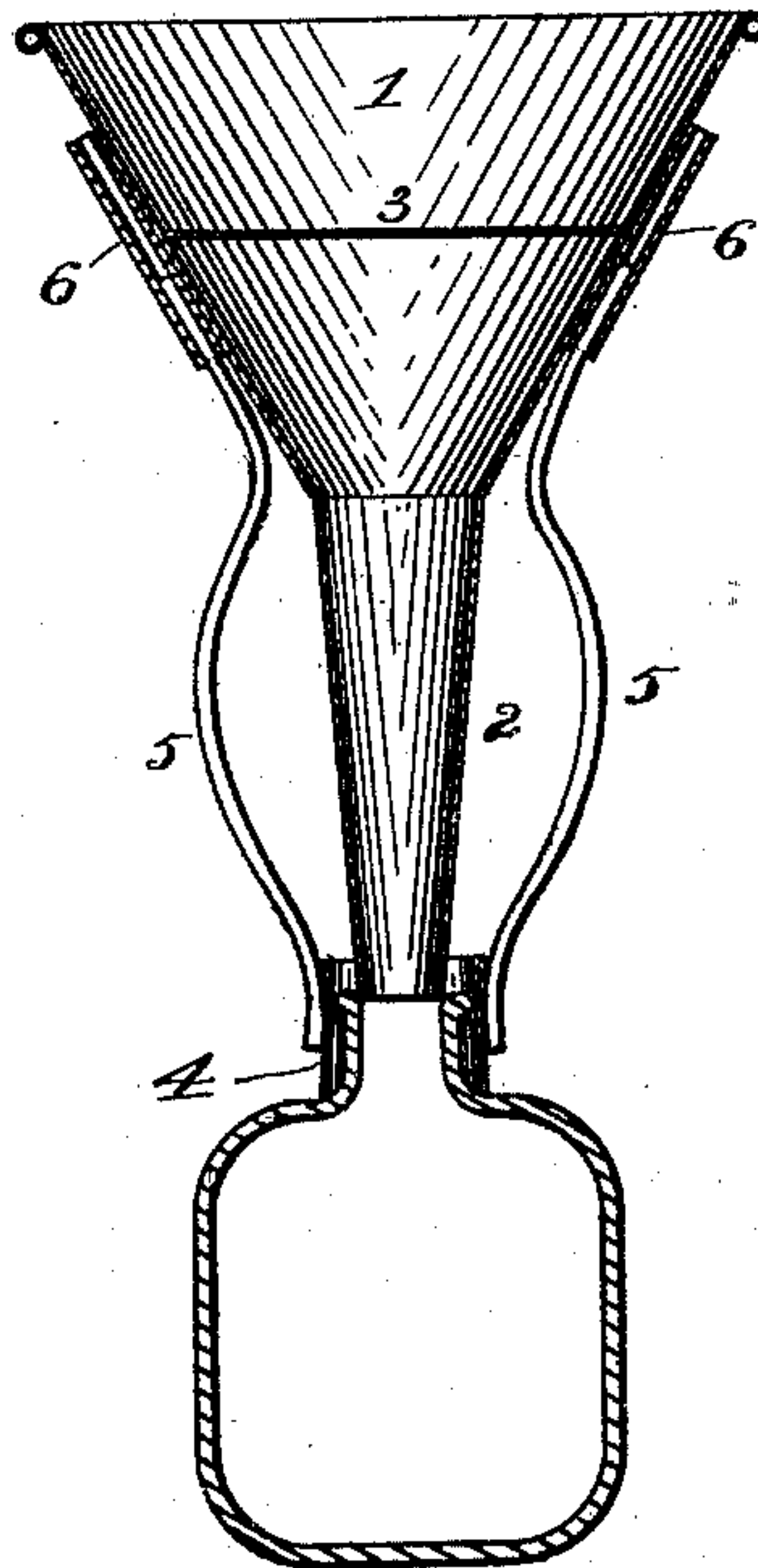
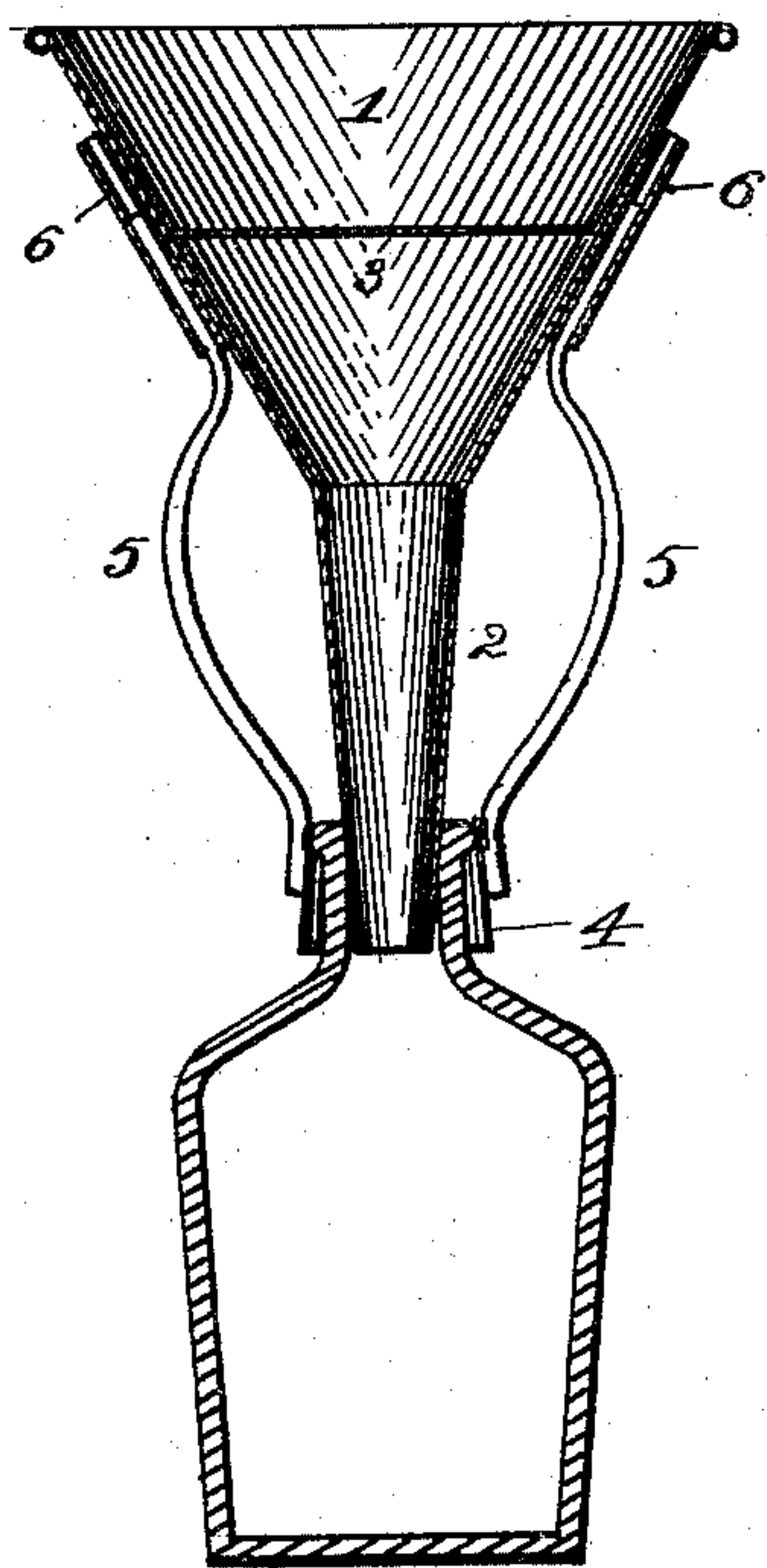
