(No Model.)

L. HANSEN & A. SMITH.

APPARATUS FOR CREOSOTING WOOD.

No. 316,961. Patented May 5, 1885.

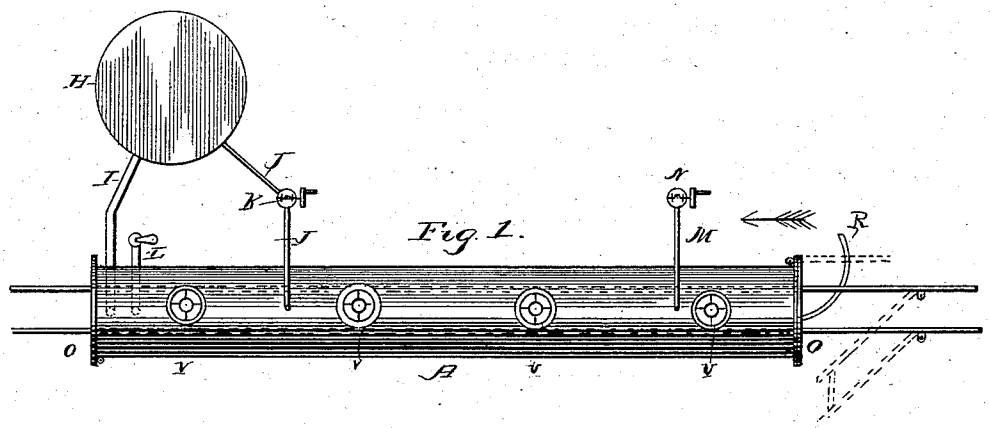


Fig. 1.

Fig. 2.

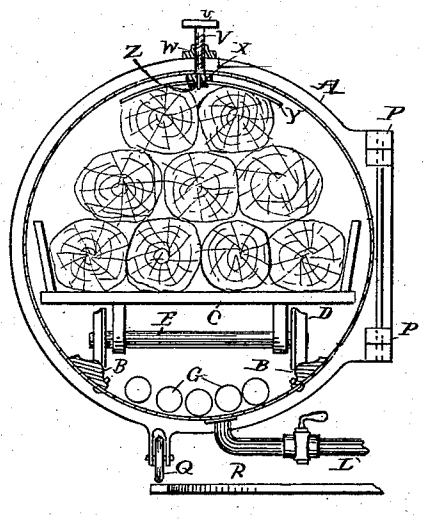
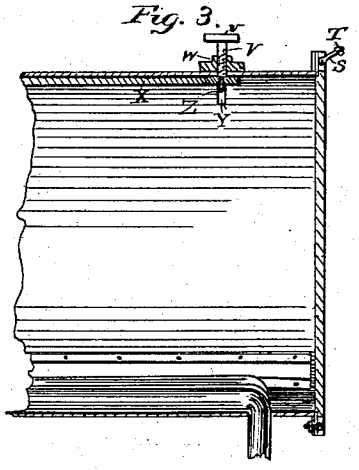


Fig. 3.



WITNESSES

Will P. Robertson.

E. A. Bond.

INVENTOR

Ludvig Hansen

Andrew Smith

By T. J. W. Robertson

Attorney

UNITED STATES PATENT OFFICE.

LUDVIG HANSEN AND ANDREW SMITH, OF WILMINGTON, NORTH CAROLINA.

APPARATUS FOR CREOSOTING WOOD.

SPECIFICATION forming part of Letters Patent No. 316,961, dated May 5, 1885.

Application filed March 21, 1885. (No model.)

To all whom it may concern:

Be it known that we, LUDVIG HANSEN and ANDREW SMITH, citizens of the United States of America, residing at Wilmington, in the county of New Hanover and State of North Carolina, have invented certain new and useful Improvements in Apparatus for Creosoting Wood, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 represents a plan of our apparatus; and Fig. 2, an end view of the cylinder of the same with one end removed and charged with logs. Fig. 3 represents a vertical longitudinal section of one end of the cylinder when empty.

The invention consists in the peculiar combinations and the construction and arrangement of parts hereinafter more fully described and claimed.

Referring to the details of construction, A represents a cylinder having rails B, on which runs the car C, provided with the usual wheels, D, and axles E.

At the lower part of the cylinder is located a series of steam-pipes, G, which are connected with any suitable steam-boiler.

At H is shown a creosote-tank connected with the cylinder A by the pipes I J, the latter being provided with a pump, K.

At the bottom of the tank is a pipe, L, provided with a stop-cock, and at the top is another pipe, M, having a pump, N, whose use is to exhaust the air and moisture from the cylinder A.

The cylinder is provided with a door or head, O, at each end, which is preferably connected to the cylinder by hinges P, and each is provided with a wheel, Q, to support the weight of the door or head, which wheel runs on a track, R. To secure the heads tight when closed, we provide swinging bolts S, having nuts T, which bolts are attached to the heads and swing into slots in the flanges attached to the heads.

The rails U, outside of the cylinder, are provided with movable sections *u*, which are capable of being turned to one side, as shown by dotted lines, in order that the head may swing open to receive the load.

At V is shown a series of screws having hand-wheels *v* placed at intervals along nearly the whole length of the tanks and passing through the fixed nuts W, and whose lower ends press upon a longitudinal bar, X, which carries a series of curved transverse bars, Y. The extreme end of each of the screws passes through the bar X, and is provided with a pin, Z, which supports the bar. By screwing down these screws the bars Y are pressed down upon the logs, and the latter are thus prevented from rising when the cylinder is filled with the preservative fluid.

The operation is as follows: The car is loaded with logs which may or may not have been previously charred, as described in our application filed February 2, 1885, and numbered 154,678, and the car, with its load, is then run into the cylinder and the ends closed tight by shutting in the heads and securing them by the bolts *p* and nuts *q*. The bars Y are then forced down upon the logs by turning down the screws, so as to hold them securely in place. Steam is then admitted to the pipes G to thoroughly dry the logs, and the moisture therefrom and the air in the cylinder being removed through the pipe M by the pump N, creosote or other preservative material is allowed to flow from the tank H into the cylinder until the latter is filled, and then the pump K is set into operation and the creosote is forced into the cylinder with pressure sufficient to cause it to penetrate every pore in the wood. When the wood has been thoroughly impregnated, the surplus creosote is withdrawn from the cylinder through the pipe L, the screws V reversed, and the car, with its load, is withdrawn, leaving the cylinder ready for another charge.

We prefer to have both heads removable, so that the cars may enter at one end and pass out at the other; but one end may be kept closed all the time and the car pass in and out at the same end, if preferred.

Some of the features claimed herein are shown but not claimed in our application No. 154,678, before referred to.

What we claim as new is—

1. The combination, with the cylinder A and curved way R, of the hinged head O, provided

with the supporting-wheel Q, substantially as described.

2. The combination, with the cylinder A, of the bar X, carrying the transverse bars Y, and screws V, for operating the same, substantially as described.

In testimony whereof we affix our signatures, in presence of two witnesses, this 19th day of March, 1885.

LUDVIG HANSEN.
ANDREW SMITH.

Witnesses:
WILLIAM BARRY,
ALEX. S. HEIDE.