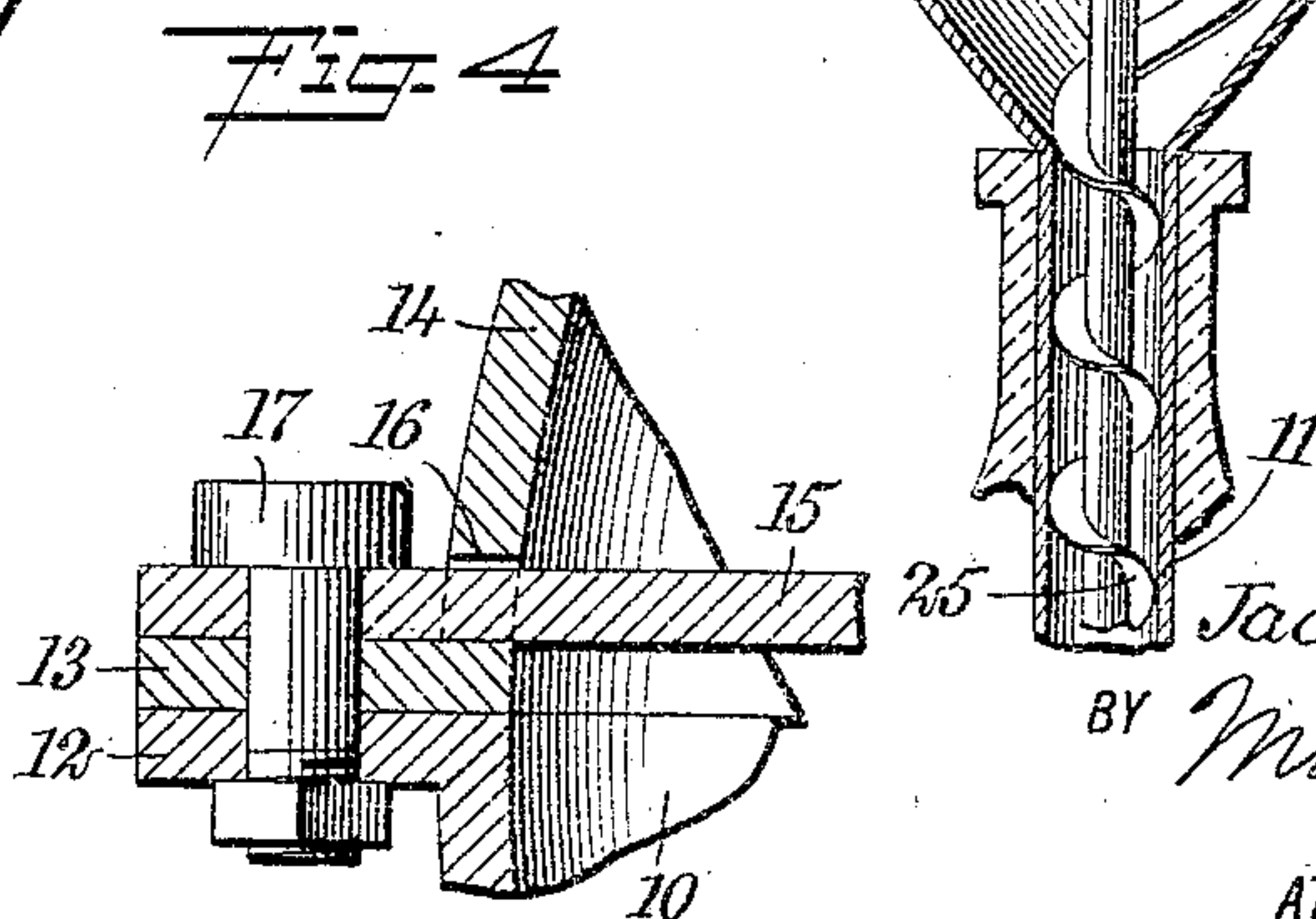
