

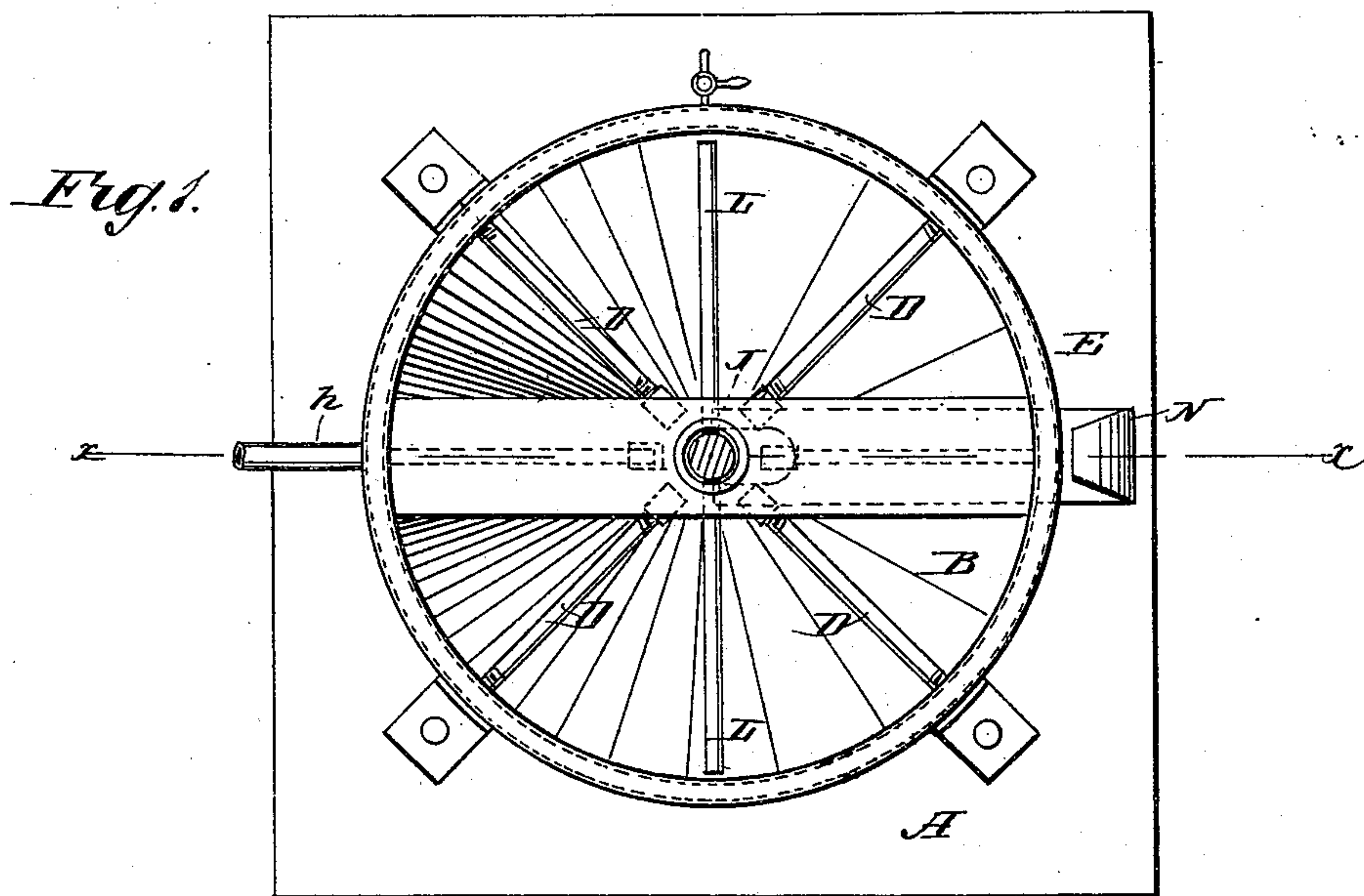
(No Model.)

