

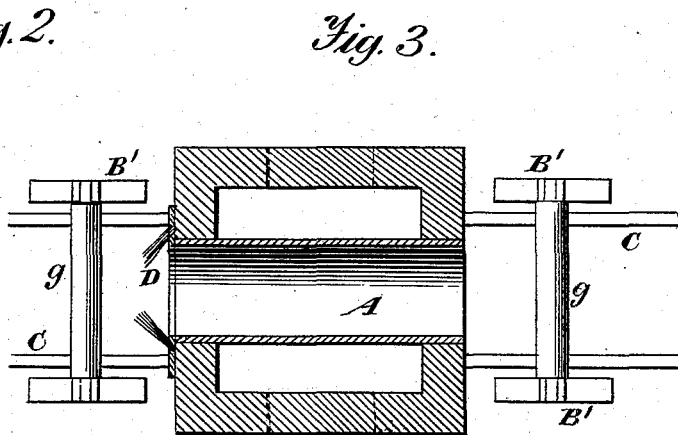
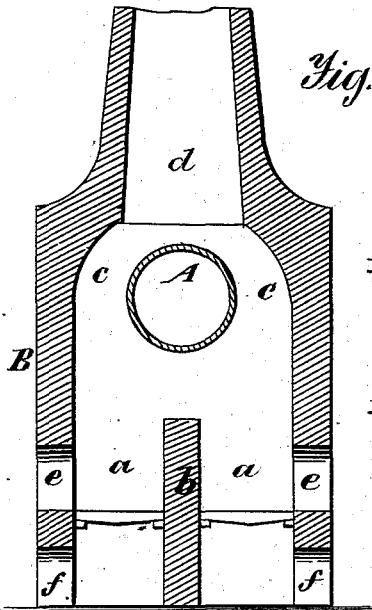
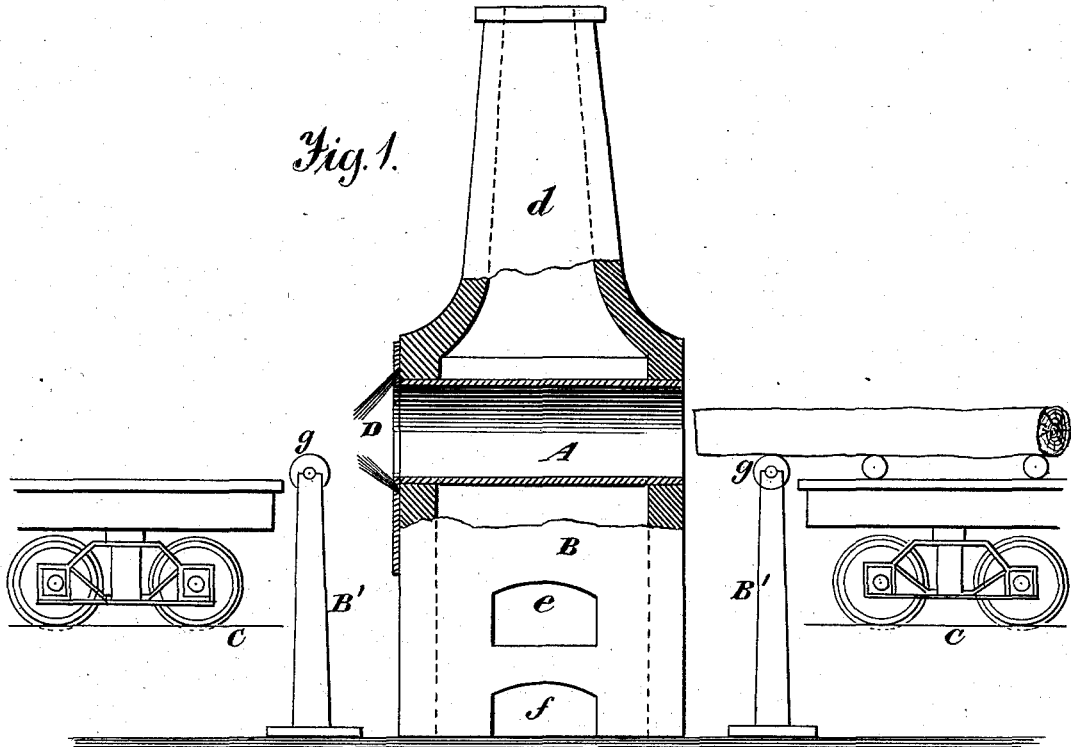
(No Model.)