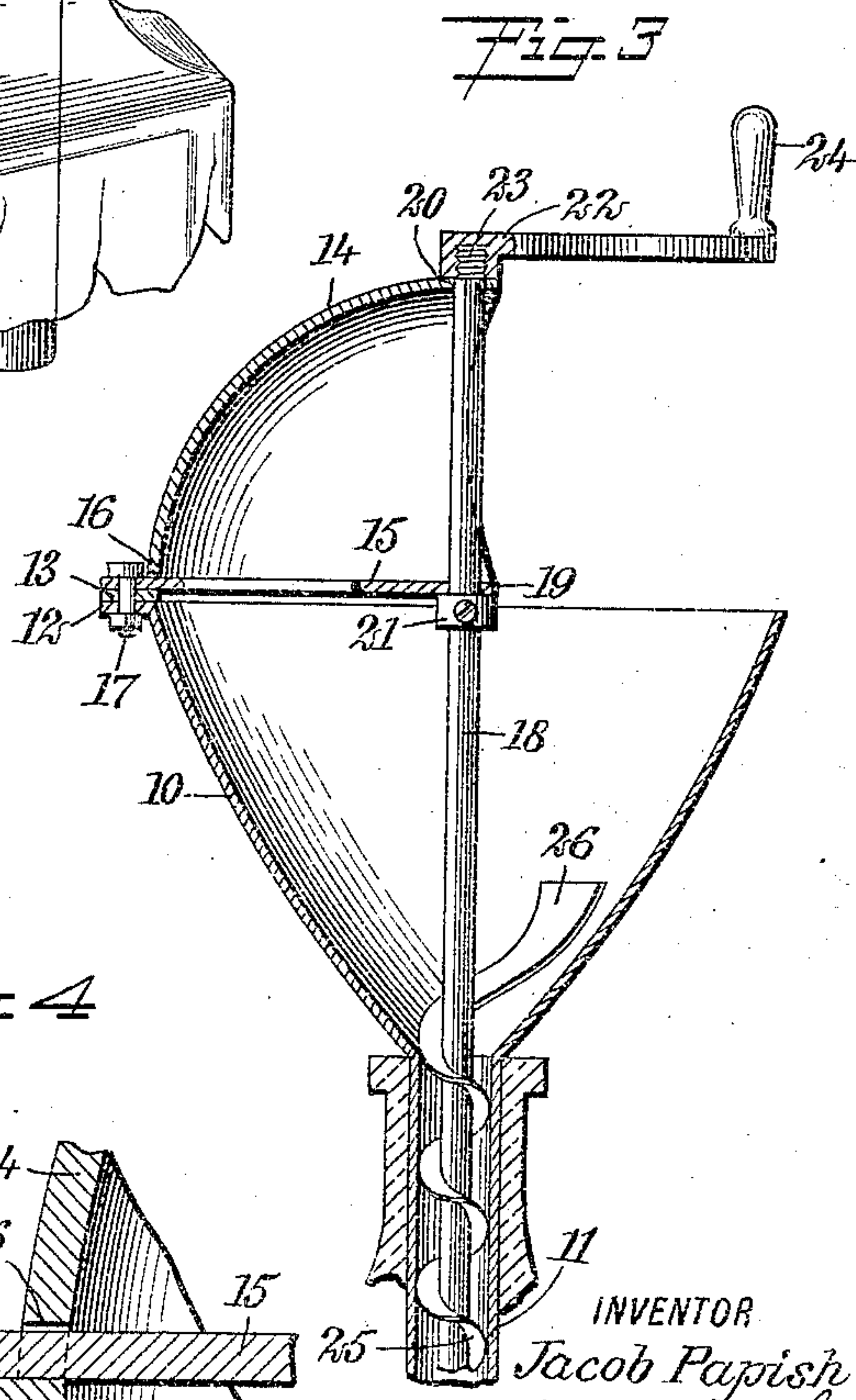
