J. S. PATTERSON.

METHOD OF TREATING METAL PIPES.

APPLICATION FILED AUG. 8, 1908.

950,341. Patented Feb. 22, 1910.

Fig. 1.

Fig. 2.

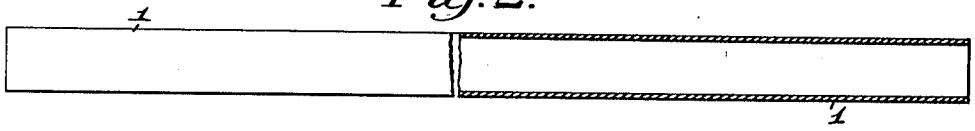


Fig. 3.

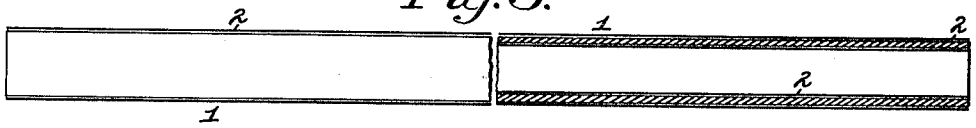


Fig. 4.

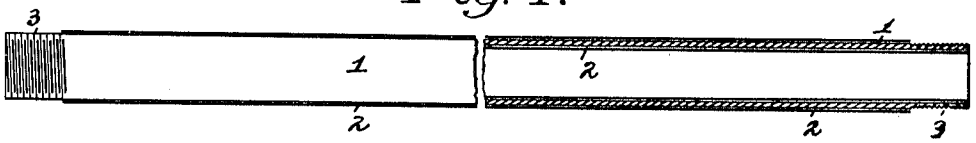
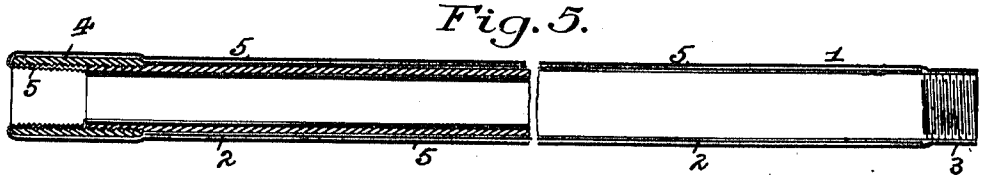


Fig. 5.



WITNESSES

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METHOD OF TREATING METAL PIPES.

950,341. Specification of Letters Patent. Patented Feb. 22, 1910.

Application filed August 8, 1908. Serial No. 447,529.

To all whom it may concern:

Be it known that I, JOHN S. PATTERSON, a resident of Springdale, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Methods of Treating Metal Pipes; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a method of treating metal pipes, and has special reference to such pipes as are used for electrical conduits.

Heretofore, in making pipes which were enameled or otherwise coated on their surfaces for use in electrical conduits and similar locations, it has been customary to first thread the ends of the pipe exteriorly for the couplings or protectors, then to pickle and clean the same to remove the small projections and particles of slag or scale therefrom, and then coat the same with enamel. In this practice, the pickling and cleaning are necessary to take away any obstructions in the pipe, for after enameling, the wire is drawn through the pipe and it contacting with said obstructions, will tear away the enameled coating and destroy the insulation of the wires, and the acid used in such pickling will eat or destroy the threads on such pipe, while the enameled coating being in such threads, such threads must be cleaned before they can be used in coupling. My invention overcomes these difficuties by providing a cheap and simple method of treating such pipe which can be easily and quickly carried out and a much better article obtained than has been heretofore possible.

To enable others skilled in the art to which my invention appertains to practice my improved method of treating pipe, I have illustrated the manner and steps employed in carrying out my improvement by the accompanying drawing, in which—

Figure 1 shows a sectional side view of the pipe before it is treated. Fig. 2 is a like view of the same after it is cleaned. Fig. 3 is a like view of the same showing the first coating thereof. Fig. 4 is a like view of the same after it is threaded at its ends. Fig. 5 is a like view of the finished pipe with coupling attached and finally coated.

Like symbols of reference herein indicate like parts in each of the figures of the drawing.

As illustrated in the drawing, and in carrying out my invention, the pipe 1 is submerged in a weak solution of acid, preferably sulfuric acid and it is then removed, and if necessary as in some processes, the surfaces of the same are subjected to a blast of air containing abrading material, preferably sand. The scale and slag which roughen the surfaces of the pipe 1 having been loosened and removed by the acid, the sand blast will dislodge and drive out any that should obstruct the interior of the pipe, so that smooth surfaces are thus afforded on the pipe which is then well adapted for the reception of the coating. This coating may then be applied, as shown at 2, either by dipping the pipe 1 into a bath of the coating, or in any other suitable way, and is preferably a thin coating; after which the pipe is baked or air dried in order to harden said coating. The pipe 1 is then threaded at its ends, as at 3, in the usual manner, then the usual coupling 4 is placed on one of said threaded ends and then another and preferably heavy coating 5 is applied entirely around such pipe 1 and coupling 4, after which the pipe is baked or air dried to harden said coating.

The particular solution used for loosening the scale may be varied, as well as the manner of applying the same or sand blast, and one or more coatings of the enamel may be applied to the pipe after pickling and before being threaded, while a protector can be used on one or both ends of the pipe, and various other modifications and changes in the steps of my invention may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

The advantages of my invention will be apparent to those skilled in the art since the threads on the pipe will be thus retained in their original condition as to shape and size, and they will be protected by the coating and coupling, while at the same time such pipe will reach the consumer with only sufficient enamel covering the threads on one end to prevent their rusting.

Practical experience with the method herein described has produced a much cleaner and more finished article than under the or-

dinary methods in forming such pipe, as well as a great saving in cost of manufacture and loss of pipe.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The method of treating metal pipes, which consists in removing the scale therefrom, threading an end of the same and applying a coating to said pipe, including its threaded end.

2. The method of treating metal pipes, which consists in removing the scale therefrom, applying a coating to said pipe, threading an end of the same and applying a coating to said pipe, including its threaded end.

In testimony whereof, I, the said JOHN S. PATTERSON, have hereunto set my hand.

JOHN S. PATTERSON.

Witnesses:
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J. N. COOKE.