Oct. 7, 1930. H. N. FELEY 1,777,638

BOOK

Original Filed April 2, 1926

Fig.1.

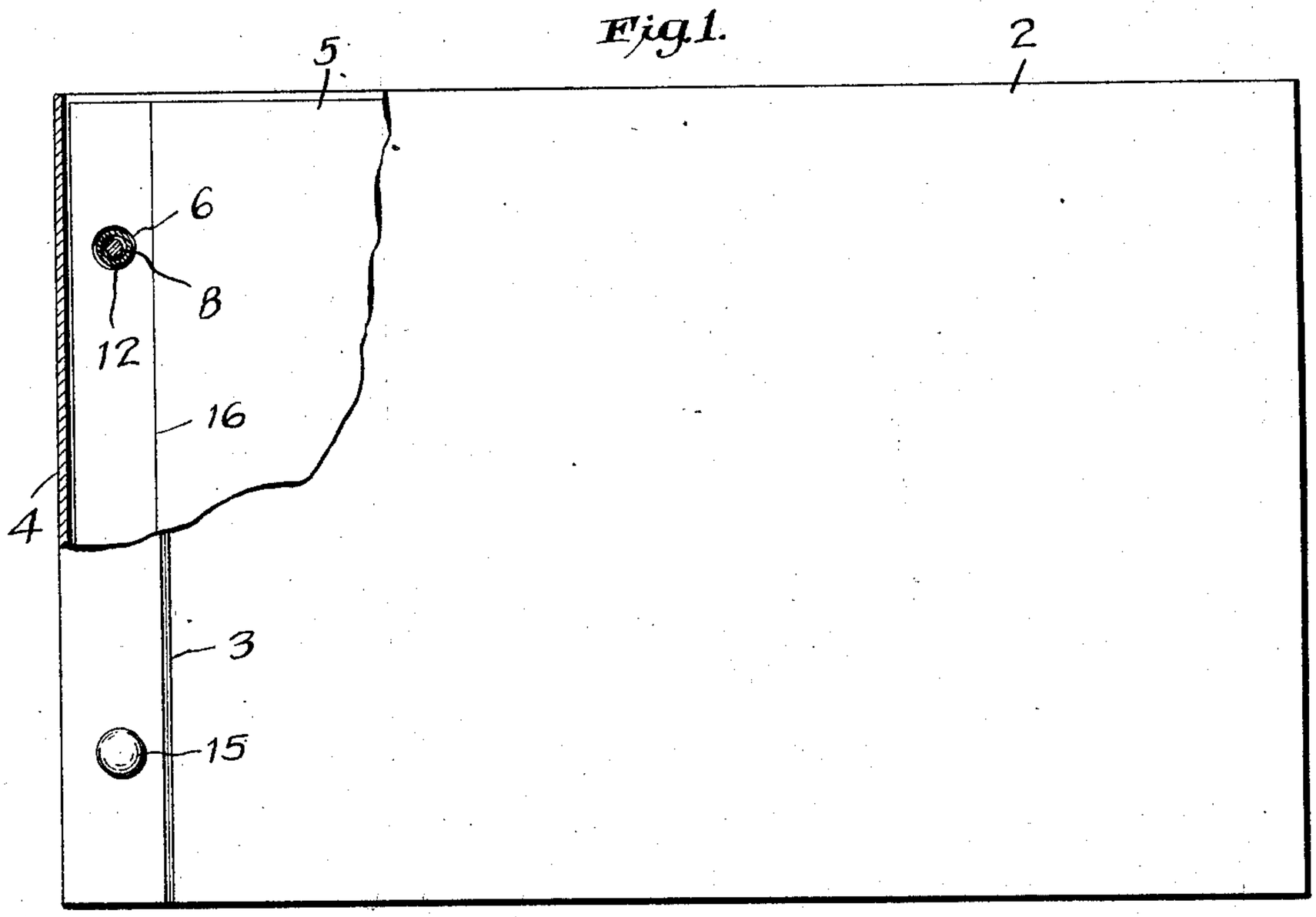

Fig.2.

