

[54] ARTICULATED, UNIT CAST CASE SYSTEM FOR UNGLUING DOCUMENTS

[76] Inventor: **Rene Berger**, 33 Rue Troyon 77,
Melun la Rochette, France

[22] Filed: **June 9, 1971**

[21] Appl. No.: **151,464**

[52] U.S. Cl. **156/584, 220/31 S, 312/31.1**

[51] Int. Cl. **B32b 35/00**

[58] Field of Search 312/31, 31.01, 31.02, 31.2,
312/31.1; 156/584, 344; 120/35, 6; 220/31 S

[56] References Cited

UNITED STATES PATENTS

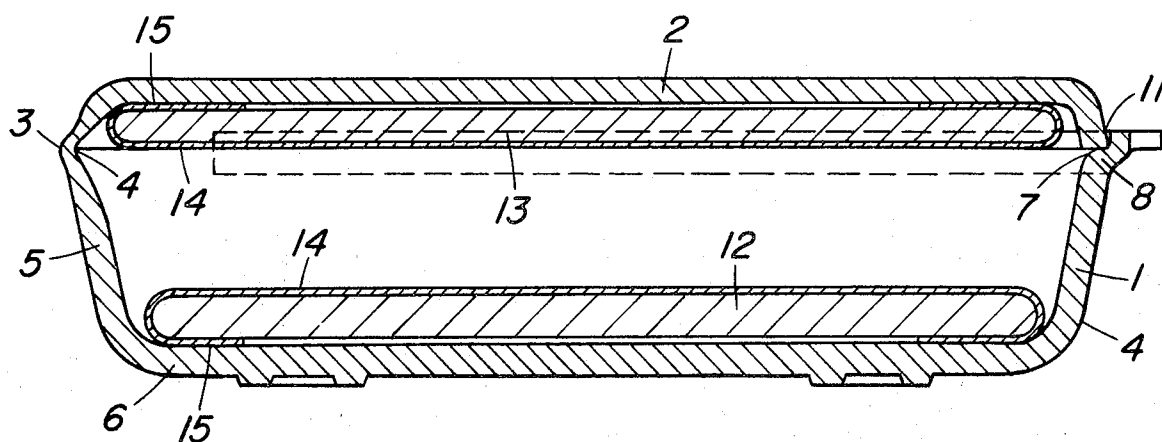
2,322,350	6/1943	Dewees.....	156/344 X
895,874	8/1908	Mashtab	312/31.01
2,173,046	9/1939	Smith.....	312/31.1 X
3,554,847	1/1971	Broemmisiek	156/584
3,155,269	11/1964	Schurman et al.....	220/31 S

Primary Examiner—Edward G. Whitby
Attorney, Agent, or Firm—Walter G. Finch

[57] ABSTRACT

This invention relates to apparatus which will allow documents of small dimensions to be unglued from their bindings without damage. The apparatus includes a unit-cast case actually including two boxes connected by a hinge forming an integral part of the case, with the boxes mentioned differing only by their depth, and with the top one functioning as a cover. To the respective bottom of each box are attached thin plates of asbestos covered with a plasticized grill. The system operates by dampening the asbestos plate of the lower box with distilled water. The document to be unglued is placed directly upon the grill. Impregnation time before ungluing varies from several minutes to several hours. The invention can be used in the laboratory; in the medical and pharmaceutical fields; in industry; by stamp collectors; and the like.

