

April 6, 1926.

F. M. STRECKER

1,579,672

CLOSURE

Filed May 19, 1925

Fig-1

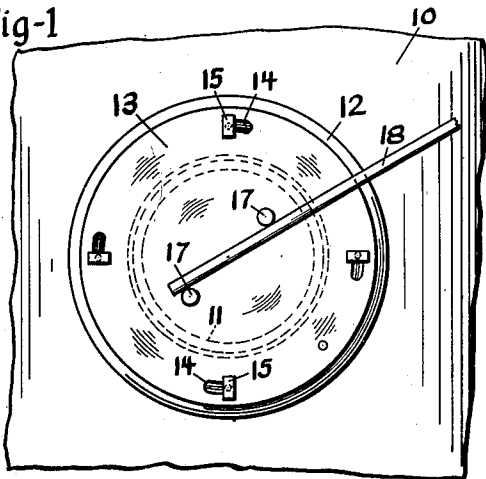


Fig-2

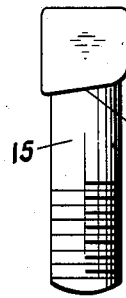
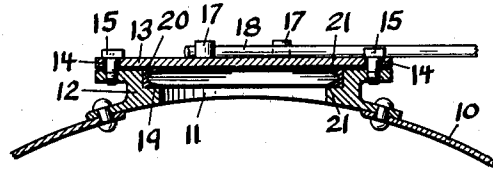


Fig-2<sup>a</sup>

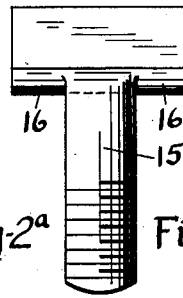


Fig-2<sup>b</sup>

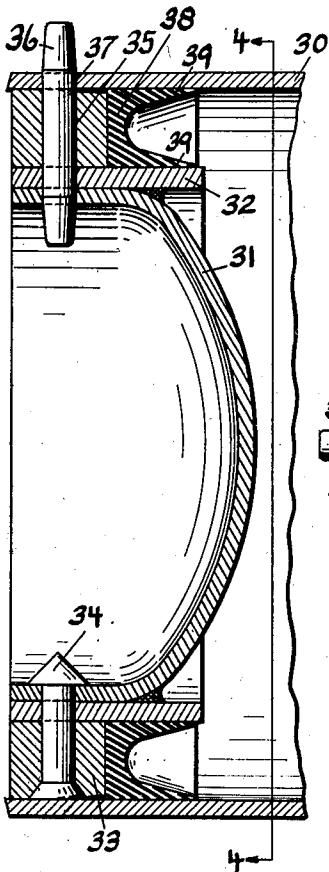


Fig-3

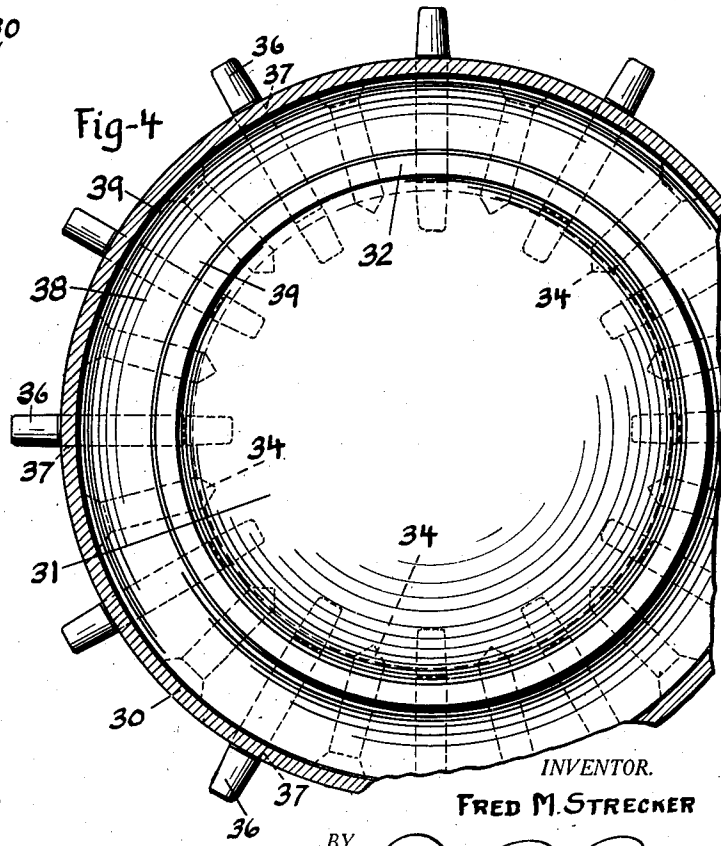


Fig-4

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1,579,672

# UNITED STATES PATENT OFFICE.

FRED M. STRECKER, OF AKRON, OHIO.

