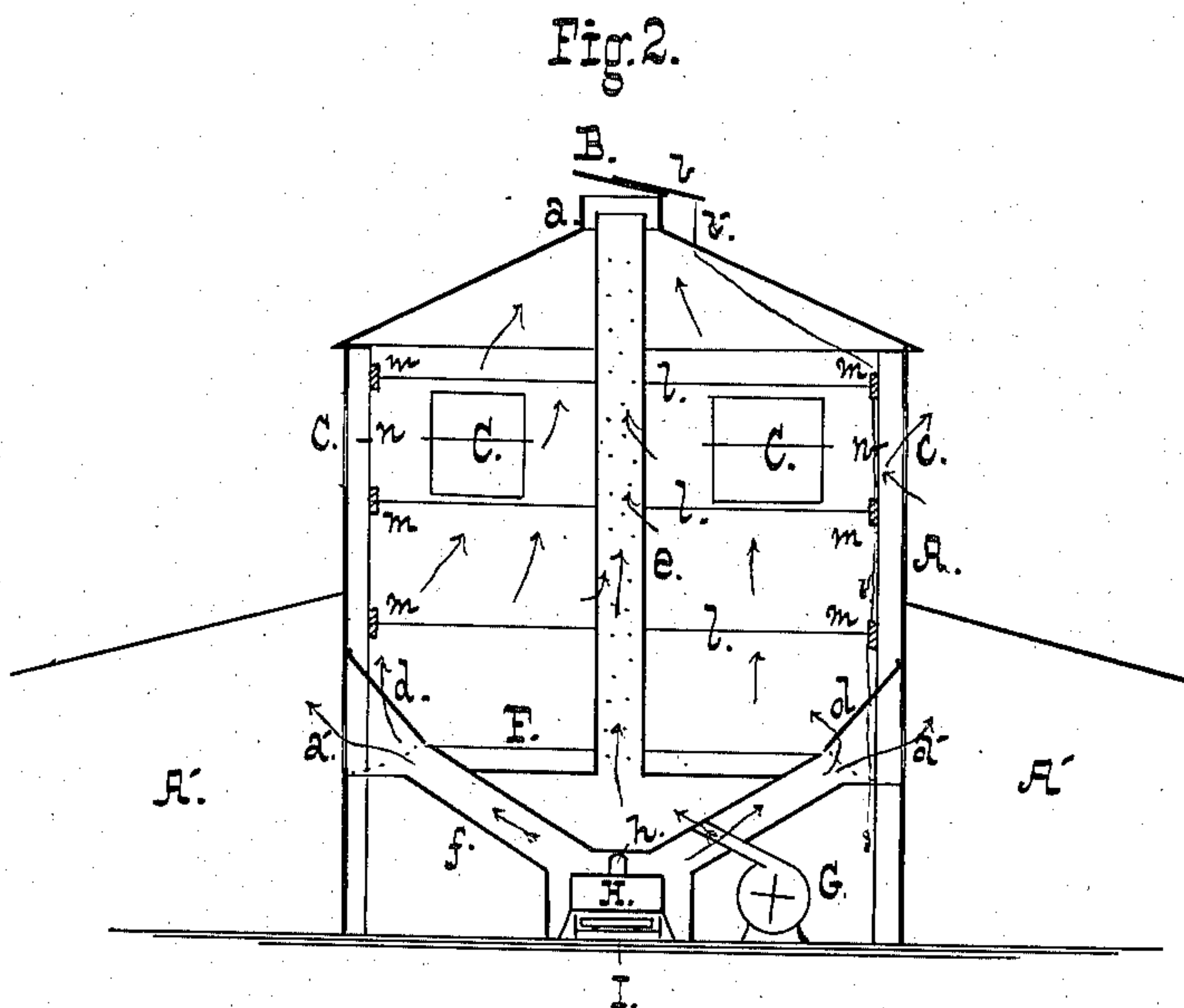
