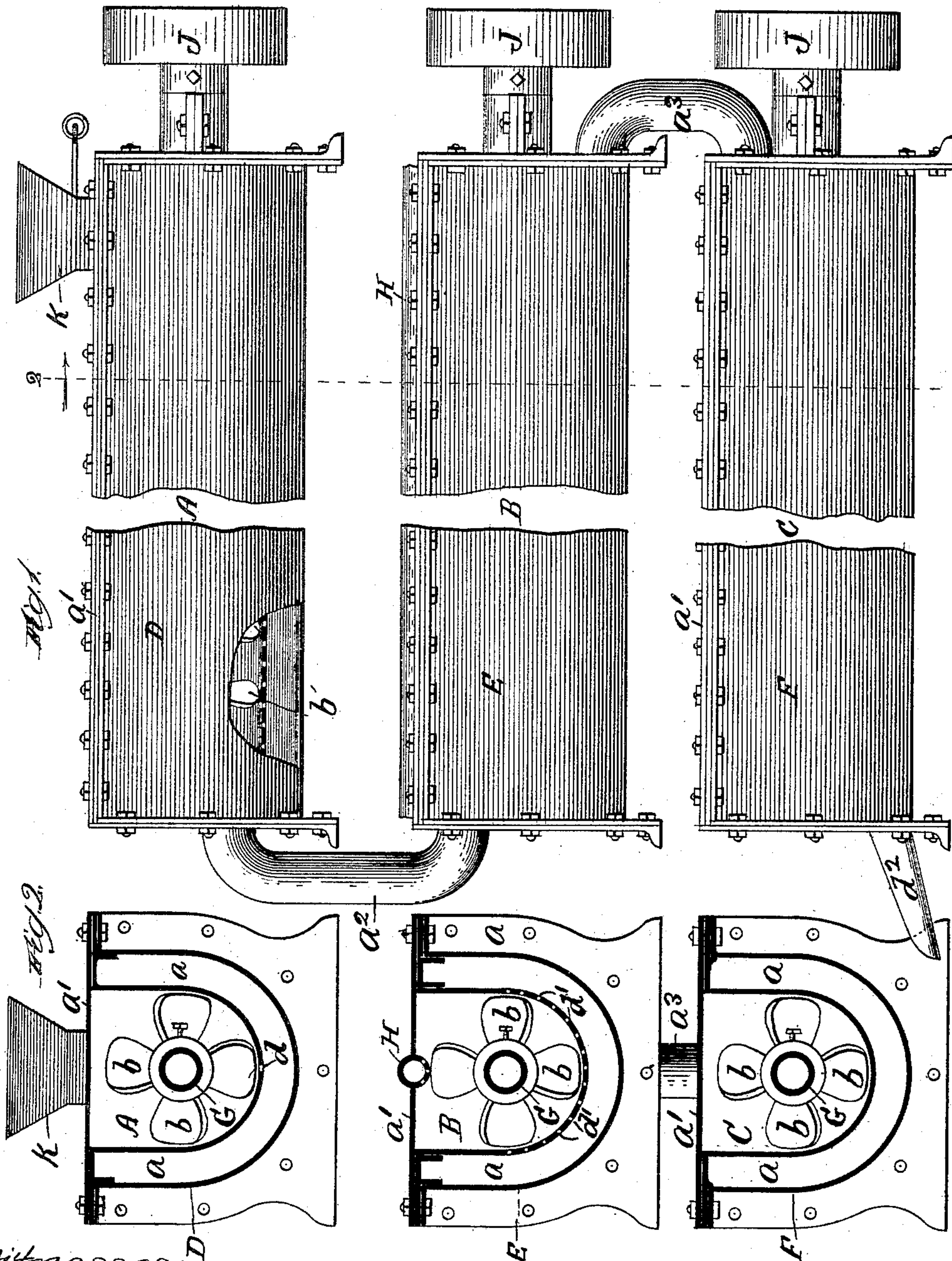


(No Model.)

F. G. WISELOGEL.
APPARATUS FOR TREATING GARBAGE.

No. 442,298.

Patented Dec. 9, 1890.



Witnesses:
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UNITED STATES PATENT OFFICE.

FREDERICK G. WISELOGEL, OF INDIANAPOLIS, INDIANA.

APPARATUS FOR TREATING GARBAGE.

SPECIFICATION forming part of Letters Patent No. 442,293, dated December 9, 1890.

