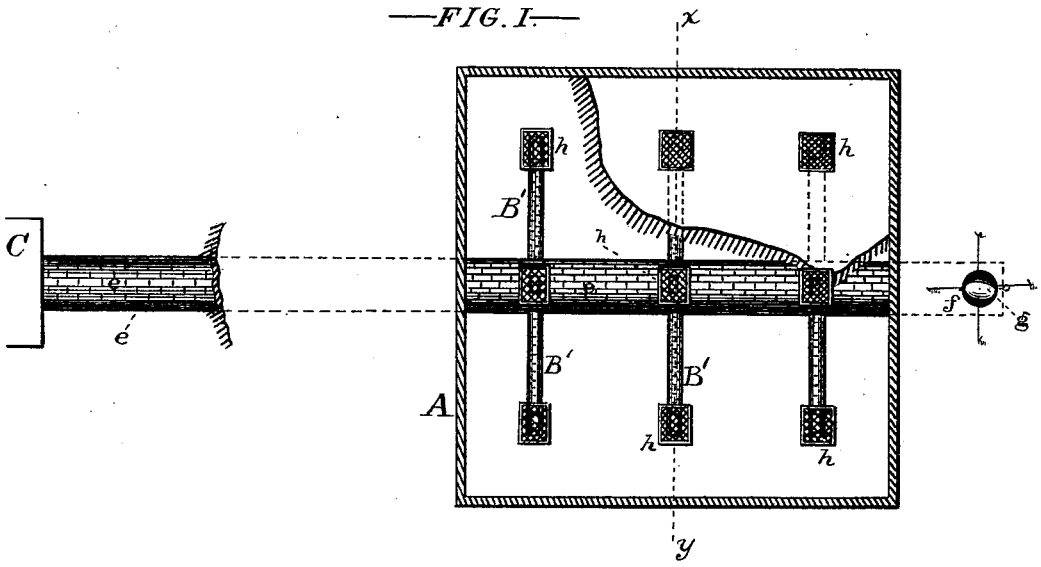
J. S. MELVIN.

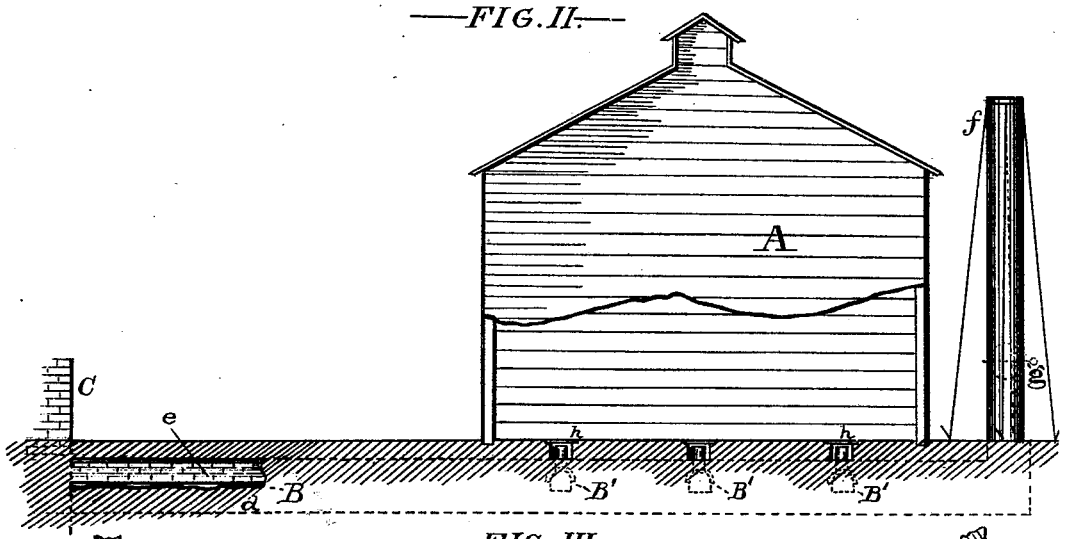
Apparatus for Curing Tobacco.

No. 204,592. Patented June 4, 1878.

