(No Model.)

C. W. LEONARD.

STRAW BURNER.

No. 418,035. Patented Dec. 24, 1889.

Fig. 1.

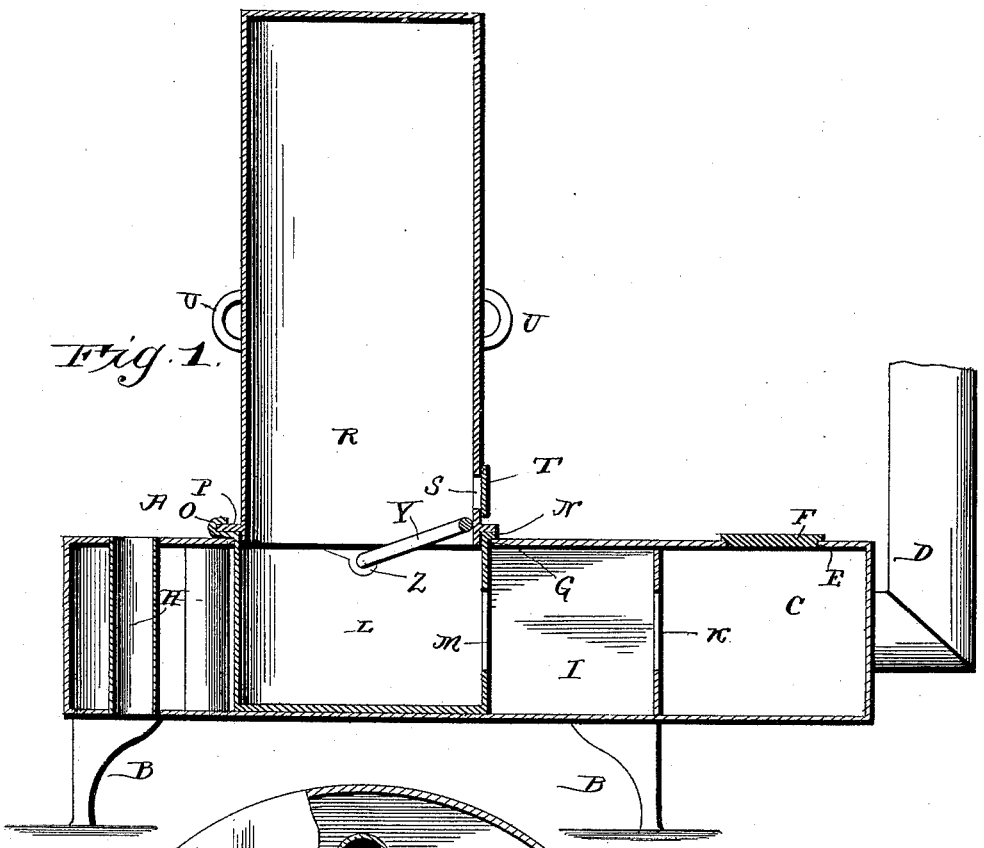
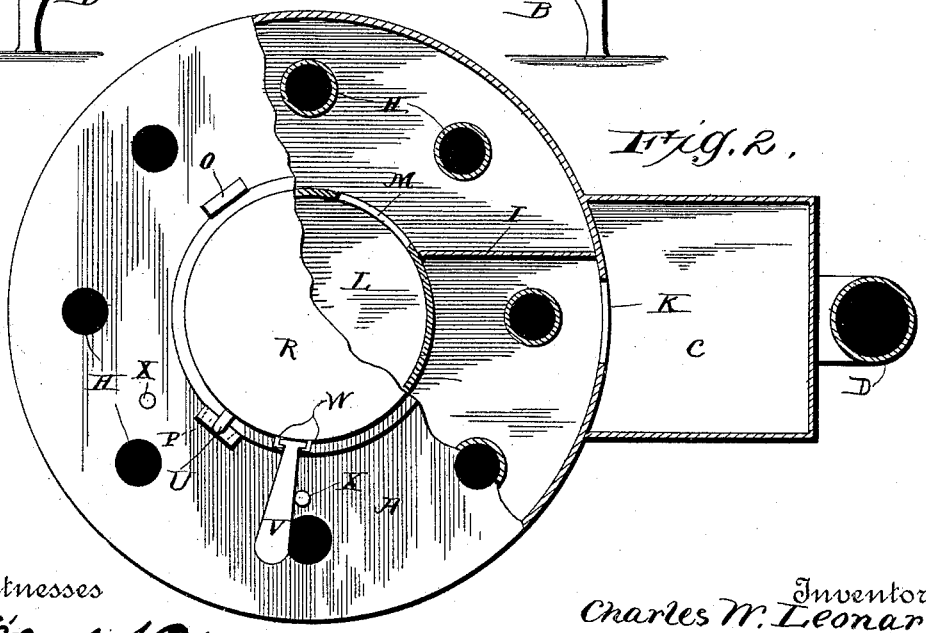


Fig. 2.



