S. LIMOUSIN.

Apparatus for Capsuling Medicaments.

No. 216,197. Patented June 3, 1879.

Fig. 1.

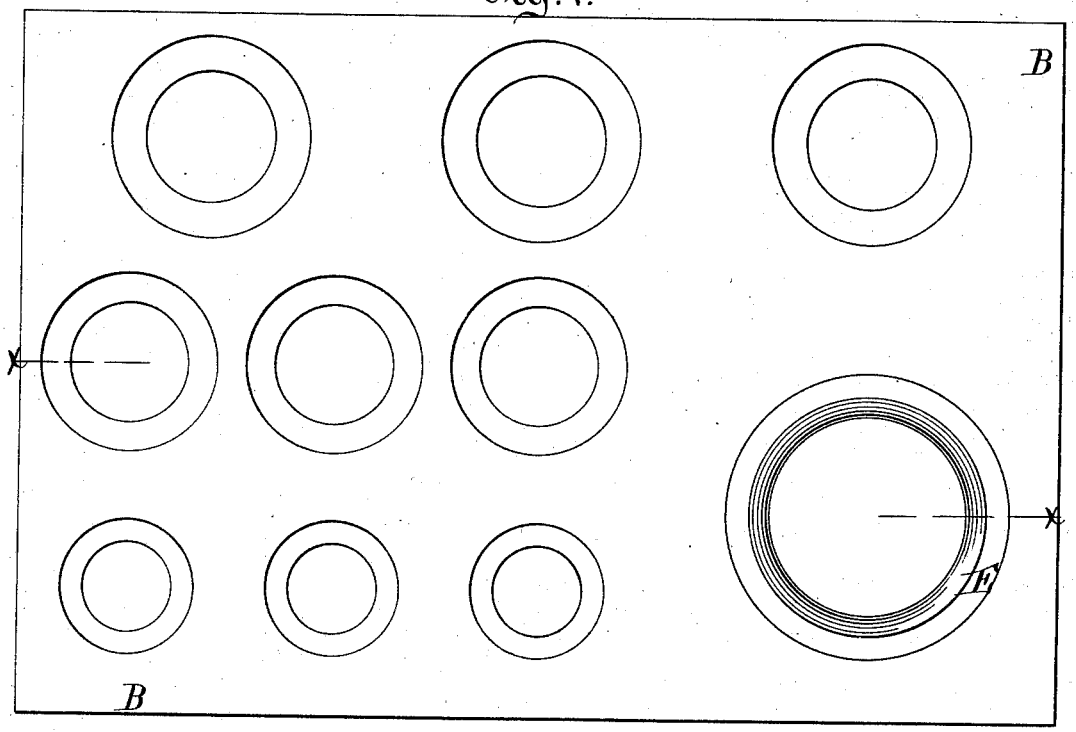


Fig. 2.

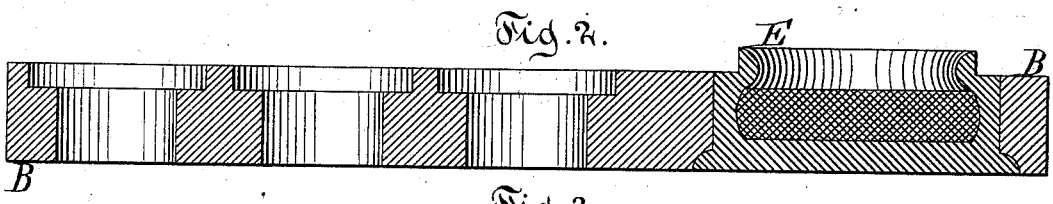
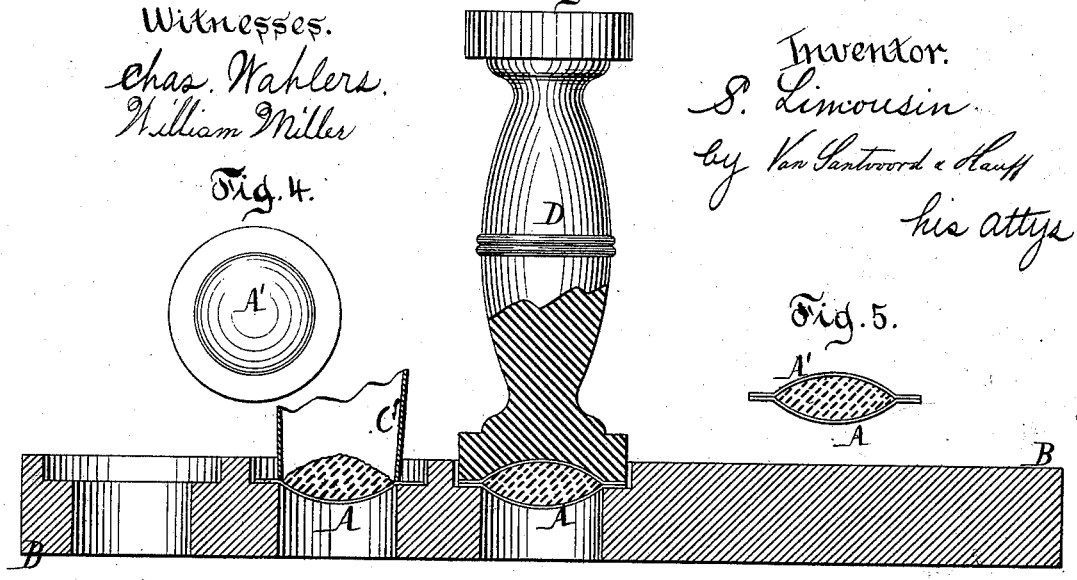


Fig. 3.



