## F. C. KIERGAARD.

## Personal Ornaments.

No.160,828.

Patented March 16, 1875.

FIG.1

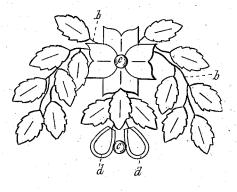
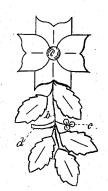


FIG.2



Witnesses Thomas & Beuly.

Inventor Frederick C. Niergaard By His Attorney Gliephen Ustrick

THE GRAPHIC CO.PHOTO-LITH.39 & 41 PARK PLACE, N.Y.

## UNITED STATES PATENT OFFICE.

FREDERIK C. KIERGAARD, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN PERSONAL ORNAMENTS.

Specification forming part of Letters Patent No. 160,828, dated March 16, 1875; application filed January 19, 1875.

To all whom it may concern:

Be it known that I, FREDERIK C. KIERGAARD, of the city and county of Philadelphia, in the State of Pennsylvania, have invented Fish-Scale Ornaments, of which the following is a specification:

My invention relates to the use of fish-scales in jewelry or other ornaments, the scales being properly prepared by washing, which I usually accomplish as follows: I make a solution of one pound of soda or potash and eight or ten pounds of water, with which I wash the scales thoroughly to loosen the extraneous matter, and then wash them with clean water. I then place them into a solution consisting of one pound of muriatic acid and eight pounds of water, and wash them thoroughly. I then wash them in clean water and dry them.

After the drying, the scales are cut by means of machinery or otherwise into any desirable forms suited to the particular ornaments intended to be made. They are then connected by means of wires, which may be twisted to increase their strength and give variety to the ornamentation. Beads or other articles of ornamentation may be arranged with the fish-scales to give a pleasing effect.

Figure 1 is an ornament suitable to be worn by a lady on the breast. Fig. 2 is a pendant for the ear.

In each figure the leaves are connected with the wires b by passing the ends of the latter through perforations of the former; and both large and small beads, c, suitable to the positions in which they are placed, are also connected by means of wires, which are twisted to increase their strength and to give a good effect. The ends of some of the wire are also twisted to form ornaments d, to give a pleasing effect to the combined ornament. The scales may be colored, if desired. The above figures are, however, merely an illustration of the character of my invention, as it will plainly appear that the scales for the leaves may be cut in any variety of shapes, and so arranged as to form ornaments of indefinite configurations, and suited to the various positions which they are to occupy; and, if desired, the ornaments may be made of the fish-scales alone, connected together by means of wires.

I claim as my invention—

As a new article of manufacture, personal ornaments composed of prepared fish-scales and wires, combined and arranged to represent flowers and leaves, substantially as described and shown.

FREDERIK C. KIERGAARD.

Witnesses:

THOMAS J. BEWLEY, STEPHEN USTICK.