

No. 706,465.

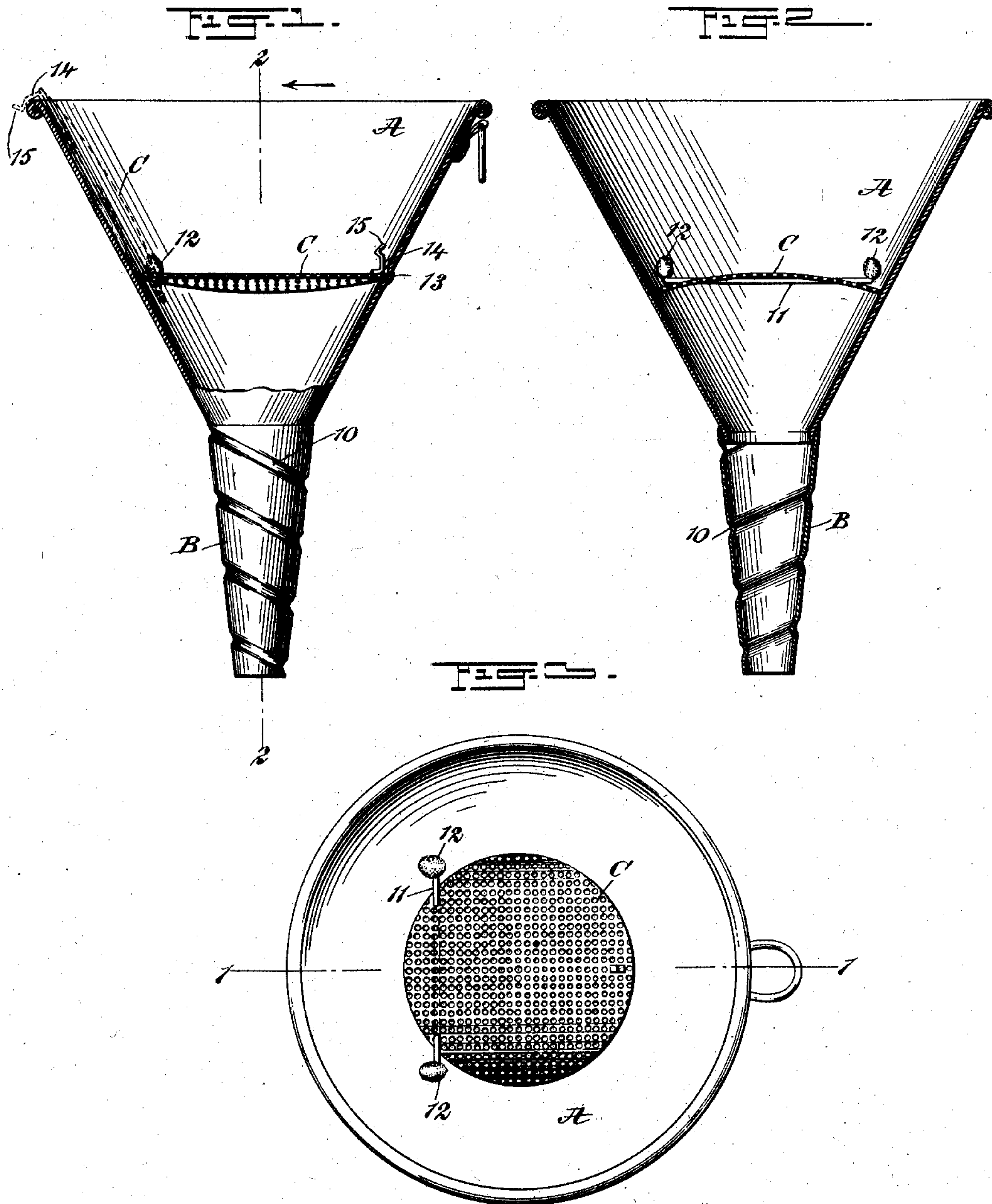
Patented Aug. 5, 1902.

J. DE ST. LEGIER.
FUNNEL.

(Application filed Jan. 24, 1902.)

(No Model.)

