(No Model.)

W. A. SWEET.

ROLLING METAL BARS.

No. 302,295. Patented July 22, 1884.

Fig. 1

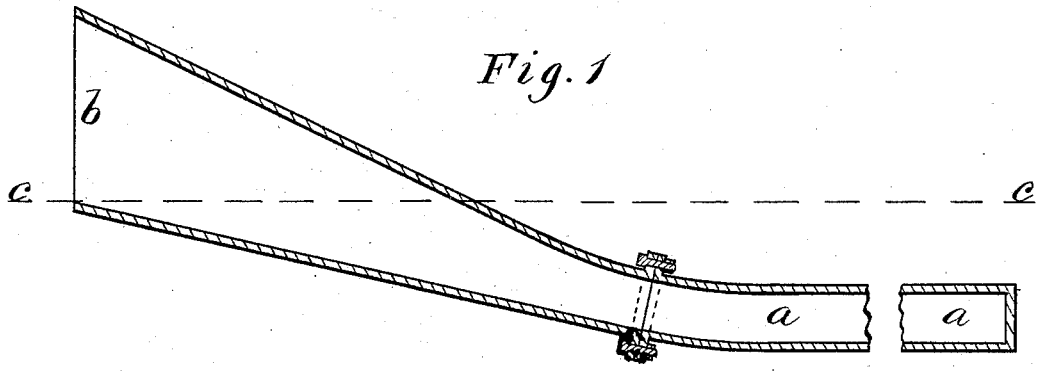
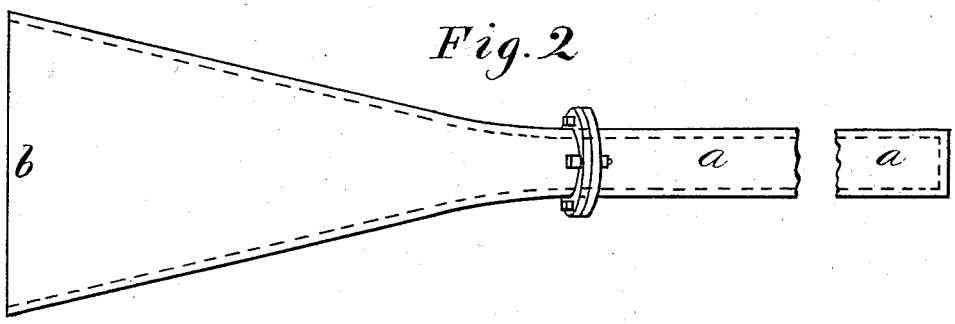


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM A. SWEET, OF SYRACUSE, NEW YORK.

ROLLING METAL BARS.

SPECIFICATION forming part of Letters Patent No. 302,295, 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, State of New York, have invented a new and useful Improvement in Apparatus Used in Rolling Metal Rods, by which the danger in running the bars or rods from the rolls over the floor is avoided, the rods being kept straight, their heat more completely retained, and the usual oxidation partly prevented in the process of rolling. I attain these objects by the device illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section through the receiver. Fig. 2 is a plan of the same.

The letters of reference are the same for like parts in both figures.

The construction and application of my new device are as follows: On each side of a train of rollers I place a receiver consisting of a straight tube of metal, *a*, having a flaring mouth, *b*, which curves upward and opens opposite the rollers, so that when the rod is projected from the rollers it enters said mouth *b* and runs down into the tube *a*, which is buried beneath the floor, as shown by the dotted lines *c c*, surrounded by any suitable non-conductor of heat. This device prevents the rod from coming into contact with the workmen, keeps it clean, retains in greater measure its heat, and holds it straight. I prefer to place in this receiver a quantity of carbonaceous material, into which the rod is thrust, and igniting it fills the tube with smoke or carbon vapor, forming an atmosphere that envelops the heated rod. When in operation, the rod runs from the rollers into the mouth of the receiver until its rear end leaves them. It is then seized by the operator and returned in the usual way to the rolls and passes through in the opposite direction, entering the receiver on the opposite side, and so on till the rod is reduced sufficiently for the purpose intended.

By this device all danger is avoided of the operator being struck by the rod rapidly projected from the rolls. The rod is kept clean, retains its heat, and is less liable to scale than it is when worked in the old way without my improvement.

Having thus described my receiver in rolling metals, I claim—

Jointly with the rolls, the receiver *a b*, containing carbonaceous matter therein, substantially as herein described, to increase the heat of the rolled metal bar and protect it from oxidation while in said receiver, as specified.

W. A. SWEET.

Witnesses:
W. R. CHAMBERLIN,
PETER ECKEL.