4 Claims, 10 Drawing Figures



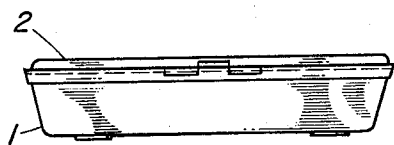


FIG. 1

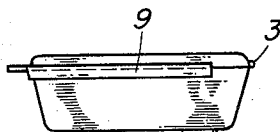


FIG. 3

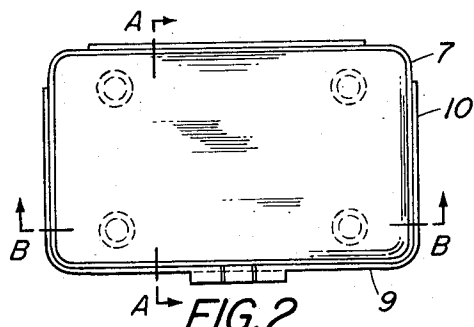


FIG. 2

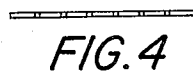


FIG. 4

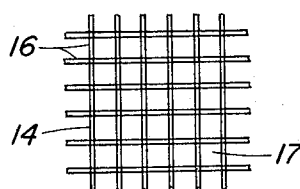


FIG. 5

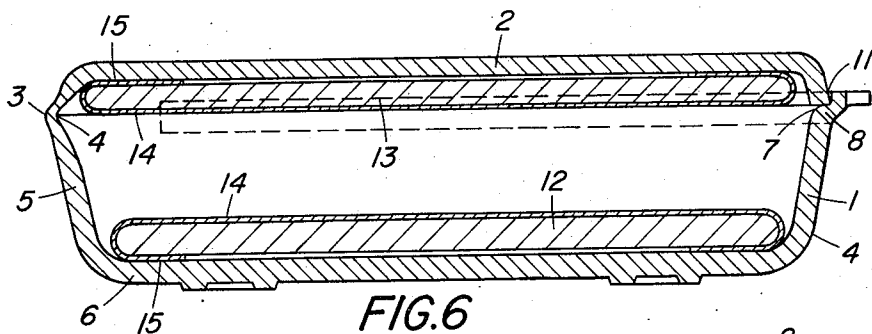


FIG. 6

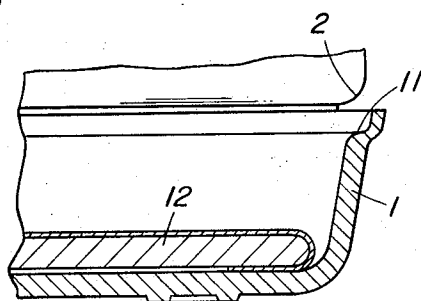
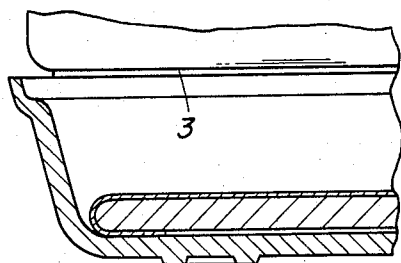


FIG. 7

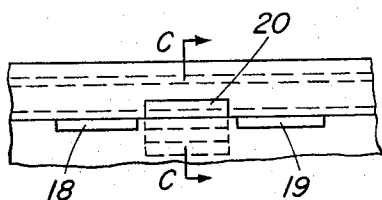


FIG. 8

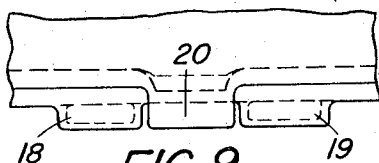
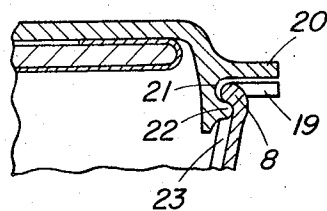


FIG. 9

FIG. 10



RENÉ BERGER
INVENTOR

BY *Walter G. Finch*
ATTORNEY

ARTICULATED, UNIT CAST CASE SYSTEM FOR UNGLUING DOCUMENTS

This invention relates generally to ungluing apparatus, and more particularly it pertains to a case system intended to be used for ungluing documents of small dimensions, such as postage stamps.

At the present time there is no method or system which allows automatic ungluing of documents, postage stamps or similar things, from their backing without any manipulation. People are usually satisfied by wetting the outside of said documents or stamps, waiting a certain length of time for the humidity to penetrate them, then progressively raising a corner of them with forceps by tugging lightly upward to unglue them.

This method or system has the disadvantage of often causing partial ripping of the document in respect to the document itself. Particularly, in the case of postage stamps, it is difficult to unglue them without scratching them or partially removing their gum; without damaging the exterior perforations; and without leaving marks or traces on the outside or on the gum.

It is an object of this invention, therefore, to provide a system that corrects these various disadvantages by making any manipulation of the document unnecessary after it has been placed in a case, with the ungluing proceeding gradually and automatically on the inside without the document undergoing any deterioration at all, such as scars, marks, and removal of the gum.

Still even another object of this invention is to provide a system which will allow documents of small dimensions to be quickly and efficiently unglued from their bindings without damage.

In essence, the present invention consists of a unit-cast case including two parts differing only in their depth, joined to one another by a hinge which forms an integral part of the case, the lower part forming the properly so-called case and the upper one forming the cover. Narrow plates of asbestos (5 to 6 mm), entirely covered by a finely plasticized grill with the edges tucked under each plate to make the assembly stiff, are attached to the respective bottoms of each of these parts.

These and other objects and attendant advantages of this invention will become more readily apparent from the following detailed specification and accompanying drawings in which:

FIG. 1 is a side view of the ungluing apparatus incorporating features of this invention;

FIG. 2 is an end view of the ungluing apparatus of FIG. 1;

FIG. 3 is a top view of the ungluing apparatus of FIG. 1;

FIG. 4 is an end view of covering grill for the asbestos plates;

FIG. 5 is a top view of the covering grill of FIG. 4;

FIG. 6 is a cross-section taken along line A—A of FIG. 2;

FIG. 7 is a cross-section taken along line B—B of FIG. 2;

FIGS. 8 and 9 are top and plan views on a large scale of details of the case enclosure; and FIG. 10 is a cross-section taken along line C—C of FIG. 8.