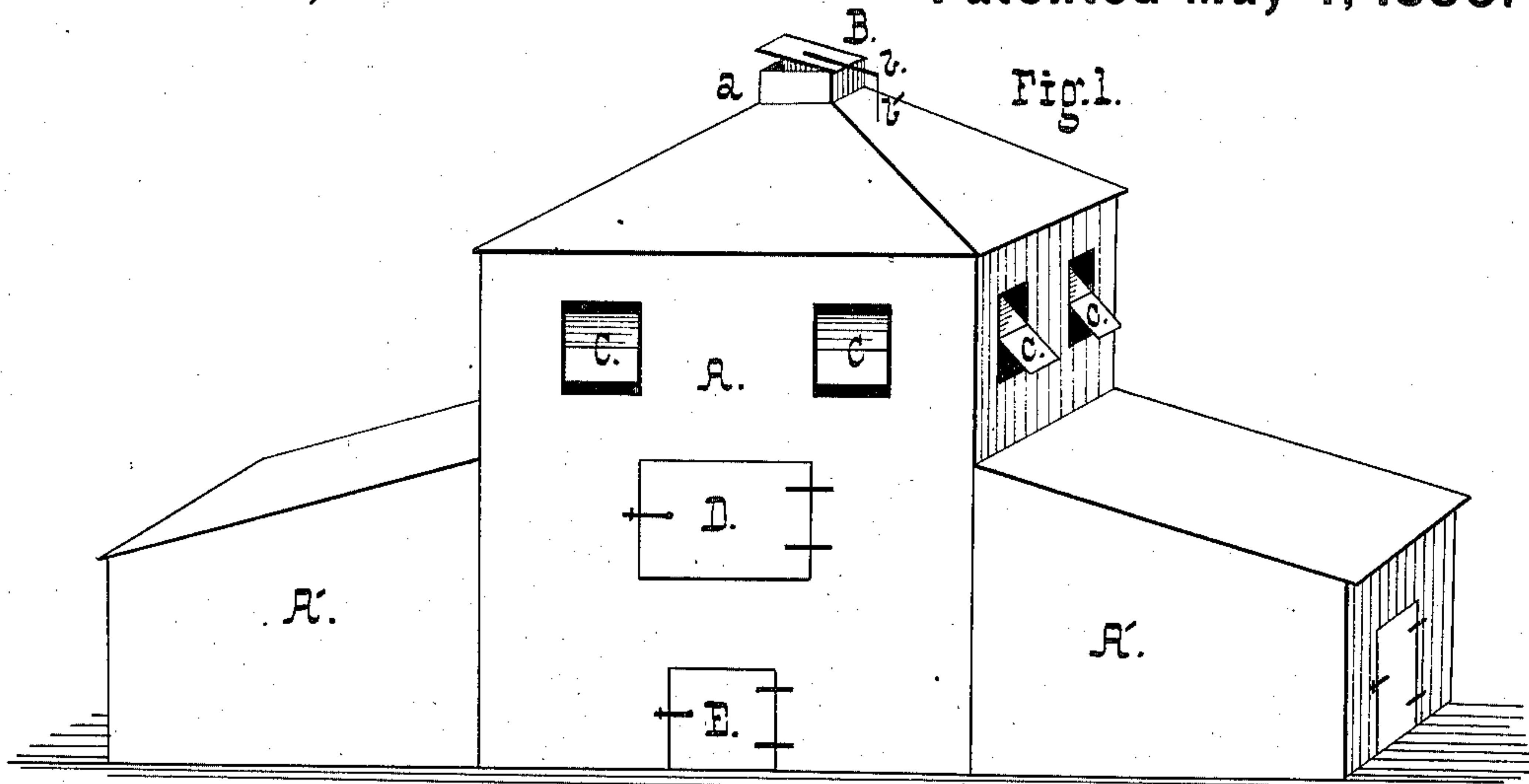


