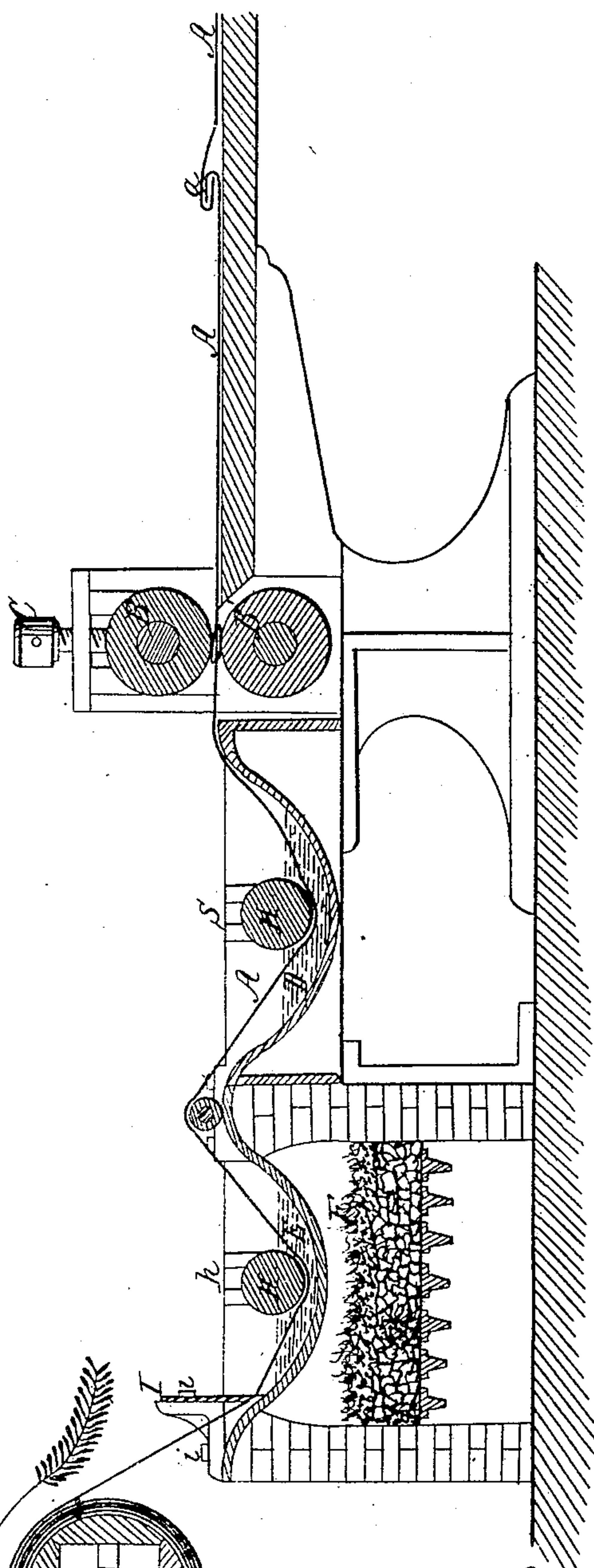


E. Mills.

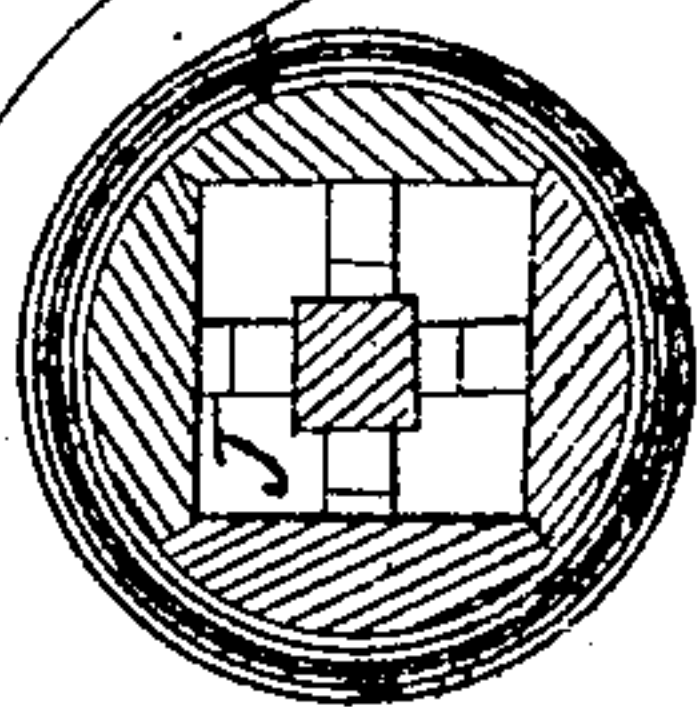
Preparing Metal Roofing.

N^o 84,205.

Patented Nov. 17, 1868.



Witnesses;
Wm. H. Brewster & Co.
W. B. Deming.



Inventor;
Ezekiel Mills
By Knight Bros
Attorneys.



EZEKIEL MILLS, OF BALTIMORE, MARYLAND.

Letters Patent No. 84,205, dated November 17, 1868.

IMPROVED SHEET-METAL ROOFING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, EZEKIEL MILLS, of the city of Baltimore, in the State of Maryland, have invented a new and useful improvement in Preparing Metal for Roofing and other purposes; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which are made a part of this specification.

The ends of sheet-iron or other metal strips, of any desired width, are locked or hooked-together, and, in this condition, pass d between rollers to close the seams, and then through a bath of molten tin or other soft metal, which coats the entire surfaces of the metal, and effectually secures and covers the seams, so as to form continuous strips of indefinite length without any appreciable or pervious joints.

The drawing represents a vertical section of a machine illustrating my invention.

Sheets, A, of iron or other metal of suitable width, are, one after another, hooked together as shown at a, and then pass between rollers B B', the upper one of which works in bearings, held down by screws C, to regulate the pressure. The joints being thus flattened down, the connected sheets are carried through an acid bath, D, to remove any oxide, and prepare the surface for the reception of the tin, zinc, or other metal with which it is coated in a second bath E, a fire, F, being employed to keep the metal in the bath E in a melted state.

Rollers G and H, fitted to slide vertically in grooves g h, rest by their weight upon the metallic strip A, to

keep it under the surface of the liquids in the respective baths D and E.

The molten metal in the bath E, beside imparting a uniform coating to the sheet-iron, effectually fills and secures the transverse seams a, after they have been flattened as before described, and any superfluity of the soft metal is removed by a scraper, I, which may be held adjustably by screws i.

As the completed metallic strip leaves the machine, it is wound upon a reel, J, which may be rotated by a crank, or a pulley and weight, or other means, either to draw the metal through the machine, or to take up the slack as it is carried through the machine by the rotation of the rollers B B', by a crank, or any suitable power.

It will be readily seen, that, by the above-described process, continuous sheets of any desirable length may be produced, without any transverse joints in which water can lodge, or through which it can possibly pass.

Having thus described my invention,

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

The continuous metallic strips, jointed and coated by the process herein described.

To the above specification of my invention, I have signed my hand, this 1st day of October, 1868.

EZEKIEL MILLS.

Witnesses:

OCTAVIUS KNIGHT,
W. B. DEMING.