

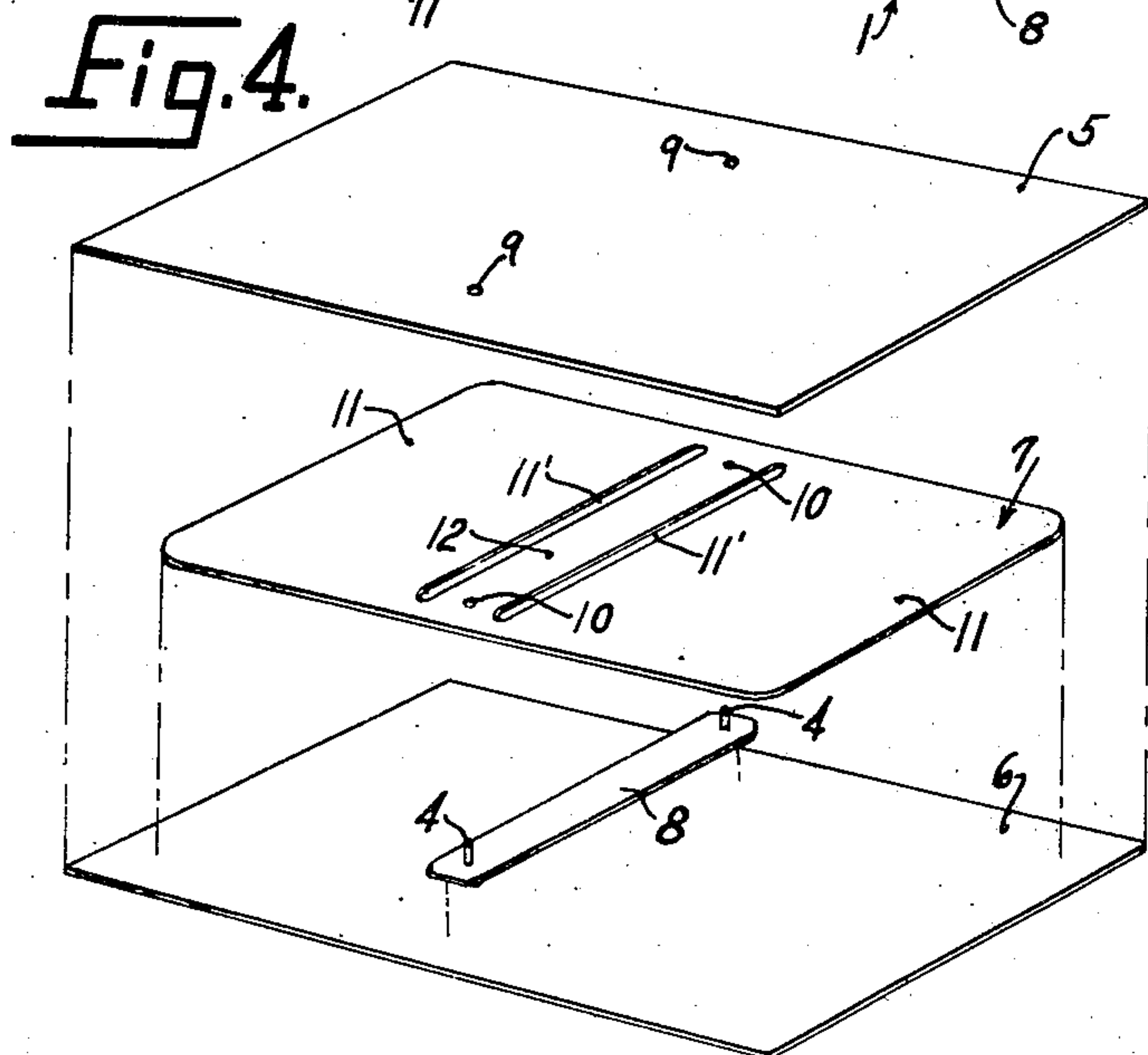
