

(No Model.)

2 Sheets—Sheet 1.

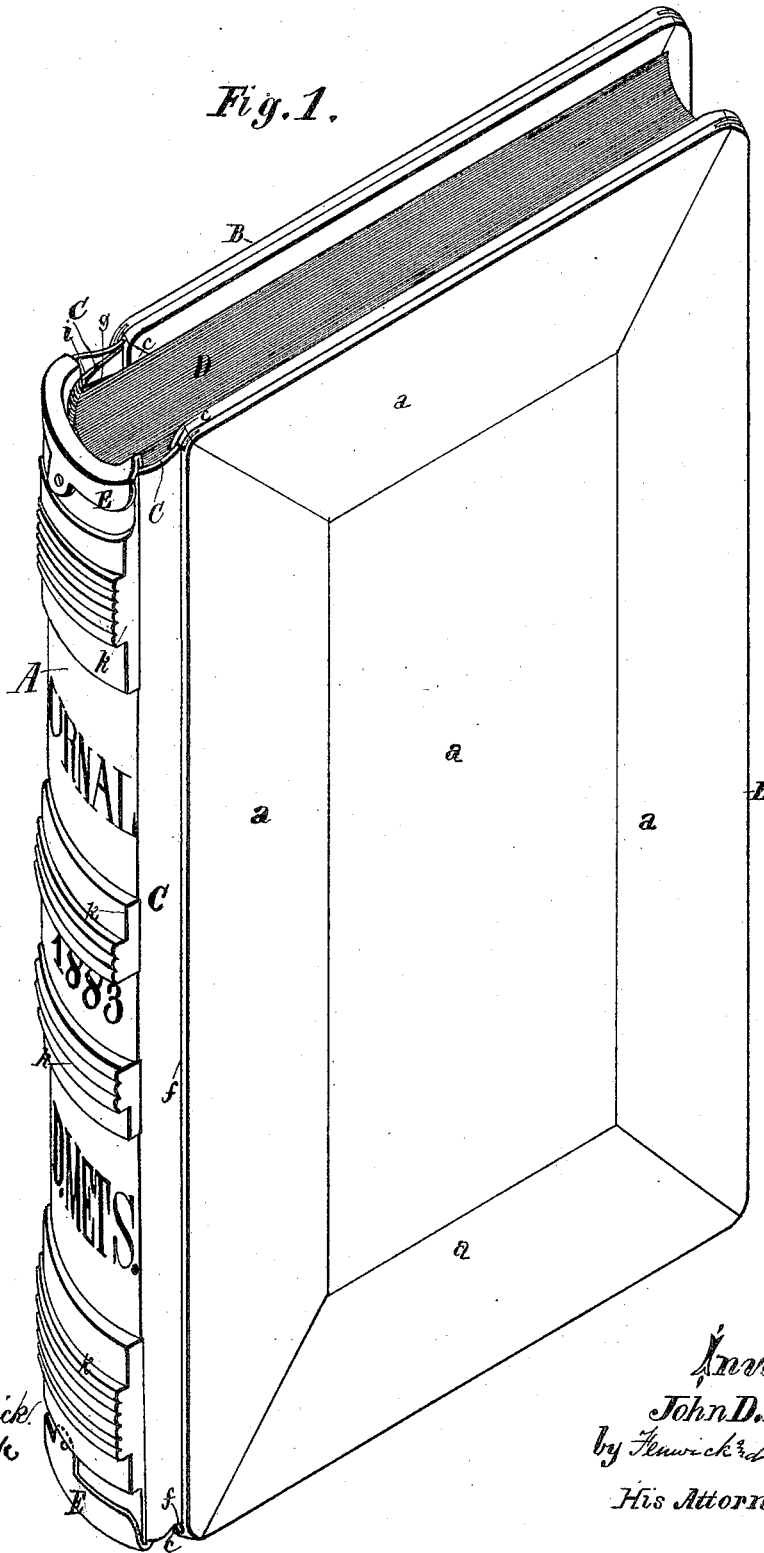
J. D. METS.

WOOD BINDING FOR BOOKS.

No. 301,255.

Patented July 1, 1884.

Fig. 1.



