

March 11, 1941.

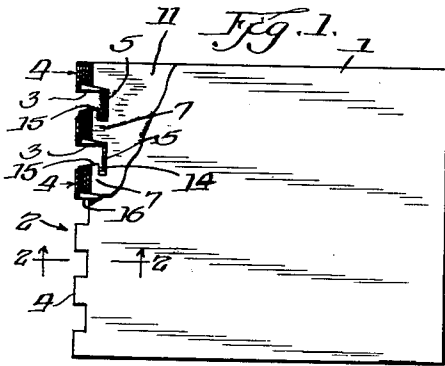
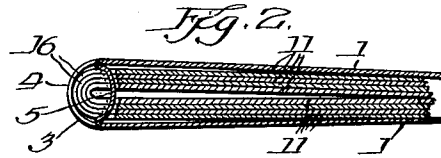
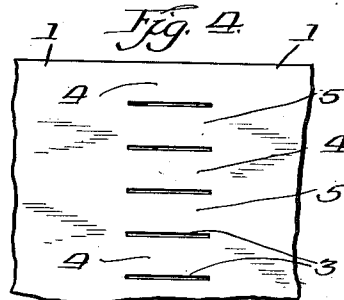
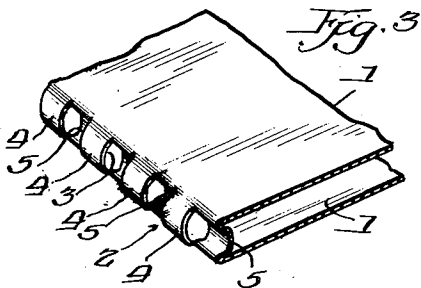
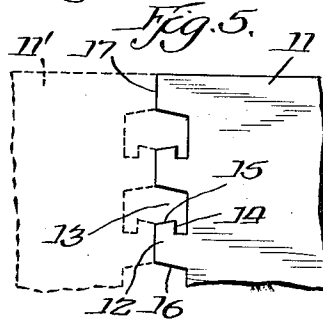
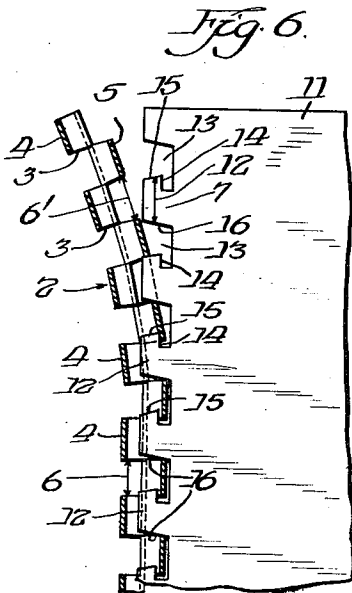
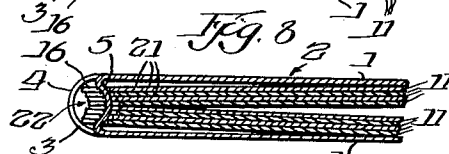
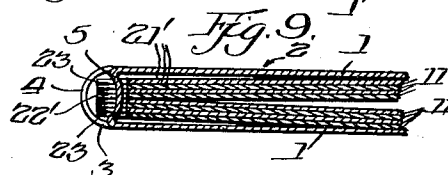
E. N. FARKAS ET AL

2,234,401

BINDING AND METHOD OF MAKING

Filed Aug. 22, 1938

3 Sheets-Sheet 1



³ Inventors:
Emil N. Farkas &
Frank F. Farkas:
By Sheer Shee Attys.

