

Oct. 22, 1929.

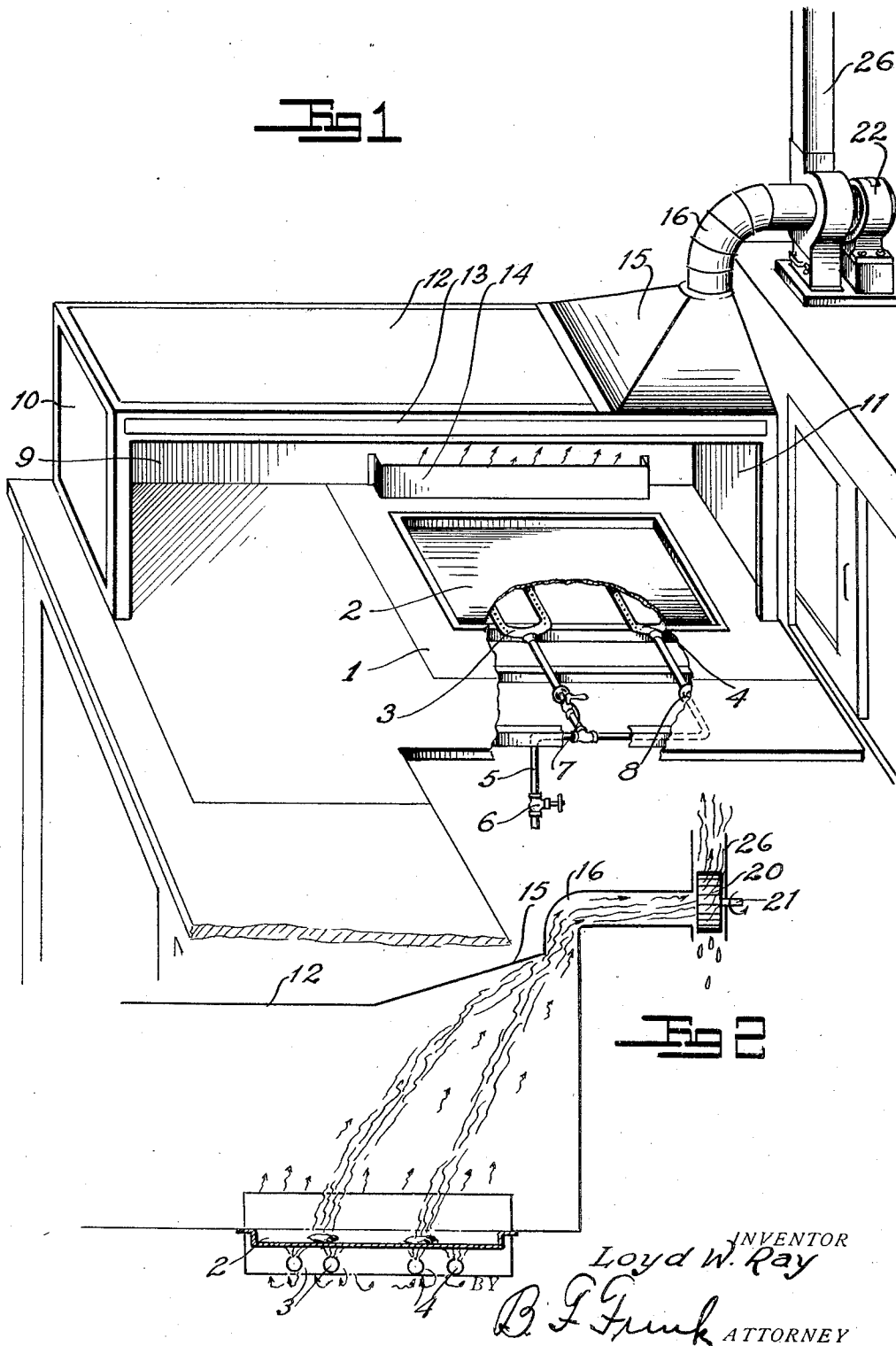
L. W. RAY

1,732,315

STOVE HOOD

Filed June 4, 1928

2 Sheets-Sheet 1



Oct. 22, 1929.

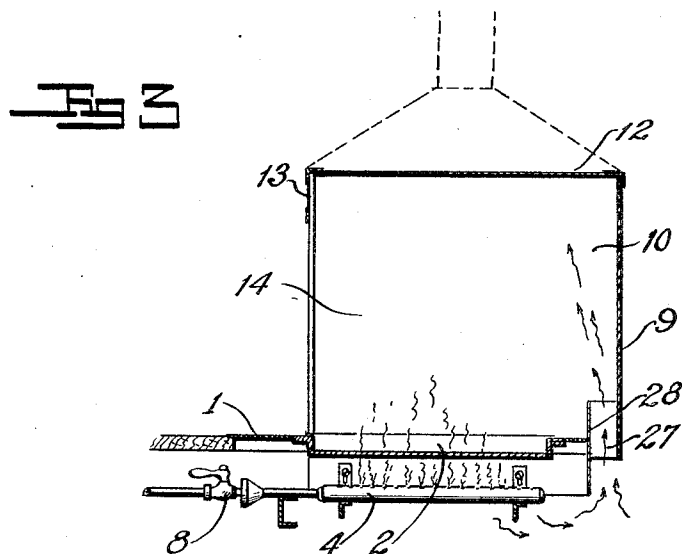
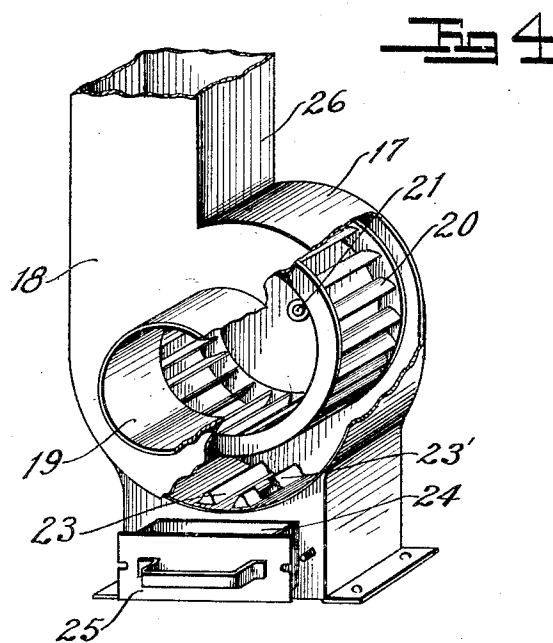
L. W. RAY