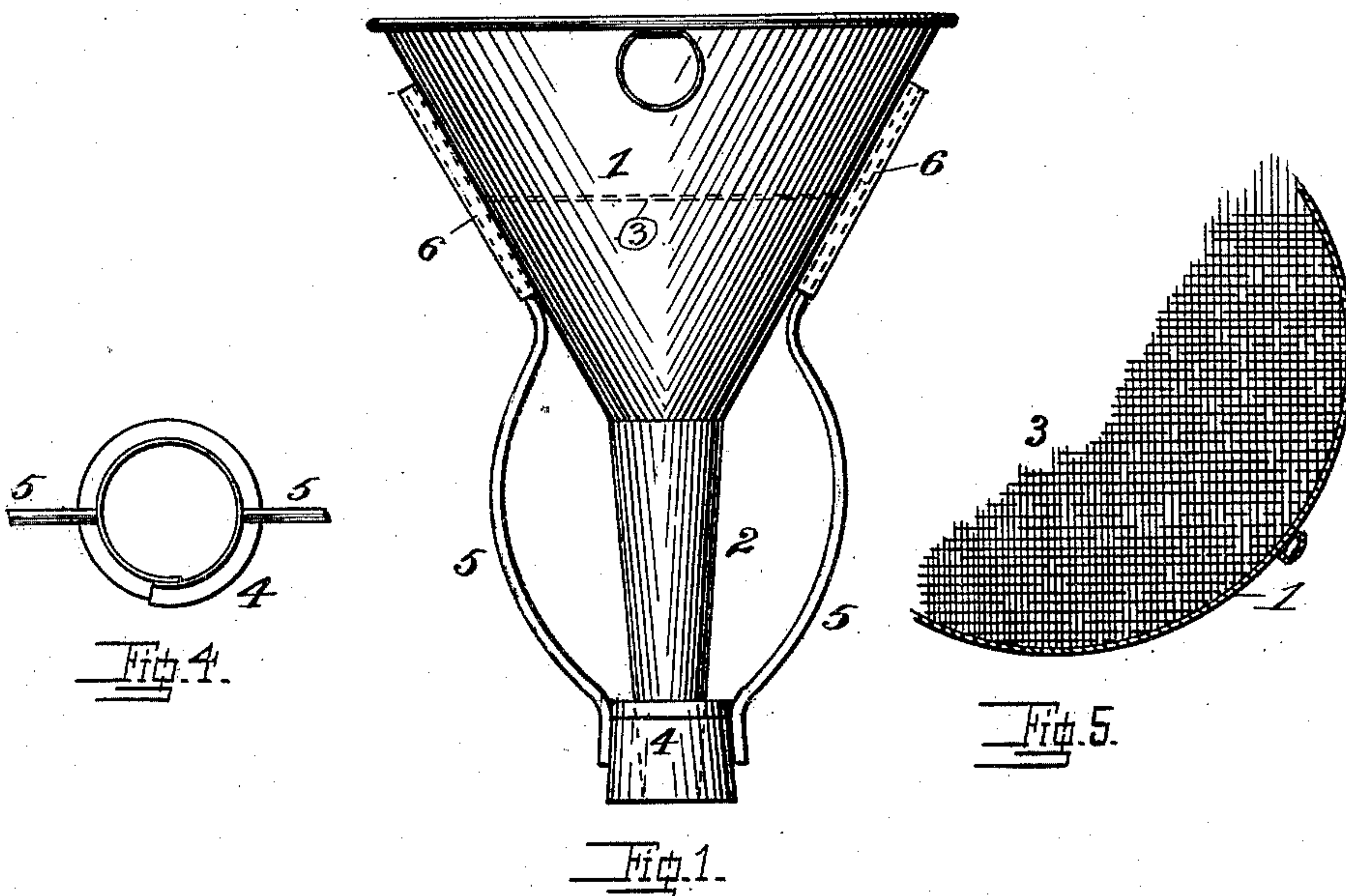


