

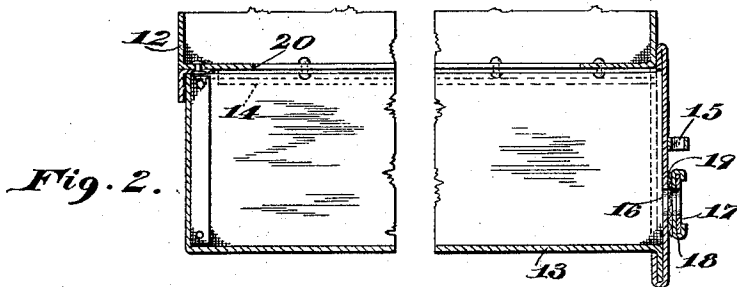
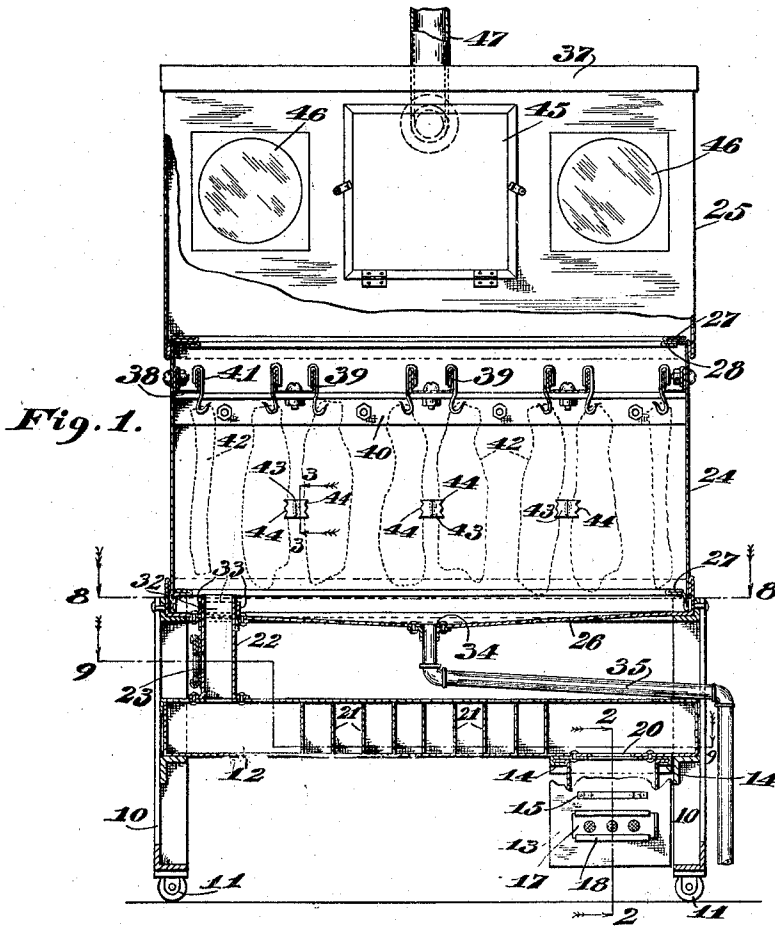
O. F. NEFF.
SMOKE HOUSE.

APPLICATION FILED NOV. 6, 1916. RENEWED MAR. 7, 1919.

1,302,952.

Patented May 6, 1919.

3 SHEETS—SHEET 1.



WITNESSES:

J. M. Haines.
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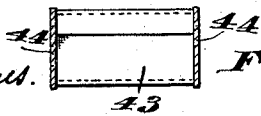


Fig. 3.

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Fig. 4.

