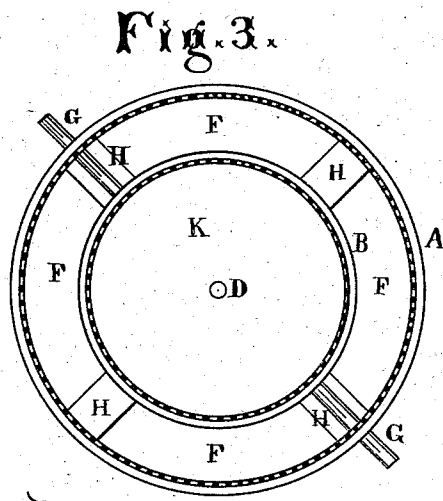
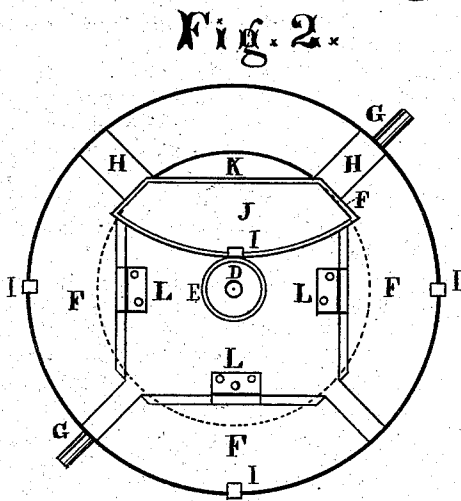
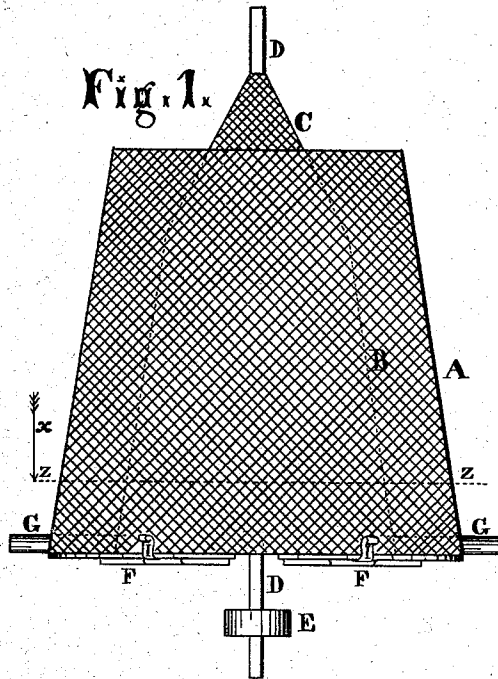


A. P. VON POHRNHOFF.
Centrifugal-Machines.

No. 154,774.

Patented Sept. 8, 1874.



Attest:

J. H. Elliott,
Notary Public.

Inventor:
Alais Pehr von Pohrnhoff
By *G. H. Chapin,* Atty.

UNITED STATES PATENT OFFICE.

ALOIS POHR VON POHRNHOF, OF CHICAGO, ILLINOIS, ASSIGNOR TO ANNA
POHR VON POHRNHOF, OF SAME PLACE.

IMPROVEMENT IN CENTRIFUGAL MACHINES.

Specification forming part of Letters Patent No. 154,774, dated September 8, 1874; application filed
April 21, 1874.

To all whom it may concern:

Be it known that I, ALOIS POHR VON POHRNHOF, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Centrifugal Driers, of which the following is a specification:

The object of the present invention is to improve that class of driers which is arranged with perforated coverings, and to rotate with such velocity as to separate the fluids from the solids.

The nature of the improvement consists in the use of two conical screens, one within the other, between which the offal or other substance to be separated is placed. The inner screen being equidistant from the other screen secures an equal distribution of the substance, and, it being perforated, allows air to pass outwardly through the substance to be separated, thereby facilitating the operation. The bottom or base of the cone is provided with a series of doors, whereby the solid substance can be dumped after the fluid is expelled.

In the drawings, Figure 1 is an elevation of my improved centrifugal driers; Fig. 2, an inverted or bottom view; Fig. 3, a section on line *z*, Fig. 1, looking in the direction of dart *a*.

A represents a truncated case, which is made of sheet metal, and perforated with such a number of suitable-sized holes as may be required for the ejection of fluid from any substance placed therein, and which is provided with a substantial bottom, K, secured to the case in a permanent manner by means of the radial straps H. The openings between the straps are closed by doors F, which are hinged to the bottom K at L, Fig. 2, and provided with suitable packing J, same figure, that they may be shut fluid-tight against the case A, one of the doors being represented as open to show the position of the packing more clearly. In this case spring-catches I are employed to hold the doors to the case A; but any other suitable fastening may be used. The bottom K forms the bottom also of an inner cone, B, terminating in a smaller cone, C, both of which are made of perforated metal of a similar kind to that of case A, that air may readily enter the substance to be separated. The cone C extends above the case A, by means of which, if the case should be full, air would still enter the cone B, the taper of

the cone C allowing the case A readily to be filled without any material accumulating on the top of the inner cone.

The object of making the perforated part A conical is that the substance therein may not be thrown over the top when the case is rotated, and the object of making the part B conical is that the space between it and the case A may be equidistant at all points.

A shaft, D, passes vertically through the apparatus, and, in practice, it is to run in vertical bearings, and to be driven by a pulley, E.

If fluid should accumulate in the inner cone B by the stationary position of the apparatus it will run out of the pipes G, which communicates with it.

The fluid ejected from the case A is to be caught in an outer casing of any suitable form and size for that purpose. Such cases, being now in use for similar purposes, therefore need no description.

The material, as, for instance, offal to be separated, is to be put, by means of a shovel, or otherwise, in the space between the cases A B, after which the apparatus is to be rotated about six hundred revolutions per minute. When a sufficient separation has been made the doors F are to be opened and the dried substance dumped out.

I am aware that centrifugal driers have been before used, and, therefore, confine myself to the construction shown and claimed.

My invention differs from the centrifugal drier patented by Carl T. Burchardt, March 4, 1873, as air from the inside cylinder and the rotation of the cylinder are relied on to separate the fluids from the solids, instead of a vertical screw-conveyer. My drier depends on a firm bottom to sustain the substance to be dried or separated, while Burchardt's drier has no bottom. Further than this the form of the bottom of my drier and the general arrangement are different both in the mode of operation and results obtained.

I claim—

The combination of the cones A B, bottom K, doors F, and radial straps H, as and for the purposes set forth.

ALOIS POHR VON POHRNHOF.

Witnesses:

G. L. CHAPIN,
J. H. ELLIOTT.