Sept. 13, 1927. 1,642,586

E. D. LEWIS

INCINERATOR

Filed April 1, 1926

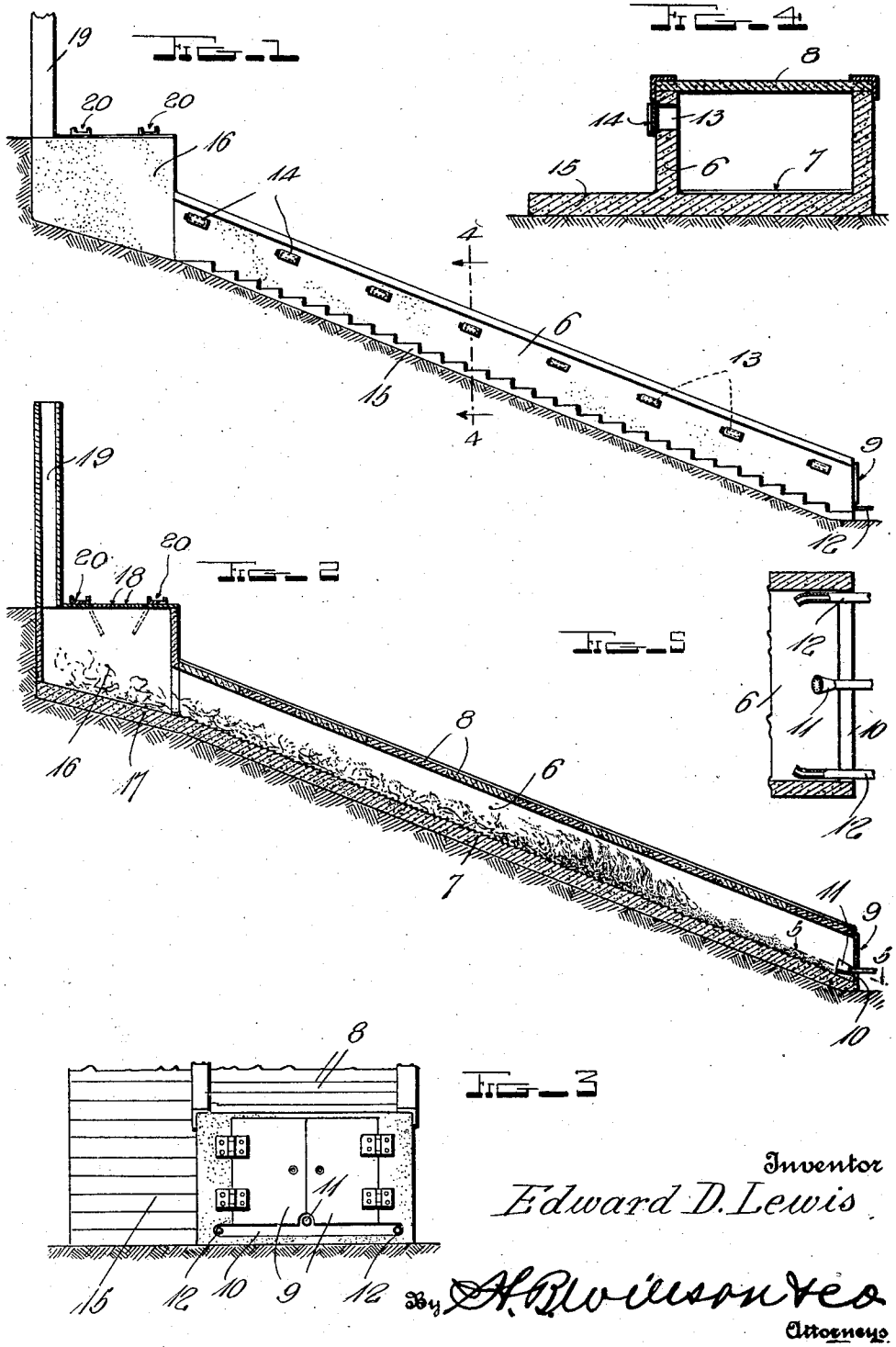


Fig. 1

Fig. 4

Fig. 2

Fig. 5

Fig. 3

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Patented Sept. 13, 1927. 1,642,586

UNITED STATES PATENT OFFICE.

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INCINERATOR.

Application filed April 1, 1926. Serial No. 99,113.

The invention relates primarily to incinerators intended for the disposal of garbage and other refuse which must be effectively dried before it can be burned, and it is the object of the invention to provide an incinerator in which the refuse must be gradually worked by a hand actuated tool, toward a point in an elongated passage, at which combustion will take place. This working of the refuse toward the combustion point, by hand, insures that it shall be effectively loosened and subjected to the action of all of the heat and products of combustion passing through the passage, thereby insuring effective drying before the flame is reached, so that rapid and efficient combustion will take place.

