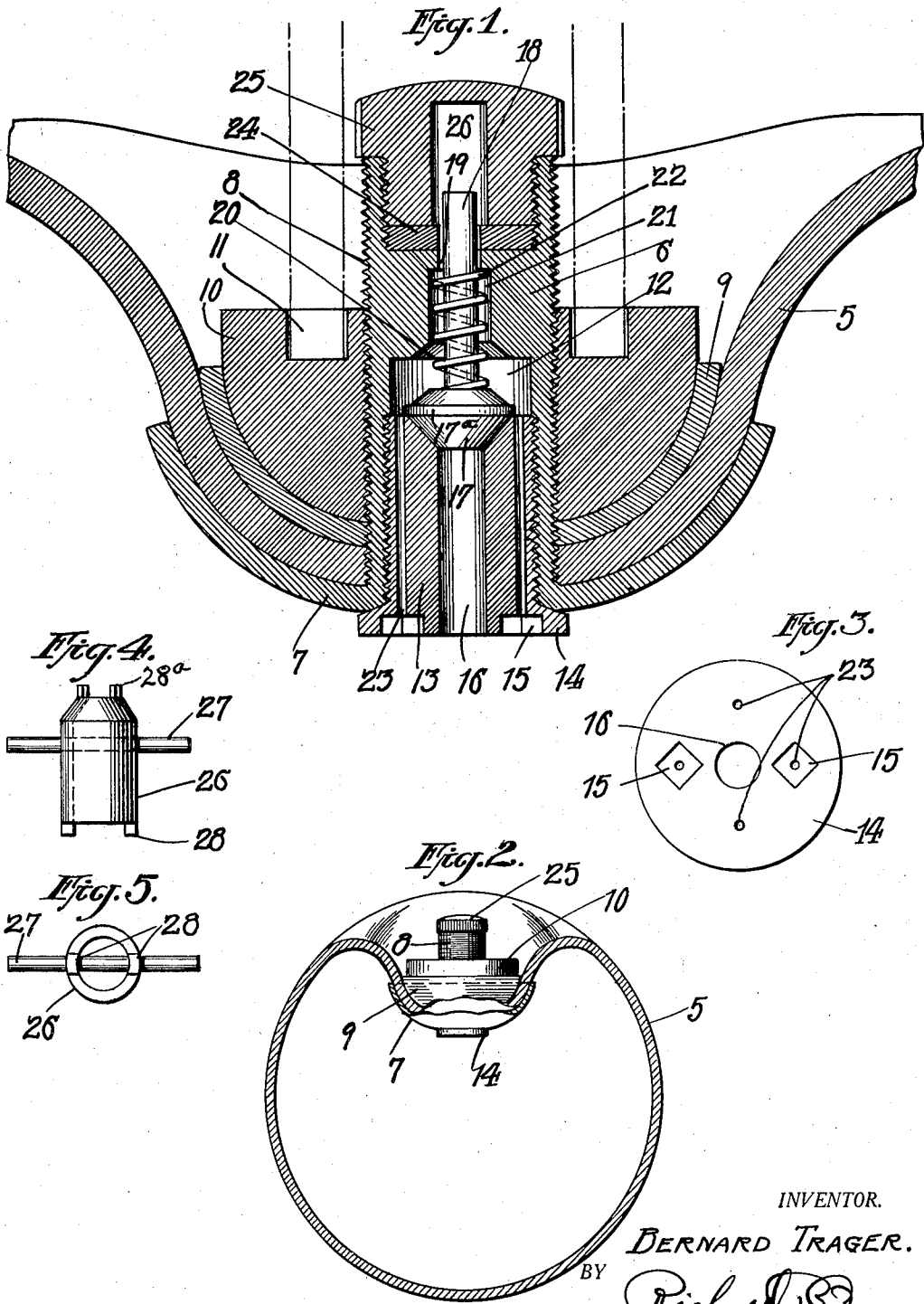


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B. TRAGER
VALVE

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VALVE

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To all whom it may concern:

Be it known that I, BERNARD TRAGER, a citizen of the United States, residing at New York city, in the county of Bronx and State of New York, have invented certain new and useful Improvements in Valves, of which the following is a specification.

This invention relates to valves and more particularly to a novel and improved air valve for pneumatic devices and apparatus such as swimming belts, life preservers, tires and other inflatable objects of an analogous nature.

The primary object of my invention is the provision of a valve for pneumatic devices and particularly life belts, wherein the entire valve structure when seated, is disposed below the normal level of the pneumatic body so that the cap will not protrude when the device is inflated and will otherwise be somewhat concealed but accessible when it is desired to inflate the said object.

The further and continued object of my invention is the provision of an extremely simple and highly efficient valve adapted for use in connection with various types of pneumatic devices and one wherein the parts are extremely simple in construction, easily assembled, highly efficient in operation, practical, and otherwise capable of being manufactured at an extremely low cost whereby its commercial possibilities are greatly enhanced.