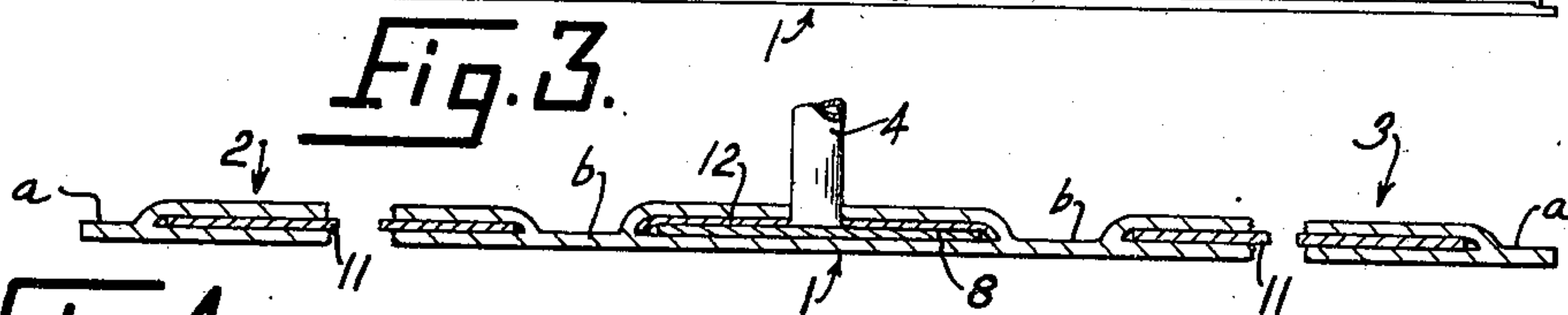
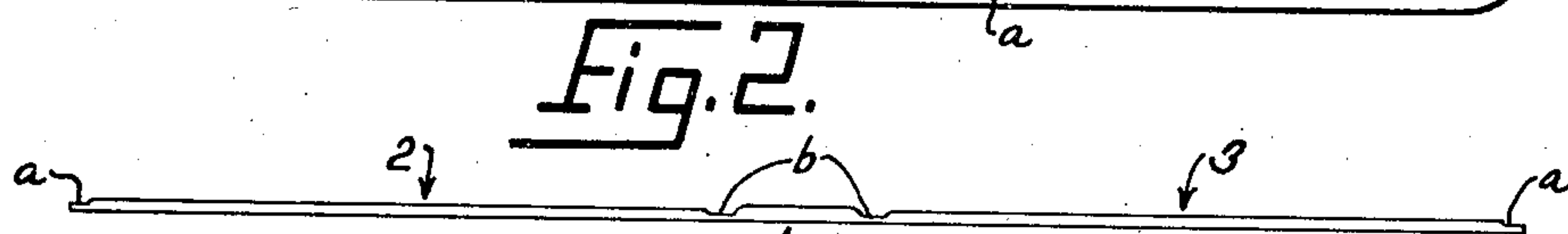