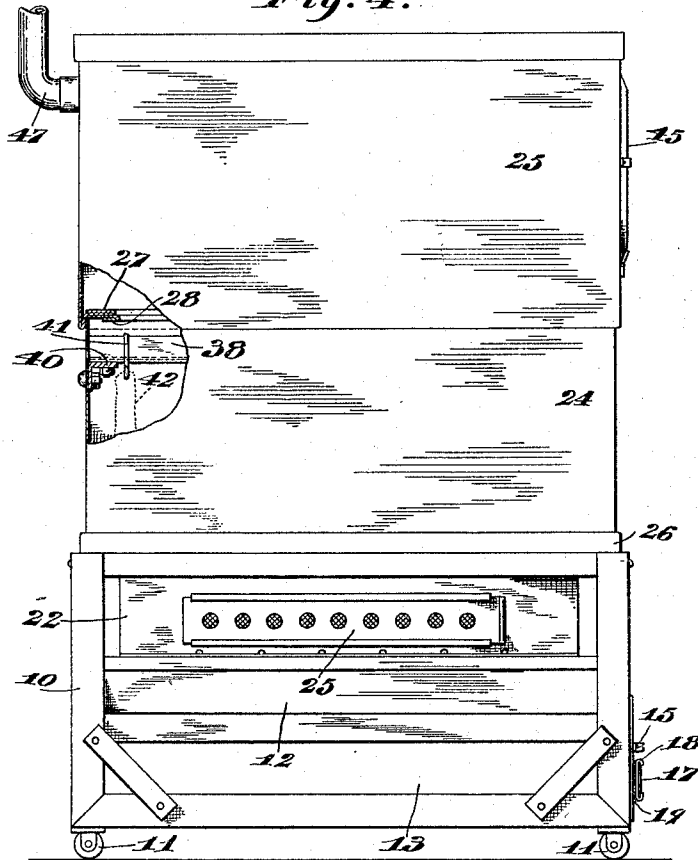


Fig. 5.

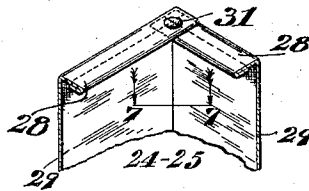
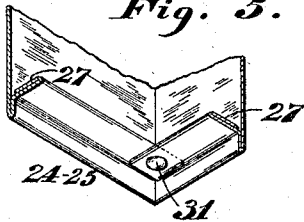


Fig. 6.

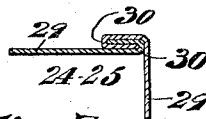


Fig. 7.

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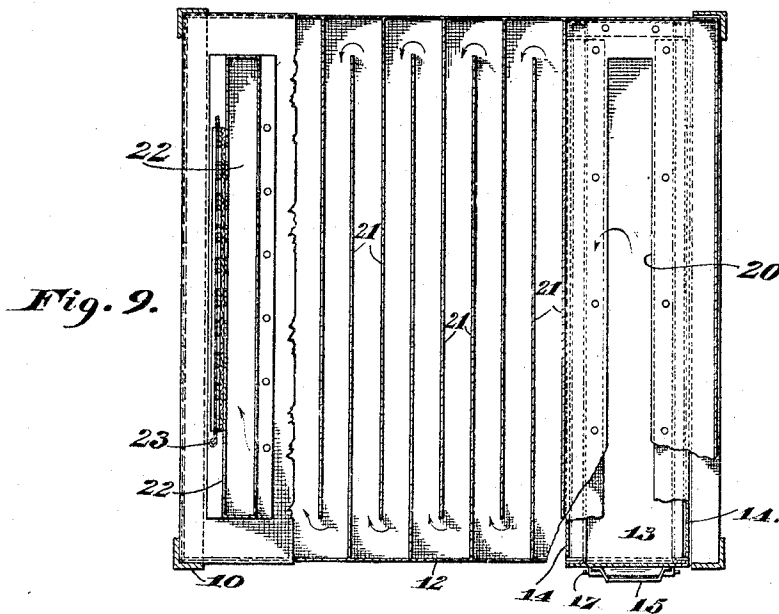
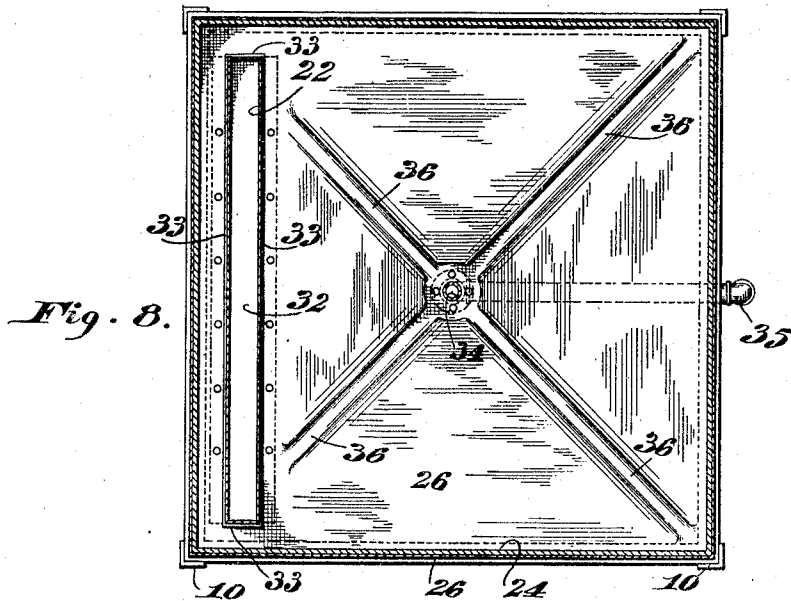
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3 SHEETS—SHEET 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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SMOKE-HOUSE.

