Feb. 4, 1930. F. L. WASSELL ET AL 1,745,651

INDEX FILING DEVICE

Filed Oct. 24, 1925 2 Sheets-Sheet 1

Fig. 1.

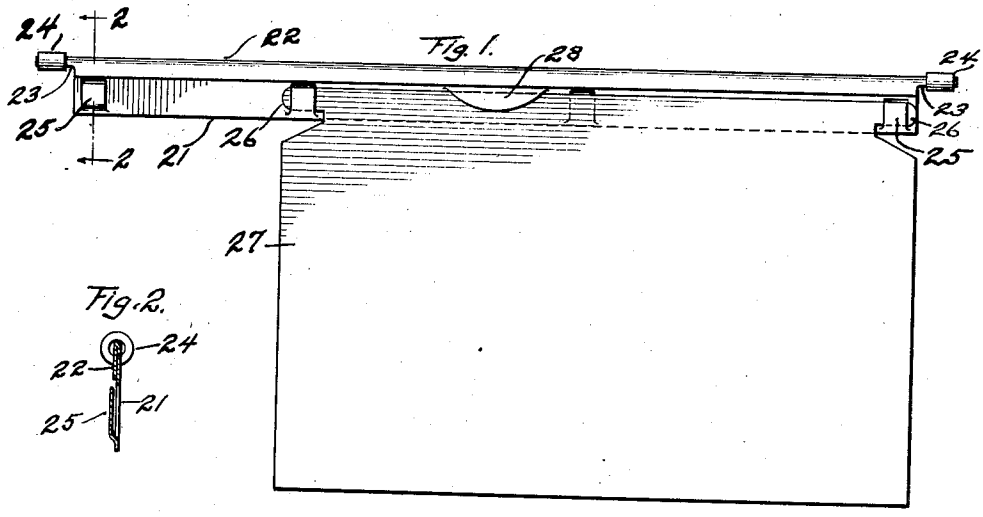


Fig. 2.

Fig. 3.

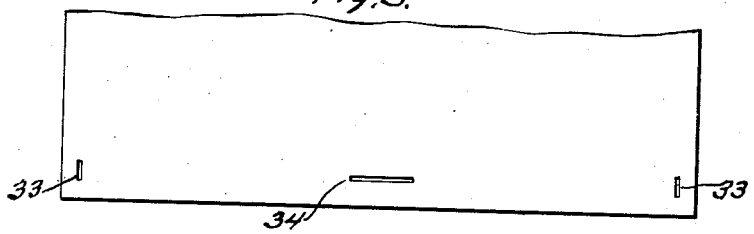


Fig. 5.



Fig. 4.

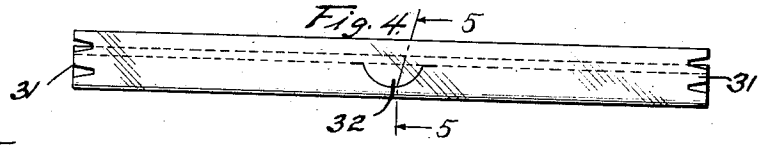


Fig. 6.

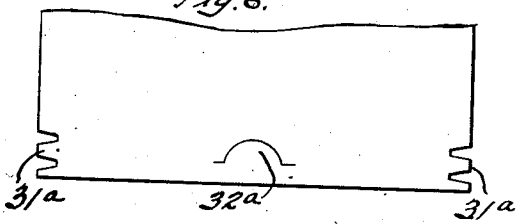


Fig. 8

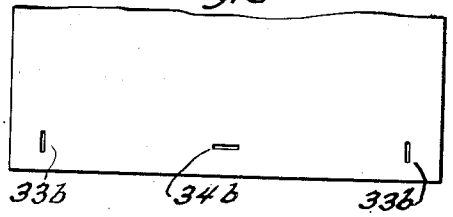


Fig. 7.

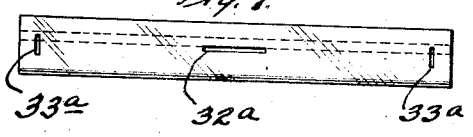
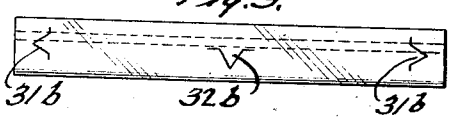


Fig. 9.



