

UNITED STATES PATENT OFFICE.

SAMUEL J. SEELY, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN THE MANUFACTURE OF CORRUGATED PLATES.

Specification forming part of Letters Patent No. **36,424**, dated September 9, 1862.

To all whom it may concern:

Be it known that I, SAMUEL J. SEELY, of the city of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in the Manufacture of Corrugated Iron Plates and Sheets; and I do hereby declare that the following is a full and exact description of the same.

The method at present used for producing corrugated iron plates and sheets is to form them from plates and sheets of wrought-iron by compression or rolling. This method is perfectly successful when applied to sheets and plates of the thicknesses embraced in the market terms of "sheet-iron" and "boiler-iron," and when the corrugations to be produced are uniform in degree throughout the length of the sheets and plates, but is inapplicable to plates and sheets of greater thickness, on account of the enormous pressure required to produce the corrugations, and to plates and sheets having their corrugations varying in degree in the direction of the length of the sheets. My invention is designed and intended to obviate these defects; and it consists in making the sheets and plates of any required thickness and degree of corrugation, of cast-iron cast in molds made from furnished patterns, in the ordinary manner, and then subjecting them to the process known as the "malleable-iron" process, to make them malleable. By this means plates and sheets of thicknesses beyond the power of ordinary machinery to make can be produced at a greatly-decreased expense, and plates and sheets having a varying degree of corrugation, such as are required in ship and boat building, (in ships and boats made of corrugated iron,) and for steam-boiler building, can be made, which would be impossible to make by the process now employed.

The process employed by me is, first, to make

a pattern of the required plate or sheet in the ordinary manner, and then to have castings of "cast-iron" made from it, which are to be subjected to the process above named until they attain the condition known in market as "malleable iron."

A great saving in cost is attained by my improvement, as an unlimited number of sheets or plates of any required shape or form and degree of corrugation can be produced after the pattern for them is made, which will all perfectly correspond with each other—a result that cannot be attained by the present methods, but which is of great importance when the material is to be applied to the construction of vessels, steam-boilers, and other articles where absolute conformity is requisite. The same advantage is attained in the production of sheets and plates of thicknesses too great to be corrugated by any machinery now used, and also in those having a varying degree of corrugation, such as cannot now be produced correctly at all.

I do not claim casting corrugated iron plates, nor do I claim rendering such plates malleable; but

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

Making corrugated iron plates for ships' armor or other purposes, when, by reason of the irregularity of form or the thickness of metal required, such plates cannot be produced by rolling wrought-iron, by first casting said plates and then subjecting them to the process required to change them to the condition known and distinguished as "malleable iron."

SAML. J. SEELY.

Witnesses:

LAWRENCE B. VALK,
E. C. GEORGE.