

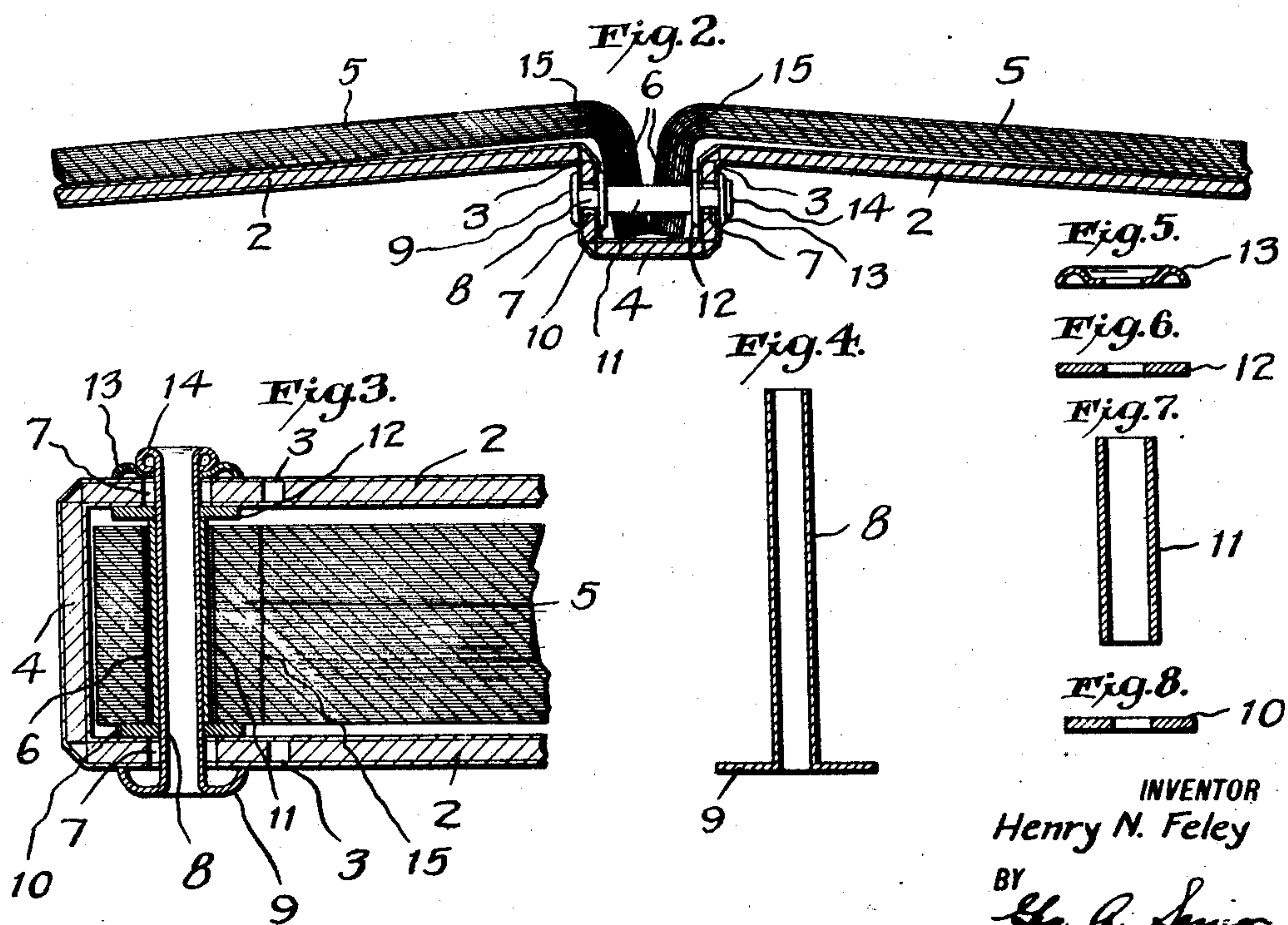
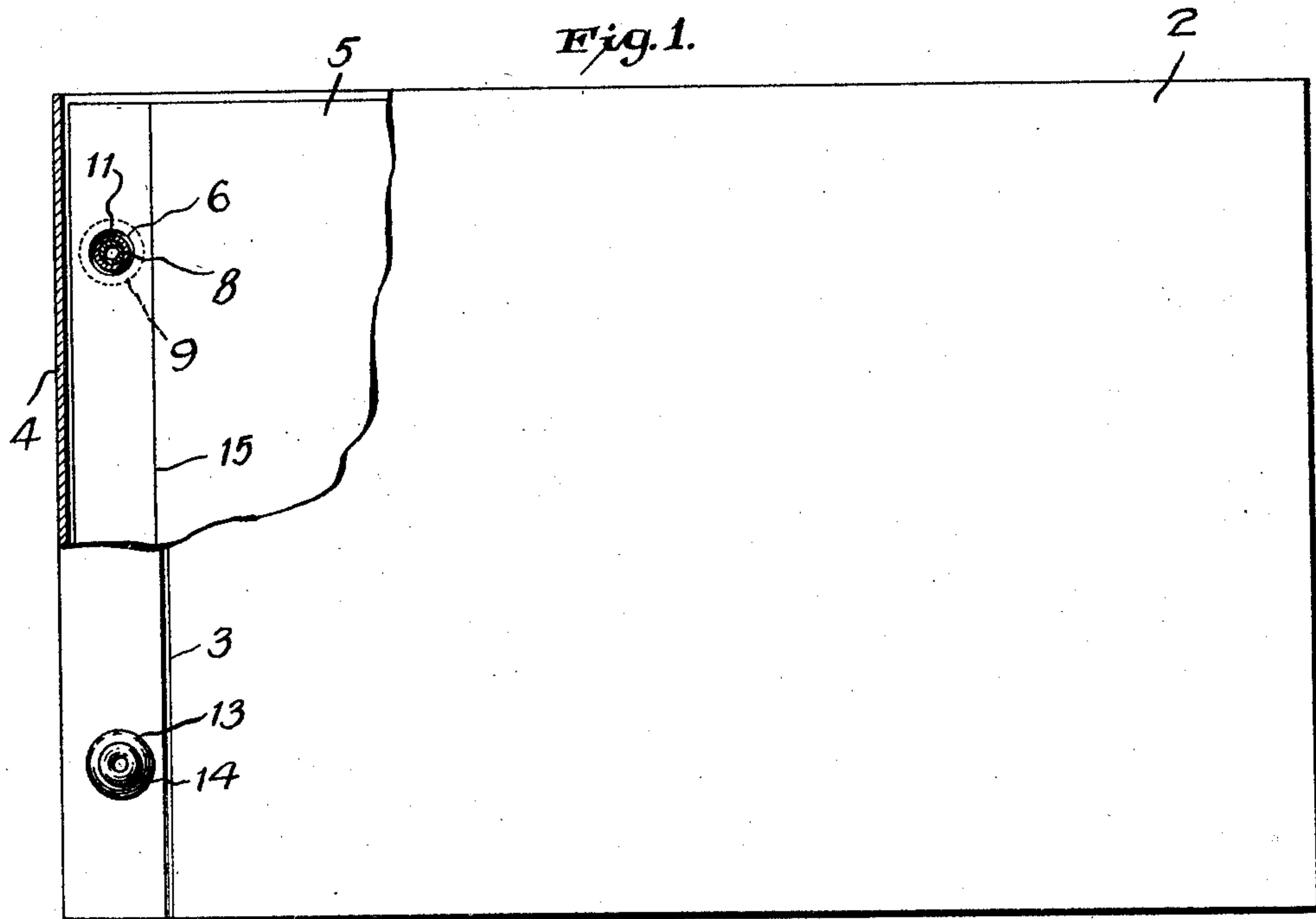
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H. N. FELEY

