Jan. 9, 1934. H. F. MOREHEAD 1,942,564

LOOSE LEAF BINDER

Filed Sept. 8, 1931

Fig. 1

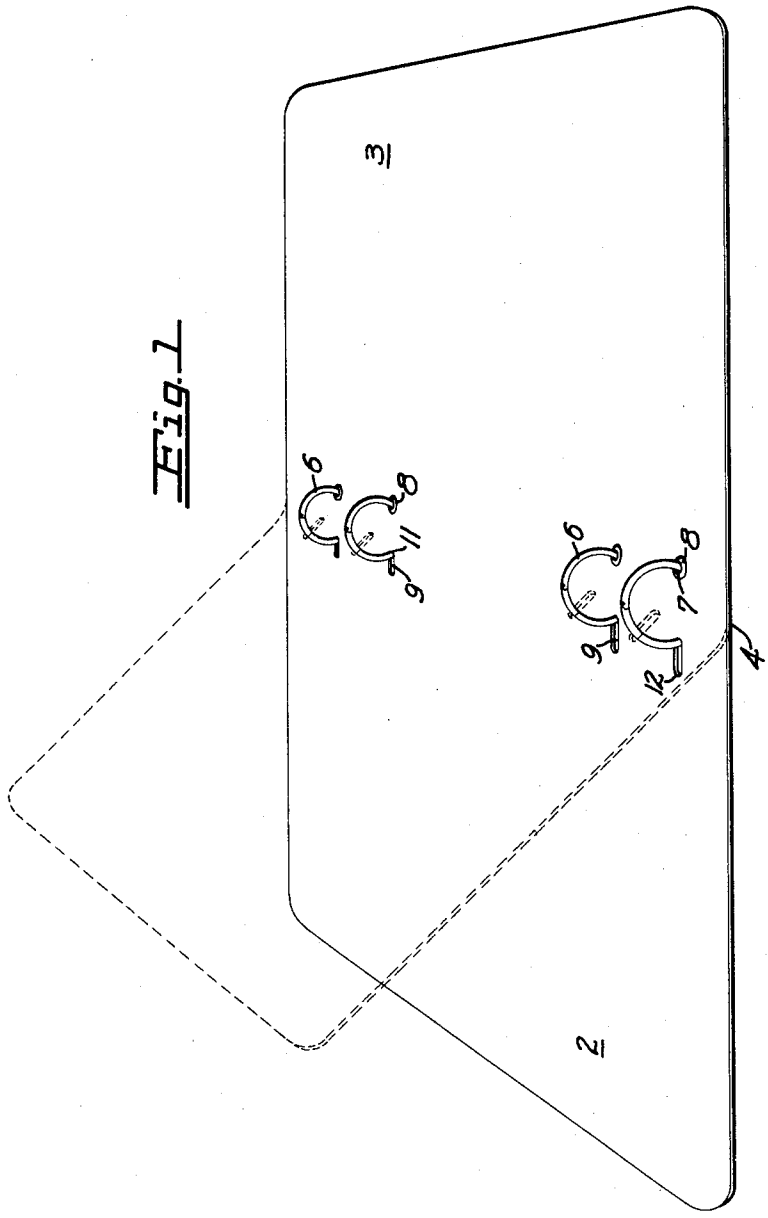



Fig. 3

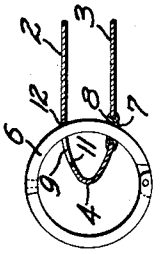
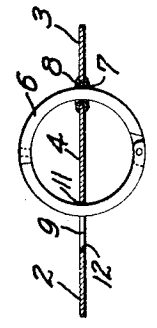



Fig. 2




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Patented Jan. 9, 1934 1,942,564

# UNITED STATES PATENT OFFICE

1,942,564

## LOOSE LEAF BINDER

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Application September 8, 1931. Serial No. 561,573

1 Claim. (Cl. 129—1)

My invention relates to binders, and particularly to a loose leaf ring binder.

