(Model.)

L. H. SANDERSON.

SPRING RING.

No. 267,112. Patented Nov. 7, 1882.

Fig. 1.

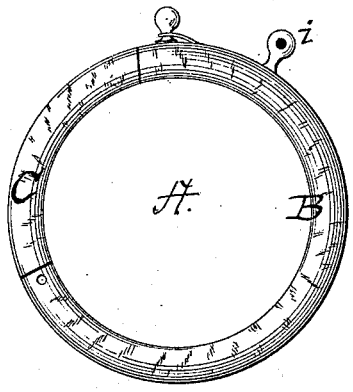


Fig. 2.

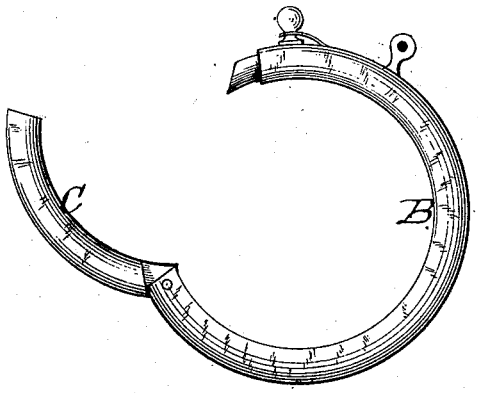


Fig. 3.

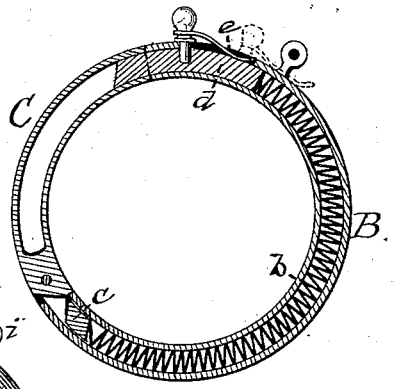


Fig. 4.

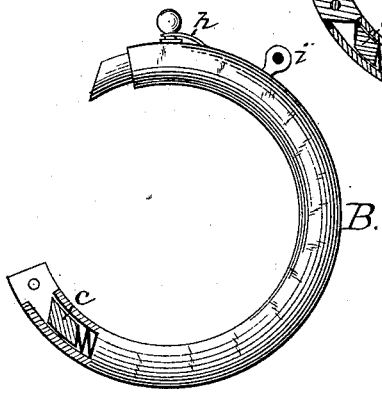
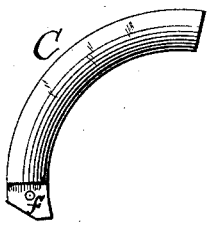


Fig. 5.



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UNITED STATES PATENT OFFICE.

LUCIOUS H. SANDERSON, OF NEW YORK, N. Y., ASSIGNOR TO LYSANDER STILWELL, OF NEWARK, NEW JERSEY.

SPRING-RING.

SPECIFICATION forming part of Letters Patent No. 267,112, dated November 7, 1882.

Application filed January 21, 1881. (Model.)

To all whom it may concern:

Be it known that I, LUCIOUS H. SANDERSON, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Spring-Rings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to attachments for connecting articles of jewelry, and for suspending ornamental pendants to ladies' necklaces or chains. It is a well-known fact that at times ladies are in the habit of attaching temporarily valuable gems or charms to necklaces or chains; but to fasten them in such a manner as to be secure and yet detachable at the will of the wearer has been a great difficulty and annoyance.

The object of my invention is to make known to the trade a "spring-ring" with an exterior continuous uniform diameter, avoiding obstructions for the lodgment of the necklace or chain to open the ring, and to provide a locking device for keeping the parts in contact and preventing accidental unlocking or opening of the ring containing the jewel.

My invention therefore consists in a spring-ring having an exterior continuous uniform diameter, with a holding or locking device to secure the parts together.

My invention also consists in the novel construction and combination of parts, as will be hereinafter more fully set forth and specifically claimed.

