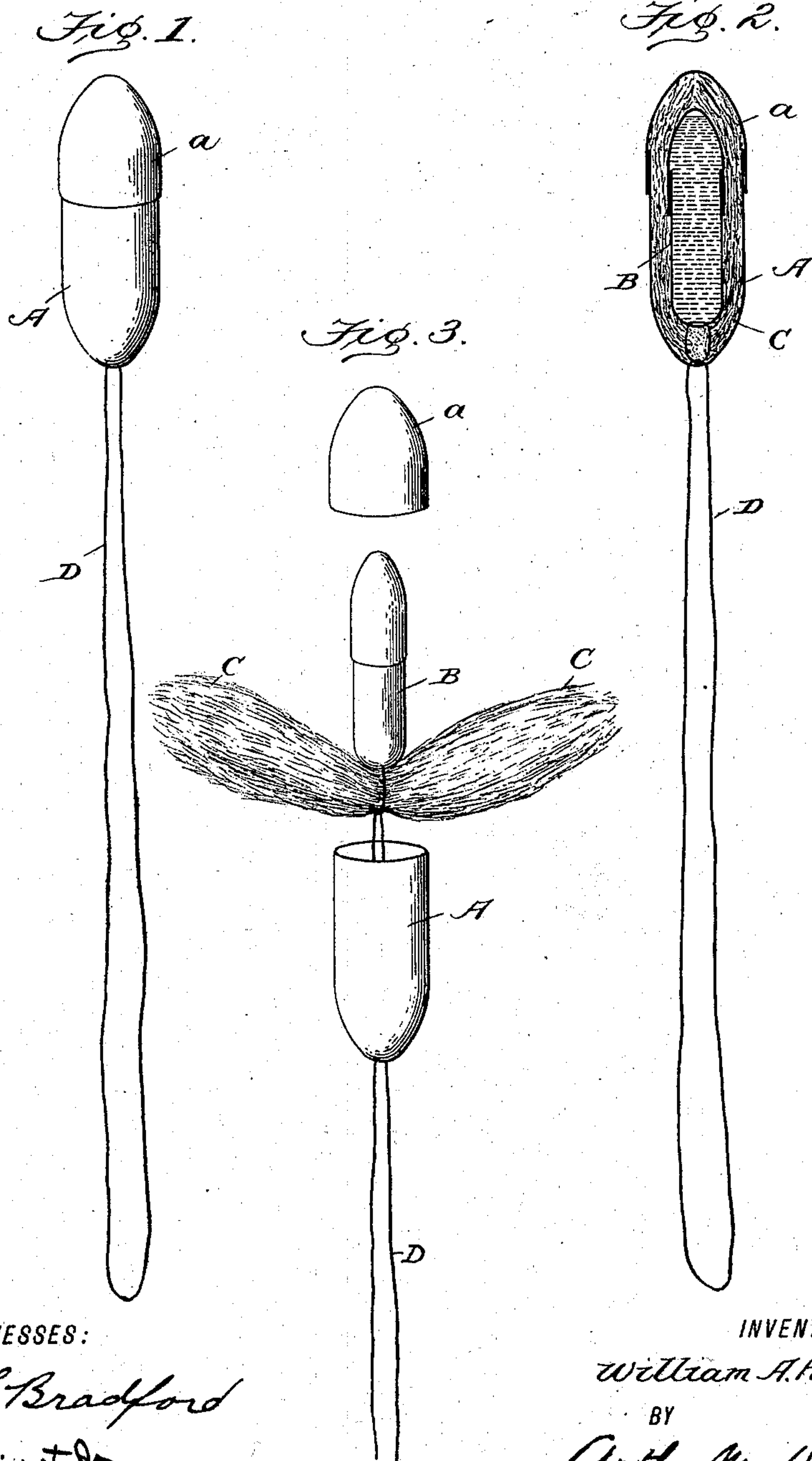


(No Model.)

W. A. HINCHMAN.
CAPSULE.

No. 573,976.

Patented Dec. 29, 1896.



WITNESSES:

Edwin L. Bradford
H. G. Steinmetz Jr.

INVENTOR

William A. Hinchman

BY

Arthur W. Harrison
ATTORNEY.

UNITED STATES PATENT OFFICE.

WILLIAM A. HINCHMAN, OF TARENTUM, PENNSYLVANIA.

CAPSULE.

SPECIFICATION forming part of Letters Patent No. 573,976, dated December 29, 1896.

