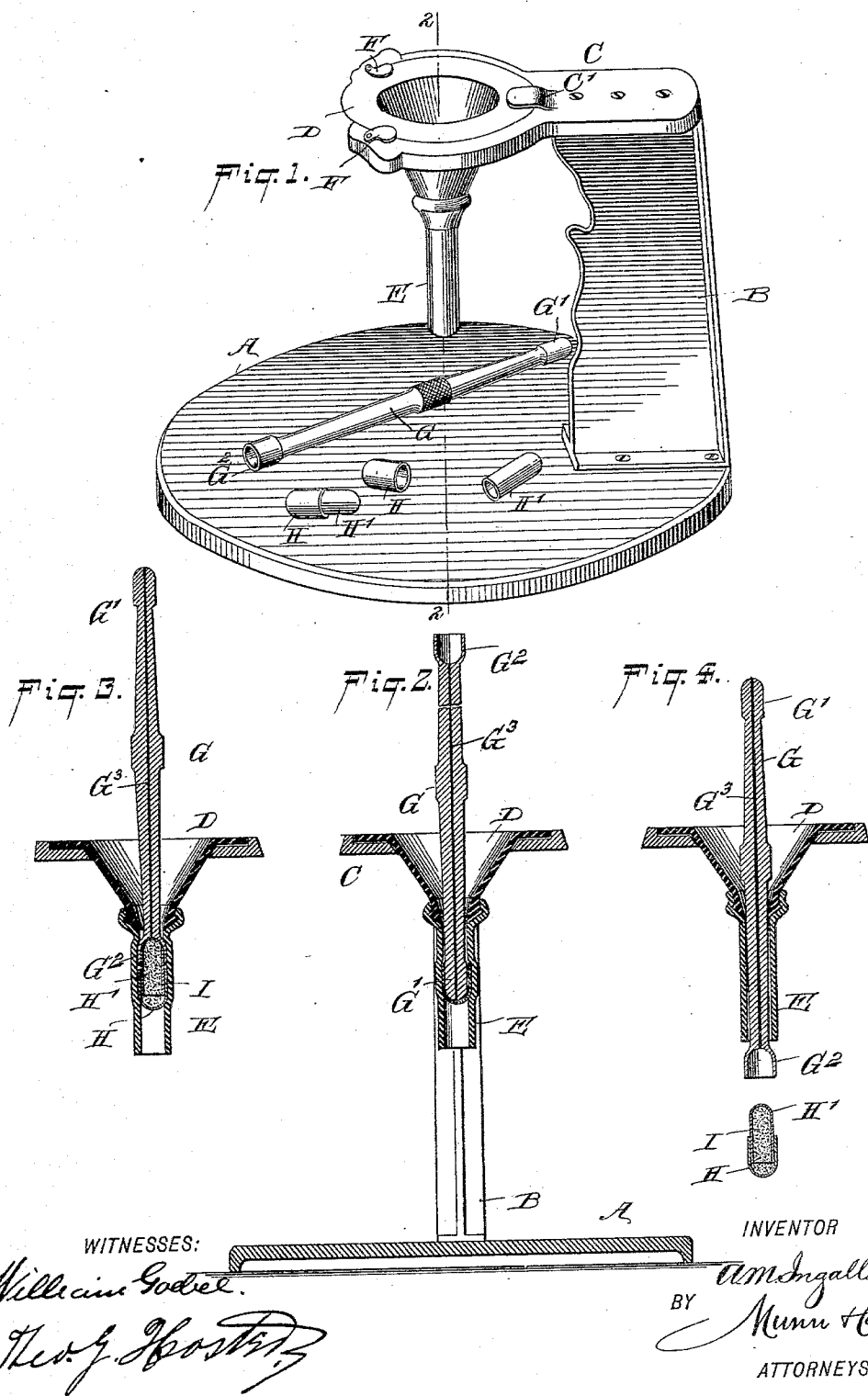


(No Model.)

A. M. INGALLS.
CAPSULE FILLER.

No. 545,365.

Patented Aug. 27, 1895.



