March 13, 1928. 1,662,337

W. A. RINGLER

VISIBLE INDEX

Filed Nov. 29, 1924

Fig. 1.

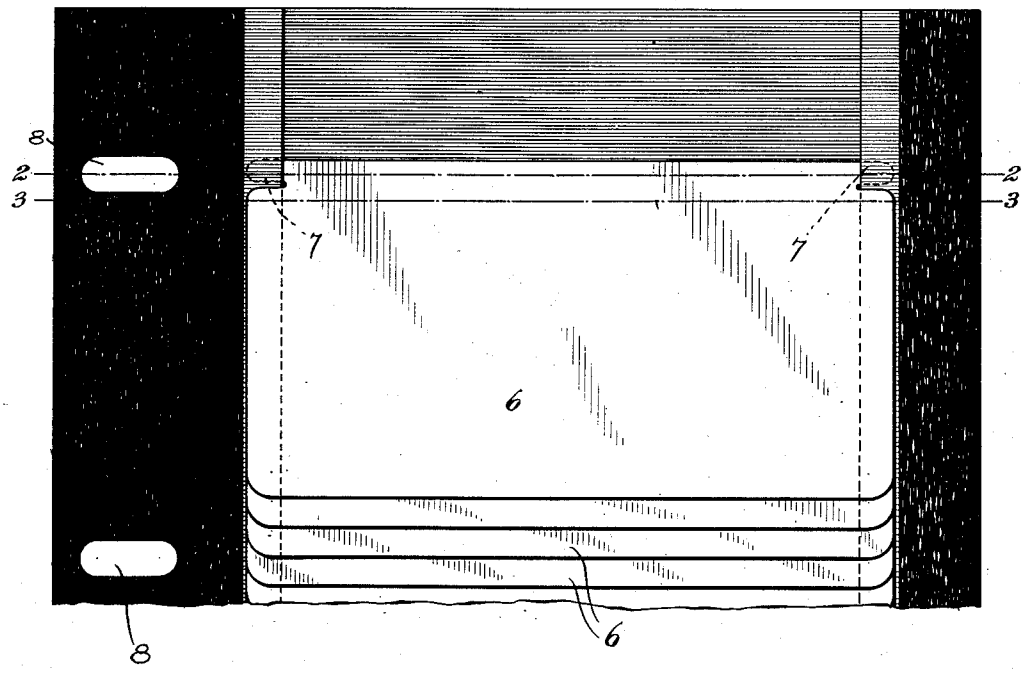


Fig. 2.

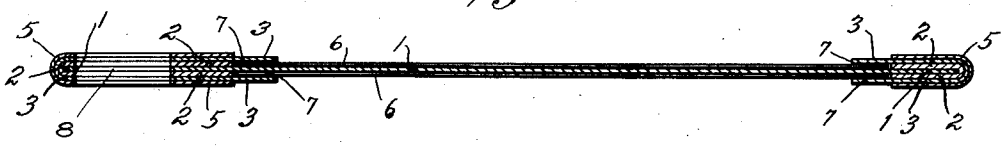
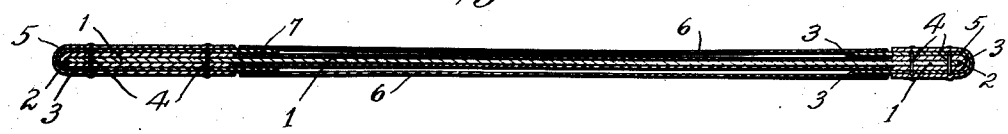


Fig. 3.



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UNITED STATES PATENT OFFICE.

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VISIBLE INDEX.

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This invention relates to visible index devices and particularly to a supporting frame or base for the visible index units or elements.

An object of the invention is to provide an improved support for visible index elements which may be formed in a simple manner from sheet material; which may support the index units or elements upon either one or both faces; and which will be convenient in use, durable and relatively inexpensive.

A further object is to provide an improved support for index devices which may constitute a leaf that may be bound in a loose leaf binding.

