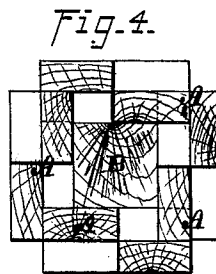
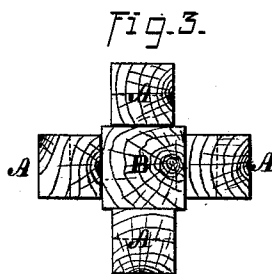
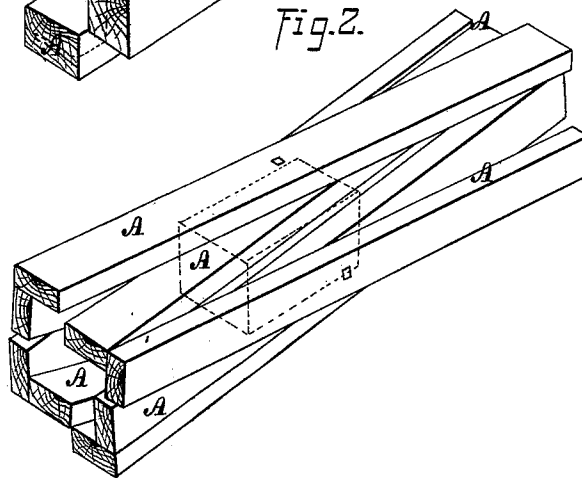
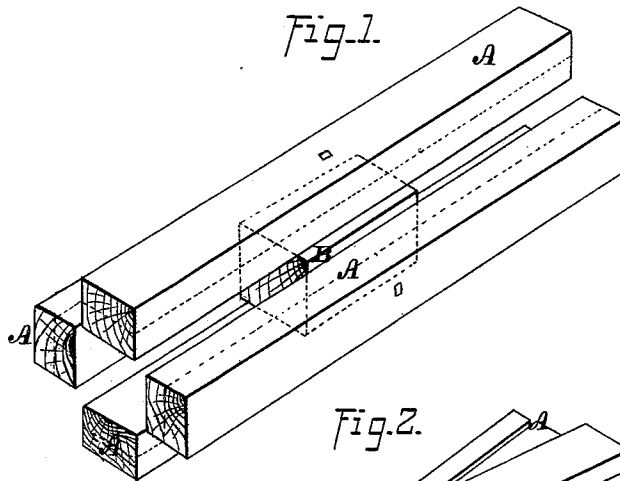


W. J. BODA.  
Fire-Kindler.

No. 198,562.

Patented Dec. 25, 1877.



WITNESSES=

Jack Hutchinson  
Henry L. Hazard.

INVENTOR.

Wm. J. Boda, by  
Prindle and Co. his Attys

# UNITED STATES PATENT OFFICE.

WILLIAM J. BODA, OF COLUMBUS, OHIO, ASSIGNOR OF ONE-HALF HIS  
RIGHT TO WASHINGTON LEE HUGHES, OF SAME PLACE.

## IMPROVEMENT IN FIRE-KINDLERS.

Specification forming part of Letters Patent No. **198,562**, dated December 25, 1877; application filed  
December 7, 1877.

### *To all whom it may concern:*

Be it known that I, WILLIAM J. BODA, of Columbus, in the county of Franklin and in the State of Ohio, have invented certain new and useful Improvements in Fire-Kindlers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a perspective view of my device. Fig. 2 is a like view of a modification of the same; and Figs. 3 and 4 are end elevations, respectively, of Figs. 1 and 2.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to enable a minimum of pine or other highly-combustible wood to produce a maximum of heat for the purpose of kindling hard-wood or coal fires; to which end it consists, as a new article of manufacture, in a fire-kindler composed of sticks of pine or other highly-combustible wood arranged around and secured to a central block, substantially as and for the purpose hereinafter specified.

In the annexed drawing, A and A represent a number of sticks of pine or other light wood, which are arranged in parallel lines around a block, B, which block is placed at the longitudinal center of said sticks, and the latter secured to the same by a nail driven through each stick into said block. As thus constructed, it will be seen that the sticks A are sufficiently separated to permit air to pass freely between the same, so that if ignited said sticks will burn with great freedom.

If desired, thin sticks A may be employed, and twice the number shown in Figs. 1 and 3 may be secured to or upon the block B without increasing the bulk of the kindler, in which event the sticks upon each side of said block may be relatively arranged diagonally, as shown in Figs. 2 and 4, so as to expose as much of the surface of each as is practicable to the action of the flame.

The ends of the sticks A being dipped in rosin or other inflammable material, the kindler is complete, and is used by being placed beneath fuel and then ignited, when it will be found that the arrangement of the parts composing said kindler enables each to burn so freely and rapidly as to cause the greatest quantity of heat to be generated from the quantity of material consumed, the result being the ignition of the other fuel by the use of a quantity of kindling that would otherwise be insufficient.

Having thus fully set forth the nature and merits of my invention, what I claim is—

As a new article of manufacture, a fire-kindler composed of sticks of pine or other highly-combustible wood arranged around and secured at their centers to a central block, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 22d day of November, 1877.

WILLIAM J. BODA.

Witnesses:

C. F. PALMER,  
ROBERT INNIS, Jr.