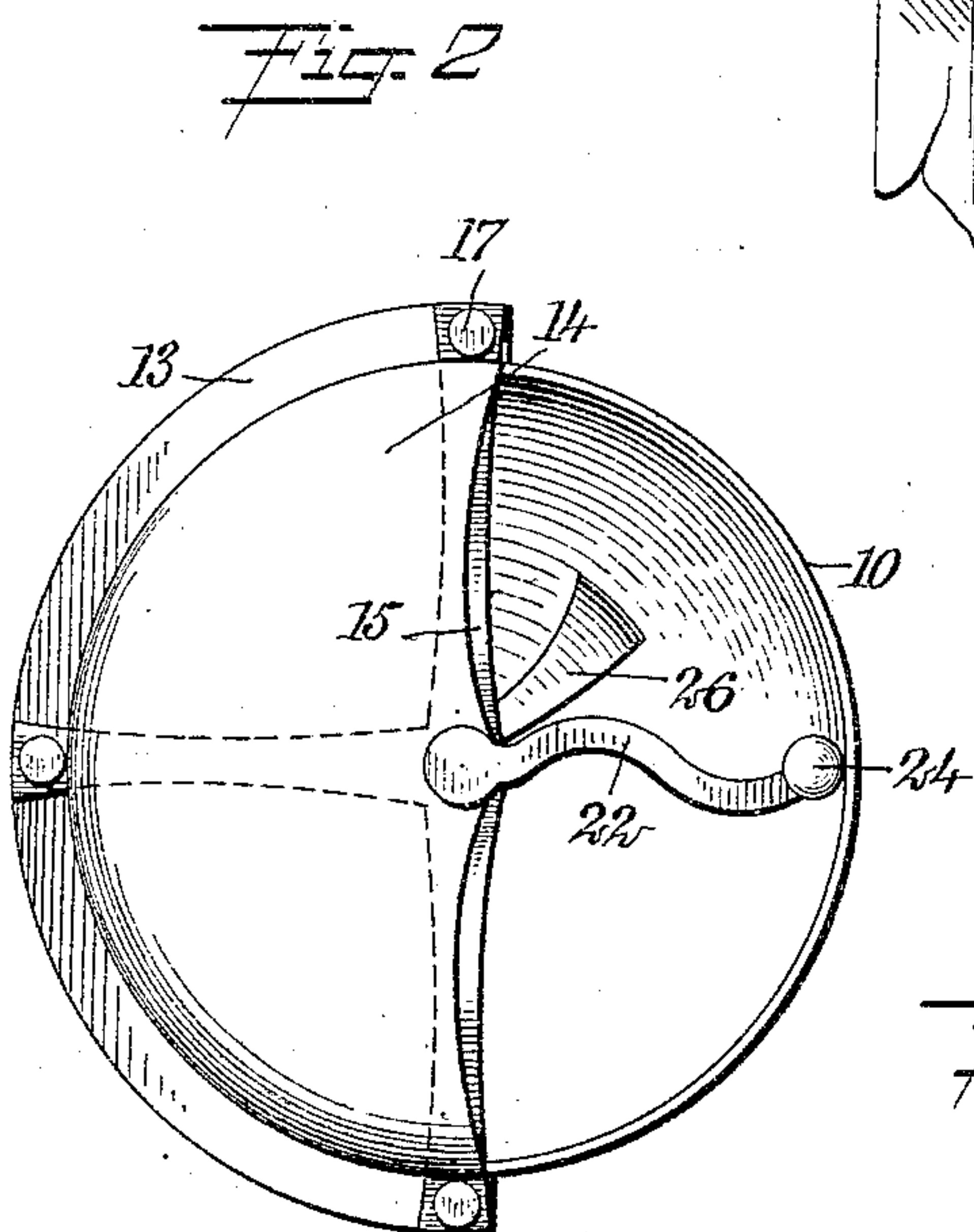