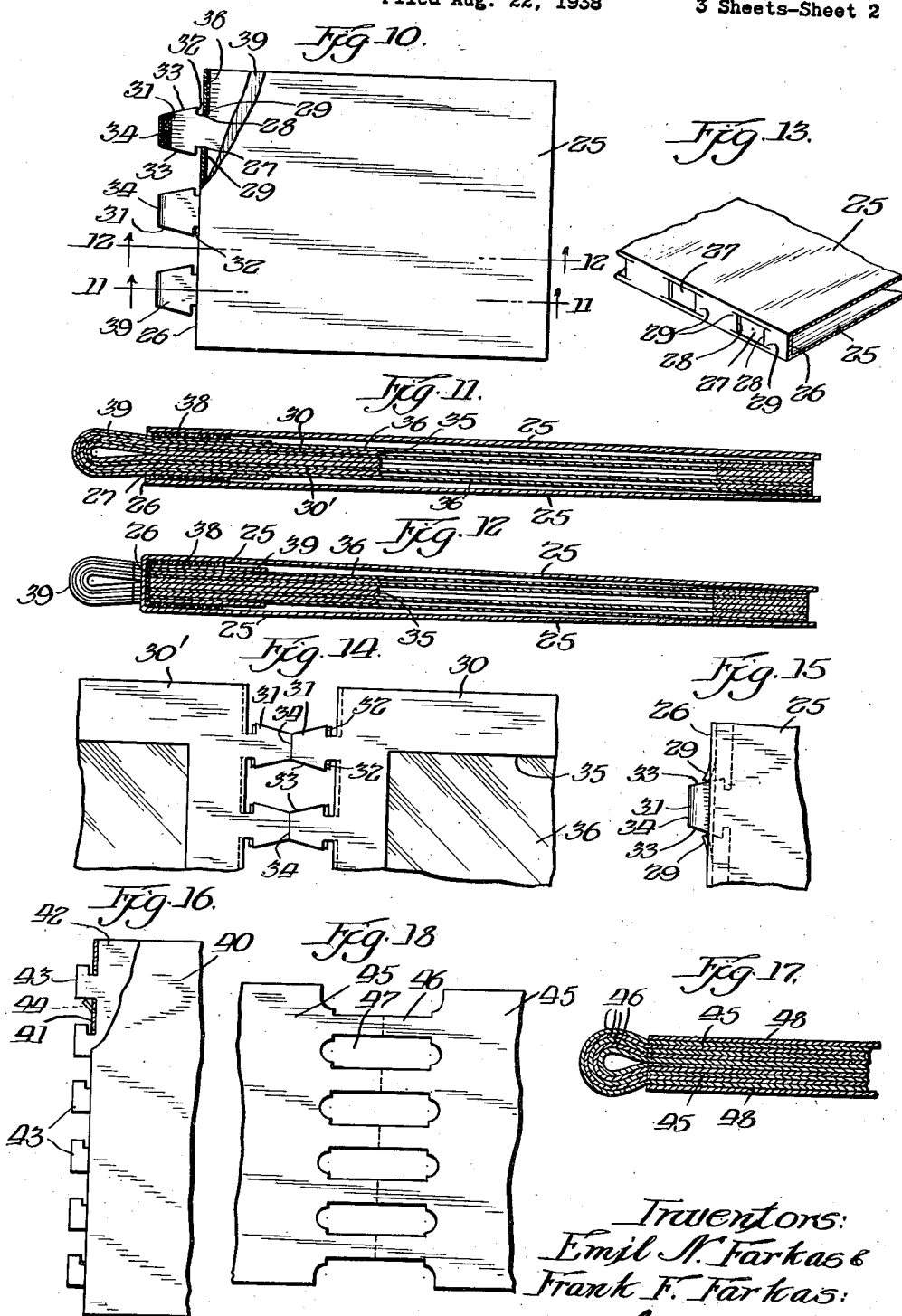
March 11, 1941.

E. N. FARKAS ET AL
BINDING AND METHOD OF MAKING

2,234,401

Filed Aug. 22, 1938

3 Sheets-Sheet 2



Inventors:
Emil M. Farkas &
Frank F. Farkas:

By *Sievers & Sievers* Attys.

March 11, 1941.