Attest:
B. Fenwick
Robt L Fenwick

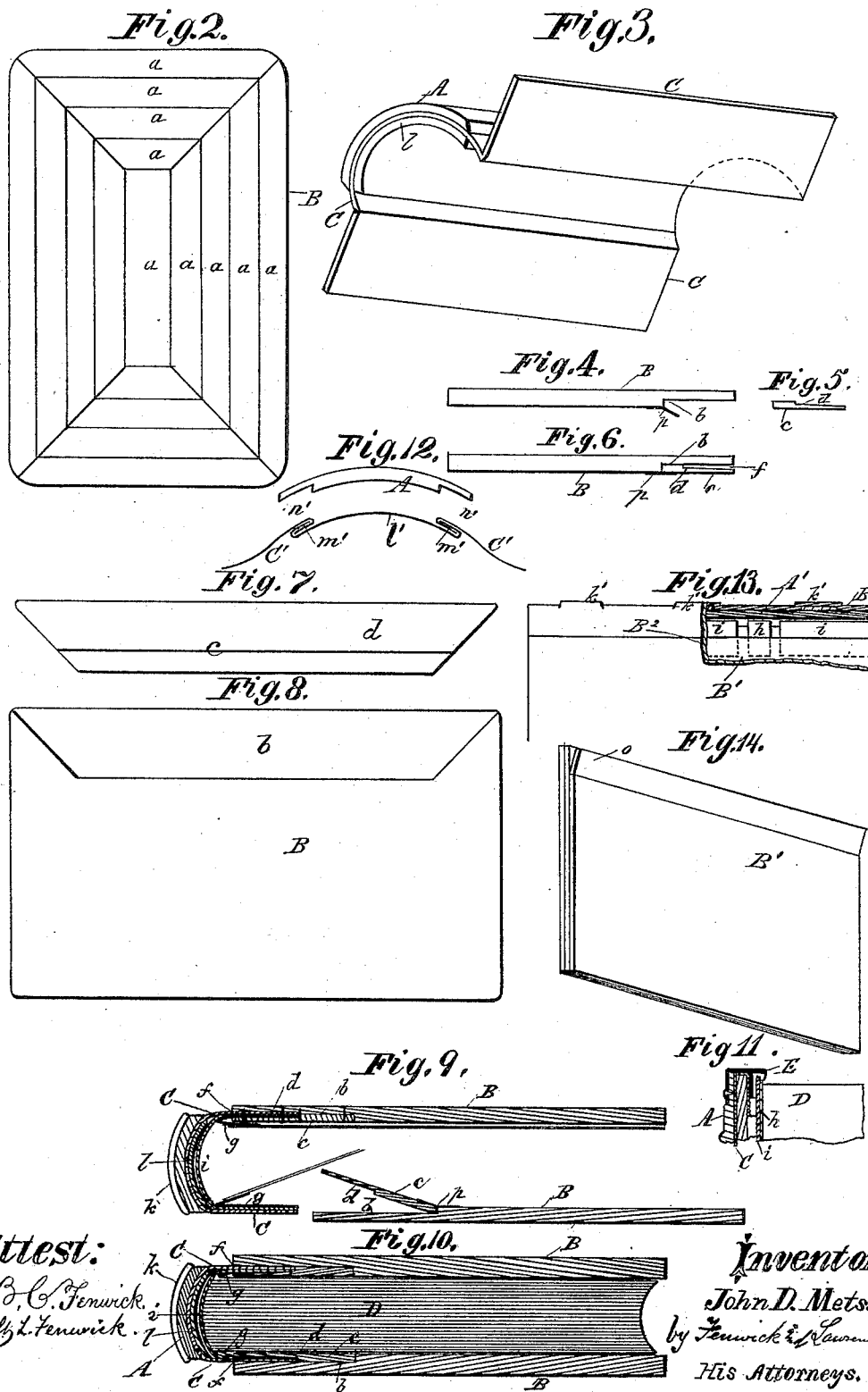
Inventor:
John D. Mets.
by Fenwick & Lawrence
His Attorneys.

J. D. METS.

WOOD BINDING FOR BOOKS.

No. 301,255.

Patented July 1, 1884.



Attest:

B. C. Fenwick,
Robt. L. Fenwick.

Inventor:

John D. Mets.
by Fenwick & Fenwick
His Attorneys.

UNITED STATES PATENT OFFICE.

JOHN D. METS, OF DUBUQUE, IOWA.