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Fig. 10

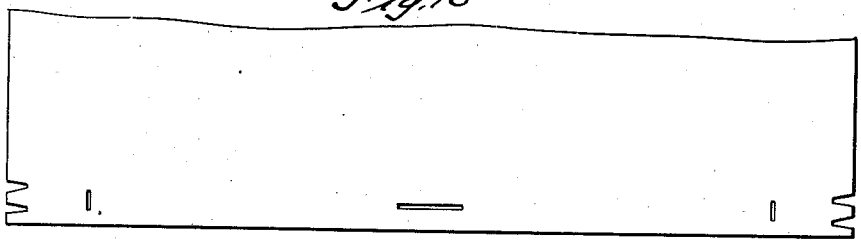


Fig. 11.

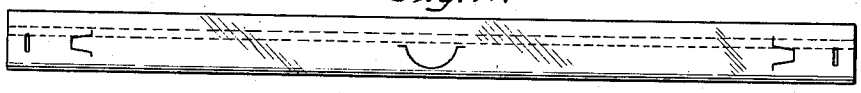


Fig. 12.

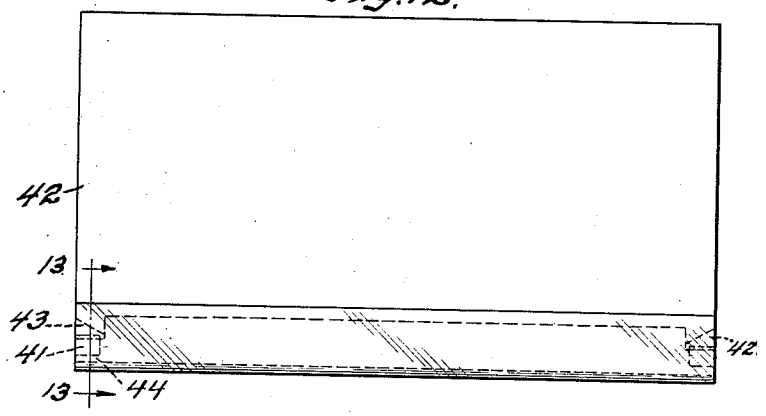


Fig. 13.



Fig. 14.

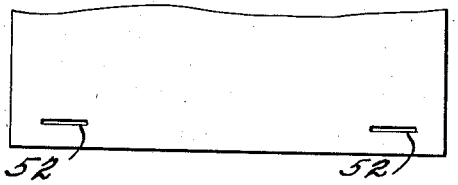


Fig. 16.

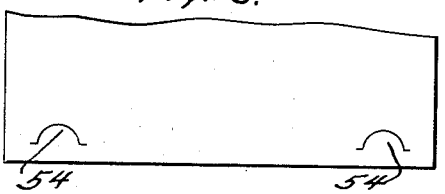


Fig. 15.

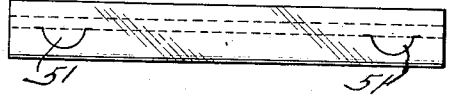
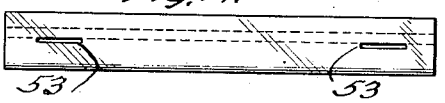


Fig. 17.



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Patented Feb. 4, 1930

1,745,651

UNITED STATES PATENT OFFICE

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INDEX-FILING DEVICE

Application filed October 24, 1925. Serial No. 64,499.

This invention relates to indexing devices, and more particularly to improvements in such devices where cards or sheets are supported in overlapped relation in such a way as to expose one edge of the card or sheet, and at the same time, render the entire card or sheet accessible.

An object of this invention is to produce an improved device of the character described which is more durable and at the same time is cheaper and easier to maintain than similar devices now in use and known to us.

Indexing devices of the character herein described are well known and in general consist of supports for cards or sheets which are so located in a frame or holder that the cards, or the supporting pockets therefor, normally lie in overlapped relation so that their lower edges are exposed and thereby provide space for entering an index of the subject matter contained on the various cards or sheets located in or supported by the device. The details of construction of the devices now in use and known to us have given some trouble, thereby rendering the upkeep of such a filing device expensive.

The principal object of this invention is to produce an index filing device as herein described which overcomes difficulties heretofore encountered.

The objects herein specifically mentioned, together with other objects which will be made apparent throughout the further description of the invention are attained by means of apparatus embodying the features herein described and illustrated in the drawings accompanying and forming a part hereof.

Figure 1 is a front elevation of an improved support, forming a detail of the present invention, showing a card in place thereon.

Fig. 2 is an enlarged sectional view along the line 2—2 of Fig. 1.

