

E. A. ADAMS.
FUNNEL.
APPLICATION FILED MAY 17, 1916.

1,246,033.

Patented Nov. 13, 1917.

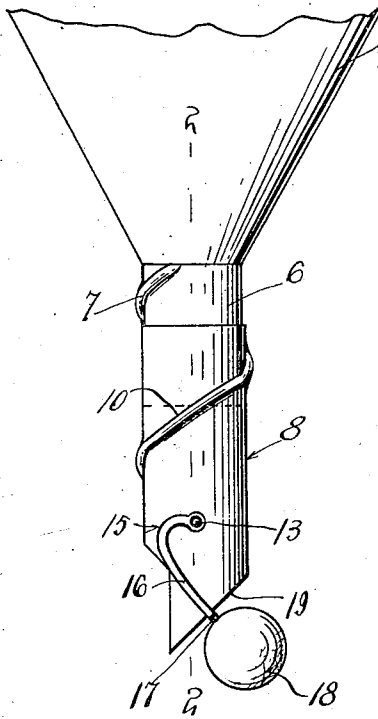


FIG. 1

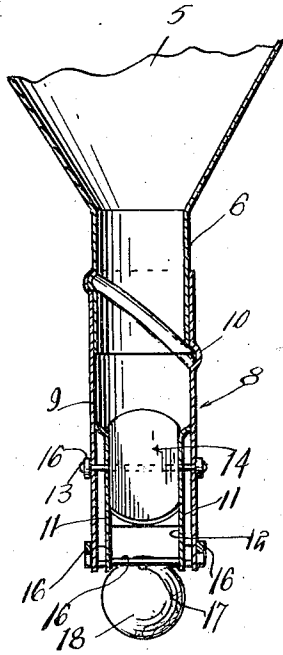


FIG. 2

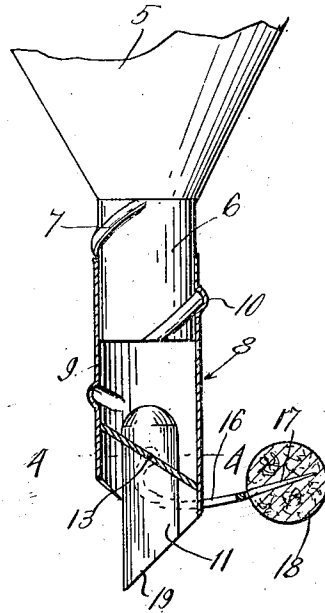


FIG. 3

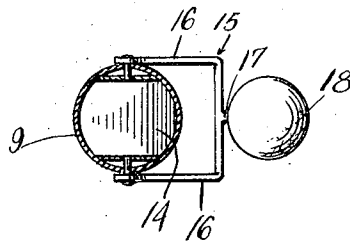


FIG. 4

Witness
J. C. Simpson.
C. C. Chandler

Inventor
E. A. Adams.

By *Charles Chandler*

Attorneys.

UNITED STATES PATENT OFFICE.

ERNEST A. ADAMS, OF SUMNER, WASHINGTON.

FUNNEL.

1,246,033.

Specification of Letters Patent. Patented Nov. 13, 1917.

Application filed May 17, 1916. Serial No. 98,127.

To all whom it may concern:

Be it known that I, ERNEST A. ADAMS, a citizen of the United States, residing at Sumner, in the county of Pierce, State of Washington, have invented certain new and useful Improvements in Funnels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in flow control mechanisms, and is particularly directed to an attachment for funnels or analogous devices, by which the flow of liquid to a receptacle or container will be automatically controlled to prevent overfilling of the latter.

It is primarily the object of the present invention to provide an article of extremely simple, compact and inexpensive construction that may be readily applied as an attachment to ordinary funnels, and which is capable of performing its intended functions in a reliable and efficient manner.

With the above and other objects of similar nature in view, the invention resides in the construction, combination and arrangement of parts, set forth in and falling within the scope of the appended claim.

Reference is had to the accompanying drawings, wherein similar characters of reference designate corresponding parts throughout the several views, and in which:

Figure 1 is a side elevation of a funnel embodying the invention.

Fig. 2 is a vertical sectional view thereof taken on the line 2—2 of Fig. 1.

Fig. 3 is a similar view taken at right angles to Fig. 2 with the valve in closed position, and

Fig. 4 is a transverse section taken on the line 4—4 of Fig. 3.

Referring now more particularly to the accompanying drawing, there is shown a funnel including the body 5 and spout 6, the latter being externally threaded as at 7. The attachment is designated generally at 8 and comprises a tube 9 internally threaded as at 10 for engagement with the threads 7, the tube being thus adjustable longitudinally of the spout whereby the depth to which a receptacle is to be filled may be conveniently regulated.

Provided in the tube 9 adjacent its discharge end are spaced vertical partitions 11

providing therebetween a passage 12 through which the fluid is conducted, the upper ends of the partitions being directed toward the wall of the tube and secured to the latter in any suitable manner. Engaged transversely through the tube and extending at diametrically opposite points therebeyond is a pin 13 having fixed thereon within the passage 12 a valve 14. For operating the valve 14, to control the flow of fluid through the tube there is provided a yoke 15 disposed with its legs 16 straddling the tube and terminally connected with the pin 13 whereby when said yoke is operated the valve 14 will be likewise moved to its open or closed position. An arm 17 is formed integrally with the yoke 15 and extends outwardly from the bight thereof to support at its free end a float 18 by which and through the medium of the yoke and pin 13 the valve 14 is actuated.

It will be noted that the lower or discharge end of the tube 9 is beveled as at 19 so as to limit movement of the float in one direction, the bight of the yoke engaging said beveled portion whereby the valve will be normally maintained in a position to instantly rise upon contact of the fluid therewith.

Thus in operation the funnel and its attachment are inserted within the receptacle to be filled, in the usual manner, with the valve 14 in open position to permit passage of the fluid. When the fluid in the receptacle reaches a predetermined height and engages the float 18 the latter will rise as is obvious and in turn close the valve 14 whereby to shut off the flow. It is of course apparent that by rotating the tube on the spout 6, the same will be adjusted longitudinally of the latter by reason of its threaded connection therewith. Thus the depth at which the receptacle is to be filled may be conveniently regulated as is obvious.

What I claim is:

An attachment for funnels comprising a tube arranged for engagement at one end with the spout of a funnel, partitions mounted within the tube longitudinally thereof and in spaced relation, said partitions having their ends which lie toward the attaching end of the tube turned to engage the inner surface of the tube, a transverse pin engaged through the tube and the partitions, a flat valve mounted on the pin between the partitions for movement with the

pin into and out of position to close the passage through the tube, a yoke embracing the tube and attached at its ends to the pin for movement thereof when the yoke is
5 moved, and a float carried by the bight of the yoke, said yoke being movable to lie with the float extending across the end of the tube opposite to the attaching end when the valve is in open position for insertion of the float

with the tube through the filling orifice of 10 a container.

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

ERNEST A. ADAMS.

Witnesses:

R. R. THOMAS,
H. C. BINT.

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