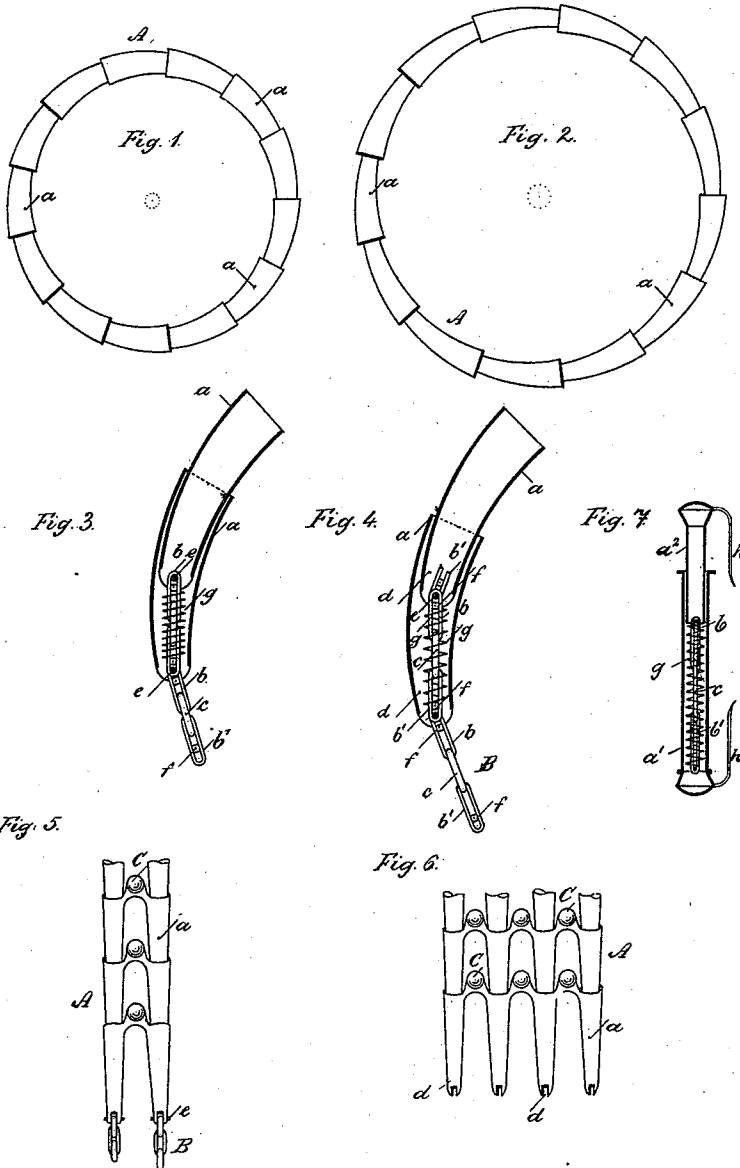


(No Model.)

R. SENNER.  
JEWELRY.

No. 434,302.

Patented Aug. 12, 1890.



Attest:  
Geo. E. Bruce.  
E. Arthur.

Inventor:  
Rudolph Senner  
by Knight Bros.  
Atty.

# UNITED STATES PATENT OFFICE.

RUDOLF SENNER, OF PFORZHEIM, DUCHY OF BADEN, GERMANY, ASSIGNOR  
OF ONE-HALF TO H. DREWS, OF SAME PLACE.

## JEWELRY.

SPECIFICATION forming part of Letters Patent No. 434,302, dated August 12, 1890.

Application filed May 12, 1890. Serial No. 351,480. (No model.)

*To all whom it may concern:*

Be it known that I, RUDOLF SENNER, a subject of the Grand Duke of Baden, residing at Pforzheim, in the Grand Duchy of Baden, in the Empire of Germany, have invented a new and useful Improvement in Metallic Articles of Ornament for Personal Wear, whereof the following is a specification.

My invention relates to metallic articles of ornament for personal wear, such as bracelets, brooches, and the like; and its object is to provide means for facilitating the putting on and taking off of such articles. For this purpose I construct the said articles of two or more tubular parts engaging into and capable of sliding in respect to each other, and I connect these parts together pairwise by short chains placed inside thereof and by spiral springs surrounding the chains, the said chains serving to prevent the parts from becoming disengaged, while the springs tend to draw them together and thus to produce a contraction whereby the articles are held on the body or on the garments of the person wearing them.

In the annexed drawings are represented a bracelet and a brooch carried out according to my invention.

Figure 1 is an outside view of the bracelet in normal or contracted state, while Fig. 2 shows the same expanded. Figs. 3 and 4 are respectively sections of a portion of the contracted and the expanded bracelet drawn to a larger scale. Figs. 5 and 6 show modified arrangements of the bracelet. Fig. 7 is a sectional view of the brooch.

The bracelet is composed of the curved conical tubes  $a$ , each inserted with its narrow end into the wide end of the succeeding tube. These tubes are connected together pairwise by chains, having each three comparatively long links  $b c b'$ , the terminal ones whereof are secured by pins  $e$  to the narrow ends of

the tubes. With each chain is combined a spiral spring  $g$ , slipped over the same and attached with its ends to stays  $f$ , provided for in the links  $b b'$ . When under these conditions a peripheral pull is exercised on the bracelet, it will expand within the limit determined by the chains, so that it may be slipped over the hand, whereas on being released again it will return to its contracted or normal state in which it fits on the arm.

Instead of making the bracelet of one row of tubes, two or more such rows may be combined, as represented by Figs. 5 and 6, the juxtaposed tubes of the individual rows being connected together by stays  $C$ .

The brooch shown by Fig. 7 consists of the two cylindrical tubes  $a' a''$ , sliding within each other, the chain  $b c b'$ , connected with its ends to the tubes, and the spring  $g$ , arranged as in the described bracelet. On the outside the tubes  $a' a''$  are provided with the pins  $h$ , turned with their points toward each other. If the tube  $a''$  is drawn out as far as the chain permits and the brooch is applied in this state to the part of the dress to which it is to be attached and is thereupon released, the pins will enter into the dress and keep the brooch in its place.

I claim as my invention—

In a metallic article of ornament for personal wear, the combination of two or more tubular parts engaging into each other, and chains and springs placed inside of the tubes and connecting them together pairwise, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

RUDOLF SENNER.

Witnesses:

LOUIS GOTTSCHALK,  
FRED. C. GOTTSCHALK.