1,302,952.

Specification of Letters Patent.

Patented May 6, 1919.

Application filed November 6, 1916, Serial No. 129,872. Renewed March 7, 1919. Serial No. 281,262.

To all whom it may concern:

Be it known that I, OMAR F. NEFF, a citizen of the United States, and a resident of the city of Milford, county of Kosciusko, and State of Indiana, have invented certain new and useful Improvements in Smoke-Houses, of which the following is a specification.

My invention relates to improvements in smoke-houses, and has for its object the production of a device of this character which will be of improved construction, one which will be adapted for service in the double capacity of a smoke-house and a storage house, one which will be compact in construction and sanitary in use and which will be highly efficient in serving in the capacity for which the same is intended.

Other objects will appear hereinafter.

With these objects in view, the invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which,

Figure 1 is a sectional view, partially in elevation, of a smoke-house embodying the invention,

Fig. 2 is an enlarged detail section taken on line 2—2 of Fig. 1,

Fig. 3 is an enlarged section of one of the spacers of the construction taken on line 3—3 of Fig. 1,

Fig. 4 is a partially sectional side elevation of the device,

Fig. 5 is a fragmentary perspective view illustrating the internal construction of each of the lower corners of each section of the smoke-house,

Fig. 6 is a fragmentary perspective view illustrating the construction of each of the upper corners of each section of the smoke-house,

Fig. 7 is an enlarged detail section taken on line 7—7 of Fig. 6, and

Figs. 8 and 9 are sections taken on substantially lines 8—8 and 9—9 respectively of Fig. 1.

The preferred form of construction, as illustrated in the drawings, comprises a supporting frame or base 10 which is formed of angle iron and which is provided with

casters or rollers 11. Supported in the frame 10 is a comparatively flat or shallow rectangular compartment 12 below which, at one side thereof, is provided a smoke-producing element. This smoke-producing element consists of an elongated drawer 13 which is slidably suspended from the compartment 12 through slidable engagement of laterally projecting flanges provided at the upper edges of the side walls of said drawer, with engaging flanges 14 provided at the under side of said compartment, as clearly shown in Figs. 1 and 9. The drawer 13 extends the entire depth or length of compartment 12 from front to back and is provided, at its front end, with a handle 15. Also provided at the front end of said drawer is a ventilating device formed through the provision of a plurality of spaced openings 16 in the front wall of said drawer. Passage of air through said openings 16 is controlled by a correspondingly perforated plate 17 which is slidably mounted in a guide 18 securely fastened upon the front side of drawer 13. The member 17 is formed, as seen, with openings which correspond with the openings 16, the arrangement being such that through sliding adjustment of plate 17, the ventilation or amount of air admitted to the drawer 13 may be readily controlled. Interposed between the guide member 18 and the front side of drawer 13 is a strip of wire mesh 19, the purpose of which is to prevent the entrance of flies or other insects into the drawer when the device is used as a storage house for meats and the like.

Formed in the bottom of compartment 12, in registration with the drawer 13, is an elongated opening 20 which establishes communication between said drawer and compartment. Provided in compartment 12 is a plurality of spaced baffle plates or partitions 21 arranged in staggered relation so as to result in the formation of an elongated tortuous passage, the tortuosities of which are arranged in a horizontal plane, as clearly shown in Fig. 9. The outlet end of the passage thus formed terminates in a vertically extending pipe 22 upon one side of which is arranged a ventilating mechanism 23 of the same construction as that described in connection with the front end of drawer 13.