One of the objects of the invention is the provision of a loose leaf binder in which the loose leaves are mounted in register when the binder is open and some of the leaves are turned to rest on the top cover.

Another object of the invention is the provision of a binder including breakable rings for holding the loose leaves, in which the rings carry the pull of the leaves in both open and closed positions by impingement on both covers.

Another object of the invention is the provision of a binder of the character described free of mechanical complications and which can therefore be manufactured and sold at a relatively low cost.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of my invention. It is to be understood that I do not limit myself to this disclosure of species of my invention, as I may adopt variant embodiments thereof within the scope of the claim.

Referring to the drawing:

Figure 1 is a perspective view showing the binder of my invention in open position; the dotted lines indicate the relative location of the parts in a partially closed binder.

Figure 2 is a sectional view taken thru the hinge or back portion of the binder to show the position of the ring and covers when the binder is fully opened.

Figure 3 is a sectional view taken thru the hinge portion of the binder to show the position of the ring and covers in the closed binder.

Broadly considered the binder of my invention comprises flexibly connected covers with leaf holding rings encircling the flexible connecting portions and passing thru the covers adjacent thereto. The ring apertures in one of the covers provide a sliding fit on the contained ring, but in the other cover the ring apertures are elongated so that the cover may be turned from the closed position to the fully open position upon the rings. In both the open and closed positions the edges of the elongated apertures provide support for the rings against the pull of the sheets. The object of this construction is to mount the leaves of the binder in accurate register in both open and closed position of the cover; and also insures leaf to leaf registry between adjacent pages. On account of the extreme simplicity of the construction the manufacture of my binder is relatively simple while results ordinarily requiring expensive construction are insured.

In greater detail the binder of my invention comprises an upper cover 2 and a lower cover 3 made of any suitable material such as leather, fabricoid or buckram. As a matter of convenience in handling, the flexible type made of leather or fabricoid is most satisfactory. The back 4 flexibly connecting the covers along one edge may be a separate unit suitably secured to each cover, or it may be an integral part of a sheet which forms both covers and back. Since it is desirable to keep manufacturing costs at a minimum the single folded sheet is advantageous and provides a flatter more compact binder.

Rings 6, preferably the well known break rings, encircle the flexible back and pass thru apertures in the covers adjacent the back. The apertures 7 in the lower cover are preferably only slightly larger than the diameter of the rings so that a sliding fit is provided between the rings and cover. Constant movement of the rings would tend to enlarge the apertures 7 and to prevent this, metallic means 8 such as a metal eyelet or grommet is secured in the aperture to form a rim therefor. This arrangement of the parts holds the rings firmly so that the rocking customarily found in loose ring binders is obviated.

The apertures 9 in the upper cover are preferably elongated in the plane of the contained ring, to provide engaging edges for the ring in both open and closed position of the binder. This construction permits the upper cover to be turned from the closed position to the fully open position upon the rings without tearing or stressing any of the adjacent parts of the cover or binder.

It will be noted that in open position of the upper cover, the pull of the sheets retained by the ring would force the ring against the metal rim 8 and the edge 11 of the aperture 9; while in closed position the pull would force the ring against the metal rim 8 and the edge 12 of the apertures 9. In this way a two point suspension is provided which mounts the leaves to be retained in register with the binder, and insures accurate leaf-to-leaf registry in both open and closed positions. This binder is therefore particularly applicable to school records of attendance and scholarship in which close rulings extending over many pages must be kept accurately aligned.

I claim:

A binder comprising connected covers having apertures therein, and a ring for holding leaves passing through said cover apertures, the aperture in one of the covers providing a relatively snug sliding fit for the ring and the aperture in the other cover being elongated and of such length that one end edge binds against the inner side of the ring to pull the latter against the edges of the snug fitting aperture in the open position of the covers and the other end edge binds against the outer side of the ring to push the same against the edges of the snug fitting aperture in the closed position of the covers.

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