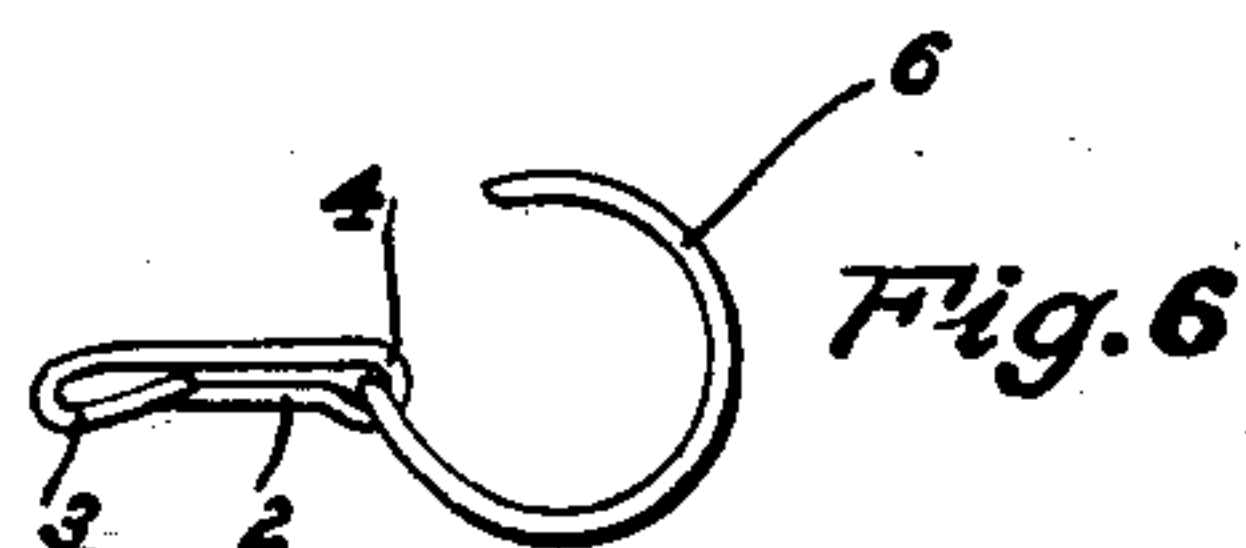
