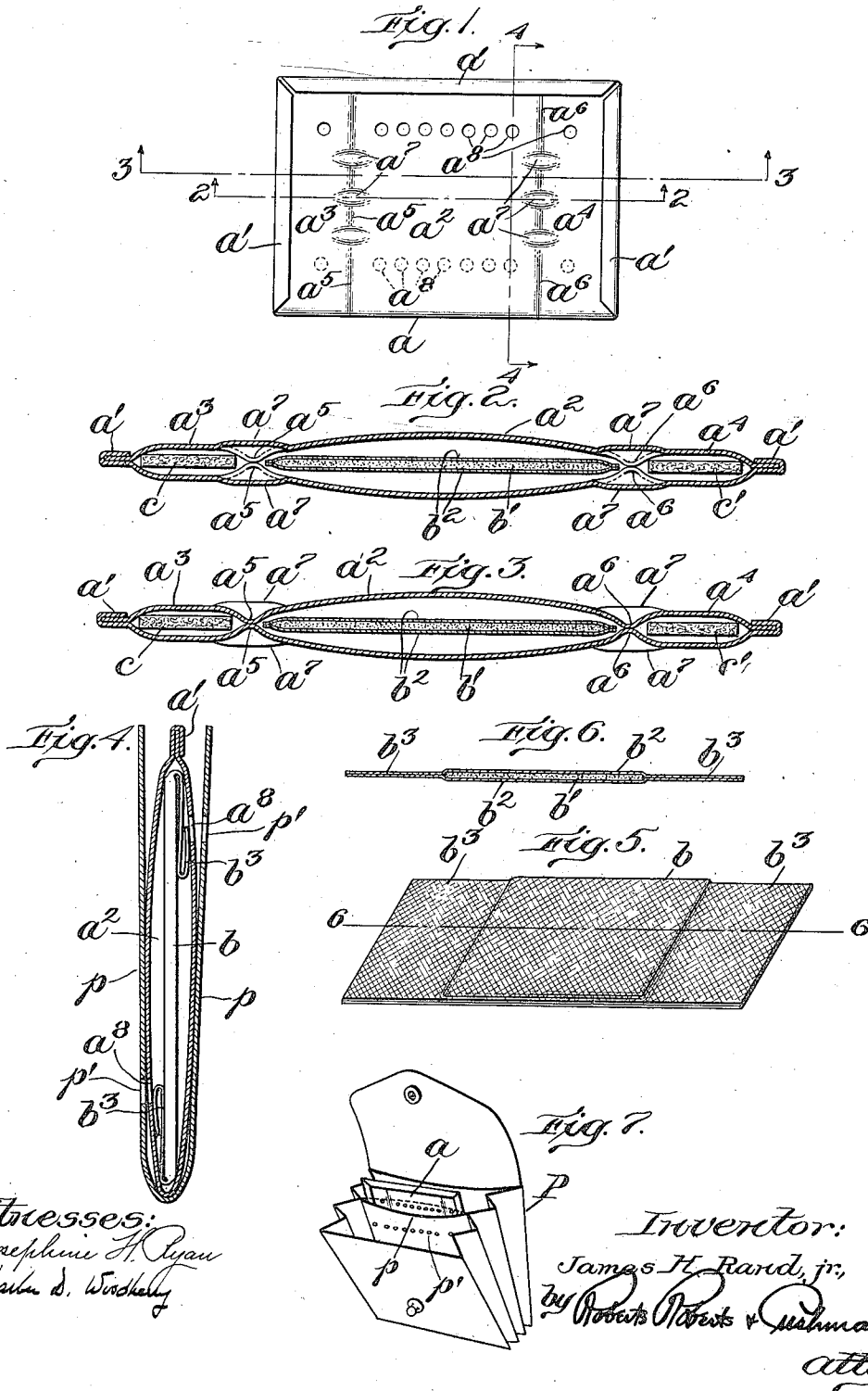


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GERMICIDE INSERT FOR POCKET BOOKS AND THE LIKE.
APPLICATION FILED FEB. 21, 1912.

1,080,716.

Patented Dec. 9, 1913.



UNITED STATES PATENT OFFICE.

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GERMICIDE-INSERT FOR POCKET-BOOKS AND THE LIKE.

1,080,716.

Specification of Letters Patent.

Patented Dec. 9, 1913.

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To all whom it may concern:

Be it known that I, JAMES H. RAND, JR., a citizen of the United States, and resident of Newton, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Germicide-Inserts for Pocket-Books and the like, of which the following is a specification.

This invention relates to a germicide device, adapted to be inserted in a pocket book or similar receptacle, to generate a germicide gas for the purpose of sterilizing the interior of the pocket book and the money or other articles contained therein. A mere disinfecting material which affects only such articles as come in contact with it, is ineffective and undesirable for the reason that it will leave unaffected all articles which do not come in contact with it, which may perhaps constitute the greater part of the articles in the receptacle, and further, direct contact with the disinfectant might be injurious to the article. It is therefore desirable to employ a device which will generate a germicide gas capable of permeating the whole interior of the receptacle and so sterilizing the whole interior and the articles contained therein, without the necessity of coming in contact with the disinfecting or gas generating material. The generating device must also be capable of generating gas without the application by the user of heat or water which are commonly used as agents for liberating the germicide gas, and should carry its own moisture supply; and suitable provision should be made for communication and circulation between the humidifier and the gas generating material, and for communication and circulation between the gas generating material and the interior of the pocket book or other receptacle in which the device is used.