Mounted upon the upper end of the storage frame 10, spaced above the compartment 12, is the chamber for the articles to be treated, said chamber comprising rectangular sections 24 and 25 which are open at their upper and lower ends. The section 24 is mounted at its lower end in a pan or bottom-forming member 26 which rests in the upper end of frame 10, said member 26 having a peripheral flange which is adapted to embrace the lower end of said section 24, as seen. The sections 24 and 25 loosely or detachably engage with each other, each section being formed at its lower end with an inwardly extending flange 27 spaced slightly from the lower edge of the section, and at its upper end with an inwardly extending flange 28. In use, the sections 24 and 25 are arranged in superimposed relation with the flange 27 of one engaging with the flange 28 of the other and with the meeting portions of said sections telescoping with each other, as clearly shown in Fig. 1. In order to permit of said sections readily adapting themselves for engagement with each other, the lateral walls 29 of each section are connected together in such a manner as to permit of slight relative movement. This connection consists in the provision of interlocking flanges 30 provided at the contiguous edges of the walls 29, as clearly shown in Fig. 7, and in the riveting together as at 31, of the meeting ends of the flanges 27 and 28 provided at the lower and upper ends respectively, of said lateral walls, as clearly shown in Figs. 5 and 6. With this arrangement, an absolutely rigid connection between the lateral walls of each section is avoided, so that in assembling the smoke-house, if it is found that one section is not perfectly true or square, the other section will yield slightly so as to permit of the two sections securely and snugly engaging with each other. Also, with the construction adopted, in the connection of the lateral walls of each section, the use of solder is avoided, which is a desirable feature in connection with smoke-houses. The detachable or loose engagement of the sections of the storage chamber of the smoke-house also is such as to permit of the employment of any number of sections in order to obtain a structure of any desired size, it being understood that applicant does not desire to limit himself to the employment of two sections, such as is disclosed in the drawings.

The upper end of pipe 22 projects through an opening 32 of corresponding form which is formed in the bottom member 26 of the storage chamber, said opening 32 being surrounded by an upwardly extending flange 33 which prevents the entrance of any liquid, such as juices or the like which may drip from the pieces of meat arranged in the storage chamber for treatment, into the

opening 32. Any such liquid thus deposited into the pan 26 will be taken care of through a drain opening 34 provided centrally in the pan from which leads a drain pipe 35. In order to insure the draining of all liquid from the pan into the drain opening 34, the bottom member 26 is inclined toward said opening and grooves or channels 36 are formed in said bottom member leading to said opening.

The top of the storage chamber, that is the upper end of section 25, is closed by a cover member 37 of flanged construction, as seen.

For the support or suspension of the pieces of meat or other objects in the storage chamber, each section 24 and 25 is formed with a plurality of spaced parallel channel members 38 and 39, the ends of which are securely fastened to angular supporting members 40 which are securely fastened to opposite walls of said sections. Also, the supporting members 38 are securely fastened, as seen, to the adjacent lateral walls of the sections. Co-operating with the supporting members 38 and 39 are hooks 41 from which the pieces of meat or the like 42 may be suspended, as clearly shown in Fig. 1. With the arrangement set forth, it will be seen that the pieces of meat will be suspended in parallel rows, each supporting member 39 being adapted to support two spaced parallel rows, as seen in Fig. 1. The suspended members of each pair of rows will be arranged in pairs, those directly opposite each other being held in fixed spaced relation, by means of spacing members 43 of appropriate length which will be perhaps four or five inches, each spacing member 43 being formed, at its ends, with laterally projecting toothed flanges 44 adapted to pierce the surfaces engaged thereby. With this arrangement, it will be seen that the pieces of meat will be securely held in spaced relation and prevented from twisting and turning, thus insuring a maximum utilization of the space within the storage chamber, it having been found that through this system of suspension, the quantity which may be suspended in the device is greatly increased.

At the front side of the upper section 25 is provided a hinged door 45 and at either side of the door are preferably provided windows 46 through which the interior of the device may be readily viewed. At the rear of section 26 is provided an outlet or exhaust pipe 47.

With the construction set forth, in employing the same for meat smoking purposes, the meats having been suspended in the storage or treatment chamber as described, a fire is started in the drawer 13, using damp sawdust or other suitable fuel. The smoke produced in the drawer 13 arises through the opening 20, passing through the elongated

