

No. 845,605.

PATENTED FEB. 26, 1907.

S. ZWALINA.
PORTABLE DRYING STOVE.
APPLICATION FILED JUNE 14, 1906.

Fig. 1.

Fig. 2.

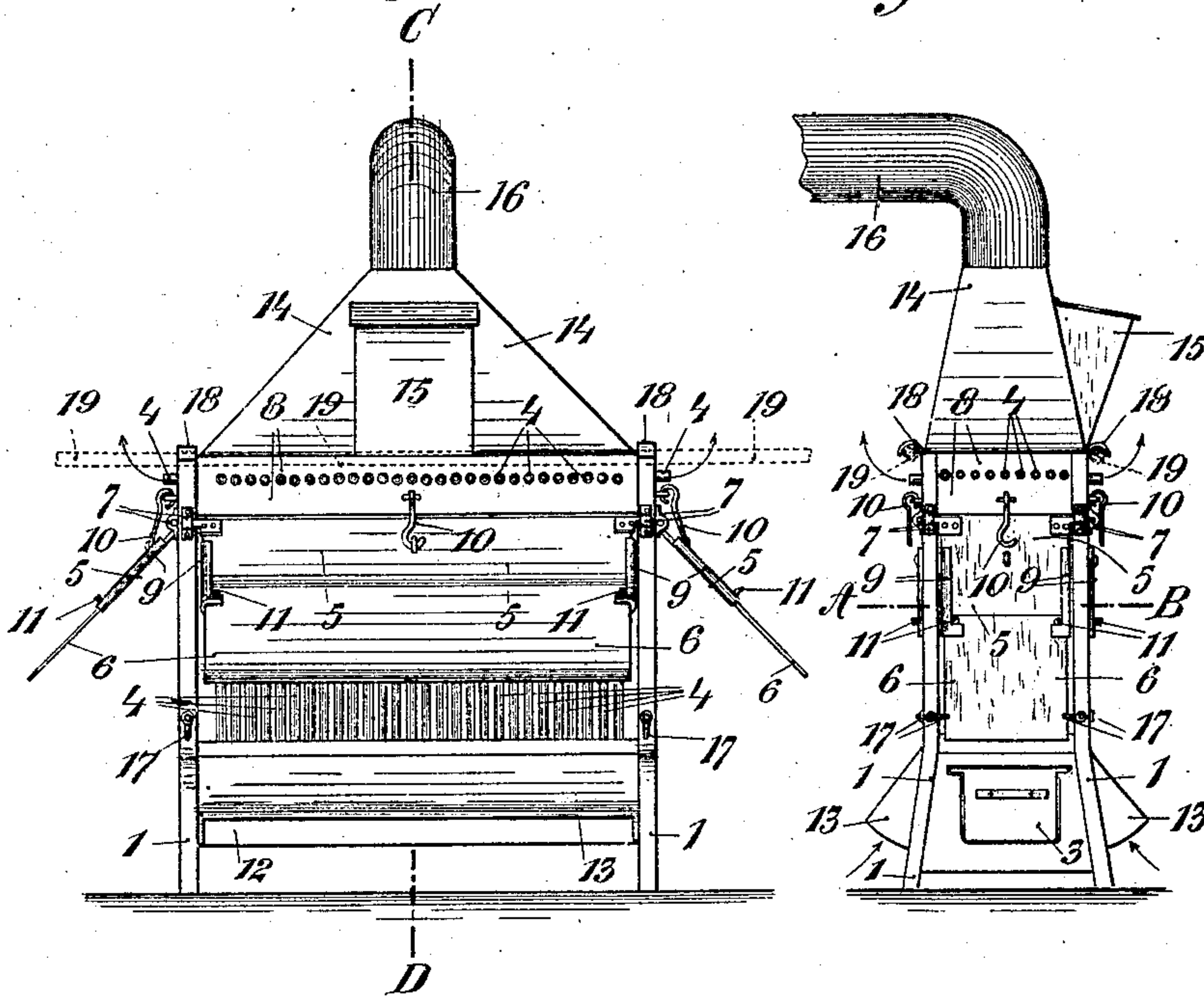
