

(No Model.)

W. A. SWEET.

BAR PILING MECHANISM FOR ROLLING MILLS.

No. 512,458.

Patented Jan. 9, 1894.

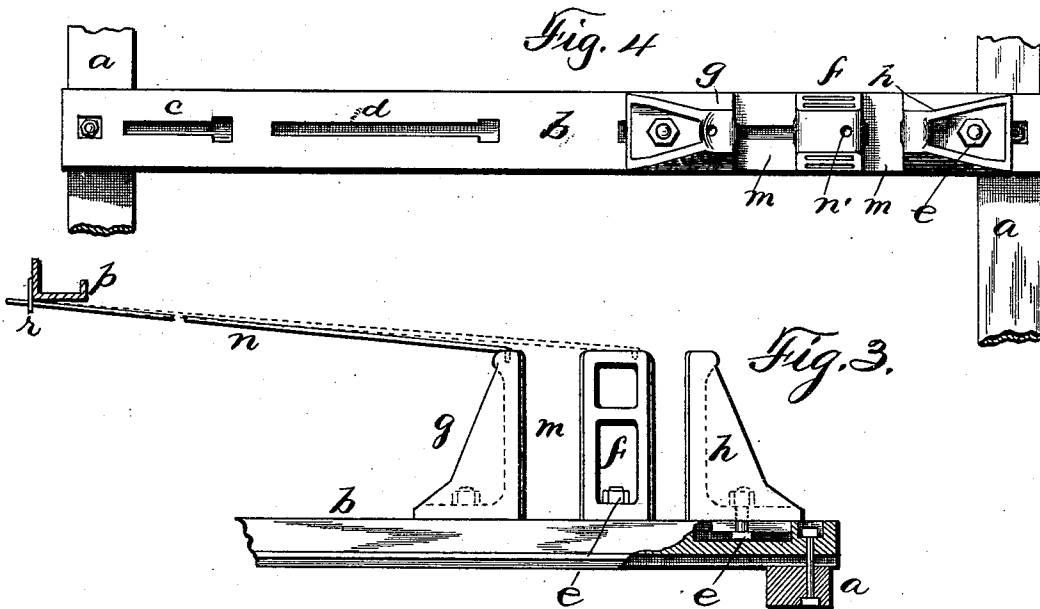
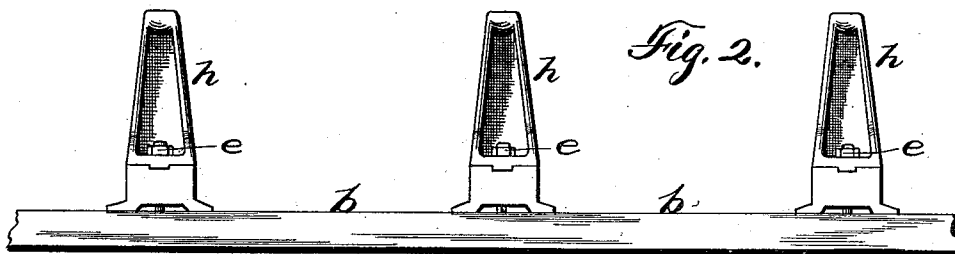
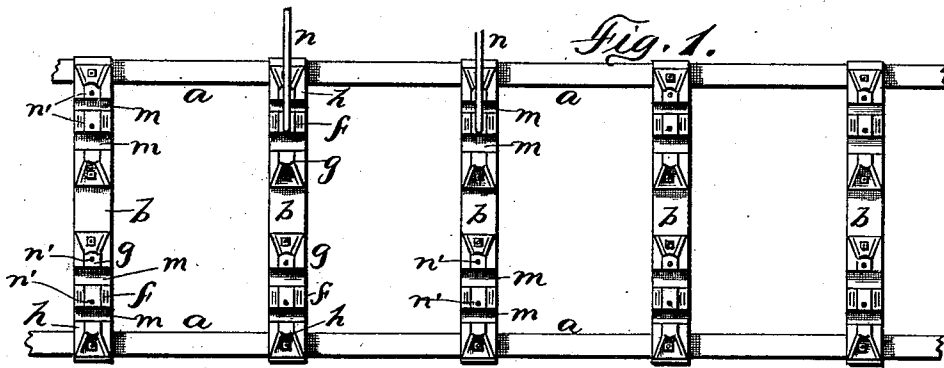
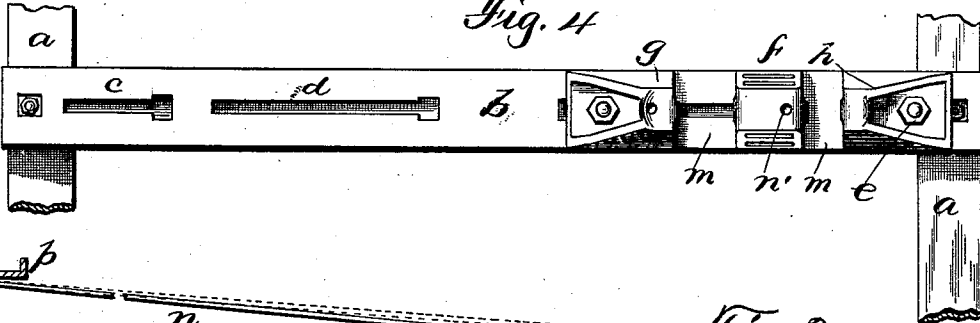