Referring now to FIGS. 1, 2, and 3 of the drawings, the system includes a case 1 and a cover 2 which are attached by a piano hinge 3. The hinge 3 is so designed that half of it is formed as an integral part of the case

and the other half is of the cover. It is made entirely at the same time by a single plastic molding under pressure of the two constituent parts.

This hinge 3 is semicircular in shape as indicated by reference numeral 4 in FIG. 6, and it projects toward the exterior. It is made up of a thinning of the same material as the plastic mold of the case 1, permitting great elasticity and a large number of openings of the case 1, while avoiding the defects of joined metallic hinges which usually in the long run allow traces of oxidation or specks of rust, which can be very prejudicial to the documents treated.

The case, as further detailed in FIGS. 6 and 7, is in the shape of a rectangular hollow body with a slope 5 on the faces, oriented from the top of the case toward the bottom 6 and including on the circumference 7 a cover support edge 8, only on front face 9 and the side faces 10.

The cover 2 is identical in shape to case 1, but it is not as high. It is connected to the case by the previously mentioned piano hinge 3. On front face 9 and side faces 10, it rests at 11 on the inside of edge 8.

An evaporation plate 12 and an absorption plate 13, as shown in FIGS. 6 and 7, mounted opposite each other in case 1 and cover 2 are respectively covered by a plasticized grill 14 (shown in detail in FIG. 5).

The system of case closure, as shown in FIGS. 9, 10, and 11, include for the case 1 two platelets 18-19 which are of one piece with it and extend beyond the plane of edge 8, and for the cover 2 a platelet 20 which is placed between platelets 18-19 after the cover 2 is closed. Inside and perpendicular to platelet 20, there is set a flexible piano hinge 21, with a nipple 22, the latter fitting into a corresponding slot 23 of case 1 by simple pressure. For opening, it is enough to press downward manually on platelets 18-19 of the case 1 and to pull platelet 20 of the case 1 and to pull platelet 20 of the cover 2 upward to disengage the catch 22 from slot 23.

In order to use the system, the plate 12 of the case 1 is first impregnated with distilled water in such a way that no water flows after the assembly is turned upside-down. On the other hand, the plate 13 of the cover 2 should not be moistened and remains dry.

Use of the system is simple, because it is enough to place the face side of the document to be unglued onto the case grill 14 and to close the cover 2 carefully. In practice, ungluing should occur without the document placed inside being touched at all. If ungluing is not complete, it is sufficient to replace the document onto the grill 14 and to wait for a new period of time. This can vary from several minutes to several hours depending on the composition (thickness and kind of paper) of the document itself, as well as on the kind of glue with which it is impregnated. After being unglued, the glue should have a smooth and regular appearance. Then the document or stamp may be taken out and allowed to dry in the air and then placed in a press to make it absolutely flat.

The system can be used in all cases where the problem of ungluing documents with no deterioration arises. It can be used in the laboratory in the medical and pharmaceutical field; in industry; in certain types of artistic work; by stamp collectors, etc.

Obviously, many other modifications and variations of the present invention are possible in light of the above teachings. It is, therefore, to be understood that

3

within the scope of the appended claims the invention may be practiced otherwise than as specifically described.

What is claimed is:

1. An articulated unit cast case system for ungluing documents, comprising, a case, a cover, a flexible piano hinge integrally connecting said case and cover together along an edge thereof as a single molding so that when said cover is placed over said case an enclosure is formed therein, first asbestos plate means attached to the inner surface of the bottom of said case, and second asbestos plate means attached to the inner surface of said cover for facilitating the presence of moisture within the enclosure.

2. An articulated unit cast case system for ungluing documents as recited in claim 1, wherein said first and second asbestos plate means for said case and cover, respectively, comprise an evaporation plate for con-

4

taining moisture which emanates in the enclosure and an absorption plate for absorbing the moisture emanating in the enclosure, respectively.

3. An articulated unit cast case system for ungluing documents as recited in claim 2, and additionally a plasticized grill with mesh of a woven wire for enclosing said plates to contain and support said plates therein.

4. An articulated unit cast case system for ungluing documents as recited in claim 2, wherein closure of said case and cover is obtained by means of a flexible piano hinge of said cover fitting into a corresponding slot in said case, with the closing and opening thereof being facilitated by platelets belonging respectively to said case and to said cover on which hinges can find support for separating said closure case and cover.

* * * * *

20

25

30

35

40

45

50

55

60

65