1,732,315

STOVE HOOD

Filed June 4, 1928

2 Sheets-Sheet 2



INVENTOR
Lloyd W. Ray
BY
B. F. Funk ATTORNEY

UNITED STATES PATENT OFFICE

LOYD W. RAY, OF WICHITA, KANSAS, ASSIGNOR TO THE WHITE CASTLE SYSTEM, INC.,
A CORPORATION OF KANSAS

STOVE HOOD

Application filed June 4, 1928. Serial No. 282,831.

This invention relates to hoods for stoves for carrying off the vapors so as to avoid having obnoxious odors or smoke in the room in which the stove is located. It is particularly designed for use in connection with a stove or hot plate such as is used in hamburger stands and the like and provision is made for separating the grease from the vapors as well as to carry off hot air from underneath the hot plate.

The novelty of the invention will be apparent by reference to the following description in connection with the accompanying drawings in which:

Fig. 1 is a perspective view of a stove or hot plate to which my invention is applied, parts being broken away to illustrate the burners.

Fig. 2 is a diagrammatic sectional view through the hood and exhaustor.

Fig. 3 is a cross-sectional view through the hood and

Fig. 4 is an enlarged fragmentary perspective view of the exhaustor showing part of the exhaustor fan.

The stove frame 1 may be of any preferred construction provided with a hot plate 2 with the usual burners 3 and 4 supplied with gas through a pipe 5 provided with a valve 6, there being regulating valves 7 and 8 for the burners 3 and 4. This is all old construction. Mounted upon the top of the stove 1 is a hood consisting of the back wall 9, the end walls 10 and 11, the top 12 and an overhanging front flange 13 relatively narrow in width to provide an open front 14 so that access can be had to the hot plate immediately below the top 12 of the hood. At the end of the hood is a dome-shaped portion 15 communicating with a pipe 16 which enters the end of the drum 17 of the exhaustor 18. The drum or housing 17 carries a circular flange 19 to which the pipe 16 may be attached. Rotatably mounted in the drum or housing 17 is a cylindrical fan 20 having a shaft 21 connected to the motor 22 whereby the fan can be driven. The bottom portion of the drum or housing has its metal struck-up to provide slots 23 and 23' communicating with a space 24 below the housing in which is located a

drawer or receptacle 25 to catch the grease, the air passing out to atmosphere through the duct 26.

When the food is placed on the hot plate, the grease will vaporize, but it will be drawn up through the hood into the housing and be discharged through the duct 26 of the exhaustor. The rapidly rotating fan will cool the grease of the vapor throwing it against the wall of the housing where it will flow down through the slots 23 and 23' into the receptacle or drawer 25 so it will be seen that the exhaustor also constitutes a separator.

At the rear of the stove, adjacent to the back wall 9, is an air duct or opening 27 formed by the back wall 9 and the spaced plate 28 so that warm air beneath the hot plate can be drawn up through duct 27 and co-mingle with the grease vapors generated by the hot plate. Therefore, the heated air will be carried off so that the zone about the stove will be relatively cool, this being an important feature because the hot plates or stoves are usually installed in relatively small buildings or rooms so that unless provision was made for carrying off the heat, the temperature in the room might become objectionably high. By separating the grease from the vapors before it passes through the duct 26, the grease will not pass out to atmosphere but may be salvaged if desired.

From the foregoing it will be apparent that the device may be easily installed and that it will adequately take care of the hot air generated by or about the stove.

What I claim and desire to secure by Letters-Patent is:—

1. A vapor receiving hood for stoves comprising a hollow structure having an open front, an air duct admitting atmosphere from the back of the structure to the interior thereof, an exhaustor, a pipe leading from the hood to the exhaustor and a grease separator in the exhaustor.

2. A vapor receiving hood for stoves comprising a hollow structure, an exhaustor having slots in its bottom, a receptacle below the slots, a fan in the exhaustor and a duct communicating the exhaustor with the atmosphere.

3. A vapor receiving hood for stoves comprising a hollow structure, an exhauster comprising a housing, a fan in the housing, openings in the bottom of the housing, a grease
5 trap below the openings, an air duct leading from the exhauster to atmosphere and a pipe communicating the hood with the exhauster.

4. In combination with a stove having a hood above the same to receive vapors from
10 the stove, a flange projecting upwardly from the back of the stove and combining with the back of the hood to surround a slot open to atmosphere whereby a current of air will be caused to flow into the hood to carry off the
15 vapors from the stove and an exhauster communicating with the top of the hood.

5. In combination with a stove having a hood above the same to receive vapors from the stove, an exhauster communicating with
20 the top of the hood, a condensation drip pan communicating with the exhauster and means in rear of the hood for admitting a current of air from the back of the stove up through the hood and into the exhauster.

25 In testimony whereof I affix my signature.
LOYD W. RAY.

30

35

40

45

50

55

60

65