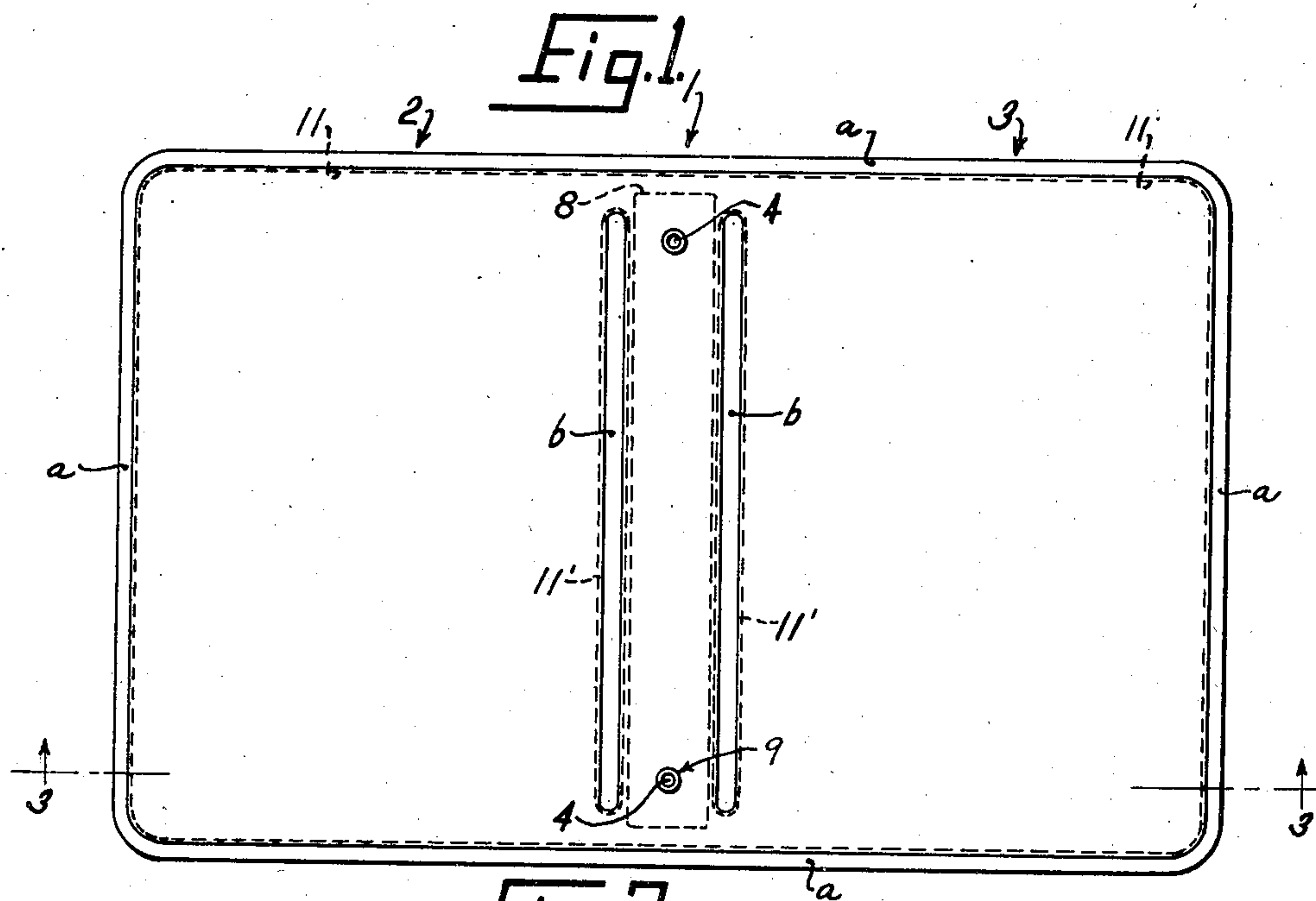
Oct. 25, 1949.

