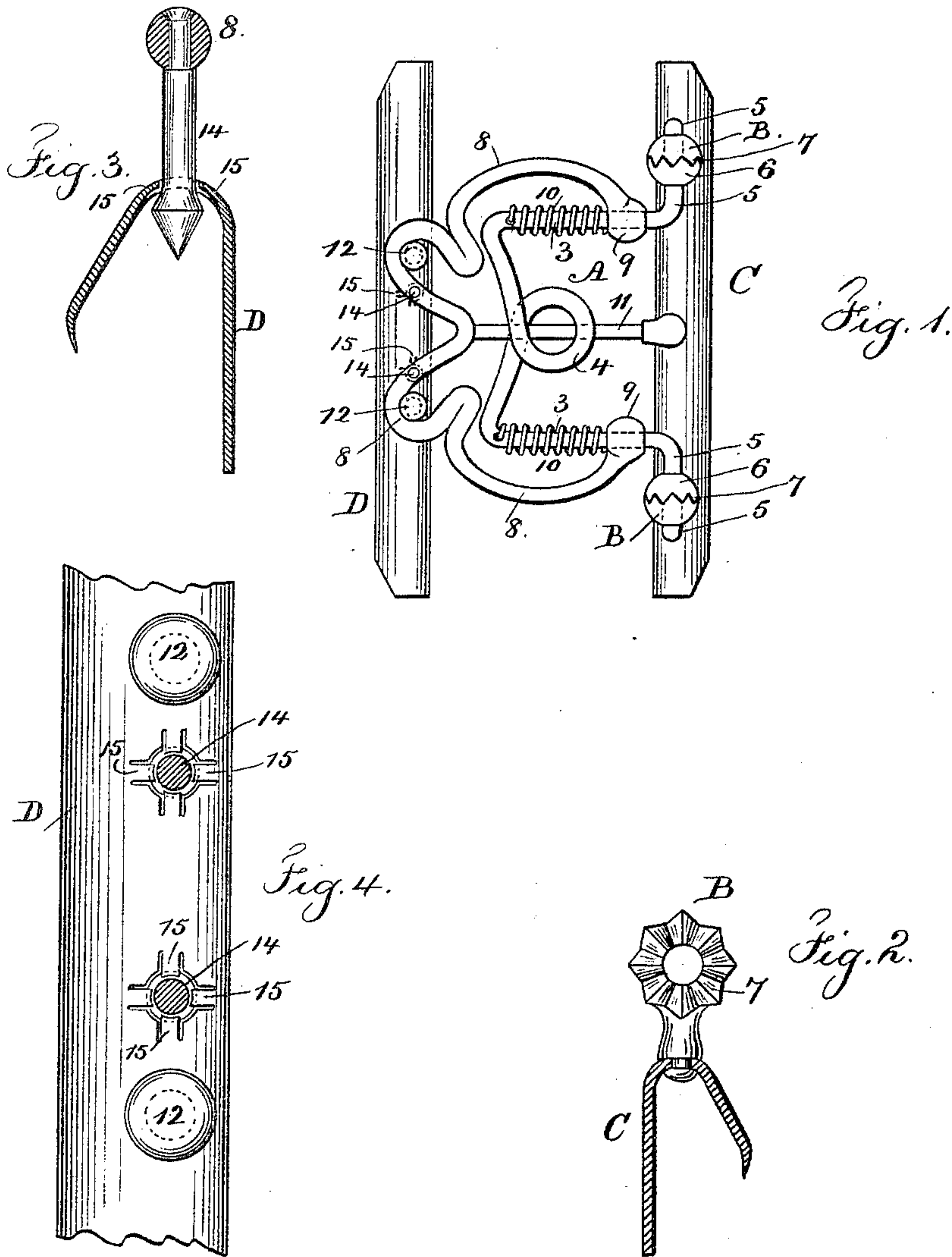


(No Model.)

J. C. KOCH.
CLASP FOR ALBUMS.

No. 433,007.

Patented July 29, 1890.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN C. KOCH, OF BERLIN, GERMANY.

CLASP FOR ALBUMS.

SPECIFICATION forming part of Letters Patent No. 433,007, dated July 29, 1890.

Application filed October 28, 1889. Serial No. 328,470. (No model.)

To all whom it may concern:

Be it known that I, JOHN CASPAR KOCH, a citizen of the United States, residing at Berlin, Prussia, have invented an Improvement in Clasps for Albums, Toilet-Cases, and other Articles, of which the following is a specification.

Album-clasps have heretofore been made with clip-plates upon the covers and a swinging clasp hinged to one of the clip-plates, and the swinging clasp has also been extensible, so as to adapt the same to books or albums of different thicknesses.