UNITED STATES PATENT OFFICE.

ALBERT M. INGALLS, OF DULUTH, MINNESOTA.

CAPSULE-FILLER.

SPECIFICATION forming part of Letters Patent No. 545,365, dated August 27, 1895.

Application filed May 14, 1894. Serial No. 511,193. (No model.)

To all whom it may concern:

Be it known that I, ALBERT M. INGALLS, of Duluth, in the county of St. Louis and State of Minnesota, have invented a new and Improved Capsule-Filler, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved capsule-filler which is simple and durable in construction, very effective in operation, and arranged to permit of conveniently and rapidly filling capsules with the desired amount of medicinal and other material.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and pointed out in the claims.

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

Figure 1 is a perspective view of the improvement. Fig. 2 is an enlarged transverse section of the same on the line 2 2 of Fig. 1, and Figs. 3 and 4 are like views of the same with parts in different positions.

The improved capsule-filler is provided with a suitable stand, having a base A, a post B, and a socket C, adapted to support a removable funnel or hopper D, into which the material is placed for filling the capsule, as hereinafter more fully described.

On the lower end of the funnel D is held a downwardly-extending filling-tube E, made of flexible material, such as rubber, and terminating a suitable distance above the top surface of the base A. The inner diameter of the flexible filling-tube E is somewhat less than that of the lower end of the funnel D. The latter is held in place in the socket C by a fixed prong C' and the catches F, pivoted on top of the socket near the front forked end thereof, as will be readily understood by reference to Fig. 1.

A plunger or rammer G is used in connection with the funnel D and tube E, and this plunger is double ended, and is formed at one end with the ramming portion G' and at its other end with the concavity G² for placing the capsule-cap H' in proper position on the body H after the latter is filled and packed with the substance I.

The device is used as follows: The operator first places the capsule-body H over the end G' of the rammer or plunger G, and then passes this end of the plunger downward through the funnel D into the filling-tube E to expand the latter, and finally to withdraw the plunger, so as to leave the capsule-body H in position in the expanded flexible tube E. (See Fig. 2.) The operator next introduces the desired amount of the substance to be filled into the capsule into the funnel D, so that the substance passes down into the filling-tube and into the capsule-body H, extending upward at its open end. The operator now uses the end G' of the plunger or rammer G to fill and pack the substance as much as possible into the capsule-body H, and then inserts the capsule-cap H' into the concave end G², and then passes this end of the rammer downward through the hopper D into the flexible tube E to finally press the capsule-cap into position in the capsule-body H, as is plainly illustrated in Fig. 3. By this arrangement or process all the material or substance is firmly packed into the capsule, and by a further downward pressure of the plunger G the filled capsule is forced out of the flexible tube E to drop out of the cavity G² and to fall upon the base A. The operation is then repeated to fill a second capsule by first introducing the capsule-body H, then filling the same with material and ramming it, then introducing the capsule-cap H' by the recessed end G² of the plunger G, as above described.

The funnel D is preferably made of hard rubber, so as to prevent adhesion of the material under treatment.

The plunger G is formed with a central bore or aperture G³ to permit of readily withdrawing the plunger after the capsule-cap H' is introduced in the flexible tube E, as no vacuum can now form in the inner part of the concave end G² on removing the latter from the capsule-cap H'.

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

1. A capsule filler, comprising a funnel provided at its outlet end with an expansible and contractible tube to receive and hold by contraction a capsule body while being filled, and a double-ended reversible rammer provided

with a longitudinal bore serving as an air vent, substantially as described.

2. A capsule filler, comprising a stand or support, a funnel mounted movably thereon
5 and provided at its lower outlet end with an expandible tube to receive and hold by contraction a capsule body, while being filled, the bore of said tube being smaller than the capsule to be filled and of the same diameter

throughout its length and a rammer, substantially as described.

3. In a capsule filler, a double-ended reversible rammer having a longitudinal bore serving as an air vent, substantially as described.

ALBERT M. INGALLS.

Witnesses:

A. B. HILTON,

THOS. H. PHILLIPS.