No. 876,078. PATENTED JAN. 7, 1908.

H. N. McCLAIN.

TEMPORARY BINDER FOR PAPERS.

APPLICATION FILED FEB. 18, 1907.

Fig. 2.

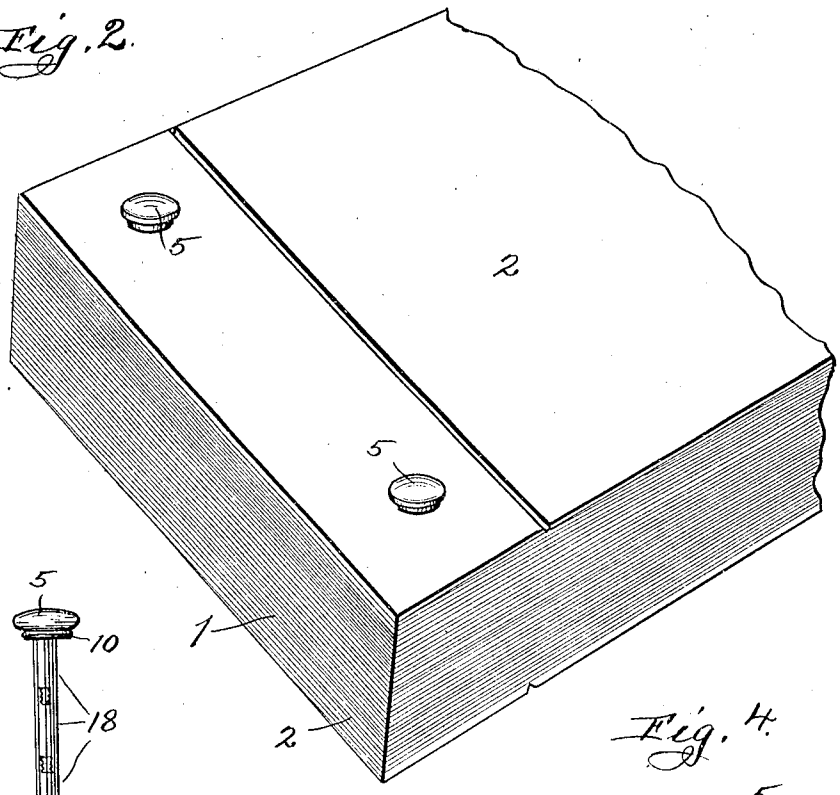


Fig. 3.

Fig. 4.

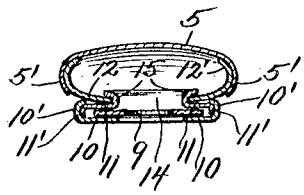


Fig. 1.

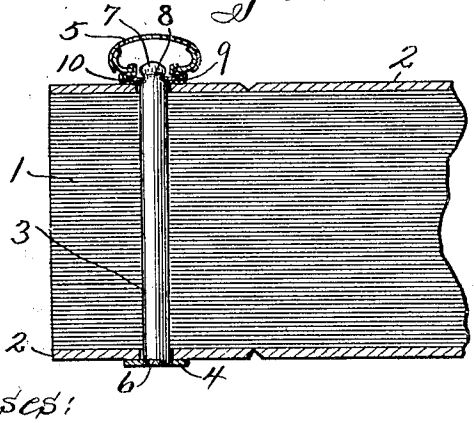
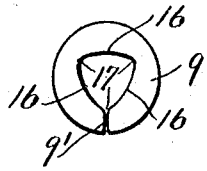


Fig. 5.



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HOYT N. McCLAIN, OF CHICAGO, ILLINOIS.

TEMPORARY BINDER FOR PAPERS.

No. 876,078. Specification of Letters Patent. Patented Jan. 7, 1908.

Application filed February 18, 1907. Serial No. 357,823.

To all whom it may concern:

Be it known that I, HOYT N. McCLAIN, a citizen of the United States, residing at Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Temporary Binders for Papers, of which the following is a specification.

