2 Sheets—Sheet 1.

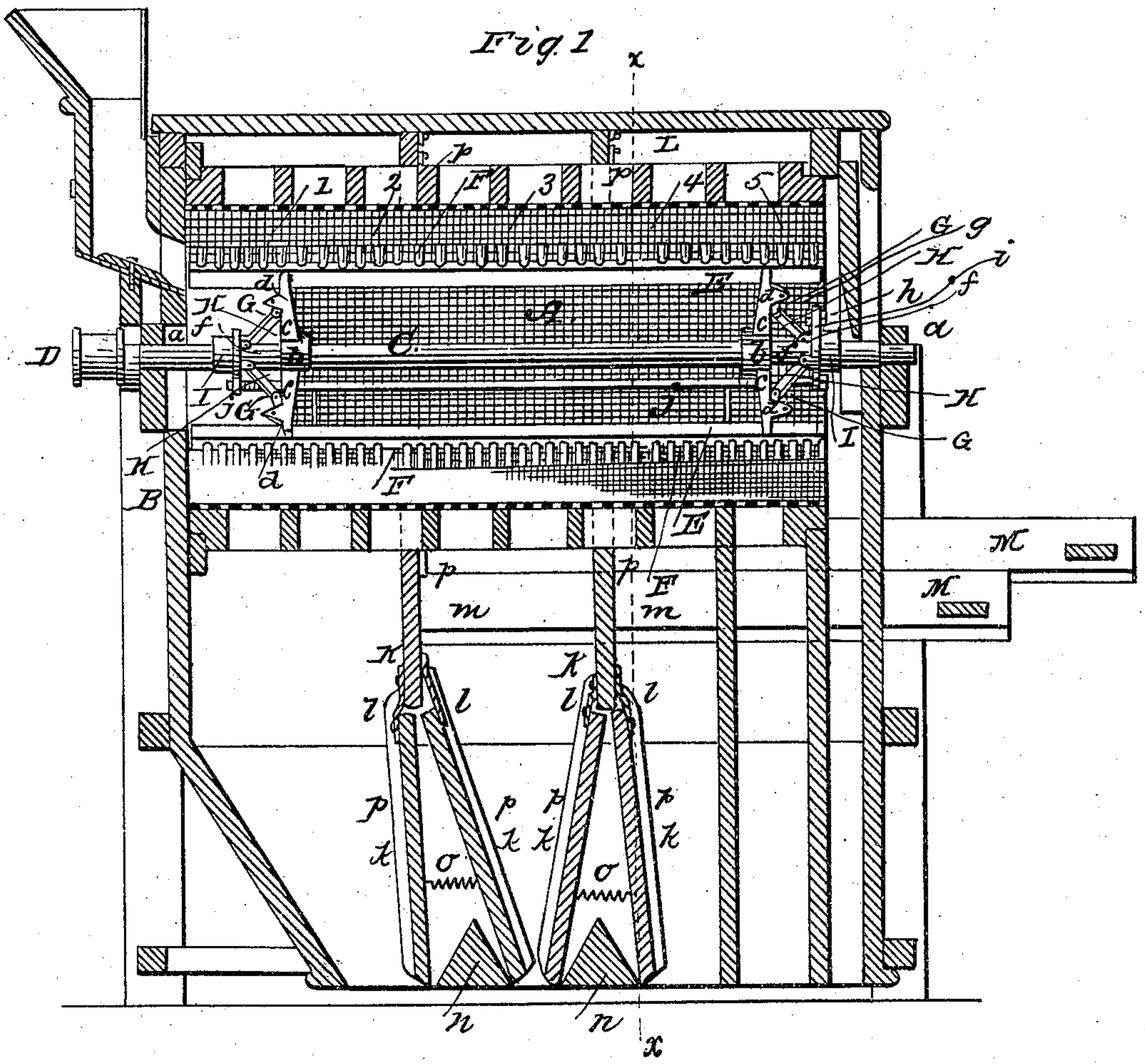
HUNT & NORDYKE.

Mill Bolt.

No. 12,349.

Patented Feb. 6, 1855.

