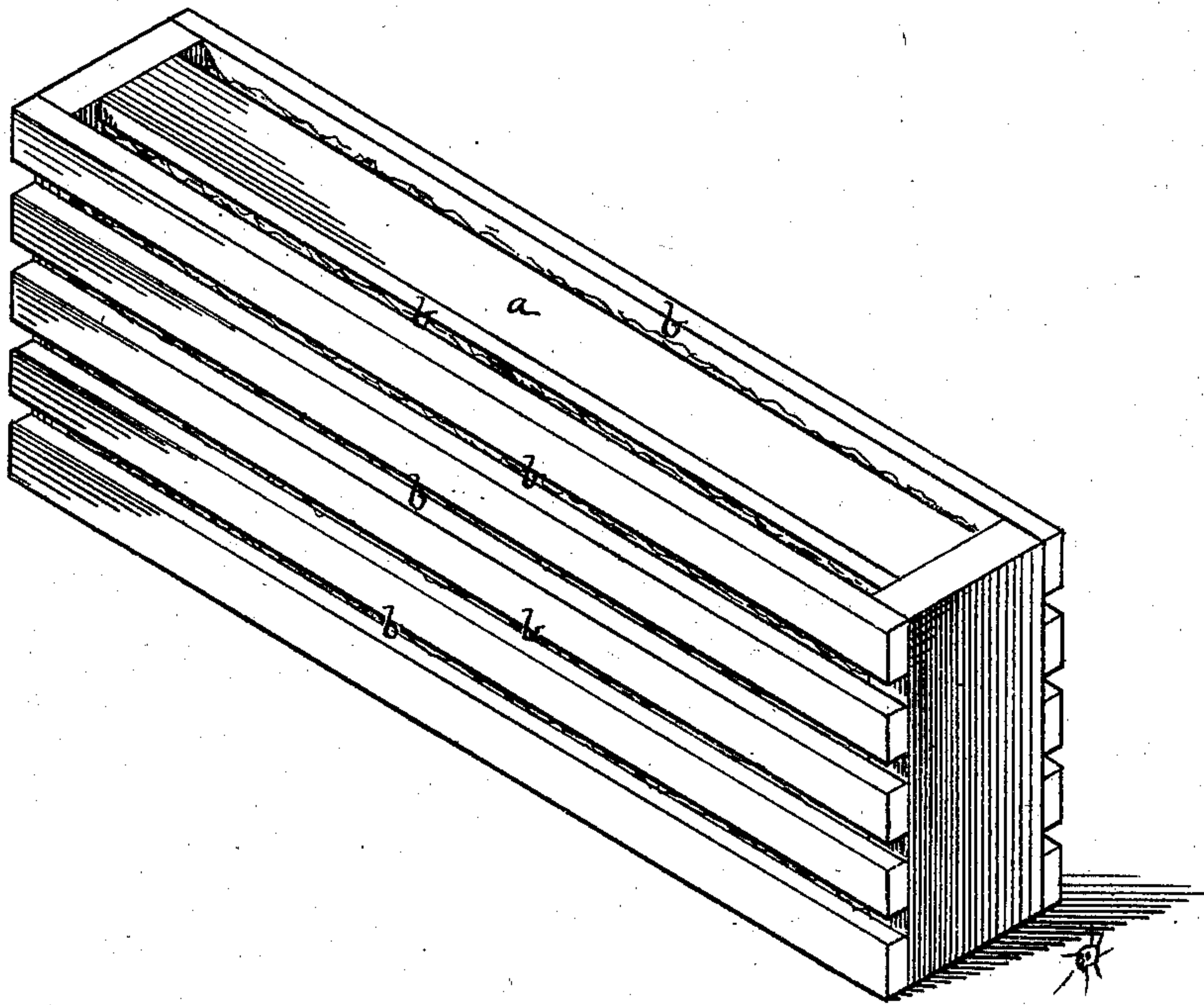


J. C. CRUMPTON.

Fire-Kindlers.

No. 143,277.

Patented September 30, 1873.



Witnesses { James I. Gray  
Fred. Standish } Inventor John C. Crumpton  
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# UNITED STATES PATENT OFFICE.

JOHN C. CRUMPTON, OF ALLEGHENY CITY, PENNSYLVANIA.

## IMPROVEMENT IN FIRE-KINDLERS.

Specification forming part of Letters Patent No. **143,277**, dated September 30, 1873; application filed September 12, 1873.

*To all whom it may concern:*

Be it known that I, JOHN C. CRUMPTON, of Allegheny City, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Furnace Fire-Kindlers; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, which is a perspective view of my improvement, and which forms a part of this specification.

My invention consists of a kindler for boiler and other furnaces, and it is designed to take the place of the wood which is now used for kindling purposes therein.

To enable others skilled in the art to make and use my improvement, I will describe its construction and manner of use.

I make a wooden box, *a*, preferably of the shape shown, having open or air spaces on all sides, such as are shown at *b*. This box I fill with wood shavings, paper, small blocks, pine-knots, or other light combustible materials. These I saturate slightly with any combustible oily or resinous fluid or semi-fluid substance. The object of the spaces *b* is to provide for the admission of a suitable supply of oxygen to support combustion, and also to afford a free outlet for the flame. The box *a* I prefer to make of a hard resinous wood, such as yellow pine, which burns freely, and yet supports combustion for a long time. When the box is filled it is closed, and then is ready for use.

In using I do not provide any other kindling, but ignite the box, and bank it around with the coal or coke in the furnace. By the time the box is consumed the coal is thoroughly ignited.

The shape of the box and of the air-spaces *b* may be varied greatly, the maker of the same being governed entirely by his own wish.

By means of this kindler I effect a great saving, both in kindling material and in the time which is necessary for the ignition of the solid fuel. The wood which has heretofore been used for kindling, not being specially adapted for this purpose, is used at a disadvantage, and a great amount is wasted. I have found by actual experiment that I can get up steam in a boiler by the use of this kindler in one-fourth less time than when using the ordinary kindlings, and save in its construction and use at least sixty per cent. over the cost of present kindling.

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

A fire-kindler consisting of the wooden box *a*, having air-spaces *b*, and filled with shavings, blocks, and other light combustible material slightly saturated with an oily or resinous substance, as described.

In testimony whereof I, the said JOHN C. CRUMPTON, have hereunto set my hand.

JOHN C. CRUMPTON.

Witnesses:

T. B. KERR,  
E. C. FITLER.