G. W. HOGLEN & D. M. STEWARD.

PATTERNS FOR CASTING.

No. 185,233. Patented Dec. 12, 1876.

Fig. 1.

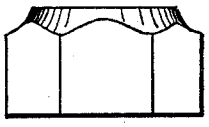
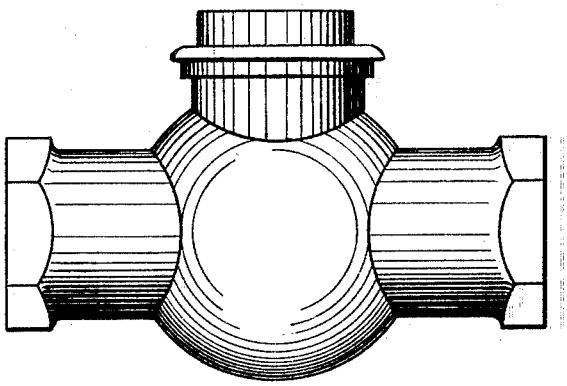


Fig. 2.



Witnesses;
Chas. M. Peck
Wm. Ritchie

Inventors;
George W. Hoglen.
and
Demetrius M. Steward
by their Attys.
Peck & Co.

UNITED STATES PATENT OFFICE

GEORGE W. HOGLEN, OF DAYTON, AND DEMETRIUS M. STEWARD, OF CINCINNATI, OHIO.

IMPROVEMENT IN PATTERNS FOR CASTING.

Specification forming part of Letters Patent No. **185,233**, dated December 12, 1876; application filed May 3, 1876.

To all whom it may concern:

Be it known that we, GEORGE W. HOGLEN, of Dayton, Montgomery county, Ohio, and DEMETRIUS M. STEWARD, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Patterns and Models for Castings; and we do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to all classes of patterns and models from which castings are made.

It is well known to all persons skilled in the art that, besides the difficulty of making wooden patterns, great care must be taken in preserving them from the action of heat or moisture, and also in handling them. The objection to metal patterns is, that they are expensive and do not wear well.

Our invention has for its object the production of patterns which, for the purpose, are more durable than metal, not affected by heat or moisture, and easily and economically made.

Our improvement consists in making patterns from steatite in its natural state, and then subjecting them to heat in an oven, or in any other convenient manner.

To enable others skilled in the art to which our invention appertains to make and use the same, we would thus proceed to describe it, referring throughout to the accompanying drawing, in which—

Figure 1 represents the pattern of a nut made of steatite. Fig. 2 is the pattern of a globe-valve of the same material.

Steatite or soapstone, as is well-known, is a natural production quarried from the earth. It is a species of talc, containing silica and magnesia. In its natural state it is soft, and can be readily worked in a lathe, or by any ordinary tools.

We employ this substance in the following manner: While in its natural state we form it into the shape desired for the pattern, as seen in Figs. 1 and 2. From its softness this is readily and easily done. The pattern thus made is put into an oven, or subjected to heat in any convenient manner, which gradually changes its properties, and renders it hard and tenacious.

By treating it in this way it can be made sufficiently hard to cut glass. Such a degree of hardness is not necessary, however, for the purpose designed by us.

Patterns made of this substance thus treated not only receive a higher polish, but do not wear at the edges nearly so rapidly as metal patterns, while, at the same time, they are lighter and much more easily made. They are impervious to moisture, and can be readily glued to the gate-shanks. They are adapted to any and all kinds of castings in which wooden or metal patterns are now used.

We are aware that the product itself is not new; but

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

A pattern or model for castings, made of steatite or soapstone, rendered hard and tenacious, substantially in the manner and for the purpose specified.

Witness our hands this 29th day of April, A. D. 1876.

GEO. W. HOGLEN.
DEMETRIUS M. STEWARD.

Witnesses:
D. K. BOYER,
CHAS. M. PECK.