

United States Patent Office.

JAMES S. PARSONS, OF WINDHAM, ASSIGNOR TO HIMSELF AND ARTHUR S. WINCHESTER, OF SOUTH WINDHAM, CONNECTICUT.

Letters Patent No. 107,953, dated October 4, 1870.

IMPROVEMENT IN WIRE.

The Schedule referred to in these Letters Patent and making part of the same

To all persons to whom these presents may come:

Be it known that I, JAMES S. PARSONS, of the town and county of Windham, of the State of Connecticut, have made a new and useful invention having reference to the Manufacture of Wire; and do hereby declare the same to be fully described as follows.

The wire made in accordance with my invention is drawn from an alloy of copper and nickel, in or about in the proportion of three parts, by weight, of copper, to one part, by weight, of nickel, the two metals being fused together, and cast into an ingot or bar of suitable shape for being drawn by means of a wire-drawing plate or dies, and other mechanism generally required for drawing wire.

In making ordinary wire, such as steel or iron wire, for instance, the metal has to be annealed during the intervals of drawing it down, the annealing being effected by heating the metal to redness, and afterward subjecting it to a gradual cooling process.

An alloy of copper and nickel cannot be so annealed, but, for being drawn into wire, has to be annealed by subjecting it to a process which would harden steel, that is to say, the ingot or mass of alloy must be heated to redness, and in such state should be plunged into a cold bath of water or other proper liquid, in order to rapidly cool it.

The drawing of the wire is to be carried out by the ordinary means, and in the manner employed for making steel or iron wire, but previous to each reduction, or as occasion may require, the ingot or mass should be heated to redness or thereabout, and suddenly cooled, whereby it will be properly prepared for being further reduced by the drawing plate or die.

A wire so made has great flexibility and tenacity, and, besides, is not easily oxidizable, and can be employed in the arts for many useful purposes, where brass or copper or iron wire is generally used. Being not liable to be destroyed by acids, the improved wire will last very much longer than iron, steel, brass, or copper wire, and is admirably calculated for the manufacture of meshed cloth for paper-making machines and molders' riddles.

I herein disclaim the above-described method of annealing; but

I claim—

As a new or improved article of manufacture, the wire as made of the nickel alloy, drawn and heated and suddenly cooled, in manner and by means substantially as hereinbefore explained.

JAMES S. PARSONS.

Witnesses:

R. H. EDDY,
J. R. SNOW.