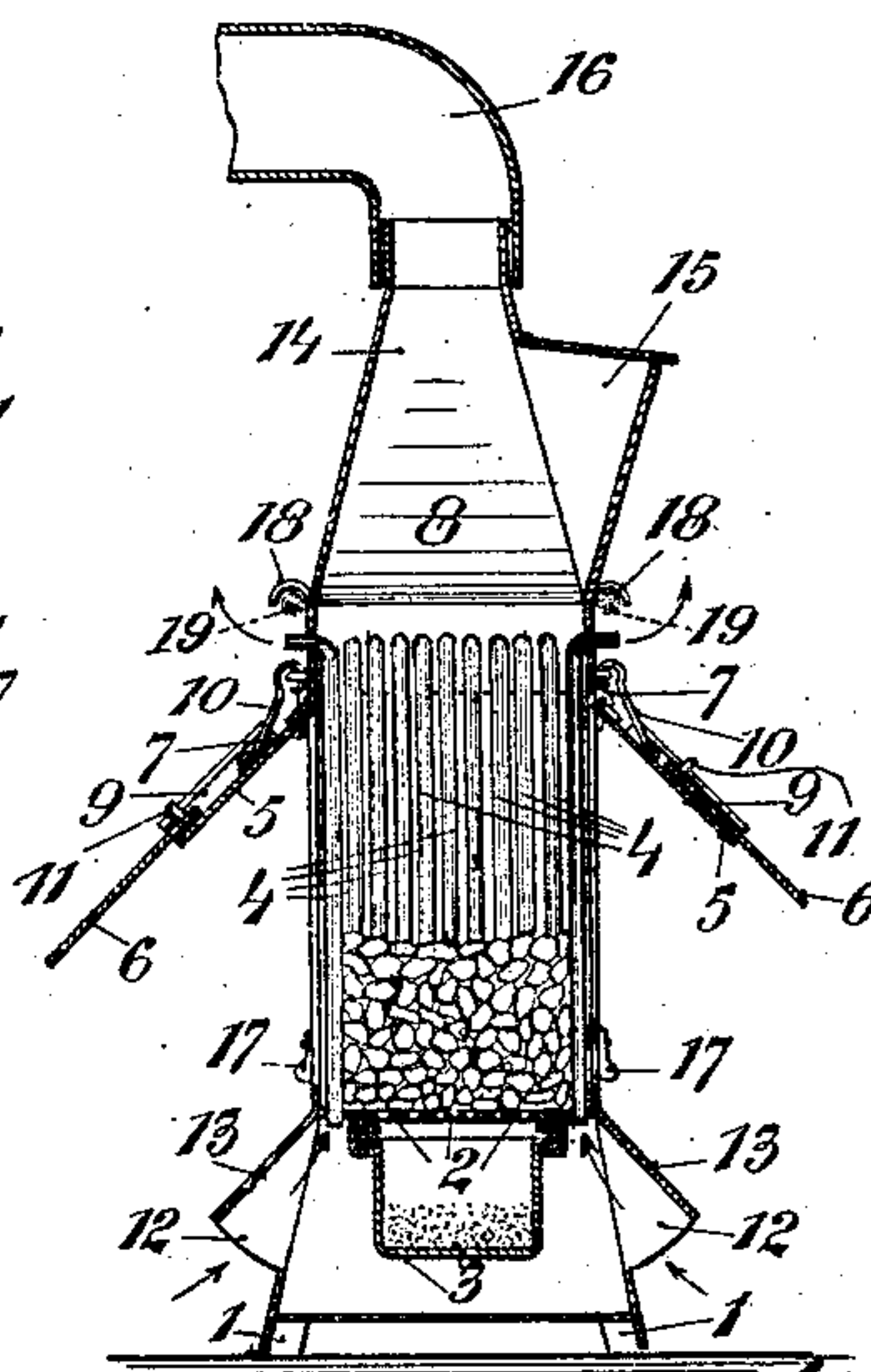
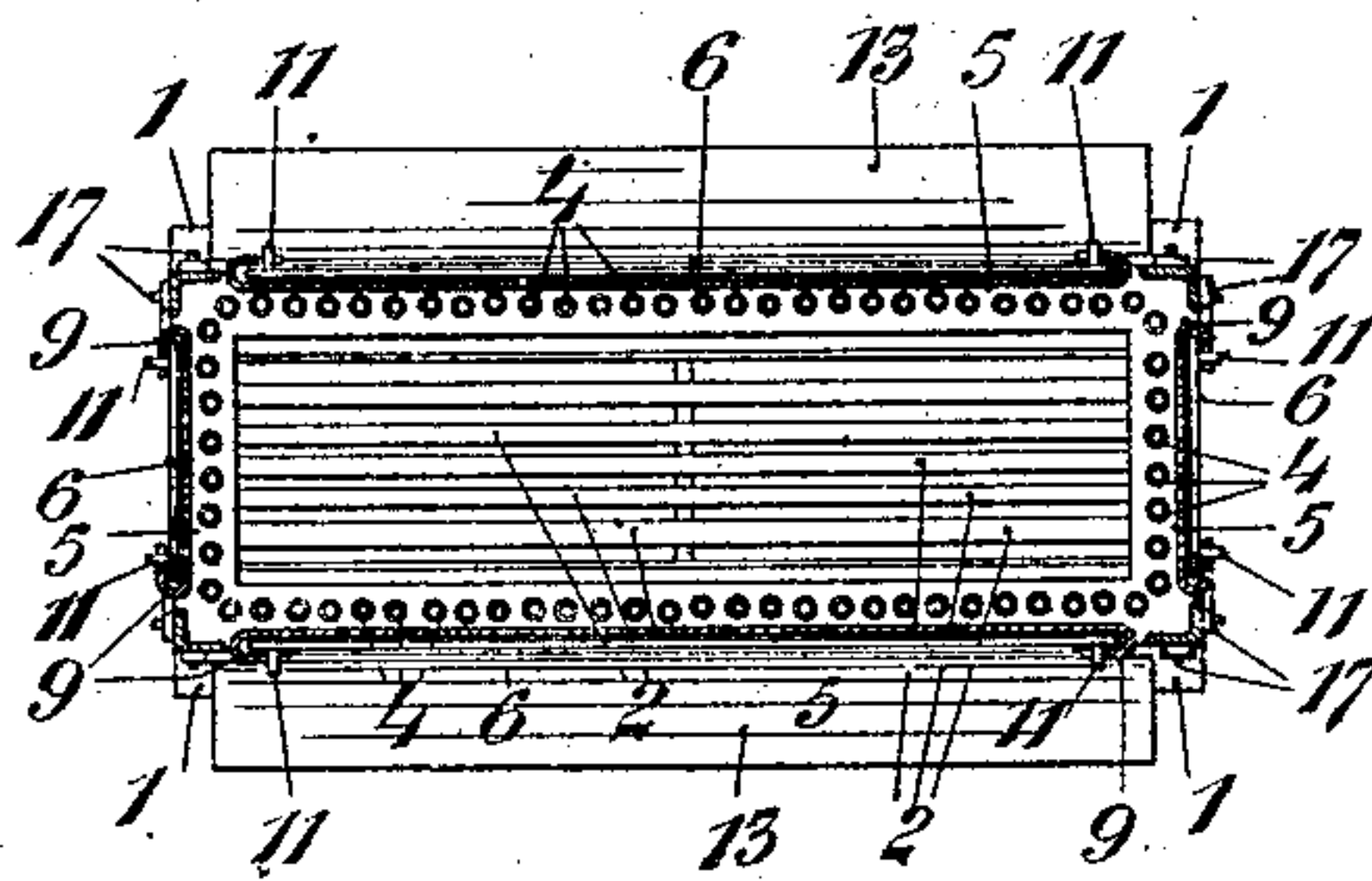


