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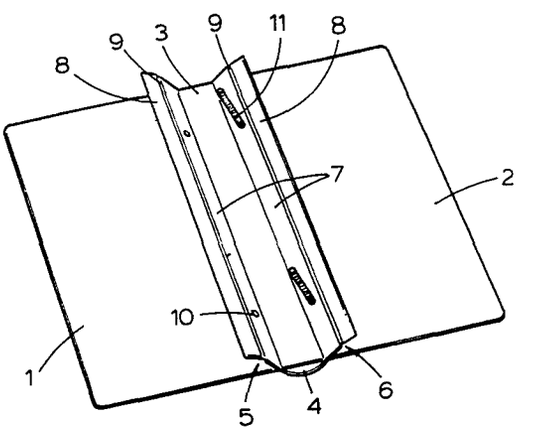
(54) Improvements in or relating to the binding of loose leaves, periodicals and the like.

(57) This invention provides a clamping device for holding loose leaves, periodicals and the like in a binder in such a way that a plurality of said articles so bound provides a volume which may approximate in appearance and/or feel to a perfect bound book.

The binder comprises a cover having a front portion (1) and a back portion (2), joined by a spine portion (4). A first flap (7) extends inwardly of the cover along the junction of the spine and front cover, and a second flap (7) extends inwardly of the cover along the junction of the spine and back cover. Each flap (7) is formed with at least one hole (10) and the flaps extend such that the spine edges of a set of said articles to be bound can be positioned between said flaps. Clamping means for passing through the or a hole in one flap, the or a corresponding hole in the other flap, and corresponding holes in said set to hold the set in place in the binder, comprises a coiled spring (11) and two screw-threaded bolts, the pitch of the screw-threading of which is substantially the same as the coils of the spring and the diameter of the heads of which is larger than that of the holes in said flaps.



EP 0 010 898 A1

IMPROVEMENTS IN OR RELATING TO THE BINDING OF LOOSE LEAVES, PERIODICALS AND THE LIKE

This invention relates to the binding of loose leaves, periodicals and the like, such as magazines, scientific journals, law reports, and individual sections cumulative to form a book, such as a reference book, and is particularly concerned with devices for fastening together covers to clamp between them the loose leaves.

Various binders for periodicals and the like have been proposed, including binders in which the periodicals are held in a cover by means of rigid rods passing through holes formed in the edges of the periodicals and extending normal to the plane of the paper of the periodicals, or by means of thin rods pressing parallel to the spine of a seam or bound section. These binders suffer from various disadvantages and, in particular, the latter binder is not able to accommodate single sheets of paper such as are sometimes issued as an annual index.

It is an object of the invention to provide a clamping device for holding loose leaves, periodicals and the like in a binder in such a way that a plurality of loose leaves, periodicals or the like so bound provides a volume which may approximate in appearance and/or feel to a perfect bound book.

According to the present invention there is provided in or for use in a binder for loose leaves, periodicals and the like, comprising a cover having a front portion joined by a spine portion, a first flap extending inwardly of the cover along the junction of the spine and front portion, and a second flap extending inwardly of the cover along the junction of the spine and the back portion, each flap being formed with at least one hole and the flaps extending such that the spine edges of a set of loose leaves, periodicals or the like to be bound can be positioned between said flaps: clamping means for passing through the or a hole in one flap, the or a corresponding hole in the other flap and corresponding holes in said set to hold

the set in place in the binder, characterized in that the or each clamping means comprises a coiled spring and two screw-threaded bolts, the pitch of the screw-threading of which is substantially the same as the coils of the spring and the diameter of the heads of which is larger than that of the holes in said flaps.

Thus, when the present binder is used to bind a set of periodicals or the like, the set is clamped firmly between the flaps by the clamping means to form a book. Furthermore, since the back of the resulting book is not rigidly clamped but is clamped using the coil springs which permit the back of the book to 'give', the book resembles a perfect bound book, not only in looks but in feel.

