

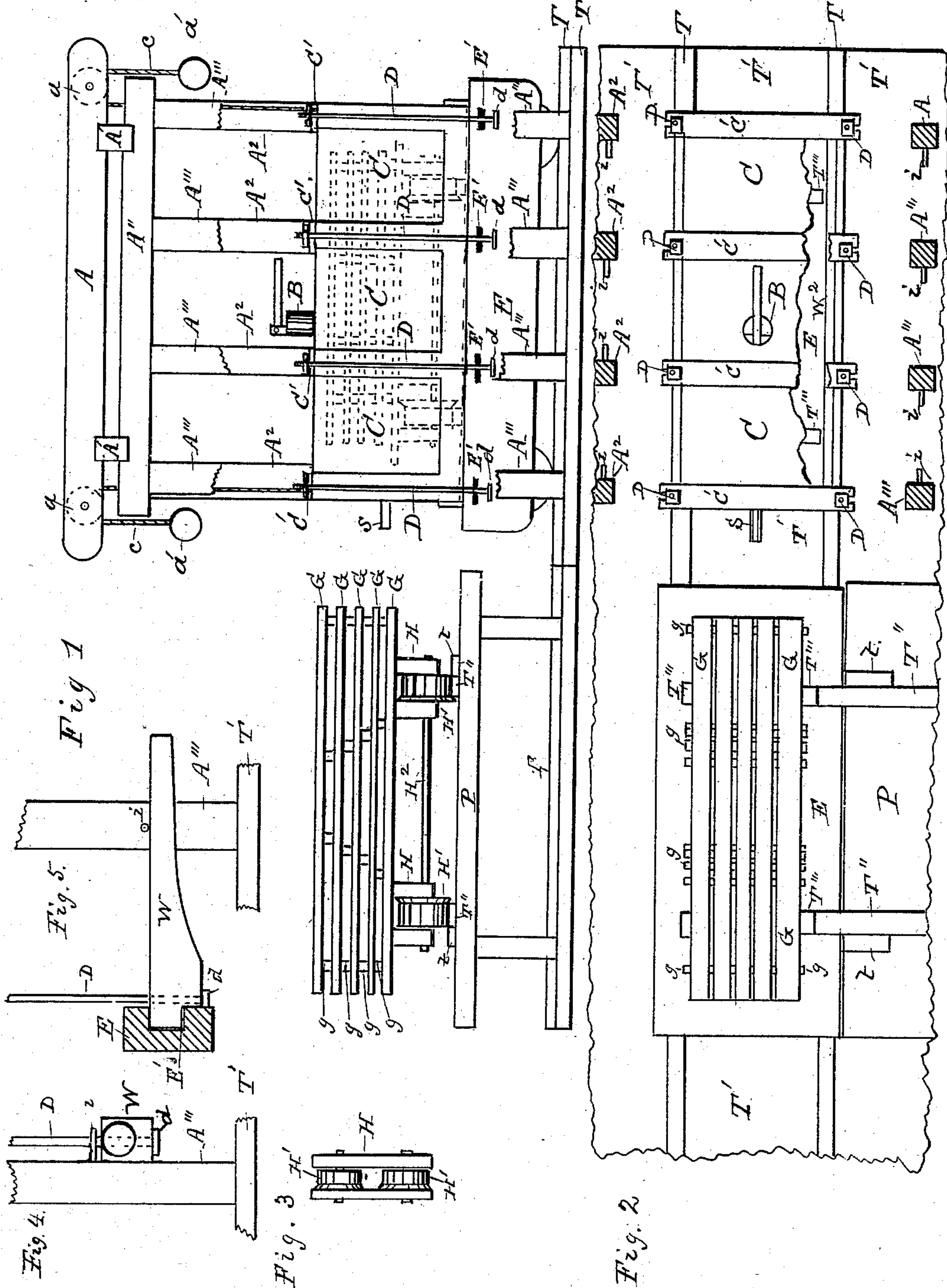
(No Model.)

J. O. SMITH.

APPARATUS FOR DRYING AND SEASONING LUMBER.

No. 270,138.

Patented Jan. 2, 1883.



WITNESSES

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# UNITED STATES PATENT OFFICE.

JOHN OWEN SMITH, OF JAMISON, ALABAMA.

## APPARATUS FOR DRYING AND SEASONING LUMBER.

SPECIFICATION forming part of Letters Patent No. 270,138, dated January 2, 1883.

Application filed November 29, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN OWEN SMITH, a citizen of the United States, residing at Jamison, in the county of Chilton and State of Alabama, have invented certain new and useful Improvements in Apparatus for Drying and Seasoning Lumber, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in apparatus for drying and seasoning lumber, and has for its object the extraction of the sap from the wood before drying and seasoning. This object is accomplished by the processes and machinery illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation with some of the parts broken away. Fig. 2 is a plan view, partly in section. Fig. 3 is a detailed view of one of the trucks. Fig. 4 is an elevation of a part of one of the vertical posts,  $A'''$ . It shows the pin  $i$  and an end view of the lever  $W$ , and a part of one of the rods  $D$ . Fig. 5 is an elevation of one of the vertical posts,  $A'''$ , broken off, an end view of pin  $i$ , a side view of lever  $W$ , rod  $D$ , and a section of the rail of the car  $E$ , with its slot  $E'$ .