WOOD BINDING FOR BOOKS.

SPECIFICATION forming part of Letters Patent No. 301,255, dated July 1, 1884.

Application filed September 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. METS, a citizen of the United States, residing in the city and county of Dubuque, and State of Iowa, have invented a new and Improved Wood Binding for Books, of which the following, in connection with the annexed drawings and letters of reference thereon, is a specification.

This invention relates especially to the cover-binding for large and heavy blank books which are to be preserved for a long period of time; but it is not confined thereto, as it may be found useful to apply the invention in cover-binding other descriptions of books.

In the accompanying drawings, Figure 1 is a perspective view of my improved wood-bound book. Fig. 2 is a plan view of one wood side cover-piece for a book, showing a mode of constructing the said side cover-piece of a number of parts, which are tongued and grooved and mitered. Fig. 3 is a detail perspective of the wood back, pasteboard filling, and leather hinge of the same. Fig. 4 is a section of the main portion of the wood forming one of the side cover-pieces provided with a temporary holding-strip of paper. Fig. 5 is a section of the minor portion of said side cover-piece. Fig. 6 is a section of the portions shown in Figs. 4 and 5, temporarily united by the paper strip. Fig. 7 is a plan view of Fig. 5, and Fig. 8 an inverted plan view of Fig. 4, the temporary strip being off. Fig. 9 is a section of the book-cover, showing one of the side cover-pieces connected to the back and book proper, and nearly in position for the other cover-piece to be connected to the same. Fig. 10 is a section of Fig. 1 complete. Fig. 11 is a detail section of one of the cap-like tips on an end of the book. Fig. 12 is a modification of my invention, and Figs. 13 and 14 are views illustrating one of the ordinary modes of binding blank books.

My binding for blank-books (represented in Fig. 1 of the drawings) comprises, mainly, a wood back, A, wood side cover-pieces B B, a leather or other flexible hinge, C, made and applied to a blank or other book, as follows: The blank-book side cover-boards B B may be made of solid strips of wood *a a*, grooved and tongued and more or less wide, as may be found necessary to secure strong, durable, and straight side cover-boards. These strips

are firmly united and glued together; but previously thereto those which form the back edges of the cover-boards are rabbeted, as at *b*, so as to form broad recesses on the under side of the cover-boards at said back edges, as shown. At these recessed portions strips *c*, about one-third the thickness of the cover-boards, and having rabbets *d* cut upon them, are employed, so as to partly fill the recesses and form grooves *f* in the back edges of the side cover-boards, as shown. The grooves *f*, thus formed, provide room and serve as receptacles for the strip *g* of fly-leaf, with bands *h* and straps *i* of the book proper, D, and for the strip of leather which forms the hinge-joint C of the cover of the book, which will be more fully described hereinafter. The rabbets *b* may be deep enough to permit of the rabbets *d* being dispensed with, in which case the strips *c* would be alike on both surfaces, and said deep rabbets may be as wide as desired.

The back A of the cover is made or turned out of a solid piece of wood, of required size, by giving it a concavo-convex form, and shaping it on its convex surface with segmental ornamental protection and wearing-hubs *k k*, separated by less extended convex portions of the back, upon which latter portions highly-finished paper or other material with the usual words and numbers for blank books is pasted, as illustrated in Fig. 1. On the concave side of the wood back the piece of leather which forms the hinge C along the whole length of the back is securely fastened. This piece of leather has its ends turned in and secured to the back, and covered by the metal cap-like tips, and it is wide enough to have its edges extend considerably beyond the side edges of the back, and thereby hang over said edges to form the hinge of the cover. The back may be strengthened or stiffened for large books by a piece of pasteboard, *l*, molded to the form of the concave of the back, and glued on the bent concave surface of the piece of leather forming the hinge C, as shown. The side cover-pieces and the back, constructed as herein described, may be provided with cap-like tips E of metal, which are applied on the upper and lower ends of the back, and in the relation to the leather hinge C and book proper, D, as illustrated in Figs. 1 and 11.

