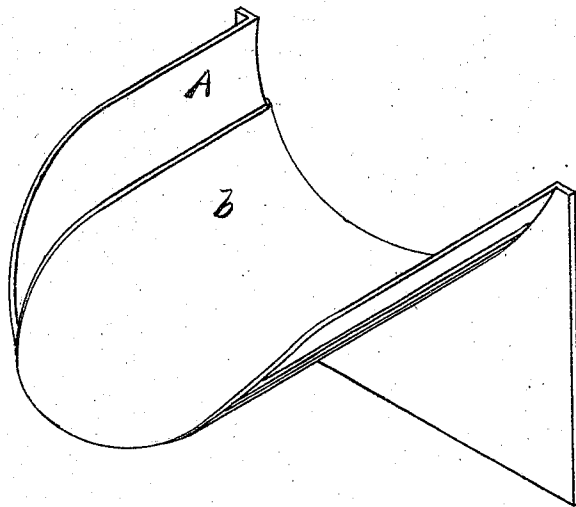


R. A. FISHER.

Improvement in Slag-Spouts for Smelting-Furnaces.

No. 131,867.

Patented Oct. 1, 1872.



Witnesses

J. L. Boone
C. M. Richardson

Inventor

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per Dewey & Co
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UNITED STATES PATENT OFFICE.

ROBERT A. FISHER, OF EUREKA, NEVADA.

IMPROVEMENT IN SLAG-SPOUTS FOR SMELTING-FURNACES.

Specification forming part of Letters Patent No. 131,867, dated October 1, 1872.

To all whom it may concern:

Be it known that I, ROBERT A. FISHER, of Eureka, Lander county, State of Nevada, have invented an Improved Slag-Spout; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

My invention consists in the use of a lining of metal or other suitable material for the so-called slag-spouts which are attached to smelting-furnaces.

Heretofore the slag running from smelting-furnaces has passed directly over the surface of a spout which is attached to the "breast-plate" (front) of the furnace. After a time this spout becomes so much corroded or eaten away by the molten slag as to become useless and require to be replaced by a new one. This replacing of the spout necessitates the stoppage of the flow of slag until the new spout is ready, causing an accumulation of slag in the furnace, and great inconvenience in consequence.

By placing a lining of metal or other suitable material within and resting upon the bottom of the slag-spout before commencing to run off slag, the spout is protected from the corroding action of the slag, and when the lining requires renewal it can be easily replaced by a new one at much less cost of time and material than is required to renew the slag-spout itself.

In the accompanying drawing, A represents the slag-spout; and *b*, the lining.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The removable lining *b*, in combination with the spout A, substantially as and for the purpose above set forth.

In witness whereof I hereunto set my hand and seal.

R. A. FISHER. [L. S.]

Witnesses:

F. A. WISE,
D. McNICOL.