Fig 1



2 Sheets—Sheet 2.

HUNT & NORDYKE.

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No. 12,349. Patented Feb. 6, 1855.

Fig. 3.

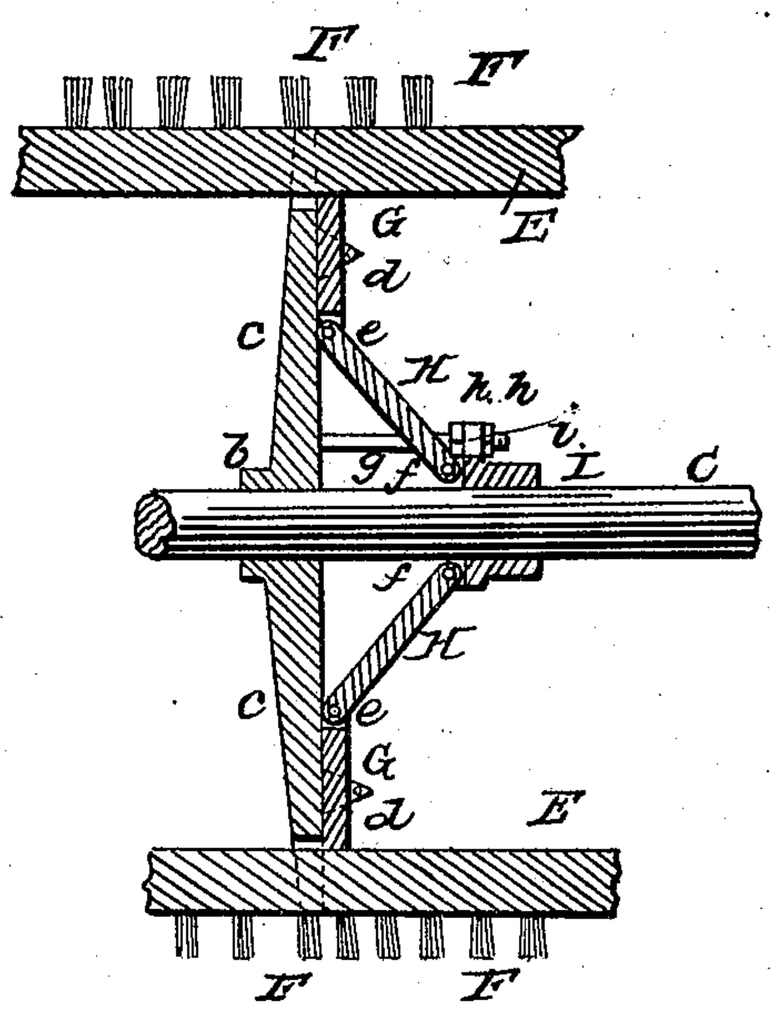
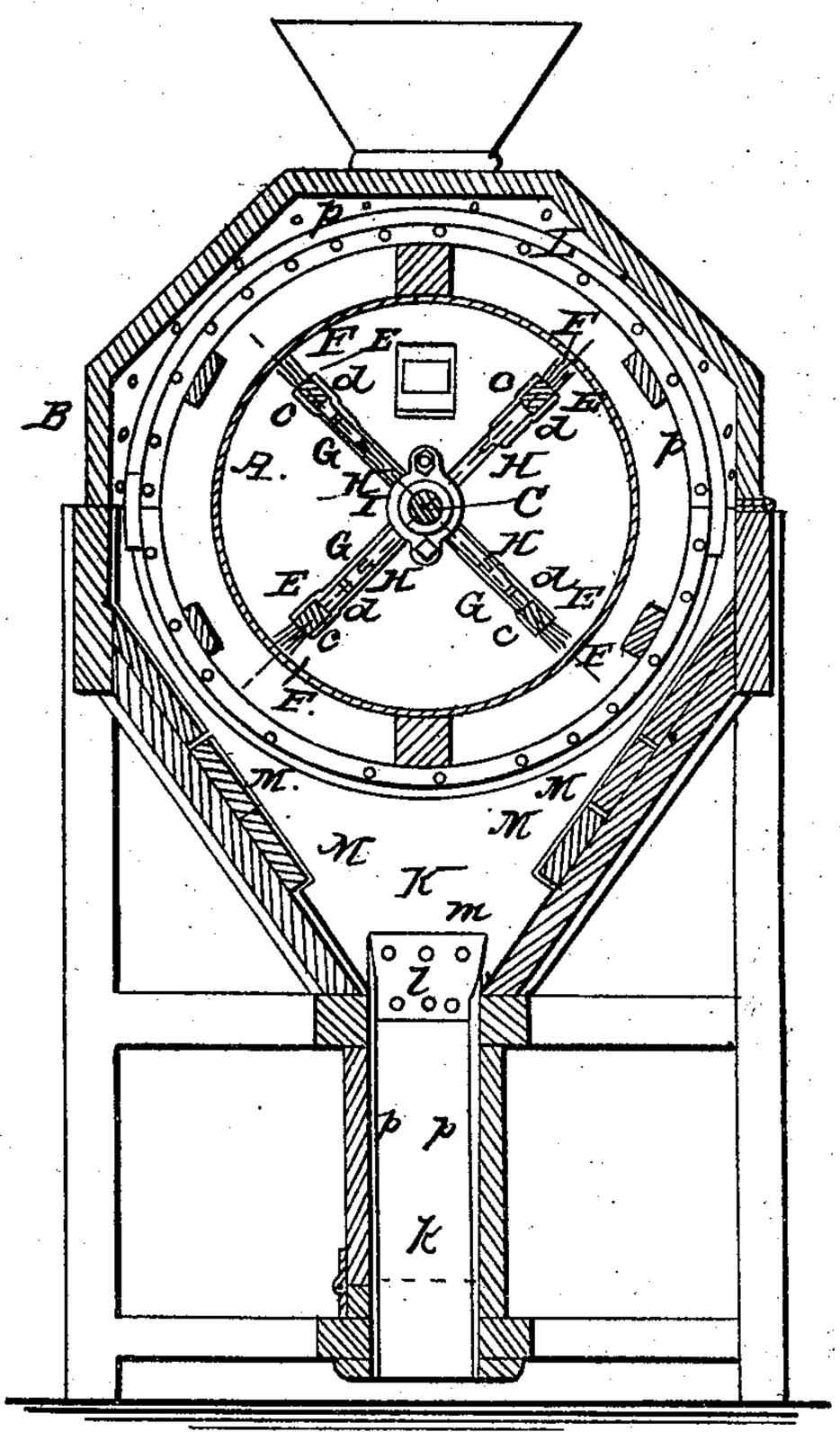