J. M. SHACKELFORD & J. W. K. McCLURE.

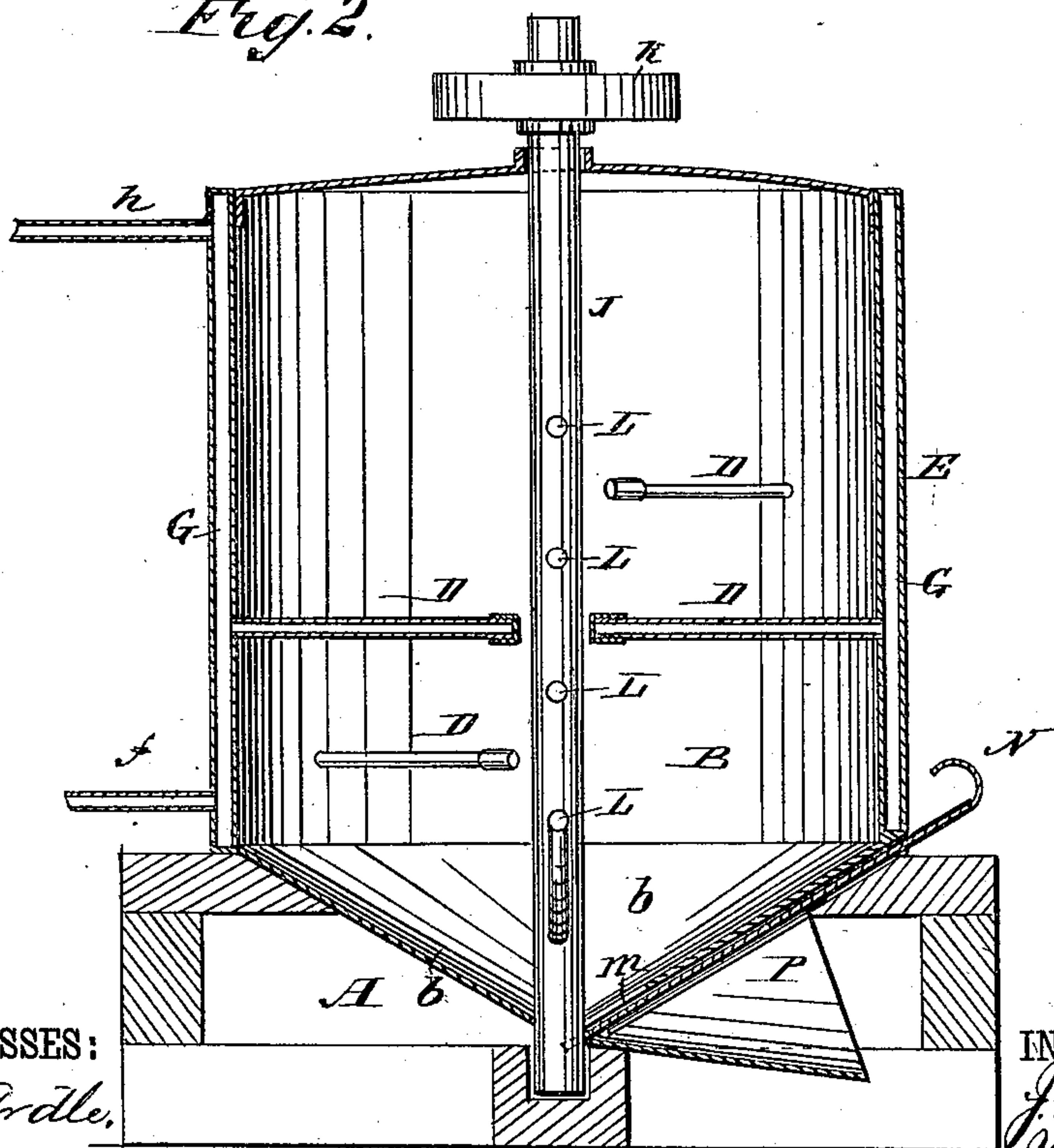
GRAIN CLEANER.

No. 254,571.

Patented Mar. 7, 1882.



*Fig. 2.*



WITNESSES:

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*C. Sedgwick*

INVENTOR:

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BY

# UNITED STATES PATENT OFFICE.

JACK M. SHACKELFORD AND JOHN W. K. MCCLURE, OF BLUE MOUND, ILL.

## GRAIN-CLEANER

SPECIFICATION forming part of Letters Patent No. 254,571, dated March 7, 1882.

Application filed June 21, 1881. (No model.)

*To all whom it may concern:*

Be it known that we, JACK M. SHACKELFORD and JOHN W. K. MCCLURE, of Blue Mound, in the county of Macon and State of Illinois, have invented certain useful Improvements in Grain-Cleaners, of which the following is a specification.

Our invention relates to that class of apparatus in which the grain is cleaned by stirring it in a cylindrical or other vessel by means of arms attached to a rotary shaft.

The invention consists essentially in a double-walled or steam-jacketed vessel provided with hollow arms, and certain devices connected therewith, as hereinafter more particularly described.

In the accompanying drawings, Figure 1 is a top view of an apparatus embodying my improvements. Fig. 2 is a central vertical section of the same.

Similar letters of reference indicate corresponding parts.

The working parts of the apparatus are supported by a frame or platform, A, of any suitable description.

B represents a cylindrical vessel, having a funnel-shaped bottom, *b*, and provided with arms D, extending inward toward its center. These arms consist of pipes having their outer ends open and their inner ends closed by caps, or in any other suitable manner.

Surrounding the vessel B is a casing, E, between which and said vessel B is an annular steam-chamber, G, communicating with said hollow arms D. The chamber or jacket G is provided with an inlet-pipe, *f*, and outlet pipe *h*, leading from and to a steam-generator, for the purpose of supplying said chamber and arms with steam to keep them hot.

In the center of the vessel B works a verti-

cal shaft, J, the lower end of which is stepped in the frame A, and the upper end is provided with a band-pulley, *k*. The shaft J carries a number of radial arms, L, arranged to work between and above and below the hollow arms D.

In the funnel-shaped bottom *b* is a slot, *m*, provided with a sliding gate, N, and under this slot and gate is a spout, P, leading to a suitable receptacle.

The grain to be cleaned is placed in the vessel B, and is cleaned by the stirring operation of the arms L when the shaft J is rotated, after which it passes out through the slot *m*, the size of the opening being regulated by the gate N.

By surrounding the vessel B with a steam-tight jacket, and making the hollow arms D steam-tight, all the advantage of the heat from the steam is obtained without the disadvantage resulting from the moisture imparted by the steam, as has heretofore been experienced when the steam was allowed to come in contact with the grain.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

In a grain-cleaner, the combination, with the grain vessel or receptacle B, the central shaft, J, having stirrer-arms L, and the steam jacket or chamber G, of the hollow arms D, connecting at the open end with said steam-chamber, and having the closed end extended toward but not to the central agitator-shaft, as shown and described.

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Witnesses:

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