

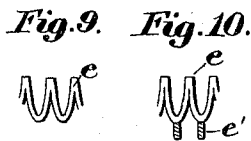
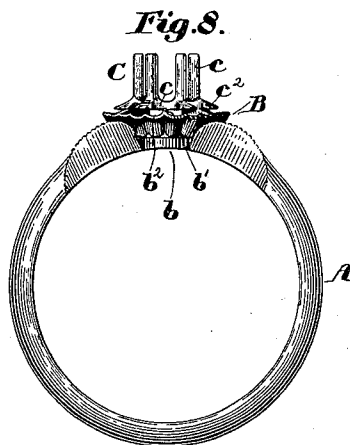
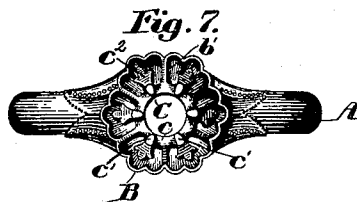
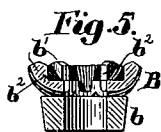
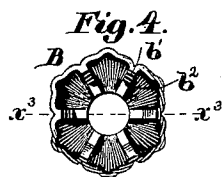
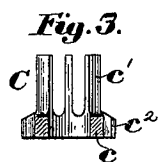
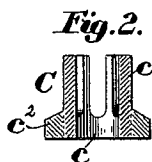
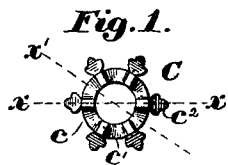
No. 611,279.

Patented Sept. 27, 1898.

N. L. RIPLEY.
CROWN SETTING FOR JEWELS.

(Application filed Mar. 12, 1898.)

(No Model.)



Witnesses:

Walter E. Lombard
Thomas J. Drummond

Inventor:

Nathaniel L. Ripley,
by Crosby Gregory
Attys.

UNITED STATES PATENT OFFICE.

NATHANIEL L. RIPLEY, OF NEWTON, MASSACHUSETTS.

CROWN-SETTING FOR JEWELS.

SPECIFICATION forming part of Letters Patent No. 611,279, dated September 27, 1898.

Application filed March 12, 1898. Serial No. 673,566. (No model.)

To all whom it may concern:

Be it known that I, NATHANIEL L. RIPLEY, of Newton, county of Middlesex, and State of Massachusetts, have invented an Improvement in Crown-Settings for Jewels, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to improvements in that class of settings commonly known and designated as "crown-settings," settings wherein upright prongs receive between their upper ends the jewel to be held and displayed.

It is very essential that the setting possess strength in order that a valuable jewel put into it may be securely held against any possibility of being lost. Hence it becomes of great moment that the setting be made as strong as possible; but owing to the small space occupied by these prongs much difficulty has been experienced in devising a construction to afford strength and yet enable the setting to present to the eye an attractive appearance.

A jewel well and satisfactorily set adds, it will be readily apparent, very materially to the salable value and attractiveness of the ring or other article containing a jewel.

Heretofore the prongs in crown-settings have been made of U-shaped pieces of metal, the connected ends of such U-shaped pieces being soldered on the top of arms extended inwardly from and forming part of a base adapted to be soldered into the body of the ring, and the upper ends of these U-shaped pieces have been soldered each branch to a branch of the U-shaped piece next to it at either side. This U construction leaves a space between the lower part of each U-shaped piece and the one adjacent to it, and consequently each U-shaped piece is supported on the base independently of the other U-shaped piece, and it has been found in practice that these U-shaped pieces or prongs joined at a very small point on the base and correspondingly supported on the base at but a single point have been so poorly supported that they are liable to be strained or bent aside, so that the prongs fail to hold the jewel and permit its escape.