Fig. 3 is a fragmental elevation of a card or sheet equipped to receive a marginal protective element.

Fig. 4 is a front elevation of the protective element.

Fig. 5 is an enlarged sectional view along the line 5—5 of Fig. 4.

Fig. 6 is a fragmental elevation of a card or sheet equipped to receive a marginal protective element.

Fig. 7 is an elevation of the protective element of Fig. 6.

Fig. 8 is a fragmental elevation of a card or sheet equipped to receive a marginal protective element.

Fig. 9 is an elevation of the protective element of Fig. 8.

Fig. 10 is a fragmental elevation of a card or sheet adapted to receive a marginal protective element.

Fig. 11 is an elevation of the protective element of Fig. 10.

Fig. 12 is an elevation of a card or sheet equipped with a still different modified form of marginal protective element.

Fig. 13 is an enlarged sectional view along the line 13—13 of Fig. 12.

Fig. 14 is a fragmental sectional view of a card or sheet equipped to receive a marginal protective element.

Fig. 15 is an elevation of the protective element of Fig. 14.

Fig. 16 is a fragmental elevation of a card or sheet equipped to receive a marginal protective element, and

Fig. 17 is an elevation of the protective element of Fig. 16.

In Figs. 1 and 2, we have illustrated a metallic support member for cards or sheets which has the advantage, over existing support members of this character, in that it is made of metal and is more rigid than other support members, even though made of metal, thereby ensuring greater durability and invariable spacing of the index edges of the cards or sheets supported thereby. A further advantage is that the support is cheaper to manufacture than similar supports, since the entire piece, though made of metal, such as aluminum, may be formed in one operation with a minimum loss of material in the form of scrap or clippings. It should be understood that we do not limit the invention to metal supports, since other materials having similar characteristics may be employed.

As illustrated, the support consists of a flat strip 21, which is folded over along its upper edge to form a reinforcing and stiffening flange 22. The upper edge is also provided with longitudinally projecting supporting lugs 23 which are provided with permanently fixed cylindrical spacing blocks 24. Each spacing block may be formed from the metal of the strip or it may be separately formed and be permanently secured to the lugs 23 in any suitable manner. Each cylindrical spacing block may be provided with an axial opening to receive an extended lug 23, and the projecting end of the lug may then be riveted over for the purpose of permanently securing the block in place thereon. It will be apparent to those familiar with the type of apparatus involved that the spacing block may be of any desired size, and that the size of the spacing block determines the width of the exposed edge of the card or sheet where all of the cards or sheets located on adjacent supporting members are of the same width, at right angles to the major axis of the supporting member.

The portion of the flat strip, located below the flange 22 and forming the body portion of the support member, is provided at intervals along its length with card-receiving brackets 25. Our invention contemplates striking these brackets from the material of the sheet and forming them as clearly shown in Fig. 2 so that they provide a support for lugs or tabs 26 formed on a card or sheet 27. Brackets 25 struck up in this way provide a simple means for receiving cards or sheets and one which will hold the card or sheet securely against longitudinal or lateral displacement but at the same time permits of easy removal of the card or sheet from the support. In addition to the brackets 25, we also provide a locking bracket 28 which, like the brackets 25, is struck up from the metal of the sheet but is preferably located midway between the ends of the support.

This locking bracket when formed constitutes a rounded tongue, the major portion of the edge of which is spaced away from the surface of the sheet 21 an amount somewhat greater than the thickness of the card or sheet to be secured in place on the support and substantially equal to the corresponding spacing of the brackets 25 from the same surface of the support 21. The tongue, however, extends away from the flange 22 and overlaps the space defined by the oppositely projecting brackets 25.

It will be apparent that a card equipped with tongues 26, as shown in Fig. 1, may be quickly and easily mounted on the support member by inserting its upper edge under the tongue 28 while inserting its left-hand tongue 26 below the bracket 25; and that the right-hand tongue may then be inserted below the extreme right-hand bracket 25 by merely flexing the card a sufficient amount so that the end of the right-hand tongue 26 will clear the inner edge of the bracket. On releasing the card, it will straighten out by reason of its resiliency and be permanently secured in place between the brackets 25 and tongue 28.

In Fig. 1, the support is provided with four brackets 25 so spaced that it will receive and support cards of different sizes; for example, the brackets disclosed in the drawings are such as to receive cards eight inches, six inches and five inches in length. For a card five inches in length, the left-hand bracket 25, the tongue 28 and the intermediate bracket shown in dotted lines will be employed, and for a card six inches in length, the brackets illustrated as supporting the card illustrated in Fig. 1 will be employed. For an eight inch card, the end brackets 25 and the tongue 28 will be employed.

