No. 681,400. Patented Aug. 27, 1901.

W. McCARTY.

BOX FOR PRESERVING SPECIMENS.

(Application filed May 27, 1901.)

(No Model.)

Fig. 1.

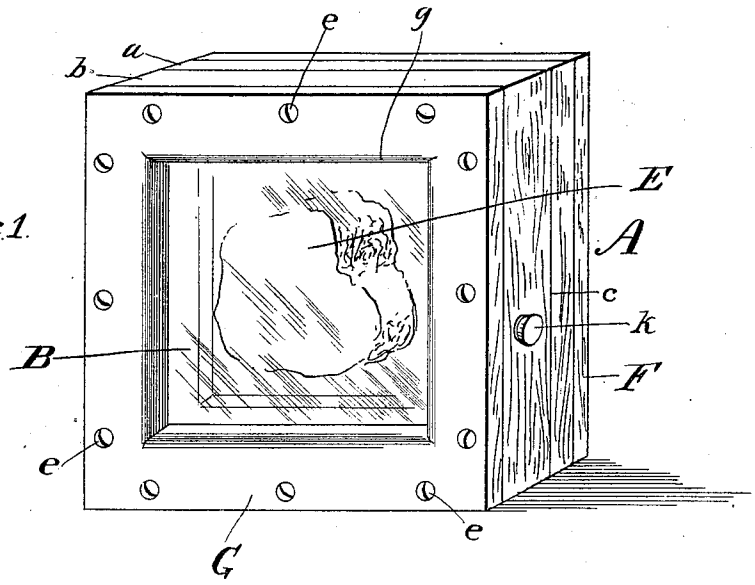
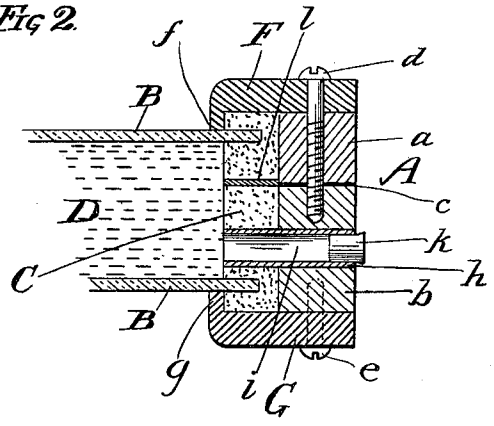


Fig. 2.



WITNESSES:
F. B. Townsend
C. B. Grimmer

INVENTOR.
William McCarty
BY Samuel N. Pond.
ATTORNEY.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM McCARTY, OF CHICAGO, ILLINOIS.

BOX FOR PRESERVING SPECIMENS.

SPECIFICATION forming part of Letters Patent No. 681,400, dated August 27, 1901.

Application filed May 27, 1901. Serial No. 62,116. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM McCARTY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Boxes for Preserving Specimens, of which the following is a specification.

My invention relates to boxes and cases for preserving biological and other specimens, and has reference more particularly to that class of receptacles in which the specimen is preserved in alcohol or other preservative liquid, the receptacle being provided with a transparent side or cover through which the specimen may be exhibited and examined without disturbing its preserved condition; and the objects of my invention are to produce a simple, economical, and efficient box or case of this character which shall be perfectly fluid-tight, be easily filled and emptied, be capable of being set in any desired position, and display both sides of the inclosed specimen with equal facility.

To these ends my invention consists in a box or case of the character described having certain peculiarities of structure and organization, all as hereinafter described, and more particularly pointed out in the claims.

My invention in its preferred form is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevational view in perspective of a box or case embodying my invention, and Fig. 2 is a transverse sectional view through one of the side walls and a portion of the central chamber thereof.

Referring to the drawings, A designates as an entirety a wooden frame, here shown as rectangular, which constitutes the marginal or edge portions of my improved box. The side or face portions of the box comprise a pair of parallel-disposed transparent plates B B, of a size and conformation suitable to be contained within the frame A, while C indicates a packing or filling of liquid-proof cement or similar material lining the inner walls of the frame A and constituting a seal for the chamber contained within and between the frame A and the parallel glass faces B B, within which chamber are contained the preserving fluid D and one or more specimens, as E.

The above-recited elements, arranged and disposed as above described and shown, constitute the essential features of my invention in a broad form.