(No Model.)

A. P. WOOD.  
FUNNEL.

No. 474,036.

Patented May 3, 1892.



Witnesses  
L. F. Hayden  
Edward A. Wood

Inventor  
Albana P. Wood  
By his Attorneys.  
A. A. Woodson



# UNITED STATES PATENT OFFICE.

ALHANA P. WOOD, OF ATLANTA, GEORGIA.

## FUNNEL.

SPECIFICATION forming part of Letters Patent No. 474,036, dated May 3, 1892.

Application filed August 17, 1891. Serial No. 402,919. (No model.)

*To all whom it may concern:*

Be it known that I, ALHANA P. WOOD, of Atlanta, in the county of Fulton and State of Georgia, 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, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates, as above stated, to funnels, having particular reference to the production of a funnel for filling small bottles, it being desirable to grasp and hold same during filling; and to that end the invention consists of connecting an elastic ring or spring-pressed clasp to a funnel so as to cause it to engage the neck of a bottle, the details and operation of all of which are hereinafter fully specified, and are shown in the accompanying drawings, in which—

Figure 1 is a side elevation of the device, showing all of the elements in their normal position. Fig. 2 is a vertical section showing the clasp engaging the bottle-neck, Fig. 3 being also such a view, the bottle, however, being one into the neck of which cannot be introduced the funnel, said figure illustrating the adaptation of the device to such circumstances. Fig. 4 is a detail in plan view of the clasp-ring, showing the provision for the expansion thereof. Fig. 5 is a view showing the strainer for the more costly funnels.

In the figures like reference-marks are employed in the designation of corresponding elements of construction.

1 is the funnel proper, 2 is the tube, and 3 is a gage-strainer therein, any and all of which may be of any approved form, and the latter may be omitted entirely, if desired.

An expansible ring 4 is carried upon the funnel, surrounding the lower end of the tube 2. Said ring is preferably of metal of sufficient thickness to have stability and yet be expansible, being severed to provide for ex-

pansion. Either the ring must be of resilient material or suitable springs must be supplied for closing same upon the bottle-neck. If springs were employed, as stated in the latter instance, the wires 5 would be of steel. Said wires are soldered to opposite sides, preferably of the ring 4, and having their upper ends bent divergently to conform to the sides of the portion 1 of the funnel. Sockets 6, each preferably formed of a piece of upset metal, are soldered onto the outside of said part 4, and the said divergent ends are therein inserted and have play into and from said sockets. This provides for removing the clasps and resting the funnels in slipping and also for application to bottles wherein the part 2 cannot be entered, necessitating the extension of the expansion-ring beyond the end of said tube 2, as will be clearly seen in Fig. 3. In case these adaptations are not required the wires 5 may be secured rigidly to the funnel.

It will be at once apparent to the observer that the ring will open in a form very nearly approximating the cylindrical, and hence will have no tendency to slip from the neck of bottle, and also that its scope of adjustment is very greatly enlarged thereby.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device of the class specified, a funnel and a split ring secured thereto, surrounding the nozzle thereof by means of one or more wires secured to the said ring and at their other end to the said funnel near its top, substantially as and for the purpose specified.

2. In a device of the class specified, the funnel carrying sockets on its sides, and the ring and wires secured to said ring and introduced and movable within said sockets, substantially as and for the purpose specified.

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

ALHANA P. WOOD.

Witnesses:

A. P. WOOD,  
S. M. WOOD.