

No. 732,459.

PATENTED JUNE 30, 1903.

F. C. W. STELTER.
ASH CART.

APPLICATION FILED JUNE 12, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

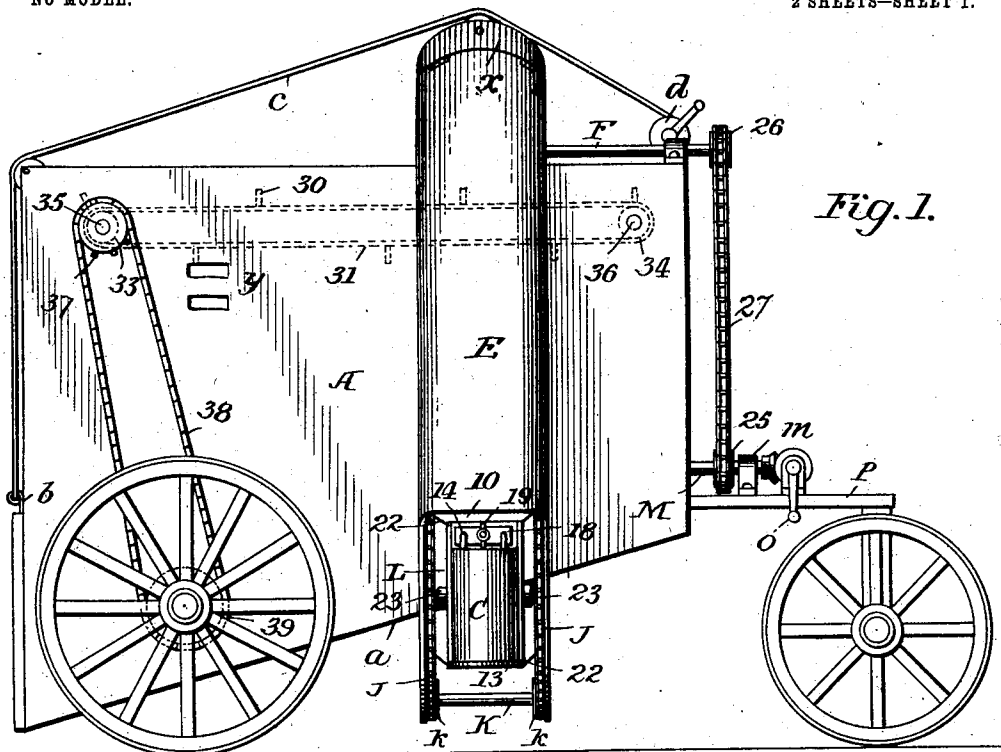
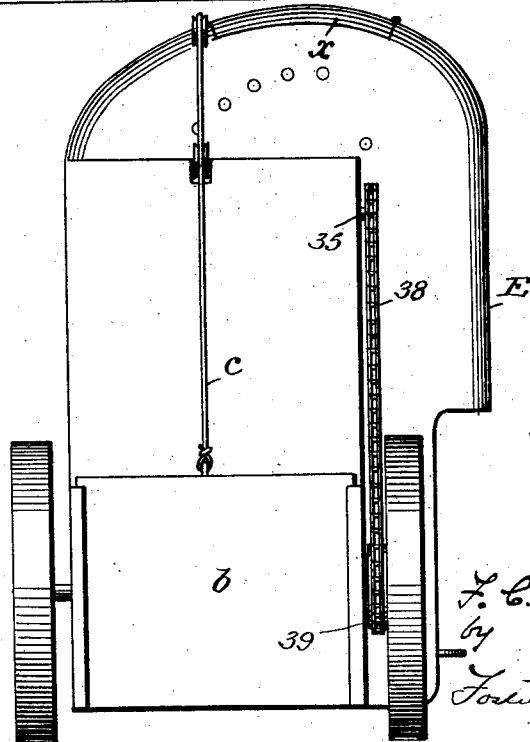


Fig. 5.



Witnesses

J. Hinkel

Sam Gillman Jr.

Inventor

F. C. W. Stelter

by

Forbes Freeman

Attorneys

No. 732,459.

