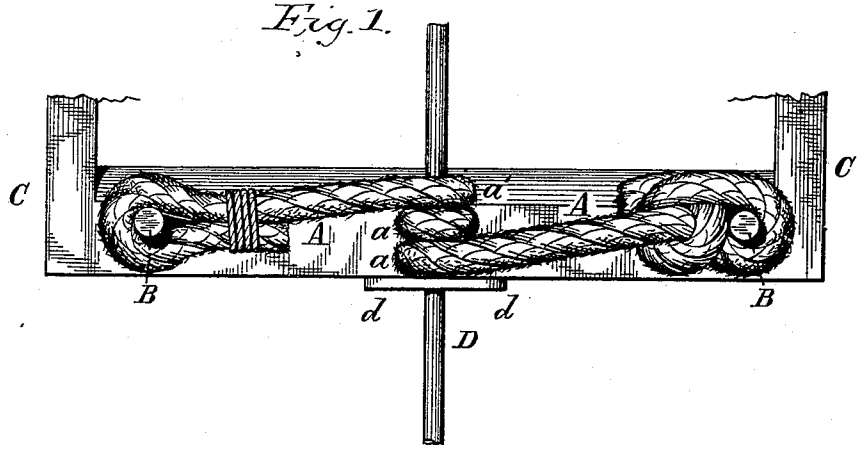
(No Model.)

W. E. RICE.

MANUFACTURE OF ZINC COATED WIRE.

No. 253,227. Patented Feb. 7, 1882.

Fig. 1.



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UNITED STATES PATENT OFFICE.

WILLIAM E. RICE, OF WORCESTER, MASSACHUSETTS.

MANUFACTURE OF ZINC-COATED WIRE.

SPECIFICATION forming part of Letters Patent No. 253,227, dated February 7, 1882.

Application filed August 15, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. RICE, a resident of the city and county of Worcester, State of Massachusetts, have invented certain Improvements in the Manufacture of Zinc-Coated Wire, of which the following is a specification.

My invention relates to the finishing of zinc-coated wire by the use of asbestus in a prepared form for wiping the surplus melted metal off as it comes out of the hot-zinc bath, and smoothing the surface of the coat left on. Its nature consists in preparing the asbestus into a particular form or condition capable of being wound round the wire and having tenacity sufficient to retain its position when the ends are held, and also in the manner of wiping the melted metal by said asbestus from the wire, all as hereinafter more fully described.

Asbestus has heretofore been used for the same purpose, in a loose, fibrous, or flossy state, by compressing it about the wire in a cup or chamber by a lever or screw-plunger, the cup or chamber being slotted to allow the passage of the wire.

In my invention the fibrous asbestus is made into a cord or strip by twisting, braiding, or cutting woven asbestus into strips, so as to be capable of being wound round the wire snugly as it comes from the molten zinc on its way to the reel or block on which it is wound, the ends being held by any suitable convenient means.

The accompanying drawing shows the edge of the receptacle containing molten zinc, with the wire D D as coming therefrom, and the asbestus wiper A A applied in a way and manner embodying my invention.

C C is the edge of the bath; B B, two pins fastened therein; A A, the wiping-cord, with its two turns *a a* round the wire D D, the ends of the wiper A being fast to the pins B B, the guards *d d* holding the turns of the wiper, so that the surplus metal wiped off shall fall back into the melted metal *a'*.

The wiper A may be made by twisting or braiding the asbestus fibers into a cord, or asbestus cloth may be cut into strips, or a cord or braid like chenille may be made with the asbestus fibers projecting sufficiently to protect the other material, which would add strength to the asbestus; or a small per cent. of cotton or other fiber might advantageously be added to increase the strength of a cord or braid, the uninflammable nature of the asbestus at the high heat required enabling it to accomplish its work, and also to protect the other parts of the wiper. By the use of a cord or braid one-eighth of an inch, or thereabout, in diameter one turn of the wiper (instead of two, as shown) is amply sufficient to wipe the surplus molten metal off smoothly with but slight friction, and the wire is left thoroughly covered with a smooth polished surface of zinc, and the longest piece of wire can be smoothly wiped and a most thorough adherence of the zinc to the wire secured. It will be seen that by these means the wire is wiped all round, and the wiper will freely follow any bends of the wire, which, with the compressed fibers, as heretofore used, caused great friction and frequent displacement, requiring great power to draw the wire and careful watching to make it successful.

What I claim as new, and desire to patent, is—

The combination of the coil of asbestus or other inflammable cord or strip with the receptacle adapted to hold the molten zinc, substantially as and for the purposes above set forth.

WM. E. RICE.

Witnesses:
KELO WANU,
J. G. ARNOLD.