

# UNITED STATES PATENT OFFICE.

JAMES D. PIERCE, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN B. SMITH, OF SAME PLACE.

## IMPROVEMENT IN FIRE-PROOF FLOORS.

Specification forming part of Letters Patent No. **166,552**, dated August 10, 1875; application filed December 16, 1874.

*To all whom it may concern:*

Be it known that I, JAMES D. PIERCE, of Milwaukee, in the county of Milwaukee, in the State of Wisconsin, have invented certain Improvements in Metal Arch-Patterns and Center-Pieces, of which the following is a specification:

The object of my invention is to make floors fire-proof; and for this object I place between the joists cement, and hold the same in position with a metal arch till set, and place under the joist of the floor strips of metal or other substance, and fasten the same to the joist with screws or bolts for the cement to rest on, and in this way I cover the joist with fire-proof material.

Figure 1 is a view of a section of fire-proof floor.

A A are the joists of a floor; B B, the side pieces, secured to the joists to help hold up the cement; C, the cement arch between the joist; D, a hollow in the top of the joist filled

with cement; E, a floor over the cement arch; F F, pieces of iron or other material under the joist, and on which the cement arches rest. These pieces are wider than the joist are thick, so that they project over the sides of the joist. G, screws or bolts, which secure these pieces F to the bottom of the joist.

The arch is formed with an arch-pattern, which is held in position till the cement is set, when the pattern is taken out.

I claim as my invention—

1. A fire-proof floor constructed with joist A, cement arch C, and pieces F, substantially as specified.
2. A fire-proof floor constructed with joist A, side pieces B, cement arches C, hollow D, filled with cement, and pieces F, substantially as specified.

JAMES D. PIERCE.

Witnesses:

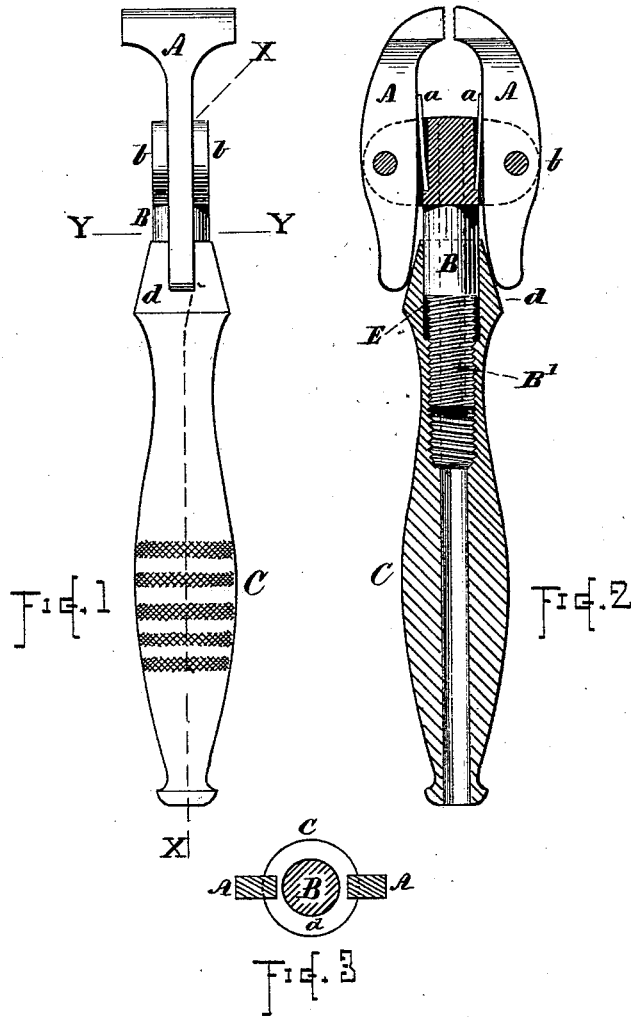
J. B. SMITH,  
E. J. SMITH.

L. L. POLLARD.

Hand-Vise.

No. 166,553.

Patented Aug. 10, 1875.



Witnesses  
↑↑

John E. Sinclair  
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Inventor

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