UNITED STATES PATENT OFFICE.

ROBERT GARLAND AND JOHN W. GARLAND, OF PITTSBURG, PENNSYLVANIA

METHOD OF TREATING METAL PIPES.

SPECIFICATION forming part of Letters Patent No. 611,900, dated October 4, 1898.

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To all whom it may concern:

Be it known that we, ROBERT GARLAND and JOHN W. GARLAND, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Methods of Treating Metal Pipes, of which the following is a specification.

Heretofore pipes which were enameled or otherwise coated on their inner surface for use in electric conduits and similar locations have contained small projections and particles of slag or scale, and when after enameling the wire was drawn through the pipe it contacted with these obstructions, tearing away the enameled coating and destroying the insulation of the wires. Our invention overcomes this difficulty by a cheap and simple method of giving a smooth even surface before the enamel or coating is applied.

In carrying out our invention we submerge the pipe in a weak solution of acid, preferably sulfuric acid, and then remove it and subject the interior to a blast of air containing abrading material, preferably sand. The scale and slag which roughen and obstruct the interior of the pipe having been loosened by the acid will be dislodged and driven out by the sand-blast and a smooth interior surface thus afforded which is well adapted for the receiving of the coating. This coating may then be applied either by dipping the pipe into a bath of the coating or in any other suitable way.

The advantages of our invention will be apparent to those skilled in the art, since a much better article is obtained than was heretofore possible, while the method of preparing its surface is cheap, rapid, and easily carried out.

The particular solution used in loosening the scale may be varied, as well as the manner of applying the acid and blast, without departing from our invention, since

We claim—

1. The method of treating the interior surface of metal pipes, consisting in applying a dilute acid solution thereto, driving a blast provided with abrading material through the pipe after the completion of the pickling operation, and then applying a coating to the treated surface; substantially as described.

2. The method of treating the interior surface of metal pipes, consisting in loosening the scale therein by means of a dilute acid solution, driving a blast provided with abrading materials through the pipe after the completion of the pickling operation and thereafter applying a non-metallic coating to the treated surface; substantially as described.

In testimony whereof we have hereunto set our hands.

ROBERT GARLAND.
JOHN W. GARLAND.

Witnesses:
G. B. BLEMMING,
C. BYRNES.