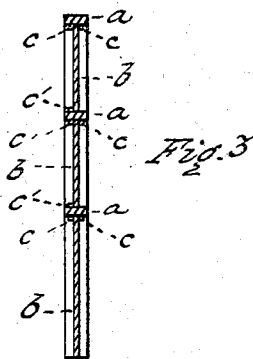
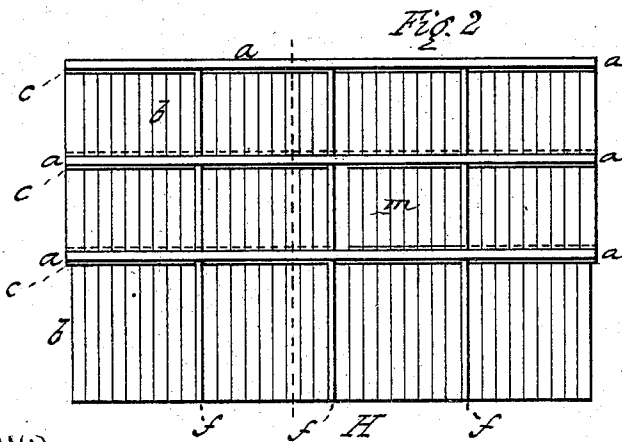
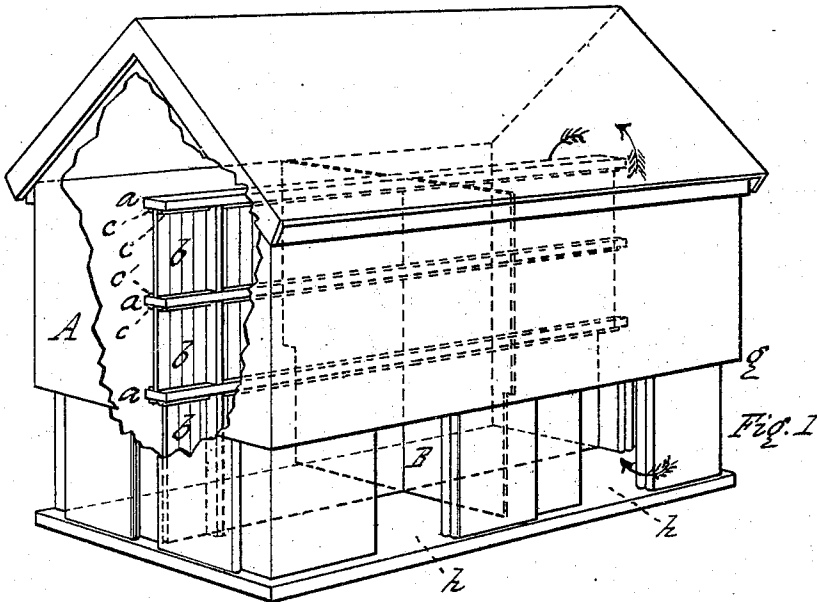


**E. W. ELLSWORTH.**  
**Tobacco Drying-Houses.**

No. 144,194.

Patented Nov. 4, 1873.



Witnesses,

*C. E. Buckland.*  
*J. P. Wall*

Inventor,

*Erastus W. Ellsworth,*  
*By J. A. Curtis, his atty.*

# UNITED STATES PATENT OFFICE.

ERASTUS W. ELLSWORTH, OF SOUTH WINDSOR, CONNECTICUT.

## IMPROVEMENT IN TOBACCO-DRYING HOUSES.

Specification forming part of Letters Patent No. **144,194**, dated November 4, 1873; application filed June 28, 1873.

*To all whom it may concern:*

Be it known that I, ERASTUS W. ELLSWORTH, of South Windsor, State of Connecticut, have invented an Improvement in Tobacco-Drying Houses, of which the following is a specification:

The object of my invention is to induce a current of air, which passes in at the open doors of a tobacco-drying house upon one side, to flow up through the building in a vertical direction in one portion of the building, and into the entire upper part, and thence down through the other portion of the building in a vertical direction, and pass out through the open doors upon that side. This movement of air I obtain by placing a partition about midway through the entire length of the building, making it about as high as the eaves; and, to better carry out the object sought, I place another partition at right angles to the first, also about midway the building in the other direction, so that when the wind is blowing in the proper direction the air may pass in and out through the doors in the ends of the building, and have the same movement inside as above described. The doors I place at the bottom, only extending them up a short distance from the floor or ground.

In the drawings, Figure 1 is a perspective view of a tobacco-drying house arranged according to my invention. Fig. 2 is a side elevation of the partition; and Fig. 3 is a vertical section of the same at line H.

A is the side boarding, which extends down to a point, *g*, three or four feet from the ground, below which the building is provided with any desirable number of doors, *h h*, at both sides and both ends of the building. Inside I arrange two partitions, one extending the entire length of the building midway its width, and the other extending the entire width at right angles to the former, midway its length; and both partitions extend upward to about the same height as the eaves. These partitions may be made permanent, as shown in the transverse partition B; but I prefer to make them as follows: Horizontal timbers *a*, of any suitable size, are placed at any desirable height and distance apart—say, the

first being placed five or six feet from the floor, and the second the same distance above the first—and so on, the highest being about the same height as the eaves; and these timbers *a* are supported by, and secured to, the upright timbers *f f*, which may be any desired distance apart—say ten to fourteen feet—or even more. To the lower side of the timbers *a* two slats, *c c*, are secured longitudinally and sufficient distances apart to receive the thickness of a common board, from three-fourths of an inch to an inch thick; and on the upper side of the timbers *a* is secured the single slat, *c'*, also extending longitudinally and directly above one of the lower slats *c*. Ordinary boards of suitable length and thickness are placed with their upper ends between the two slats *c c*, and their lower ends against the slat *c'*, and resting upon the timbers *a*, and these boards *b*, being placed close together, a partition is formed extending the whole length and width of the building, and of the same height as the eaves.

The air enters, through the open doors *h* at the lower part of the building, at one side, and, passing in, is deflected upward by the partition *b*, passing thoroughly through all the tobacco which may be hung in the building, even in the upper part above the eaves, and thence down the other side of the partition, and out through the doors on that side.

The air is thus made to pass through all the tobacco in the building in a vertical direction; and the natural formation of the stalks and leaves of the plant, and the manner of hanging it, being favorable, the air more thoroughly diffuses itself among the stalks and leaves than when it is made to pass directly through the building from side to side.

After tobacco in a shed has been cured it can be taken down for stripping from the stalks only during very damp weather and after thorough ventilation of air saturated with moisture. As sheds are ordinarily constructed it is difficult to obtain the requisite ventilation for dampening that portion of the tobacco which hangs under the roof above the eaves; and it is often necessary to lower it very carefully to the tiers beneath for direct exposure

to the wind from the doors in the sides of the building. The introduction of the partitions, as above described, causes all the air, whether dry or moist, which enters at the side doors to circulate thoroughly under the roof.

When not required in place, the boards *b* may be taken down and placed in suitable piles upon the floor, and may be used in covering stacks or piles of tobacco, as occasion requires; and, in hanging up the tobacco upon the highest tiers of poles, the boards *b* may be conveniently used to walk on by placing some of them upon the poles below.

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

A tobacco-shed or drying-house which is divided into four compartments by the longitudinal and transverse partitions, as above described, and which is open or in one compartment above the partitions, to allow a free and uninterrupted circulation of air in the roof, as set forth.

ERASTUS W. ELLSWORTH.

Witnesses:

T. A. CURTIS,  
C. E. BUCKLAND.