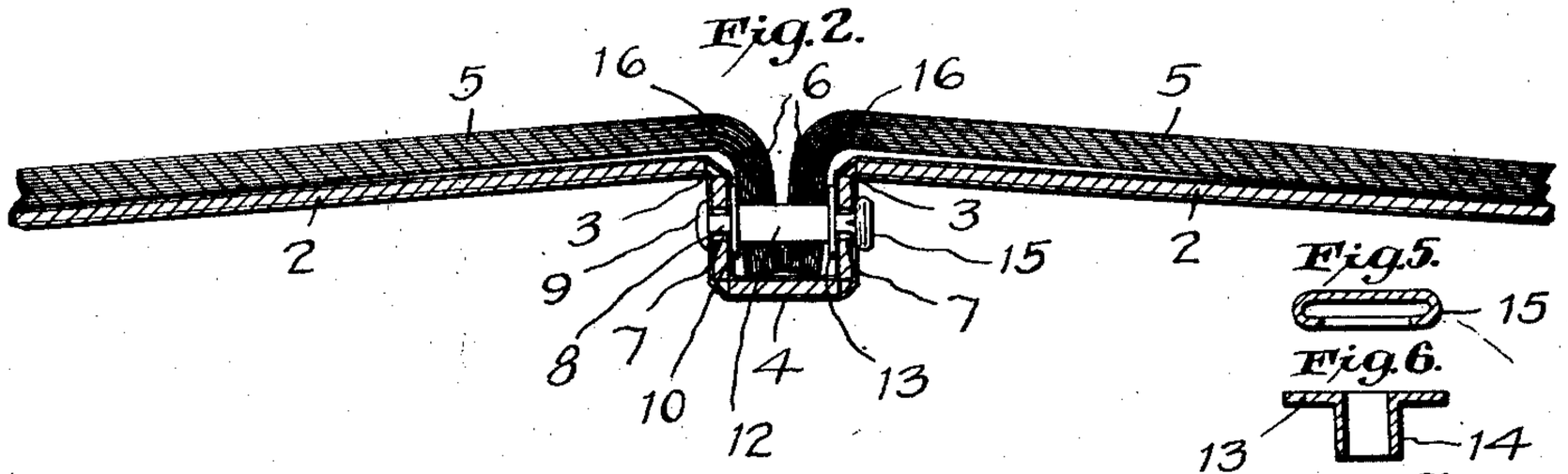

Fig.5.

Fig.6.

Fig.7.

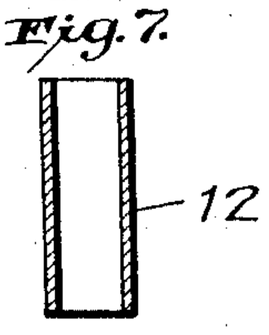

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Fig.3.

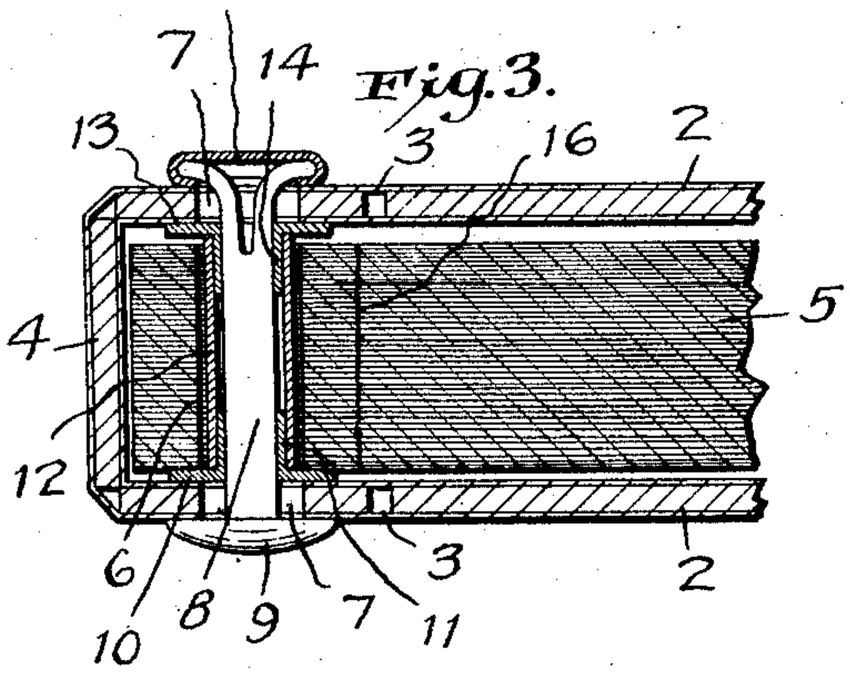

Fig.4.

