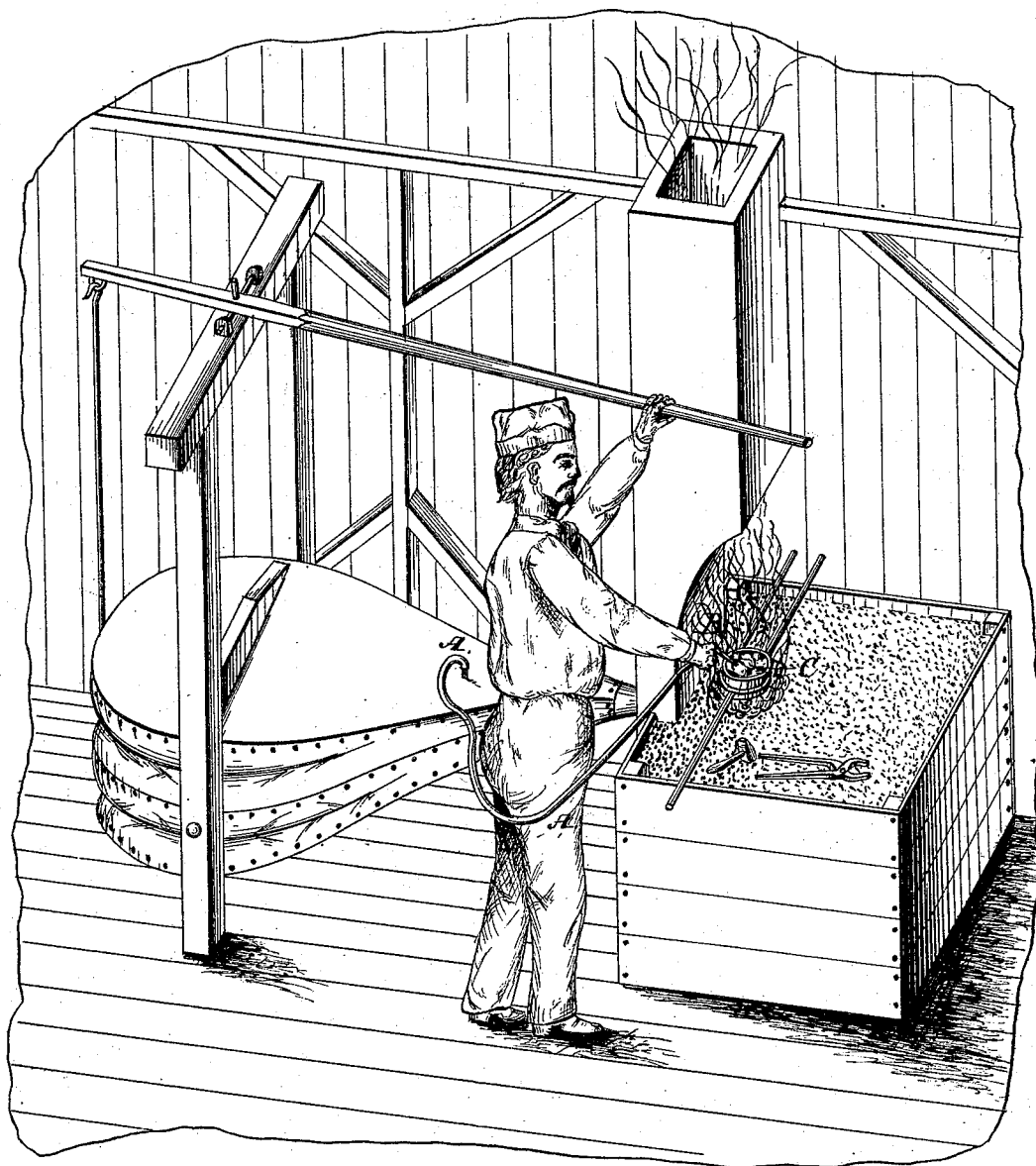


G. W. STAFFORD.

APPARATUS FOR MELTING METALS AND ORES.

No. 178,252.

Patented June 6, 1876.



Witnesses:

J. R. Mason.
J. W. Smith

Inventor:

George Whitefield Stafford

UNITED STATES PATENT OFFICE.

GEORGE W. STAFFORD, OF POSTVILLE, IOWA.

IMPROVEMENT IN APPARATUS FOR MELTING METALS AND ORES.

Specification forming part of Letters Patent No. **178,252**, dated June 6, 1876; application filed January 20, 1876.

To all whom it may concern:

Be it known that I, GEORGE WHITEFIELD STAFFORD, of Postville, in the county of Allamakee, in the State of Iowa, have invented a new and Improved Mode of Melting Metals and Ores of all Kinds; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The nature of my invention consists in applying rubber hose to the upper part of a blacksmith's bellows, as shown in that part of the drawing marked A, which conducts the wind by the means of an iron blow-pipe (marked B) attached to hose, and held in the hand of operator, which conducts the wind into the crucible marked C; at the same time the bellows is keeping the fire around the crucible very hot, using best stone-coal on the main fire outside of crucible, and the best charcoal in the inside of same—the charcoal to be set on fire at the same time that the crucible is placed in the main fire. Then the blast is to be kept up in the hose, and in the bellows-pipe leading to the main fire, causing a powerful

heat inside and out, keeping the crucible full of charcoal until a white heat is obtained. Then put in the metal or ore to be melted, in small quantities, and as it disappears beneath the charcoal, add more, until the required amount is in; then skim charcoal off the melted matter, which is then ready to pour off. By this process any one having a common bellows or foundry-blast can melt brass, copper, gold, silver, iron, and all kinds of ores as easily as Babbitt metal was formerly melted by the old ladle process.

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

The combination, with the crucible and bellows for supplying the blast to the fire beneath the crucible C, of the hose A, connected with the bellows, and provided with the blow-pipe B, for supplying the blast into the crucible C, all arranged and operating as and for the purpose set forth.

GEORGE WHITEFIELD STAFFORD.

Witnesses:

J. R. MASON,
T. W. SMITH.