(No Model.)

L. L. SAGENDORPH.

ROOFING TONGS.

No. 417,948. Patented Dec. 24, 1889.

Fig. 1.

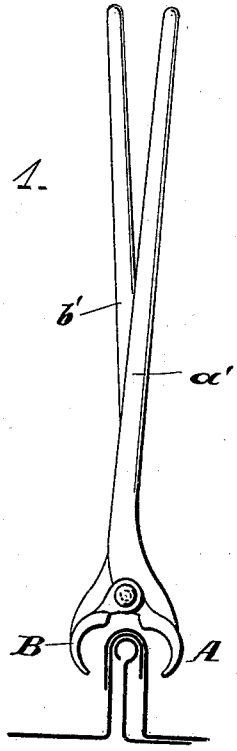


Fig. 2.

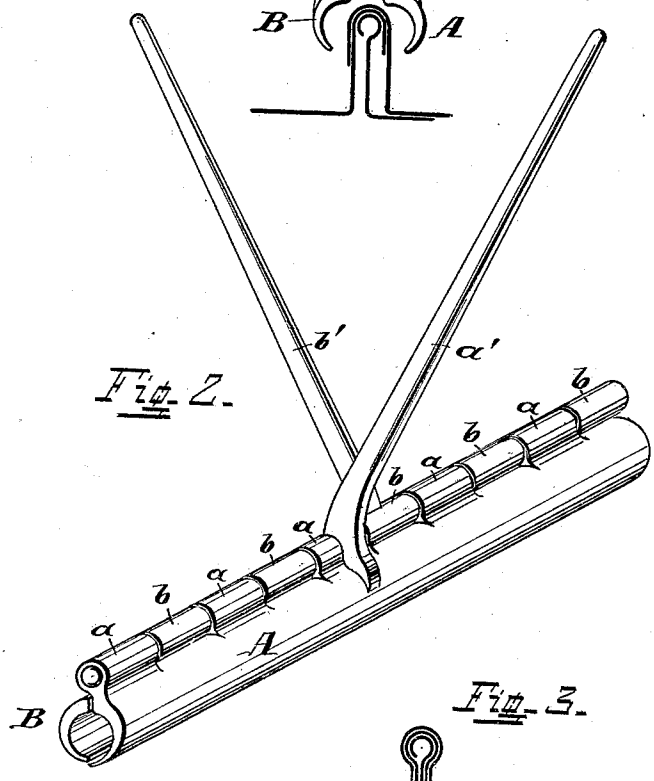
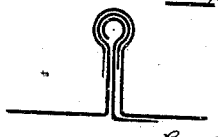


Fig. 3.



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UNITED STATES PATENT OFFICE.

LONGLEY LEWIS SAGENDORPH, OF CINCINNATI, OHIO.

ROOFING-TONGS.

SPECIFICATION forming part of Letters Patent No. 417,948, dated December 24, 1889.

Application filed September 21, 1889. Serial No. 324,671. (No model.)

To all whom it may concern:

Be it known that I, LONGLEY LEWIS SAGENDORPH, a citizen of the United States, residing at Cincinnati, in the county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Roofing-Tongs, of which the following is a specification, reference being had to the accompanying drawings.

My improved tongs are intended more especially for use in connection with metallic roofs, to form and compress a circular standing seam around a cleat provided with a tubular portion, as described and claimed in my application for Letters Patent filed July 11, 1889, Serial No. 317,213.

In the accompanying drawings, Figure 1 is an end elevation of my improved tongs with the jaws open in position over a standing seam to be formed. Fig. 2 is a perspective view of the tongs with the jaws closed, and Fig. 3 is a section of a standing seam formed by the aid of said tongs.

The body portion of the jaws A and B is circular in cross-section, as shown, to conform to the tubular portion of the cleat.

The principal feature of my invention consists in so forming the jaws of the tongs as that one of said jaws shall operate in a curvilinear line below the opposing jaw, in order to form a more perfect lock for the seam. The object in having the clamping-point of one jaw fall below the clamping-point of the other jaw is to more firmly compress or lock the metal around the tubular portion of the cleat without injury to the metal. When the jaws are made to approach each other in the same plane, the metal is compressed against the cleat, and in consequence the metal is bruised or broken, and will spring back again to a limited extent when the jaws of the tongs are released; but when compressed by my improved tongs, in which the point of one jaw falls beneath the other jaw, the metal is swaged into the cleat to a limited extent beneath the tubular portion, thus affording a more secure joint, the metal being swaged together without injury thereto.

The one jaw A is cast with the tubular portions *a* and handle *a'*, the other jaw B having similar tubular portions *b* and handle *b'*, the said portions *a* and *b* alternating in the same longitudinal plane, with a suitable rod C passed through said tubular portions and properly secured therein. The object of thus connecting the jaws is to afford the same clamping-power throughout the length of said jaws.

The advantages of my improved tongs are, first, the one jaw approaching the opposite jaw in a different curvilinear line will permit of the metal being clamped tighter and locked more securely than it otherwise would be were said jaws to approach each other in the same curvilinear line, and in this manner the side hooked flanges of the roofing-sheets are more securely clamped around the tubular portion of the cleat and locked thereto, as fully set forth in my aforesaid application. A second advantage afforded by reason of the afore-described construction is, that a uniform clamping power or pressure is had for the entire length of said jaws.

While my improved tongs were invented and constructed with special reference to the formation of a standing-seam joint for roofing-plates, the same may be used in any other applicable capacity.

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

The roofing-tongs herein shown and set forth, consisting of two jaws circular in cross-section and pivotally connected with suitable handles attached thereto, the clamping portion along the lower edge of one jaw falling below the clamping portion along the lower edge of the opposing jaw, said jaws extending laterally at right angles to said handles, substantially as specified.

LONGLEY LEWIS SAGENDORPH.

Witnesses:
C. U. SCHERVECK,
GEO. M. VERITY.