Fig. 2



UNITED STATES PATENT OFFICE.

F. B. HUNT AND E. NORDYKE, OF RICHMOND, INDIANA.

WIRE-CLOTH FLOUR-BOLT.

Specification of Letters Patent No. 12,349, dated February 6, 1855.

To all whom it may concern:

Be it known that we, F. B. HUNT and ELLIS NORDYKE, of Richmond, in the county of Wayne and State of Indiana, have invented a certain new and useful Improvement in Wire-Cloth Flour-Bolts; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a longitudinal vertical section of our improved bolt, the plane of section being through the center. Fig. 2, is a transverse vertical section of ditto (*x*) (*x*) Fig. 1, showing the plane of section. Fig. 3, is a detached sectional view of the device by which the pressure of the brushes against the wire cloth of the bolt is graduated.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a certain new and useful improvement in flour bolts, those constructed of wire cloth, and consists in the peculiar device employed for expanding and contracting the rotating brushes which act against the inner surface of the wire cloth of the bolt and force the flour through the wire cloth, the brushes bearing with a greater or less pressure against the wire cloth according as they are adjusted, as will be fully shown hereafter.

To enable others skilled in the art to make and use our invention we will proceed to describe its construction and operation.

A, Figs. 1 and 2, represents a wire cloth bolt of the usual cylindrical form which is placed stationary within a chest or box B, the bolt being formed of wire cloth of different degrees of fineness, as indicated by 1, 2, 3, 4 and 5, see Fig. 1.

