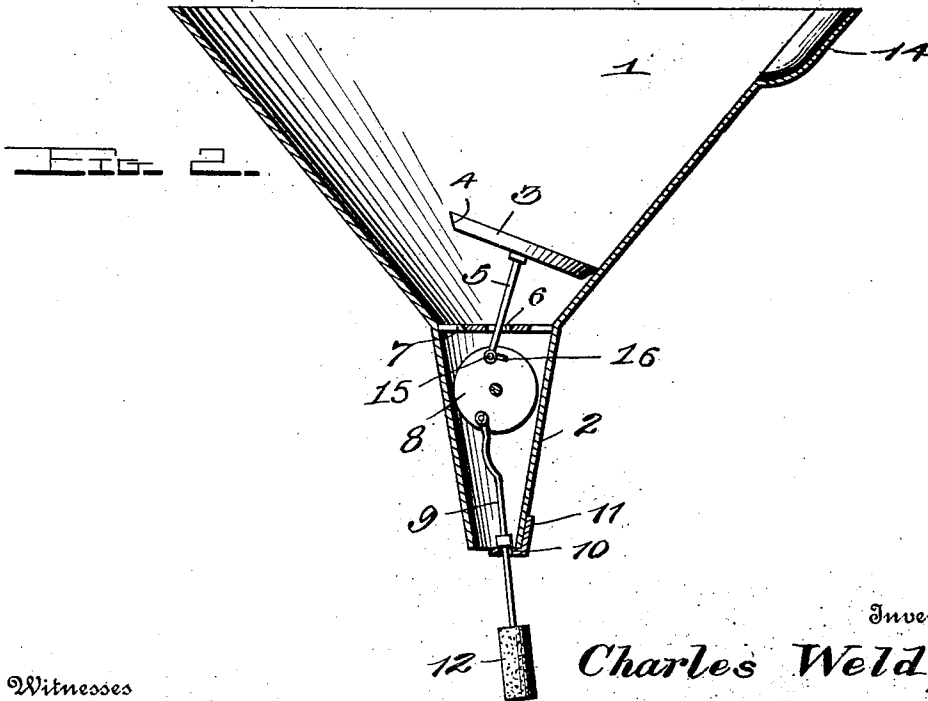
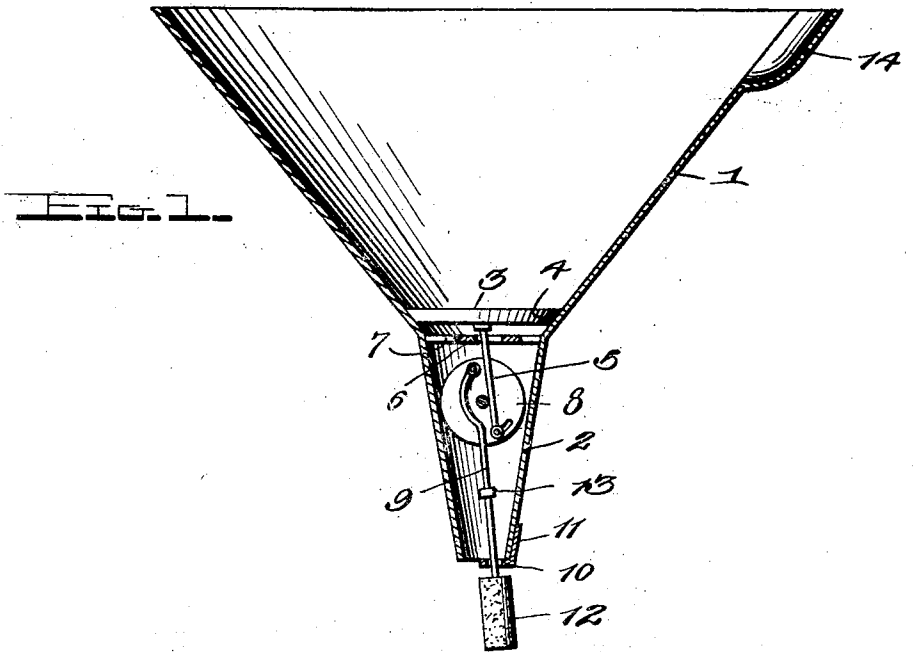


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FUNNEL.

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1,052,111.

Patented Feb. 4, 1913.



Witnesses

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CHARLES WELD, OF STANWOOD, MICHIGAN.

FUNNEL.