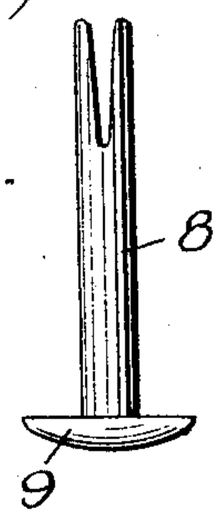

Fig.8.

INVENTOR

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1,777,638

UNITED STATES PATENT OFFICE

HENRY N. FELEY, OF EAST ORANGE, NEW JERSEY

BOOK

Original application filed April 2, 1926, Serial No. 99,237. Divided and this application filed November 8, 1926. Serial No. 147,050.

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 split rivets passed through openings in the sheets and cover and provided with heads outside of the cover, and spacer means on the shaft 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 sheets, 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 split rivet having a head 9 and shank or shaft 8 is first inserted through each of the holes 7 in one of the parts of the cover. An end member, including a flange 10 having a collar 11 is then placed on each of the shafts 8 of the split rivets so that the flange 10 rests against the inside of the cover. Sleeves 12 are then passed over the shafts 8 and collars 11 so that their lower ends abut the flanges 10.

The two shafts 8, their collared flanges 10 and sleeves 12 having been assembled in this manner, the collection of sheets 5 are placed over the shafts and sleeves. Two other end members, including flanges 13 having collars 14 are pushed over the protruding ends of the shafts 8, the collars 14 entering the sleeves 12 and the flanges 13 abutting the upper ends of the sleeves 12. The openings 7 in the other cover member are then passed over the ends of the shafts, this cover member resting on the flanges 13. In the final operation of assembling, the prongs of the rivet are spread apart, or upset, and a cap 15 is applied over and in engagement with them, forming a retaining head. Thus it is evident that one part of the cover 2 is gripped between the head 9 of the rivet and the flange 10, and the other part of the cover is gripped between the cap 15 and flange 13 while the leaves of the book remain loose between the flanges 10 and 13.

It will be observed that the spacer means formed by the sleeves 12 and flanges 10 and 13 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 fastening 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 flanges 10 and 13. The distance between the flanges 10 and 13 is greater than the thickness of the pad of leaves, or, at least, the leaves are only loosely held between the flanges 10 and 13. Furthermore, it will be seen that the holes 6 through the leaves are materially wider than the external diameter of the sleeves 12 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 on the other.

Further contributing to this effect, the individual sheets are provided with creases 16, 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 3, without seriously injuring the strength of the fiber.

The collars 11 and 14 on the flanges 10 and 13 preferably fit the shaft 8 snugly and in addition to insuring the accurate positioning of the sleeve 12 tend to hold the parts in preliminary assembly before the final operation of applying the cap 15 to the rivet.

The caps 15 and the heads 9 of the rivets may be tinted with a color corresponding to the covers of the book and in this way a very neat and pleasing effect is secured.

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:

A book including covers and interposed sheets having registering perforations, and means for binding the sheets and covers together, said means comprising a shaft passed loosely through the perforations in covers and sheets and adapted to be upset beyond one cover, end members arranged on the shaft between the sheets and cover, said end members having collar portions fitting the shaft and extending within the perforations of certain of the sheets and right-angled collar portions overlying the outer surface of the outermost sheets, and a sleeve overlying and fitting the collar portions of the end flanges, the ends of the sleeve bearing squarely against the flange portions of the end members to prevent movement of such end members toward the sheets under the upsetting stress on the shaft end.

In testimony whereof I affix my signature.

HENRY N. FELEY.