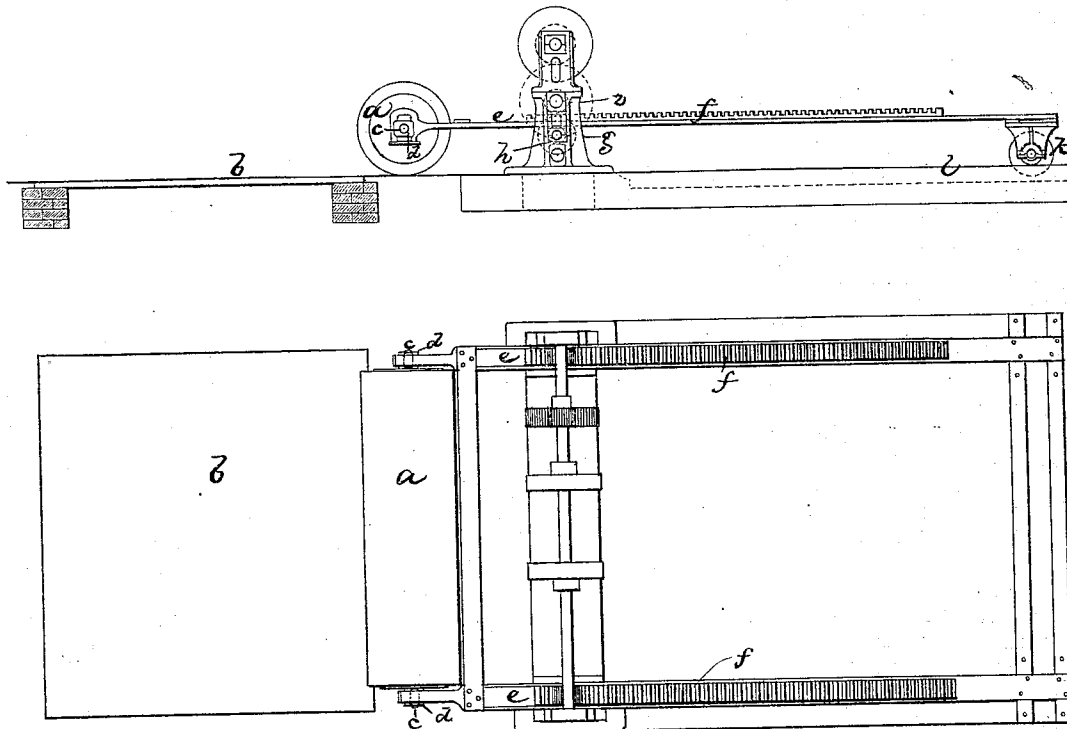


R. CROOKER.

Improvement in Machines for Straightening Rolled
Metal-Plates.

No. 128,287.

Patented June 25, 1872.



Witnesses.
M. W. Frothingham.
L. H. Latimer.

Inventor.
Ralph Crooker.
By his Attys.
Crosby & Gould.

UNITED STATES PATENT OFFICE.

RALPH CROOKER, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO BAY STATE IRON COMPANY, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR STRAIGHTENING ROLLED-METAL PLATES.

Specification forming part of Letters Patent No. 128,287, dated June 25, 1872.

To all whom it may concern:

Be it known that I, RALPH CROOKER, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Straightening Rolled-Metal Plates; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

In the manufacture of rolled-metal plates, especially iron and steel plates, it is customary to hammer said plates to bring them to a uniform smoothness, the operation being tedious, laborious, and expensive. In my method of straightening such plates I employ a heavy roller acting upon the upper surface of the plate, the plate lying upon a suitable smooth-surfaced bed, and the roller being driven to and fro automatically, and by its weight and continued movement soon reducing the plate to a desirable uniform smoothness. In organizing the rolling apparatus I journal the roller-gudgeons in boxes at the front ends of two long bars, upon which bars are gear-racks or gear-teeth, which mesh into and are driven by gear-pinions on a shaft journaled in housings in a stationary stand, these gears being driven by suitable power, and operating to drive the gear-racks and through them the roll forward and back, a suitable reversing mechanism being connected with the driving-shaft, so that the forward-and-back movements may be rendered automatically successive, and the extent of such reciprocating movement regu-

lated. It is in such a construction or organization that my invention consists.

The drawing represents in plan and in side elevation an apparatus embodying the invention.

a denotes the roll; *b*, a cast-iron plate having a level upper surface. Upon this bed is placed the plate to be straightened. The gudgeon *c* turns in sliding boxes *d* mounted in the ends of bars *e*, upon which bars are the gear-racks or teeth *f*, the bars passing through a stand, *g*, and riding upon rolls *h* journaled in said stand, gear-pinions *i* meshing into the gear-teeth of the racks, and these pinions or the pinion-shafts being driven by connection with a suitable driving-shaft. The rear ends of the bars *e* are mounted on wheels *k*, which travel upon suitable track or rails *l*, and by applying suitable power and suitable reversing mechanism, the bars *e* and roll *h* are reciprocated over the bed *b*, and the plate of metal laid thereupon in such manner that, by the weight and movement of the roll the plate is rapidly and uniformly smoothed.

I claim—

The combination and arrangement of the roll *a*, reciprocating gear-racks *f*, gear-pinions *i*, and reversing-pulleys, operating together and in connection with the bed-plate, substantially as above described.

Executed this 11th day of April, A. D. 1872.
RALPH CROOKER.

Witnesses:

FRANCIS GOULD,
M. W. FROTHINGHAM.