D. FOGARTY.

MEANS FOR OBSERVING AND SEPARATING HEAVY OBJECTS FROM DUST LADEN AIR CURRENTS

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944,779. Patented Dec. 28, 1909.

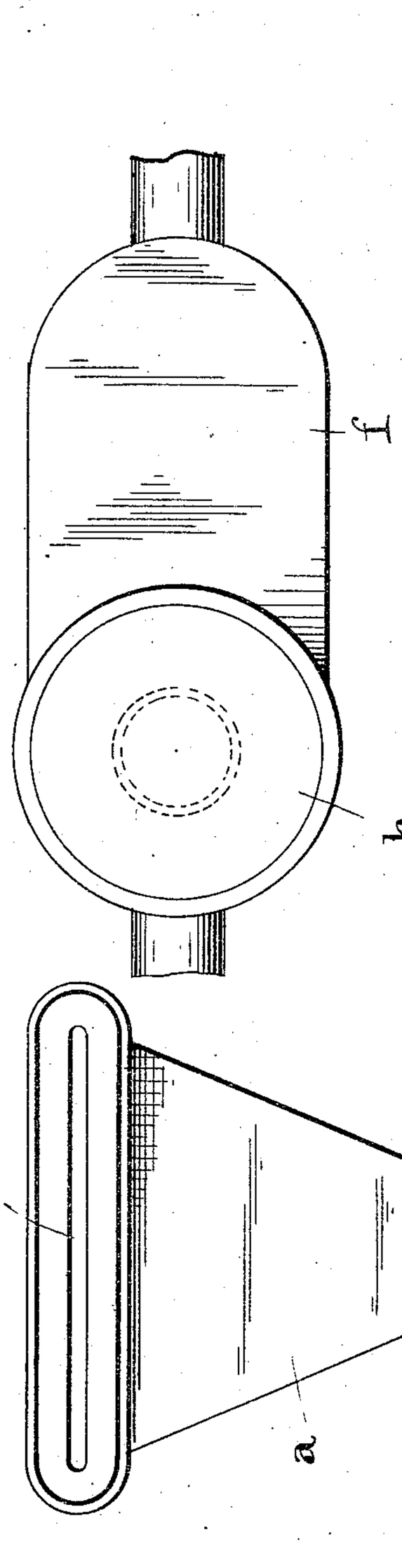

FIG. 3.

FIG. 2.