The object of the present invention is to adapt the swinging clasp to the support of the book-cover, toilet-case lid, or similar article when the same is thrown back or opened, thus preventing injury to the back of the book and the hinges of the toilet-case or other article. With this object in view I make the hinges of the swinging clasp with radial ratchet-teeth, and the arms of the swinging clasp can be sprung toward each other to disconnect the radial ratchet-teeth, or by the expansion of the arms the swinging clasp will be held by the radial ratchet-teeth in any position to which it may be turned, thereby adapting the clasp to perform the duty of a support to the article upon which it is hinged.

In the drawings, Figure 1 is an elevation of the clasp complete. Fig. 2 is a face view of one part of the hinge magnified. Fig. 3 is a section magnified of the holding device for connecting the swinging end of the clasp to the clip-piece upon the opposite album-cover or the portion of the toilet-case or similar article to which the clasp is applied, and Fig. 4 is a plan of a portion of one of the clips with the stems of the locking device in section.

The swinging clasp A is advantageously made of wire with two parallel arms 3 3, and convoluted to increase the spring, as at 4, and the ends of the arms are turned outwardly, so as to be in line with each other, or nearly so, and form the hinge-pins 5, passing through the eyes B on the clip-piece C, or other device by which the clasp is connected to the album-cover, box-lid, or other article. There are collars 6 rigidly attached around the hinge-pins 5 adjacent to the eyes B, and in the contiguous surface of the collar 6 and of the eyes B there are radial ratchet-teeth 7, and the spring

of the wire bow forming the album-clasp serves to press the teeth of the collars 6 firmly against the teeth of eyes B; hence the swinging clip is held in position by the radial ratchet-teeth, and the clip cannot be swung except after pressing the parallel arms 3 toward each other sufficiently to liberate the ratchet-teeth and allow the clasp and the hinge-pins to be turned within the eyes B, and as soon as pressure upon the parallel arms 3 is released the ratchet-teeth are brought firmly into contact with each other by the expansion of the clasp, so that such clasp can be turned at right angles to the book cover or lid of the toilet-case, or other article, and form a support for the same when such cover or lid is swung back, thus preventing injury to the lid or to the book-cover or to the hinges of the cover or to the back of the book.

I have represented a bow 8, with collars 9, around the parallel arms 3 and the expansive springs 10, by which the clasp is adapted to different thicknesses of books, and there is a guide-rod 11 for maintaining a parallel movement of the bow 8 to the other parts of the clasp; but these devices do not form any portion of my present invention, the same being set forth in an application heretofore made by me, Serial No. 327,546, filed October 19, 1889.

The bow 8 is hooked over the studs 12 or other connecting devices, and I attach to such bow 8 one or more short bolts 14, having tapering or conical heads, as represented in larger size in Fig. 3, and in the clip-plate D there are openings of a size slightly smaller than the head portion of the bolts 14, and the metal of the clip-plate D is slotted adjacent to these holes, so as to form spring-tongues 15, as represented in larger size in Figs. 3 and 4, around the opening for the heads of the bolts 14; hence as the clasp is pressed to its plates the heads of the bolts pass into the openings between the spring-tongues, and such tongues yield sufficiently to allow for the passage of the heads of the bolts, and they grasp such heads and hold the bolts with the desired force, so that the clasp cannot be separated from the plate D except by a force sufficient to spring the tongues as the heads of the bolts are drawn out from between them.

It will now be apparent that this clasp is especially adapted to large-sized albums or books and to toilet-cases, boxes, or similar articles in which the lid or swinging portion requires to be supported when swung back or opened.

I claim as my invention—

1. The combination, with the swinging clasp, of hinge-eyes, collars on the clasp adjacent to the eyes, and radial ratchet-teeth in the contiguous faces, substantially as set forth.

2. The clasp A, having spring-arms 3, hinge-pins 5, and collars 6, in combination with the eyes B, into which the hinge-pins pass, there being radial ratchet-teeth in the adjacent faces of the eyes and collars, substantially as set forth.

3. The clasp A, of wire, having parallel arms 3 and convoluted at 4 to form a spring, the hinge-pins 5 at the end of the wire, and the collar 6, in combination with the eyes B upon

the plate C, there being radial ratchet-teeth upon the adjacent surfaces of the collars and the eyes, substantially as set forth.

4. The clasp A, hinged to one side and having a bow 8, in combination with the bolts 14, having conical or tapering heads, the plate D on the other side having openings for the reception of the bolt-heads, with spring-tongues in the plate adjacent to the openings, substantially as set forth.

5. The combination, with the clasp for albums, boxes, and other articles, of a hinge upon which the clasp swings, and a holding device upon the hinge for rendering such hinge rigid to convert the clasp into a support, substantially as specified.

Signed by me this 21st day of October, 1889.

JOHN C. KOCH.

Witnesses:

GEO. T. PINCKNEY,
WILLIAM G. MOTT.