In Figs. 4 and 5, we have illustrated one form of a marginal protective element forming a detail of the present invention. As there shown, the protective element consists of a transparent sheet, such as a sheet of celluloid, which is folded back upon itself so as to receive the edge of a card between its folds. The forward fold of the protective element is notched at its ends so as to provide tongues 31. The central portion of the front fold is also cut to form a tongue 32 which preferably projects downwardly or toward the folded edge of the protective member. In order to mount such a protective element on a card, the card is provided, as shown in Fig. 3, with slots 33 positioned to receive the tongues 31 and a slot 34 positioned to receive the tongue 32.

With this arrangement, the protective strip may be mounted on any card or sheet equipped to receive it, and consequently, may be employed over and over again with new cards or sheets as the various cards or sheets in the file are removed after fulfilling their purpose.

In securing the protective strip in place, one tongue 31 is inserted into the correspondingly located slot 33 as the lower edge of the card is moved into the space between the folds of the protective device. The protective device is then moved to such a position that the entire lower edge of the card is in place against the fold or crease formed in the protective device, and the other tongue 31 is inserted into its corresponding slot by flexing a portion of the protective element and the tongue 31. The tongue 32 is then flexed by lifting the intermediate portion of the front fold slightly away from the card while the tongue 32 is being bent inwardly to a position in which it will register with the slot 34. After it is in this position, with its forward edge in the slot, it will move wholly into the slot as the front fold of the

element is relieved of its distorting pressure. In this manner, the protective element is securely locked in place on the lower margin of the card and is positively held by the tongues 31—31—32 which operate to prevent longitudinal as well as lateral movement of the element with relation to the card.

It will, therefore, be apparent that, while the element may be intentionally detached from the card, there is little likelihood of its being accidentally detached.

In Figs. 6 and 7, a modification of the protective element and the means for mounting the same on the card is illustrated. There the card is provided with tongues 31^a on its lateral edges and with an intermediate tongue 32^a, whereas the front fold of the protective element is provided with slots 33^a near its ends and an intermediate slot 32^a. The method of mounting this protective element on the lower marginal edge of the card is substantially similar to that described in connection with the element illustrated in Fig. 4.

In Figs. 8 and 9, a further modification is disclosed in which the tongues 31^b correspond in function to the tongues 31 of Fig. 4 but are protected by the uncut ends of the protective element. The tongue 32^b corresponds to the tongue 32 of Fig. 4 except that it differs in shape. The slots 33^b and the slot 34^b correspond in function to the similarly located slots shown in Fig. 3. The method of mounting this protective element on the card is substantially the same as described in connection with Figs. 3 and 4.

In Figs. 10 and 11, we have shown mounting slots and tongues which are in effect a combination of the mounting slots and tongues shown in Figs. 6–7 and Figs. 8–9.

While the operation of mounting such an element on the card is slightly more complicated than that described, a card and mounting element so equipped with tongues and tongue receiving slots is more positively secured in place by employing the double lock illustrated.

In Figs. 12 and 13, we have illustrated a still further modification of the protective element and one which is simpler to install on a card than the protective element of Figs. 10 and 11. As shown in Fig. 13, the protective element is folded back upon itself so as to form a substantially intermediate crease and so as to receive a card between the folds. The ends of either the front or rear fold, preferably the rear fold, are also cut to provide a tongue 41 which is folded between the folds. The card 42 is provided with a notch 43 in each lateral edge which is so located adjacent to the lower edge of the card that it forms a tongue which is engaged by the tongue 41 of the protective element. The width of the tongue 44 of the card is substantially equal to the distance between the crease of the protective element and the crease caused by folding the tongue 41 back between the folds of the protective element.

The method of mounting such a protective element on such a card is relatively simple, since it consists merely in introducing one tongue 44 between the folds of the protective element and under one tongue 41. The other tongue 41 is then lifted by means of a pencil point or otherwise as the card is brought to position with its entire lower edge in contact with the crease of the fold. On being released, this tongue will snap back into place if the rear fold of the protective element is distorted or moved outwardly away from the card.

