W. GRIKSCHEIT.

VALVE FITTING.

APPLICATION FILED JAN. 2, 1920.

1,376,534. **Patented May 3, 1921.**

Fig. 1.

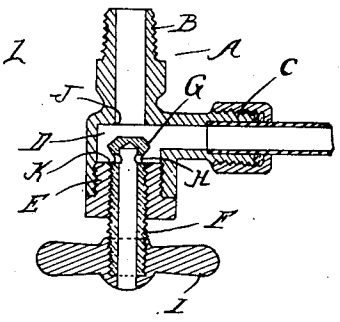


Fig. 2.

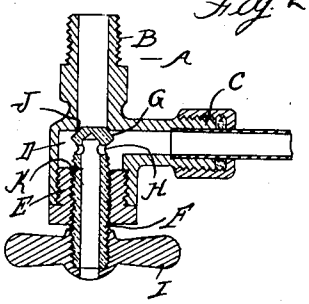
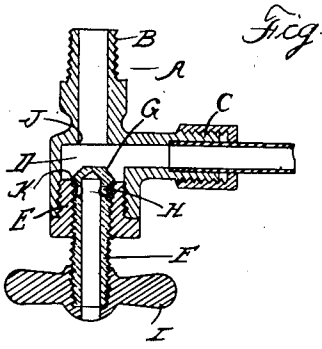


Fig. 3.



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VALVE-FITTING.

1,376,534. Specification of Letters Patent. Patented May 3, 1921.

Application filed January 2, 1920. Serial No. 348,879.

To all whom it may concern:

Be it known that I, WILLIAM GRIKSCHEIT, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Valve-Fittings, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to valve fittings particularly designed for use as drain cocks, and it is the object of the invention to obtain a construction in which the valve may be alternatively opened to drain the system, completely closed, or closed to cut off one portion of the conduit while opening another portion to drainage. To this end, the invention consists in the construction as hereinafter set forth.

In the drawings:

Figure 1 is a longitudinal section through the fitting;

Figs. 2 and 3 are similar views showing the valves in different positions of adjustment.

A is the body of the fitting which, as shown, is of T-shaped form having a nipple portion B for attachment to one conduit and a nipple C for attachment to another conduit. The nipples B and C are bored to intersect each other, and a counterbore D in the T-head axially alined with the nipple B forms a central chamber communicating with each bore. E is a plug or cap for engaging the end of the counterbore D, being threaded for engaging internal threads in the member A and being centrally bored and threaded for the reception of a valve stem F. This valve stem has at its inner end a head portion G of larger diameter and preferably provided with opposite conical faces, the inner one being adapted to seat against the shoulder J formed by the intersection of the bore of the nipple B with the recess D, while the opposite conical face is adapted to seat against a shoulder K on the plug or cap E. The stem F is hollow and in rear of the head G is provided with ports H which communicate with the recess D when the head G is away from the seat on the cap E. I is an operating handle secured to the outer end of the stem F, so as to be rotatively attached thereto.

With the construction as described, when the valve is in the position shown in Fig. 3, the head G is seated against the shoulder K, thereby cutting off communication between the recess D and the hollow valve stem. In this position there is an open passage between the nipples B and C, so as to permit flow of liquid, as, for instance, from a supply tank to a carbureter. Where it is desired to drain the whole system, the valve is adjusted to the position shown in Fig. 1, where the head G is separated from the seat K, but is also away from the seat J. Therefore, there is open communication between the recess D and the hollow valve stem and also open passages between each of the nipples and said recess. When the valve is adjusted into the position shown in Fig. 2, connection between the recess D and the nipple B is cut off by the engagement of the head G with the seat J. There is, however, open communication between the nipples C and recess D and between the latter and hollow stem.

The construction is one which is very useful for it is frequently desirable to drain one portion of a conduit line, while retaining the fluid in another portion. Again, at other times it is desirable to drain the entire system or to cut off all drainage connection. The construction is also exceedingly simple and inexpensive to manufacture and as the valve cannot be detached without removing the cap E, there is no danger of accidental displacement.

What I claim as my invention is:

1. A valve fitting comprising a casing having a passage extending therethrough and an enlargement at one point therein, a valve within said enlargement having a hollow stem extending out from said casing with a port in said stem for communication with the enlargement in said passage, and seats with which said valve may be alternatively engaged to respectively interrupt said passage and cut off communication between said port and passage, said valve when in intermediate position providing drainage connection between said passage and the hollow stem.

2. A valve fitting comprising a casing having an angling passage therethrough and an opening opposite one portion of said angling passage, a cap for closing said opening, a hollow stem passing through said cap and having a lateral port adjacent to its inner end, a valve at the inner end of said stem, and seats respectively on said casing and

said cap with which said valve may be alternatively engaged to interrupt said passage and to cut off communication between said passage and port, said valve when in intermediate position providing drainage communication between said passage and the hollow stem.

3. A valve fitting comprising a casing of angling form and having passages in the angling portions thereof intersecting each other, an opening in said casing opposite one of said angling passages and being of greater diameter than said passage, a cap for closing said opening, a hollow stem passing through said cap provided with a lateral port for communicating with said passages, a valve at the inner end of said stem of greater diameter than the passage opposite said opening and said hollow stem, and seats respectively in said casing and cap with which said valve may be alternatively engaged to cut off connection between said angling passages and said lateral port, said valve clamped in an intermediate position opening drainage communication from said passages through said port and hollow stem.

4. A valve fitting comprising a substantially T-shaped casing having passages in the angling portions thereof intersecting each other and a counterbore in the head portion of the T forming an enlarged chamber at the intersection of said passages, a cap for closing the outer end of said counterbore, a hollow stem passing through and having a threaded engagement with said cap, said stem having also a lateral port for communicating with said counterbore, a valve at the inner end of said stem, seats respectively on said casing and cap with which said valve may be alternatively engaged to cut off communication between said angling portions and between said port and counterbore, and a handle at the outer end of said hollow stem for adjusting the same.

In testimony whereof I affix my signature.

WILLIAM GRIKSCHEIT.