seal when said sleeve is rotated, the outer end of said sleeve when in operative position extending substantially upward and outward beyond the front face of said box, whereby it may be engaged readily by the hand of an operator.

2. The combination as set forth in claim 1, wherein said inlet opening in the inlet member is formed by a bushing threadably secured in said inlet member and wherein said transverse pin is

located entirely within the periphery of said bushing.

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