Application filed August 15, 1889. Serial No. 320,862. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK G. WISELOGEL, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in an Apparatus for Treating Garbage, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to an improved apparatus for treating kitchen garbage and other refuse matter, for the purpose of converting the same into a fertilizer.

Figure 1 is a side elevation of an apparatus embodying my improved features; and Fig. 2, a vertical transverse section of the same in plane 2, Fig. 1, looking in the direction indicated by the arrow.

Referring to the drawings, A, B, and C represent three receptacles comprising the apparatus, and which are of a semi-cylindrical form in cross-section. These receptacles are inclosed by the jackets D, E, and F, providing the space or steam-chamber *a* between each of the receptacles and its respective jacket. These receptacles are provided with the tight-closing cover *a'* and arranged one above the other in the order shown. The two receptacles A and B are connected at their companion ends by the curved pipe *a²* and the opposite companion ends of the receptacles B and C by a similar pipe *a³*, thus forming a continuous passage from one receptacle to the next. Each of the receptacles have a rotating shaft G extending longitudinally therethrough, and which are provided with suitable journal-bearings in the tightly-closed ends of the receptacles. The shafts G are armed their entire length inside of the receptacles with a number of spiral blades *b*, which are rigidly mounted thereon and are of a form similar to that of the ordinary screw-propeller wheel. These blades serve the double purpose of stirring up and agitating the mass of garbage and at the same time convey the matter along and force it through the connecting-passage into the next receptacle.

A part of the receptacle A and its inclos-

ing-jacket are broken away in Fig. 1, showing the relative arrangement of the spiral propeller-blades.

The upper receptacle A, into which the garbage is first deposited, is provided along its under side with one row of perforations *d*, so as to admit a small volume of steam direct from the jacketed chamber into and made to permeate the mass of refuse matter, but a small volume of steam is usually admitted directly into the first receptacle on account of the excessive amount of moisture ordinarily present, the greater portion of which is usually liberated and expelled in the first receptacle.

The second receptacle B is provided with numerous perforations *d'* in the bottom and extending part way up each side. This admits a large volume of steam for the purpose of thoroughly cooking the mass. The receptacle B is also provided with the perforated spraying-pipe H, located in the cover and running the whole length of the receptacle. The purpose of this pipe is to spray the refuse matter with heated sulphuric acid, and thus destroy any germs of disease that may be contained therein.

The third and last receptacle receives the matter from the second and thoroughly dries the same before it is finally expelled as a merchantable article from the spout *d²*. The respective rotating shafts have the band-pulleys J mounted thereon, which receive the belts from the motive power. A blower or exhaust-fan will have suitable connection with the apparatus, so as to properly dispose of the noxious gases expelled in the process.

Any number of receptacles may be used that will afford the best results and will be arranged in the regular order of succession shown.

In operation the matter to be treated is introduced into the first receptacle through the hopper K, wherein it is heated by steam admitted around the outside and what enters directly through the perforations, the different particles being thoroughly mixed as the mass is slowly carried along by the conveyer-blades on the rotating shaft and discharged into the next receptacle, where the mass is subjected to the action of a greater volume

of direct steam heat and treated with sulphuric acid, and then carried along into the next and last receptacle, from which the matter is finally expelled in a perfectly dry condition and entirely free from any odor or disease germs.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

- 10 1. An apparatus for treating garbage and other refuse matter, consisting of a plurality of tightly-covered, jacketed, steam-heated receptacles, connected together as described, rotating shafts arranged within the receptacles
15 and carrying spirally-set blades, the blades on the shaft of one receptacle being inclined reversely to those of the adjacent ones, the first receptacle having perforations in the bottom for the admission of a small quantity of
20 steam from the surrounding steam-space, the next having perforations in the bottom and sides for the admission of a greater volume

of steam, and the third or drying receptacle having imperforate walls, all substantially as and for the purpose described.

2. An apparatus for treating garbage and the like, consisting of a plurality of tightly-covered, jacketed, steam-heated receptacles, connected together as described, the first having perforations in the bottom for the admission of a small quantity of steam from the surrounding space, the second receptacle having perforations in the bottom and sides for the admission of a greater volume of steam, and having also a spray-pipe in the top for the injection of acid, the third or drying receptacle having imperforate walls, and means in the several receptacles for agitating and feeding the contained material lengthwise therethrough, substantially as described.

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