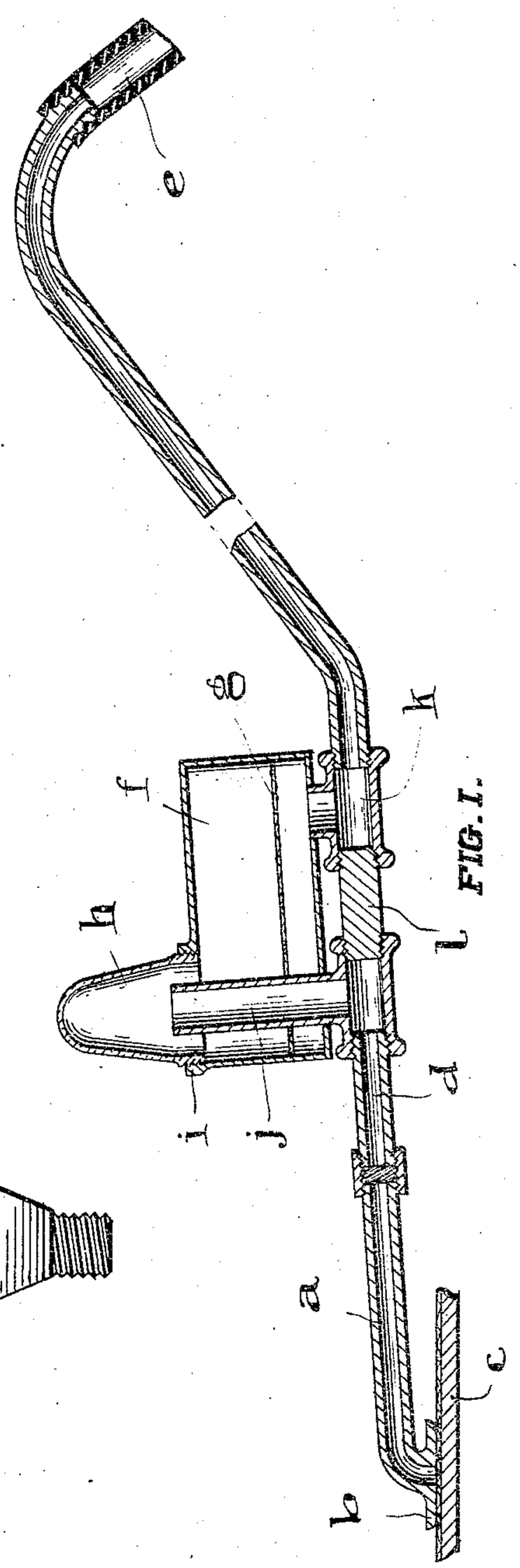

FIG. 1.

WITNESSES

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MEANS FOR OBSERVING AND SEPARATING HEAVY OBJECTS FROM DUST-LADEN AIR-CURRENTS.

944,779. Specification of Letters Patent. Patented Dec. 28, 1909.

Application filed July 11, 1908. Serial No. 443,126.

To all whom it may concern:

Be it known that I, DANIEL FOGARTY, of the city of Ottawa, in the county of Carleton, Province of Ontario, Canada, have invented certain new and useful Improvements in Means for Observing and Separating Heavy Objects from Dust-Laden Air-Currents, of which the following is a specification.

My invention relates to an improved separator for vacuum cleaning apparatus and the objects of my invention are to provide an exceedingly cheap and simple device connected with the nozzle, which will prevent the entry of any solid articles into the apparatus, and will also serve to indicate and gage the operation thereof; and it consists essentially of a preliminary separating chamber inserted in the pipe connected to the nozzle, having a screen therein, and a glass window through which the passage of material through the separating chamber may be observed; the various parts of the device being constructed and arranged in detail as hereinafter more fully set forth and described.

In the drawings,—Figure 1 is a longitudinal section through the sucker and supply pipe. Fig. 2 is an enlarged view of the bottom of the nozzle proper. Fig. 3 is an enlarged top view of the separating chamber.

In the drawings like letters of reference indicate corresponding parts in each figure.

Referring to the drawings, *a* is the nozzle proper of any well known type, that shown being triangular in form and having a face plate *b* adapted to rest on the carpet *c* or other article being cleaned. The nozzle is connected to a rigid conducting pipe *d* which is usually connected to a flexible conductor *e* which is exhausted by suitable means. Intermediate of the length of the conducting pipe *d* is inserted a separating chamber *f* which may be of any desirable form, and has therein a separating screen *g* of sufficiently coarse mesh to permit the free passage of the dirt and dust collected, but to prevent the passage of any solid articles.

Removably connected to the top of this chamber is a glass bulb *h*, which, in the embodiment illustrated, has screw-threaded engagement with an aperture in the top of the chamber. An inlet pipe *j* extends into the interior of the bulb *h* and is connected at its opposite extremity to the side of the conducting pipe *d* nearest the nozzle.

The part of the separator on the opposite side of the screen is connected with the opposite side of the conducting pipe *d* by means of a T-coupling *k* or other means. To give rigidity to the device, the T-coupling *k* and inlet pipe *j* are connected by a solid plug *l* having a screw-threaded engagement with each.

In operation, the dirt and dust passing through the separating chamber can be observed through the glass bulb *h*, whence it can be determined whether the apparatus is operating satisfactorily or not. Also any solid articles sucked in through the nozzle will be caught on the screen *g* and may be removed when the glass bulb *h* is unscrewed.

What I claim as my invention is:

1. A device of the character described comprising a rigid section of conducting pipe, a chamber having a glass bulb therein, a conducting pipe extending from the glass bulb into the rigid conducting pipe, a screen in the chamber below the opening of the conducting pipe, a second conducting pipe extending from the opposite side of the screen to the first mentioned conducting pipe, and a stop in the rigid conducting pipe between the opening of the two pipes leading into the chamber.

2. An improved separator for dust collectors comprising a chamber having T-shaped pipe coupling members connected to the bottom, one of said members opening near the bottom and one near the top, a screen within the chamber between the openings of the coupling members, a glass bulb secured in the side of the chamber, opposite the end of the coupling member which extends near the top, a plug *l* connecting the inner ends of the couplings and conducting pipes connected to the outer ends of the couplings.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

DANIEL FOGARTY.

Witnesses:
RUSSEL S. SMART,
MARY C. LYON.