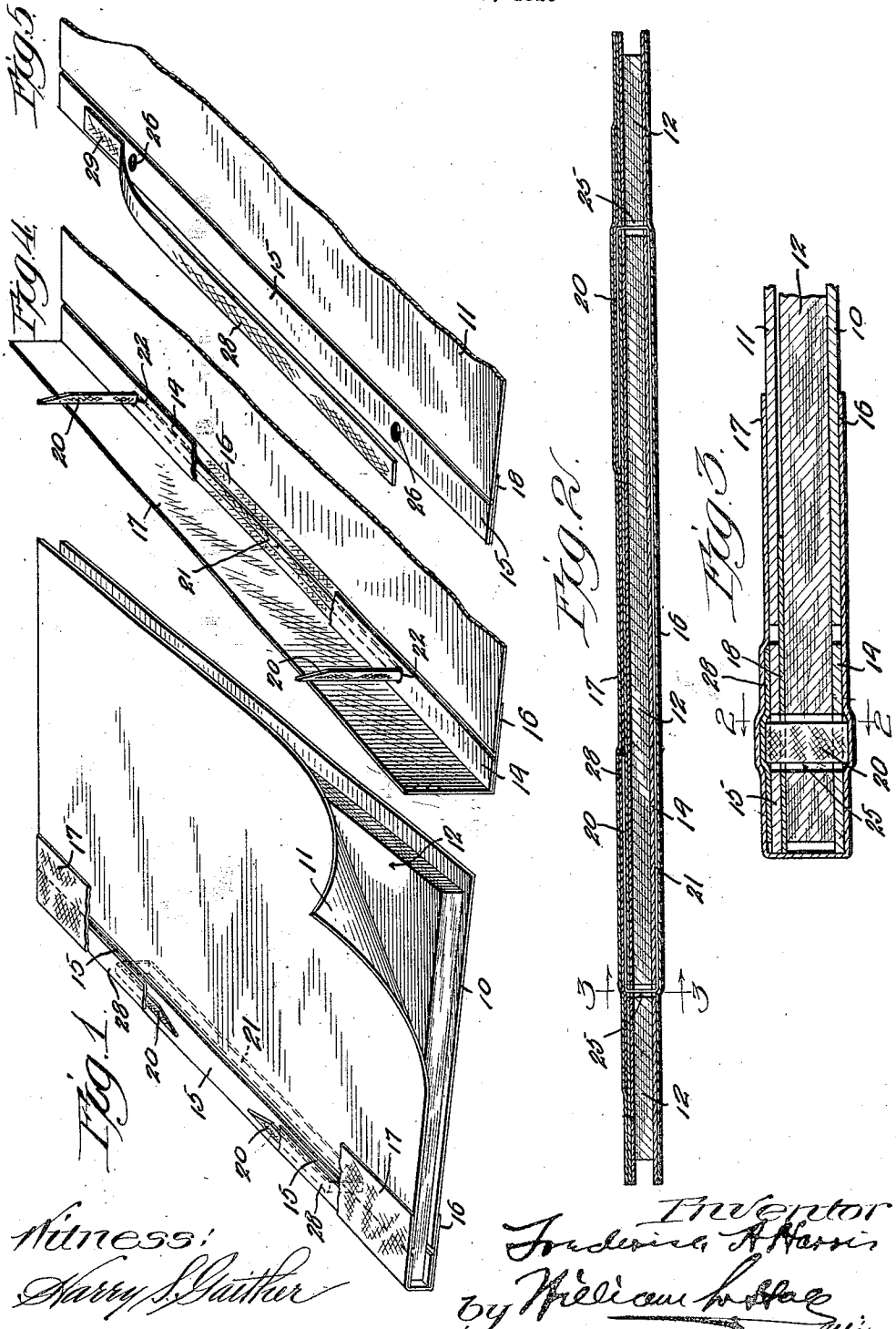
Aug. 5, 1924. 1,503,828

F. H. HARRIS

PERMANENT DOCUMENT BINDER

Filed Oct. 6, 1920



Witness:
Harry S. Gaither

Inventor
Frederick H. Harris
by Wedderburn & Shaw
Atty

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UNITED STATES PATENT OFFICE.

FREDERICK H. HARRIS, OF CHICAGO, ILLINOIS.

PERMANENT DOCUMENT BINDER.

Application filed October 6, 1920. Serial No. 414,993.

To all whom it may concern:

Be it known that I, FREDERICK H. HARRIS, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Permanent Document Binders; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the characters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in document binders, and refers more particularly to a novel binder which is so constructed and arranged that the documents to be permanently bound therein can be perforated and be strung on flexible lacing elements in the nature of tapes which are suitably connected to a narrow strip or stub to which one of the covers of the binder is hinged, the free ends of said elements, after an allotted number of documents have been strung thereon, being adapted to be connected to a like stub of the other cover member, the stubs of the covers, with the interposed documents thus strung on said lacing elements, being adapted to be joined together by a gummed strip which is adapted to overlie the back of the book thus produced.