I accomplish the above objects and others which will become apparent as the description proceeds and when taken in connection with the accompanying drawings which show a preferred embodiment of my invention, wherein:

Figure 1 is a vertical section showing the valve in position.

Figure 2 is a view partly in section showing the application of the valve to a pneumatic device such as a life belt.

Figure 3 is a plan showing the bottom of the central sleeve.

Figure 4 is a side view of a conventional type of locking key, and

Figure 5 is a plan view of the key.

Referring now to the drawings, wherein like reference characters designate corresponding parts throughout the several views, 5 designates a pneumatic casing such as a life belt or life preserver which is pro-

vided with an aperture to receive an internally bored stem 6, which stem is provided with an enlarged, concaved base 7 extending for a considerable distance from the stem above referred to. The stem 6 is externally threaded as at 8 throughout its length and is adapted to receive a concave lock washer 9 and a substantially semi-circular lock nut 10, the latter being provided with key way slots 11 whereby the same may be screwed tightly on the stem and over the washer 9 so as to tightly secure the rubber or material of the pneumatic device against the concaved base portion 7 above referred to.

The internally bored portion of the stem is internally threaded throughout the major portion thereof to receive the externally threaded sleeve 13, the slightly enlarged base 14 of which is also provided with keyway slot 15 whereby said sleeve may be screwed tightly into the stem 6 in the manner clearly shown by Figure 1 of the drawing. The sleeve 13 is provided with an enlarged central bore 16 which communicates with the interior of the stem, the top of said sleeve being hollowed out to receive a valve 17 of a valve stem 18, the latter extending upwardly through an aperture 19 centrally of the top of the stem 6. A valve seat 20 to receive the top or frusto-conical portion of the valve 17 communicates with the bore 21 in the head of the stem 6, which bore receives a coil spring 22 on the valve stem 18, normally maintaining the valve 17 in its position on the seat of the sleeve 13. The sleeve 13 is further provided with radially disposed inlets 23, two of which inlets extend through the keyhole slot 15. The upper end of the stem 6 is internally bored and internally threaded to receive and accommodate the washer 24 and externally threaded knurled nut or cap 25 which cap is centrally bored as shown at 26 to permit of the raising and lowering of the valve stem 18 when the device is being inflated. The valve 17 above referred to is preferably provided with a central gasket 17^a so that when the return pressure exerted by the air passing upwardly through the passage 16, the internal pressure exerted will tend to force the valve in the seat 20. Of course when the valve 25 is replaced the pressure internally being equal, the valve will seat itself.

In Figures 4 and 5, I have shown and provided a conventional type of a double end key for locking the semi-circular nut 10 and the sleeve 13 which key compresses a cylindrical hollow element 26 through which a gripping rod 27 is passed for turning the same. The lower end of the said element is equipped with a pair of oppositely disposed lugs 28 adapted to engage the keyway slots 11 in turning the member 10 to its locked position, the opposite reduced end of the cylindrical element being also provided with opposed lugs 28^a to engage the slots 15 in tightening the sleeve 13.

While I have illustrated and described my invention with some degree of particularity, I realize that in practice various alterations therein may be made. I therefore reserve the right and privilege of changing the form of the details of construction or otherwise altering the arrangement of the correlated parts without departing from the spirit of the invention or the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by United States Letters Patent is:—

1. A valve of the character described comprising a threaded stem having a concave base, a locking sleeve communicating with the interior of the stem, a valve stem and valve head seated in the top of the sleeve, a lock nut and lock washer cooperating with the concave base whereby the valve as a unit lies below the surface of an inflatable body in which it is positioned, and a cap for said threaded stem.

2. A valve of the character described comprising an internally and externally threaded stem having a concave base, a locking sleeve threadedly engaging and communicating with the interior of the said stem,

said sleeve having an enlarged base at one end and keyway slots for locking the same within the stem, the opposite end of the sleeve having a valve seat, a valve stem and valve head resiliently held in said seat, a lock nut and lock washer cooperating with the concave base whereby the valve as a unit lies below the surface of an inflatable body in which it is positioned and a cap for the top of said threaded stem.

3. A valve of the character described comprising a threaded stem having an enlarged concave base, said stem being internally bored and threaded, a locking sleeve interfitting said stem and communicating with the interior thereof, a valve stem and valve head seated on the locking sleeve, a semi-circular lock nut and lock washer engaging the threaded stem and a cap for the top of the last mentioned stem.

4. A valve of the character described comprising an externally threaded stem, said stem being internally bored through the length thereof and internally threaded, an enlarged concave base formed with said stem, a locking sleeve externally threaded for engaging the internally threaded portion of the stem and communicating therewith, said sleeve having an enlarged base and keyway slots therein for locking the same against the concave base of the stem, a valve stem and valve adapted to be seated on the upper end of the locking sleeve, said valve stem extending through the top of the first mentioned threaded stem, a lock nut and lock washer on the said threaded stem and an internally bored cap threadedly engaging the upper end of the said threaded stem.

In testimony whereof I affix my signature.

BERNARD TRAGER. [L. s.]