In order to enable the invention to be more readily understood, reference will now be made to the accompanying drawings, which illustrate diagrammatically and by way of example an embodiment thereof, and in which:-

Fig. 1A is an exploded view and Fig. 1B a partly assembled view of clamping means for a binder;
Fig. 2 is perspective view of a binder ready to receive material to be bound;
Fig. 3 is a perspective view of a bound volume; and
Fig. 4 is another perspective of the bound volume.

Referring now to the drawings, there is shown a binder for loose leaves, periodicals or the like. The binder has a front cover portion 1, a back cover portion 2 and a spine portion 3 joining the two cover portions. If desired, the spine portion may, as shown in Fig. 2, comprise an additional portion 4 to give the resulting bound volume the appearance of a round-backed perfect bound book. A flap 5 extends along the junction between the front cover portion 1 and the spine portion 3 and a similar flap 6 extends along the junction between the spine portion 3 and the back cover portion 2. Each flap is divided into two parts 7 and 8 by a longitudinally extending fold line 9 and each part 7 is formed with two holes 10 spaced apart longitudinally along the flap and each adapted to receive clamping means as shown in Fig. 1.

The clamping means shown in Fig. 1 comprises a coil spring 11 and two screw-threaded bolts 12 the pitch of the thread in each of which is the same as the pitch of the coils of the spring 11 so that each bolt can be screwed into and retained in an end of the spring, as shown in Fig. 1B. The heads of the bolts 12 are of larger diameter than the holes 10 in the flaps 5 and 6.

In the use of the binder just described to bind, for example, an annual set of a periodical, the binder is laid on a table or other working surface in the manner shown in Fig. 2. Bolts 12 are screwed into one end of each spring 11, the free ends of which are then inserted into the holes on flap 6 such that said free ends project vertically upwards when flap 6 is placed in flat faced relation with back cover 2.

Holes are then punched, if necessary, in the individual issues of the periodical, in positions corresponding to the positions of the holes 10 in the flap part 7. It is, however, to be appreciated that the periodical may in fact be issued with appropriate holes already punched in it, especially if it is issued with a view to promoting sales of the binder.

The periodicals are then presented to the springs 11 in reverse order until they have built up to a volume as shown in Fig. 3. The front cover is then moved to move the spine portion 3 adjacent the spines of the periodicals and so that the holes 10 in the part 7 of the flap 5 can be engaged around the springs 11, whereupon the remaining threaded bolts 12 are inserted to complete the binding of the volume. The flap part 8 can then be folded back to hide the heads of the bolts 12 as shown in Fig. 4. It will also be seen from Fig. 4, that when the resulting bound volume is opened the springs 11 permit the spine region of the volume a degree of flexibility which would not be present were the springs 11 rigid bars or the like.

CLAIMS

1. In or for use in a binder for loose leaves, periodicals and the like, said binder comprising a cover having a front portion and a back portion joined by a spine portion, a first flap extending inwardly of the cover along the junction of the spine and front portion, and a second flap extending inwardly of the cover along the junction of the spine and the back portion, each flap being formed with at least one hole and the flaps extending such that the spine edges of a set of loose leaves, periodicals or the like to be bound can be positioned between said flaps: clamping means for passing through the or a hole in one flap, the or a corresponding hole in the other flap and corresponding holes in said set to hold the set in place in the binder, characterized in that the or each clamping means comprises a coiled spring and two screw-threaded bolts, the pitch of the screw-threading of which is substantially the same as the coils of the spring, and the diameter of the heads of which is larger than that of the holes in said flaps.

2. In or for use in a binder for loose leaves, periodicals and the like, said binder comprising a cover having a front portion and a back portion joined by a spine portion, a first flap extending inwardly of the cover along the junction of the spine and front portion, and a second flap extending inwardly of the cover along the junction of the spine and the back portion, each flap being formed with at least one hole and the flaps extending such that the spine edges of a set of loose leaves, periodicals or the like to be bound can be positioned between said flaps; clamping means substantially as hereinbefore described with reference to the accompanying drawings.

3. A binder for loose leaves, periodicals and the like, said binder comprising a cover having a front portion and a back portion joined by a spine portion, a first flap extending inwardly of the cover along the junction of the spine and front portion, and a second flap extending inwardly of the cover along the junction of the spine and the back portion, each flap being formed with at least one hole and the flaps extending such that the spine

edges of a set of loose leaves, periodicals or the like to be bound can be positioned between said flaps, characterized in that it comprises clamping means as claimed in Claim 1 or 2 and said spine portion comprises an additional portion to give the resulting bound volume the appearance of a round-backed perfect bound book.