Figure 1 is an enlarged side view of the ring in a closed position. Fig. 2 is a similar view, showing the ring opened. Fig. 3 is an enlarged sectional view, showing all the interior members or parts. Fig. 4 is a side view of the ring-section containing the coil-spring, sliding catch, and toe-piece. Fig. 5 is a side view of the movable section, called "quadrant."

In the annexed drawings, forming a part of this specification, the letter A represents the spring-ring, composed of two parts, B and C, hinged together, which may be of any desired metal, size, and form. These parts or sections are made tubular or hollow to receive, hold, and conceal the devices hereinafter described. The part B is a section of the ring amounting to about three-fourths of the circle, and C is a section of the ring amounting to about one-fourth of the entire ring. As before stated, these sections are made of tubular metal, and within the section B (see Fig. 3) is arranged a coil-spring, *b*, with a movable member, called herein "toe-piece," *c*, at the hinged end, and a sliding curved catch, *d*, at the other end. This section is formed with a slot, *e*, of proper length for the passage of a little thumb-button or its equivalent to operate the sliding catch, and is also formed with a slot to receive the heel of the quadrant-section, about to be described. The coil-spring within the section should have sufficient force to keep the catch thrust forward. The quadrant-section C is formed with a solid heel or tongue, *f*, which fits into the formed recess or slot at the rear end of the section B, where it is pivoted between the jaws thereof, substantially as seen in Figs. 1, 2, and 3 of the drawings. These members of the sections are beveled or inclined in opposite directions, but touch at the extreme points, as is seen in Fig. 3 of the drawings. It will be seen by reference to Fig. 3 that the forward end or nose of the sliding catch is beveled, and the forward end of the quadrant-section is beveled or inclined, the object of which is to permit the hinged section to ride easily into position.

Attached to the thumb-button in any suitable manner is a flat spring, *h*, extending rearwardly, and arranged within the slot *e* in such a manner that the outer free end will rest against the end wall of the slot to lock the thumb-button and its sliding catch in position and prevent accidental unfastening of the parts. This spring is curved, and in withdrawing the catch from the hinged section the free or outer end, by pressure upon the thumb-piece, will pass over the ring-surface and permit the withdrawal of the sliding catch. I do not wish to confine myself to this device for locking the catch, as other mechanical equiva-

lent devices may be substituted—for example, spring-jaws arranged in the quadrant-section for grasping the catch—to accomplish the same result.

With a locking device for retaining the catch in position there is almost absolute certainty that the parts are safe and accidental unfastening obviated.

The ring may be provided with a fixed link or loop, *i*, or its equivalent for suspending the ring at a given point.

By this construction it will be seen that the ring proper is composed of two parts and hinged, and that a continuous uniform diameter is produced. When the ring is to be closed, making the connection and suspending the ornament, the hinged quadrant-section is pressed with the thumb or finger, thereby forcing the inclined face thereof upon the inclined face of the catch, causing it to recede a little and enter the socket or recess of the section, as seen in Fig. 3, thus uniting the sections together, and in which position the catch is locked from displacement by the flat spring dropping into the slot and forming a lock. When the ring is to be opened to disconnect, the thumb-piece is pressed backward, thus causing a pressure to be exerted upon the lock-spring and the coil-spring, and as the catch is drawn back the coil-spring becomes compressed, and, acting upon the toe-piece, causes it to advance with a force against the heel of the quadrant-section. This operation clears the uniting-joint of the parts, and the inclined surface of the toe-piece pressing against the heel forces automatically the quadrant-section open, as seen in Fig. 2 of the drawings.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a spring-ring, the tubular section B, containing a loosely-arranged coil-spring having at one end a sliding catch, and at the other end a toe-piece capable of being moved under the conditions and in the manner as hereinbefore stated.

2. A spring-ring consisting of the sections B and C, with a coil-spring, *b*, a sliding catch, *d*, a locking device, *h*, and a movable piece, *c*, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

LUCIOUS H. SANDERSON.

Witnesses:
M. J. WINE,
J. M. YZNAGA.