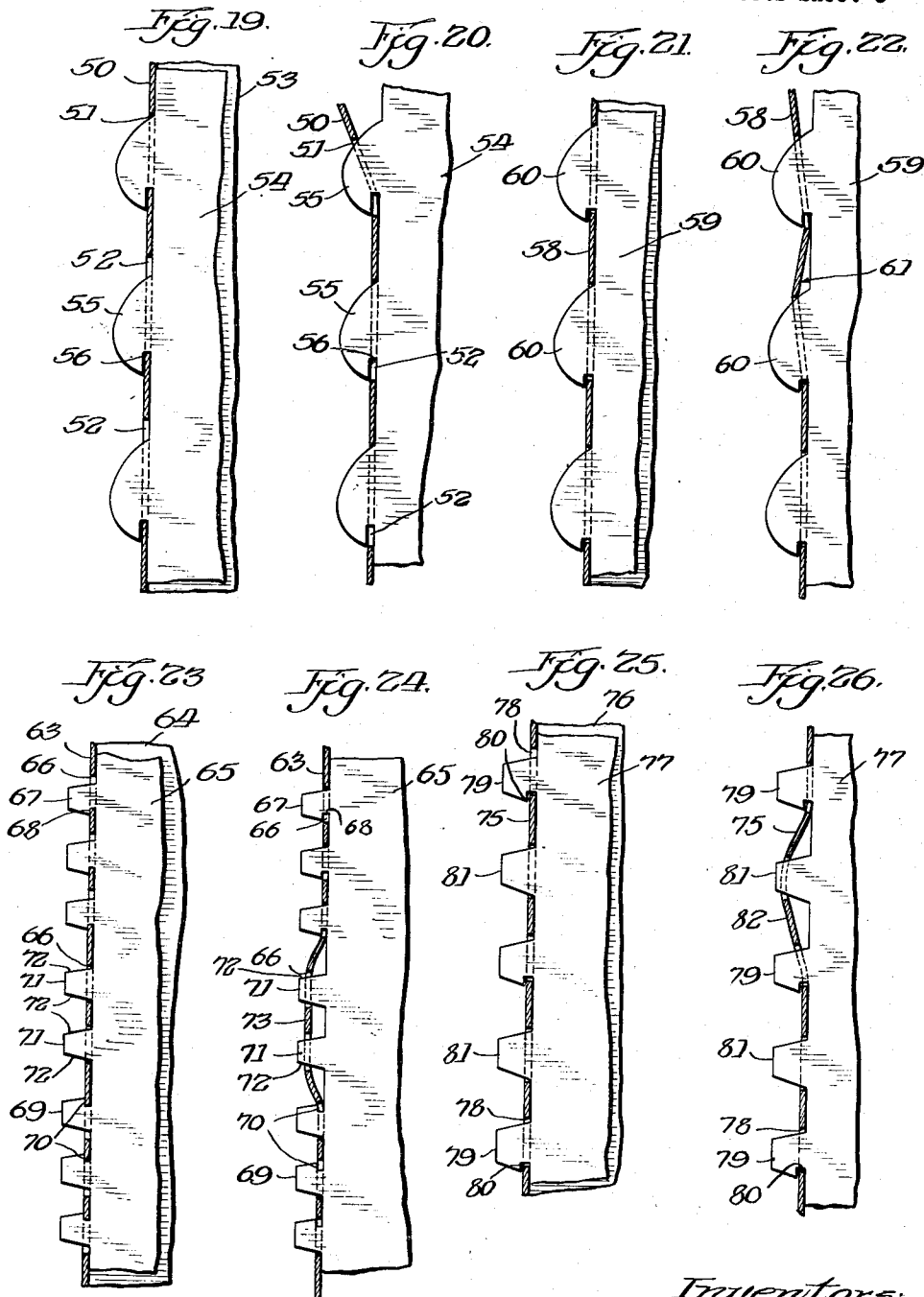
E. N. FARKAS ET AL

2,234,401

BINDING AND METHOD OF MAKING

Filed Aug. 22, 1938

3 Sheets-Sheet 3



Inventors:
Emil N. Farkas &
Frank F. Farkas:
By *Shie & Shie*
Attys:

UNITED STATES PATENT OFFICE

2,234,401

BINDING AND METHOD OF MAKING

Emil N. Farkas and Frank F. Farkas, Chicago, Ill.

Application August 22, 1938, Serial No. 226,026

11 Claims. (Cl. 129—18)

Our invention relates to that general class of devices such as books, pamphlets, catalogues or the like, and more particularly to an improved construction thereof and the novel method of constructing the same. More particularly it is directed to an inexpensive construction and method for binding one or more loose sheets or pages together with a cover and maintaining the parts in assembled relation to provide a unitary structure or booklet.

