Aug. 20, 1929. R. E. MANLEY 1,725,289

AIR AND GAS SERVICE STATION

Filed Dec. 30, 1924

Fig. 2.

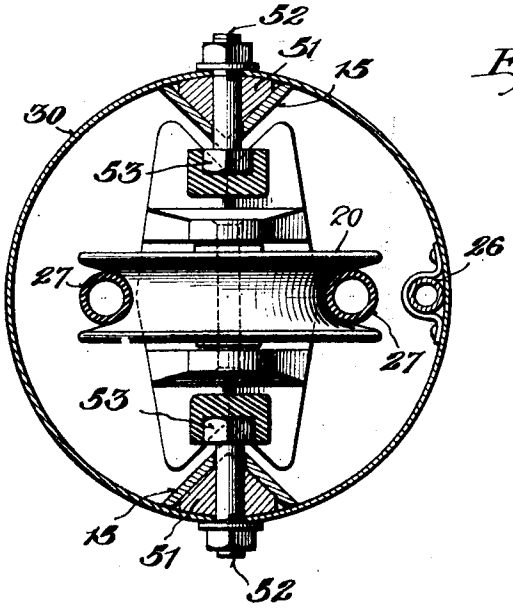


Fig. 1.

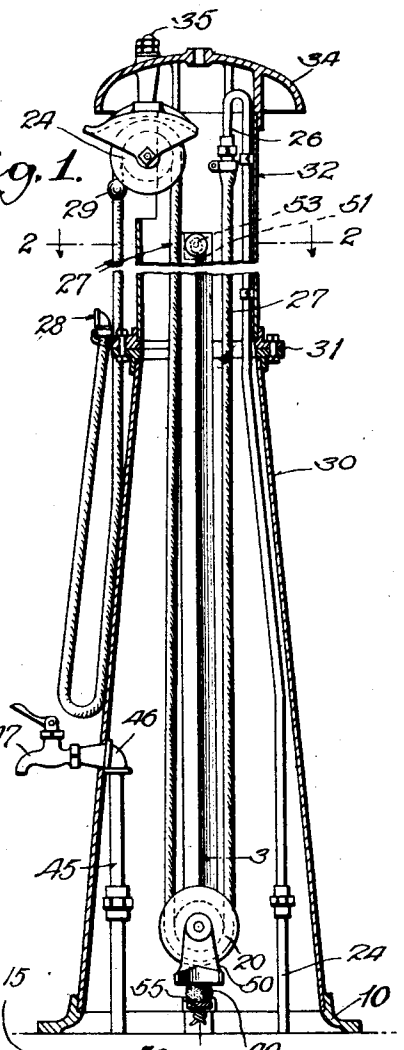
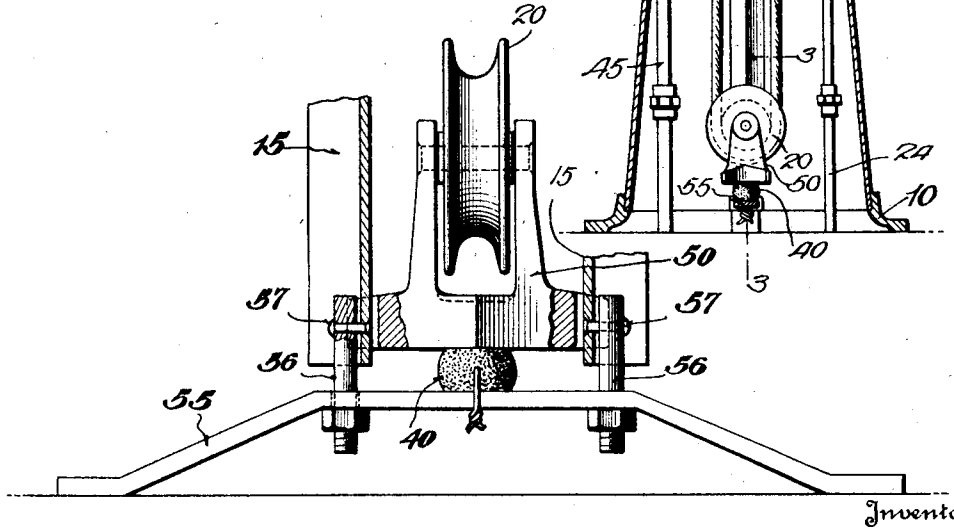


Fig. 3.



Inventor

R. E. Manley

By H. H. Snelling

Attorney

Patented Aug. 20, 1929. 1,725,289

UNITED STATES PATENT OFFICE.

ROBERT E. MANLEY, OF YORK, PENNSYLVANIA, ASSIGNOR TO MANLEY MANUFACTURING COMPANY, OF YORK, PENNSYLVANIA, A CORPORATION OF DELAWARE.

AIR AND GAS SERVICE STATION.

Application filed December 30, 1924. Serial No. 758,901.

This invention relates to air and water service stations and has for its object the provision of a convenient means for holding the air hose out of the way when not in use and keeping it free from oil, grease and filth and yet having it ready for withdrawal for instant use at either near or relatively distant points.

In the drawings,—

Figure 1 is a side elevation showing the casing in section.

Figure 2 is a horizontal cross section taken on line 2—2 of Figure 1.

Figure 3 is a side elevation partly in section taken on line 3—3 of Figure 1.