Application filed September 30, 1896. Serial No. 607,447. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. HINCHMAN, of Tarentum, in the county of Allegheny and State of Pennsylvania, have invented new and useful Improvements in Compound Capsules; and I do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to capsules of the soluble type inclosing an absorptive substance which is adapted to hold medicine for the treatment of diseases of internal tissues of the human body; and the object of my invention is to produce an improved compound capsule adapted particularly for use in the treatment of rectal diseases, although equally well suited for containing medicines for the treatment of other diseases, as of the vagina and womb.

To this end my invention consists in a compound or double capsule consisting of an inner soluble shell, an outer soluble shell, and an intervening absorptive packing, which is preferably of fibrous material.

In the accompanying drawings, Figure 1 represents a perspective view, and Fig. 2 a longitudinal section, of a compound capsule embodying my invention. Fig. 3 represents a perspective view of the parts separated from each other, but connected by the cord or string.

The outer shell A is preferably provided with a cap *a*, and the inner shell or medicine-carrier B is also illustrated as provided with a cap at one end, although in some instances the shell of the inner capsule may be continuous.

C represents a packing interposed between the two shells, said packing being preferably of some fibrous material, such as cotton-battling or lint; and D represents a thread or string by means of which the inner shell and the packing may be drawn into the outer shell and by means of which the packing C may be withdrawn from the internal organs of the body after the properties of the medicine have been exhausted. The string D is doubled to form a loop and passes through two perforations in the end of the outer shell

and incloses a portion of the packing. As shown in Fig. 2, the string also passes through two perforations in the end of the inner shell; but this is not absolutely essential.

In preparing this compound capsule for use the medicine is placed in the inner shell, and the said shell is then inclosed in the packing C, and both are drawn into the shell A by means of the string. If the string is not attached to the inner shell, the fact that the latter is inclosed by the packing serves to insure the ready insertion of both in the shell A. On applying the cap or cover *a* the compound capsule is ready for use. It may be made in different sizes to suit the location to be treated; but the construction described particularly adapts it for use in the treatment of rectal diseases, for the following reasons: The continuity of the surface of the outer shell enables it to be readily inserted in the rectum, and the said outer shell and the packing C take up the constrictive pressure of the levator ani and coccygeus muscles and prevent the rupture of the shell containing the medicine. The capsule may therefore be inserted without employing instruments, and the entire quantity of medicine is passed to the location to be treated without loss of any portion thereof by being squeezed out at the joint of the cap. When the compound capsule has been inserted, the natural secretions first dissolve the outer shell and then soon pass through the packing and dissolve the inner shell. The packing then becomes a tampon and the medicine percolates through it and is held by it in contact with the diseased tissues until absorbed. The string D may then be used to facilitate the withdrawal of the tampon.

I may state here that the packing is preferably composed of a length equal to about twice the length of the outer shell, said length being folded in the middle and the loop of string inclosing the fold. This enables the string to more firmly draw the packing into the shell, the two ends doubling up about the inner shell, and it also insures the withdrawal of the entire tampon after its usefulness has ceased.

Owing to the use of the inner shell, a greater quantity of medicine can be employed with a given size of complete capsule than could

be used if an absorptive filling only was placed in the shell A, particularly if the medicine is in the form of a thin liquid. This is because the entire quantity is contained in a closed receptacle, pressure on which is relieved by the packing and outer shell. The same quantity of medicine, even if a filling alone would take it up, would be partially squeezed out when the capsule is inserted through any constricted orifice. When the shells have dissolved, the too-rapid escape of the medicine is prevented by the surrounding fibrous tampon. The inner shell also enables the exact quantity of medicine to be used to be measured with accuracy, since the inner shells may be made in given sizes, and they may be filled with certain medicines and kept ready for use without loss of strength and without the delay incident to the preparation and measurement of the medicine and the saturation of the filling with said medicine. Furthermore, the compound capsules prepared according to this invention are cleanly to handle, since there is no manipulation of a saturated cotton required.

I am aware that, broadly, it is not new to provide a capsule with a packing which is saturated with medicine.

Having now described my invention and the manner in which it may be carried into effect, although without attempting to describe all of the forms of its embodiment or all of the methods of its application to use, I declare that what I claim is—

1. A compound capsule consisting of an inner soluble shell and an absorptive outer soluble shell provided with an intervening filling, substantially as described.

2. A compound capsule consisting of an inner soluble shell, an absorptive filling between the inner and outer shells, and a string passing through the outer shell and connected with the filling.

3. As an improved article of manufacture, a capsule for rectal and similar applications, consisting of inner and outer soluble shells, an absorptive filling or packing between said shells and consisting of a folded length of fibrous material, and a string or cord inclosing the fold of said packing and extending out through the shells.

In testimony whereof I affix my signature in presence of two subscribing witnesses.

WILLIAM A. HINCHMAN.

Witnesses:

GEORGE L. RUTHERFORD,
JNO. F. HUMES.