2 Sheets—Sheet 1.



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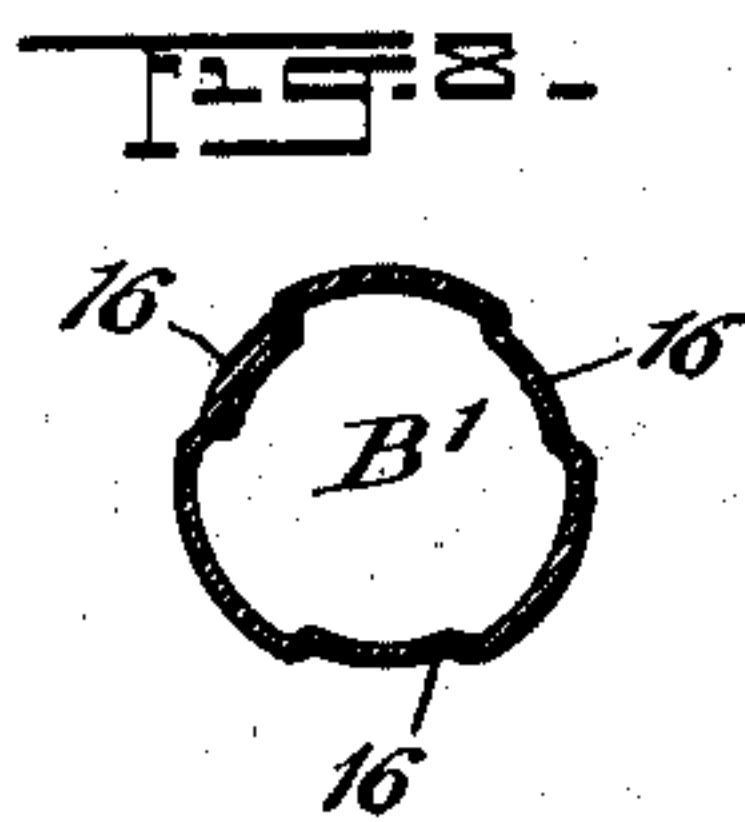
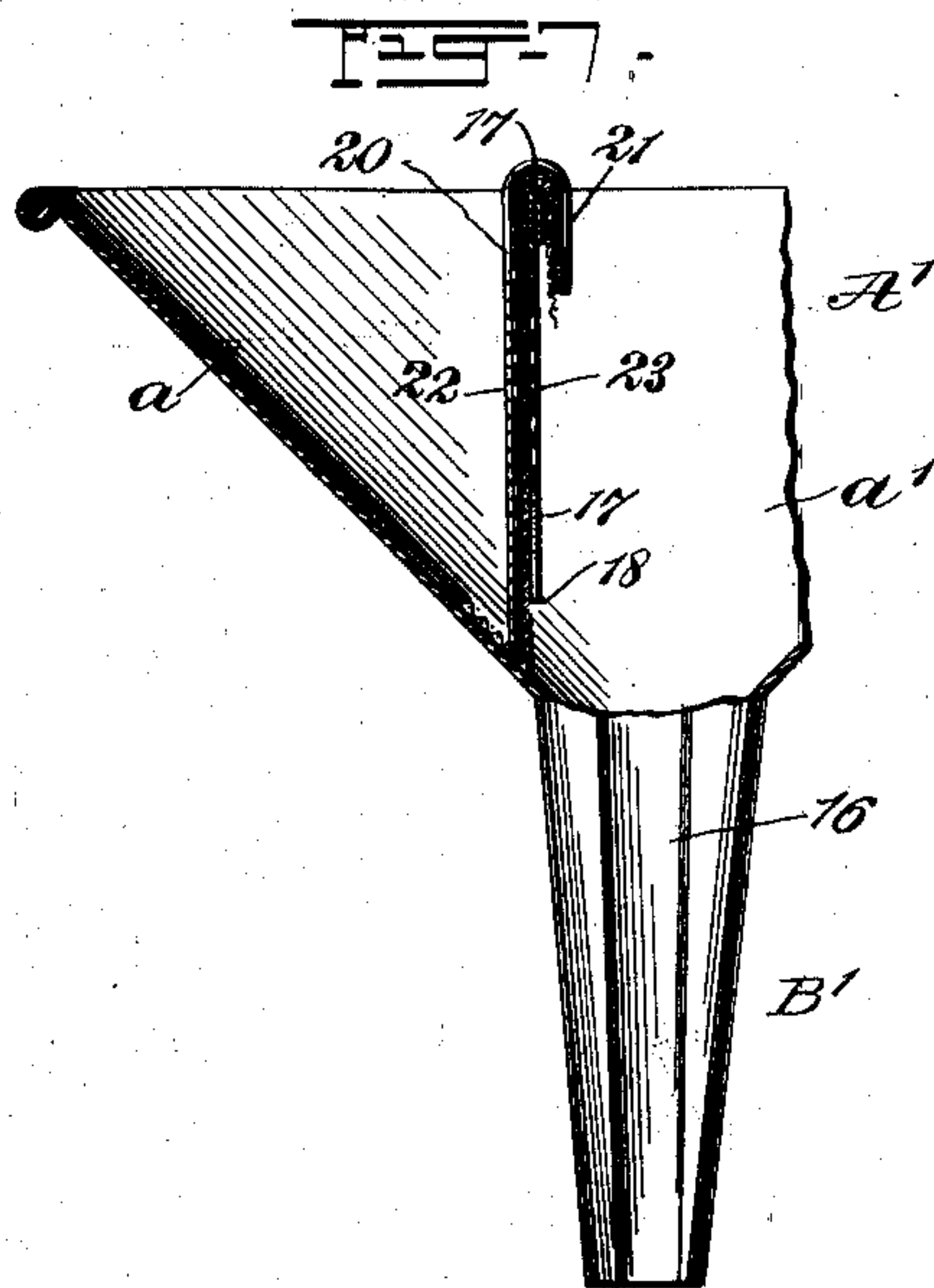