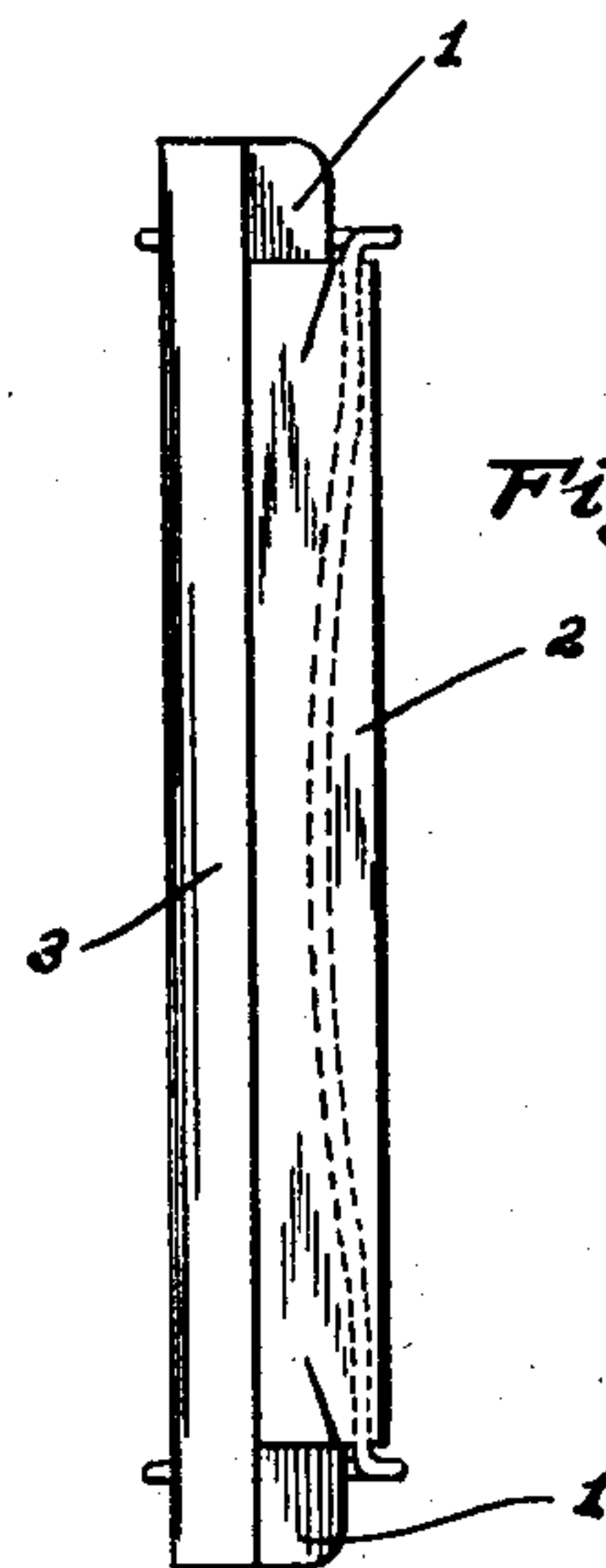
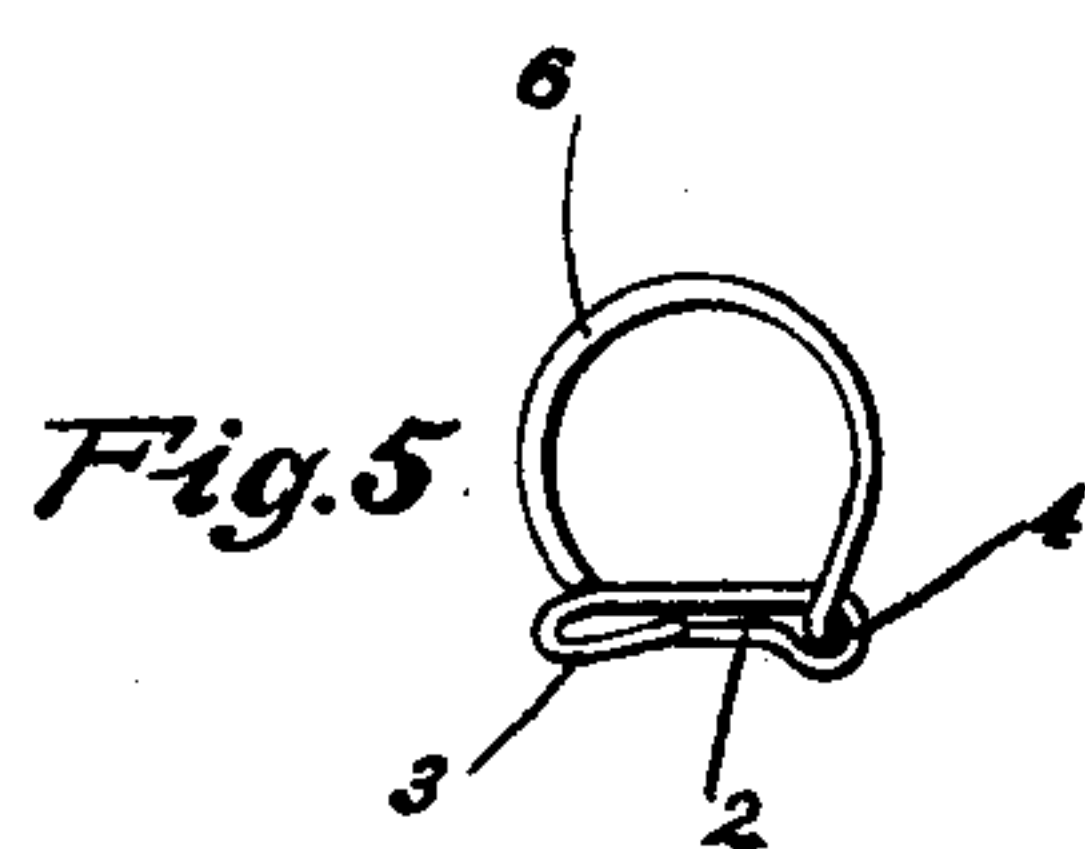
