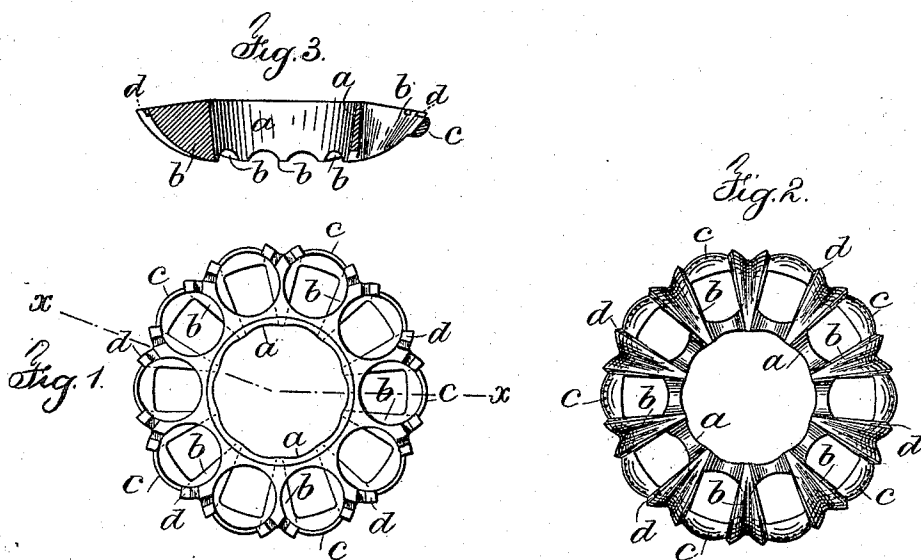


(No Model.)

M. E. OPPENHEIMER.
CLUSTER SETTING FOR GEMS.

No. 537,710.

Patented Apr. 16, 1895.



Witnesses
Chas. A. Smith
J. Staib

Inventor
Milton E. Oppenheimer
by Lemuel W. Serrell
Atty.

UNITED STATES PATENT OFFICE.

MILTON E. OPPENHEIMER, OF NEW YORK, N. Y.

CLUSTER-SETTING FOR GEMS.

SPECIFICATION forming part of Letters Patent No. 537,710, dated April 16, 1895.

Application filed May 7, 1894. Serial No. 510,267. (No model.)

To all whom it may concern:

Be it known that I, MILTON E. OPPENHEIMER, a citizen of the United States, residing in the city, county, and State of New York, have invented a new and useful Improvement in Cluster-Settings for Gems, of which the following is a specification.

My invention relates to an improved cluster setting for gems, and the objects of my invention are, support and protection to the stones completely around the girdle, facility for cleaning, increasing or enhancing the brilliancy of the stones by presenting a more extended surface to the action of the light, affecting the color of the stone by the color of the gold band at the girdle.

In carrying out my invention I provide a supporting wall that conforms to the shape of the article or setting made, and this wall is provided with a plurality of projecting arms that extend outwardly or away from the wall and taper, and whose outer ends or extremities are all connected by narrow curved bands which form outer boundaries to the inclosed stones in the cluster at their girdles. These bands only connect the arms at the outer portion of the girdle of each stone of the cluster, so that the under surfaces of the stones of the cluster are exposed to the light, the device such as the bezel, &c., for supporting or carrying the setting in use being connected to the said wall within the cluster of stones. The aforesaid bands cover and protect the stones at their girdles and prevent injury thereto from external contact as well as prevent their being accidentally unset, as without said bands there would be great risk of chipping the stones at their exposed girdles by violent contact with any other objects, and besides pressure applied to the stones below the girdles even by the fingers in securing the gem setting on the person would be liable by the leverage exerted to pull a stone out of the setting. The bands employed by me prevent all this and make the stones secure.

In the drawings, Figure 1 is a plan; Fig. 2, an inverted plan, and Fig. 3 a cross section at *x, x*, Fig. 1, representing my improvements.

I provide a supporting wall *a* as a basis for each cluster setting. This may be circular or oval, or a long oval pointed at either end or a strip of fanciful form, according as the set-

ting is to be for a ring, ear-ring, stud, scarf-pin, brooch or ornament. The openings in which the gems are set are formed by a plurality of projecting arms *b* extending out from said wall *a* either at one or both sides thereof and narrow circular bands *c* connect the extremities of said arms *b* together. The extremities of the arms *b* are forked or spread.

The upper surface of the wall *a* is approximately horizontal and the upper surfaces of the arms *b* and bands *c* are in the same plane and are preferably slightly inclined to the upper surface of the wall *a*. The under surfaces of said arms *b* have a marked inclination upwardly from the base of the wall at the union of the arms *b* and wall *a*, and the precious stones are set and supported at their girdles by the metal adjacent to the upper surfaces of the wall *a* and arms *b*, and by the bands *c* that extend around and cover only the outer portions of the girdles of the stones between the arms *b*. Thus the under portions of the stones are left open and are not covered up. Hence the light has free access to the backs of the stones as well as to the faces, and the beauty of the precious stones is enhanced thereby. This open back allows the stones to be readily cleaned.

The wall *a* and arms *b* inclose the greater portions of the girdles of the stones in the usual manner of setting stones while the bands *c* complete the inclosing circles and protect from injury or chipping the outer portions of the girdles that are most exposed to external contact; besides, the circles of gold composed of the wall *a*, arms *b* and bands *c* make it possible to affect the color of the precious stones by coloring the gold that comes around the girdles.

Projections *d* located at the extremities of the arms *b* and also formed at the intersection of the wall *a* and arms *b* may be employed and with suitable tools be pressed into beads or other forms over the girdles in the finished setting to hold the previous stones in place.

Cluster settings made according to my improvement are not expensive to construct, they possess ample strength, are light and airy in appearance and set off the precious stones to the best advantage because the greater portion of the stone is uncovered.

I am aware that settings for precious stones have been made comprising a ring portion and a plurality of projections therefrom but these are distinctly disconnected with one another save at the ring portion. In these settings the edges of the stones are unprotected and they are liable to be struck and chipped or unset.

I claim as my invention—

- 10 1. The cluster setting for precious stones, comprising a central wall or foundation, tapering arms extending outwardly from said wall and narrow bands connecting the extremities of said arms and covering the edges
- 15 of the precious stones the setting being open at the back, substantially as set forth.
2. The open back cluster setting for precious

stones, comprising a central wall or foundation, arms extending outwardly from said wall and inclined upwardly or tapering from their lower edges and having ends that are forked or spread, and narrow integral bands connecting the respective arms at their outer ends adjacent to the girdles of the precious stones, and means for securing the stones at their girdles in the setting, substantially as set forth.

Signed by me this 2d day of May, A. D. 1894.

MILTON E. OPPENHEIMER.

Witnesses:

GEO. T. PINCKNEY,
HAROLD SERRELL.