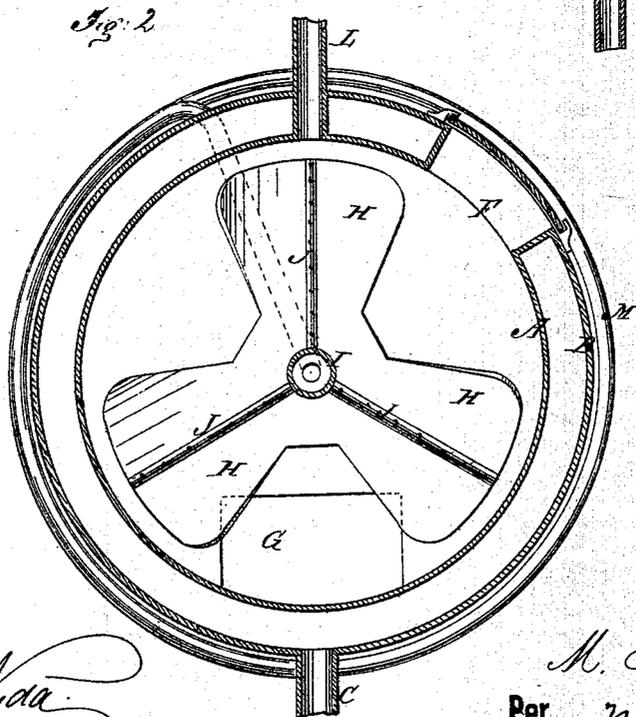
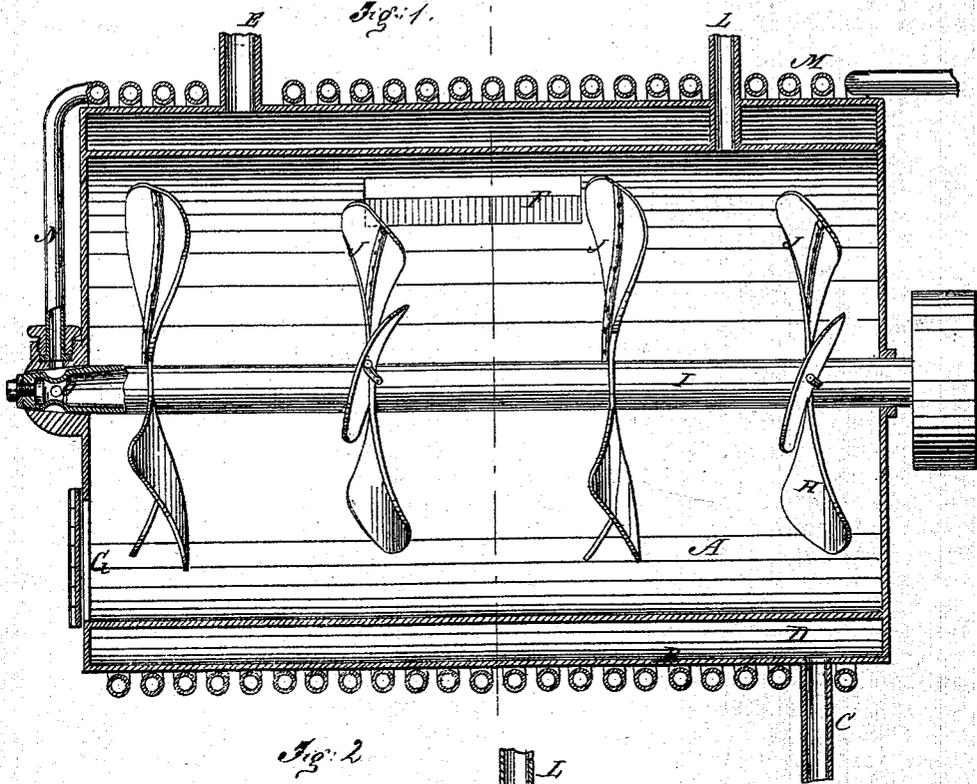


M. ANDERSON.  
Offal Driers.

No. 139,528.

Patented June 3, 1873.



Witnesses:

*Cas. N. A.*  
*S. H. G. S.*

Inventor:

*M. Anderson*

Per

*M. M. G.*

Attorneys.

# UNITED STATES PATENT OFFICE.

MATTHEW ANDERSON, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN OFFAL-DRIERS.

Specification forming part of Letters Patent No. **139,528**, dated June 3, 1873; application filed March 8, 1873.

*To all whom it may concern:*

Be it known that I, MATTHEW ANDERSON, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Drying and Deodorizing Machine, of which the following is a specification:

For drying and deodorizing the offal of packing-houses rapidly and efficiently I propose to have a jacketed cylinder, to be heated with steam, in which the offal will be inclosed, the said cylinder containing an agitator to stir the offal rapidly, and having air-pipes for discharging heated air throughout the mass at the same time, the air being heated in a coil surrounding the steam-jacket, and connecting with the shaft of the agitator, which is hollow, and conducts the air, which is to be forced in by a pump or blower, to perforated tubes on the agitating-blades, from which it is distributed so as to circulate thoroughly through the substance to be dried, and then escapes through a pipe to carry off the odor to a fire, if preferred, where it may be burned.

Figure 1 is a longitudinal sectional elevation of my improved drying and deodorizing apparatus, and Fig. 2 is a transverse sectional elevation.

A is a sheet-metal hollow cylinder surrounded by a jacket, B, having an inlet-pipe, C, for admitting steam to the space D to heat the cylinder. It also has an outlet-pipe, E, for the escape of the steam. F is an opening through the side of the jacket and the cylinder for introducing the substance to be treated. G is

an opening at one end for the discharge of the dried material. These openings will be closed steam-tight, and F will be so arranged that there will be no communication from the interior to the space D. H represents agitating-blades within the cylinder A on a revolving shaft, I, for thoroughly agitating the mass contained in the cylinder. J represents perforated tubes attached to the stirring-blades, and communicating with the interior of the shaft I for distributing hot air through the mass as it is stirred for drying it, and carrying off the odor through the escape-pipe L. The air is heated in a coil, M, surrounding the jacket, and conducted into the hollow shaft by a pipe, N, at the air-tight joint O in one of the journal-bearings of the shaft. The air-distributing pipes J being attached to the strong agitating-blades are supported by them against the resistance of the material through which they work. The pipe C will be connected with a boiler, and the coil with any suitable air-forcing apparatus.

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

The pipe-coil M, applied, as described, around the steam-jacket D, the said coil being connected by suitable tubing with the inside of cylinder A to furnish a supply of air.

MATTHEW ANDERSON.

Witnesses:

H. HOLMES,  
MORGAN O'BRIEN.