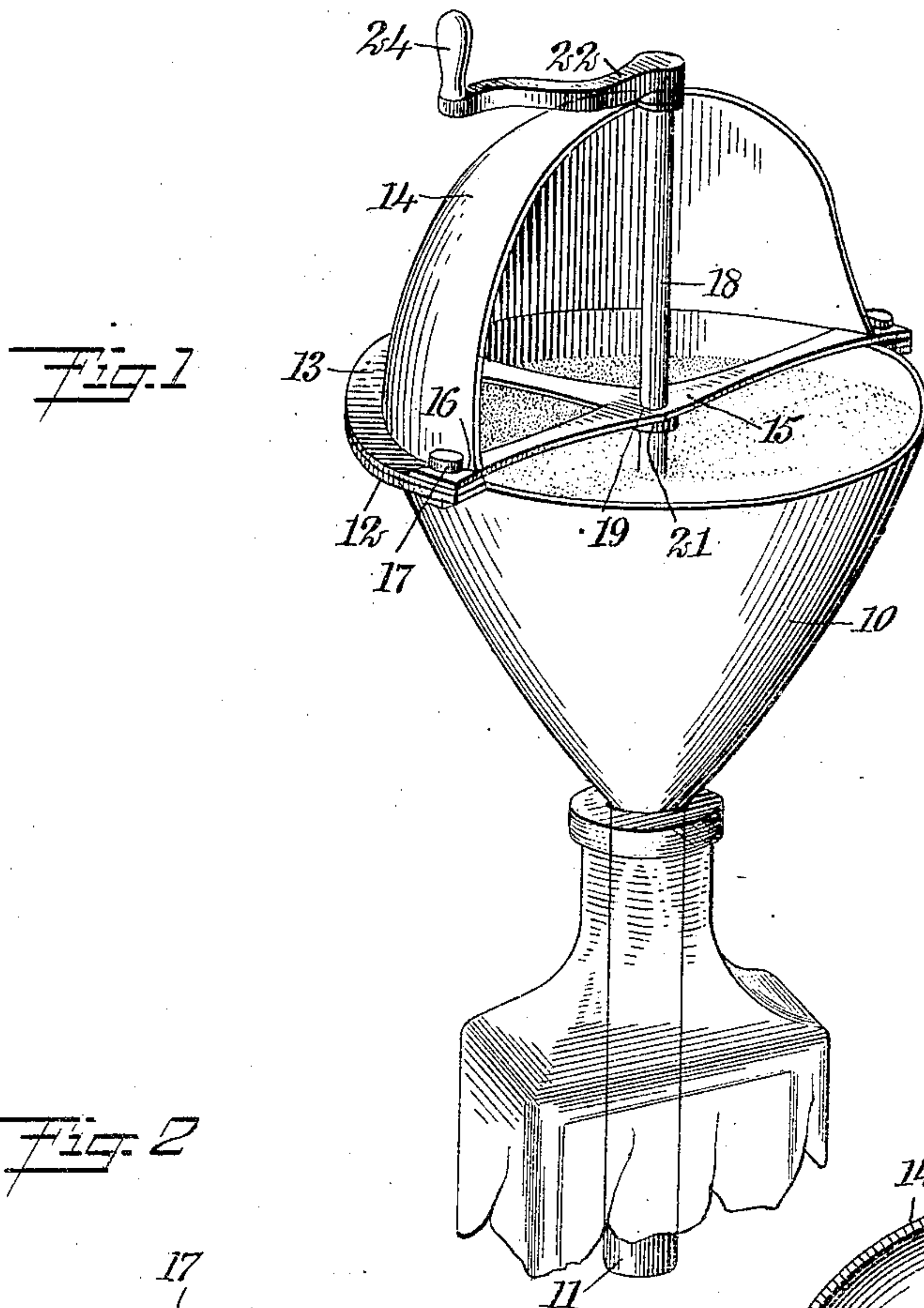


