

No. 690,704.

Patented Jan. 7, 1902.

J. A. DEZELL.
HEATING APPARATUS.

(Application filed Apr. 5, 1901.)

(No Model.)

Fig 1

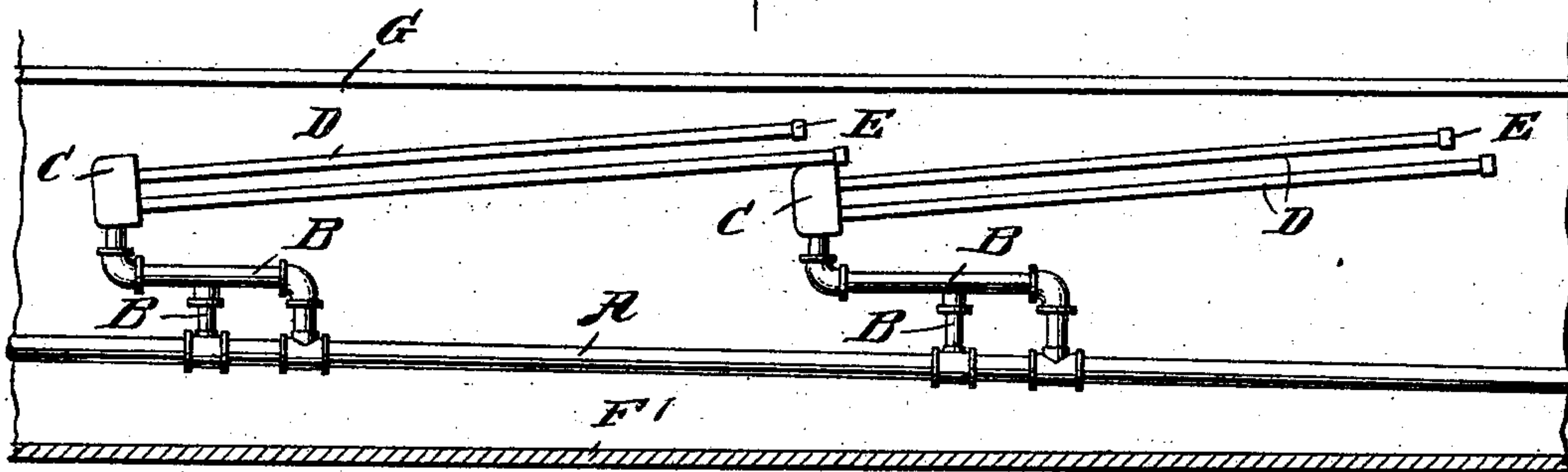


Fig 2

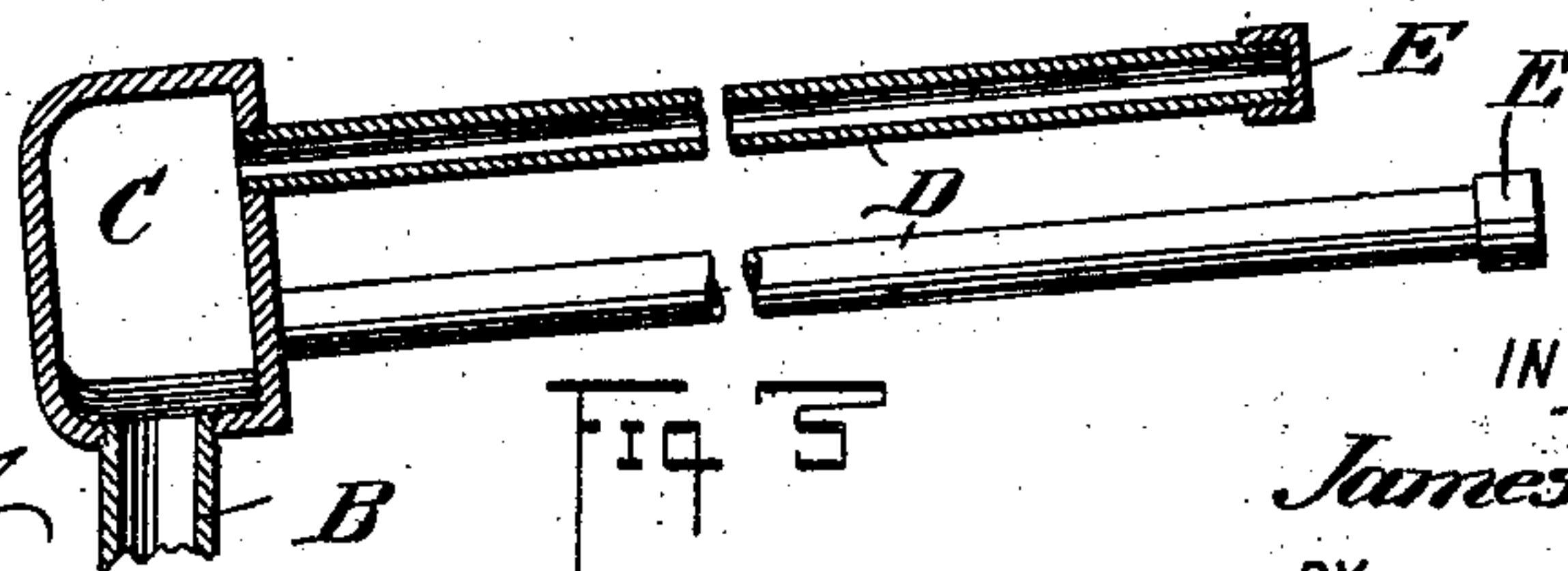
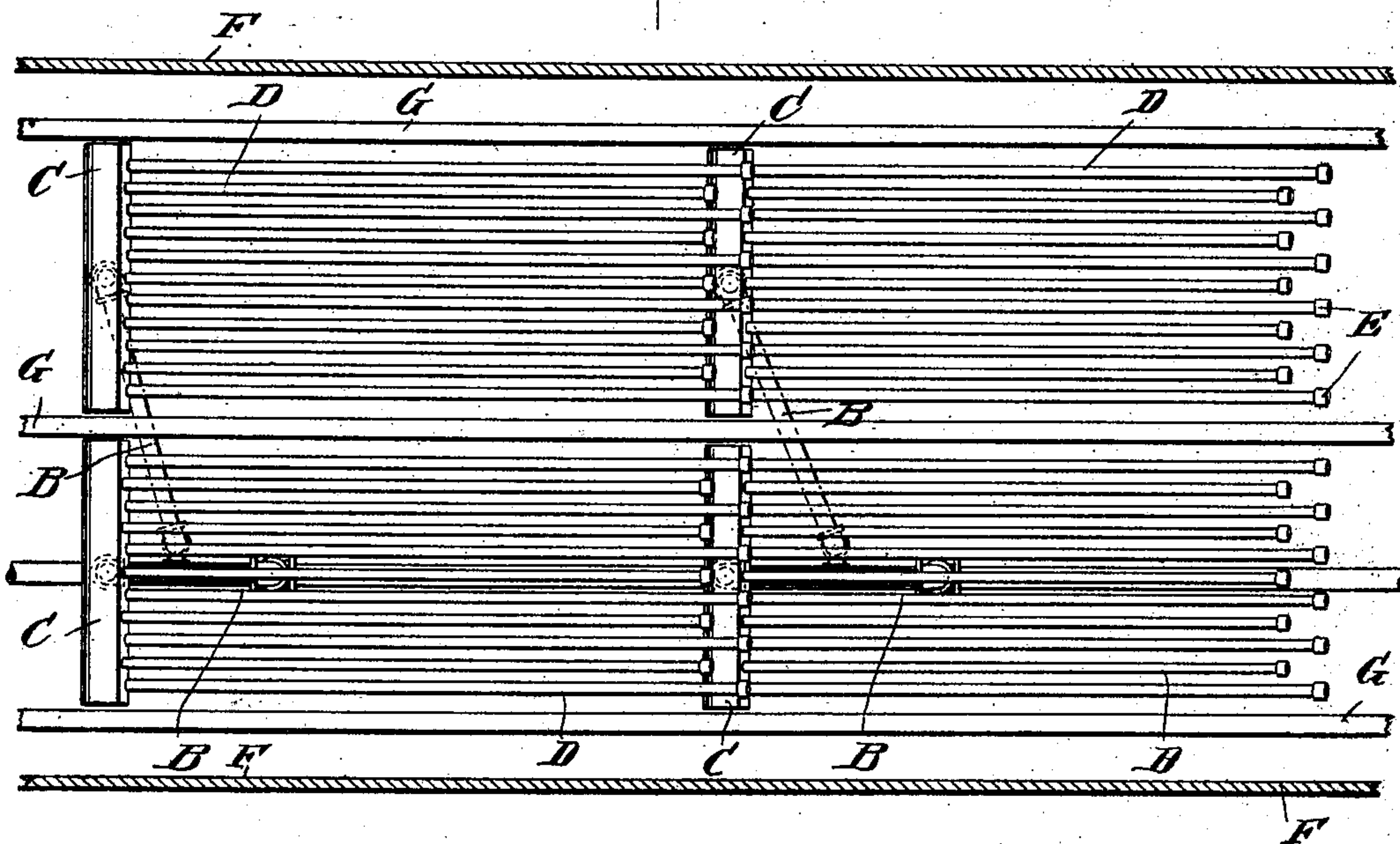