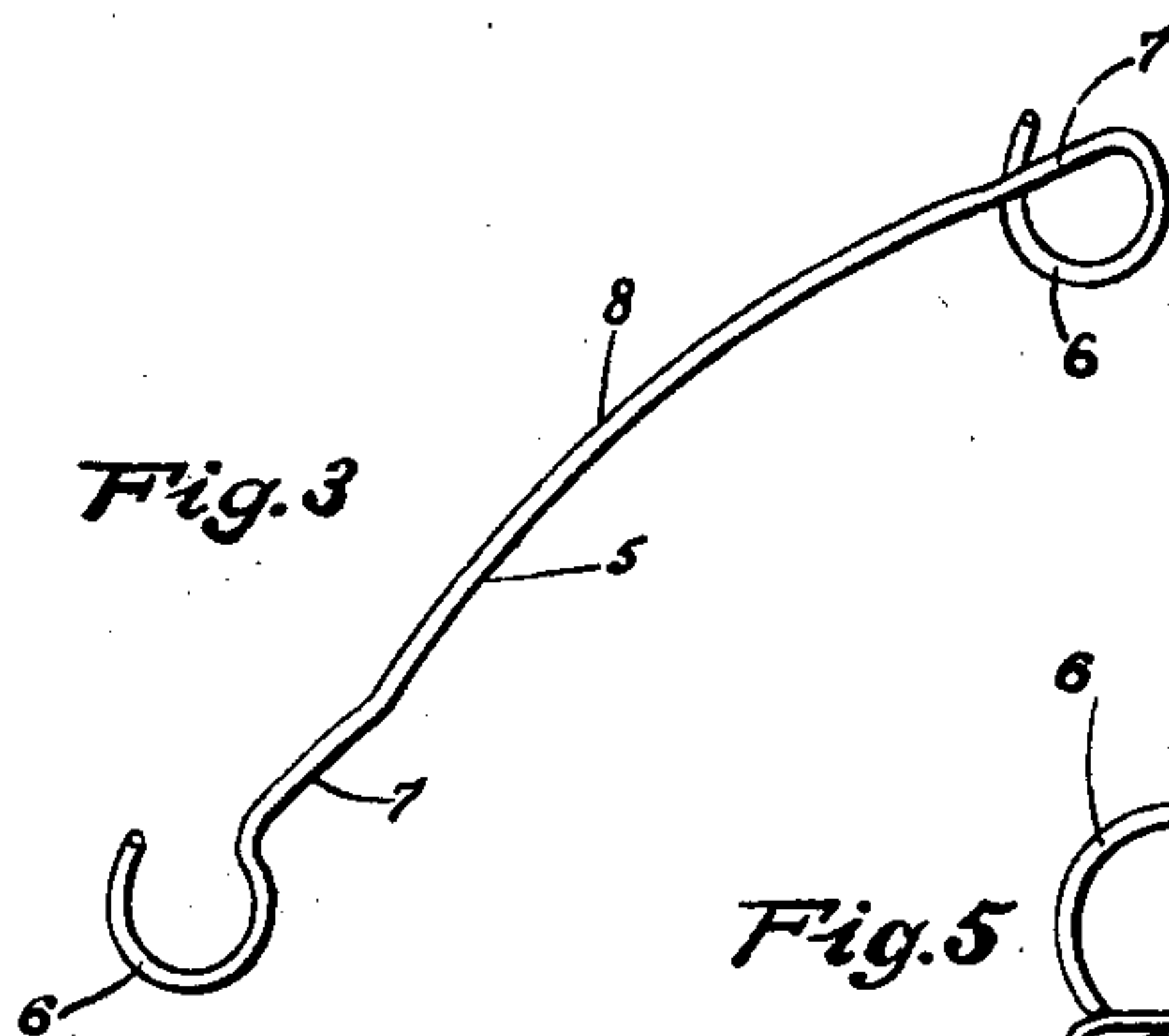