Various other objects and advantages will be apparent from the following description of an embodiment of the invention, and the novel features will be particularly pointed out hereinafter in connection with the appended claims.

In the accompanying drawing:—

Fig. 1 is a front elevation of a portion of a sheet for a loose leaf binding, serving as a double faced support for visible index elements, and which is constructed in accordance with the invention;

Fig. 2 is a sectional plan of the same, with the section taken substantially along the line 2—2 of Fig. 1; and

Fig. 3 is another sectional plan of the same, with the section taken substantially along the line 3—3 of Fig. 1.

In the illustrated embodiment of the invention, the body of the support is formed of a single relatively rigid flat sheet 1 of suitable material, such as metal, wood, or heavy cardboard or fibre, and the opposite side edges of this base sheet are each embraced by the arms of a folded strip 2 of bendable sheet material, such as metal, fibre, or heavy paper or cardboard. These side edges are also each embraced by the arms of another folded strip 3 of similar bendable sheet material, the free edge portions of which extend over the surfaces of the base sheet 1 to a somewhat greater extent than the embracing strip 2, which is beneath it and embraced by it. The two strips 2 and 3 embracing each edge, are firmly secured together and to the base sheet 1 in any suitable manner such as by cement, or by staples or rivets 4, or by both cement and staples or rivets.

If desired, the side edges may each further be embraced by a folded strip 5, which may be wholly or partially coextensive with the strips 3, which may be of bendable material such as paper or cloth of any suitable thickness, and which may carry suitable ornamentation when desired. These strips 5 conceal the staples or rivets and give the device a more attractive appearance, with a neat finish and outer wearing surface.

The overhanging projecting marginal edges of the strips 3 will be spaced from the faces of the sheet 1 a distance corresponding to the thickness of the spacer strip 2, and form with the base sheet 1, opposed parallel guides upon both faces of the base sheet which serve as guideways for the index units or elements as usual in visible index devices.

Any desired type of index unit or element may be employed, but in the drawing, the index elements 6 are provided at one end with laterally extending tongues 7 which project into the opposed guideways upon a face of the base sheet, so that the index elements may slide along the guideways without becoming detached therefrom. Any such index element may be removed by flexing the same to withdraw its tongues 7 from the guideways, or by turning it slightly into a diagonal or oblique position, until one of the tongues 7 thereof is moved out of a guideway, whereupon the other tongue may be readily removed. The elements may be inserted into the guideways by reverse movements. Any suitable means, not shown, may be employed for confining the index elements together in any section of the guideways.

One of the marginal edges of the base sheet 1 is preferably wider than the other, and carries any desired number of apertures 8, through which binder devices may be passed for securing this leaf-like index support in a book or other binding device.

In the event that one does not desire to mount the index units or elements upon both faces of the base sheet, the guideways shown as formed by the spacer strips 2 and overlying strips 3 may be provided upon only one side of the base sheet. In such case, if desired, the edges of the base sheet may be folded over slightly upon the same face, with the folded-over portions serving as spacing elements or strips over which the overlying strips 3 are secured as explained.

It will be observed that with this construction, the entire support for the index elements may be made of sheet material, such as heavy paper, fibre, cardboard or the like, and is extremely simple, light in weight, of a minimum thickness from face to face, and convenient.

Such supports may be utilized as loose leaves in a loose leaf binding system, so that a single filing device may comprise a plurality of such loose leaf supporting devices for the various index elements, with the result that a very large number of index elements may be arranged within a minimum space in such a manner that any index element is almost instantly available for inspection, upon both faces, and any group of the index elements may be removed and transported to a point removed therefrom by merely removing from its binder the base sheet carrying that group. By reason of the cheapness of the materials which may be employed, such a support for index elements will be exceptionally inexpensive.