4. A binder as claimed in Claim 3, wherein each said flap is divided into two parts by a longitudinally extending fold line, so that the part which is furthest from the spine and which does not contain the or a hole can be folded back to hide the heads of said bolts.

5. A binder as claimed in Claim 3 or 4, wherein each said flap is formed with two holes spaced longitudinally along the flap.

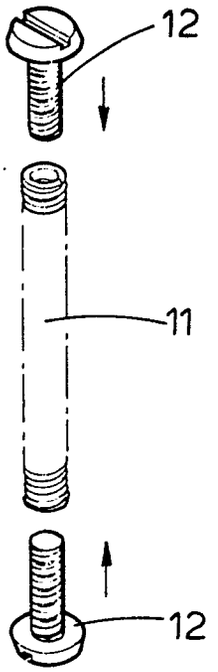


Fig. 1A

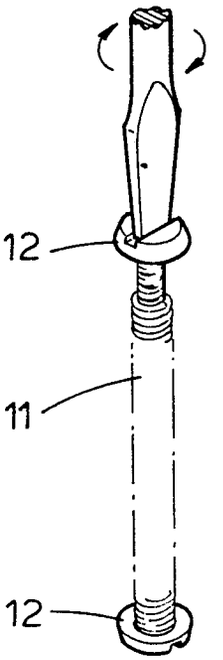


Fig. 1B

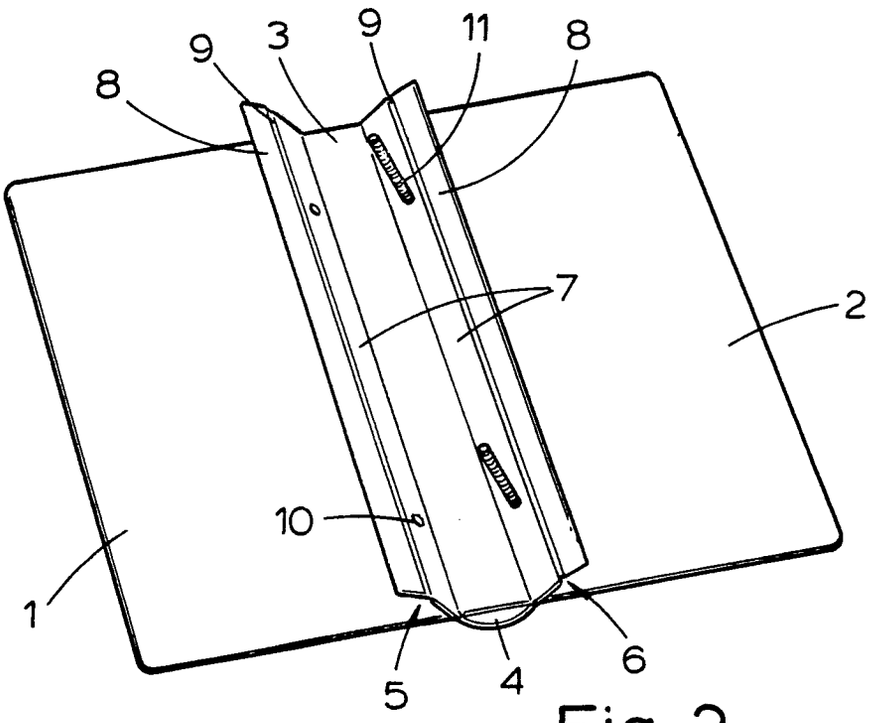


Fig. 2

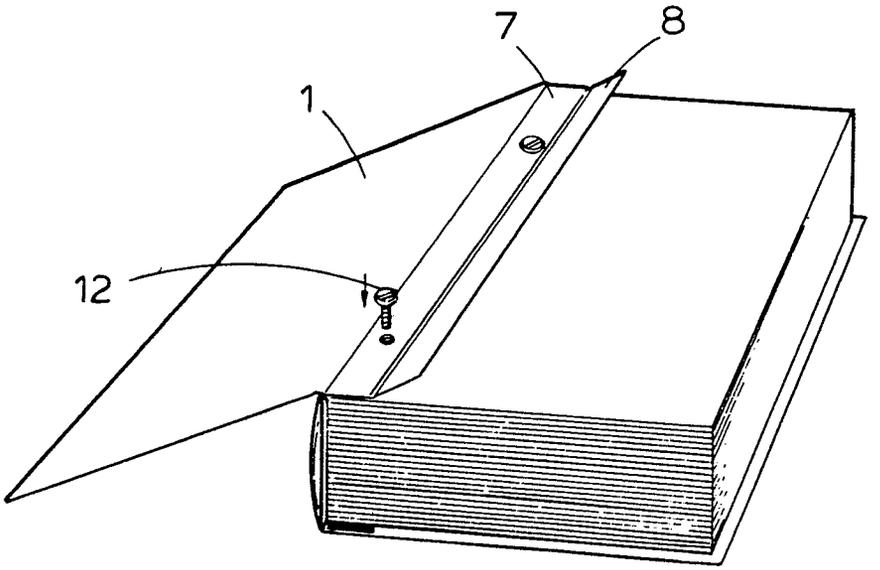


Fig. 3

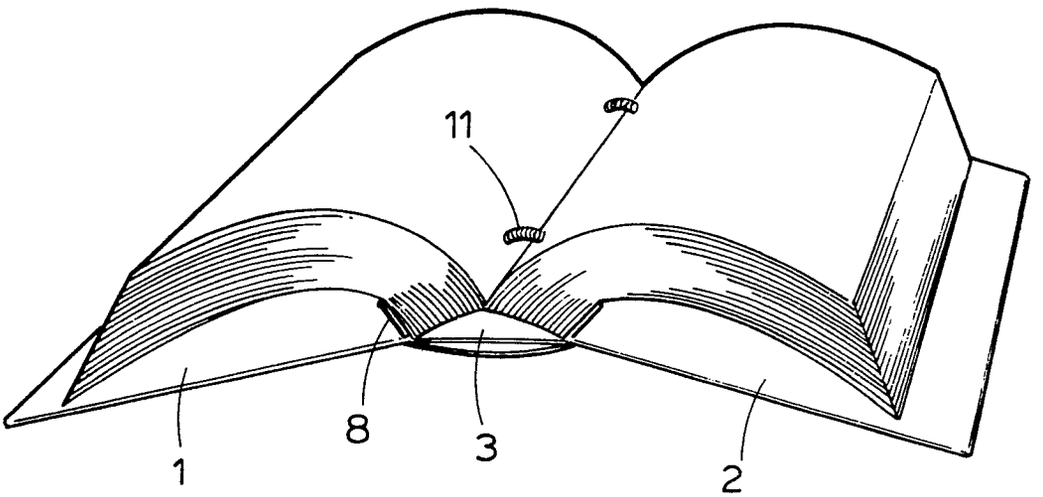


Fig. 4

European Patent Office

EUROPEAN SEARCH REPORT

Application number
EP 79 30 2231

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
	US - A - 2 586 556 (MULLIKIN) * The complete description * --	1
	US - A - 2 802 469 (PILLING) * The complete description * --	1,2,5
	FR - A - 785 556 (SPICQ) * Page 2, lines 2-31; figures 1,2 * --	1
	FR - A - 2 188 511 (LAWES) * Page 3, line 34 to page 5, line 3; page 6, line 22 to page 7, line 4; figures 1,3 * ----	3,5

CLASSIFICATION OF THE APPLICATION (Int. Cl. ³)

B 42 F 13/04
F 16 B 37/12

TECHNICAL FIELDS SEARCHED (Int.Cl. ³)

B 42 F

CATEGORY OF CITED DOCUMENTS

X: particularly relevant
A: technological background
O: non-written disclosure
P: intermediate document
T: theory or principle underlying the invention
E: conflicting application
D: document cited in the application
L: citation for other reasons

& member of the same patent family, corresponding document

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	21-12-1979	LONCKE

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