The base 10 is preferably a metal casting to which is secured a casing 30 preferably conical in shape and joined as at 31 to a substantially cylindrical casing 32, the two casings enclosing a rotatably mounted sheave 20, a water pipe 45 and an air pipe 24 as well as the vertical guides 15 for the sheave 20.

Compressed air is supplied by piping ending at the top of the standard as at 26 and to the end of this piping is secured a flexible hose 27 passing around the sheave 20 and over the pulley 24 and having at its end an automatically closing valve 28. A stop member 29 is provided to prevent the formation of slack when the collar 17 and consequently the lower pulley is at the bottom of its travel. The upper pulley 24 is pivoted as at 35 to a bell-shaped hood 34, closing the top of the casing 32 and shielding all of the parts from the weather.

As the lower pulley with its weight 50 is entirely enclosed, it may travel freely in the casing although it is much preferred that the weight should be guided between vertical bars such as 15. At the upper ends of these angle bars 15 a wood filler block 51 is fitted in the hollow of the angle, a bolt 52 is inserted through the apex of the angle, the filler and the shell itself with the head 53 of the bolt on the inside where it forms a stop for the weight. The filler keeps the shell from being crushed. At the bottom is a little bridge 55 which carries a pair of studs 56 and the studs carry a transverse rivet 57 passing through the apex of the vertically arranged angle bars 15. The rivet heads are countersunk below the apex of the angles so they will not be sheared off. A rubber ball 40 is fast on top of the bridge to cushion the weight at the lower end of its travel.

The pulleys are placed about eight feet apart and this permits the use of about twenty four feet of hose. At the end of the hose is placed a self closing air valve or chuck. The water pipe 45 extends vertically inside of the casing 30 and is directed by means of an elbow 46 thru the casing, receiving outside of the conical portion 30 a self-closing faucet 47. Not only does the provision of the guides 15 tend to make the operation more quiet by preventing the weight 50 from swinging about in the casing but this construction also has the great advantage of leaving ample free space inside of the casing in which to run the air pipe 24 and the water pipe 45.

The real utility of this station cannot be fully understood unless it is remembered that it is only used to a slight extent by garage mechanics and employees and is placed at the curb primarily for the use of the public which has no direct interest in the longevity of the device. Moreover, the average automobile driver's mind at the usual time selected for using air and water for inflating the tires and filling the radiator, is fully occupied with thoughts concerning the purchasing of gasoline and lubricating oil, the adjustment of clothing, curtains, the windshield and the stowing of luggage and the many details that arise at the last moment when starting either a long or short trip. The further detail of filling the radiator and inflating the tires just at this time is particularly annoying and the average driver is perhaps in his most careless mood when letting go of the air hose after he is through with the same. It should also be remembered that since the air and water is furnished free there is no employee or attendant at this station like there is at the gasoline filling station and hence there is no one present to exercise any discipline or restraint in case of gross carelessness such as running over the hose with the wheels of the automobile.

The operation of the air and water station is as follows: The customer or auto driver merely takes hold of the air chuck end of the air hose, turns his back to the station, walks over to the tire needing inflation and proceeds to apply the chuck to the valve

stem. In the meantime the hose has followed the driver, the pulley 20 rising and approaching the pulley 24. Owing to the height of the pulley 24 from the ground the hose will easily reach over the top of the automobile as the chuck end is carried around from wheel to wheel. After finishing with the air the driver merely lets loose of the hose whereupon the lower pulley 20 with the attached weight 50 descends drawing the extended length of hose in over the upper pulley 24 until the knob or stop 29 reaches this upper pulley. This stop is so adjusted as to prevent any slackness of hose around the pulley 20 when this pulley has reached its lowerpost position. Consequently after the hose has acquired considerable momentum passing in over the pulley 24 in response to the urge of the weight 50 this stop 29 keeps too much of the hose from going in and looping up and tangling. A rubber ball 40 cushions the weight at the lower end of travel and prevents undue strain on either the hose or knob 29. As the hose is protected from dirt, grease and kinks considerable economy in hose renewal is effected.

What I claim is:—

1. In a fluid service station, a tubular standard, a vertically movable pulley, a hood at the top of said standard and extending beyond the line of the standard, a second pulley swivelly mounted in said hood to extend beyond the margin of the tubular standard, piping for delivering compressed air to a point adjacent said hood, and a flexible hose leading from said piping to the vertically movable pulley and back to the hood-carried pulley and having a downwardly directed free end extending below the middle of the standard.

2. In a fluid service station, a cylindrical casing, a hood coaxial with said casing and of greater diameter secured to the top of the casing, a pulley swiveled to the hood substantially in line with the outer surface of the cylindrical casing, a pair of angle irons secured to the casing with their points inwardly and the edges of their legs in contact with the inner cylindrical wall of the casing, a pulley having its center constantly in the axis of the casing slidable between said angle irons, a non-resilient pipe extending thru the casing to the hood, and a flexible hose extending from the end of the pipe around the slidable pulley, then around the hood carried pulley and a valve carried by the end of the flexible hose at a point near the bottom of the casing.

3. In a fluid service station, a casing, a pair of angle irons, each secured to the casing with both legs touching the casing and their points facing one another, filler means between the angle irons and the casing, a sliding member guided by the angle bars and bolt means for securing the angle irons and filler to the casing and for forming stop members for said slidable member.

In testimony whereof I affix my signature.

ROBERT E. MANLEY.