In the accompanying drawings, which illustrate one embodiment of the invention, Figure 1 is a plan view of an insert for a pocket book containing my invention; Fig. 2 is a section on line 2—2 of Fig. 1; Fig. 3 is a section on line 3—3 of Fig. 1; Fig. 4 is a section on line 4—4 of Fig. 1 also showing in section a pocket book compartment in which the insert is contained; Fig. 5 is a perspective view of the pad containing the gas generating material; Fig. 6 is a section on line 6—6 of Fig. 5; and Fig. 7 is a perspective view of a pocket

book showing the insert partly removed from its compartment.

The insert comprises a flat casing *a* adapted to be inserted in a pocket or compartment of a pocket book, and made of suitable material impervious to the gas such as sheet aluminum or other thin metal. The casing is preferably made of a single sheet of the metal folded upon itself to form a relatively thin or flat envelop comprising two opposed walls, the edges of which are closed by bending the free margins of one side of the envelop over the free edges of the other side as shown at *a'*. The casing is divided into three compartments, *a*², *a*³ and *a*⁴ by inwardly bent indentations, *a*⁵ and *a*⁶, formed on both sides of the casing, the indentations on one side meeting those of the other side and forming in effect partitions separating the compartments, as best shown in Figs. 2 and 3. Within the central or main compartment, *a*², is placed a germicide gas generator, *b*, consisting of a pad of formaldehyde paste, *b'*, inclosed in a covering of porous fabric, *b*², such as hair-cloth, which will permit the free escape of the gas, and is also somewhat stiff and springy for the purpose hereinafter mentioned. The fabric is extended beyond the ends of the pad proper, forming flexible and springy ends *b*³. The ends *b*³ are folded over on to the opposite sides of the pad, *b*, when it is inserted into compartment *a*², as shown in Fig. 4, thus acting as springs or spacers tending to urge the ends of the pad away from the part of the walls of the casing in which are rows of perforations, *a*⁸, one row being arranged diametrically opposite to the other. Free circulation is thus permitted from all parts of the pad at each side to the perforations, *a*⁸, on the corresponding side; and in order further to prevent any part of the casing wall from lying close against the pad, and so interrupting circulation, the casing walls are made outwardly convex as shown, thus affording ample space for the passage of the gas and moisture between the surface of the pad and the walls of the casing. In the end compartments, *a*³ and *a*⁴, are placed pads, *c* and *c'*, of felt or other suitable absorbent material, which may be saturated with water, or one of which, if desired, may be saturated with a perfume such as oil of roses to mask the odor of the formaldehyde gas.

These pads may be replenished with the water or perfume, by merely dipping the end of the insert without removing the pads or dipping the central compartment. The pad, *c*, or *c'*, acts as a humidifier and the moisture therefrom coming into contact with the formaldehyde pad, *b*, liberates formaldehyde gas, which escapes through the porous covering *b*² and the holes *a*⁵, and sterilizes the articles with which it comes in contact. To admit of circulation between compartment *a*² and compartments *a*³ and *a*⁴, and the passage of moisture from the wet pad to the pad *b*, channels *a*⁷ are formed in the casing walls extending across the barriers formed by the indentations *a*⁵ and *a*⁶.

The insert above described is designed to slip into a pocket or compartment *p* in a pocket book *P*, and the walls of the pocket *p* are perforated at *p'*, said perforations *p'* registering with the perforations *a*³ of the insert casing to facilitate the passage of the gas into the other compartments of the pocket book. As the apertures *a*⁸ and *p'* occur on both sides of the insert, and pocket *p*, it will be seen that there is opportunity for the passage of air and gas through and through the pocket *p*, thus insuring the better circulation of the gas within the compartments of the pocket book at either side of the pocket *p*.

I claim:

1. A germicide insert comprising a casing having apertures in its opposite walls, and a pad consisting of a body of pasty disinfecting composition containing formaldehyde covered with and confined by porous fabric on both sides, said fabric extending beyond the ends of said pad and being bent

over on said pad to form spacers between said pad and the walls of said casing.

2. A germicide insert comprising a casing having at least two compartments, provided with apertures, a body of material containing formaldehyde for the generation of gas in one of said compartments, and a humidifier pad in the other compartment.

3. A germicide insert comprising a casing having at least two compartments, provided with apertures, a body of material containing formaldehyde for the generation of gas in one of said compartments, a humidifier pad in the other compartment, and a passage connecting said compartments to permit circulation therebetween.

4. A germicide insert comprising a metal casing, the walls of which are indented and bent to form at least two compartments, a pad of pasty disinfecting composition containing formaldehyde in one of said compartments, and a humidifier pad in the other compartment.

5. A germicide insert comprising a metal casing the walls of which are indented and bent to form a partition dividing the casing into at least two compartments, a pad of pasty disinfecting composition containing formaldehyde in one of said compartments, a humidifier pad in the other compartment, and a passage across said partition connecting said compartments to permit circulation therebetween.

Signed by me at Boston, Massachusetts, this 16th day of February, 1912.

JAMES H. RAND, JR.

Witnesses:

ROBERT CUSHMAN,

CHARLES D. WOODBERRY.