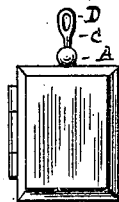
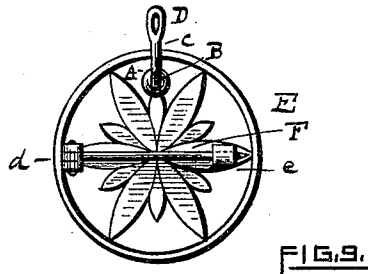
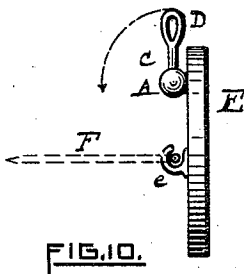
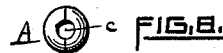
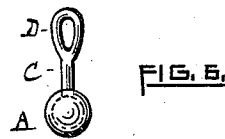
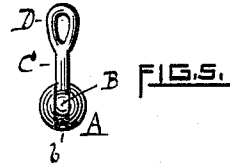
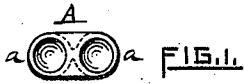


(No Model.)

B. A. BALLOU.
SWIVEL JOINT FOR JEWELRY.

No. 461,564.

Patented Oct. 20, 1891.



WITNESSES.

Harriet W. Link

Warren R. Pierce

FIG. 11.

INVENTOR.

Barton A. Ballou

UNITED STATES PATENT OFFICE.

BARTON A. BALLOU, OF PROVIDENCE, RHODE ISLAND.

SWIVEL-JOINT FOR JEWELRY.

SPECIFICATION forming part of Letters Patent No. 461,564, dated October 20, 1891.

Application filed April 1, 1891. Serial No. 387,287. (No model.)

To all whom it may concern:

Be it known that I, BARTON A. BALLOU, of the city and county of Providence, in the State of Rhode Island, have invented a certain new and useful Improvement in Swivel-Joints for Jewelry; and I declare the following to be a specification thereof, reference being had to the accompanying drawings.

Like letters indicate like parts.

Figure 1 shows in top plan the struck-up blank to form the socket-piece of the joint. Fig. 2 is a side elevation of the same. Fig. 3 is a side elevation of the same partially closed. Fig. 4 is a side elevation of the combined stem, ball, and loop, which is a part of my invention. Fig. 5 shows in top plan the stem, ball, and loop, in combination with the socket-piece, the latter having been bent into a spherical form and slotted to allow a rotary and longitudinal swiveling of the stem. Fig. 6 is a side elevation of the stem, ball, and loop, in combination with the socket-piece, the latter having been bent into a spherical form and having a round opening to allow a rotary swiveling of the stem. Fig. 7 is a top plan of the socket-piece bent into a spherical form and slotted. Fig. 8 is a top plan of the socket-piece bent into a spherical form and furnished with a round opening. Fig. 9 is a rear elevation of a breastpin provided with my improved swivel-joint. Fig. 10 is a side elevation of the same. Fig. 11 is a front elevation of a locket having my improved swivel-joint thereon.

My invention is a device specially adapted to be used upon articles of jewelry; and it consists of a joint which has two parts, one a socket-piece of spherical form and provided with a central slot or opening upon one side thereof, and the other a stem-piece, having a loop at one end and at the other a ball integral therewith and adapted to swivel within the socket-piece, as hereinafter more fully specified.

The socket-piece A is made from sheet metal, cupped up by die and plunger into two semi-spherical forms *a a*, as seen in top plan in Fig. 1 and in side elevation in Fig. 2. It is then bent up, as shown in Fig. 3. The other portion of the joint consists of the ball B, from which projects a stem C, terminating in a loop

D, preferably all in one piece, as seen in Fig. 4. A slot *b* or a round opening *c* is made in the socket-piece, as seen in Figs. 7 and 8, respectively. The ball portion B is inserted in the socket-piece A, when the latter is bent in the form shown in Fig. 3. The socket-piece is then pinched up into a spherical form, so that its interior concave surfaces will close around the ball B, as indicated by dotted lines in Figs. 5 and 6. If the socket-piece has the round opening *c*, the stem can swivel therein—that is, can rotate on its longitudinal axial line. If the socket-piece has the slot *b*, the stem is not only capable of said rotation, but also of moving in an arc of one hundred and eighty degrees in the plane of the slot, as illustrated in Figs. 5 and 10. The socket-piece is soldered or otherwise fastened to the article of jewelry, as seen in Figs. 9, 10, and 11. This device is thus a hinge-joint and a swiveling ball-and-socket joint at the same time.

In Figs. 9 and 10 the device is shown in combination with a breastpin E, thereby adapting it to be used as a pendant also. In these figures, F represents the usual pin-tongue having the common hinge *d* and pin-catch *e*. When this article of jewelry is to be worn as a brooch, the stem C, with its loop D, is swung down in the direction indicated by the arrow in Fig. 10 until it lies flat against the rear surface or lining of the brooch, and so is wholly concealed. When the ornament is to be worn as a pendant the stem and loop CD are swung up into the position shown in Figs. 9 and 10, the pin-tongue is closed and fastened in the catch *e*, as in Fig. 9, and the chain on which the ornament is to hang is secured to the link D. In this case I use the slotted socket-piece.

In Fig. 11 I illustrate my device as applied to a locket or charm. The socket-piece in this case is not slotted, but has the round opening *c*, as in Fig. 8. By this arrangement either face of the locket or charm can be turned outward to present the desired appearance by simply turning the socket on the stem.

It is usual in suspending a pendent ornament of any kind upon a chain to furnish said ornament with a ring or loop and to use an intermediate ring or link between the ornament and chain in order that the former may hang in the same plane as the major diameter

of the latter. By the use of my device this intermediate link or ring is dispensed with and the appearance of the combination is enhanced.

- 5 In case the stem portion is made of solid gold it is desirable to make one half of the loop of less thickness than the other half in order to save stock. This is illustrated in Fig. 4. The broad or thick portion of the
10 link can be easily turned outward by means of the swiveling of the joint.

I claim as a novel and useful invention and desire to secure by Letters Patent—

1. In combination with an article of jewelry, the socket-piece A, secured thereto and
15 formed with an opening *c* and an interior concave surface, and a stem having a ball at one end thereof adapted to swivel with said socket-piece, substantially as specified.
- 20 2. In combination with an article of jewelry, the socket-piece A, secured thereto and formed with an opening *c* and an interior concave surface, and a stem having a ball at one end thereof adapted to swivel with said

socket-piece and also having a loop at the
25 opposite end, substantially as specified.

3. In combination with an article of jewelry, the socket-piece A, secured thereto and
formed with a diametrical slot *b* and an interior concave surface, and a stem having a
30 ball at one end thereof adapted to enter said socket-piece, so as to be capable of axial rotation and of longitudinal oscillation therein, substantially as specified.

4. In combination with an article of jewelry, the socket-piece A, secured thereto and
35 formed with a diametrical slot *b* and an interior concave surface, and a stem having a ball at one end thereof adapted to enter said socket-piece, so as to be capable of axial rotation and of longitudinal oscillation therein
40 and also having a loop at the opposite end, substantially as specified.

BARTON A. BALLOU.

Witnesses:

WARREN R. PERCE,
DANIEL W. FINK.