The said flexible lacing elements on which the perforated sheets are to be strung may constitute the ends of a continuous tape, the intermediate portion of which is fixed, as by means of paste, to the stub of one cover member, with the free ends of the tape brought out in a way to be laced through the perforations of the sheets or documents to be bound in the binder and adapted to be fastened at their terminals to the stub of the other cover in any suitable manner. For instance, said terminals may be laced through appropriately located holes in said latter stub and laid flat on said stub and may be fixed thereto by a gummed strip overlying the stub and said terminals.

The objects of the invention are to improve, simplify, and reduce the cost of such binders and to provide a binder in which the sheets or documents can be fixed in the binder to form an attractive book that can readily be handled and in which the sheets are confined in such a way that the leaves or sheets can be opened flat for ready inspection of the contents of the data thereon. The invention consists in the combination and arrangement of the parts shown in the drawings and described in the specification, and is pointed out in the appended claims.

In the drawings:

Figure 1 is a perspective view of the binder partially broken away, with a group of documents permanently bound therein.

Figure 2 is an enlarged transverse section taken on line 2—2 of Figure 3.

Figure 3 is a transverse section taken on the line 3—3 of Figure 2.

Figure 4 is a perspective view of a portion of what will hereinafter be termed the back cover, and the parts of the binder associated therewith.

Figure 5 is a like perspective view of what will hereinafter be known as the front cover.

In the drawings, 10 designates the back cover of the binder; 11 the front cover thereof, and 12 a group of sheets which are adapted to be bound between the covers. Said covers can be made principally of flexible material, suitably reinforced at their back margins to constitute clamping members or stubs hinged to the covers proper, and between which stubs the edges of the sheets are bound.

The invention has to do with the manner of hingedly joining together the covers 10 and 11 at the back of the book ultimately formed, and to the means for permanently binding the sheets 12 between the stubs or clamping elements of the covers.

From an inspection of Figures 4 and 5, it will be noted that the covers 10 and 11 terminate at their rear edges in narrow, elongated stiffening sections or stubs 14, 15 respectively. The stub 14 has flexibly connected or hinged to it the back cover 10, as by a flexible gummed strip 16, which lies under both said back cover and the stub 14, with the members 10 and 14 slightly separated, as shown in Figure 4, to produce a hinge at this place. The said gummed flexible strip 16 extends beyond the rear edge of the stub 14, when the parts are made up, to form a flexible binding flap 17, for a purpose hereinafter described. The stub 15 is likewise hingedly connected to the top cover 11 by a flexible gummed strip 18, and said stub 15 and cover 11 are slightly spaced along the line where they are thus connected together to form a hinge joint.

20, 20 designate flexible lacing elements on which the perforated documents or sheets 12 are adapted to be strung. They are connected to and rise from the stub 14 of the rear cover member and are made of such length as to receive a desired number of leaves. The said flexible lacing elements may be, and conveniently are, integral parts of a tape 21 made of any suitable flexible material, such as linen. The tape 21 extends longitudinally beneath the stub 14 and between it and the gummed strip 16, so that the tape may be firmly bound in place. The intermediate portion of the tape 21 thus fixed to the stub is shorter than the length of the binder back, and the stub 14 is provided with apertures 22, upwardly through which the flexible lacing elements, constituting the ends of the tape, are extended, as best shown in Figure 4. It will be noted that by placing the tape 21 between the stub 14 and the gummed strip or flap 16, with the gummed face of the strip toward the tape, the tape can thus be firmly anchored to the back cover and thereby firmly fix the flexible lacing elements in place.

This arrangement constitutes means for conveniently and fixedly attaching the flexible lacing elements to the stub, though it is obvious that the said flexible elements may be otherwise attached to the cover stub to perform the same function.

The leaves or documents 12 are perforated at 25 so that they may be strung over the flexible lacing elements 20 until the capacity of the binder is reached. The stub 15 of the top cover is provided with apertures 26 which are located in positions to register with the aperture 22 of the stub 14, through which pass the terminals of the flexible lacing elements after the perforated sheets have been strung thereon. Thereafter the ends of said lacing elements are turned towards each other to lie flat upon the front cover stub 15 in the manner indicated in Figures 1 and 2.

Said lacing element terminals may be permanently fastened to the front cover stub 15 after they have been turned inwardly to lie thereon, by means of a narrow gummed strip 28, which may be attached at 29 by the gum which it carries to the stub 15 outwardly beyond the adjacent aperture 26. Thus, when the terminals of the flexible lacing elements 20 are extended through the apertures 26 and are turned inwardly toward each other over the stub 15, the narrow gummed strip 28, which is gummed on its lower face, is pasted throughout its length over the stub 15 and over said terminals 20 so as to firmly hold the latter in place.