## CLOSURE.

Application filed May 19, 1925. Serial No. 31,346.

*To all whom it may concern:*

Be it known that I, FRED M. STRECKER, a citizen of the United States, and a resident of Akron, county of Summit, and State of Ohio, have invented certain new and useful Improvements in Closures, of which the following is a specification.

This invention relates to quick-acting closures and particularly closures for pressure containers of a loose or boltless type.

The chief object of the invention is to provide in combination, a closure of the kind described above and a packing adapted to be expanded by the pressure medium to maintain the container pressure-tight regardless of the looseness of the closure.

The foregoing and ancillary objects will appear as the following brief descriptions are read in connection with the accompanying drawings illustrating two applications of the principle of the invention. It is to be understood that the invention is not limited to the specific construction shown and described.

Of the accompanying drawings:

Figure 1 is a plan and Figure 2 a section through a portion of a pressure container illustrating a closure therefor constructed in accordance with applicant's invention.

Figure 2<sup>a</sup> is a side elevation of bolt used in the closure of Figures 1 and 2 and Figure 2<sup>b</sup> is a front elevation thereof.

Figure 3 is a diametral section through an end of a pipe or tube and Figure 4 is a section on line 4-4 of Figure 3 illustrating a testing head or closure therefor constructed in accordance with applicant's invention.

Referring to Figures 1 and 2, 10 represents a pressure tank having a manhole 11 therein. About the manhole 11 is secured a flange ring 12 forming a seat for a closure plate 13. So that plate 13 will be quickly secured over the manhole 11 or removed therefrom, it is arranged to be secured in place by being formed with keyhole slots 14, 14 arranged to pass over rectangularly headed bolts 15, 15 secured on ring 12 and then by rotation of cover 13 on ring 12 to engage under shoulders 16, 16 on said bolts, the shoulders 16 being beveled as shown to provide a wedging action on the cover. To facilitate rotation of the cover, a pair of

spaced studs 17, 17 project from the upper surface thereof whereby a bar 18 may be placed therebetween.

In order to seal the manhole 11, a seat 19 is formed on ring 12 for an expansible gasket 20 formed of flexible material such as rubber. Gasket 20 is formed with spaced webs 21, 21, one adapted to engage cover 13 and the other seat 19 so that pressure in the container 10 effective on the webs 21 will urge them apart and will effectively seal the manhole 11.

In Figures 3 and 4, a pipe section 30 to be tested has loosely secured in its ends a closure or testing head 31 having secured thereon a sleeve 32 and a ring 33 as by rivets 34, 34. To secure the head 31 in the end of the pipe section 30, apertures 35 are formed through ring 33 and pins 36, 36 are inserted through apertures 37 in pipe 30 and through apertures 35.

The sleeve 32, ring 33 and pipe 30 define an annular groove for a packing 38 of rubber or other flexible material formed with spaced webs 39, 39, one contacting pipe 30 and the other sleeve 32. Pressure of the testing medium in the pipe 30 will be effective on packing 38 to urge webs 39 apart and they will effectively seal the end of the pipe despite the looseness of connection of the removable test-head 31 thereto.

It will appear from the foregoing that applicant has provided a simple, easily operable closure for pressure containers which will make an effective seal therefor maintained by the pressure medium itself.

Modifications of the invention may be resorted to without departing from the spirit thereof or the scope of the appended claim.

What I claim is:

Apparatus of the class described, including a pressure container having an opening therein, a loose quick-detachable cover for said opening, a gasket of flexible material formed with spaced webs, and a seat for the gasket on the container about the opening whereby pressure of the medium in the container will urge the webs apart respectively against the seat and the closure, to form a seal between the container and the closure, said gasket not being clamped between the seat and the closure.

FRED M. STRECKER.