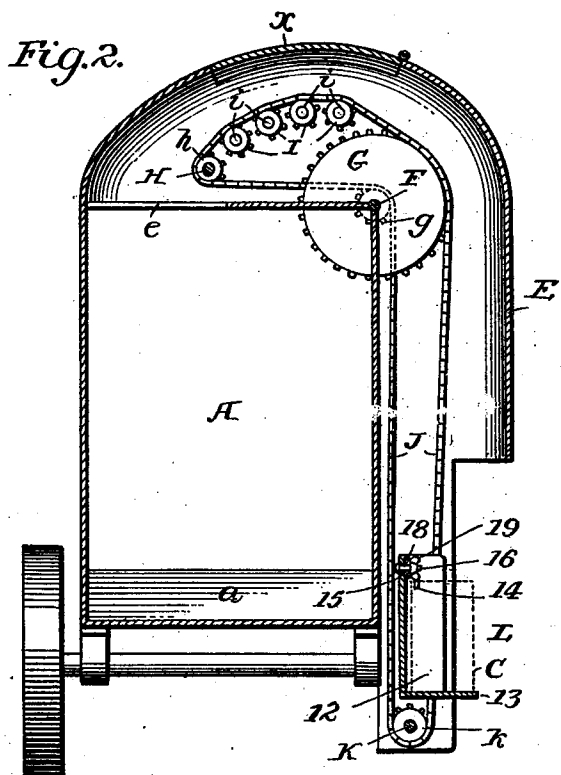
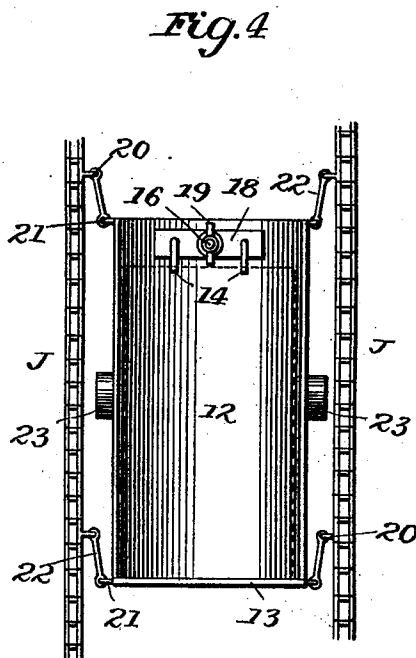
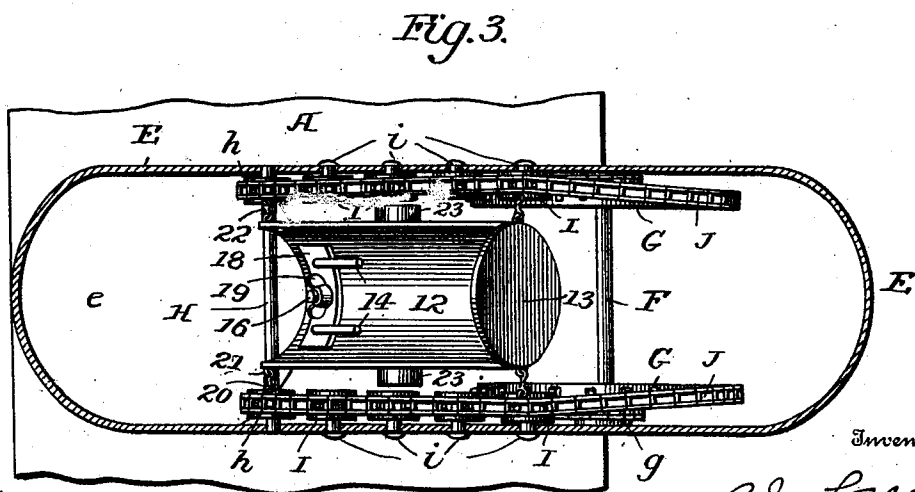
PATENTED JUNE 30, 1903.

F. C. W. STELTER.
ASH CART.

APPLICATION FILED JUNE 12, 1902.

NO MODEL.

2 SHEETS—SHEET 2.



Inventor

Francis C. W. Stelter

By

Forster & Freeman
Attorneys

Witnesses

J. G. Hinkel
H. C. Gillman

UNITED STATES PATENT OFFICE.

FRANCIS C. W. STELTER, OF ASTORIA, NEW YORK.

ASH-CART.

SPECIFICATION forming part of Letters Patent No. 732,459, dated June 30, 1903.