With the foregoing in view, the invention resides in the novel subject matter hereinafter described and claimed, the description being supplemented by the accompanying drawing.

Figure 1 is a side elevation of an incinerator constructed in accordance with my invention.

Figure 2 is a vertical longitudinal section.

Figure 3 is a lower end view.

Figures 4 and 5 are respectively vertical and horizontal sections as indicated by lines 4—4 and 5—5 of Figs. 1 and 2 respectively.

In the drawings above briefly described, the numeral 6 designates an inclined passage which is preferably disposed at about 20 degrees to the horizontal. This passage is constructed from masonry, steel or any other suitable material and is preferably provided with a roughened bottom 7 which prevents rapid sliding of the refuse down said passage. The top of this passage is by preference formed from a plurality of separate slabs or plates 8 which may be removed to give access to the interior of said passage if this is necessary for any reason. Moreover, by forming the top in sections, it may readily expand and contract without any danger of breakage. In the present showing, the lower end of the passage is substantially closed and is provided with hinged doors 9, beneath which is a natural draft inlet 10. A suitable gaseous or liquid fuel burner 11 may be provided at this lower end of the passage 6, and I prefer also to use one or more blower pipes 12. Thus, a fire may be quickly and easily started in the lower end of the passage to consume the refuse as the latter is gradually worked toward said lower end and is dried while it is being stirred and moved in this direction. After the refuse reaches a point near the lower end of the passage 6, it has become sufficiently dried to readily burn, and when the fire has gotten sufficient headway, the burner 11 and the blower pipes 12 may be withdrawn. It may also be stated that instead of using a burner, the lower end of the passage 6 might well be so constructed as to permit the mere building of a solid fuel fire therein.

One vertical side of the passage 6, in the present disclosure, is provided with a plurality of door openings 13 which are spaced apart along its length and are normally closed by doors 13. When these doors are successively opened, an operator may insert a hooked tool to rake the refuse down the passage 6, toward the point at which combustion will take place. In performing this operation, the uppermost door is first opened and the refuse raked as far as possible by inserting the tool through this opening. The next door is then opened and the refuse is worked further toward the lower end of the passage, and so on till it reaches the point at which combustion will take place, it being understood that the raking operation effectively stirs the refuse as it is being downwardly moved, so that the products of combustion passing through the passage 6, will so dry such refuse as to convert it into fuel, which fuel is consumed in the lower portion of the passage.

A stepped ramp 15 is preferably provided at the side of the passage 6, adjacent the openings 13 and the doors 14, so that the operator may readily walk down this ramp, while working the refuse toward the lower end of the passage.

The upper end of the passage 6 may be formed with any desired refuse inlet and with an outlet for the products of combustion. In the preferred construction, an appropriate hopper 16 having a slightly inclined bottom 17, is disposed at and communicates with the upper end of this passage, the top of said hopper having downwardly swingable doors 18 and a discharge stack 19 for the products of combustion. Two tracks 20 of channel metal or the like, are preferably provided at opposite sides of the opening which is controlled by the doors 18, and a truck or wagon containing garbage or other refuse, may be

driven onto these rails and dumped, so that the load will discharge into the hopper 16, the doors 18 being inwardly swingable for this purpose. The inclination of the bottom 17 is such that the garbage or the like cannot slide by gravity therefrom into the passage 6, and the inclination of the passage bottom 7 is sufficiently slight to prevent the refuse from sliding by gravity. It is thus compulsory that in order to consume the refuse, the operator must gradually work it towards the lower end of the passage 6, thereby insuring effective drying and ultimate thorough consumption of such refuse.

The invention is exceptionally simple and inexpensive, possesses no mechanical parts to possibly get out of order and cause trouble, and is in every way efficient and desirable. On account of such advantages as these, the details of construction herein disclosed are preferably followed. However, within the scope of the invention as claimed, variations may be made.

I claim:

An incinerator comprising a straight relatively long and low tunnel having one end which constitutes a fire-box and is formed with a draught inlet, a garbage-receiving chamber in direct communication with the other end of said tunnel and having a garbage inlet door, a smoke stack rising from said garbage-receiving chamber, and longitudinally spaced doors in one longitudinal side of said tunnel, said tunnel being declined toward the fire box, the bottom of said garbage receiving chamber being declined to and forming a continuation of the tunnel bottom, said stack being disposed at the side of the receiving chamber most remote from the tunnel, said garbage inlet door being disposed in the top of the receiving chamber between the stack and tunnel.

In testimony whereof I have hereunto affixed my signature.

EDWARD D. LEWIS.