

No. 791,261.

PATENTED MAY 30, 1905.

H. F. GANON.  
FUNNEL.

APPLICATION FILED JULY 30, 1904.

Fig. 1.

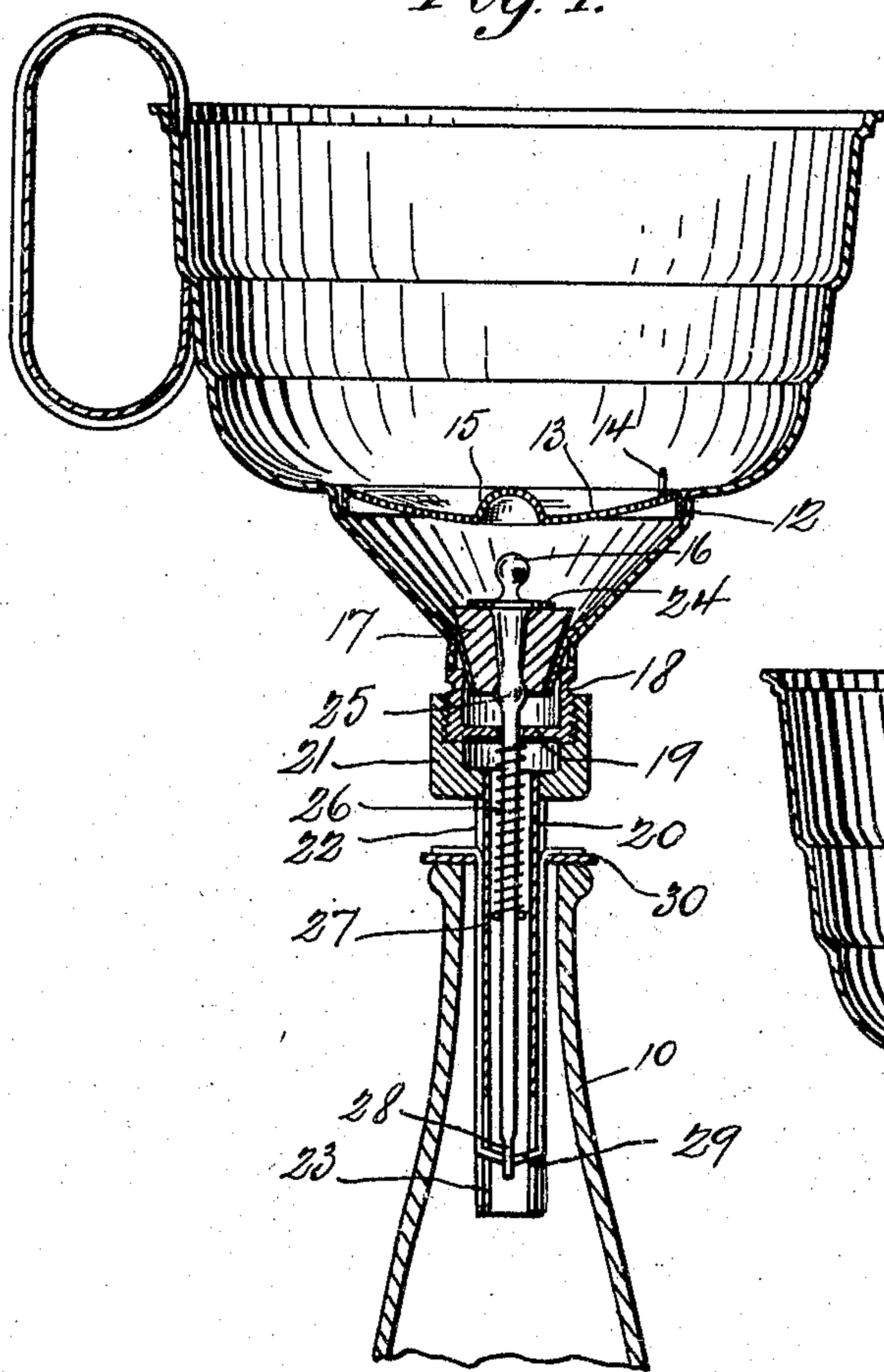
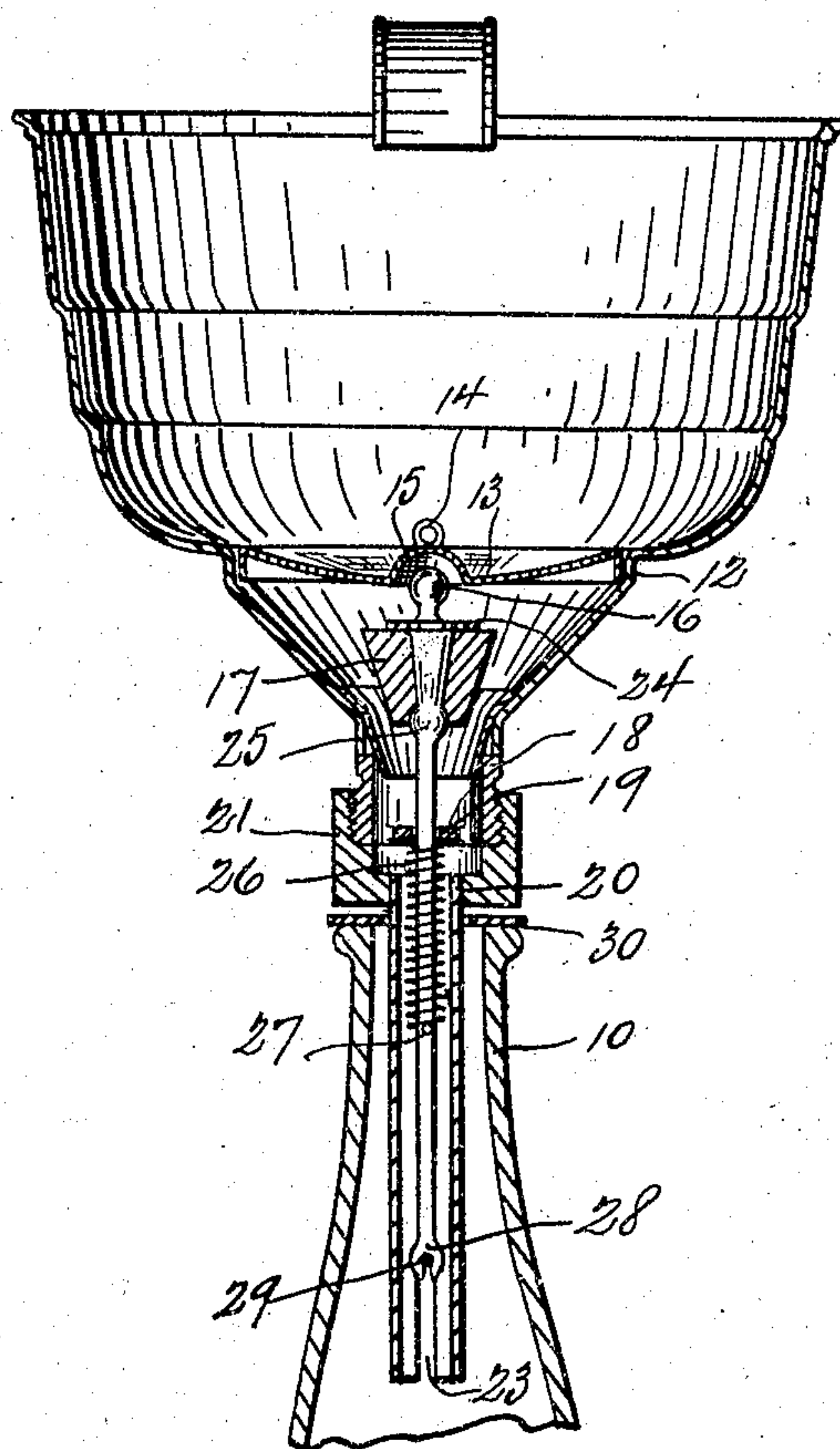