H. J. MATTFELDT.
Apparatus for Curing Tobacco.

No. 227,280.

Patented May 4, 1880.



Witnesses,
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UNITED STATES PATENT OFFICE.

HENRY J. MATTFELDT, OF LOUISVILLE, KENTUCKY.

APPARATUS FOR CURING TOBACCO.

SPECIFICATION forming part of Letters Patent No. 227,280, dated May 4, 1880.

Application filed January 12, 1880.

To all whom it may concern:

Be it known that I, HENRY J. MATTFELDT, of the city of Louisville, Jefferson county, State of Kentucky, have invented certain new and useful Improvements in Apparatus for Curing and Treating Tobacco; and I hereby declare the same to be fully, clearly, and exactly described as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the apparatus. Fig. 2 is a central vertical sectional view of the same, illustrating details of construction.

My invention has for its object to provide an apparatus for curing tobacco without exposing it to the deteriorating influences attending the use of the ordinary forms of apparatus, and for quickly and readily bringing the cured tobacco in order for shipment, so as to meet a sudden rise in the market price for the article.

Tobacco-barns of the ordinary construction consist of houses provided with a number of transverse supporting beams or wires for the tobacco-sticks, and with windows or dampers to admit moist air when it is desired to bring the tobacco in order for packing in rainy weather.

In curing, a number of fires are made under the tobacco, which is thereby dried. As the drying proceeds the tobacco begins to sweat as the sap and moisture exude, and the leaves are liable to become spotted and contaminated by the adhesion thereto of ashes, carbon from the smoke, &c. Besides, there is an attendant liability of the tobacco catching fire or of leaves dropping as they become dry into the fire below, and the different tiers of tobacco are exposed to greatly varying degrees of heat.

To bring the tobacco in order for shipment it was necessary to await a spell of damp weather, when in a day or two the tobacco became pliable enough to pack.

It has been observed, however, that the tobacco deteriorates greatly by successive curings and moistenings, becoming dark and spotted.

I obviate all of these evils by curing the tobacco by heat, without exposing it to products of combustion, and bring it in order for shipment by exposing it to an artificial moist at-

mosphere in an apparatus constructed and operating as hereinafter set forth.

In the accompanying drawings, A is the main building, having communicating side houses A' A', as shown.

The barn A is provided with a central chimney, *a*, closed by a damper, B, operated by a lever, *b*, and cord or chain *b'*.

C C are centrally-pivoted windows, arranged to admit the outer air or allow egress of heated air, as may be desired.

D is a door opening into the main interior of the barn, and E another door leading into the compartment beneath the floor. This latter consists of a shallow metallic pan, F, reaching nearly to the sides of the barn all around.

Beneath the pan is a partition or floor, *f*, having in the center a stove or oven, H, whose smoke-pipe is led through the side of the barn.

I is a wheeled ash-vehicle sliding under the oven and arranged to withdraw the ashes with the minimum agitation.

A central pipe, *e*, perforated as shown, communicates with a blower, G, whereby, when desired, a draft may be induced. Under ordinary circumstances, however, the natural draft is sufficient to draw the heated currents from the sides to the center of the building.

From the corner-posts *n* extend beams *m*, that sustain the rods or wires *l*, upon which the tobacco-sticks are laid.

Doors *d d* are arranged to swing inward toward the edges of the pan F, and direct the heated currents when desired into the adjoining sheds or houses A through the openings *a' a'*.

In operation, the tobacco being hung up as usual, fire is kindled in the oven H, and the heated air, uncontaminated by ashes or products of combustion, sweeps up around the pan or floor F and subjects the tobacco to a uniform temperature. The temperature may be readily regulated by opening the windows or dampers more or less, as may be desired.

When cured the tobacco is stored in the houses A', whence it is again brought into the barn A when it is desired to bring it in order for shipment. To do this the pan F is filled with water, and the doors and windows are closed. Fire being kindled, as before, the

water is converted into steam, and the tobacco in the close damp atmosphere quickly comes in order for packing. Should the weather be favorable the windows *U* are simply opened and the tobacco is allowed to come into condition as usual.

Practical experience in the use of the described device has demonstrated that tobacco cured therein is of a quality far superior to tobacco of the same crop cured in the usual way, the one being of a bright golden color with whitish stems and fibers, the other dark and spotted.

What I claim is—

1. In combination with the building *A*, having pan *F*, constituting its floor and steaming device, the subjacent partition *f* and the oven *H*, as set forth.

2. The building *A*, having the pan or floor *F*, central perforated pipe, *e*, and chimney *a*, as set forth.

3. The building *A*, having the perforated pipe *e*, floor *F*, and blower *G*, as described.

4. The building *A*, having pivoted windows *U*, floor *F*, and doors or dampers *d*, in combination with the oven *H* and adjacent houses *A'*, as set forth.

5. The combination, in the building *A*, of the pan *F* and the subjacent parallel partition *f*, the two constituting a close chamber for the oven *H*, as described.

6. In combination with the building *A*, having openings *a'* and floor or pan *F*, approximating to the walls, the dampers *d*, arranged as described, to divert the hot-air currents through the openings *a'*, as set forth.

HENRY JUSTUS MATTFELDT.

Witnesses:

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