

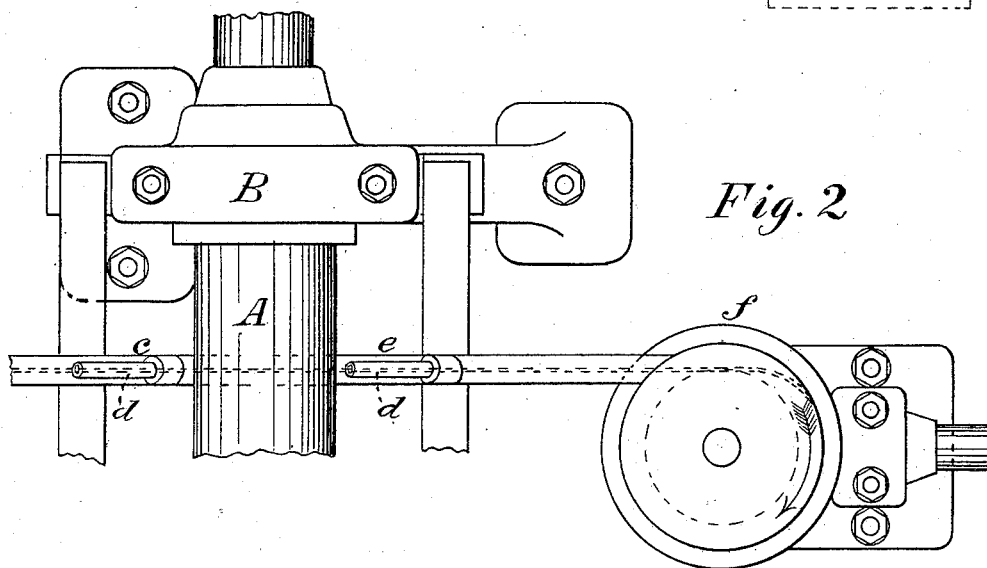
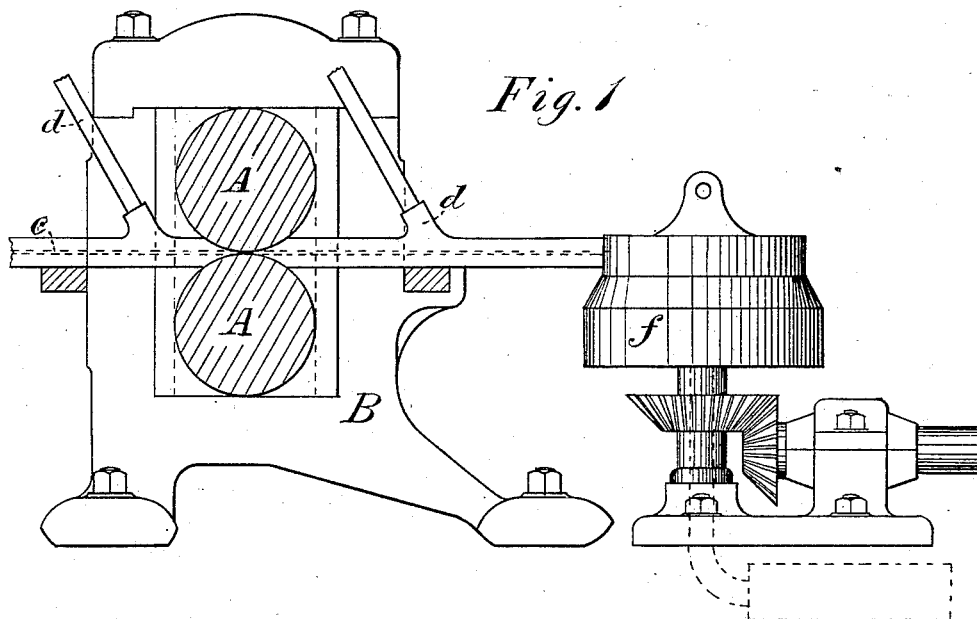
(No Model.)

W. A. SWEET.

FINISHING METAL RODS IN ROLLING OR DRAWING.

No. 302,296.

Patented July 22, 1884.



Witnesses  
*J. S. Tallman.*  
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Inventor  
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# UNITED STATES PATENT OFFICE.

WILLIAM A. SWEET, OF SYRACUSE, NEW YORK.

## FINISHING METAL RODS IN ROLLING OR DRAWING.

SPECIFICATION forming part of Letters Patent No. 302,296, dated July 22, 1884.

Application filed January 14, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM A. SWEET, of Syracuse, Onondaga county, and State of New York, have invented certain new and useful Improvements in Finishing Steel or Iron Rods in Rolling or Drawing, of which the following is a description.

My invention relates to the protection of the surface of metal rods passing through the final process in its formation complete for the market, protecting it from corrosion by enveloping it, in a highly-heated state, in an atmosphere of steam, by which the surface is covered with a non-oxidizing coating, which also serves to keep the rollers at a proper temperature during the rapid passage of the rod through them in the finishing process. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a sectional elevation of the last pair of rollers in a train, showing my improvement. Fig. 2 is a plan of the same.

Like parts are designated by the same letters in both figures.

The rollers A and housings B are similar to those in ordinary use in rolling metal, and receive the rod to be rolled from preceding rollers of the train, but before entering between

the rollers A passes through a tube or chamber, C, connected by a pipe, *d*, with a steam-generator, so as to cause the rod to be surrounded with a highly-heated atmosphere of steam before entering between the rollers. This prevents the rod from scaling, and coats it as it is finished with a non-oxidizing surface, the rod passing through a similar steam-chamber, *e*, as it leaves the rollers, and is guided into the reel *f*, the chamber of which is also filled with steam. The reel is like one I have an application for patent for.

Having thus described my improvement in the manufacture of rods, wire, &c., I claim—

1. In combination with rollers for rolling metal rods, a tube or chamber filled with steam, through which the metal rod passes while being rolled, and by which said rod is enveloped, as and for the purposes specified.

2. A closed chamber into which the heated metal wire is reeled, filled with steam, which surrounds the metal wire while reeling into a coil, in the manner and for the purposes specified.

WILLIAM A. SWEET.

Witnesses:

MATTHEW CUNNINGHAM,  
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