Witnesses.

Chas. Wahlers.

William Miller

Inventor.

S. Limousin.

by Van Santvoord & Hauff

his attys

Fig. 4.

Fig. 5.

UNITED STATES PATENT OFFICE.

STANISLAS LIMOUSIN, OF PARIS, FRANCE.

IMPROVEMENT IN APPARATUS FOR CAPSULING MEDICAMENTS.

Specification forming part of Letters Patent No. **216,197**, dated June 3, 1879; application filed April 16, 1879.

To all whom it may concern:

Be it known that I, STANISLAS LIMOUSIN, of Paris, in the Republic of France, have invented a new and useful Improvement in Apparatus for Capsuling Medicaments, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of the perforated plate and the cup. Fig. 2 is a section in the plane *x x*, Fig. 1. Fig. 3 is a section of the perforated plate, showing the manner of preparing the capsules, and also the funnel and reversible stamp. Figs. 4 and 5 are, respectively, a face view and central section of a capsule.

Similar letters indicate corresponding parts.

This invention relates to an apparatus for capsuling medicaments, consisting of a perforated plate to receive wafers while being filled, funnels for pouring the medicaments into said wafers, receptacle for holding moisture or adhesive material, and reversible stamps provided at each end with concave faces, one face serving to moisten the edges of a wafer, and the other serving to press the edges of two wafers firmly together, as will be hereinafter more fully set forth.

To inclose medicaments of various kinds, especially such as are in the form of powder and taken in fixed quantities, I employ disk-shaped wafers A, of various sizes, according to the quantity to be inclosed therein, and produce them with a concave central part, on which may be embossed the name of the manufacturer, quantity and quality of medicament, and other particulars. Such a wafer is placed in one of the holes or cavities in the plate B, made of wood or other suitable material. This plate B has several series of holes or cavities corresponding to the size of the wafer they are to retain. The edge or circumference of the wafer A rests on the edge or circumference of the cavity in the plate B. (See Fig. 3.) On this wafer is then placed a funnel, C, of which there are various sizes corresponding to the size of the wafers. Through said funnel C is then poured the medicament into the concavity of the wafer A. The medicament in the wafer A may be slightly compressed or stamped by a stamp which is slightly concave at its extremity. The funnel C is then removed. A stamp, D, of which there are various sizes, corresponding to the sizes of the wafers, is then pressed on the felt or sponge in the cup E, which felt or sponge is saturated with moisture or with a suitable adhesive substance. The stamps D are provided at each end with concave faces, and in pressing one end of a stamp, D, on the saturated felt or sponge, the circumference of said concave face is moistened, and by turning it slightly the moisture is evenly distributed. This moistened face of the stamp D is then pressed on the circumference of the concave side of another wafer, A′, corresponding in size to the first, and by turning the stamp about its vertical axis the moisture is evenly distributed over the circumference of said wafer. Care must be taken not to get too much moisture on the edge of the wafer, or otherwise it may become cracked and puckered. When the edge of the wafer A′ has been thus moistened it is placed on the first wafer, A, which contains the medicament, with its concave face downward. (See Fig. 5.) The other face of the stamp D, which is dry, is then pressed on the edge or circumference of the wafer A′ and slightly revolved, and thus the two edges of the wafers A A′ are firmly united, forming a capsule.

By pressing on the capsule with the finger from beneath it is made to spring out of the recess in the plate B; hence I prefer to have said plate perforated rather than that it should be only partly hollowed out.

When finished the capsules are packed in a fit box, and are ready for delivery.

I have heretofore obtained a patent, No. 173,226, covering a capsule for containing medicaments composed of two concaved wafers or disks, joined at their edges, and covering also the process of capsuling medicaments, consisting in placing the exact quantity into a dished or concave wafer, moistening the edges of the inclosing wafer, and pressing the margins of the two wafers firmly together. In said patent I also show a press for fixing the two wafers together, and a base or abutment having a concave recess, in which the lower wafer rests; but by my present invention I dispense with the press, and substitute there-

for a simple reversible hand-stamp, the ends of which are adapted to be alternately used in joining the two wafers; and, further, instead of the base having concave recesses, I use a perforated base, the upper ends of the perforations being countersunk to come in contact only with the margin of the lower wafer, the intermediate or central portion being thus rendered accessible from beneath, in order to permit the ready and convenient removal of the completed capsule by the end of the finger.

What I claim as new, and desire to secure by Letters Patent, is—

The apparatus herein described for capsuling medicaments, the same consisting of the perforated plate B, funnel C, the cup or receptacle for holding a moistening or adhesive material, and a reversible hand-stamp, D, provided with concavities in its opposite ends, all constructed and adapted to operate essentially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

STANISLAS LIMOUSIN. [L. S.]

Witnesses:

EM. VIERY,

DAVID T. S. FULLER.