Witnesses

Inventor

Charles W. Leonard

By his Attorneys

UNITED STATES PATENT OFFICE.

CHARLES W. LEONARD, OF WILLOW SPRINGS, NEBRASKA.

STRAW-BURNER.

SPECIFICATION forming part of Letters Patent No. 418,035, dated December 24, 1889.

Application filed January 23, 1889. Serial No. 297,263. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. LEONARD, a citizen of the United States, residing at Willow Springs, in the county of Garfield and State of Nebraska, have invented a new and useful Improvement in Straw-Burners, of which the following is a specification.

My invention relates to an improvement in straw-burners; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a vertical sectional view of a straw-burner embodying my improvements. Fig. 2 is partly a top plan view and partly a horizontal sectional view of the same.

A represents a circular case, provided with supporting-legs B, and having a smoke-box C projecting from one side. A smoke-pipe D may be attached to the said smoke-box, and the latter has an opening E on its upper side, provided with a lid or cover F, the same being removable. The bottom of the circular case A is entirely closed, and the upper side thereof is provided with a central opening G of suitable diameter.

H represents a series of vertical air-flues, which extend through the upper and lower sides of the circular case and are arranged concentrically therein, the said air-flues being open at their upper and lower ends. A radial partition-plate I is arranged in one side of the circular case and at one side of the smoke-box, out of the way of the opening K, which communicates with the smoke-box and with the interior of the case.

L represents a combined fire-pot and ash-pan, which is cylindrical in shape and is adapted to fit in the opening G and rest on the bottom of the case. In one side of the fire-pot and ash-pan is an opening M, and said fire-pot and ash-pan is provided at its upper edge with an outwardly-extending flange N, which rests on the upper side of the circular case, and is provided with three or more keepers or loops O, adapted to receive radial feet P, that project from the base of the drum or magazine R. The latter is thereby rendered detachable from the fire-pot and ash-pan, and the said drum is further provided with an opening S, covered by a slide T, and has handles U on diametrically-opposite sides.

V represents a detachable handle, which is adapted to be secured in a loop or keeper W, with which the fire-pot and ash-pan is provided, the function of the said handle being to enable the fire-pot and ash-pan to be moved or partly rotated, so that its opening M may align with the opening K or be moved past the partition-plate I. Stops X on the upper side of the circular casing limit the movement of the handle and consequently of the fire-pot and ash-pan. The latter is provided on its inner side with a bail or handle Y, the ends of which are pivoted to ears Z. Said bail or handle adapts the fire-pot and ash-pan to be readily removed from the case A.

The operation of my invention will be readily understood. The straw to be used as fuel is placed in the drum or magazine R, and when the latter is adjusted in position the fuel therein is fed by gravity to the fire-pot and ash-pan and is consumed. When said fire-pot and ash-pan is turned with its opening M registering or in alignment with the opening K, the draft is directly from the said fire-pot into and through the smoke-box, and consequently the case A is heated only to a minimum degree. When the said opening M is arranged beyond the partition-plate I, by turning the fire-pot and ash-pan the draft and products of combustion pass entirely around the annular space between the fire-pot and the sides of the case A before reaching the smoke-box, and thereby the case A is heated to a maximum extent.

Having thus described my invention, I claim—

The combination of the case or drum, having a concentric series of open-ended air-flues connecting its top and bottom, said casing being projected at one side to form a smoke-chamber, with which the casing communicates by an opening cut in its wall, said chamber terminating in an exit, a partition arranged in the drum to one side of the opening in its wall, and a central opening in the upper side of the drum, with the combined fire-pot and ash-pan arranged in the

casing and having its upper end projecting through the central opening and flanged to rest upon the edge thereof, and having a portion bent to form keepers O, said pot being further provided with an opening and adapted to be rotated so as to bring the opening at either side of the partition, and the fuel-reservoir, the lower edge of which is provided with radial feet adapted to interlock with the keepers, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CHARLES W. LEONARD.

Witnesses:
G. W. BULLIS,
F. J. O'HARA.