Fig 3

WITNESSES:

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JAMES A. DEZELL, OF KINGSTON, ALABAMA.

HEATING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 690,704, dated January 7, 1902.

Application filed April 5, 1901. Serial No. 54,448. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. DEZELL, a citizen of the United States, and a resident of Kingston, in the county of Autauga and State of Alabama, have invented new and useful Improvements in Heating Apparatus, of which the following is a full, clear, and exact description.

My invention relates to a steam heating apparatus applicable particularly to lumber and other driers.

The invention will be fully described hereinafter and the features of novelty pointed out in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is an elevation of my improved apparatus. Fig. 2 is a plan view thereof, and Fig. 3 is a sectional detail on an enlarged scale.

The apparatus comprises an inclined steam-pipe A, connected at its lower end with a trap (not shown) for the water of condensation and at its upper end with the boiler or other source of steam-supply. From the pipe A rise pipes B, connected with transverse horizontal heads C, which are preferably slightly inclined downwardly at least interiorly toward their connection with the pipes B, as best shown in Fig. 3. With each head C are connected the lower ends of the inclined longitudinal tubes D, arranged in two superposed sets (in break-joint fashion) and closed at their upper forward ends by screw-caps E, plugs, or equivalent devices. The lower set of tubes D, connected with the rear head C, may rest on the forward head, as shown in Fig. 1. All these pipes and tubes are arranged in the room to be heated—for instance, when applied to a lumber-drier the heating apparatus will be located between the walls F and above the floor F', yet below the tracks G, on which the lumber-cars are adapted to run.

In operation steam being turned on it passes through the inclined pipe A, the con-

nection-pipes B, and the heads C to the inclined tubes D, which act in the same manner as the sections of a radiator, heating the room and the lumber or other articles contained therein. Any condensation product flows down the inclined tubes D to the heads C and down the inclined bottom of the latter to the connection-pipes B, thus reaching the inclined main steam-pipe A and passing to the water-trap.

The apparatus is very simple and its parts are readily accessible for repairs.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A heating apparatus comprising an inclined steam-pipe, connection-pipes rising therefrom, heads located at the upper ends of the connection-pipes, and inclined tubes closed at their upper ends and having their lower ends connected with the said head, said tubes being arranged in two sets, one at a higher level than the other, the upper portions of the tubes of the lower set connected with one head resting upon the head located in front thereof.

2. A heating apparatus comprising an inclined steam-pipe, connection-pipes rising therefrom, heads located at the upper ends of the connection-pipes, and inclined tubes closed at their upper ends and having their lower ends connected with the said head, said tubes being arranged in two sets, one at a higher level than the other, the upper portions of the tubes of the lower set connected with one head resting upon the head located in front thereof, and the tubes of one set being located in break-joint fashion relatively to those of the other set, that is, out of vertical alinement therewith.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES A. DEZELL.

Witnesses:

S. D. DANTZLER,
M. M. SMITH.