J. D. STANLEY.

APPARATUS FOR CHARRING TIMBER.

No. 282,395.

Patented July 31, 1883.



Witnesses:  
A. Ruppert  
W. F. Cole

Inventor:  
James D. Stanley,  
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attorney

# UNITED STATES PATENT OFFICE.

JAMES D. STANLEY, OF WILMINGTON, NORTH CAROLINA.

## APPARATUS FOR CHARRING TIMBER.

SPECIFICATION forming part of Letters Patent No. 282,395, dated July 31, 1883.

Application filed April 28, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES D. STANLEY, of Wilmington, in the county of New Hanover and State of North Carolina, have invented certain new and useful Improvements in Charring Timber, of which the following is a specification:

My invention relates to a means of charring timber for piling, bridge construction, and other purposes.

It is well known that by charring its outer surface timber may be preserved from decay and protected from the ravages of the teredo and other destructive insects; and my invention has for its object the rapid, effective, and uniform treatment of the timber, as hereinafter particularly set forth.

The accompanying drawings represent the apparatus employed in carrying out my invention.

Figure 1 is a side elevation, partly in section. Fig. 2 is a sectional end elevation. Fig. 3 is a sectional plan view.

Similar letters of reference indicate similar parts in the respective figures.

A represents an open-ended cylinder, of cast or wrought iron, set horizontally in masonry B. The masonry comprises two furnaces, *a a*, bridge-wall *b*, flues *c*, and stack *d*. The firing-doors are shown by *e* and the ash-pits by *f*. *B' B'* are iron columns or frames which sustain transverse iron rollers *g*. The rollers are elevated above the lowest portion of the perimeter of the cylinder A.

*C C* indicate a railroad-track running in the direction of the length of the charring-cylinder A.

In conducting the operation of charring timber the charring-cylinder A is first adequately heated by fire in the furnaces, and the timber of any length is placed upon a car, so as to be brought as near the height of the rollers *g* as is practicable. The timber is then projected forward centrally within the cylinder A, in which it is surrounded on all sides by the highly-heated surfaces of the cylinder, and subjected to the necessary temperature. The heat is equally distributed over the entire surface of so much of the timber as is then in the cylinder, and no portion of said surface is unduly

scorched. The portion of the timber first introduced into the cylinder is allowed to remain therein for a sufficient length of time for the charring, or the timber may be gradually and slowly pushed through the cylinder without stopping. The course of the timber through the cylinder and the mode of effecting it must be determined by circumstances—such as the character, dryness, &c., of the wood, or other considerations. The forward end of the timber as it is carried through or beyond the cylinder is received upon the forward roller, *g*, and the timber conveyed to a second car placed on the track *C C*, and thereafter taken to its destination. If necessary, a series of rollers may be used at each end of the cylinder.

A brush, *D*, is arranged at the outlet of the cylinder for extinguishing the fire, if, on the timber leaving the cylinder, it is found to be ignited. The brush consists of a plate centrally perforated, and having a concentric row of holes provided with bristles or fibers of asbestos.

My invention effects the purposes for which it is designed in a rapid and uniform manner.

Having described my invention, I claim—

1. In an apparatus for charring timber, the combination, with a horizontal cylinder adapted to be directly heated, and provided at one end with a non-combustible brush, of stationary rollers and means for delivering the timber thereto, substantially as set forth.

2. In an apparatus for charring timber, a horizontal cylinder, furnace for heating the same, stationary rollers for supporting the timber, and trucks for delivering and removing the timber, all combined, substantially as described.

3. In an apparatus for charring timber, the combination, with the cylinder A and furnace B, of brush *D*, rollers *G*, supported by frames *B'*, track *C*, and trucks or cars thereon, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand this 24th day of April, A. D. 1883.

JAMES D. STANLEY.

Witnesses:

G. W. LINDER,  
JAS. A. MCCALLUM.