Wilcox & Whitridge.

Needle.

Patented Oct.3.1854

## UNITED STATES PATENT OFFICE.

JOHN WILCOX AND S. H. WHITRIDGE, OF PHILADELPHIA, PENNSYLVANIA.

## SEWING-NEEDLE.

Specification of Letters Patent No. 11,769, dated October 3, 1854.

To all whom it may concern:

Be it known that we, John Wilcox and Stephen H. Whitridge, of the city and county of Philadelphia and State of Pennsylvania, have invented or discovered a new and useful Improvement in the Construction of Needles for Sewing; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, and which represents a longitudinal section through a needle drawn on an enlarged scale.

The nature of our invention consists in the production of a new article of manufacture or commerce, viz: a sewing needle the shank of which is formed of gold, and the point of irridium, the two metals being worked and put together, substantially in the manner hereafter to be described.

To enable others skilled in the art to make and use our invention, we will proceed to describe the same with reference to the draw-

ing. The wire, from which the shank a of the needle is made, is drawn down to the requisite size, by any of the usual well known methods, but instead of being annealed or softened, it is left perfectly hard. It is then cut off into proper lengths for the needles designed to be made, and planished with a hammer on that end where the eye is to be made. The eye b, is drilled and burnished, and a groove made above and below the eye, by a small circular file. The shank or main body of the needle is now ready to be pointed which is done as follows, viz: A small hole is drilled in the extreme end of the wire, which may be cylindrical or conical, and the irridium c out of which the "diamond point," as it is usually termed, is to be made, is set or placed in said hole or cavity, and l

soldered therein. As irridium is found in small granules, and cannot be fused, the particles to be used are selected with care, and with a view to their solidity—the imperfect granules being worthless are thrown away. The irridium may be reduced to a point by the use of diamond dust applied on the face or periphery of a copper lap made to revolve at the rate of seven or eight hundred revolution per minute. Or, by applying fine emery mixed with oil, it may be reduced to any desired form—the latter being the cheaper method. After the point is properly formed 55 the needle is polished and rougéd, and it is finished.

It is found that, gold is more durable than steel for the stem or body of the needle. It is not so hard, but sufficiently hard for the 60 purpose—is not so liable to be broken, and does not corrode. The point will not become dull, and although the first cost of the article may be greater than the ordinary needle of commerce, still in the end they will be found economical—and particularly so in machine sewing, where the needles are often of a peculiar form, and when once adjusted to the machine their durability is of very great importance.

Having thus fully described the nature of our invention, and shown how the same may be carried out, what we claim therein as new and desire to secure by Letters Patent as a new article of manufacture, is—

A sewing needle, the stem or body of which is made of gold, and the point of irridium, the two metals being reduced and united substantially as described.

JOHN WILCOX. STEPHEN H. WHITRIDGE.

Witnesses:

J. F. Johnston, Stephen F. Simmons.