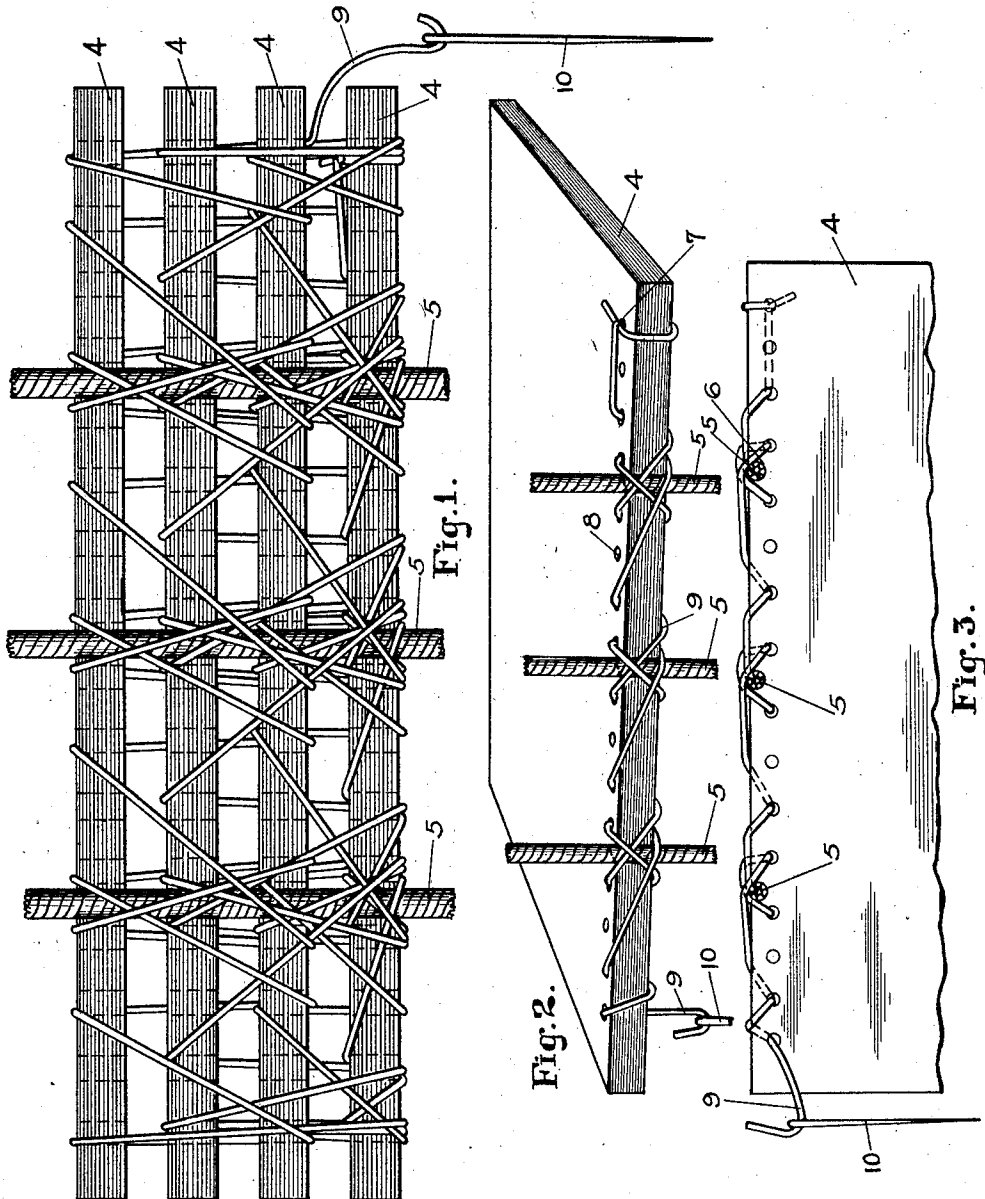


W. F. VALTERS.
BOOKBINDING.
APPLICATION FILED MAY 10, 1912.

1,059,092.

Patented Apr. 15, 1913.



Witnesses.

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WALTER F. VALTERS, OF CHICAGO, ILLINOIS.

BOOKBINDING.

1,059,092.

Specification of Letters Patent.

Patented Apr. 15, 1913.

Application filed May 10, 1912. Serial No. 696,298.

