

J. G. MILES.
BOOK COVER,
APPLICATION FILED JAN. 16, 1919.

1,365,334.

Patented Jan. 11, 1921.

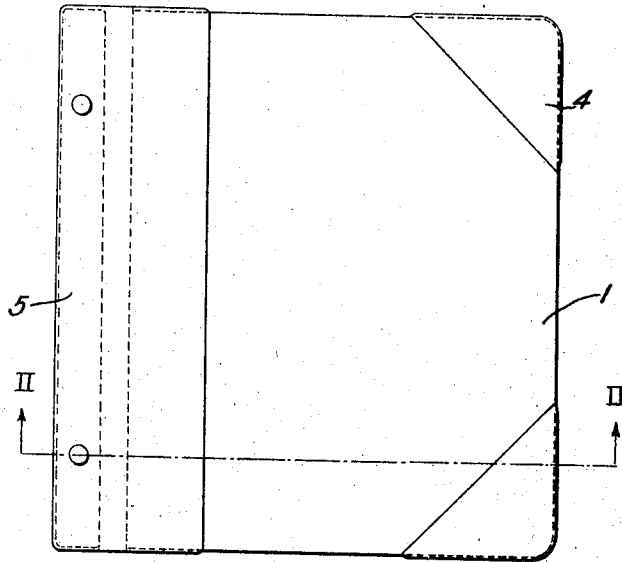


Fig. 1.

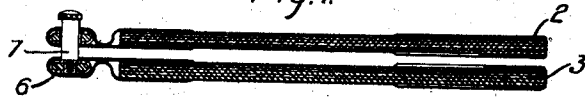


Fig. 2.

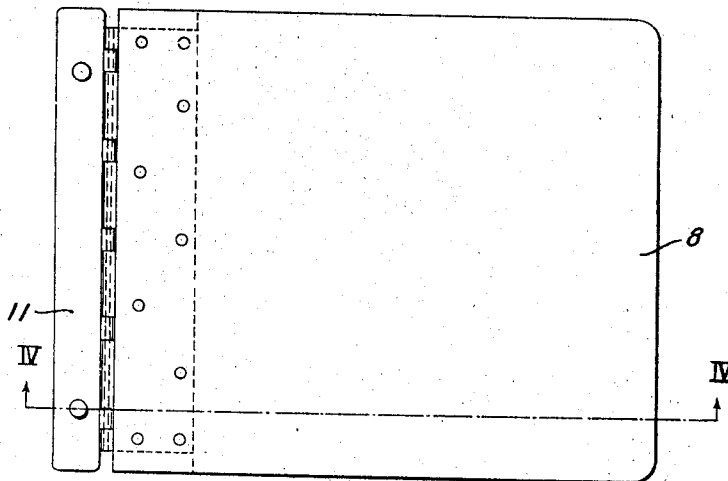


Fig. 3.

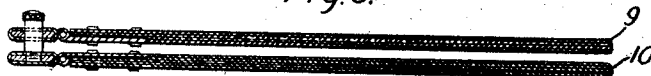


Fig. 4.

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BOOK-COVER.

1,365,334.

Specification of Letters Patent.

Patented Jan. 11, 1921.

Application filed January 16, 1919. Serial No. 271,472.

To all whom it may concern:

Be it known that I, JOHN GEORGE MILES, a citizen of the United States, and a resident of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Book-Covers, of which the following is a specification.

My invention relates to book covers or loose-leaf binder covers, and it has, for its primary object, the construction of such articles by employing layers of fibrous material impregnated and united by a suitable adhesive adapted to harden under heat and pressure.

Heretofore, articles of the above designated character have been constructed of materials which, though satisfactory for a certain length of time, have a tendency to warp and consequently reduce the length of time of their usefulness. In view of this, one object of my invention is to construct covers of a material which will not warp under any climatic conditions and which will not soften or mash at the corners and edges.

Another object of my invention is to construct book covers or loose-leaf-binder covers of a material which acquires a high polish and decorative finish during the ordinary course of its construction.

A still further object of my invention is to provide loose-leaf-binder covers constructed of material which may have suitable metallic hinge members riveted or otherwise secured thereto without employing reinforcing eyelets and which will thus simplify the construction of such articles.

With these and other objects in view, my invention will be more fully described, illustrated in the drawings, in the several views of which corresponding numerals indicate like parts, and then particularly pointed out in the claims.