Fig. 4



WITNESSES:
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UNITED STATES PATENT OFFICE.

WILLIAM A. SWEET, OF SYRACUSE, NEW YORK.

BAR-PILING MECHANISM FOR ROLLING-MILLS.

SPECIFICATION forming part of Letters Patent No. 512,458, dated January 9, 1894.

Application filed August 13, 1892. Renewed November 18, 1893. Serial No. 491,355. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. SWEET, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Bar-Piling Mechanism for Rolling-Mills, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to mechanism for piling and straightening hot metallic bars after they leave the finishing set of rolls in a train of rolls in a rolling mill, by taking the bars from the trough or table which received them from the rolls and placing them one upon another successively in a series of vertical chambers between the inner faces of vertical standards, said standards being mounted upon suitable beds and adjusted so that their inner faces are parallel and in straight alignment with each other, said chambers being adjusted so that their width is a little more than that of the bars rolled; and in which ways, more or less inclined are detachably connected to said standards and table or trough upon or over which the bars move or slide from said table or trough down into said chambers.

My invention consists in the several novel features of construction and operation hereinafter described and which are specifically set forth in the claims hereunto annexed. It is constructed as follows reference being had to the accompanying drawings, in which—

Figure 1, is a top plan of several benches of my invention, each bench consisting of a central and two lateral standards. Fig. 2, is a rear elevation of three of said benches. Fig. 3, is a sectional side elevation of one bench and the mounting of one lateral standard. Fig. 4, is a top plan of one bench and the bed for another bench, and the slotways, therein, the standards for that bench being removed, and also showing part of the receiving trough, and one of the guide-ways in full lines leading to one piling chamber from the trough, and showing by dotted lines a way leading to the other piling chamber.

Timbers *a-a* are laid upon a foundation, and the bench beds *b* are secured thereto transversely. These beds are metallic and are provided with longitudinal slots *c-d* enlarged at one end to permit the square

head of a bolt *e* to be inserted into each slot, and slide along in the slot, bringing the heads into the enlargement with the horizontal faces of said slots. These slots may extend through the beds, or part way, being then T-shaped in cross section. Each bench consists of a central vertical faced standard *f* mounted upon said bed by a bolt *e* through its base and engaging with a slot *d* near its left-hand end in Fig. 4; and lateral standards *g-h* having their inner faces vertical and parallel with the faces of the standard *f*, these lateral standards being respectively secured upon said bed by bolts through their bases engaging with the slots *c-d*. All of these standards are adjustable to vary the spaces between the lateral and the center standards by loosening the bolt of each and sliding the standard along on the bed.

By setting the central standards of all of the benches in alignment, I adjust the lateral standards so that their vertical inner faces are equi-distant from and parallel to the vertical faces of the central standards, and this creates the piling chambers *m* between said vertical faces.

Each bar, as it comes from the finishing rolls, passes into the trough *p* (or onto a table) of proper length.

Ways *n* each consisting of a bar or rod of iron are detachably connected to the standards *g* and *f* by means of a pin on the bar (see dotted lines in Fig. 3) fitting into a hole *n'* in the top of the standard, and extending through a loop *r* upon or under the trough *p* and these ways are more or less inclined, so that when a rolled bar passes into the trough, it is lifted onto said ways and is conducted on slides down over them into one of the chambers until it is full, when another chamber is filled, said bars lying one upon another and becoming straightened laterally and longitudinally, until cool, when the pile is removed and the bars cut to the length desired.

Any number of piling chambers may be created by varying the number of vertical standards in each bench.

When one piling chamber is full, the ways are shifted so as to conduct the bars to another.

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

1. A bar piling mechanism, consisting of a series of benches each consisting of central
5 and side standards, and means to adjustably secure them to beds, and ways adjustably connected to the standards.

2. A bar piling mechanism consisting of a series of benches, each consisting of vertical
10 standards adjustably mounted upon suitable

beds, and arranged with their vertical faces parallel, and bar-guiding ways adjustably connected to the standards.

In witness whereof I have hereunto set my hand this 15th day of June, 1892.

WM. A. SWEET.

In presence of—

C. W. SMITH,

C. B. KINNE.