To employ the improved cover described for

binding a blank or other book, it is only necessary to make the book proper, D, ready to receive the cover, and to do this the leaves of the book are trimmed and rounded, and upon the back edges of the leaves bands *h* and straps *i* are applied in the usual manner, as illustrated in Fig. 13, and in other figures of the drawings. The straps *i* lap over on each side cover-piece of a book about two inches, and are glued down on the outside fly-leaf strip, *g*, (see Fig. 9,) which is cut off about even with the straps. The straps and fly-leaf strips of the book proper thus prepared would, under the old style of binding illustrated in Figs. 13 and 14, be glued under the unpasted portion *o* of the top layer of the three-ply pasteboard side cover-piece B', (shown in Fig. 14,) and after the side cover-boards are on the book the spring-back A', Fig. 13, made of pasteboard, would be fastened to the book with two strips of paper across the back and glued down to the side cover-boards B', this being done simply to keep the back in place. Next, the raised hubs *k'*, made of leather or straw-board, would be glued on the back in their proper places, and the leather covering B², for the foundation-work, comprising back A' and side cover-boards B', would be supplied with paste and drawn over the sides and edges of the foundation, and the edges of the leather turned in; and, finally, the book would be pressed and then finished on its sides and back with gold and blank rolling; but with my improved wood cover no leather B² with which to cover the foundation-work is necessary, and the back is put on first. This is done by applying glue to the extensions of the leather forming the hinge-joint C, and fastening these extensions to and on top of the straps *i*, bands *h*, and strip *g* of the fly-leaf shown in Fig. 9, and in other figures of the drawings. Next the wood side cover-boards B are put on, the strips *c*, of wood, to partly fill out the recesses and to form the grooves *f*, being laid in their places on the boards and held there by gluing strips of paper *p* to the boards B, and strips *c* of wood. The strips of paper *p* form temporary hinges, and they are removed after the boards are fastened. The strips *c* are now raised and glue applied to them and to the recessed portions of the side-cover-boards, and just before again lowering the wood strips the fly-leaf strips *g*, with bands *h* and straps *i*, and the extension edges of the leather forming the hinge C, are placed in the recesses. The wood strips are then lowered, and by pressure the whole are brought together and firmly fastened by the glue when it becomes set. The metal tips E may now be applied, and by their extending some distance over the out and in side of the back, and being riveted, they help to strengthen the back, while they prevent any possibility of the leather C, or leather and filling *l*, separating from the wood back.

My improved wood cover really makes a very cheap yet elegant and durable ready-made book-cover, comprising, in the main, three portions—viz: one back and two side cover-boards—provided with fastening-strips, and along with these parts may be provided the leather piece C, forming a hinge, and the metal cap-like tips E, and said ready-made cover may be of the very finest wood finish, either of inlaid, mosaic, or plain construction, and it may have ornamentations in form of projecting hubs *k*, turned on its back, in its manufacture.

My book-cover will be very durable, and, as the wearing-hubs on its back are not covered with leather, the finish of the book will not soon become impaired, and if it does it can be re-dressed and varnished at slight expense.

Instead of gluing the wood strips *c* in position upon the hinge-piece C, bands and straps and the side cover-boards, screws, clamps, or other fastenings might be adopted; and instead of having the board back strengthened or filled with pasteboard, rabbets *n' n'* may be formed in the concave surface of the back at the edges, and a concavo-convex metal lining, *l'*, may be provided having hooking-flanges *m' m'* on its ends, as shown in Fig. 12.

To the flanges *m' m'* leather pieces C' C', forming hinges, may be fastened, and the whole—back, lining, and leathers—united by any suitable fastening. When the metal lining is in position, its hooks will occupy the rabbets *n' n'*.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The book having its back and its side cover-pieces made of wood, which wood portions are united by a flexible hinge-connection, C, fastened to the concave side of the back, and inserted along with the fly-leaf strip, straps, or bands of the book proper into recesses in the inner surfaces of the wood cover-pieces, and all confined together between the inner and outer faces of said wood cover-pieces B by detachable portions *c* of the same, substantially as described.

2. The combination, with a back of a book and a concavo-convex strip, *l*, fitted in the concave side of said back, of the flexible hinging device C, a book proper, having flexible bands or straps and fly-leaf strips, and cover-boards, recessed and provided with confining-pieces *c*, whereby the hinging device C can be fastened to the concave back, and the ends of this device, together with the fly-leaf strips, flexible bands or straps of the book, can be confined to the inner depressed surfaces of the cover-pieces, substantially as described.

JOHN D. METS.

Witnesses:

MONROE M. CADY,
JOHN MATHIS.