In my experiments to provide a crown-set-

ting which could not be disturbed or displaced at the junction of its lower end with the base I have provided the inwardly-extended arms of the base with notches to constitute an annular seat, and on this seat I mount a ring having rising from it at suitable intervals the series of prongs employed to hold the jewel and to increase the strength or stiffness of each prong to the maximum. I have provided this ring exactly at the base of each prong, on its outer side, with a reinforce, which may be more or less ornamented, as may be desired, it being preferable to so shape this reinforce that it may present to the eye a sort of foliated or trefoil appearance; but it will be understood in the ornamentation that this reinforce may be left to taste. The reinforce applied, as stated, at the base of each prong at its outer side enables each prong to well withstand the strain to which it may be subjected without any danger of the prong being bent or overturned, and by reason of this reinforce the area of the base of the prong may be so increased in diameter as to insure any desired strength for the prong. So, also, the ring containing these prongs by being sustained in the annular seat referred to is so supported that it cannot be moved laterally, and the ring having these prongs is soldered to the arms of the base at a point between the prongs, so that the ring is additionally strengthened at that point, leaving no element of weakness whatever or any opportunity for the prongs to be strained out of proper vertical holding position.

Figure 1 shows my improved ring and prongs, the ring being reinforced at the junction of each prong with it, said parts being greatly insured. Fig. 2 is a section in the line x , Fig. 1. Fig. 3 is a section in the line x' of Fig. 1. Fig. 4 is a top or plan view of the base, showing the seat in the ends of the arms constituting a part of the base. Fig. 5 is a section of Fig. 4 in the line x^3 . Fig. 6 shows the body of the ring to receive the base. Fig. 7 shows the crown-setting and its base applied to the body of the ring. Fig. 8 is a side elevation of the ring shown in Fig. 7, and Figs. 9 and 10 show parts of an ordinary crown-setting upon which my present invention is an improvement.

Referring to the drawings, let A represent the body of a ring, of suitable shape or design, it having an open space at A', in which is placed and suitably soldered the annular projection *b* of a base B, said base, as shown in Figs. 4 and 5, being provided with a series of arms *b'*, radiating toward the center of the base, each of said arms being shaped to present a shoulder, as *b''*, the said series of shoulders constituting an annular seat to receive the ring *c*, from which rise the prongs *c'* of the setting C, each of said prongs at its junction with said ring having suitably soldered or attached to it a reinforce *c''*, the said reinforce being herein shown of trefoil shape. The addition of this reinforce to the base of the prong adds a comparatively large amount of material to the setting, thus materially stiffening it, and yet also adding by ornamentation to the effectiveness of the ring to the eye, as well as to the desirability of the setting. This setting reinforced, as shown and described, at the base of each prong is then set into the annular seat of the base, and the portions of the ring between the upright prongs and reinforces are soldered to the inwardly-directed arms *b'*, thus adding very materially to the stiffness of the setting and the capacity of the prongs to resist any tendency to bend or turn them aside.

A setting reinforced, as described, at the base of each prong and then braced between each prong affords a remarkably strong and secure holding and stiffening for the prongs. Figs. 7 and 8 show the base with its crown-setting in position in the body of the ring.

Referring now to Figs. 9 and 10, *e* represents laid out two U-shaped pieces constituting the parts of three prongs, the adjacent prongs of two of the U-shaped pieces being shown as soldered together, leaving, however, a space at the bottom of the prong.

Fig. 10 shows these two U-shaped prongs sustained upon the usual arms *e'* of the base, and it will be noticed that the lower portion of each U-shaped prong rests on the top of the arms of the base and is soldered there, the junction of the base with the arm strengthening only the middle part of the base, leaving the soldered prongs of adjacent U-shaped pieces practically unsupported.

From this brief illustration of an ordinary crown-setting the advantages of my improved crown-setting will be readily apparent.

I have herein shown my invention as applied to a finger-ring; but it will be obvious that the setting composed, essentially, of the base and the crown may be equally well applied to any other usual or suitable form or shape of body, as a pin, ear-rings, studs, &c.

It will also be understood that this invention is in no wise limited to the particular shape of such reinforce so long as the reinforce is applied at the lower ends of the prongs.

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

A jewel-setting composed of a base having inwardly-directed arms provided with shoulders to form a seat, and a crown composed of a ring having upwardly-extended prongs, the ring being reinforced by the addition of metal thereto at the base of each prong, the said ring being soldered to the base at points between the said prongs, substantially as described.

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

NATHANIEL L. RIPLEY.

Witnesses:

JOHN COUPER EDWARDS,
AUGUSTA E. DEAN.