Application filed June 12, 1902. Serial No. 111,377. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS C. W. STELTER, a citizen of the United States, residing at Astoria, in the county of Queens and State of New York, have invented certain new and useful Improvements in Ash-Carts, of which the following is a specification.

This invention relates to ash-carts; and the object of the invention is to provide a cart for collecting ashes which shall be practically dust-proof and to provide power devices for elevating the ash-cans and discharging their contents into the cart.

The invention will be fully described hereinafter, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of an ash-cart embodying my invention. Fig. 2 is a vertical transverse section. Fig. 3 is a top plan view of the apparatus, showing the arrangement of the upper sprocket-wheels over which the elevating-chains travel. Fig. 4 is a view, on enlarged scale, showing the can-holder and the manner of connecting it to the chains. Fig. 5 is a rear view of the ash-cart.

The ash-receptacle of the cart is indicated by A and is entirely inclosed and preferably provided with a bottom *a*, inclining downwardly toward the rear end of the cart. The rear end is provided with a door *b*, in this case shown as a vertically-sliding door, through which the contents of the receptacle may be discharged. Any suitable devices may be employed to open the door, and I have shown a rope or chain *c*, connected at one end to the door and running over pulleys to a winding-drum *d*.

At one side of the ash-receptacle is a tube E, which extends upwardly from a point a short distance above the surface on which the wheels rest above and across the top of the receptacle, and the top of the receptacle is provided with an opening *e*, through which the ashes will be discharged from the cans into the receptacle. The tube is provided at its lower end with an opening 10 of sufficient capacity to admit the ash-can.

Supported in suitable bearings 11 on the top of the receptacle is a shaft F, which extends through the tube E, and on this shaft,

within the tube E, are mounted a pair of spaced sprocket-wheels G G to turn with the shaft. These wheels are adjacent but not close to the sides of the tube, and between each of them and the adjacent side of the tube a small sprocket-wheel *g* is mounted to turn freely on the shaft F. Another shaft H is supported in the sides of the upper portion of the tube, upon which sprocket-wheels *h h* are mounted to turn freely within the tube. On each side of the tube, between the shaft F and shaft H, are a series of inwardly-projecting studs *i i*, arranged in the arc of a circle, as shown, and on each stud a sprocket-wheel I is mounted to turn freely. At the lower end of the tube E another shaft K is supported to turn in suitable bearings, and this shaft carries within the tube a pair of sprocket-wheels *k*. A pair of endless sprocket-chains J run around and over the pulleys *k*, G, *i*, *h*, and *g*, and these chains carry a can-holder L, upon which the ash-can will be supported, and it is evident that by rotating the shaft F in the proper direction the can-holder and can will be carried up through the tube and across between the idle pulleys I, and owing to the direction the chains are caused to travel the open end of the can will be turned downward and the contents be discharged through the opening *e* into the receptacle.

The can-holder L may be variously constructed; but preferably I provide a semi-cylindrical body 12, open at top and provided with a circular bottom 13, upon which the can will be supported. Some means must be provided to clamp the can to the holder, and preferably a hook 14 will be provided to fit over the rim of the can C. This hook must be movably connected to the holder and be provided with means for detachably clamping it to the holder. This may be accomplished in various ways, and as an illustration I show the holder provided with a slot 15, through which extends a screw 16, the latter having an enlarged head 17, preferably curved to fit snugly against the back of the holder. The hook 14 has a curved plate portion 18, provided with an opening for the passage of the screw 16, and a thumb-nut 19 on the latter will when screwed up clamp the plate 18 and

head 17 tightly to the holder, and thus securely hold the hook in position. Any other means may, however, be employed for this purpose.

- 5 The holder L may be attached to the chains in any suitable manner, but preferably I employ a link connection. Two links of each chain will preferably be provided with laterally-extending eyes, (indicated by 20,) and there will also be two eyes 21 on each side of the holder, and four links 22 will be connected to the eyes 20 and 21. In order to prevent the holder from pulling the chains toward each other, lugs 23 on the can engage the chains intermediate the links.