It will be noted that the closely nested channel-shaped or U-shaped sheets or strips 2, 3 and 5, which, at each side edge of the base sheet 1, successively embrace this sheet and each other, having closely embracing substantially semi-circular turns or bends, and all firmly secured together and to the base sheet, such as by means of cement and the fasteners 4, provide strongly reinforced edge portions for the sheet 1 having a maximum of strength and wearing qualities and without angular corners which would soon become defaced and ragged from use, but the semi-circularly rounded edge portions will long retain their finished and neat appearance. It should also be noted in this connection that the channel or U shape of these bent or folded strips or sheets, together with their closely nested relation, increases their strength, so that thereby the liability of the breaking or of the more or less permanent distortion of the base sheet 1 is prevented or reduced to a negligible minimum.

Furthermore, the thickened and reinforced inner or binding margin provided on the base sheet 1 is made wider than the reinforced free margin, so that the binding or mounting apertures 8 extend through all of the combined thicknesses provided by the base sheet 1 and by both arms or folds of the U-shaped strips or sheets 2, 3 and 5, thereby providing at the same time desirable free space for binding, together with substantially unbreakable strength, while permitting, as shown, the apertures 8 to be of elongated form transversely for free play on the binding devices in turning over the leaves or sheets, or for readily removing and transposing them to other positions in the loose leaf binder.

It will be understood that various changes in the details and materials, which have been herein described and illustrated for the purpose of explaining the nature of the invention, may be made by those skilled in the art within the principle and scope of the invention, as expressed in the appended claims.

I claim:

1. In a visible index device, a relatively rigid base sheet of fibrous material, spacer sheets of bendable sheet material folded over and embracing opposite side edges and secured to said sheet, an additional sheet of bendable material also folded over and embracing each of the side edges of the sheet carrying the previously applied spacer sheets, said additional sheets extending over the faces of the rigid sheet to a greater extent than the spacer sheets, so as to form with the faces of the base sheet opposed guideways upon both faces of the base sheet, in which guideways index elements may be mounted, said side edges of the rigid sheet and the spacers and guideway sheets being secured together by suitable fastenings and an additional sheet folded over and embracing said guide sheets to cover said securing means and furnish a neat outer wearing surface.

2. The invention defined in claim 1, in which apertures for loose-leaf binding purposes are provided through one of the reinforced thickened side edge portions of the said device formed by all of the said combined and secured sheets.

3. In a visible index device, a relatively thick and rigid base sheet, a pair of similar transversely U-shaped spacer strips respectively closely embracing the opposite side edges of the base sheet, a pair of similar transversely U-shaped guide strips respectively closely embracing in nested relation the spacer strips and of greater width than the spacer strips so as to form opposed guideways for index elements on both sides of the base sheet, and means for securing all of said strips and the base sheet firmly together so that stiff inner and outer rounded marginal edge portions are provided on the base sheet.

4. In a visible index device, a relatively thick and rigid base sheet, a transversely U-shaped spacer strip closely embracing one of the side edges of the base sheet, a similar but wider transversely U-shaped spacer strip closely embracing the opposite side edge of the base sheet, a transversely U-shaped guide strip closely embracing in nested relation the narrower of said spacer strips and of greater width than this spacer strip to form a guideway at this side edge of the base sheet on both sides thereof, a similar but wider guide strip closely embracing in nested relation the said wider spacer strip

and of greater width than this spacer strip and forming guideways on both sides of the base sheet so that thereby opposed guideways are provided for index elements on both sides of the base sheet, and means for securing all of said strips and the base sheet firmly together so that stiff inner and outer rounded marginal edge portions are provided on the base sheet, a plurality of openings or loose-leaf binding purposes being provided to extend through the wider marginal edge portions formed by the combined and secured base sheet and wider spacing strip and wider guide strip.

5. The invention defined in claim 4, in which said securing means include fastening devices extending through all of the combined thicknesses of the base sheet and spacer strips and guide strips, in combination with a transversely U-shaped cover strip closely embracing and secured to each of said guide strips and concealing said fastening devices, and in which said binding openings are in the form of transversely elongated apertures which extend also through said cover strip for the wider marginal edge portion of said device.

In witness whereof, I hereunto subscribe my signature.

WILLIAM A. RINGLER.