To all whom it may concern:

Be it known that I, WALTER F. VALTERS, a subject of the King of England, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Bookbinding, of which the following is a specification.

My invention relates to improvements in book binding, and the object is to provide a book composed either of signatures or separate single sheets securely bound together in a simple and efficient manner.

This invention is equally adapted for binding new books and for re-binding old books, and consists in the combinations and arrangements of parts hereinafter described and claimed.

My invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which—

Figure 1 shows an elevation of the binding edges of four sections of a book slightly separated and bound in accordance with my invention, Fig. 2 represents a view, in perspective, of the first section of the book, and Fig. 3 represents a plan view of one section of the book.

The preferred form of construction, as illustrated in the drawings, comprises a plurality of signatures or sections of separate loose leaves 4 arranged in proper order and provided with recesses 6 across the binding edges of each section or signature in positions so that the recesses in one signature or section will register with the recesses in each of the other of such signatures or sections. In each of the recesses 6 is secured a cord 5 provided for the purpose of strengthening the binding of the book, or, when so desired, a ribbon or other suitable means may be substituted in place of such cord and the recesses 6 may be dispensed with.

The signatures or sections of leaves are preferably perforated with a series of perforations 8 near their binding edges, as indicated in Figs. 2 and 3, in positions so that the perforations in one signature or section will register with the perforations in each of the other signatures or sections. When it is desired, the perforations 8 may be dispensed with and the needle or other instrument with which the book is sewed used to puncture the sections or signatures. The

thread 9 is guided, in sewing the book, by means of a suitable needle 10 and first passed through a perforation 8 at one corner of the first section or signature and tied or otherwise secured, as indicated in Fig. 2, carried along and through the third perforation, laced across its binding edge crossing the first reinforcing cord 5 and through the fifth perforation, then recrossing the first reinforcing cord 5 and through the fourth perforation and again recrossing the first reinforcing cord 5, then across the edge portion again and through the seventh perforation, crossing the second reinforcing cord 5 and through the ninth perforation, then recrossing the second reinforcing cord 5 and through the eighth perforation, then again recrossing the second reinforcing cord 5 and through the eleventh perforation, then crossing the third reinforcing cord 5 and through the thirteenth perforation, then recrossing the third reinforcing cord 5 and through the twelfth perforation, then again recrossing the third reinforcing cord 5 and through the fifteenth perforation, then across the binding edge and through the sixteenth perforation. The second section or signature is sewed by means of then passing the thread 9 across the binding edges of the first and second sections and through the sixteenth perforation in both the second and first sections, then across their binding edges and through their fourteenth perforations, then across their edges crossing the third binding cord 5 and through their twelfth perforations, then recrossing the third binding cord 5 and through their thirteenth perforations, then again recrossing the third reinforcing cord 5 and through their tenth perforations, then across the second reinforcing cord 5 and through their eighth perforations, then recrossing the second binding cord 5 and through their ninth perforations, then again recrossing the second reinforcing cord 5 and through their sixth perforations, then crossing the first reinforcing cord 5 and through their fourth perforations, then recrossing the first reinforcing cord 5 and through their fifth perforations, then again recrossing the first reinforcing cord 5 and through their second perforations, then across their binding edges and through their first perforations to complete the sewing of the first and second sections together. The first, second and third sections are next sewed together by passing the

