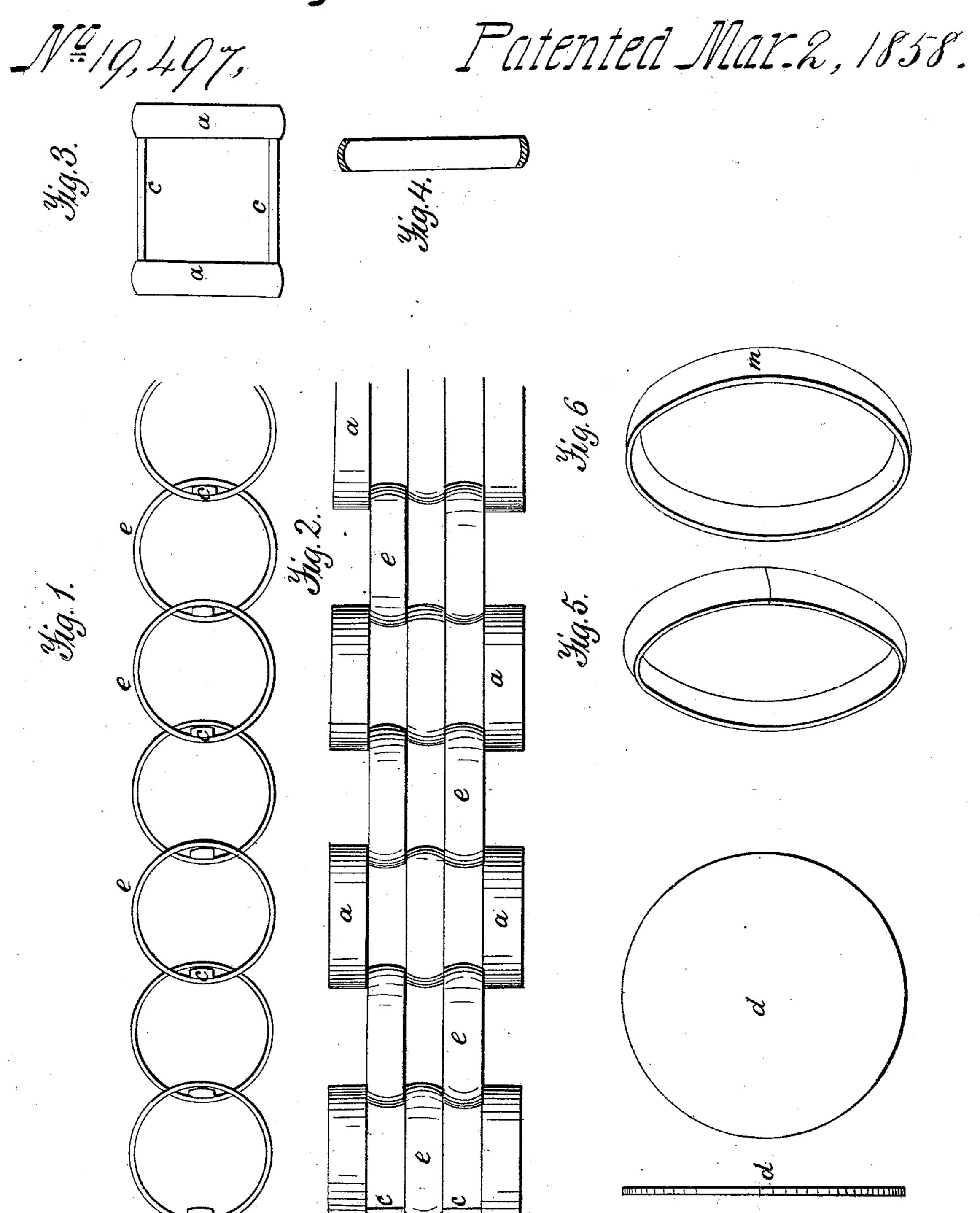
## C.M.Mickinson,

Making Ornamental Chains,



## UNITED STATES PATENT OFFICE.

C. W. DICKINSON, OF NEWARK, NEW JERSEY.

LOOP CHAIN FOR JEWELRY.

Specification of Letters Patent No. 19,497, dated March 2, 1858.

To all whom it may concern:

Be it known that I, Charles W. Dickinson, of Newark, in the county of Essex and State of New Jersey, have invented an Improvement in Loop Chains for Jewelry, and that the following is a full, clear, and exact description of the principle or character which distinguishes it from all other things before known and of the usual manner of making, modifying, and using the same, reference being had to the accompanying drawings.

My invention consists in a new and improved mode of manufacturing that species of chain called the loop chain used in jewelry, by which I effect a saving of time and material and produce a chain of greater strength and beauty than those made in the

usual way.

The common loop chain is represented in Figures 1 and 2, the mode of making which is as follows: The outer rings a a are usually flat-hoop or band rings and are connected together as shown in Fig. 3 by the two cross bars c c usually by soldering the bars to the inside of the rings. The inner rings e e e are the loops which embrace the bars and give flexibility to the chain and for the purpose of giving to the chain a tasteness to the touch, these loops are "rounded up," or in other words are made concavoconvex as shown in section in Fig. 4, so as to present the convexity outside. They are

made from flat strips of metal struck or 35 swaged or rolled up into the required form and when bent or curled into rings as shown in Fig. 5 they are "soldered up" and thus complete the loop. My mode of forming these loops is as follows: A disk of metal  $d_{40}$ of the requisite thickness is at one operation punched out in the center and swaged up into the form m shown in Fig. 6, and this is then by another operation swaged into the required concavo-convex form, thus making 45 the loop entire or without a joint and dispensing with the troublesome operation of soldering, and making a much neater finish and stronger loop than by the mode above described. These operations are performed 50 by the machinery fully set forth in the Letters Patent granted to me on the twentyfifth day of July, 1854. In general form and character the chains when made by these modes are similar, but they can readily be 55 distinguished; those made by the new mode being more uniform in color and finish. The chief advantage however of the latter mode is the diminished cost of manufacture, from the great saving of time and material. 60

I claim—

The concavo-convex links made entire, as set forth.

C. W. DICKINSON.

Witnesses:

W. W. VAUGHAN, JOHN B. FAIRBANK.