The invention has among its objects the production of an article and method of constructing the same, of the kind described which is simple, convenient, durable, efficient, attractive and very inexpensive, the same being particularly adapted for booklets, sales manuals, catalogues, advertising material and the like.

Another object of the invention is the production of such a device wherein the covers, formed from a single sheet of material, or its equivalent, as a unitary structure is so designed that it, in cooperation with the pages to be enclosed thereby, secures the pages thereto without the aid of separate mechanical devices.

A further object is the production of an article of the kind described in which no stitching is required and in which metal or like fastening devices as ordinarily or heretofore used for securing the covers and pages together are entirely done away with, the cover member or members and pages being constructed so as to cooperatively interlock and be more or less substantially secured together without supplemental securing means unless desired for ornamental purposes or otherwise.

A further object is the production of an article of the kind described which may be manufactured without requiring any special or expensive machinery, or other apparatus, and without skilled labor.

A further object is the production of a device of the kind described by a simple method which is more or less durable and will not readily come apart, but which lends itself to the removal of pages or insertion of new pages or replacement sheets as desired.

It has particularly as a further object the production of an article of the kind described which is more or less flat and in which quantities may be stacked conveniently and without likelihood of the stacks falling over. There is likewise nothing in the construction that will be injured or which may injure postal equipment when the devices are sent through the mails, and being

without supplemental attachments, mailing costs are materially reduced.

The same also enables the binding economically of a limited number of pages in an attractive manner, as well as a binding of a number of pages, and while reducing the production costs of catalogues and the like and yet permits the production of advertising or other literature that is expensive in appearance and substantially sufficiently permanent for the ordinary usage so that the same will be preserved by the recipient rather than filed in the waste basket.

The construction and method of making the articles lends itself particularly to filling a need in the smaller printing plants, which may not be equipped with special machinery or apparatus beyond the usual equipment, for binding up books, booklets, catalogues and the like, and which shops therefore either refrain from turning out such work, or send their work to others to be bound. By employing our invention, such plants are able with their usual equipment to put out pleasing and attractive booklets, plain or in colors, and produce advertising material that will meet the requirements of the advertiser at a reasonable price.

Many other objects and advantages of the construction herein shown and described which may be incorporated in various embodiments will be obvious to those skilled in the art from the disclosure herein given.

To this end, our invention consists in the novel construction, arrangement and combination of parts and method of constructing booklets herein shown and described, and more particularly pointed out in the claims.

In the drawings, wherein like reference characters indicate like or corresponding parts:

Fig. 1 is a plan view with a portion broken away illustrating one embodiment of the invention;

Fig. 2 is an enlarged sectional view of a portion of the same taken substantially on line 2—2 of Fig. 1;

Fig. 3 is a perspective view of a portion of the combined cover and binder;

Fig. 4 is a plan view illustrating the method of constructing the cover shown in Fig. 3;

Fig. 5 is a plan view illustrating a portion of a page;

Fig. 6 is a sectional view illustrating the method of inserting or removing pages from the retainer;

Fig. 7 is a sectional view similar to Fig. 2, showing another method of arranging the pages;

Fig. 8 is a similar view illustrating another page arrangement in which the pages are not folded;

Fig. 9 is a similar view of the pages shown in Fig. 8, illustrating the securing of the tongues together by adhesive or the like;

Fig. 10 is a view similar to Fig. 1 illustrating another embodiment of the invention;

Fig. 11 is a sectional view taken substantially on line 11—11 of Fig. 10;

Fig. 12 is a sectional view taken substantially on line 12—12 of Fig. 10;

Fig. 13 is a perspective view of a portion of the combined cover and binder;

Fig. 14 is a plan view of a portion of the pages of the type shown in Fig. 10;

Fig. 15 is a view similar to a portion of Fig. 10 showing the method of inserting and locking the pages in place;

Fig. 16 illustrates another type of page construction;

Fig. 17 is a sectional view through a portion of the cover binder and pages;

Fig. 18 is a plan view of another type of sheet;

Fig. 19 is a sectional view of another embodiment of the invention;