C represents a shaft which runs longitudinally through the center of the bolt A and has its bearings (*a*) (*a*) on the framing of the chest or box B. On one end of this shaft, at the head of the bolt, there is placed a driving pulley D. At each end of the shaft C, there is permanently secured a hub (*b*) having radial arms (*c*) projecting from it, the ends of said arms being forked and having bars E, loosely fitted in them on the outer edges of which bars brushes E, are secured. On the outer edges of the arms (*c*) and near their ends are slides G, one to each arm, said slides working within small guides (*d*) attached to the arms (*c*) see Figs. 1 and 3. The outer ends of the slides G, are attached to the brush bars E, and the inner ends are attached by pivots (*e*) to the upper ends of arms H, the lower ends of said arms being secured by pivots (*f*) to a hub I, placed loosely on the shaft C. The hubs I, I, are kept in proper position upon the shaft C, by a small rod (*g*) which passes through one of the hubs (*d*) of the arms (*c*) and through the hub I, the hub I, being prevented from moving by nuts (*h*) (*h*) on the rod (*g*) which nuts are at each side of an ear (*i*) on the hub I, see Fig. 3.

J, Fig. 1, is a rod which passes through both of the hubs I, I, and having a screw thread (*j*) cut on its inner end, said screw thread working in the hub I, at the head of the bolt.

K, K, are spouts or rather the divisions of spouts which are attached to the lower ends of hoops or rings L, L, which encompass the bolt A, as clearly shown in Fig. 2. To these divisions K, K, there are attached slides M, M, one to each, see Figs, 1 and 2, the slides projecting through the chest or box B, at the tail of the bolt. The divisions K, K, and hoops or rings L, L, form perfect divisions or compartments within the chest or box B, and prevent the flour from one division passing into the other. The lower ends of the divisions K, K, are formed each of two parts (*k*) (*k*) the upper ends of which are attached by straps or hinges (*l*) to projections (*m*) secured to the lower parts of the hoops, the lower ends of the two parts of each division fitting over triangular projections (*n*) at the bottom of the chest or box B, the lower ends of the parts (*k*) (*k*) being kept against the projections by spiral springs (*o*) (*o*) see Fig. 1. The hoops or rings L, L, on their inner edges are provided with india rubber strips (*p*) in order to make a tight joint between the bolt frame and hoops or rings. The outer edges of the upper halves of the hoops or rings are also provided with strips (*p*), as also the edges of the division plate K.

Operation: The meal or unbolted flour is admitted into the head of the bolt A, which is elevated about one inch to the foot and motion being given the shaft C, the flour is brushed through the bolt or wire cloth by the brushes F, the pressure of said brushes against the wire cloth being graduated as desired by operating the rods (*g*), J, by

which the nuts I, I, on the shaft C, may be moved and the brush bars E, expanded or contracted. The finest flour falls through the portion of fine wire cloth, numbered 1 and 2, see Fig. 1, and by moving the slide to which the first division plate K, is attached the flour receptacle is enlarged or contracted so that only the first quality may be received in the flour receptacle. The same operation may be applied to the other plate K.

By the use of the sliding division plates the flour may be separated at varying points, as also, the "ship stuff" and inferior boltings toward the tail of the bolt. And as wheat differs much as regards the quality and quantity of good flour it will produce or yield, the division plates may be adjusted accordingly so as to keep the fine portion separate from the rest, the same rule applying of course to the inferior boltings.

We do not claim a wire cloth bolt, with revolving brushes working within it, for they have been previously used, but,

What we do claim as new and desire to secure by Letters Patent, is—

The peculiar means herein shown, for graduating the pressure of the brushes F, against the wire cloth of the bolt, viz. the loose hubs I, I, on the shaft C, being attached by arms H, to slides G, which work on the outer sides of the stationary arms (*c*) the outer ends of the slides G, being attached to the brush bars E, which fit in the forked ends of said arms (*c*) the hubs I, I, by being moved on the shaft C, expanding or contracting the brush bars, as desired, the hubs being secured in the proper position by the rods (*g*) J.

F. B. HUNT.
ELLIS NORDYKE.

Witnesses:
JOHN FINLEY,
S. EDMONDSON.