T. W. GARBISCH.

FUNNEL.

APPLICATION FILED NOV. 22, 1915.

1,312,531.

Patented Aug. 12, 1919.

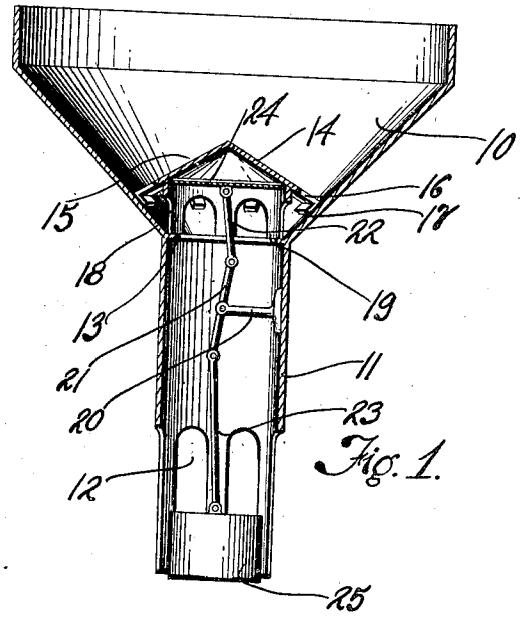


Fig. 1.

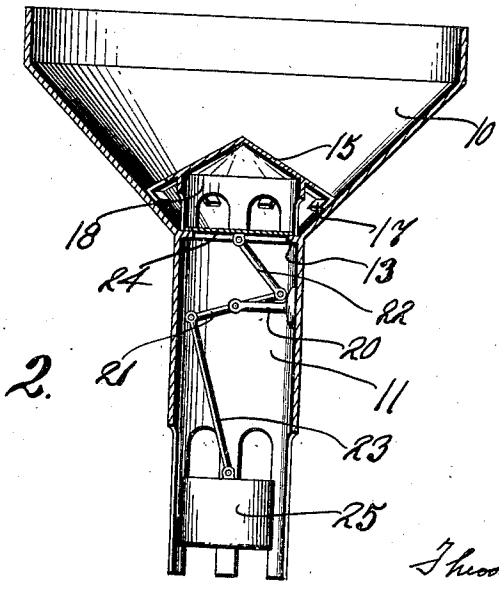


Fig. 2.

WITNESSES

H. P. Harwood.

Wade Koontz

INVENTOR

Theodore W. Garbisch

BY Richard B. Owen.

ATTORNEY

UNITED STATES PATENT OFFICE.

THEODORE W. GARBISCH, OF CARTER, MONTANA.

FUNNEL.

1,312,531. Specification of Letters Patent. Patented Aug. 12, 1919.

Application filed November 22, 1915. Serial No. 62,809.

To all whom it may concern:

Be it known that I, THEODORE W. GARBISCH, a citizen of the United States, residing at Carter, in the county of Chouteau and State of Montana, have invented certain new and useful Improvements in Funnels, of which the following is a specification.

This invention relates to funnels and the object of the same is to provide a funnel that will automatically cut off the flow of liquid therethrough when the liquid reaches a predetermined height in the vessel being filled.

Another object of this invention is to provide a funnel as before set forth including a float-operated valve, that is so protected that the liquid passing through the funnel will not be directed thereagainst and thus move the same when it is not desired.

A still further object of this invention is to provide a device of the kind above described, that is simple in construction, efficient in operation, and consists of the minimum number of parts.

With these and other objects in view, this invention resides in certain novel features of construction, combination and arrangement of parts as will be hereinafter more fully described and claimed and shown in the accompanying drawings wherein:—

Figure 1 is a vertical section of a funnel constructed in accordance with this device;

Fig. 2 is a similar view with the parts thereof shown with the valve and valve operating means shown in a different position;

Referring to the parts by reference numerals, this funnel has the usual tapering upper portion 10 and discharge spout or throat 11, that has a plurality of elongated slots 12 formed at the lower end thereof. At the juncture of the spout or float 11, and the tapering portion 10 is a collar 13 that serves the purpose of a valve seat. Positioned in the portion 10 of the funnel is a valve guard designated in its entirety by the numeral 14, the same providing a specially tapered hood 15 having openings 16 formed therein adjacent the wall of the tapering portion 10 of the funnel and lugs 17 are bent from this hood 15, the said lugs being so positioned as to fit snugly against the wall of the tapering portion 10 of the funnel. On the under face of this conical hood 15 is a valve guiding shell that has a plurality of openings 19 formed therein so as to permit liquid to pass through the same from the portion 10 into the throat of spout 11. This shell 18 rests upon the coller 13 that forms the valve seat. A bracket 20 is secured in this spout 11, the same having pivotally connected thereto, a link 21 that in turn has pivotally connected to the ends thereof, the valve connecting link 22 and the float connecting link 23 which have secured respectively thereto, the valve 24 and float 25.

As will be clearly understood from the foregoing description, taken together with the accompanying drawings, the valve and the valve operating means are normally positioned as shown in Fig. 1 and liquid then has a clear passage through the openings 16 in the hood 15 and the openings 19 in the shell 18 and thence to the spout or throat 11 and then through the slots 12. When the liquid in the receptacle being filled reaches such a height as to engage the float 25, the same will be moved to a position as shown in Fig. 2 and the valve 24 will be moved on its seat 13. Liquid then can not pass from the tapering portion 10 to the spout 11. It must be also understood that the slots 12 are of sufficient length so that when the valve 24 is seated the float will be in a position approximately intermediate the length thereof, thus providing an opening for the liquid which is in the spout at the time the valve is closed to pass therethrough. When the device is in a position as shown in Fig. 1, liquid can not be directed against the valve 24 and thus force the same upon its seat inasmuch as the said valve 24 is wholly protected by means of the hood 14 and, furthermore, to insure the correct placement of the valves 24 upon its seat 13, the shell 18 being substantially the same diameter as the valve 24, efficiently guides the same.

The valve guard or protecting means 14 is detachable and is capable of snug engagement with the funnel because of the spring lugs on the hood 15 and frictionally engage the inner face of the body and, therefore, prevent the accidental removal of the guard means from the funnel, however, when it is desired for cleaning purposes to remove the same, this can be done in that the guard is not permanently secured in the funnel.

It is obvious that minor changes may be made in the form and construction of this

device without departing from the material parts thereof. It is, therefore, not wished to confine the invention to the exact form and construction herein shown and described, but it is wished to include all such as properly comes within the scope claimed.

What is claimed is:—

A funnel of the class described comprising a body portion of the usual configuration having an outlet spout extending therefrom, a bracket extending from the spout intermediate its length, a valve seat formed at the junction of the body portion and spout, a valve adapted to be normally seated on said seat, a float slidably mounted in the lower end of the spout, a plurality of links connecting the float and valve, the central link being pivotally connected to the said bracket, so that when the float is moved upward, the valve will be seated, and said spout having a plurality of elongated slots arranged around the lower end thereof, of sufficient length to leave openings between the float and upper ends of the slots after the valve is closed to allow the liquid in the spout at this time to pass therethrough.

In testimony whereof I affix my signature in presence of two witnesses.

THEODORE W. GARBISCH.

Witnesses:

IRVING W. CHURCH,

OTTO B. KOTZ.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."