

(No Model.)

W. H. GRISSIM.
MEASURING FUNNEL.

No. 426,667.

Patented Apr. 29, 1890.

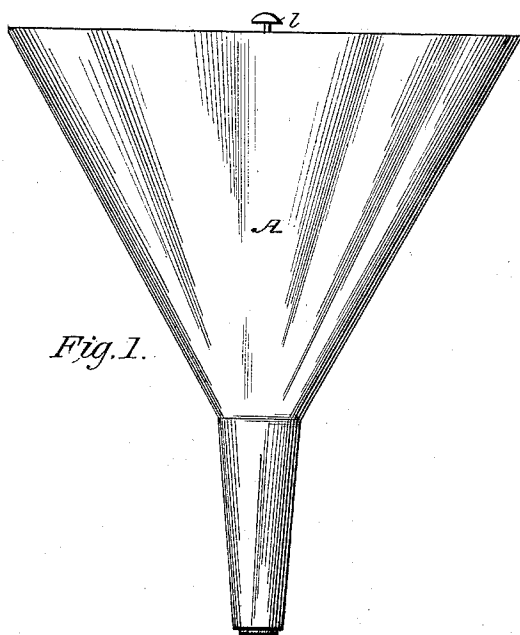


Fig. 1.

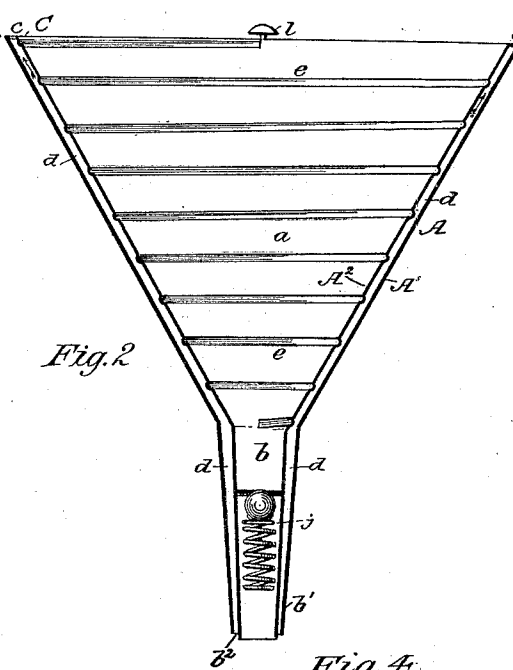


Fig. 2.

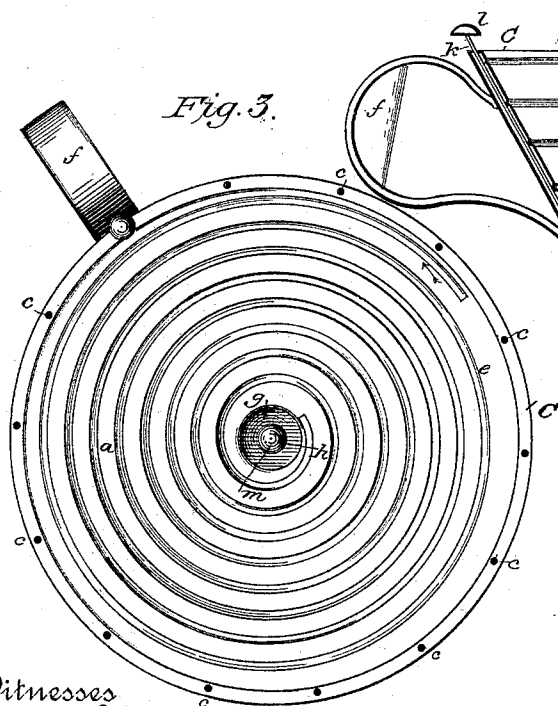


Fig. 3.

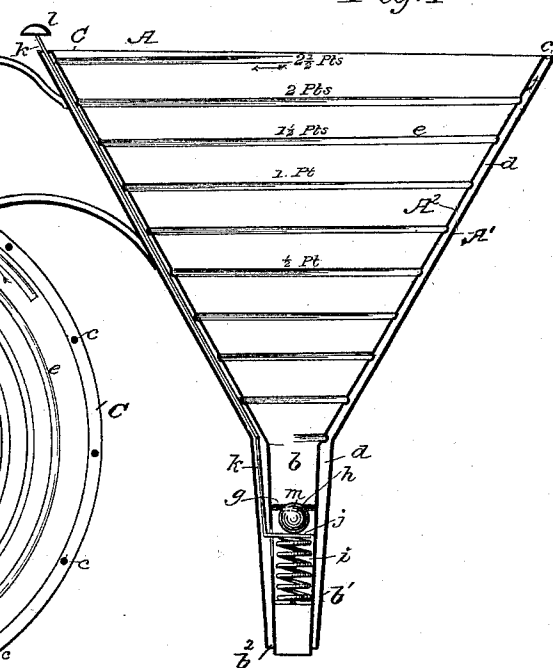


Fig. 4.