$A$  is a part of the frame, consisting of a suitable number of longitudinal timbers arranged to suspend the hood  $C$  by ropes or chains  $c$ , passing over pulleys  $a$ , the ends of which are attached to the hood  $C$  and to the counter-balance-weights  $a'$ .

$A'$  are cross-beams, which serve to support the beams  $A$ , and also bind the two longitudinal beams  $A''$  together.

$A^2$  and  $A'''$  are upright beams which support the longitudinal beams  $A''$ . They are provided with pins  $i$ , the object of which is hereinafter described.

$C$  is a hood, which may be constructed of any suitable material. I prefer to make it of wood and line it with sheet metal. On top it is provided with cross-timbers  $C'$ , the ends of which project beyond the sides of the hood  $C$ , and are slotted to receive the rods  $D$ .

$B$  is a safety-valve placed on the top of the hood  $C$ .

$S$  is a cock for the introduction of steam into the interior of the hood  $C$ , and is intended to

be connected to a steam-boiler with suitable pipes.

$D$  are vertical rods provided with nuts, and threaded for purposes of adjustment. The lower ends of the rods  $D$  are furnished with heads  $d$ , which form a bearing for the slotted levers  $W$ .

$E$  is a car, which travels upon the rails  $T$ . On top it is covered with sheet metal, and has also transverse tracks or rails  $T'''$ , which support the wheels of the truck  $H$ .

$T'$  is a platform, or it may form part of the ground itself, upon which the frame  $A'''$   $A^2$  is built and the track  $T$  is laid.

$P$  is a platform or raised surface for the support of the rails  $T''$ , which carry the trucks  $H$  while being loaded with the lumber  $G$ .

$H$  are trucks, which may be constructed with a long shaft,  $H''$ , as shown in Fig. 1, or in separate sets, as shown in Fig. 3.

$E'$  are slots in the frame of the car  $E$  for the introduction of the slotted ends of the levers  $W$ .

The track  $T$  may be made of any convenient length, and any number of platforms  $P$  may be employed and located along the line of the track  $T$ .

In using this device the hood  $C$  is raised and remains suspended by the chains  $c$  and weights  $a'$ . The car  $E$  is then moved until its transverse tracks  $T'''$  are opposite the rails  $T''$  on the platform  $P$ . The truck  $H$  is then pushed until it reaches a central position on the tracks  $T'''$  of the car  $E$ . The car  $E$  is then placed under the hood  $C$ , which is then lowered upon the car, and the rods  $D$  are brought down by means of the levers  $W$  in such manner as to make a tight joint by means of packing  $W^2$ , of suitable description, placed between the lower edges of the hood  $C$  and the top of the car  $E$ . The steam-pipes are then connected with the cock  $S$ , and steam is admitted into the interior of the hood, any surplus pressure being allowed to escape by means of the safety-valve  $B$ . When the lumber has been subjected to the action of the steam a sufficient length of time—usually about two and a half hours—to dissolve and extract the sap therefrom, the hood  $C$  is raised, and the car  $E$  is moved to any convenient locality, and the lumber  $G$  is stacked for drying and seasoning,



the time for which is greatly accelerated by the process of steaming hereinbefore described. The pins  $i$  in the upright frames  $A'''$   $A^2$  are for the purpose of holding the levers  $W$  down, 5 and keep the hood  $C$  and the car  $E$  in close contact during the process of steaming. I prefer to pile the lumber on the truck  $H$ , with the slats  $g$  arranged as shown in Fig. 1, as in this manner it can be removed in a body and al- 10 lowed to remain without further handling until sufficiently dry for the planing-machine or other purposes.

Having described my invention, what I desire to secure by Letters Patent and to claim 15 is—

1. The combination of the hood  $C$  and the car  $E$ , provided with means to secure a tight joint between the two, as described, and for the purposes set forth.

2. The combination of hood  $C$ , beams  $A$ , 20 with pulleys  $a$ , chains  $c$ , and counter-weights  $a'$ , with truck  $E$ , having slots  $E'$ , rods  $D$ , and levers  $W$ , substantially as described, and for the purposes set forth.

3. The combination, in a lumber-drying ma- 25 chine, of the hood  $C$ , having safety-valve  $B$ , cock  $S$ , and binding-rods  $D$ , with car  $E$ , as shown and described, and for the purposes set forth.

In testimony whereof I affix my signature in 30 presence of two witnesses.

JOHN O. SMITH.

Witnesses:

MORTON TOULMIN,  
E. H. BRADFORD.