H. J. DOBERSCH.

LOOSE LEAF BINDER.

APPLICATION FILED NOV. 28, 1917.

1,279,673. Patented Sept. 24, 1918.

Fig. 1.

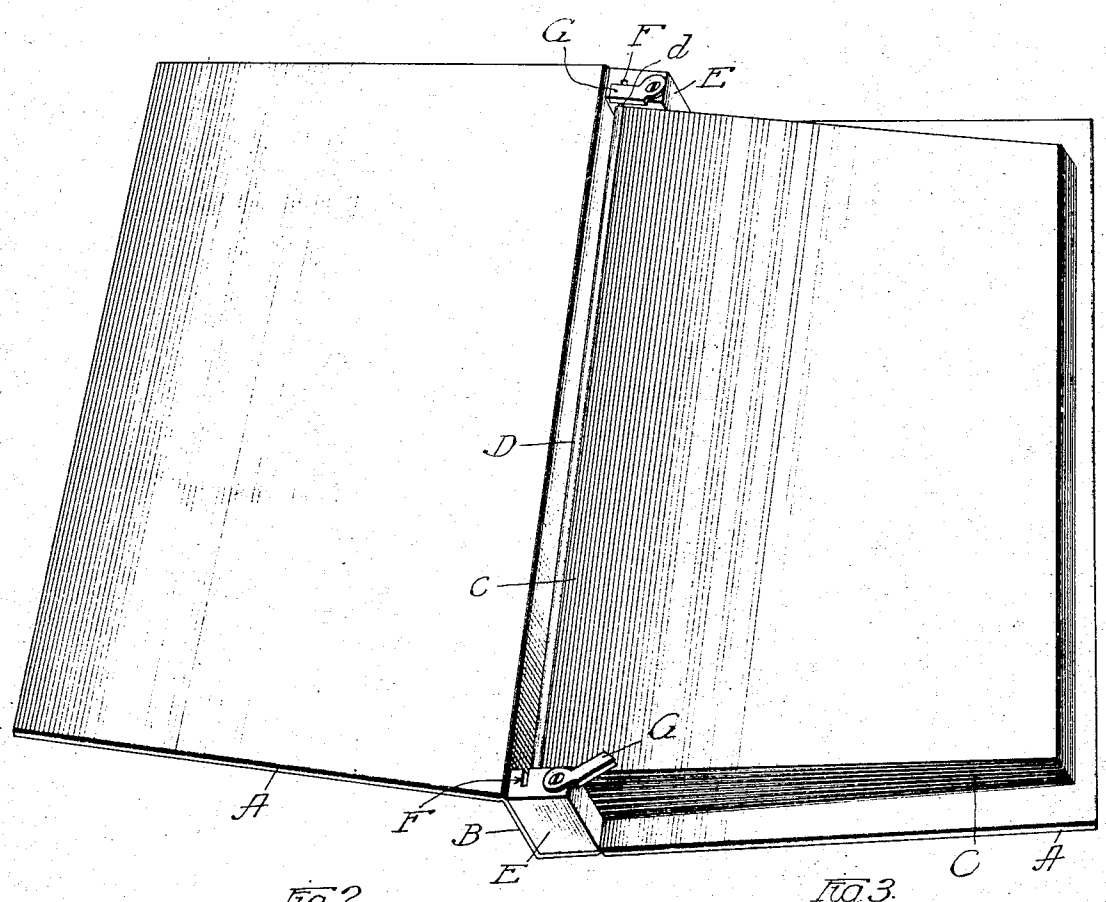


Fig. 2.

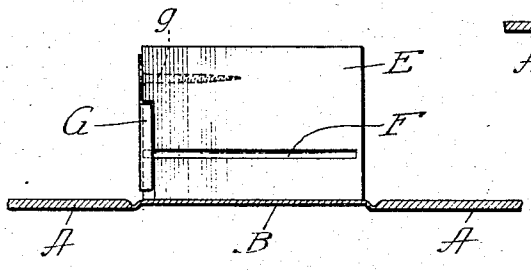


Fig. 3.