needle over their binding edges and through
 their first perforations, then across their
 binding edges and through their third per-
 forations, then across the first reinforcing
 cord 5 and through their fifth perforations,
 then recrossing the first reinforcing cord 5
 and through their fourth perforations, then
 again recrossing the first reinforcing cord
 5 and through their seventh perforations,
 then crossing the second reinforcing cord 5
 and through their ninth perforations, then
 recrossing the second reinforcing cord 5 and
 through their eighth perforations, then
 again recrossing the second reinforcing cord
 5 and through their eleventh perforations,
 then crossing the third reinforcing cord 5
 and through their thirteenth perforations,
 recrossing the third reinforcing cord 5 and
 through their twelfth perforations, then
 again recrossing the third reinforcing cord
 5 and through their fifteenth perforations,
 then across their binding edges and through
 their sixteenth perforations to complete the
 sewing of the first set of three signatures
 or sections together. The fourth section or
 signature is then secured by sewing the sec-
 ond, third and fourth sections together. This
 is accomplished by passing the thread 9
 across the binding edges of all these sec-
 tions through their sixteenth perforations,
 then across their binding edges and through
 their fourteenth perforations, then across
 the third reinforcing cord 5 and through
 their twelfth perforations, then recrossing
 the third reinforcing cord 5 and through
 their thirteenth perforations, then again re-
 crossing the third reinforcing cord 5 and
 through their tenth perforations, then cross-
 ing the second reinforcing cord 5 and
 through their eighth perforations, then re-
 crossing the second reinforcing cord 5 and
 through their ninth perforations, then again
 recrossing the second reinforcing cord 5 and
 through their sixth perforations, then cross-
 ing the first reinforcing cord 5 and through
 their fourth perforations, then recrossing
 the first reinforcing cord 5 and through
 their fifth perforations, then again recross-
 ing the first reinforcing cord 5 and through
 their second perforations, then across their
 binding edges and through their first per-
 forations completing the sewing of the sec-
 ond, third and fourth sections together. In
 a like manner the third, fourth and fifth
 sections are sewed together, the thread 9 be-
 ing resewed through such sections, each
 time the sewing passes a reinforcing cord
 5, as described above, and this method fol-
 lowed until all of the sections or signatures
 of the book are secured. The last and next
 to the last sections and the last section are
 sewed in a manner similar to sewing the first
 and second and first sections already de-
 scribed. The reinforcing cords 5 are secured
 to the sides of the book (not shown), and

such sides are secured to the book proper in the usual fashion.

With a book made in accordance with my
 invention, it may be opened flatly between
 any two leaves, as the sewing produces equal
 strain on each of the leaves in the book. It
 has the advantage of securing the reinforc-
 ing cords 5 with a greater number of threads,
 thus reinforcing the sewing at these points,
 making it particularly adaptable for use in
 binding single leaves or leaves of old books
 into book form.

While I have illustrated and described the
 preferred form of construction for carrying
 my invention into effect, this is capable of
 variation and modification without depart-
 ing from the spirit of the invention. I,
 therefore, do not wish to be limited to the
 exact details of construction set forth, but
 desire to avail myself of such variations and
 modifications as come within the scope of the
 appended claims.

Having described my invention, what I
 claim as new and desire to secure by Letters
 Patent, is:

1. A book comprising a plurality of sec-
 tions having notches extending across their
 binding edges; reinforcing cords in said
 notches; and a continuous thread sewed
 through and extending obliquely upon the
 binding edges of said sections securing them
 together and such thread being resewed at
 each of its intersections with said reinforc-
 ing cords, substantially as described.

2. A book comprising a plurality of sec-
 tions having notches extending across their
 binding edges and perforations in said sec-
 tions near their binding edges in such posi-
 tions that the perforations of one section
 will register with its next adjacent section;
 reinforcing cords in said notches and a con-
 tinuous thread sewed through said perfora-
 tions, sewing through three sections at each
 sewing, laced across the binding edges of
 said sections and resewed at each of the in-
 tersections with said reinforcing cords, sub-
 stantially as described.

3. A book comprising a plurality of sec-
 tions having notches extending across their
 binding edges; and perforations in said sec-
 tions near their binding edges in such posi-
 tions that the perforations of one section
 will register with its next adjacent section;
 reinforcing cords in said notches and a con-
 tinuous thread sewed in perforations of one
 of said sections, laced across the binding
 edge of said section and resewed at each of
 its intersections with said reinforcing cords
 throughout the length of the binding edge of
 such section, then sewed through perfora-
 tions of the first section and second section,
 laced across the binding edges of such sec-
 tions and again resewed at each of its inter-
 sections with the reinforcing cords through-
 out the length of such first and second sec-

tions, then sewed through perforations in the first, second and third sections, laced across the binding edges of said first, second and third sections and again reseed at each
5 of its intersections with said reinforcing cords, then in a like manner sewed through the remaining sections, sewing through three sections at each sewing, lacing across the binding edges of such sections and resewing
10 at each of its intersections with said reinforcing cords to complete the securing of

said sections together, and then securing the next to the last and last sections in the same manner that the first and second sections are secured, substantially as described.

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In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WALTER F. VALTERS.

Witnesses:

JOSHUA R. H. POTTS,

ARTHUR A. OLSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