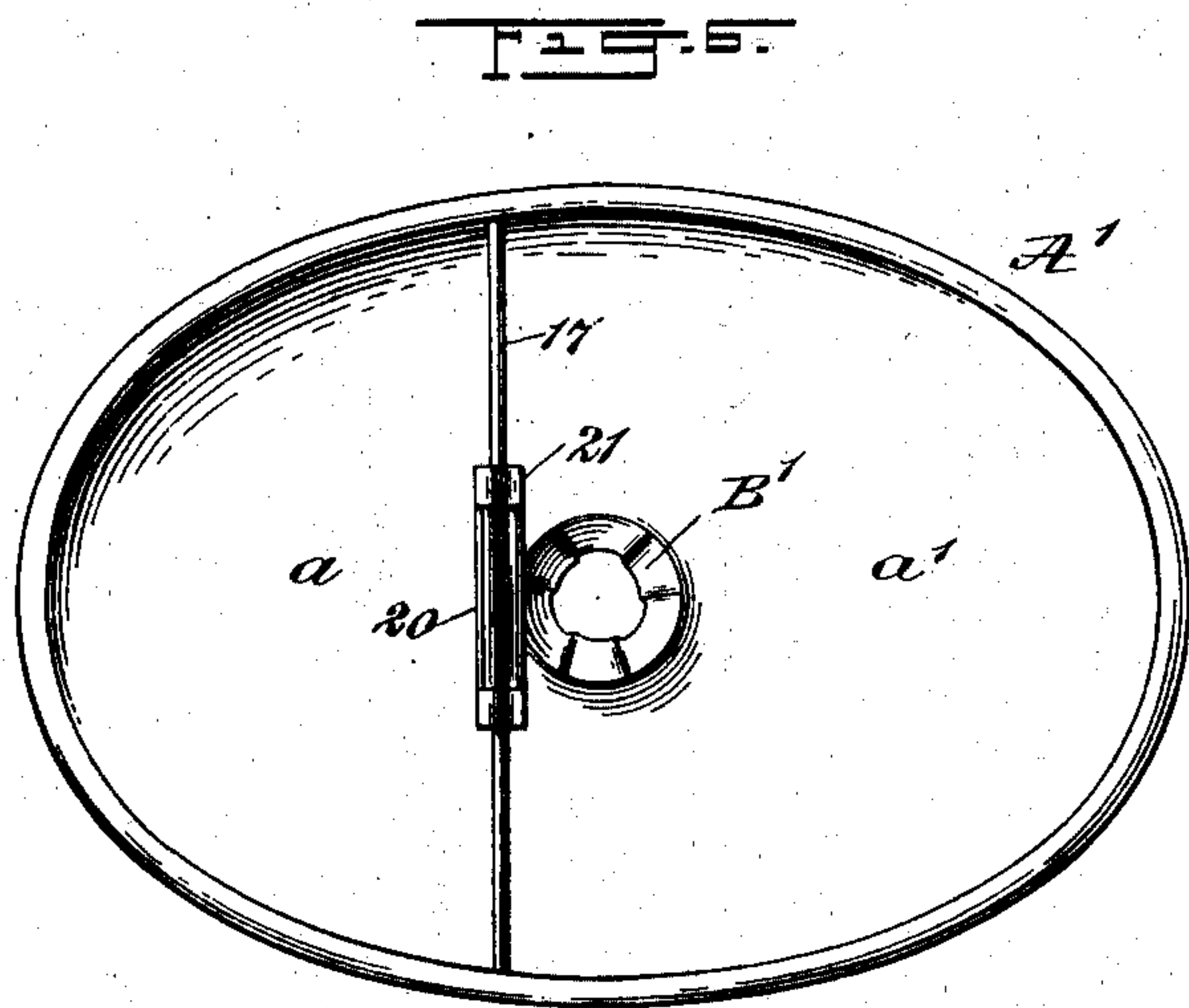
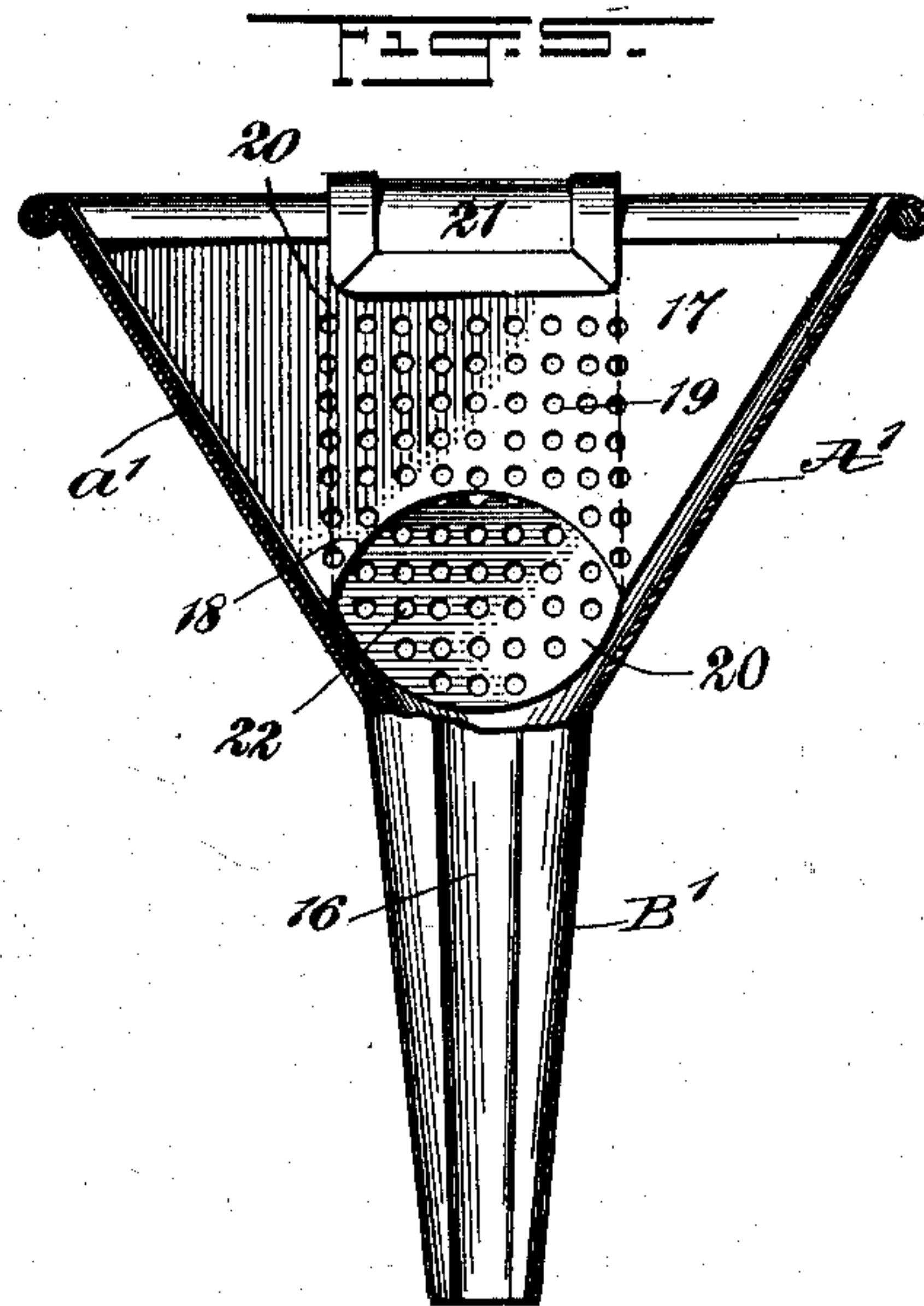
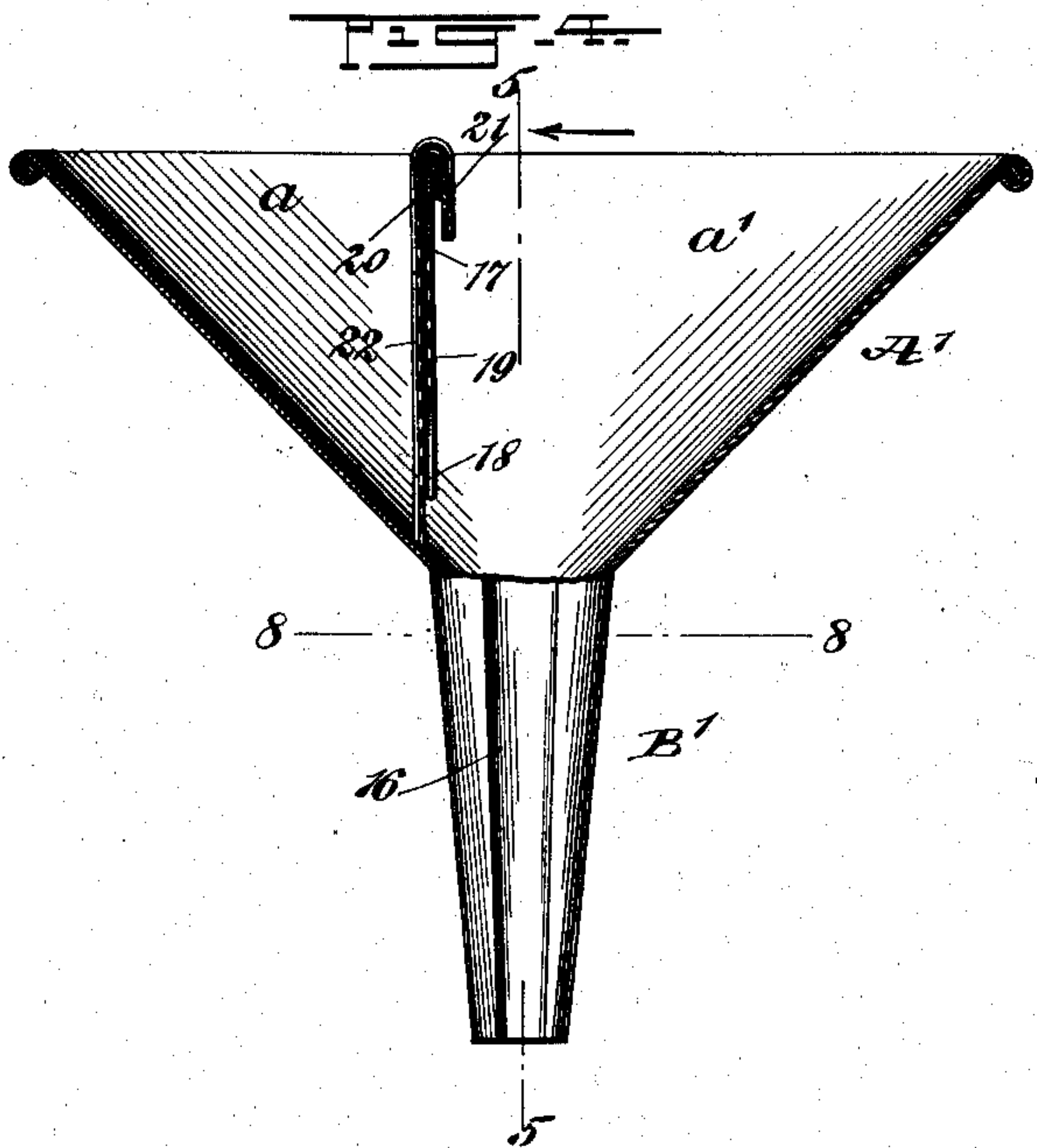
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(No Model.)

