

UNITED STATES PATENT OFFICE.

EDWIN WILEY, OF BROOKLYN, NEW YORK.

PROCESS OF POINTING PENS.

SPECIFICATION forming part of Letters Patent No. 228,427, dated June 1, 1880.

Application filed April 26, 1880. (Specimens.)

To all whom it may concern:

Be it known that I, EDWIN WILEY, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and
5 useful Improvement in the Manufacture of Pens; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention is in the nature of an improvement in the process or method of pointing the ends of gold and other pens; and the invention consists in the process or method of pointing pens with iridium alloyed with platinum, substantially as hereinafter described.

15 Gold pens have heretofore been pointed with iridium as it is found in the market, and the difficulties experienced in pointing pens with commercial iridium are that but a small proportion of the iridium is adapted to the purpose of pointing pens, much of it being in the
20 shape of grains too small to be used for that purpose, and all of it being more or less impure, and, besides, the commercial iridium is extremely brittle, and the very greatest care is necessary in grinding it to form a perfectly
25 smooth and rounded point, so that it may slide over the paper when in use without undue friction. As a matter of fact, for the points of some kinds of pens, such as the stylographic pens now in use, where the iridium is
30 fixed to the point of a small gold wire, it is almost impossible to fix the commercial iridium to these points, a very large proportion of the efforts to do so proving ineffectual.

35 By my process, however, all these difficulties are overcome, and the iridium is rendered pure, and every portion of the commercial iridium rendered available for the purpose of pointing pens, and it is fixed with certainty to
40 the pen-points in every instance, and when fixed it is readily ground to a smooth round point.

To accomplish these results I add to the commercial iridium, by way of an alloy, a small

proportion of platinum—say one per centum—
45 and by means of an electric lamp I fuse the two metals together into globules of the desired size, and afterward slit the globules into little strips and cut the strips to sizes adapted
50 to the purpose of pointing the pens, the iridium being sweated or otherwise secured to the pens for that purpose, and ground down and finished in the ordinary way.

The iridium may be fused without the admixture of the platinum and cut up for pen-
55 points; but the fused pure iridium is spongy, being filled with minute holes throughout its substance. For this reason it is almost impossible to grind it down to a smooth round
60 point; on the contrary, it will have a rough and scratchy surface notwithstanding the utmost care in grinding and smoothing. Still, for some kinds of pens, the fused iridium may be employed; but by the admixture of a small
65 percentage of platinum with the iridium a dense and non-porous result is obtained in every way suited for pointing pens, and particularly well suited for pointing the point of
70 the writing-wire of the Cross and the point of the Mackinnon stylographic pens.

The addition of the platinum to the iridium not only renders the iridium dense, but it also renders it, to some extent, tougher, so that it will not splinter when being ground.

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

The improved process of pointing pens herein described, consisting in fusing iridium with
80 platinum into globules, dividing such globules, and subdividing such divided portions, attaching them to the pens, and finishing the same, substantially as specified.

EDWIN WILEY.

Witnesses:

H. L. WATTENBERG,
G. M. PLYMPTON.