In the drawings, Figure 1 is a plan view of a loose-leaf binder embodying my invention; Fig. 2 is a sectional view taken substantially along the line II—II of Fig. 1; Fig. 3 is a plan view of a modified form of loose-leaf binder embodying my invention, and Fig. 4 is a sectional view taken along the line IV—IV of Fig. 3.

In practising my invention, I may construct a book cover or loose-leaf binder by

employing a suitable fibrous material, preferably in sheet form, impregnated with a suitable binder. The impregnated sheet material may be stacked to suitable thickness and subjected to heat and pressure in a suitable mold to compact the material and to harden the binder. The sheets may be cut to the form of the plate ultimately desired or they may be stacked and the binder hardened and then machined to form, as desired.

However, I prefer to form the sheets before they are stacked and pressed. A plurality of composite plates thus formed may have suitable hinge members secured to the sides thereof by riveting or otherwise fastening them to the plates.

In Fig. 1, is shown a book cover 1 comprising two composite plates 2 and 3. The composite plates 2 and 3 may be formed by employing a suitable sheet material such as duck, muslin or paper and the sheet material may be impregnated with a binder such, for example, as a phenolic condensation product. The sheets comprising the plates 2 and 3 are preferably cut to form before being stacked and they may be impregnated before being cut, if desired, as the binder may be sufficiently heated to render the sheets dry enough to be readily handled, the binder being then in an inactive or intermediate state. The impregnated sheets are stacked to a suitable thickness after which they are subjected to heat and pressure, in a mold, to compact them and to harden the binder with which they are impregnated.

In this instance, each plate has a corner covering 4 of leather and a hinge member 5 of pliable material, such as soft leather, glued or otherwise fastened to the plate. The hinge members may be connected with suitable threaded members 6 and sleeves 7 adapted to inclose the threaded members 6.

In Fig. 3, a loose-leaf-binder cover 8, here shown, comprises a plurality of plates 9 and 10 constructed of fibrous material impregnated with a hardened phenolic condensation product. In this form of loose-leaf-binder cover, the hinge members 11 are fastened to the plates by merely riveting the members to the bare plates. On account of the exceptional mechanical strength of the fibrous material, impregnated with a har-

dened phenolic condensation product, the rivets are securely held in place during the life of the article. In fact, the fibrous plates possess such exceptional wearing qualities
5 that the metallic hinge members connecting them will require replacing before the plates have been sufficiently impaired by use to justify disposing of them.

Although I have described, specifically, a
10 plurality of loose-leaf-binder covers which may be constructed in accordance with my invention, it will be apparent that other covers may be constructed in accordance therewith without departing from the spirit
15 of my invention, and I desire, therefore, that no limitations shall be imposed except such as are indicated in the appended claims.

I claim as my invention:

- 20 1. A book cover comprising superimposed layers of fibrous material, impregnated with a hardened adhesive.
2. A book cover comprising superimposed layers of duck, impregnated with a hardened phenolic condensation product.
- 25 3. A book cover comprising a plurality of composite plates of sheet material, impregnated with a hardened phenolic condensation product, and a hinged metallic member secured to the plates.
- 30 4. A method of making a book cover that comprises superimposing layers of sheet material, impregnated with a phenolic condensation product to form composite plates, subjecting the plates to heat and pressure in a

mold to compact the material and to harden 35 the binder, and connecting a plurality of the plates together by riveting hinged metallic members thereto.

5. A book cover comprising a plurality of composite plates formed of superimposed 40 layers of fibrous sheet material impregnated with a hardened binder and a suitable hinge member connected to adjacent sides of the composite plates.

6. A book cover comprising a plurality of 45 composite plates formed of superimposed layers of duck impregnated with a hardened phenolic condensation product and a suitable hinge member connected to adjacent sides of the composite plates. 50

7. A method of making a book cover that comprises impregnating a plurality of layers of sheet material with a binder, drying the binder by the application of heat, superimposing layers of sheet material to form a 55 plurality of stacked bodies, subjecting the stacked bodies to further heat and to pressure to render the binder active and unite the layers of sheet material into a plurality of composite plates, maintaining the appli- 60 cation of heat to harden the binder to a substantially insoluble and infusible state and connecting the plates together by securing a suitable hinge member thereto.

In testimony whereof, I have hereunto 65 subscribed my name this 27th day of Dec., 1918.

JOHN GEORGE MILES.