The purpose of the extension flap 17 will now appear. It is gummed on its face adjacent to the tape 21. By moistening the gum on the flap 17 and turning it inwardly over the stub 15, and the gummed strip when employed, and beyond said section upon the rear margin of the cover member 11, the said flap is made to stick or adhere to the underlying parts of the cover 11 and its stub 15 and thereby reinforce the rear margin of the covers 11 and their stubs. It also constitutes a means for neatly finishing the back of the cover thus formed. From an inspection of Figure 1, it will be observed that, in the absence of the gummed strip 28, the gummed flap 17 would overlie and fasten the terminals of the flexible lacing elements down on the stub 15 of the top cover. The use of the strip 28 is preferred, however, inasmuch as it strengthens the structure and produces a generally neater appearance.

It will be noted that the elements 14 and 21 on the rear margin of one cover and the overlying members 15 and 28 on the corresponding margin of the other cover constitute, together with the members 16, 17, and 18, reinforcing elements to reinforce the back margins of the covers to produce clamping elements between which the rear margins of the sheets are firmly clamped, and there held by the lacing elements, on which they are strung. The construction shown provides a very neat, durable, strong, and inexpensive device for binding sheets for permanent reference. Its construction renders the operation of placing the sheets in the binder a very simple one, and the ultimate book produced is attractive and easily handled to expose the entire portion of any sheet therein bound.

I claim as my invention:

1. A document binder comprising two covers separate from each other and having stubs at their rear edges which lie in the respective planes of said covers, flexible lacing elements fixed to the stub of one cover and threaded through apertures in, and lying upon, the stub of the other cover, and flexible strips separate from the covers and stubs to hinge said covers to their respective stubs, one of said strips being extended beyond its associated stub and arranged to be folded over and fastened to the other stub and the adjacent margin of its associated cover and to also overlie the terminals of said lacing elements.

2. A document binder comprising two covers separate from each other and having at corresponding edges narrow stubs, and gummed strips separate from the covers and stubs hingedly connecting the stubs to their respective covers, a tape secured between one gummed strip and its corresponding stub and having terminals adapted to extend through apertures of the stub of the other cover and to lie flatwise on the latter stub, the gummed strip of the stub from which the said terminals spring being ar-

ranged to be folded over the stub of the other cover to bind the covers together and to hold the said terminals in position.

3. A document binder comprising two covers separate from each other and having at corresponding edges narrow stubs, separate gummed strips separate from the covers and stubs to hinge said stubs to their respective covers, one of said strips having an extended flap, a tape lying longitudinally along and secured to one of said stubs and having terminals adapted to extend through apertures in the other stub and to lie flatwise thereon and a narrow gummed strip adapted to be applied over the latter stub to permanently fasten the tape terminals thereon, said extended flap being arranged to be folded over the latter stub to bind the stubs together and to overlie said narrow gummed strip.

4. A document binder comprising two covers separate from each other and having separate means to bind them together at corresponding margins, and embracing separate hinged stubs at said corresponding margins, flexible lacing elements attached to one of said stubs and adapted to pass through perforations of sheets to be bound in the binder, and the other stub being perforated to receive the terminals of the said lacing elements, which latter are adapted to lie flat on the latter stub and to be confined therebetween and the means which bind the covers together.

5. A document binder comprising two covers separate from each other, and one provided at its rear margin with a hinged stub, flexible lacing elements attached thereto and adapted to pass through perforations of sheets which are to be bound in the binder, the other cover being provided at its rear margin with a like stub perforated to receive the terminals of the flexible lacing elements, and a gummed strip separate from the covers and stubs for hinging said latter stub to its cover and adapted to be fastened over the other stub and to overlie said lacing element terminals.

6. A document binder comprising two covers separate from each other and provided at corresponding margins with perforated stubs, a tape lying under and secured to one of said stubs, with its ends constituting lacing elements which extend through the perforations of the latter stub and are adapted to extend through perforations of the other stub, and strips separate from the covers and stubs to hingedly connect said stubs to their respective covers, one of said strips having an extension adapted to enclose and bind together said stubs at the back of the finished binder and to overlie the terminals of said flexible lacing elements.

7. In a document binder, the combination with two covers separate from each other and provided at corresponding margins with narrow hinged stubs, lacing elements fixed to one of said stubs and having terminals adapted to extend through apertures in the other stub, and a flexible gummed strip separate from the covers and stubs adapted to be folded over and pasted to said stubs and to overlie the terminals of said lacing elements.

In witness whereof I claim the foregoing as my invention, I hereunto append my signature this twenty-eighth day of September, 1920.

FREDERICK H. HARRIS.