- 15 In discharging the contents of the can it is desirable to give it a jar to shake out anything that may have a tendency to adhere to the can, and while this may be accomplished in various ways I prefer to let the holder and can have a limited movement independent of the chains and for one or the other to strike against a fixed part and be suddenly arrested, thereby imparting the necessary jar. For this purpose the pulleys I are so arranged as to spread the chains J farther apart just where they begin to turn downward toward the opening *e*. This will have the effect of bringing the links 22 at right angles to the can-holder at this point, and as the holder and can after passing this point will have a tendency to drop toward the opening *e* and as the chains converge toward the sprocket-wheels *h* the holder and can will move forward irrespective of the chains and the links will be at angles to the can and chains reverse to the angles they assume when they are at the lower portion of the tube. This is clearly shown in Fig. 3. As the holder and can drop forward in this manner one or the other will strike the shaft H, which will cause the necessary jar.

- Any suitable means may be employed to rotate the shaft F, and I have illustrated a shaft M, mounted in bearings *m* on a platform P, extending in advance of the ash-receptacle. The shaft M carries a sprocket-wheel 25, and a sprocket-wheel 26 is mounted on the shaft F, and a sprocket-chain 27 runs around these wheels. As shown, the shaft M is provided with a crank-handle O, by means of which it may be operated by the attendant, and the can-holder and can may thus be elevated and lowered through the tube E. It is to be understood, however, that I do not limit myself to the use of manual power only for rotating the shaft M, for it is obvious a motor might be supported on the platform P and connected to rotate the shaft M, or it might be connected to operate the shaft F directly.

- The ashes will have a tendency to pile up directly under the opening *e*, and some means must be provided to move them toward the rear of the receptacle in order that the latter may be properly loaded, and for this purpose I provide a leveling device consisting of a series of blades or slats 30, carried by a

pair of endless chains 31 and extending transversely across the receptacle just below the top thereof. The chains are supported by sprocket-wheels 33 and 34, carried by shafts 35 and 36, supported by the sides of the receptacle. In order to drive the leveling device, the rear shaft 35 may extend outward beyond the receptacle at one side and be provided with a sprocket-wheel 37, from which a sprocket-chain 38 may run to a sprocket-wheel 39, carried by the hub of one of the rear wheels.

In order to afford access to the sprocket-wheels and chains at the top of the apparatus, the transverse portion of the tube E is provided with a door *x*. The receptacle may also be provided with one or more sight-openings (indicated by *y*) to enable the attendant to ascertain when the receptacle is sufficiently loaded.

In operation the ash-can will be placed in the holder, and as the latter is near the level of the ground there will be little lifting required of the attendant. When the can is properly clamped to the holder, the shaft F will be rotated and the holder and can be moved up through the tube E until one or the other strikes the shaft H, when the contents of the can will be discharged into the receptacle. The chains are then caused to move in the opposite direction, and the holder and can will be returned to the lower end of the tube, when the empty can will be removed.

As the receptacle is entirely closed, the ashes will not have a chance to be blown about, as is the case where they are dumped into an open cart. Neither will the cans be battered in on the sides, as is the case with the present general method of collecting ashes.

Without limiting myself to the special construction and arrangement of the parts illustrated and described, I claim—

1. In a cart for collecting ashes, &c., the combination of a closed receptacle, a tube extending up one side of the receptacle and opening into the top thereof, said tube having an opening at its lower end for the passage of a can, two series of sprocket-wheels supported within the tube adjacent to the sides thereof, chains running over said wheels, and the upper sprocket-wheels being arranged to cause the chains to diverge from each other and then to converge toward each other, a can-holder having a link connection to the chains, means for driving the chains, and a stop for suddenly arresting the movement of the holder and can at the discharge-opening, substantially as set forth.

2. In a cart for collecting ashes, &c., the combination of elevating-chains, a can-holder connected to said chains, and a hook adjustably connected to the holder and adapted to engage a can supported on the holder, and means for clamping the hook to the holder, substantially as set forth.

3. In a cart for collecting ashes, &c., the combination of a pair of spaced elevating-

chains, a can-holder between the chains, a pair of links connecting each chain to the upper and lower ends of the can-holder, and lugs projecting from the holder to engage the chains intermediate the links, substantially as set forth.

name to this specification in the presence of two subscribing witnesses.

FRANCIS C. W. STELTER.

Witnesses:

LENA STELTER,
JOHN PULZ, Jr.

In testimony whereof I have signed my