D. V. DAVIS.

Apparatus for Curing Tobacco.

No. 200,789. Patented Feb. 26, 1878.

Fig. 1.

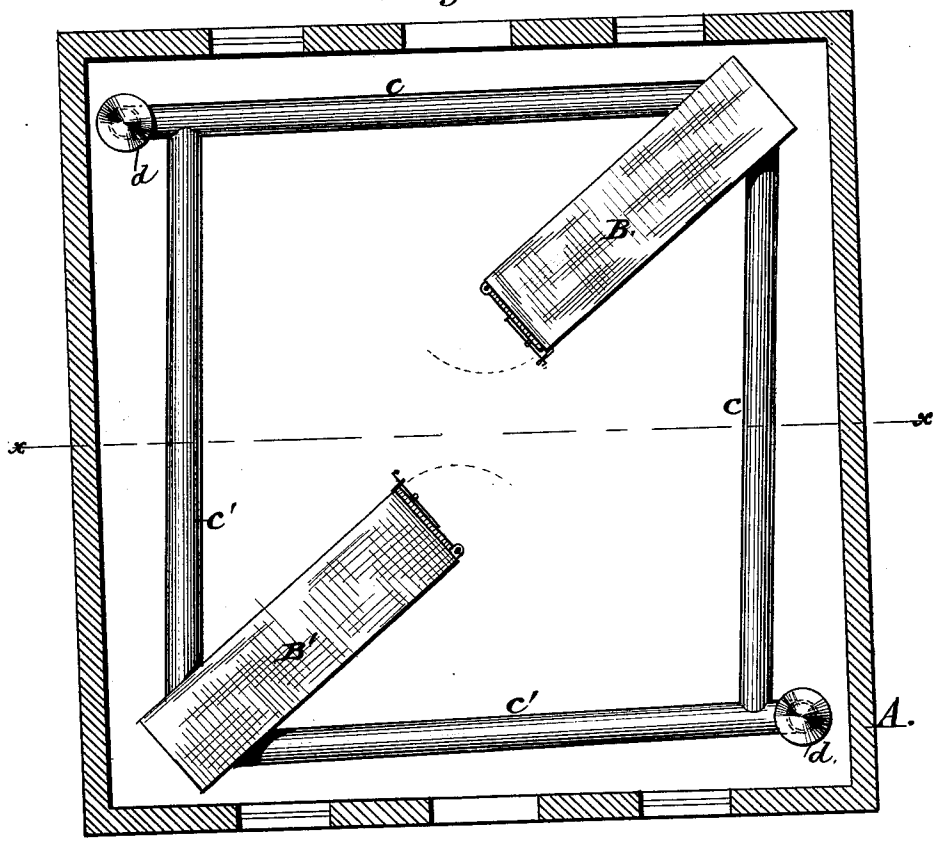
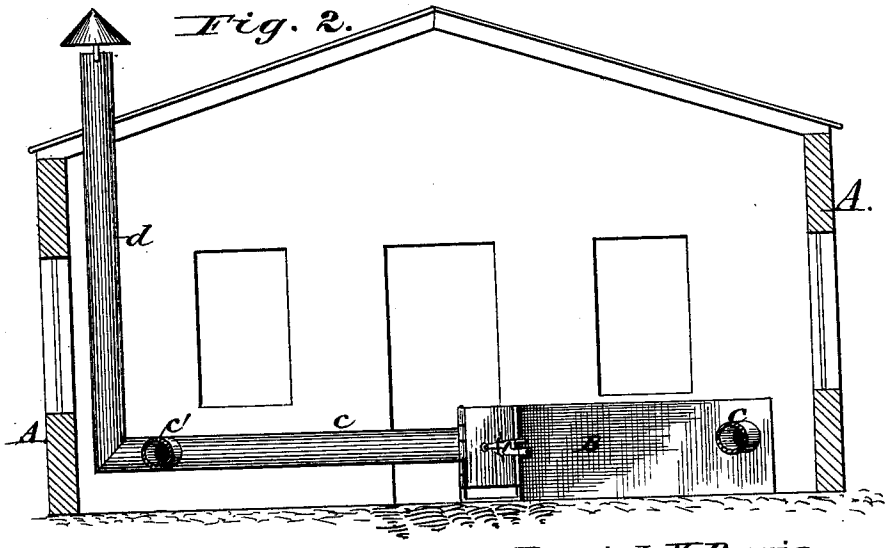


Fig. 2.



