

J. F. GENT.

Drier.

No. 165,228.

Patented July 6, 1875.

Fig. 1

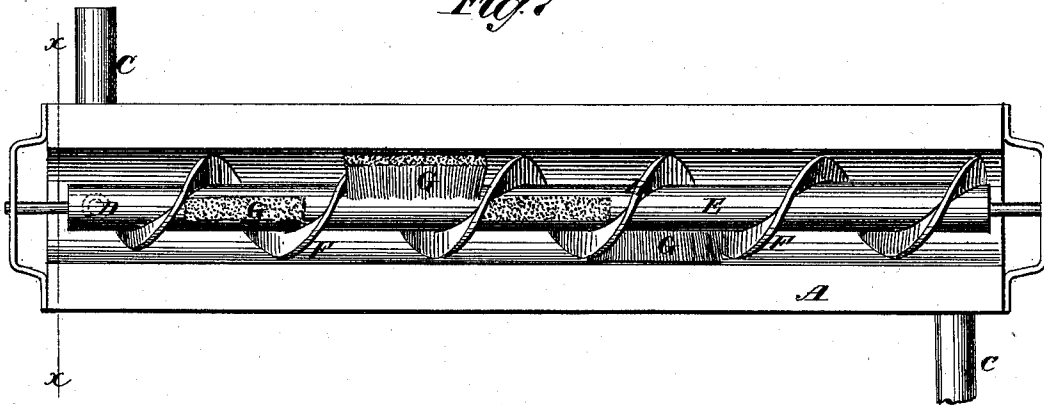
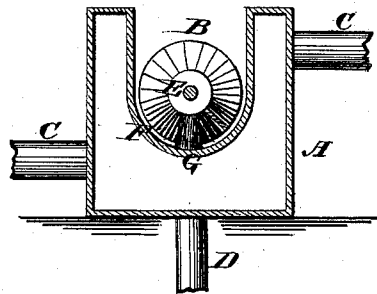


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE

JOSEPH F. GENT, OF COLUMBUS, INDIANA.

IMPROVEMENT IN DRIERS.

Specification forming part of Letters Patent No. **165,228**, dated July 6, 1875; application filed May 22, 1875.

To all whom it may concern :

Be it known that I, JOSEPH F. GENT, of Columbus, Bartholomew county, Indiana, have invented a new and useful Improvement in Driers for Ground Feed, Grain, &c., of which the following is a specification :

My invention consists of an open hollow conveyer-trough, and in a conveyer-shaft having brushes (one or more) attached to it to sweep the surface of the trough, the heat for drying being supplied by exhaust steam discharged into the hollow conveyer-trough.

Figure 1 is a top view ; and Fig. 2 is a vertical cross-section on the line *xx*, Fig 1.

Similar letters of reference indicate corresponding parts.

A is the trough, which is made open at the top and hollow, having a cavity, B, which is semicircular, as seen. This trough may be made of any suitable material, of metal, as seen in the drawing, or of wood, or of any material that will confine the steam and radiate the heat therefrom. C C are pipes for the admission and discharge of steam. D is a pipe for the discharge of the water of condensation. Steam from the engine instead of the boiler may be employed if desired, as abundant heat may thus be obtained at slight expense. E is the conveyer-shaft. F are the

"flights" attached spirally to the shaft, as seen in the drawing, having between the convolutions of said spiral one or more brushes, G, made of any suitable material, which are made to sweep the inner surface of the trough.

These brushes are placed in sections (as seen in the drawing) on opposite sides of the shaft, for the purpose of more effectually stirring up the "chop" or grain, bringing it to the surface, and thus exposing it to the air and preventing overheating, &c.

This trough and conveyer may be made of any length, and may be made to turn angles like ordinary conveyers, if desired.

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

1. The combination, with the hollow conveyer-trough for reception of steam for drying the grain, of the spiral flanged shaft and brushes G, substantially as shown and described.

2. The brushes G, (one or more,) in combination with a conveyer, for the purposes described.

JOSEPH F. GENT.

Witnesses :

JOHN F. WRIGHT,
DAVID T. GRESHAM.