

(No Model.)

J. HOLLAND.

PEN.

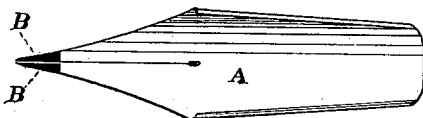
No. 269,290.

Patented Dec. 19, 1882.

Fig. 1.



Fig. 2.



ATTEST

*Alfred B. Benedict.*  
*Horatio V. Knell*

INVENTOR

*John Holland*  
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# UNITED STATES PATENT OFFICE.

JOHN HOLLAND, OF CINCINNATI, OHIO.

## PEN.

SPECIFICATION forming part of Letters Patent No. 269,290, dated December 19, 1882.

Application filed December 14, 1881. (No model.)

### *To all whom it may concern:*

Be it known that I, JOHN HOLLAND, of Cincinnati, county of Hamilton, and State of Ohio, have invented certain new and useful Improvements in Pens, of which the following is a specification.

This invention relates particularly to gold pens; and its object is to make pens of this class more durable, and also to insure a more even, regular flow of ink in writing.

I have found by experience in the manufacture and use of gold pens that they become weak and bend back just above the writing-points, so that after being used for a time the points do not meet fairly, and if, as is usually the custom, the nibs are bent inward to restore the spring and make the points meet, the points are inclined to straddle or overlap each other if they are not held perfectly true upon the paper in writing. Another defect in gold pens as now made is the obstruction to the free flow of the ink caused by the slight bulb formed upon the points in securing the small grains of iridium, frequently requiring a few preliminary strokes before a full flow of the ink is secured. I overcome all these objections by re-enforcing the weak part of the pen with a plate of iridium upon the inside of the nibs. This metal, being inelastic, throws the "spring" farther up upon the stronger and heavier parts of the nibs; but the metal, being also brittle, if placed alone as an extension of the point, would be liable to break if the pen should fall. I therefore continue the gold down upon the outside to near the writing-point, using the iridium only as a facing upon the inside. By this means the weak parts of the points are strengthened by the iridium, while the iridium is protected by the gold.

In the accompanying drawings, Figure 1 is

a side view of a gold pen embodying my improvements, and Fig. 2 a view looking at the concave side of the pen.

The pen A is made in the usual manner, except the point, which is made thinner than usual, and with a slight shoulder or offset to receive the iridium pieces B, which are represented in black. These pieces are made of the fused iridium preferably, as it is tougher and more homogeneous than the natural metal, and after being soldered to the points and dressed down upon a copper wheel with diamond dust or corundum, the split is made with a fine copper disk. I thus obtain a strong, durable pen that will not weaken by use, and owing to the greater surface obtained for securing the iridium the points are not liable to be broken off. Of course the same result would be obtained, but not so perfectly, it is believed, by facing the outside instead of the inside of the points with iridium or its alloys, the essential feature of my invention being the strengthening of the nibs by extending the iridium or iridosmine above the writing-points, and thus throwing the strain in writing upon that portion of the nibs where there is metal enough to sustain it.

What I claim is—

1. The pen A, having facing-plates of iridium, as B, said plates forming the writing-points and extending up the nibs to strengthen the same, substantially as specified.

2. The pen A, having two iridium plates, B B, facing the inside of the nibs and forming the writing-points.

JOHN HOLLAND.

Witnesses:

ALFRED B. BENEDICT,  
GEO. J. MUNCY.