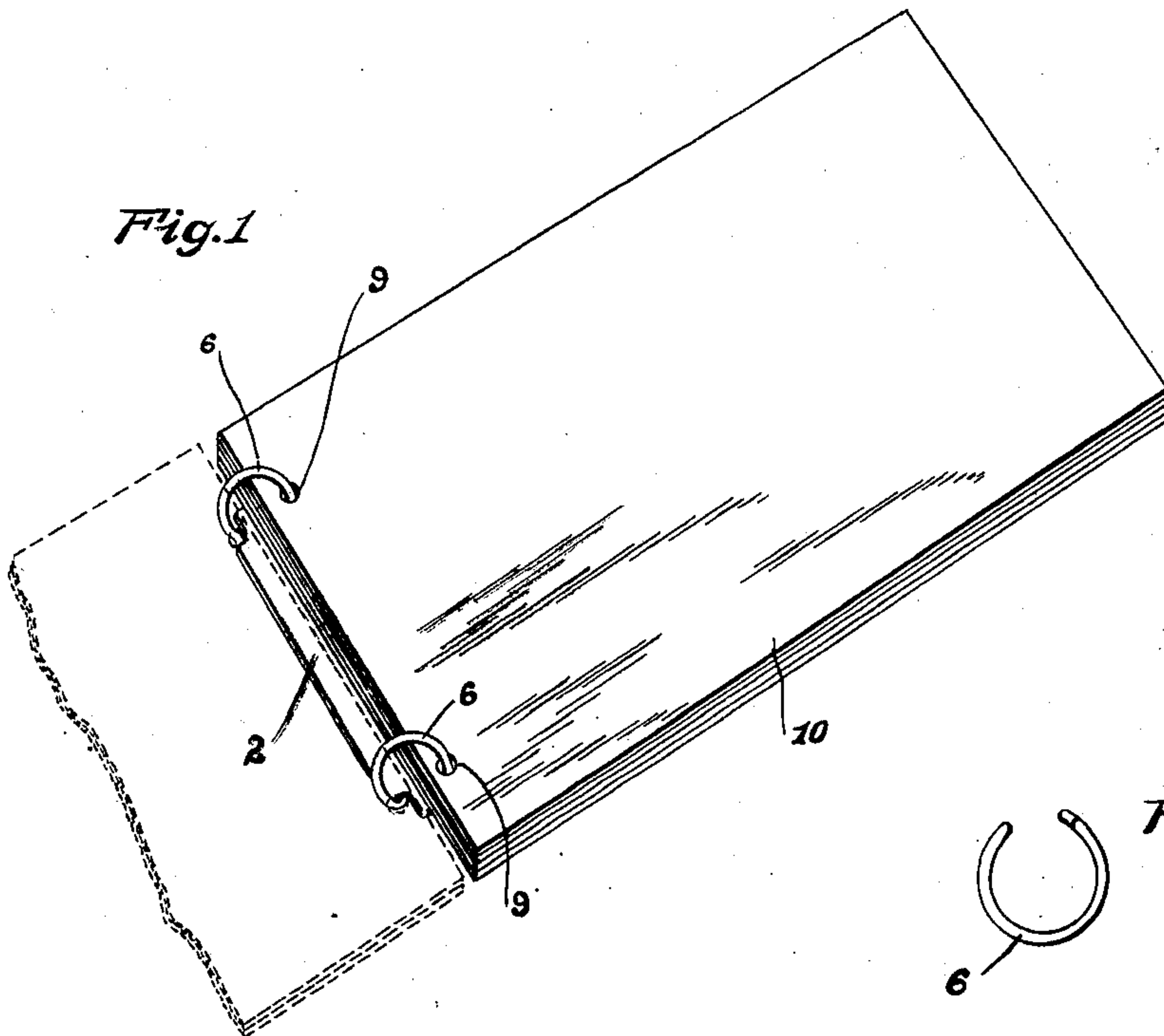


