H. R. PLANTEN.

GELATIN CAPSULE.

APPLICATION FILED DEC. 9, 1914.

1,148,621. Patented Aug. 3, 1915.

Fig. 1.

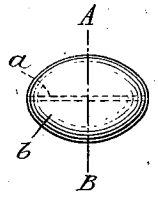


Fig. 2.

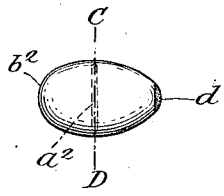


Fig. 3.

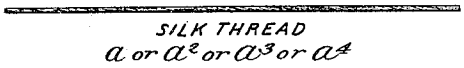


Fig. 4.

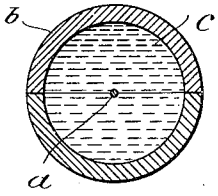


Fig. 5.

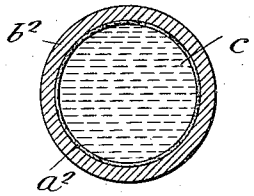


Fig. 6.

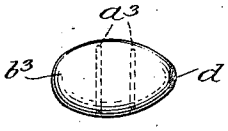


Fig. 7.

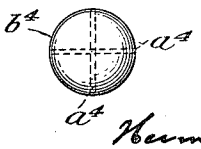
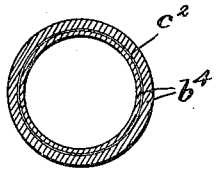


Fig. 8.



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UNITED STATES PATENT OFFICE.

HERMANUS ROLFF PLANTEN, OF NEW YORK, N. Y.

GELATIN CAPSULE.

1,148,621. Specification of Letters Patent. Patented Aug. 3, 1915.

Application filed December 9, 1914. Serial No. 876,273.

To all whom it may concern:

Be it known that I, HERMANUS ROLFF PLANTEN, a citizen of the United States of America, and a resident of the borough of Brooklyn, in the city and State of New York, have invented a new and useful Improvement in Gelatin Capsules, of which the following is a specification.

This invention relates to what are known as "filled" gelatin capsules, made of suitable gelatin, and inclosing liquids, semi-liquids or dry substances adapted to be so capsuled.

It relates especially but not exclusively to such capsules with medicines for man or beast as the contents.

It is of great importance to physicians and their patients, as well as to the manufacturers of such capsules, that genuine goods only be sold and used. At the same time external trade-marks are in many cases considered objectionable by medical practitioners.

One mode of marking machine-made gelatin capsules for identification without exposing the mark to view externally is set forth in United States Patent No. 1,087,843 for M. H. Smith's improvement in capsules, patented February 17, 1914; the means including a "raised identification mark" on the inner surface of the capsule.

The leading object of the present invention is to accomplish the same result by other means applicable in common to machine-made and hand-made capsules.

Other objects will be set forth in the general description, which follows.

The present invention consists in a filled gelatin capsule embodying such improved means for the prevention or detection of the substitution of spurious goods, as hereinafter particularly described and claimed.

A sheet of drawings accompanies this specification as part thereof.

Figures 1 and 2 are side views respectively of a machine-made and a hand-made ovoidal capsule embodying the present invention; Fig. 3 represents a fine thread of silk, colored to match the contents of the capsule; Fig. 4 represents a magnified cross-section on the line A—B, Fig. 1; Fig. 5 represents a magnified cross-section on the line C—D, Fig. 2; and Figs. 6 and 7 are side views of another hand-made capsule and of a spheroidal machine-made capsule or pearl, respectively, illustrating additional modifications. Fig. 8 is a sectional view of a capsule showing an identifying thread entirely embedded in the capsule wall.

Like reference characters refer to like parts and features in all the figures.

Each of the present improved capsules is provided internally with one or more short pieces of fine silken thread, a, a^2, a^3 or a^4, held in the gelatin shell or body, b b^2, b^3 or b^4, of the filled capsule, and colored to match the contents of the capsule, represented at c, so as to be invisible until a capsule is cut open and emptied for examination. The specific contents represented at c are medicinal liquids of any kind adapted to be so capsuled.

In the species represented by Figs. 1 and 4 the thread a is laid between the halves of the body b, before they are united, the capsule being machine-made; and its ends are cut off by the pressing dies of the machine in the act of finishing the joint between said halves of the body.

In the species represented by Figs. 2 and 5, the thread a^2 is wrapped around the "mold" upon which the one-part gelatin body b^2 is formed, or around the first coating of the liquid gelatin before the finishing coating is applied, so as to be imbedded in the gelatin capsule body; this form of capsule being so molded and subsequently filled with the contents c, and sealed as represented at d, by hand.

If preferred a plurality of the identifying threads may be embedded in a capsule body b^3 or b^4, either circumferentially as represented at a^3 Fig. 6, or diametrically as represented at a^4, Fig. 7; the circumferential arrangement being suited to hand-made capsules, and the diametrical arrangement to machine-made capsules.

The improved capsule may be ovoidal as represented by Figs. 1, 2 and 6, spheroidal as represented by Fig. 7, or of any suitable shape, and of any required size; and other like modifications will suggest themselves to those skilled in the art.

In all cases, the pieces of fine silken thread are too short and too light to give any possible trouble internally, as embodied in medical capsules, and in all cases are so colored as to be invisible until the capsule is cut open

and emptied to ascertain whether it is of the prescribed make.

Having thus described said improvement, I claim as my invention, and desire to patent under this specification:

1. A capsule having one or more identifying threads embedded in its wall, said thread or threads being adapted to be concealed by the contents of said capsule when filled.

2. A filled gelatin capsule containing a medicinal liquid and having one or more fine silken threads corresponding in color with said liquid, embedded in its gelatin body, whereby said thread or threads are protected by said wall and rendered invisible until the capsule is cut open to expose it to view.

3. A filled capsule having one or more identifying threads partly embedded in its wall and partly contained with the medicinal or other contents and adapted to be normally concealed by said contents.

4. A filled gelatin capsule containing a medicinal liquid and having one or more fine threads corresponding in color with said liquid, partly embedded in its gelatin body and partly exposed to said liquid contents.

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