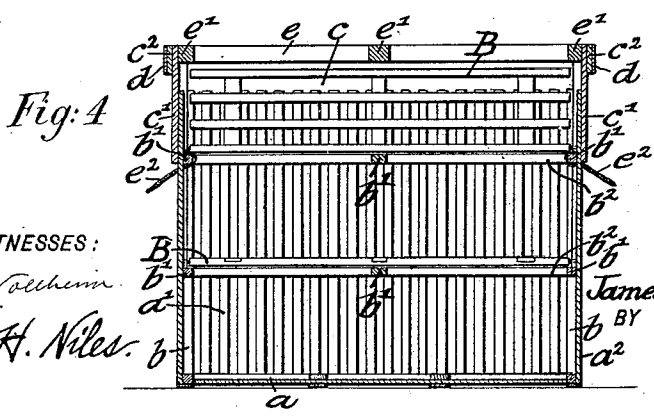
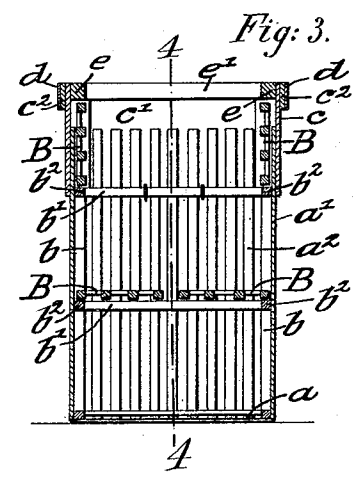
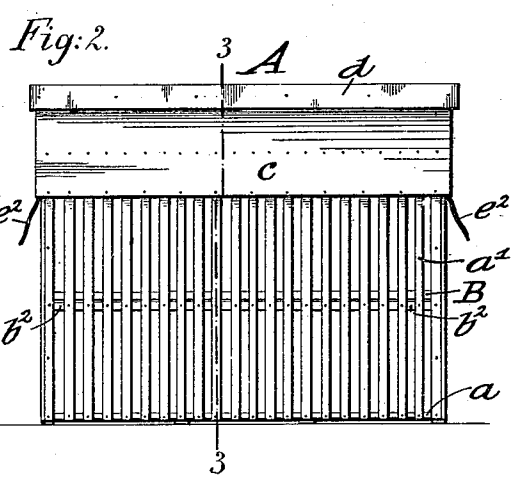
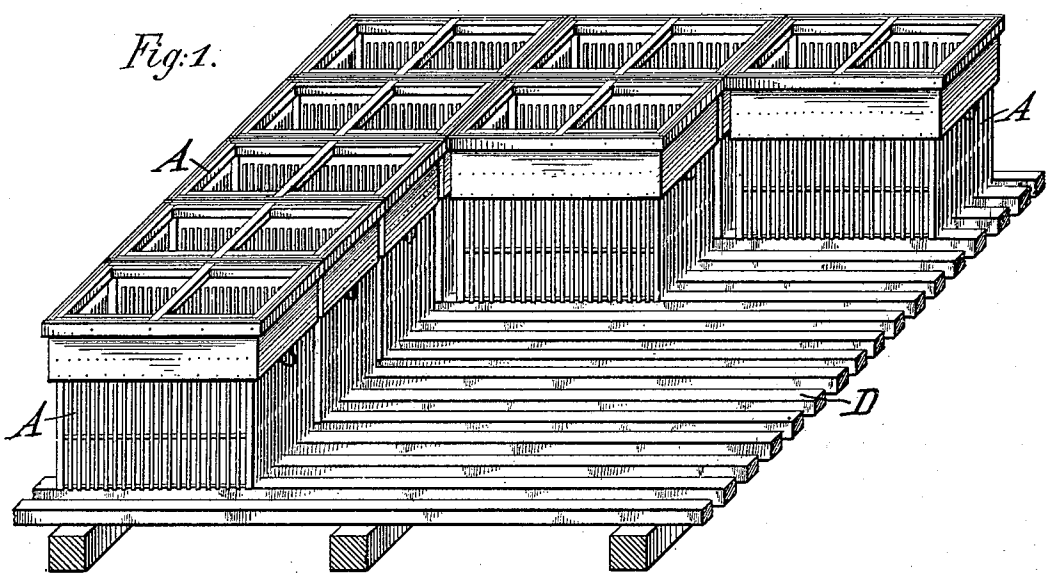


J. W. SEAVEY.
HOP DRYING BOX.

(Application filed June 27, 1901.)

(No Model.)



WITNESSES:
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UNITED STATES PATENT OFFICE.

JAMES WALTER SEAVEY, OF EUGENE, OREGON.

HOP-DRYING BOX.

SPECIFICATION forming part of Letters Patent No. 693,163, dated February 11, 1902.

Application filed June 27, 1901. Serial No. 66,204. (No model.)

To all whom it may concern:

Be it known that I, JAMES WALTER SEAVEY, a citizen of the United States, residing in Eugene, in the county of Lane and State of Oregon, have invented certain new and useful Improvements in Hop-Drying Boxes, of which the following is a specification.