Fig. 20 is a similar view of the same illustrating the method of inserting or removing the pages;

Fig. 21 is a view similar to Fig. 19 illustrating another embodiment;

Fig. 22 is a similar view of the same illustrating the method of inserting or removing the pages;

Figs. 23 and 24 are similar views of another embodiment of the invention; and

Figs. 25 and 26 are also similar views of another embodiment of the invention;

Referring to the drawings it may be mentioned that there is shown a number of different embodiments of the invention incorporating the basic features in which there is provided a retaining member which may be extended to form covers, and a plurality of pages or sheets which may be inserted between the covers or in the retaining member, and be assembled or bound together in a secure and attractive manner. It should be understood that the pages or sheets may be of any suitable material, of the desired thickness and laminated if so desired. The same may be provided, if found desirable, with what may be termed window openings, the particular construction of the pages depending, to a large extent, upon the number of pages, and the use for which the booklet is to be employed.

It may be noted that in the drawings the sheets are shown of a rather substantial thickness in order to clearly illustrate the invention, the thickness of the pages or sheets depending upon the weight of the stock or material employed, and the same is also true as to the covers and binder portion of the covers. The weight of the material, that is, the thickness, and also the size and proportions may be varied to suit individual preferences.

Referring to Figs. 1, 2 and 3, 1—1 represents covers of the desired material and stiffness which are connected by a binder or retainer designated generally by the reference character 2, which constitutes a back to the booklet and connects the two covers, the covers and back in the embodiment shown, constituting a unitary structure. The back or retaining part is preferably formed by cutting a series of slits 3 (see Fig. 4) between the two cover portions so as to provide a plurality of loops 4 and 5, a portion of which are formed outwardly and a portion inwardly as shown.

The pages are constructed with tongues

adapted to project between the loops 5 and toward the loops 4, the same, in the construction shown, being adapted to engage with the loops 5 at the outer face thereof and be locked in position behind the loops 4. The pages may be what may be termed as two-ply, that is two sheets connected together forming two leaves, or single ply, that is a single separate sheet, and are provided with the tongues of suitable shape and size, several embodiments being shown in the drawings and hereinafter described.

In the embodiment shown in Figs. 1, 2 and 5, the sheets are double, that is, two leaves connected together. As shown in Fig. 5, the tongues 12 are formed by cutting out by dies, or otherwise, portions 13. One or more of these tongues are preferably formed with a shoulder 14 on one or both sides, as shown in Fig. 5 on one side, with the edges inclined or beveled as shown at 15. In Fig. 10 the shoulders are shown on both sides. In Fig. 5 the associated page is shown in dotted lines and indicated by the reference character 11'. In Fig. 2, the various tongues are shown nested together, with the nested tongues inserted through the spaces or apertures between the loops 5, and as shown in Fig. 1, engaging with the outer faces thereof. Obviously the outer loops 4, protect the tongues and add to the appearance.

We have shown in Fig. 6 how these tongues may be readily inserted or removed from the back or binder. The covers are opened up which permits flexing at the back as shown in this figure. In the lower part of the figure, the tongues are shown in engaging position, and it will be noted that the distance 6 between the adjacent inner and outer loops is less than the distance 7 across the tongues. When the back or binder is slightly flexed as indicated, the inner loops 5 are separated beyond their normal position as indicated at 6', so that the tongues may be readily pushed into place and then when the back or retainer is flexed back as is shown in Fig. 1, the shoulders 14 overlie and engage the loops 5 as clearly shown in Fig. 6, securely and positively locking the pages in place. The tongues are preferably tapered or inclined as indicated at 15 and 16 so that they may more readily clear the inner loops when inserting, thereby facilitating the insertion as well as the removal of pages.

The construction shown in Fig. 7 is similar except that the two associated or connected sheets 18 are folded over on each other as indicated generally at 19, and the several associated pages stacked one next to the adjacent one, rather than as nested in Fig. 2.

Fig. 8 illustrates a similar construction, except that in this case, the various sheets are separate or individual, each one being constructed substantially as shown in the full lines of Fig. 5 without the connected or associated sheet 11'.