J. PAPISH.
FILLING DEVICE.
APPLICATION FILED FEB 15, 1909.

940,611.

Patented Nov. 16, 1909.



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UNITED STATES PATENT OFFICE.

JACOB PAPISH, OF NEW YORK, N. Y.

FILLING DEVICE.

940,611.

Specification of Letters Patent.

Patented Nov. 16, 1909.

Application filed February 15, 1909. Serial No. 477,870.

To all whom it may concern:

Be it known that I, JACOB PAPISH, a subject of the Czar of Russia, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Filling Device, of which the following is a full, clear, and exact description.

This invention relates to filling devices for introducing powders or other granular material into bottles and like receptacles, and relates more particularly to a filling device comprising a funnel adapted to be inserted in the receptacle, and a member for stirring the material in the funnel and for advancing the material into the receptacle.

The object of the invention is to provide a simple, inexpensive and durable filling device by means of which powders, crystals or other granular material can be expeditiously and easily introduced into small-necked bottles and the like, which requires little effort to operate it, and which fills the receptacles without spilling any of the material which is being introduced into the receptacle.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth 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 views, and in which—

Figure 1 is a perspective view showing an embodiment of my invention being used to introduce a granular material into a bottle; Fig. 2 is a plan view of the device; Fig. 3 is a longitudinal section having parts broken away; and Fig. 4 is an enlarged, transverse section showing a detail.

Before proceeding to a more detailed explanation of my invention, it should be clearly understood that the device is particularly useful for druggists, pharmacists and others having occupations which at times necessitate the introduction into bottles or the like, of powders, crystals or other granular materials. Needless to say, it is often difficult to fill a bottle, especially if the neck of the same is of small dimensions, with a powder, and the operation is apt to be a tedious one. By means of my device the bottle can be quickly filled, and in the operation none of the material is spilled or wasted.

Referring more particularly to the draw-

ings, I provide a hopper or funnel 10 of any suitable form, and preferably having a slight outward curvature. The form of the funnel approximates that of an inverted cone as is customary. At the lower end it has an extending tube or hollow stem 11 which can be inserted in the receptacle opening or neck. At the upper rim the funnel has an outwardly disposed semi-circular flange 12 upon which seats a correspondingly formed rim flange 13 of a hood 14. The latter is preferably of spherical curvature and extends over substantially half of the top of the funnel. If so desired, the edges may be recessed or otherwise curved. The hood assists in preventing material from escaping at the edges of the funnel when the device is in operation.

A T-shaped supporting member 15 is arranged at the top of the funnel and has the extremities disposed through openings 16 of the hood and resting upon the upper flange 13. Bolts 17 or the like serve to secure the flanges together to hold the hood in place and at the same time securely fasten the ends of the support at the rim. A shaft 18 is arranged longitudinally of the funnel and is journaled in a bearing opening 19 of the support. The upper end of the shaft extends through a registering opening 20 of the hood. A collar 21 is rigidly mounted upon the shaft underneath the support, and a crank 22 is mounted by means of a threaded recess, upon the projecting threaded end 23 of the shaft. The crank has a grip 24 so that the shaft can be manually operated.

The shaft carries a helical rib 25 within the hollow stem 11 and this rib fits closely but movably within the stem, and constitutes a screw conveyer. The upper end of the rib is extended away from the shaft and projects upwardly into the funnel. This extension 26 forms a stirrer.

When it is desired to fill a receptacle by means of my device, the stem of the same is introduced into the neck or opening of the receptacle, and the granular material is poured into the funnel. The crank is then turned in the proper direction so that the screw conveyer can rapidly force the material through the stem into the receptacle. The stirrer in rotating within the funnel agitates the material and prevents it from choking the entrance to the stem and thus facilitates the introduction of the material into the receptacle.

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

1. A device of the class described, comprising a funnel, a hood mounted upon the rim of said funnel, a support between said funnel and said hood, and a screw for advancing material downward through said funnel, said support and said hood having bearings for said screw.

2. A device of the class described, comprising a funnel, a hood arranged upon said funnel, a support positioned under said hood, common means for securing said funnel, said hood and said support together, and a screw for advancing material downwardly through said funnel, said hood and said support having bearings wherein said screw is journaled.

3. A device of the class described, comprising a funnel having a hollow stem adapted to be inserted in a receptacle, a shaft arranged longitudinally of said stem and having a crank whereby it can be manually operated, a helical rib carried by said shaft within said stem, said rib having

a part extended upwardly and laterally into said funnel and forming a stirrer, and a hood mounted upon said funnel and partly covering the same, said hood having a bearing for said shaft.

4. A device of the class described, comprising a funnel having a hollow stem, said funnel at the rim having a flange, a hood having a flange and arranged upon said first flange, said hood having openings adjacent to its flange, a support having extremities extending through said openings, bolts for securing said flanges and said extremities of said support in place, a shaft arranged longitudinally of said stem and journaled upon said support, a crank rigid with said shaft, and a helical rib carried by said shaft.

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

JACOB PAPISH.

Witnesses:

F. D. AMMEN,
JOHN P. DAVIS.