In Figs. 14 and 15, the protective element is provided with two tongues 51 located near its ends and similar to the tongues 32 of Fig. 4. The card cooperating with such an element is provided with slots 52 which are adapted to engage the tongues when the card is in place between the folds and with its lower edge in engagement with the crease formed in the protective element. With such an arrangement, the protective element may be quickly installed by merely moving the card to position with its lower edge in contact with the crease of the protective element, and then the forward fold can be moved outwardly while the tongues are distorted so that they are moved into engagement with the slots 52.

In Figs. 16 and 17, the protective element is provided with slots 53 and the lower edge of the card is provided with tongues 54 similar to the tongue 32^a of Fig. 6. This protective strip may be located in place by opening the fold so as to substantially flatten the element and then move it to position over the tongues 54 of the card. When released, the rear fold will spring back to position or into engagement with the rear face of the card and the element will be held against longitudinal and lateral movement with relation to the card.

As heretofore pointed out, one of the advantages of the protective elements here illustrated is that they can be easily removed from one card and placed on another. In addition to this, they are a material improvement over the other protective elements now in use, in that they render both sides of the card available for notations without the necessity of removing the protective element from the card.

It will also be apparent that the improved holder has the advantage that, while it securely holds the card in place, the card may be readily removed from the holder and a new card of the same or a different size may be mounted on the holder. In addition to this, one holder may be simultaneously employed in supporting two or more cards of the same or different size. This also applies to the protective elements, since one element

may be employed with two or more cards or sheets.

While we have illustrated several modifications of our invention, it will be apparent to those skilled in the art that various changes, substitutions, additions and omissions may be made in the apparatus illustrated without departing from the spirit and scope of the invention as set forth in the appended claims.

We claim as our invention:

1. In an index filing device, a card support comprising a flat member provided along one edge thereof with a stiffening flange and at its ends with spacing and bearing members, and having tongue-engaging brackets struck therefrom and laterally disposed with relation to said flange.

2. In an index filing device, a card support, a card and a marginal protective device removably secured to one edge of said card and comprising a strip of resilient material folded upon itself to enclose the edge of the card, and means for removably securing said device to said card, comprising at least three distortable tongues extending in at least three directions.

3. In an index filing device, a support having upwardly extending card-engaging brackets struck therefrom, a card having bracket-engaging tongues formed thereon adapted to be inserted between said brackets and said support, and a marginal protective device removably secured to one edge of said card.

4. In an index filing device, a flat support having supporting members at both ends thereof adjacent its upper edge, and having upwardly extending card-engaging brackets struck therefrom, a card removably secured to said support by means of tongues inserted between said bracket and said support and a marginal protective device removably secured to one edge of said card.

5. In an index filing device, a card support comprising a flat member having a stiffening flange formed along one edge thereof and provided with laterally disposed card-holding brackets adapted to engage tongues formed on adjacent opposite edges of a card supported thereby.

6. In an indexing device, a card support, a card mounted thereon and provided with protective device engaging tongues and a resilient protecting device provided with slots for removably securing said device to one edge of said card by engagement with said tongues.

7. In an index filing device, a card support comprising a flat strip provided with at least three card-engaging brackets and a tongue located intermediate its ends and adapted to engage a card engaged by brackets of said support.

8. A card support for index filing devices comprising a flat strip reinforced along one edge and having longitudinally projecting supporting lugs on each end thereof, and at least three card-engaging brackets formed thereon.

9. A card support for index filing devices comprising a flat strip reinforced along one edge and having longitudinally extending supporting lugs projecting from each end of the reinforced edge, and at least three card-supporting brackets extending from the opposite edge of said strip toward said reinforced edge.

10. A card support for index filing devices comprising a flat metallic strip reinforced along its upper edge by being folded back upon itself and having longitudinally extending supports projecting from the ends thereof and card-engaging brackets extending upwardly toward said reinforced edge.

11. A card support for index filing devices comprising a flat strip reinforced along its upper edge and having longitudinally extending supporting brackets projecting from the ends thereof, at least three upwardly extending card-engaging brackets projecting from the lower edge thereof and a downwardly extending tongue located intermediate the ends thereof and adjacent said reinforced edge.

12. A card support for index filing devices comprising a substantially flat strip having longitudinally projecting brackets at each end thereof and a plurality of card-engaging brackets projecting from one edge of said strip and extending in spaced relation partially across the strip, and a tongue located intermediate the ends of said strip and extending in the opposite direction to the supporting brackets, said longitudinally extending brackets having spacing blocks thereon.

In testimony whereof, we have hereunto set our names this 22 day of Oct., 1925.

FRANK LLOYD WASSELL.
RUSSEL R. JONES.