The construction shown in Fig. 9 is similar to that shown in Fig. 8 except that the individual or single sheets 21' are arranged together for positioning in the binder and between the covers, and the ends 22' of the various tongues secured together by adhesive 23 or the equivalent after or before inserting through the apertures. While the adhesive is found in practice to be unnecessary, this tends to stiffen the tongues and holds the sheets together for convenient turning.

With the booklet constructed as shown, the various sheets constituting leaves or pages may be formed in any suitable manner to provide the

tongues, and this, of course, may be done before or after printing or ornamentation has been applied to the pages or leaves. In fact, the sheets and covers may be made up in large sizes, for convenience in printing, permitting the printing of a plurality of pages at one time, all similar or different on a sheet, and then cutting up the sheets and forming the tongues to provide the different units. An entire booklet, including the covers, may in this way be manufactured, thus reducing printing and binding costs.

In regard to the covers and retainer, these are preferably but not necessarily, made of an integral piece of material, the number of slits and loops, of course, depends upon the desired number of tongues employed, the number of tongues and loops being a matter of preference, in some instances one or two tongues may be all that is desired, while in other instances it may be desirable to form a series of tongues and loops along the entire back edge of the booklet. The covers and pages may be reinforced or laminated or other additions embodied, if desired, as for example, as shown in some of the other illustrated embodiments of the invention.

The embodiment of the invention shown in Figs. 10 to 15, is substantially similar to that previously described. Referring to these figures, 25-25 represents covers connected by the back or retainer 26. The back portion 26 is provided with a series of apertures therein to provide a series of what may be termed loops corresponding with the loops 5 previously described, the loops 4 being omitted, and at one or both sides of these apertures may be provided tabs 28 (see Fig. 13) formed by slitting the back beyond the sides of the apertures as indicated at 29. As shown in Figs. 11 and 12 there is provided a plurality of sheets 30 which may be assembled together as shown in Fig. 2 of the preceding embodiment or as shown in Figs. 7, 8 and 9. The sheets 30 are provided with tongues 31, and Fig. 14 shows the associated sheet 30' connected thereto. The tongues 31 are formed with shoulders as at 32 and with inclined edges 33, the tongues being joined as at 34. In a single ply the tongues would end at 34 or the leaves made individual. The method of inserting the tongues through the apertures is shown in Fig. 15. As the tongues are pushed through the apertures, the edges 33 spring or flex the tabs 29 outwardly and the edge of the sheet engages the inner side of the back, then the tabs spring or flex back and into the notches and engage the shoulders 32, securely locking the sheets in place. There is also illustrated in these figures, how the sheets 30 may be provided with windows 36 covered by transparent or translucent material 36 which forms a lamination over the sheet thereby reinforcing the tongues as well as giving them a durable attractive finish. An additional reinforcement 39 of paper or laminating material may also be employed if desired, this corresponding with the tongue end of the page and covers the tongues, and forming a part of the tongues. It, in effect, corresponds with the loops 4 previously described in covering the tongues. We have also illustrated at 38 how the back may be reinforced by a reinforcement 38 extending over and secured to it and to the covers. This may be of any suitable material that will permit opening or flexing of the covers.

Fig. 16 is intended to illustrate a modified form of tongue which engages on one side only. The cover 40 is provided with a back or retaining

member 41, having apertures therein. The sheets 42 are provided with tongues 43, and the member 41 may be provided with tabs 44 at one side or the other of the apertures which will flex outwardly to permit the insertion of the tongue and then spring back. The tab may be at either side of the tongue, but when arranged as shown, the shoulder on the tongue engages the back rather than the tab, so that the tab merely retains the shoulder in engaging position.

In Fig. 18 is shown a modified form of sheets and tongues, in which 45 represents a double leaf formed with openings 47 to provide the tongues 46. These are shown in Fig. 17 in place between the covers 48 provided with a retainer or back edge substantially as shown in Fig. 13 except that the tabs may be omitted. In this case the pages are retained in place by the bulge in the looped tongues. This bulge may be made sufficient to lock them in place without forming shoulders on the tongues, and if desired, the looped tongues as in Fig. 17, may be lacquered, glued or treated or stiffened after insertion to cause them to retain their bulged shape as shown.

