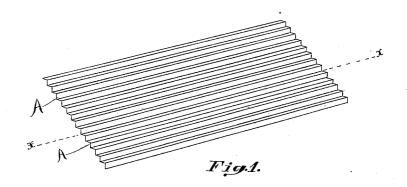
(No Model.)

## L. L. SAGENDORPH.

METALLIC ROOFING.

 ${f N}$ o. 358,889.

Patented Mar. 8, 1887.



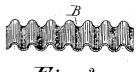


Fig. 2.



Fig.3.

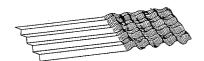


Fig.4.

Attest M. F. Gulick Wm. Hubbell Fisher

Xnventor Longley Leus Gagendoph,

## UNITED STATES PATENT OFFICE.

LONGLEY LEWIS SAGENDORPH, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO HARLAN P. LLOYD, OF SAME PLACE.

## METALLIC ROOFING.

SPECIFICATION forming part of Letters Patent No. 358,889, dated March 8, 1887.

Application filed October 2, 1886. Serial No. 215,128. (No model.)

To all whom it may concern:

Be it known that I, Longley Lewis Sagen-Dorph, a resident of Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Metallic Roofing, of which the following is a specification.

In the accompanying drawings, Figure 1 is a perspective view of a sheet of metal with the for first or diamond shaped corrugations made. Fig. 2 is a section taken at the line x x of Fig. 1, showing the oval-shaped corrugations on an enlarged scale. Fig. 3 is a section taken at right angles to that shown in Fig. 2, showing the diamond-shaped corrugations on an enlarged scale. Fig. 4 is a view in perspective of a sheet partly finished.

The primary object of my invention is to provide a roofing which will prevent the person walking on the same from slipping, and is adaptable to car-roofs and other buildings on which it is difficult to obtain a foot-hold. While my invention is thus primarily intended for such roofing, it is equally adaptable for ornamenting ceilings, cornices, &c. The metal employed is preferably of a good quality that will not break in corrugating.

My invention consists in forming from a blank piece of metal the diamond-shaped corugations A, which is accomplished by running the sheet through a corrugating-machine adapted to that purpose. After forming the diamond-shaped corrugations, I then form the oval-shaped corrugations B, preferably at right angles to said diamond-shaped corrugations,

by running the sheet through a machine adapted to that work. These two operations complete and produce a sheet of roofing or an ornamental sheet which will in every way answer the purposes and objects aforenamed.

I preferably form the diamond-shaped corrugations with the grain of the metal, in order to obviate any liability of cracking the metal; but if the metal be of a good quality said corrugations may be made across the grain with- 45 out danger of cracking.

The advantages of my invention are apparent. While combining all of the advantages of a corrugated roof, it also combines the advantages of stiffening the metal and preventing than the same time of the oval corrugations, form at right angles to the oval corrugations, form what is termed a "twilled corduroy." These corrugations thus formed, while producing a roughened surface, at the same time produce a surface that is ornamental, which is very desirable for all work where metal finishing is used.

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

A roofing-plate provided with longitudinal and transverse corrugations crossing each other at right angles, one set of corrugations being curved and the other set **V**-shaped, substantially as and for the purposes specified.

LONGLEY LEWIS SAGENDORPH.

Witnesses:

O. M. HILL, W. P. GULICK.