F. S. SCHADE

2,486,330

BINDER CASE CONSTRUCTION FOR BOOKS

Filed Nov. 15, 1946



INVENTOR
FRANK STANLEY SCHADE
BY *Chapin & Neal*
ATTORNEYS

UNITED STATES PATENT OFFICE

2,486,330

BINDER CASE CONSTRUCTION FOR BOOKS

Frank Stanley Schade, Holyoke, Mass., assignor
to National Blank Book Company, Holyoke,
Mass., a corporation of Massachusetts

Application November 15, 1946, Serial No. 709,956

1 Claim. (Cl. 281—29)

1

2

This invention relates to improvements pertaining to a binder case construction and its purpose is to provide a binder case of high quality, fine appearance, and at low cost. The binder case of the invention is a new and useful product.

The nearest prior art known to me is disclosed in my prior patent, No. 2,390,125, of 1945. It shows a construction of laminated plastic sheets of limp character having panel inserts for stiffening the covers and the back portion. Important features of binder case construction disclosed in that patent are retained in the binder case construction of the present invention. The significant differences between the two can be best understood after the whole construction of an example of the present invention is disclosed. It will be disclosed as a binder case for a loose leaf binder but it is adapted by slight changes for a binder case for a permanently bound book.

In the drawings:

Fig. 1 is a plan view of the binder case with rivets indicated for attaching a ring mechanism on the back portion, but without such mechanism being shown;

Fig. 2 is a diagrammatic view showing the profile considered centrally of the binder case of Fig. 1;

Fig. 3 is an enlarged section taken on line 3—3 of Fig. 1, broken away in part for convenience of illustration; and

Fig. 4 is a perspective view of the elements which are combined to form the binder of Fig. 1. The various parts are spaced from each other in order to show them more clearly.

The product will be referred to as a binder case and is shown in plan and section in Figs. 1 and 3 of the drawings. They show a plan view of an opened binder case consisting of a back portion 1, two hinged cover portions 2 and 3, and hinge portions 4, all of laminated material. Rivets 5 have been shown on the back portion 1 for assembly of ring mechanism, not shown. Although the binder case is particularly useful for loose leaf books and the drawings show such as an example, the binder case may easily be adapted for permanently bound books.

The features of the new product in the examples of Figs. 1, 2 and 3 will now be described. This example retains important advantages seen in the construction of said prior patent, i. e. Fig. 7 of that patent, and adds improvements.

A main improvement is in the nature of the cover portions. Referring to Figs. 1 to 4, the two limp plastic sheets 5 and 6, seen in Fig. 4, are to enclose stiffening panels 11 as in Fig. 3. They

are welded together on buffer margin *a* and on hinge bands *b*. The panels 11 of stiffening sheet 7, however, are not welded to the material of limp sheets 5 and 6 as these sheets enter into the form of Fig. 3 under the method of making to be described. The portion of limp plastic material from sheet 5 overlying each panel 11 and the corresponding portion of limp plastic material from sheet 6 underlying each panel 11 in the assembly of Fig. 3, are portions which are not fastened together or to the panel 11 in either cover 2 or cover 3 in the final binder case construction. The limp sheets 5 and 6 are fastened together, however, around substantially the whole margin of each panel 11 in bands *a* and *b*. The result is that the limp sheet plastic material on opposite sides of each panel 11, can move relatively to the stiffening panel 11 and to each other. The movement will be permitted due to the limp character of the outer sheets, aided by some elasticity of the material and in spite of the binding margin seen in bands *a* and *b*. These marginal bands limit the degree of relative movement in the cover areas where the stiffening panels are laminated. When these cover areas are handled by the user their outside limp sheets are given a limited creeping movement with relation to the stiffening material of the panels. These same cover areas of the limp sheets also have enough looseness inside their edge margins *a* and *b* to take a slightly wavy surface form when either cover is slightly bent, particularly on the inside surface of the bend. When the covers are laid out flat these same cover areas have a slightly built up appearance, i. e. a slight degree of puffiness that distinguishes them from a flat hard looking surface. Together these things give a nature to the cover portions which closely simulates a rich soft leather action and appearance.

The significant improvement over my prior patent is strikingly apparent to the eye and to the feeling of the binder case in the hands of the user. The product is indicated in the enlarged scale of Fig. 3 to show better the arrangement of elements. The profile of Fig. 2 better shows the nature of the binder case construction for its sheet form of covers 2 and 3, back portion 1, hinge strips 4, and peripheral buffer margin *a*, especially when the profile of Fig. 2 is considered with the plan view of Fig. 1. The improved appearance seen in this binder case construction as compared to the construction of said patent is much more remarkable when the tangible products instead of the drawings are compared. The prior product and the improved product may be made of the same

3

limp sheet plastic material and stiffening panels. By leaving the laminations loose in the manner described the binding case product is improved.