1,052,111.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES WELD, a citizen of the United States, residing at Stanwood, in the county of Mecosta and State of Michigan, have invented certain new and useful Improvements in Funnels, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to new and useful improvements in funnels, the object of the invention being to provide a funnel for filling a tank or other receptacle, having a valve which closes to prevent further flow-
15 ing when the tank is full as well as to retain any surplus liquid in the funnel when it is thereafter removed from the tank.

Another object of the invention is to provide a funnel of the above character which
20 will possess advantages in points of efficiency and durability, is inexpensive to manufacture and at the same time is simple in construction and operation.

With the above and other objects in view,
25 the invention consists in the novel features of construction and the combination and arrangement of parts hereinafter more fully described, pointed out in the claim and shown in the accompanying drawings, in which—

30 Figure 1 is a vertical sectional view of a funnel showing the valve in its closed position and Fig. 2 is a similar view showing the valve in its open position.

Referring more particularly to the draw-
35 ings, 1 indicates the body of the funnel, which may be of the form shown, or any other form capable of performing the same functions, and having a spout 2 at the bottom, through which the liquid that may be
40 poured in the mouth of the utensil may be discharged. A valve member 3 is arranged in the lower end of the funnel and is provided with the beveled edges 4 formed coincident with the side wall of the funnel and
45 adapted to close the mouth of the spout 2 when in its closed position.

Secured to the lower side of the valve 3 is a rod 5 which extends down through an opening 6 in the cross bar 7 which serves
50 as a guide for said rod and keeps it approximately centered. A stud 15 is carried by the lower end of the rod 5 and mounted for movement in the concentric slot 16 which is formed in the disk 8 adjacent its
55 periphery. Secured to the outer periphery of the disk 8 at a point substantially oppo-

site the point where the lower end of the rod 5 is secured is the operating rod 9, the lower end of said operating rod being slidably mounted in an opening 10 formed in the horizontal portion of the angular bracket 11 which is secured to the lower end of the spout 2. A cork float 12 is secured to the lower end of the rod 9 so that as the contents of the receptacle reach the top the
60 cork float will be moved upward, turning the disk 8 and closing the valve 3 which indicates to the user that the tank is full.

It will be apparent from the illustration shown in Fig. 2 that the valve 3 is open, the
70 weight of the float 12 rotating the disk 8 which pushes upward on the rod 5 and opens the valve 3. A stop 13 is secured to the operating rod 9 and is adapted to engage the bracket 11 to limit the downward move-
75 ment of the float so that the disk 8 will only be turned enough to open the valve to the position shown in Fig. 2. When in its open position, the valve 3 is permitted to swing toward and rest against the side wall of the
80 funnel by means of a loose connection between the valve rod and the disk 8. As the valve 3 swings to one side, the rod 5 is canted with respect to the guide bar 7. It is thus seen that the valve 3 moves to one side
85 in the funnel and is adapted to rest against the inner wall thereof which prevents the interference of the valve with the passage of liquids from the funnel into the spout. It will be understood that when the utensil
90 is set in open position, the funnel may have its spout with the float below it inserted in the vessel which it is proposed to fill, and liquid may be poured through the spout 2 until it rises high enough to raise the float.
95 This action will raise the operating rod 9 and rotate the disk 8, which in turn will push upward on the rod 5 and raise the valve 3 completely closing the spout against the further passage of the fluid. In this
100 manner the funnel is made to automatically prevent the filling of bottles or any other receptacle of fluid to overflow or to be filled to a higher line than is desired. A spout 14 is secured to one side of the body of the fun-
105 nel and at the upper edge thereof so that the contents remaining in the funnel, after the receptacle has been filled, can be poured out without being spilled.

While I have shown and described the
110 preferred form of my invention, it will be obvious that various changes in the details

of construction and in the proportions may be resorted to for successfully carrying my invention into practice without sacrificing any of the novel features or departing from
5 the scope of the appended claim.

What I claim is:—

In a device of the character described, the combination with a funnel having a spout, of a valve to close the upper end of said
10 spout, a valve rod secured to said valve, a disk rotatably mounted in the spout and having a concentric slot adjacent the outer periphery thereof, a stud carried on the lower end of the valve rod and movably
15 engaged within said slot to provide a mov-

able connection between the disk and the valve rod, an operating rod pivotally secured at its upper end to said disk at a point diametrically opposite the slot, a float upon the lower end of said operating rod and arranged beneath the spout, and a bracket on the lower end of the spout engaging the operating rod whereby the same is guided in its movement.

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

CHARLES WELD.

Witnesses:

L. W. BARKER,
GRACE WELD.