Fig. 3.

Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

SAMUEL ZWALINA, OF MEININGEN, GERMANY.

PORTABLE DRYING-STOVE.

No. 845,605.

Specification of Letters Patent.

Patented Feb. 26, 1907.

Application filed June 14, 1906. Serial No. 321,775.

To all whom it may concern:

Be it known that I, SAMUEL ZWALINA, a subject of Prussia, residing at Meiningen, Duchy of Saxe-Meiningen, German Empire, have invented certain new and useful Improvements in or Relating to Portable Drying-Stoves, of which the following is a specification.

My invention relates to portable stoves intended for drying damp and moist rooms, the novel and peculiar features of which are that it is provided with lateral walls constituted by a tubular grating and closed by flap-valves and with air-admission flues laterally covered and open at the bottom and with a closed crown made into a charging-door and exhaust-pipe. Owing to this construction of the portable stove or coke-basket, ordinary coke can be used as fuel, the heating device does not require any attendance for twelve hours, and the moist cold air from the floor is drawn in by the tubular grating, quickly heated in its ascent, and leaves the heating device completely dried, and unlike dry-heating devices hitherto used the smoke and fire-gases do not escape direct into the room, but are collected by the crown of the basket and conveyed through a branch or pipe into the chimney or into the atmosphere.

A construction of stove or coke-basket embodying this invention is illustrated in Figure 1. inside elevation, in Fig. 2 in front elevation, in Fig. 3 in cross-section on line A B of Fig. 2, and in Fig. 4 in a vertical section on line C D of Fig. 1.

The coke-basket is mounted on four angle-iron standards 1, connected together by means of angle-irons and iron bars and carrying not far from their bottom end a flat fire-grate 2 and an ash-pit 3, which is arranged below it and which can be pulled out. The lateral walls of the coke-basket are constituted by a tubular grating. The single bars 4 of the said tubular grating are constituted by gas-pipes opening with their bottom ends at the level of the flat grate 2 and having their upper ends bent at an angle and turned outward. When starting the fire, the lateral walls of the coke-basket constituted by the tubular grating 4 can be closed by flap-valves made of japanned sheet metal or the like. Each of these flap-valves arranged at the four sides of the coke-basket is constituted by two parts 5 and 6. The upper

parts 5 are hinged at 7 to the upper frame 8 of the coke-basket and provided with a groove 9 at each side, in which grooves the portions 6 can be moved up and down, so that the valves can be lengthened or shortened, as desired. When the tubular grating 4 is closed, the two parts 5 and 6 of the valves are entirely pulled out and completely cover the tubular grating 4. The valves can be fixed in the raised position, Figs. 1 and 4, by means of hooks 10, secured to the frame 8. When the valve parts 6 are completely drawn downward, they are held by means of pins 11, engaging with projections on the bottom ends of the valve parts 5.

If it is desired to direct more of the radiating heat toward the floor, it is merely necessary to let down completely the valve portions 6. If the radiating heat is to be conveyed more to the sides or upward, the valve portions 6 are raised, as shown in Fig. 4, on the right-hand side. The moist cold air collecting on the floor of the room is drawn in by the lateral inlet-flues 12, arranged below the grate 2 and the tubular grating 4. These flues 12 are formed by obliquely-arranged walls 13. The moist cold air drawn in there enters from below the pipes of the tubular grating 4, is dried and heated during its ascent, and leaves the grate-bars 4 at the top in the shape of dry warm air. The frame 8, through which pass the upper ends of the tubular bars 4, is provided at the top with a conical crown 14, formed with a charging-door 15 and ending in an exhaust-pipe 16.

The lateral valves 5 6 can be maintained in closed position by means of catches 17. The upper ends of the angle-iron feet 1 are cut and the remaining flanges turned outward and downward into hooks 18.

It will be obvious that the basket may be carried in a convenient manner by means of suitable bars 19, which are placed below the hooks and taken off if not used.

What I claim is—

1. A portable stove including a frame, a hollow tubular grating arranged within the frame for forming a fuel-basket, a cover for the frame having a charging-opening and an exhaust for the products of combustion, adjustable sections hingedly connected to the sides of the frame for forming flap-valves and adapted to entirely close the sides of the frame when brought to a closed position,

means for locking the sections in a closed position and flues below the grating for admitting air thereto.

2. A portable stove including a support, a
5 fuel-basket mounted thereon, a grate and ash-pit below the basket each of the same being removable, means for admitting air to the ash-pit, extensible sections hingedly associated with the support for closing the lateral
10 walls of the basket, a crown above the basket

and carried by the support, a charging-flue in communication with the crown and means for holding the sections in a closed position.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 15

SAMUEL ZWALINA.

Witnesses:

L. GEORGII,
THEODOR KNUR.