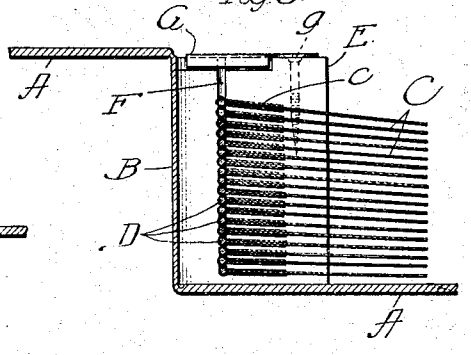


Fig. 5.

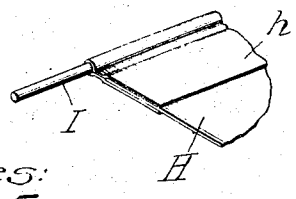
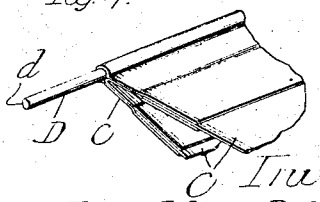


Fig. 4.



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UNITED STATES PATENT OFFICE.

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LOOSE-LEAF BINDER.

1,279,673. Specification of Letters Patent. Patented Sept. 24, 1918.

Application filed November 28, 1917. Serial No. 204,342.

To all whom it may concern:

Be it known that I, HUGO JULIUS DOBERSCH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Loose-Leaf Binders, of which the following is a full, clear, and exact description.

My invention relates to loose leaf binders, and particularly to that class in which the leaves are made of comparatively heavy paper or other suitable fabric for the purpose of mounting on one side thereof and displaying manufactured products.

The object of my invention is to provide a simple and economically constructed loose leaf binder, each leaf of which is separately hinged and will lie perfectly flat to display the products mounted thereon when the binder is opened. Another object of my invention is to greatly facilitate the introduction and removal of said leaves. This I accomplish by the means hereinafter fully described, and as particularly pointed out in the claims.

In the drawings:

Figure 1 is a perspective view of a loose leaf binder embodying my invention.

Fig. 2 is a transverse section through the back of the binder from which the leaves have been removed showing the adjacent portions of the covers in an open position, and

Fig. 3 is a similar section showing the adjacent portions of the leaves thereof.

Fig. 4 is a perspective view of a corner fragment of one of the pairs of leaves of the binder.

Fig. 5 is a similar perspective of a modified form of one of said leaves.

Referring to the drawings, A, A, represent the covers of my improved binder, which are, preferably, made of a stiff material and are connected to a back B, preferably, of the same material in such manner as to provide flexible hinges, *a*, *a*, between the same.

The leaves C are usually made of heavy paper so that cloth fabrics, paper doilies, napkins, handkerchiefs and other flat products of a similar character can be mounted thereon, and are usually arranged in pairs. The inner or back edges of these leaves are united and bound with two plies of a suitable binding fabric *c*, and midway between the inner edges of each pair of leaves a straight wire D is bound parallel to said edges whose ends project a short distance beyond the end of the binding fabric and beyond the upper and lower edges of said leaves. The projecting ends of said wire constitute journals *d*, *d*, for the leaves, and in order to provide bearings for these journals, a rectangular block E is securely mounted on each end of back B which extends from one hinge *a* to the other, and is of a thickness corresponding to the distance between the upper and lower edges of the leaves and the corresponding edges of the covers and back of the binder. The inner surfaces of these blocks are provided with grooves or slots F, F, that extend from one end thereof, preferably, parallel to back B, to a point very near its opposite end. The projection of journals *d*, *d*, beyond the ends of the binding fabric *c* is less than the depth of grooves F, and in order to hinge each pair of leaves said journals are slipped into the grooves at one end of said blocks until the desired number of leaves are hinged thereon and then the open end entrances of said grooves are closed by means of pivoted hasps G, G.