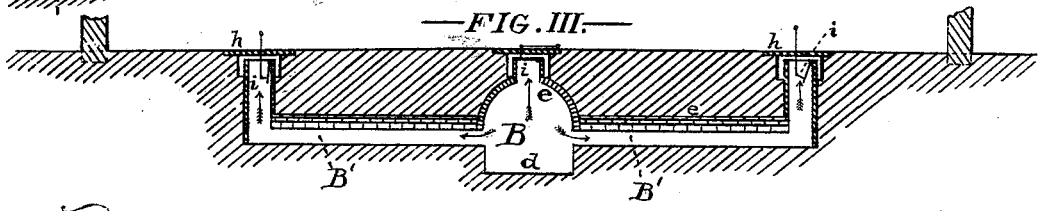
—FIG. I.—



—FIG. II.—



—FIG. III.—



Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES S. MELVIN, OF FARMINGTON, KENTUCKY.

IMPROVEMENT IN APPARATUS FOR CURING TOBACCO.

Specification forming part of Letters Patent No. **204,592**, dated June 4, 1878; application filed April 19, 1878.

To all whom it may concern:

Be it known that I, JAMES S. MELVIN, of Farmington, in the county of Graves and State of Kentucky, have invented a new and useful Improvement in Apparatus for Curing Tobacco, which is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a plan view of my improvement. Fig. 2 is a side view, partly broken away. Fig. 3 is a section through the line *x y* in Fig. 1.

The object of my invention is to provide an inexpensive apparatus for curing housed tobacco by artificial heat through the medium of underground flues and dampers, which shall be of such a nature that ordinary mechanics can readily construct the same in any existing close-built tobacco-barn.

Referring to the drawing, A represents the curing-house or tobacco-barn; B, a large or main flue below the surface of the ground, leading from the furnace, located at C, from which it conducts the smoke and heat. In practice, the furnace should be located about fifteen feet from the barn, and the main flue leading therefrom should be about twenty-four inches in diameter, and formed by first digging a trench or ditch, *d*, of sufficient depth, which is then covered or arched over by brick, so that the crown *e* of the arch will not be above the surface of the ground. This main flue passes through the center of the barn and extends through and three feet beyond the farthest wall, where a chimney or smoke-stack, *f*, provided with a damper, *g*, allows the smoke to escape. Small hot-air flues B′ connect with the main flue at intervals of five feet, and extend to within two and a half feet of the side walls, each terminating at or just below the surface of the ground-floor, its outlet being in size about four by eight inches, which is closed by a sheet-iron damper, *i*, and covered on a level with the surface by the grating *h*. It will be seen that the jointed rod by which the damper is actuated passes through the grating, and serves, when lying at a horizontal position, to sustain the closed damper.

As all the flues are under ground they are entirely out of the way, and are no impediment when driving a wagon through the barn while housing tobacco; and, moreover, thus constructed they conduct and deliver the heat to the points desired without that loss from radiation which is inseparable from exposed pipes.

When the tobacco is housed in the usual manner and the fire is started the dampers *i* are all closed and the damper *g* open. At the proper time, when the flues have become heated, and it is found the smoke will not escape into the barn, the dampers *i* are opened, and if all the heat is desired the outer damper *g* is closed. By means of the dampers *i*, located as they are, the heat can be regulated and turned on or off at any part of the barn where more or less heat may be desired.

My apparatus is safe, efficient, and economical in operation, and cures tobacco any desired color and without risk from overheating.

I am aware of the construction shown and described in United States Letters Patent issued to John Ashcroft, February 20, 1872, and also to Ezra Davee, December 8, 1874, and such I do not claim.

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

In an apparatus for curing tobacco, the underground main flue B, formed by the trench or ditch *d*, arched by brick, so that the crown *e* will not be above the surface, leading from the furnace and passing through the drying-room, and extending to the outer side of the farthest wall, and terminating in a smoke-stack or chimney having the damper *g*, with the intersecting hot-air flues B′, the terminus of each being provided with the damper *i*, as shown and described, and covered on a level with the surface by the grating *h*, as set forth.

J. S. MELVIN.

Witnesses:
C. J. STOKES,
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