Several modified embodiments of the invention are shown in Figs. 19 to 26. Referring to Figs. 19 and 20, 50 represents a retainer member provided with openings or apertures 51 and 52, the retainer being provided with extending portions 53 forming covers if desired. As illustrated, the one aperture, for example 51, is generally placed near the end and is shorter in length than the aperture 52. The sheet or leaf 54 is provided with tongues 55 and shoulders 56. Obviously, the retaining member 50, if of flexible material, will not be readily flexed when provided with the extending flange portions 53 and the covers are closed, the back substantially constituting a channel like structure when the booklet is closed. If the cover or flange portions are opened outwardly in the plane of 50, then the back 50 may be readily flexed as indicated in Fig. 20, releasing the tongue engaging in the opening 57 and the pages 54 may be readily shifted as shown in Fig. 20, so that the pages may be inserted or withdrawn as the case may be. When the pages are inserted, the binder is flexed and the tongues inserted in the openings 52 and then the retainer adjacent opening 51 is turned down so as to engage with the end of the tongue, the page or leaf being moved in the binder.

In the embodiment shown in Figs. 21 and 22, 58 represents a retainer or binder for receiving the tongues 60 on the pages 59. In this instance, the tongues are inserted by flexing the retainer by bending the same substantially as indicated at 61 at the required points. The same may then be straightened out, locking the pages or leaves in the retainer.

In the embodiment shown in Figs. 23 and 24, 63 represents the binder or retainer and 64 the covers. The pages or sheets are indicated by the numeral 65 and are provided with tongues 67 and 71. The tongues 67 are each formed with a notch at the base to form a shoulder 68, and one or both edges are preferably cut at an angle as shown. A portion of the apertures are arranged to receive tongues 71 which are formed without the shoulders 68 and preferably cut at an angle as indicated at 72. It will be noted by referring to this figure that on the tongues 67, the shoulders 68 are at one side or edge, while at the opposite end of the tongues 71, the tongues 69 are provided with the notches 70 on the other side. In applying the pages to this retainer, the portion adjacent

the tongues 71 is flexed as indicated at 73 in Fig. 24, and the tongues 67 and 69 inserted, after which the intermediate portion is straightened back, and the back thereupon engages with the various shoulders and the pages are locked in place.

A somewhat similar embodiment is shown in Figs. 25 and 26, in which 75 represents the retainer or back with the cover flanges 76, and 77 represents one of the pages. In this case the pages or leaves are provided with tongues 79 and 81. The tongues 79 are formed with shoulders 80, while the tongues 81 are without shoulders. This construction is assembled or disassembled somewhat similar to that shown in Fig. 22, the retainer being flexed at a series of points.

It will be seen that with our improved construction and method of binding, the retaining member having the apertures through the same and the pages carrying the tongues cooperatively engage or interlock so that the various pages or leaves are secured together, forming a unitary structure that is inexpensive to manufacture, attractive in appearance and substantially permanent and durable for ordinary usage. It is possible to construct booklets, catalogues and the like very economically, as well as to produce an attractive piece of advertising material which will be retained rather than be thrown in the waste basket. The booklet may also be inexpensively provided with covers by forming the backing member and covers of the same material, the covers being really extensions of the backing or retaining member. Metal, plastic or other mechanical devices are entirely eliminated. With the looped tongues the book may be ornamented by inserting an ornamental bar or rod through the loops, adding to the appearance. Of course, in some instances the covers may not be desired or required, or it may be preferred to have them of short length, and their size or their omission depends upon the preference of the user. As has been previously mentioned, the sheets may be double and looped or folded over to provide two connected leaves, or the single sheets employed. The single sheets will be firmly secured in place in any of the embodiments shown, owing to the direct interlocking of the backing member or binder and shoulders on the tongues.

The invention lends itself to various other embodiments of the particular structures shown, and we have found the booklets satisfactory whether the pages are of heavy or light weight stock, or whether or not the same are laminated. It may be mentioned that an important feature of the invention is the fact that with a more or less flexible backing and pages the book when open may lie more or less flat, so that there is substantially a flat surface from the free end of one page to the free end of the opposite page, thus lending itself to a display of printed material or illustrations continuously across two pages.