These hasps consist of sheet metal arms that are of a length corresponding approximately to the depth of said blocks, and are pivoted to the ends of the same in which the end entrances of the grooves are made near the sides or edges of the blocks farthest from and parallel to back B by screws or nails *g*, and the portion of the length of the hasps between the pivoted ends and the opposite ends thereof are, preferably made angle shaped in cross-section so as to limit their movement when the hasps are moved to close the adjacent ends of grooves F, and to limit their opposite movement when they are moved to open the said end entrances to the grooves, substantially as shown in the drawings.

In operation, in order to journal the leaves of my improved loose leaf binder, the hasps are swung into the position occupied by hasps G, shown at the bottom of Fig. 1 of the drawings, and then journals *d*, *d*, of the desired number of leaves are slipped into grooves F, F, and then said hasps are moved into the position shown at the top of the binder in said Fig. 1. In order to remove the leaves from the binder all that it is necessary to do is to open the entrance ends of

said grooves by moving the hasps into the position shown at the bottom of said Fig. 1 and extract the journals of the said leaves therefrom.

I do not desire to be confined to leaves arranged in pairs and united by a binding fabric with the journaling wire D between them, as it is obvious that a single leaf H might be used having its inner or back edge bound by folded binding fabric *h*, and a journaling wire I inserted and secured in the bend of the fold of the said fabric, substantially as shown in Fig. 5 of the drawings. Such changes of construction and other changes that would suggest themselves to a skilled mechanic and do not effect a departure from the mechanical principle involved in my invention, I desire to be understood as contemplating within the spirit of my invention.

What I claim is:—

1. A loose leaf binder comprising covers, a stiff back to the edges of which said covers are hinged, transverse blocks secured, respectively, to the upper and lower ends of said back between and independently of said covers and having grooves therein parallel with the back, leaves, binding fabric for the rear edges of said leaves, and journaling projections secured in said fabric and extending from the upper and lower edges of the leaves into said grooves.

2. A loose leaf binder comprising covers, a stiff back to the edges of which said covers are hinged, transverse blocks secured, respectively to the upper and lower ends of said back between and independently of said covers and having grooves therein parallel with the back, leaves, binding fabric for the rear edges of said leaves, and a wire secured in said fabric and extending from the upper and lower edges of the leaves into said grooves.

3. A loose leaf binder comprising covers, a stiff back to the edges of which said covers are hinged, transverse blocks secured, respectively, to the upper and lower ends of said back between and independently of said covers and having grooves therein parallel with the back, leaves, binding fabric for the rear edges of said leaves, journaling projections secured in said fabric and extending from the upper and lower edges of the leaves into said grooves, and means for closing the entrance ends of said grooves.

4. A loose leaf binder comprising covers, a stiff back to the edges of which said covers are hinged, transverse blocks secured, respectively to the upper and lower ends of said back between and independently of said covers and having grooves therein parallel with the back, leaves, binding fabric for the rear edges of said leaves, a wire secured in said fabric and extending from the upper and lower edges of the leaves into said grooves, and means for closing the entrance ends of said grooves.

5. A loose leaf binder comprising covers, a stiff back to the edges of which said covers are hinged, transverse blocks secured, respectively, to the upper and lower ends of said back between and independently of said covers and having grooves therein parallel with the back, leaves, binding fabric for the rear edges of said leaves, a wire secured in said fabric and extending from the upper and lower edges of the leaves into said grooves, and hasps for closing the entrance ends of said grooves.

6. A loose leaf binder having a back, covers hinged to the edges thereof, a leaf, a wire to which the back edge of said leaf is attached whose ends extend beyond the upper and lower edges of the leaf in alinement with the axis of the latter, transverse blocks secured, respectively, to the upper and lower ends of said back between and independently of said covers and having grooves in their inner surfaces parallel to their rear edges in which the ends of said wire have bearings, and hasps having pivotal lugs at one end that are pivoted at the upper ends of said blocks and have the remaining portions of their lengths L-shaped in cross-section and adapted to close the entrance ends of said grooves.

In witness whereof I have hereunto set my hand this 10th day of November, 1917.

HUGO JULIUS DOBERSCH.

Witness:

FLORENCE MITCHELL.