The product is also improved by the construction of the back panel element made of the parts as indicated in Figs. 3 and 4. The rivets 4 are fastened at one end to the stiff strip 8 for carrying them in the desired spacing. This strip is laminated in the back panel with stiffening panel 12 and the back panel portions in the areas of limp plastic sheets 5 and 6, as indicated in Fig. 4. This example of back panel construction shows one adapted for low cost steps in making of the binder case construction with rivets built in to take the loose leaf mechanism. The utility of this feature of the invention in facilitating economic production is better seen and appreciated from the description of the preferred method of manufacture disclosed in my divisional application which has matured into Patent No. 2,478,132.

When a loose leaf binder mechanism is attached to the binder case construction by rivets 4, it will itself stiffen the back portion and no back panel stiffening portion will be necessary. But it is a convenience to handle all three panels in sheet 7 as a unit. In case a permanently bound book instead of a loose leaf binder is wanted, the shanks of rivets 4 or equivalent parts may be shortened or be short enough in structure to be mere studs for positioning the parts as stated in carrying out the method steps. The binder case construction can then be applied and fastened to permanently bound fillers in any well known way. The construction of Fig. 1 is, however, particularly useful for making high quality binding case construction for loose leaf binders.

Considering the quality of the preferred form of the Fig. 1 binder case, it has already been compared to that of said prior art Patent No. 2,390,125 of 1945. It should be compared also to the type of leather laminated binder case construction such as may be made by stitching sheets together and hand tooling the edges. Suppose the outside cover sheet were limp leather, the inside cover sheet were also of limp leather, and cover stiffening panels were laminated between them. The fastening would commonly be done by stitching down the buffer band and hand tooling the buffer edge to give a fine appearance. The resulting fine, rich leather binding would be comparatively expensive. Its fine appearance, however, is approached to a very close degree by this invention, keeping in mind that the limp sheet plastic material both as to surface decoration, to movement under finger touch, and to book wearing quality can be made substantially the equivalent of fine leather. Taking this into account, together with the fact of saving in cost

4

of material, stitching, and hand tooling for leather binding work, the comparison with the sheet plastic work under this invention is very much in favor of the new product.

The new product may be considered as an improvement over that of said prior patent in that the new one brings the art into much closer identity with the high quality of fine leather bindings than the one of said patent while retaining important advantages of the improvement seen in said patent.

Having disclosed my invention, what I claim is:

A binder case comprising two limply flexible sheets of thermoplastic material coextensive with each other and defining the overall dimensions of the case, a third sheet formed of thin flexible stiffening material of less over-all dimensions than said thermoplastic sheets positioned between the latter with the peripheral edge portions of the thermoplastic sheets extending beyond the peripheral edges of said third sheet, the latter being provided with spaced elongated slots defining a central back panel with a cover panel at each side thereof, said slots stopping short of the edges of said third sheet to provide a connection between the several panels at the ends of the back panel and preserve the continuity of the case structure about the entire periphery of the case, the said extending peripheral portions of the thermoplastic sheets being integrally welded into single sheet form from the peripheral edge of the third sheet to the peripheral edges of the thermoplastic sheets, the portions of the thermoplastic sheets opposite said slots being similarly integrally welded together through said slots, said thermoplastic sheets being free of attachment to the faces of the third sheet, the degree of stiffness of the cover portions being substantially that imparted thereto by the cover panels, said cover portions being characterized by the limited characteristic creeping movement permitted the limp thermoplastic sheets relative to the stiffer panel members by the elastic properties of the thermoplastic material.

FRANK STANLEY SCHADE.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
559,727	L'Enfant	May 5, 1896
834,011	Leffler	Oct. 23, 1906
1,423,015	Pitt et al.	July 18, 1922
1,632,193	Persons	June 14, 1927
1,995,865	Schade	Mar. 26, 1935
2,387,695	Weller	Oct. 23, 1945
2,390,125	Schade	Dec. 24, 1945