

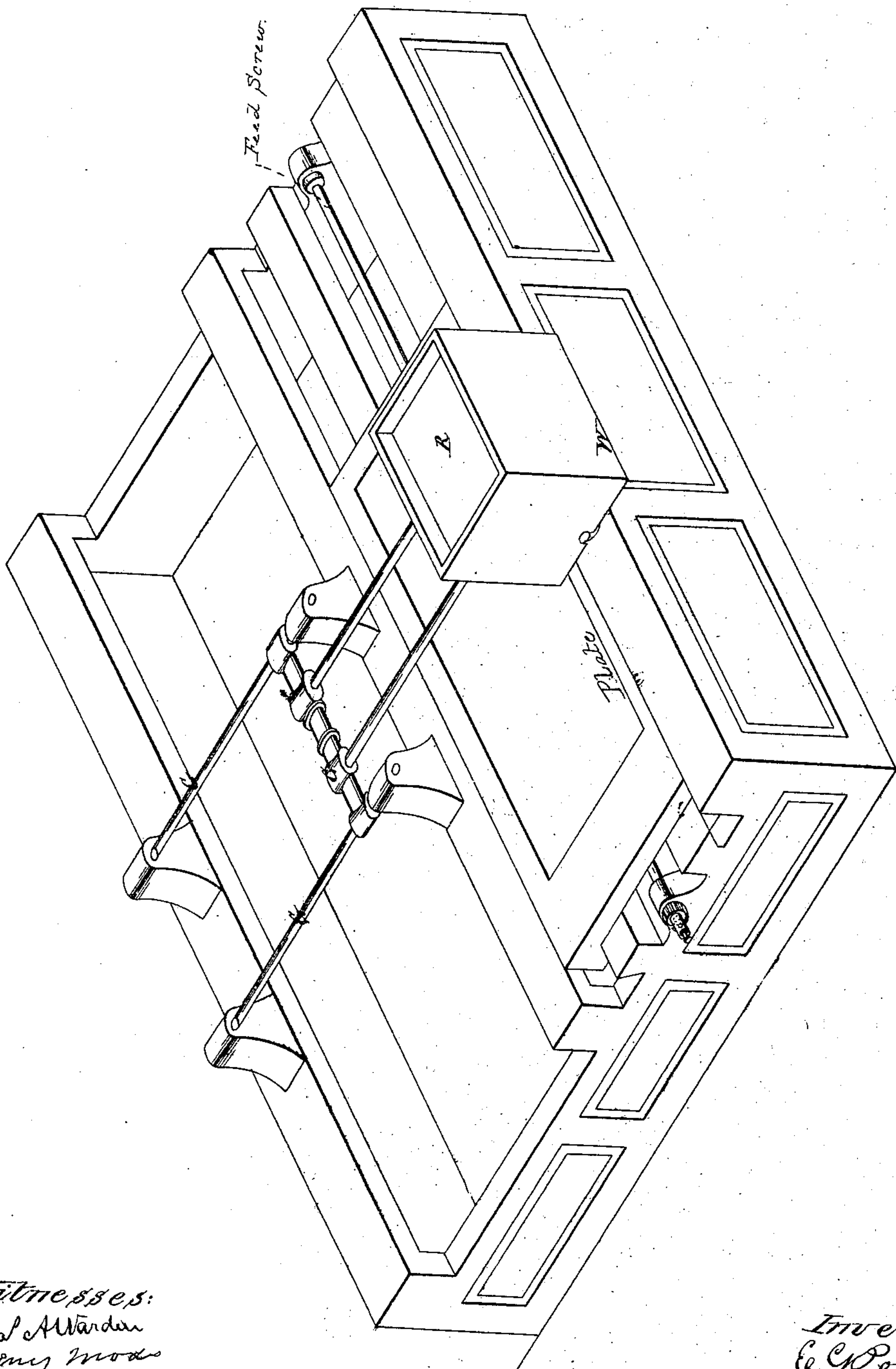
the specification in this patent  
is not in print.