This invention relates to binding posts to be employed for fastening together, in book form, a large number of perforated leaves of paper or the like.

The objects of the invention are to provide binding posts of this character which will serve to bind the leaves without the use of a binder frame; to provide binding posts having each a detachable head that may be easily and quickly attached or detached; and in general to provide a simple, convenient device for the purpose named.

The invention consists in the matters hereinafter described, and particularly pointed out in the appended claims; and will be more readily understood from reference to the accompanying drawings, in which—

Figure 1 is a vertical sectional view of one of the devices in position in a loose-leaf book; Fig. 2 is a perspective view of a loose-leaf book bound together with two of the devices; Fig. 3 is an elevational view of a sectional binder post embodying the invention; Fig. 4 is a sectional detail view of the detachable head or button; and Fig. 5 is a plan view of the resilient member of said head or button.

In Figs. 1 and 2, 1 designates a stack of loose leaves, each of which is provided with the usual perforations adjacent to one edge thereof, and 2 designates a pair of suitable covers, made of comparatively heavy material. Each binder device comprises a post, 3 or 18, a permanent head 4, and a detachable head or button, designated as a whole 5. The permanent head 4 is riveted in place, as shown at 6 in Fig. 1. The opposite end of the post is formed with a rounded end or knob 7 which is partly divided from the body of the post by an annular groove 8, and is preferably spheroidal in form as shown. The detachable head, 5, is composed preferably of three principal parts, namely: a split annular member as 9, for engaging the knob 7 of the post; an annular member 10—11 immediately inclosing and retaining said member 9; and the enlarged portion 5—12 of the head. Describing these parts in detail, the enlarged portion of the button is formed by the union of two parts, one, the circular disk 5, having the downturned flange 5′, the other, a circular piece 12, having a central circular opening 14 and an upturned rim 12′ fitting tightly within the flange 5′. Of the other compound member 10—11, the inner member 11 is tightly united with the outer member 10 by means of an upturned flange 10′ of the latter being clenched upon a downturned flange 11′ of the former. This inner member 11 is provided with a central circular opening, and its inner periphery is turned upwardly, then outwardly, as shown at 15, for loose engagement with the inner periphery of member 12. The looseness of this engagement permits independent and relative rotation of the two compound members 5—12 and 10—11.

The aforesaid member 9 is preferably formed as a ring, having a circular periphery and a triangular inner periphery and with a radial cut or slit 9′ at the vertex of one of the angles of the opening. I prefer that the inner edges, 16, be slightly curved outwardly, and it is necessary that a circle tangent to each of said edges will be smaller in diameter than that of the knob 7. The material—preferably metal—of which the member 9 is made is sufficiently resilient to insure its closing or returning to normal form after being sprung apart by being forced over the knob 7 of the post 3. The inner diameter of the holding member flange 11′ is of course larger than the outer diameter of the split ring 9, to permit free expansion of the latter; and the ring is loosely held, as indicated in Fig. 4.

To apply the binder, its post 3 is run through the registered perforations of the sheets to be bound, the top cover 2 laid on, and the head 5 applied with sufficient pressure to force the split ring 9 over the spheroidal knob 7 into the groove 8. The button may be removed in a second, by simply pulling it off. The convenience of this feature will readily be appreciated.

The post may be integral (as shown in Fig. 1) or composed of sections 18 as shown in Fig. 3, the sections in the latter construction being conveniently united by male and female threaded engagement as indicated at 19. The length of the post may be extended indefinitely by connecting in extra sections.

Various immaterial modifications may suggest themselves to one skilled in the art, and I do not limit the invention to the pre-

cise construction and conformations of parts herein shown and described.

I claim as my invention:

A temporary binder consisting of a freely removable individually separate post, one end of said post being provided with a fixed flange like confining head the opposite unheaded end of said post terminating in a rounded unmutilated portion having a circumferential groove, a detachable head adapted to telescope over said unheaded end and having its inner side projecting laterally beyond the post to form a flange like confining surface, and an internal spring locking member seated in said detachable head and adapted to have snap-action engagement with said grooved portion.

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