No. 735,973.

PATENTED AUG. 11, 1903.

J. W. HARSHA.
TEMPORARY BINDER.
APPLICATION FILED DEC. 26, 1902.

NO MODEL.



WITNESSES:

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JAMES W. HARSHA, OF COLUMBUS, OHIO.

TEMPORARY BINDER.

SPECIFICATION forming part of Letters Patent No. 735,973, dated August 11, 1903.

Application filed December 26, 1902. Serial No. 136,639. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. HARSHA, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Temporary Binders, of which the following is a specification.

My invention relates to the improvement of temporary binders, and has particular relation to the improvement of binders for loose note-book sheets.

The objects of my invention are to provide an improved binder of this class of superior construction and arrangement of parts, to so construct the same as to admit of its being readily employed to unite otherwise-disconnected sheets of paper and to so unite said sheets as to result in their lying flat when turned or thrown away from the body of the book, and to produce other improvements, the details of which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective of a note-book formed of independent leaves or sheets and united by my improved binder. Fig. 2 is an end view of the spring, which I employ in the manner hereinafter described. Fig. 3 is a detail view in perspective of said spring. Fig. 4 is an under side view of my improved binder. Fig. 5 is an end view of the binder, showing the binding-spring in its closed position; and Fig. 6 is a similar view showing the binding-spring in the open position.

Similar numerals refer to similar parts throughout the several views.

In carrying out my invention I employ a substantially flat binder-body 1, comprising a strip of brass or other suitable sheet metal bent throughout its length on opposite sides of its center to form longitudinal wings or folds 2 and 3, which, as indicated in the drawings, are bent over against the under side of the body 1. The wing or leaf 2 is, as shown in the drawings, somewhat shorter than the body 1 and is so bent at its junction with said body as to form throughout the length thereof a loop 4.

5 represents a spring binding member, the latter being in the nature of a spring-wire, each end of which is formed with a laterally-

projecting rounded hook 6. From the hook portions 6 the body of the wire 5 extends inward substantially at right angles with said hooks, forming comparatively straight portions 7, the central portion 8 between said straight portions being bowed outward and slightly upward.

As indicated in the drawings, the straight portions 7 of the spring-binder are journaled in the end portions of the binder-body loop 4, while the bowed portion 8 extends inward between the wing 2 and body 1, in which position said spring is substantially clamped by the compression of the wings 2 against said body. When the spring is in the position above described, it will be observed that the hooks are closed downward with their ends in contact with the upper face of the body 1; but when it is desired to throw said spring to the open position it is obvious that the same may be turned outward until the position of the bowed portion 8 is reversed from that shown in Fig. 4—that is, with the central portion of the bow in the loop 4 of the wing 2. In thus reversing the position of the spring it is obvious that the turning of the bowed portion of said spring between the body 1 and wing 2 of the binder-plate causes a temporary compression or straightening of said spring, the slight force necessary to impart this compression or straightening insuring the retention of the spring-binder either in its closed or open position.

In utilizing my improved binder for connecting the loose leaves of a note or similar book the previously-opened spring-hooks 6 are first engaged with properly-arranged binding-perforations 9, formed in the loose leaves 10, adjacent to one end thereof. This being accomplished, the hooks are closed in the manner heretofore described, said hooks thus forming in conjunction with the binder-body complete hinge or connecting loops for said leaves, while the binder-body or the greater portion thereof extends beneath the head of the body of leaves thus bent.

From the construction and operation described it will be seen that loose leaves may be readily bound into book form and that the means of binding permits the top sheets or leaves being turned outward on the hooks until they lie flat and away from the remain-

ing leaves, as indicated in dotted lines in Fig. 1. In this manner the leaves which have been used and turned away from the main body of the book in no way conflict with the use of the remaining leaves.

It will be observed that my improved binder is simple of construction and inexpensive and that the same will be of great utility in the permanent or temporary binding of loose notebook leaves.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In a temporary binder, the combination with a binder-body 1 having a side wing or extension 2 folded on said body, of a spring binding member comprising a spring-wire having hook terminations 6 and a central bowed portion 8, said bowed portion embraced as described by said binder-body, substantially as specified.

JAMES W. HARSHA.

In presence of—

C. C. SHEPHERD,
W. L. MORROW.