Referring now more specifically to the preferred construction and mode of assembling the several elements enumerated, the frame A preferably comprises two intermediate plain rectangular frames *a* and *b*, whose inner adjacent faces form a close joint at *c*, and whose opposite top and bottom faces have secured thereto, as by screws *d* and *e*, a pair of outer or face frames F and G, respectively, the screws *d* being of a length sufficient not only to unite the frames F and *a* to each other, but also to unite the frames *a* and *b* at their line of junction *c*. The four side members of the outer or face frames F and G are of a considerably greater width than the intermediate frames *a* and *b*, and their inner edges are provided with integral inwardly-extending lips *f* and *g*, respectively, thereby providing an undercut groove or channel around the entire inner edge of frame A, which groove is adapted to be completely filled and packed with the liquid-proof cement C, as shown. The glass plates B B have lineal dimensions less than the inner dimensions of the frames *a* and *b* and greater than the inner dimensions of the frames F and G, whereby said plates are adapted to be firmly embedded around their edges in the cement C, said plates being set as far apart as is permitted by the contact of the inwardly-turned lips *f* and *g* with the outer surfaces thereof.

Through one side of the frame A, preferably through the member *b* thereof, is formed a hole *h*, leading into the space between the plates B B, this hole preferably being lined by a brass tube *i*, the outer end of which may be closed by a cork or plug *k*. This tube *i* serves for the introduction of the preserving fluid. The joint between the divided sections of the cement lining C is rendered liquid-tight by a thin rubber gasket *l*.

The preferred mode of assembling and filling the box thus constructed is as follows: The intermediate frames *a* and *b* are at first formed of a single integral frame apertured

for the tube *i*, and the face-frame G is applied thereto by the screws *e*. The cement lining C is next applied in a plastic condition, the glass plates B B being set therein at the same time. The face-frame F is then applied by the screws *d* and the parts allowed to remain until the cement is thoroughly hardened and the plates B B firmly set therein. The screws *d* are then partly or wholly withdrawn, and the entire box is then sawed or split all the way through on the junction-line *c*, the specimen to be preserved is laid on the lower plate B, the gasket *l* is applied, and the sections are then securely united by the screws *d*. The tube *i* having been applied in the hole *h* at any convenient point in the assembling of the parts, the preservative fluid D is then introduced through said tube, the cork *k* applied, and the box and its contents are then complete. The preservative fluid may be drawn off and a fresh supply admitted at any time in an obvious manner.

It will be seen that by the use of the cement lining C, in which are embedded the margins of the two face-plates B B, none of the liquid comes in contact with the outer frame, thus permitting said frame to be made of wood or any other inexpensive material which could not be brought into direct contact with a liquid.

I claim as my invention—

1. A box or case of the character specified, comprising in combination a marginal frame, the same consisting of an intermediate edge frame and a pair of face-frames secured to the outer faces of said intermediate frame and along their inner edges overhanging the inner edge of the latter, said inner edges of the face-frames having a pair of integral inwardly-extending lips, a cement lining filling the channel formed by the inner surfaces of the intermediate and face frames, and a pair of parallel-disposed transparent plates having their edges embedded in said cement lining and their outer surfaces contacting said lips of the face-frames, substantially as described.

2. A box or case of the character specified, comprising in combination a marginal frame, the same consisting of an intermediate edge frame formed in two parallel juxtaposed sections, and a pair of face-frames secured to the outer faces of said sections and of a width greater than the width of said intermediate frame, a cement lining formed in sections corresponding to the sections of the intermediate frame and filling the channel formed by the inner surfaces of the latter and the face-frames, a gasket of rubber or the like disposed between the meeting faces of said cement sections, and a pair of parallel-disposed transparent plates having their edges embedded in the sections of cement lining, substantially as described.

3. A box or case of the character specified, comprising in combination a marginal frame, the same consisting of an intermediate edge frame formed in two parallel juxtaposed sections, and a pair of face-frames secured to the outer faces of said sections and of a width greater than the width of said intermediate frame and having a pair of integral inwardly-extending lips, a cement lining formed in sections corresponding to the sections of the intermediate frame and filling the channel formed by the inner surfaces of the latter and the face-frames, a gasket of rubber or the like disposed between the meeting faces of said cement sections, and a pair of parallel-disposed transparent plates having their edges embedded in the sections of said cement lining and their outer surfaces contacting said lips of the face-frames, substantially as described.

4. A box or case of the character specified, comprising in combination a marginal frame having an undercut recess or channel in and coextensive with its inner wall or edge, a lining of liquid-proof cement filling said channel, a pair of parallel-disposed transparent plates having their margins set in said cement lining and forming the faces of the case, and a filling-tube passing through one side member of said frame and its lining and communicating with the space between the plates, said case being constructed in two sections whose meeting faces are in a plane parallel with and between the face-plates of the case, and means for uniting said sections in a liquid-tight manner, substantially as described.

WILLIAM McCARTY.

Witnesses:
ALBERT A. KRAFT,
ALFD. F. TOMPKINS.