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BOOK

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BOOK

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The object of the invention is to provide an improved flat-opening check-book, or other book, constructed in an advantageous manner so that the book will lie open at any point. It is a serious inconvenience of ordinary check-books that they must be held open in order to keep the stubs from springing over onto the page to be written upon. According to the present invention the book is bound by means of shaft members passed through openings in the sheets and cover and provided with upset ends outside the cover, and spacer means on the shafts inside the cover, the spacer means being adapted to bear against the inner sides of the cover and keep the sheets free, that is to say, not tightly held or gripped. This, together with the fact that the openings through the separate sheets are materially larger than the diameter of the parts standing within them, permits the leaves to separate loosely at any point where the book is opened. Other features of the invention will become apparent as the specification proceeds.

In the accompanying drawings, forming part hereof:

Fig. 1 is a plan view of the book embodying the invention, a portion of the cover being broken away;

Fig. 2 is a longitudinal section through the book, open, the end portions being broken away because of lack of space;

Fig. 3 is a fragmentary sectional view on a larger scale, showing the closed condition; and

Figs. 4, 5, 6, 7 and 8 are detail sectional views of the parts seen in Figs. 1, 2 and 3, before assembling.

The stiff-board cover of the book is marked 2, the hinges of the front and back parts of the cover are marked 3, and the binding strip of the cover is marked 4. The interior pad consists of separate leaves 5, not united by stitching, staples or gum.

Two large holes 6 are made through the rear portion of the collection of leaves, and corresponding holes 7 are made in the cover. The holes in both the leaves and cover may be made at the same time.

A tubular shaft 8 having a flange 9 is first

inserted through each of the holes in one of the parts of the cover. A washer 10 is then placed over each of the shafts 8 so that it rests against the inside of the cover. Sleeves 11 are then pushed over the shafts 8 having their lower ends abutting the washers 10.

The two shafts 8, their washers 10 and sleeves 11 having been assembled in this manner, the collection of sheets 5 are placed over the shafts and sleeves. The two other washers 12 are pushed over the protruding ends of the shafts 8 so that they abut the upper ends of the sleeves 11. The openings 7 in the other cover member are then passed over the ends of the shafts, this cover member resting on the washers 12. A washer 13 is placed over the end of each shaft outside the cover, and the ends 14 are upset, forming a retaining head. The flanges 9 forming the heads at the opposite side of the book are preferably shaped under pressure in the dies as shown in Fig. 3.

It will be observed that the spacer means formed by the sleeves 11 and washers 10 and 12 which bear against the inner sides of the cover is so designed, and of such length, that the pressure exerted in clinching and upsetting the binder fastenings does not result in the leaves 5 being gripped or compressed at the binding. Instead they remain quite loose between the parts of the cover, which are held somewhat away from the leaves by the washers 10 and 12. The distance between the washers 10 and 12 is greater than the thickness of the pad of leaves, or, at least, the leaves are only loosely held between the washers 10 and 12. Furthermore, it will be seen that the holes 6 through the leaves are materially wider than the external diameter of the sleeves 11 within them. Consequently, when the book is opened at any point, the two sections of the collection of sheets part freely as shown in Fig. 2, and there is no tendency for one side to flop over the other.

Further contributing to this effect, the individual sheets are provided with creases 15, parallel with the binding, adjacent and in front of the holes 6, these creases tending to destroy the springiness of the paper

at the regions where the leaves curve over the bends of the cover at the hinges 6, without seriously injuring the strength of the fiber.

5 It may be desirable in manufacturing books in accordance with this invention to have the washers on either end of the sleeves 11 of varying thickness to provide more or less space between the covers and the collec-
10 tion of sheets. This would be determined before the books were assembled and it would be a simple matter to provide washers of any desired thickness.

15 This application is a division of my pending allowed application Serial No. 99,237, filed April 2, 1926, patented Nov. 9, 1926, No. 1,606,213.

I claim:

20 A book comprising covers and sheets, the covers and sheets having registering perforations for binding, a sleeve passed through the perforations in the sheets and having a length exceeding the combined thickness of the sheets, a shaft passing through the sleeve
25 and the perforations in the covers, the shaft being headed at both ends beyond the covers, and washers closely encircling the shaft and bearing directly against the respective ends of the sleeve, said washers serving to
30 confine the sheets within the length of the sleeve, and providing with the headed ends of the shaft a rigid gripping means for the covers.

In testimony whereof I affix my signature.

35 HENRY N. FELEY.

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