This invention relates to an improved hop-drying box which is intended to be used as an auxiliary to the hop-drying floor heretofore used, so as to produce more uniform and effective drying of the hops than by simply spreading the same on the drying-floor and facilitate the convenient removal of the hops after drying; and the invention consists of a hop-drying box which is provided at the interior with hinged shelves, said shelves being formed of rods, while the side walls of the box opposite the lower shelves are also formed of rods and the side walls above the upper shelf of closed and not open construction, and a projecting ledge at the upper end of the box covered with suitable textile material, so that the boxes are adapted to be packed side by side in the hop-drying kiln and free access of hot air and passage of the same through the hops on the different shelves of the boxes permitted, as will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a perspective view of a hop-drying floor or kiln, showing a number of my improved boxes arranged on the same. Fig. 2 is a side elevation of my improved box, drawn on a larger scale; and Figs. 3 and 4 are respectively a vertical transverse section on line 3 3, Fig. 2, and a vertical longitudinal section on line 4 4, Fig. 3.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents one of my improved hop-drying boxes, which is formed of a bottom *a* of longitudinal parallel strips arranged close enough together to prevent the hops passing between the same. The lower parts of the side and end walls *a'* *a''* are likewise formed of strips or rods, which retain the hops. The entire height of my improved box is preferably divided into three parts, each part or section being separated from the next one above by means of hinged trays or shelves B, which are formed, like the

bottom, side, and end walls, of longitudinal slats connected by suitable cross-pieces. The shelves B are hinged in any suitable manner to corner-posts *b* of the box, as shown in Figs. 3 and 4. The trays when lowered rest on interior transverse cleats *b'*, which connect the corner-posts and longitudinal stiffening-rails *b''* of the box. The upper part or section is formed of closed side and end walls *cc'*, which are surrounded at their upper edge by a projecting strip *c''*, that is provided with a facing *d* of flexible material, such as felt or similar material. The projecting strip and facing produce a space between the adjacent sides of the boxes when the same are packed together on the drying-floor. The upper portion or frame is stiffened by rails *e* and transverse strips *e'*, and cord or other handles *e''* are attached to the box for conveniently handling the same.

When the box is to be used, it is first filled in the lower part, which is permitted by opening the hinged shelves and swinging them up along the opposite side walls. When filled, the shelves are lowered and the intermediate section filled. The shelves above this section are then lowered and the upper section filled. The boxes thus filled with hops are then placed on the drying-floor D close together, as shown in Fig. 1, until the entire floor is covered. The floor is usually formed of longitudinal timbers set at intervals for the passage of the hot air, as shown. The hot air passes through the bottom, sides, and lower sections of each hop-drying box, but not directly into the upper section, being compelled to pass through the spaces between the boxes, and first the lower sections, and then into the upper section, so that the hops in the upper section are dried uniformly with those in the lower sections. If the upper section was not provided with closed walls, the hot air would pass directly into the uppermost section, as well as into the lower sections, and dry the hops in the upper section before those in the lower sections were thoroughly dried. Owing to the tight fitting of the boxes by the cloth, felt, or other packing *d* the hot air is not permitted to pass out between the boxes, but is compelled to pass through the open-work bottom and side walls of the same and up through the upper section, so that the air

thoroughly permeates all the hops. As the hops in the sections are gradually dried they settle on the shelves and facilitate thereby the free passage of the air through the box.

5 When the hops are thoroughly dried, which is readily perceived by observing the hops in the uppermost section, the boxes are removed and simply inverted. The hinged shelves will then open automatically, so that
10 all the hops in the box are discharged. The trays may be pivoted or hinged in the box in any suitable manner.

The main object of the shelves or other devices used in place of the same is to divide
15 the hops into such thin layers that they cannot settle and impede the free passage of the hot air which comes from the hot-air supply below the boxes.

The advantages of my improved hop-drying box are that a larger quantity of hops can be dried in a shorter time than when spread on the hop-drying floor, for the reason that the hops are subjected in smaller quantities on the drying-shelves to the action of the hot
25 air; secondly, that the hops can be readily removed from the boxes by simply reversing the same, and, thirdly, that the boxes, being not subject to strain, can be used for a long time when properly made and facilitate the drying
30 of hops.

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

1. A hop-drying box, consisting of a box,

the side walls of which are formed of strips 35 or rods, the upper part of said side walls being solid and the box being open at the top, and hinged shelves at the interior of said box and dividing the same into several superposed sections, substantially as set forth. 40

2. A hop-drying box, formed at its bottom and lower portions of the sides of strips or rods, the upper part of the side walls being made solid, interior hinged shelves dividing the box in several sections, and a projecting
45 strip at the outside of the box and covered with suitable packing, substantially as set forth.

3. A hop-drying box, the bottom and side walls of which are formed of strips or rods 50 separated from each other so as to permit access of air into the box, hinged shelves arranged in the box so as to divide the same into superposed sections, interior strips for supporting said shelves, the upper section of
55 the box being provided with solid side walls, transverse strips connecting the walls of the upper section of the box, and cloth-covered strips extending around the upper end of the drying-box, substantially as set forth. 60

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JAMES WALTER SEAVEY.

Witnesses:

GUSTAV ADOLF SACHS,
L. L. STEVENS.