Nov. 11, 1924. 1,515,499

S. LEDERER

BEAD STRUCTURE

Filed Nov. 10, 1923

Fig. 1.

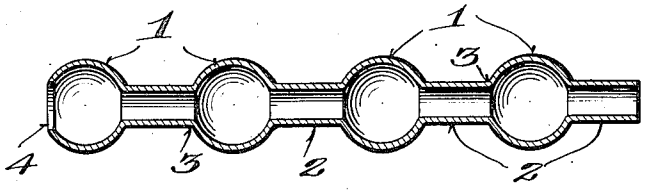


Fig. 2.

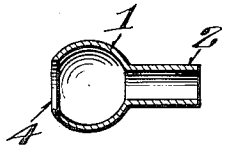


Fig. 3.

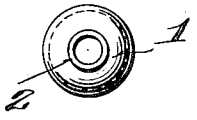


Fig. 4.

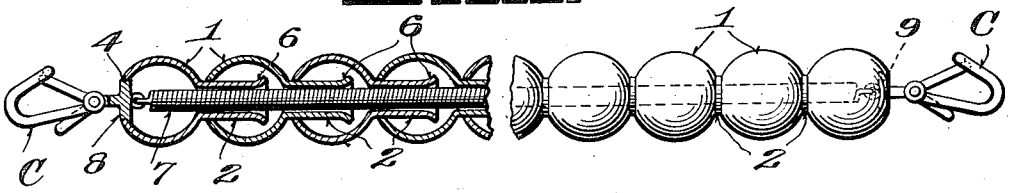
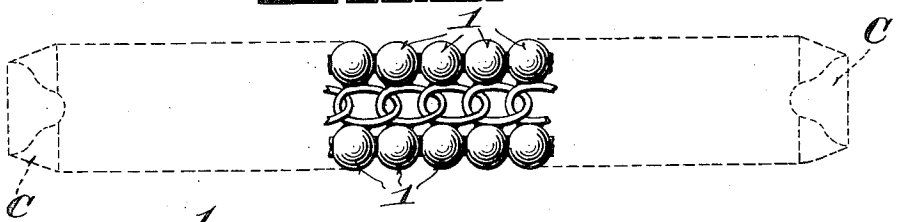


Fig. 5.



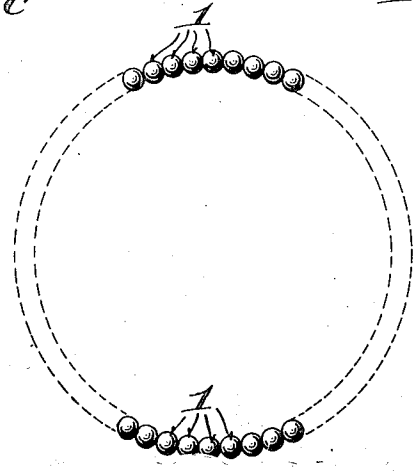


Fig. 6.

Inventor

Sigmund Lederer

By Joseph A. Miller

Attorney

Patented Nov. 11, 1924. 1,515,499

UNITED STATES PATENT OFFICE.

SIGMUND LEDERER, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO PROVIDENCE STOCK COMPANY, OF PROVIDENCE, RHODE ISLAND.

BEAD STRUCTURE.

Application filed November 10, 1923. Serial No. 673,966.

To all whom it may concern:

Be it known that I, SIGMUND LEDERER, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented new and useful Improvements in Bead Structures, of which the following is a specification.

This invention relates to certain new and useful improvements in bead structures and pertains more especially to construction of beads which are expansible and which may be utilized in the manufacture of various articles of jewelry and particularly for use with wrist watches.

The primary object of the present invention is to provide means for expansibly connecting beads so as to enable a wide variety of use thereof in jewelry.

A further object of the invention is to provide simple and economical means for effectively connecting the beads.

The invention has still further and other objects which will be later set forth and manifested in the course of the following description.

In the drawings:—

Figure 1, is a fragmentary longitudinal sectional view of the stock;

Figure 2, is a longitudinal sectional view of one of the units separated from the stock;

Figure 3, is an end elevation of Fig. 2;

Figure 4, is a side elevation, partly broken away of a wrist watch bracelet structure formed according to the present invention;

Figure 5, is a partial plan view of Figure 4, and

Figure 6 is a partial plan view of a bracelet.

In proceeding in accordance with the present invention, the tubular stock is formed as depicted in Fig. 1 of the drawings, and wherein, a series of hollow spherical beads 1, are connected at spaced and regular intervals by tubular shanks 2. The stock is then cut at the points 3, which forms a series of tubular beads each having a tubular shank projecting from one side of the bead. In this manner a series of bead units is provided and wherein it will be noted that the free ends of the shanks are receivable in the openings 4 resultant from the cutting at the points 3 and which are subsequently enlarged.

The free ends of the shanks are then upset or headed at 6 to provide means limiting longitudinal movement of the adjacent connected beads, the heads or upset portions 6 engaging the walls defining the openings 4. A coil spring 7 is then affixed at its ends to plugs 8 and 9 which latter are secured in the openings 4 of the outermost units. The spring normally maintains the beads 1 in engagement, imparting the appearance of a string of beads.

The invention is susceptible of various uses, such as for example a bracelet or neck chain as illustrated in Figure 5 of the drawings. Another use is for wrist watch bracelets as depicted in Figures 4 and 5, wherein the ends of the chain are connected to the usual clasps C for engagement with the customary loops of the watch. Obviously other uses may be resorted to.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. In a bead structure, a series of units each including a hollow perforated head and a permanently open hollow shank, the shank of one unit extending into the perforation of the adjacent unit and having its free end formed with a continuous flared edge portion to provide a stop to limit relative longitudinal movement between the units, and a resilient element connected at its ends to the outermost units and extending through the heads and hollow shanks of the units to resiliently connect the latter.

2. In a bead structure, a series of units each including a hollow perforated head and a permanently open tubular shank, the shank of one unit extending into the perforation of an adjacent unit, means on the shanks to provide stops to limit relative longitudinal movement between the units, and resilient means extending through the heads and shanks and connected to the outermost units to resiliently connect the units.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SIGMUND LEDERER.

Witnesses:
S. N. BARRY,
J. A. MILLER.