*E. G. Pomerooy,*

*Making Sheet Iron,*

*N<sup>o</sup> 10,482.*

*Patented Jan 31, 1854.*



*Witnesses:*  
*Chas. A. Warder*  
*Henry Moore*

*Inventor:*  
*E. G. Pomerooy*



# UNITED STATES PATENT OFFICE.

EBENEZER G. POMEROY, OF PITTSBURGH, PENNSYLVANIA.

## MANUFACTURE OF SHEET-IRON.

Specification of Letters Patent No. 10,482, dated January 31, 1854.

*To all whom it may concern:*

Be it known that I, EBENEZER G. POMEROY, of the city of Pittsburgh, county of Allegheny, Commonwealth of Pennsylvania, have invented and discovered a new and useful improvement in the mode of protecting iron from oxidation while I beautify its surface by incorporating with such surface by mechanical force solid carbonaceous matter; and I do hereby declare that the following is a true and perfect description of my process for accomplishing this result.

I make a paint by grinding plumbago, pulverized charcoal and the black soot formed by the burning of bituminous coal, or other bituminous matter, along with ivory, or bone, or lamp black, either with water, weak spirits, vinegar, or any acetous preparation, until the paint is very fine, and fit to be applied, which is done with a soft brush to the surface of the iron which has been previously cleansed by any of the modes in common use so as to leave a clean surface of iron. When the surface is completely covered the iron is ready for the next process, which consists in passing it between rolls substantially as done in reducing common sheet iron, the result being such a combination of the carbonaceous matter with the surface of the iron as to form a permanent coating thereupon which will maintain its place under any of the processes of manufacture into articles for use, to which sheet iron is ordinarily subjected.

I have found the best and most reliable results to be obtained from the use of plumbago, pulverized charcoal, bone black, and the black soot obtained from burning bituminous coal or other bituminous matter, in equal proportions as to volume or bulk, ground together in the medium of common vinegar, to the consistency of white lead when prepared for second coating by painters, and that it is also better to heat the iron after it has been painted before rolling it. But I do not confine myself to the use of the articles here named in the combination here suggested. Good results may be obtained by leaving out some of the articles mentioned by me.

The iron to which I have applied my improvement has been sheet iron and in regard to this article I conceive it to be

most useful, but it may be applied to any iron to which the proper mechanical force may be applied to produce the necessary combination.

The coating aforesaid is susceptible of a high degree of polish, which, when desired I produce by means of a planishing roll or rolls as follows, viz. After preparing, coating and rolling the iron as before stated, it is then planished by placing the sheets one at a time, upon a cast or wrought iron table, or other hard substance, made perfectly smooth on the surface, and resting on a firm movable foundation, and of sufficient size to admit of a sheet of the dimensions required, to lay on its surface, as seen in that part of the drawing accompanying this specification, marked "Plate." This plate is movable similar to the bed plate of a slating machine, and is fed in a manner similar to the feeding apparatus of a planing machine, or saw mill. The weight "W" is supported on one or more rolls of small dimensions and is drawn to and fro by a connecting rod attached to any machinery in motion, and is kept parallel and prevented from upsetting by the guides and cross heads "G," "G." The weight "W" is recessed at the top (marked "R") for the purpose of adding greater weight, and which it is intended should fit into the recess to prevent slipping.

I have found it most advisable to cleanse the iron and apply the coating when the sheet has been extended to about one half the length intended.

I do not claim the use of the above materials in combination as a paint or composition that may be forced into the surface of iron. But believing that I am the first person who has ever incorporated solid carbonaceous matter with the surface of iron by mechanical force.

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

The incorporating, substantially as herein described, solid carbonaceous matter with the surface of iron so as to protect it from oxidation and beautify it at the same time.

E. G. POMEROY.

Witnesses:

SAML. M. LAWDER,  
THOMAS S. WILLIAMS.