Fig. 2.



Witnesses

*W. Allynson*  
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Inventor

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*By V. H. Lockwood*

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# UNITED STATES PATENT OFFICE.

HENRY F. GANON, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF ONE-HALF TO WILLIAM TRON, OF INDIANAPOLIS, INDIANA, AND ONE-FOURTH TO D. BELMONT LESTER, OF INDIANAPOLIS, INDIANA.

## FUNNEL.

SPECIFICATION forming part of Letters Patent No. 791,261, dated May 30, 1905.

Application filed July 30, 1904. Serial No. 218,930.

*To all whom it may concern:*

Be it known that I, HENRY F. GANON, of Indianapolis, county of Marion, and State of Indiana, have invented a certain new and useful Funnel; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like numerals refer to like parts.

The object of this invention is to provide an improved funnel as compared with that set forth in a former application by me filed January 4, 1904, Serial No. 187,668, for a funnel.

The nature of the improvement will be understood from the accompanying drawings and the following description and claims.

In the drawings, Figure 1 is a central vertical section of the funnel and the upper part of a bottle with the funnel-stopper closed. Fig. 2 is a central vertical section of the same at a right angle to the section-line of Fig. 1, the same being shown with the funnel-stopper open.

In the drawings, 10 represents the upper part of a bottle; 11, the bowl of the funnel, that tapers and has a seat 12 for a strainer 13. The edge of the strainer is turned down, so as to wedge within the circular wall 12 of the strainer-seat.

14 is a finger-piece whereby the strainer may be readily withdrawn.

15 is a central upward extension of the strainer to prevent the strainer coming in contact with the head of the stopper-rod 16 when the latter is elevated, as shown in Fig. 2.

At its lower end the funnel is contracted to form a tapering seat for the stopper 17. The lower end 18 of the funnel is externally threaded and has a central transverse bridge 19. An outlet-tube 20 is detachably connected with the lower end 18 of the bowl of the funnel by means of an externally-threaded sleeve 21, that screws upon the externally-threaded lower end 18 of the bowl of the funnel. Said tube has two longitudinally-extending external creases 22 throughout its

length. At its lower end said tube is provided with slots 23 in said creases.

The stopper-rod 16 has a cap or top plate 24, and it tapers or diminishes in diameter below and from said plate 24 to a ball or enlargement 25, and the stopper 17, which is a tapering rubber plug, is centrally apertured, so as to slip upward on said stopper-rod to a point between the plate 24 and the enlargement 25. The seat for the stopper 17 is likewise tapering, so that an increase in the downward pressure on the stopper will cause it to correspondingly widen by reason of the inclined portion of the stopper-rod on which the stopper is mounted, and thus increase the degree of the wedging and closing action of the stopper. The stopper-rod extends loosely through a suitable hole located centrally of the bridge 19, and in this way said rod is guided in its movements. A spring 26 is mounted on the stopper-rod below the bridge 19 and between said bridge and a pin 27. The function of the spring is to close the stopper when the same is released.

The stopper-rod is provided with forks 28 at its lower end which are adapted to detachably receive and hold the lower end of the looped wire 29. The looped end of the wire 29 passes transversely through the lower slotted end of the tube 20, and the upper or free ends of said wire are secured by solder or otherwise to a ring-shaped plate 30, that loosely surrounds the tube 20. The two arms or parts of the looped wire 29 lie loosely in the grooves 22 on the opposite sides of said tube 20.

In operation the funnel is filled, the spring 26 always keeping the stopper normally closed. The tube 20 is inserted in the bottle until the ring-shaped plate 30 rests upon the mouth of the bottle. Depression of the funnel will then cause the stopper to open, as seen in Fig. 2, and the fluid will flow into the bottle. When the bottle is filled, the funnel is lifted and the spring immediately closes the stopper and lets no more liquid escape or leak; but the remaining liquid in the bowl of the



funnel is kept securely therein until otherwise disposed of. The automatic closure prevents any waste of the liquid. This construction is very simple and the parts are easily  
 5 removed for cleaning. The bowl is open and unobstructed, excepting the strainer, and that can be readily removed. When it is desired to remove the remaining parts, the ring plate  
 10 30 is pressed downward, so that the loop 29 will escape the grasp of the forks 28 on the stopper-rod 16. Then the tube 20 is unscrewed from the lower part of the bowl of the funnel. The stopper may be then removed, if desired, by slipping out the pin 27  
 15 and lifting the stopper out of the funnel. The bridge 19 need not be very wide, as its only function is to guide the movement of the stopper-rod. The knob on the upper end of the stopper-rod is to enable one to withdraw  
 20 the stopper with his fingers. Likewise the stopper may be readily replaced by any one if it should wear or become defective.

What I claim as my invention, and desire to secure by Letters Patent, is—

- 25 1. A funnel with the lower contracted portion externally threaded and having a stopper-seat, an outlet-tube screwed on said contracted

portion of the funnel so as to extend the outlet passage-way, a bridge extending transversely in said outlet passage-way, a stopper-rod extending longitudinally into the passage-way and guided in its movements by said  
 30 bridge, a stopper on said rod, a spring acting between said bridge and rod for closing the stopper and means in connection with said outlet-tube for elevating said rod and stopper. 35

2. A funnel with the lower contracted portion externally threaded and having a stopper-seat, a perforated bridge extending transversely in said contracted portion, an outlet-  
 40 tube screwed on said contracted portion, a stopper-rod extending loosely through said bridge, a pin in said rod below the bridge, a spring around said rod between the pin and bridge, a stopper on said rod above the bridge  
 45 and means in connection with said outlet-tube for elevating said rod and stopper.

In testimony whereof I have hereunto affixed my signature in the presence of the witnesses herein named.

HENRY F. GANON.

Witnesses:

V. H. LOCKWOOD,  
 N. ALLEMONG.