Having thus described our invention, it is obvious that various immaterial modifications may be made in the same without departing from the spirit of our invention; hence we do not wish to be understood as limiting ourselves to the exact form, construction, arrangement and combination of parts herein shown and described, methods practiced, or uses mentioned.

What we claim as new and desire to secure by Letters Patent is:

1. A device of the kind described consisting of a plurality of sheets, a flexible retaining member adjacent one end of said sheets and individual means formed on the adjacent ends of said sheets

passing without deformation between spaced portions of said retaining member and engageable therewith for securing the sheets in place, the distance between adjacent spaced portions of said member being less than the over-all width of the individual means passing between the same.

2. A book of the kind described comprising a sheet folded intermediate its ends to provide a pair of connected covers, and a plurality of pages, said pages having aligned tongues extending from one end thereof, said cover sheet having spaced tongue-engaging means therein adjacent the line of folding, the distance between adjacent spaced means being less than the over-all width of a respective tongue, the corresponding tongues of the respective pages extending as an undeformed unit through said cover sheet at said tongue-engaging means, to secure said pages to said cover.

3. A device of the kind described consisting of a sheet constructed with notched tongues at one end thereof, and a retaining member having apertures therein, a tab on said retaining member adjacent at least one of said apertures, said tongues projecting through said apertures and one tongue engaging said tab to retain the sheet to said retaining member.

4. In a book of the kind described provided with a plurality of apertures through the back portion joining the covers, the combination with pages having tongues inserted without deformation through said apertures and secured to the back thereat, the width of each aperture being less than the overall width of a respective tongue.

5. In a device of the kind described, a plurality of sheets having projecting tongues at one end in combination with a retaining member having a plurality of spaced portions, adjacent spaced portions being spaced apart a distance less than the over-all width of a tongue and suitably sized to permit the insertion of the tongues between said portions when said cover is flexed transversely to said pages.

6. In a device of the kind described, the combination of a plurality of sheets, said sheets being formed with a plurality of spaced elements adjacent a corresponding edge thereof, said elements having securing means thereon and a flexible member for maintaining said sheets in assembled relation, said member having spaced portions engageable with said elements, said portions and the securing means of said elements being so proportioned relative one another as to permit interlocking therebetween when part of said member is flexed transversely to the plane of said sheets, without deformation of the sheets or said elements.

7. In a device of the kind described, the combination of an element constructed with a plurality of tongues at one end thereof, a retaining member having a plurality of apertures therein, a tab on said retaining member adjacent each aperture, said tongues projecting through respective apertures, and means on said tongues cooperable with the respective tabs to prevent separation of the tongues from said member.

8. In a device of the kind described, the combination of an element constructed with notched tongues at one end thereof, a retaining member having apertures therein, and tabs on said retaining member adjacent respective apertures, each tab at least partially closing its respective aperture, said tabs being sufficiently deformable to permit insertion of said tongues through the

respective apertures, and engageable with the adjacent ends of the tongues to prevent separation of the tongues from said member.

5 9. In a device of the kind described, the combination of an element constructed with notched tongues at one end thereof, a retaining member having apertures therein, means on said retaining member adjacent the respective apertures for at least partially closing the same, and
10 constructed to permit insertion of the tongues in respective apertures, said means being engageable with said tongues at the notched portion thereof, and cooperable with the free ends of the tongues to prevent separation of the
15 tongues from said member.

10. The method of connecting a plurality of members together, one or more of which is provided with a row of spaced tongues, and another of said members provided with a row of

correspondingly spaced tongue engaging means, consisting in flexing said last mentioned member transversely to the line of said means, unflexing said member and simultaneously engaging said tongues one by one with their respective means as said member is unflexed. 5

11. The method of connecting a plurality of members together, one or more of which is provided with a row of spaced tongues, and another of said members provided with a row of corresponding apertures, consisting in flexing said last mentioned member transversely to the line of said apertures, unflexing said member and simultaneously passing the ends of said tongues one by one through their respective apertures and engaging them with said member as the latter is unflexed. 10 15

EMIL N. FARKAS.
FRANK F. FARKAS.