2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

JOHN DE ST. LEGIER, OF HICKSVILLE, NEW YORK.

FUNNEL.

SPECIFICATION forming part of Letters Patent No. 706,465, dated August 5, 1902.

Application filed January 24, 1902. Serial No. 91,063. (No model.)

To all whom it may concern:

Be it known that I, JOHN DE ST. LEGIER, a citizen of the United States, and a resident of Hicksville, in the county of Nassau and State of New York, have invented a new and Improved Funnel, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a funnel and strainer so constructed that the straining member may be quickly and conveniently secured in straining position in the body of the funnel and as readily secured in a position which will leave communication between the body and neck of the funnel unobstructed.

Another purpose of the invention is to so construct the strainer that a piece of straining fabric may be used in connection with the attached strainer and be held thereby when it is desired to render liquid particularly clear.

A further purpose of the invention is to so shape the body of the funnel that liquid may be poured therein from a measure without liability of spilling; and also to so construct the neck of the funnel that an exterior air-channel will be provided without altering the cross-sectional circular contour of the neck.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical section through the funnel, taken practically on the line 1 1 of Fig. 3. Fig. 2 is also a vertical section through the funnel, taken at right angles to the section shown in Fig. 1; and practically on the line 2 2 of Fig. 1, and Fig. 3 is a plan view of the funnel. Fig. 4 is a central vertical section through a slightly-modified form of funnel. Fig. 5 is a section through the funnel illustrated in Fig. 4, taken practically on the line 5 5 of Fig. 4 and looking in direction of the arrow. Fig. 6 is a plan view of the funnel shown in Figs. 4 and 5. Fig. 7 is a section through a portion of the body of the modified form of funnel, illustrating the application of a straining-cloth, the neck of

the funnel appearing in elevation; and Fig. 8 is a horizontal section through the neck of the funnel, taken practically on the line 8 8 of Fig. 4.

The funnel comprises a body A and a neck B, and in the construction shown in Figs. 1, 2, and 3 the body of the funnel is of the usual type, as is also the neck; but a spiral indentation 10 is produced exteriorly in the neck, thus providing an exterior air-channel through which the air escapes when the funnel is in use without departing from the customary circular cross-section of the neck. The strainer C is of perforated or reticulated metal and in marginal contour corresponds to the inner contour of the body at a point above the communication between the body and the neck; but the said strainer is more or less dish-shaped, having a convex upper and a concave under surface.

The strainer at one point at or near its margin is hinged to the body of the funnel, and the form of hinge usually employed consists of a pin 11, loosely passed through convenient perforations in the strainer, and the ends of the pin are soldered or otherwise attached to the body of the funnel, as is best shown at 12 in Figs. 2 and 3.

When the margin of the strainer is pressed to a close engagement with the inner surface of the body A, it is so held by reason of its edge opposite the hinge having been forced into a depression 13 in the body or, if desired, beneath a projection on the inner face of the body, thus accomplishing a lock.

At the locking-point of the strainer an upwardly-extending handle 14 is secured, preferably of a spring material and having an angular free terminal 15, so that the handle constitutes a spring-latch, which when the strainer is carried up in contact with the sides of the body is sprung up over the upper edge of the body, as is shown in dotted lines in Fig. 1. The strainer is placed and held in its upper position when not required, leaving the communication between the body and neck fully open, enabling the device to be used at will as a plain funnel.

