Aug. 18, 1936. J. A. SHARP 2,051,276

PRESSURE RELEASE

Filed March 4, 1935

Fig. 1.

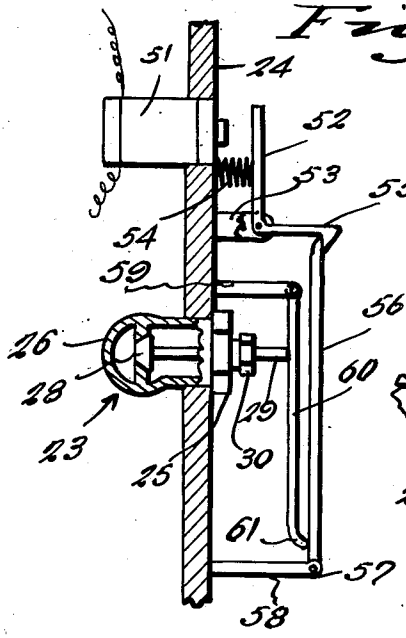


Fig. 3.

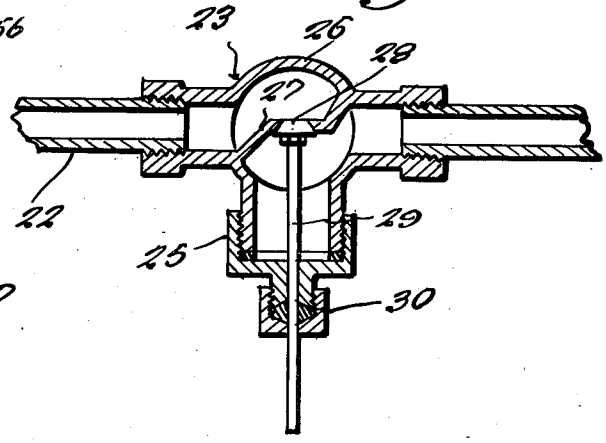


Fig. 2.

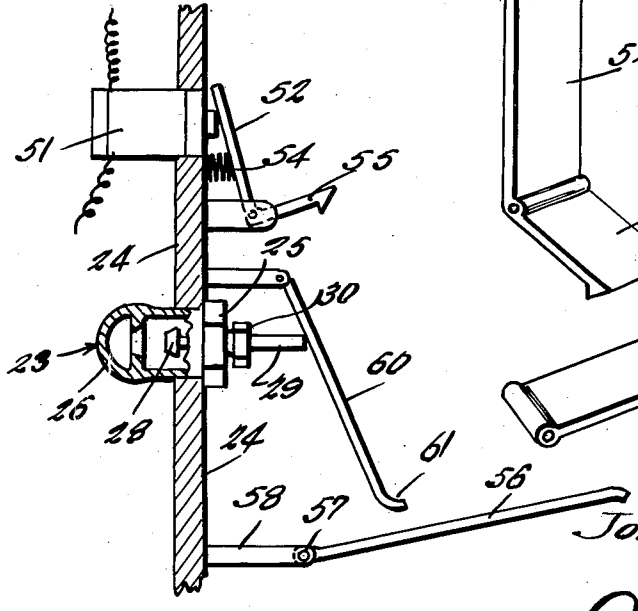


Fig. 4.

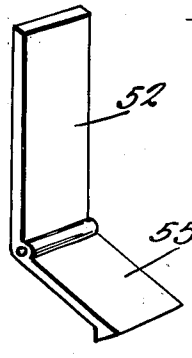
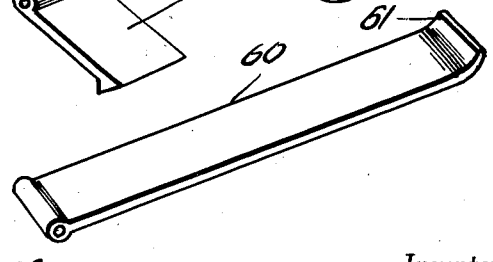


Fig. 5.



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Patented Aug. 18, 1936 2,051,276

UNITED STATES PATENT OFFICE

2,051,276

PRESSURE RELEASE

John A. Sharp, Marshall, Tex.

Application March 4, 1935, Serial No. 9,295

2 Claims. (Cl. 137—139)

This invention appertains to new and useful improvements in automatic pressure release means for pressure systems and more especially designed to accommodate fluid pressures in crude oil, water and other material conveying conduits.

The principal object of the present invention over my co-pending application of which the present application forms an improvement is to provide electrical means for suddenly allowing for the escape of excessive pressure. The above referred to application is identified by Serial No. 742,315, was filed August 31, 1934 and bears the title "Automatic release valve".

During the course of the following specification and claims other important objects and advantages of the invention will become apparent to the reader.

In the drawing:

Figure 1 represents a vertical sectional view of the magnetic valve release, showing the mechanism in set position.

Figure 2 represents a vertical sectional view of the magnetic valve release, showing the release in operated position.

Figure 3 represents a fragmentary horizontal sectional view through the valve controlled by the magnetic release.

Figure 4 represents a perspective view of the armature catch.

Figure 5 represents a perspective view of the valve engaging lever.

As is clearly shown in Figures 1 and 2, an electro-magnet 51 is mounted on the panel board 24 and a rockable armature 52 cooperatively supported by the bracket 53 on the front side of the board 24 is located within the magnetic sphere of the magnet 51. A spring 54 interposed between the armature 52 and the board 24 serves to normally urge the armature 52 outwardly so that its catch, which it carries and which is denoted by numeral 55 will remain engaged with the free end of the trip arm 56 which is pivotally connected at its lower end as at 57 to the bracket 58. A bracket 59 on the board 24 above the valve 23 pivotally supports its depending valve stem engaging lever 60. Obviously, when the catch 55 is holding the trip arm 56, this trip arm 56 is engaging the outwardly curved end portion 61 of the lever 60 so as to hold the stem 29 urged inwardly with the valve 28 seated.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having thus described the invention, what is claimed as new is:

1. A control for valves comprising a slidable valve stem, an electrical magnet mounted adjacent the stem, a rockable armature provided with an outstanding catch member thereon, a pivotal arm for disposition across the free end of the stem in one direction, a second pivotal arm disposed across the free end of the stem at a point beyond the first mentioned arm and extending in an oposite direction to engage with the catch at the free end thereof, said first mentioned arm engaging at its free end the pivotal end portion of the second mentioned arm.

2. A control for valves comprising a slidable valve stem, an electrical magnet mounted adjacent the stem, a rockable armature provided with an outstanding catch member thereon, a pivotal arm for disposition across the free end of the stem in one direction, a second pivotal arm disposed across the free end of the stem at a point beyond the first mentioned arm and extending in an opposite direction to engage with the catch at the free end thereof, said first mentioned arm engaging at its free end the pivotal end portion of the second mentioned arm, the free end portion of the first mentioned arm being curved laterally to provide a bearing point for the second mentioned arm.

JOHN A. SHARP.