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UNITED STATES PATENT OFFICE.

DANIEL V. DAVIS, OF MOCKSVILLE, NORTH CAROLINA.

IMPROVEMENT IN APPARATUS FOR CURING TOBACCO.

Specification forming part of Letters Patent No. **200,789**, dated February 26, 1878; application filed December 28, 1877.

To all whom it may concern:

Be it known that I, DANIEL VESTEL DAVIS, of Mocksville, in the county of Davie and State of North Carolina, have invented certain new and useful Improvements in Apparatus for Curing Tobacco, of which the following is a specification:

This invention relates to an improved combination and arrangement of furnaces and flues for tobacco drying or curing houses.

The furnaces of drying-houses have heretofore been located outside, or having their mouths extending outside, of the walls, and the flues from furnaces have extended into and through the houses, for the purpose of conveying heat to the tobacco, and from this arrangement has resulted a lack of uniformity in the drying, great loss of heat, and excessive consumption of fuel, owing to the constant access of cold air to the outer exposed ends and mouth of said furnaces, which have, besides, required almost constant attention in keeping up the supply of fuel.

Furnaces have also been located at the center of the drying-room, and provided with flues extending therefrom to and along the sides of the room, thus producing at the center a much higher degree of heat than at the sides, resulting in as great a lack of uniformity in the drying as in the case first mentioned.

My invention has in view the avoidance of these disadvantages referred to as attending the previous construction and arrangement of furnaces for tobacco-drying houses; and to this end it consists in the combination, in such a dry-house, of one or more furnaces extending from near one or more corners to near the center of the house, and in conducting horizontal flues from such furnace or furnaces around one or more sides of the house and beneath the places of hanging the tobacco to dry.

I am thus enabled to distribute through the house a uniform degree of heat, and produce an evenly-cured article of leaf-tobacco, having a much higher market value than that dried by arrangements of furnaces and flues hitherto used.

In the accompanying drawings is shown the application of two furnaces and connected flues to a dry-house according to my invention.

Figure 1 is a plan view, and Fig. 2 a partial perspective view.

The letter A represents the foundation of a dry-house, and B B′ are furnaces, extending from points near two diagonally-opposite corners approximately toward and nearly to the center of the floor, but on such different lines that they would not meet directly if prolonged. *c c* and *c′ c′* are horizontal flues, extending obliquely from opposite sides and near the outer ends of the furnaces to the other corners, where they meet and are connected to vertical flues *d d*, which may extend laterally through the walls or through the roof.

The horizontal flues are supported at a sufficient distance from the floor and from the walls to permit a free circulation of air around said flues, and obviate danger of firing the walls in case the flues should become overheated.

The furnaces I prefer to build with interior dimensions of about twenty inches height and eighteen inches width, and of any suitable material, such as iron, brick, or stone, with hinged iron doors, leaving a draft-opening at their bottoms. The outer ends of these furnaces do not touch the walls or foundations of the house, and their inner ends are far enough apart to afford free passage between them, and to permit their doors to swing open clear of each other.

The flues I usually make of sheet-iron pipe about seven inches in diameter, and provided with suitable thimbles where they pass through the walls or roof.

It will be seen that, as my furnaces are entirely within the house, I utilize for the drying of the tobacco all the heat produced except the small portion that necessarily escapes with the smoke, and also that sides and corners of the room get their share of heat from the flues and ends of the furnaces.

It will be further observed that, as my furnaces have their mouths near the center of the room, and do not touch the walls at the corners, and as there is an air-space between the walls and flues, there is very little danger of fire.

What I claim, and desire to secure by Letters Patent, is—

1. The combination, with a tobacco-drying room, of two furnaces extending from points near diagonally-opposite corners of said house in the general direction of the center thereof, and horizontal flues extending from the opposite sides of each of said furnaces, and connected at diagonally-opposite corners thereof with flues leading out from said room, substantially as described.

2. The combination, with a drying-room, of the furnaces B B′, having their mouths near the center of said room, the flues *c c* and *c′ c′*, connected at the corners thereof, and the vertical flues *d d*, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

DANIEL VESTEL DAVIS.

Witnesses:
W. A. CLEMENT,
THOS. A. PENRY.