tortuous passage in the compartment 12 where the same, because of the length of said passage, is thoroughly cooled, the same, after passage through the compartment 12 being introduced into the storage or treatment chamber for action upon the meats suspended therein. The provision of the ventilating device at the front end of the drawer 13 of the smoke-producing element affords means for controlling the fire within the member 13, and the ventilating device 23 upon the side of pipe 22 affords means for insuring thorough cooling of the smoke before introduction of the same into the chamber above. In the event of the smoke not being thoroughly cooled by the time the same reaches the pipe 22, the ventilating device 23 will be adjusted so as to allow for the introduction of cold or outside air to mingle with the smoke, and thus insure cooling of the same before introduction into the chamber for action upon the meats. After passing between and around the meats, the smoke is discharged through the pipe 47. When the device is not used for meat smoking purposes as described, the same forms an effectual storage chamber for the meats, the ventilation afforded through the ventilating device upon the drawer 13 and the pipe 22 and through the outlet pipe 47, insuring the preservation of the meats against decay. Also, any fumes or odors emanating from the storage chamber will be carried away through the pipe 47.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. A smoke-house comprising a chamber in which the articles to be treated are adapted to be arranged; a smoke-producing element arranged below said chamber; and an elongated tortuous passage establishing communication between said smoke-producing element and said chamber, the tortuosities in said passage being arranged in a substantially horizontal plane, substantially as described.

2. A smoke-house comprising a chamber in which the articles to be treated are adapted to be arranged; a smoke-producing element arranged below said chamber; a comparatively wide flat compartment interposed between said smoke-producing element and said chamber; and an elongated tortuous passage formed in and extending through said compartment and establishing commu-

nication between said smoke-producing element and said chamber, substantially as described.

3. A smoke-house comprising a chamber in which the articles to be treated are adapted to be arranged; a smoke-producing element arranged below said chamber; a comparatively wide flat compartment interposed between said smoke-producing element and said chamber; and a plurality of baffle plates arranged in said compartment in spaced staggered relation forming an elongated tortuous passage establishing communication between said smoke-producing element and said chamber, substantially as described.

4. A smoke-house comprising a chamber in which the articles to be treated are adapted to be arranged; a smoke-producing element arranged below said chamber; and an elongated tortuous passage establishing communication between said smoke-producing element and said chamber, the tortuosities in said passage being arranged in a substantially horizontal plane, the openings establishing communication between said passage and said smoke-producing element and chamber being comparatively long and narrow, substantially as described.

5. A smoke-house comprising a chamber in which the articles to be treated are adapted to be arranged, said chamber having an opening in a smoke-producing element communicating with the opening in the bottom of said chamber; and an upwardly extending flange surrounding said opening, substantially as described.

6. A smoke-house comprising a chamber in which the articles to be treated are adapted to be arranged, said chamber having an opening in a smoke-producing element communicating with the opening in the bottom of said chamber; an upwardly extending flange surrounding said opening; and a drain passage leading from said chamber bottom, substantially as described.

7. A smoke-house comprising a chamber in which the articles to be treated are adapted to be arranged; a smoke-producing element communicating with said chamber, said chamber being formed of a plurality of detachably connected sections, substantially as described.

8. A smoke-house comprising a chamber in which the articles to be treated are adapted to be arranged; a smoke-producing element communicating with said chamber, said chamber being formed of a plurality of superimposed detachably connected sections, each section comprising lateral walls having loosely connected ends, substantially as described.

9. A smoke-house comprising a chamber in which the articles to be treated are adapted to be arranged; a smoke-producing element communicating with said chamber,

said chamber being formed of a plurality of superimposed detachably connected sections, each section comprising lateral walls having interlocking loosely connected ends, substantially as described.

10. A smoke-house comprising a chamber in which the articles to be treated are adapted to be arranged; a smoke-producing element communicating with said chamber, said chamber being formed of a plurality of superimposed detachably connected sections, each of said sections being adapted to telescope with the next lower section; and an internal shoulder in each section adjacent the lower end thereof adapted for engagement with the upper edge of the next lower section, substantially as described.

11. A smoke-house comprising a chamber in which the articles to be treated are adapted to be arranged; a smoke-producing element; a passage establishing communication between said element and said chamber; and screen-covered ventilation openings communicating with said passage and chamber, substantially as described.

12. A smoke-house comprising a chamber

in which the articles to be treated are adapted to be arranged; a smoke-producing element; a passage establishing communication between said element and said chamber; screen-covered ventilation openings communicating with said passage and chamber; and manually adjustable means for controlling passage through said openings, substantially as described.

13. A smoke-house comprising a chamber in which the articles to be treated are adapted to be arranged; a smoke-producing element; a passage establishing communication between said element and said chamber, said smoke-producing element comprising an elongated drawer; and manually adjustable means of ventilation provided at one end of said drawer, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

OMAR F. NEFF.

Witnesses:

JOSHUA R. H. POTTS,
HELEN F. LILLIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."