Witnesses
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MEASURING-FUNNEL.

SPECIFICATION forming part of Letters Patent No. 426,667, dated April 29, 1890.

Application filed March 6, 1889. Serial No. 302,182. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY GRIS-
SIM, a citizen of the United States, residing at
the city of Santa Rosa, in the county of So-
noma and State of California, have invented
a new and useful Funnel, of which the follow-
ing is a specification.

My invention relates to improvements in
funnels; and it has for its object to provide a
smooth, steady, uniform, and uninterrupted
flow of liquid through the funnel and to avoid
the inconvenience of bubbling and overflow-
ing of the liquid at the opening of the vessel
in which the funnel is inserted, and thereby
avoid the waste of the liquid.

It has also for its object to provide suitable
means for retaining and measuring the liquid
in the funnel before the same is discharged
therefrom.

To this end my invention consists of certain
features of construction and novel arrange-
ment of parts, as will be hereinafter fully de-
scribed in the annexed specification and par-
ticularly pointed out in the claim.

In the drawings, Figure 1 is a side view of
my improved funnel. Fig. 2 is a cross-section
thereof. Fig. 3 is a top plan view of the same;
and Fig. 4 is a cross-section of the same, taken
at right angles to Fig. 2.

The funnel A is formed of an inner and
outer casing A' A², which are connected at the
top, as shown at C, forming an annular air-
chamber d, surrounding the inner casing A²,
as clearly shown in the drawings. The inner
casing A² is provided with a depending spout
b, which is disposed within but is extended
slightly below the spout b' of the outer casing
A'. By extending the inner spout, as shown,
the danger of the air-inlet b² being closed by
the discharging fluid is effectually avoided.
A series of apertures c c are provided in the
annular connecting-rim C, through which the
air escapes from the vessel which is being
filled. The inner casing or lining A² is pro-
vided with a spiral groove or channel e e,
which commences at the top and extends to
the contracted discharge-opening. By this
construction it will be seen that when the fun-
nel is inserted into the vessel to be filled the
liquid poured into the funnel will the more
readily flow downward by reason of a whirl-

ing or eddying current produced by the spiral
grooves, which direct the liquid downward di-
rectly over the discharge-spout, and by form-
ing an air-chamber around the inner lining
or funnel proper, the same being open at the
bottom, the air from the vessel will readily
escape therefrom into the said air-chamber
and out through the apertures c c in the rim
C, thus affording not only a steady, smooth,
and ready flow through the funnel, but also
avoiding overflow, bubbling, and waste at the
opening in the vessel being filled.

g denotes a diaphragm provided with an ap-
erture h, formed in the inner spout b just be-
low the point where said spouts join the body
of the funnel.

m denotes a ball-valve, which is normally
held in contact with a leather washer secured
on the under side of the diaphragm g and
closes the aperture h by means of the spiral
spring i, said ball preferably resting on a plate
j, connected to the top of the spring, said plate
being also connected with the lower end of an
operating-rod k, which extends upwardly with-
in the air-chamber b and passes through the
rim C, just in front of the handle f of the fun-
nel, and is provided at said end with a suit-
able knob or thumb-piece l, as shown.

The inner face of the inner casing A' has
marked thereon a register or scale, as shown
in the drawings, by means of which the quan-
tities of the liquid poured in the funnel may
be measured. It will be readily understood
that the ball-valve, being normally pressed
into contact with the opening h, prevents the
liquid from passing out of the funnel. After
the desired quantity has been received into
the funnel, by pressing on the thumb-piece l
the valve m drops and allows the liquid to be
discharged through the opening h.

From the foregoing description, taken in
connection with the drawings, the advantages
of my improvement will readily appear. The
same is simple in construction, cheap as to
cost, and effectual in its desired operation.

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

The hereinbefore-described improvements,
consisting of a funnel formed of the inner and
outer casings A' A², connected at their upper

ends by an apertured annular rim C, their
lower ends provided with depending spouts,
the inner spout extending below the outer
spout, said outer casing forming an annular
5 air-chamber surrounding the inner chamber
opening at its lower end, the inner face of the
inner casing provided with a spiral groove or
channel extending from its upper edge to its
contracted mouth, said inner spout provided
10 with a diaphragm having a discharge-opening,
a spring-actuated ball-valve automatically
closing said opening, and a rod connected with
said valve and extending above the funnel-
rim and provided with a suitable thumb-knob,
whereby it may be conveniently operated, all
15 arranged substantially as and for the purpose
set forth.

WILLIAM HENRY GRISSIM.

Witnesses:

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BEN. S. WOOD.