Whenever it is desired to particularly clarify liquid, a piece of straining fabric or filtering material is placed beneath the hinged strainer C before the strainer is lowered, the

said material being placed in such manner that the edges of the strainer will clamp said material to the edges of the body of the funnel.

- 5 Under the form of construction shown in Figs. 4, 5, 6, 7, and 8 the funnel comprises a body A', oval in plan view, and a neck B'. The oval or elongated shape of the body enables the funnel to receive a broad stream
10 without spilling, as from the lip of a measure, for example. In the neck B' the air-channels 16 are in the form of longitudinal depressions in the outer surface of the neck, extending from top to bottom of the same.
- 15 A partition 17 is transversely secured within the body A' at a point slightly one side of the communication between the body and neck. The upper edge of the partition is usually about flush with the corresponding
20 edge of the body. An arched recess 18 is made in the bottom of the partition 17, as is shown in Fig. 5, establishing free communication between the two chambers *a* and *a'* in the body made by the partition and also free
25 communication between both chambers and the neck of the funnel, and above the recess 18 a series of apertures 19 is produced in the partition, extending in a central column from said recess 18 to the upper edge of the par-
30 tition, as is also best shown in Fig. 5. A straining-plate 20 is employed in connection with the partition of a width slightly greater than the greatest width of the recess 18 and of a length sufficient to reach to the bottom
35 of the body at that side of the opening in the body and neck over which the partition is placed. The lower edge of the straining-plate is rounded to fit snugly against the bottom of the body, and at the top of the plate
40 20 a hook 21 is formed, while apertures 22 are made in the straining-plate, extending from the bottom to a point near the top.

When the funnel is to be used as a strainer, the straining-plate is hooked upon the parti-
45 tion 17, its lower edge resting upon the bottom of the body, as is shown in Figs. 5, 6, and 7, at which time the upper portion of the apertures 22 will register with the apertures 19 in the partition 17, and the lower portion
50 of the apertures 22 will appear at the recess 18 in the partition, so that liquid poured in the chamber *a* of the body will be strained through the apertures in the partition and the straining-plate before passing to the cham-
55 ber *a'* and from thence to the neck of the funnel, through which it has free passage.

When a liquid is to be rendered exceedingly clear, a filtering cloth or paper or a straining fabric 23 is placed next to the inner face of the straining-plate 20, beneath the hook 21, 60 and in engagement with the lower edge of the straining-plate before the straining-plate is placed in position in the funnel, whereupon a double straining medium is provided, as is shown in Fig. 7. When the straining-plate 65 is removed from the partition 17, the funnel may be used simply as a conductor of liquids, and the straining-plate is then hung at the margin of the body by means of its hook 21, the body of the plate resting upon the side 70 surface of the said body of the funnel.

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

1. A funnel provided with a strainer which 75 is hinged at one edge within the body of the funnel, and a spring-handle attached to the free edge of the strainer, the hinge of the strainer being located below the top edge of the funnel at a point substantially equal to 80 the diameter of said strainer, whereby the strainer may be raised to an inoperative position and the handle may snap over the top edge of the funnel to hold the strainer out of the way of matter passing through said funnel. 85

2. A funnel provided with a strainer which is concavo-convex in cross-section and is arranged within the body of the funnel to present its convex side uppermost and in facing relation to the broad open end of the body, 90 said strainer being hinged to the body at a point below the top edge of the funnel equal to the diameter of the strainer, and means to firmly hold the strainer in its lowered and raised positions. 95

3. A funnel provided with a strainer which is hinged at one edge to the body of the funnel at a point below the top edge of the funnel equal to the diameter of the strainer, means adapted to engage the free end of the 100 strainer and fasten it in the lowered operative position, and a fastener arranged to hold the strainer in a raised inoperative position within the funnel.

In testimony whereof I have signed my 105 name to this specification in the presence of two subscribing witnesses.

JOHN DE ST. LEGIER.

Witnesses:

ELIJAH HERBAGE,
HENRY C. ZEUNER.