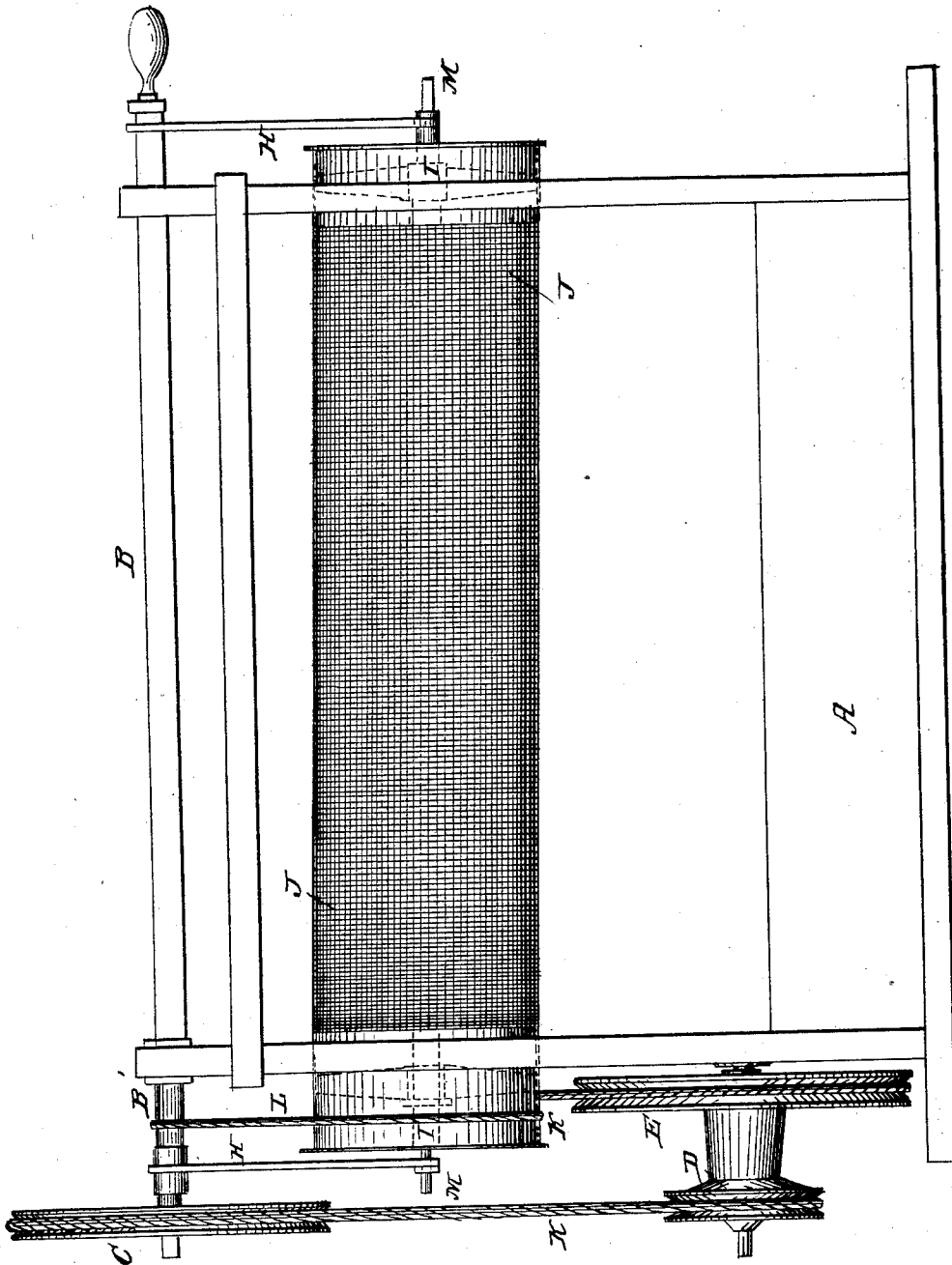


W. H. AKINS.

Flour Bolt.

No. 11,637.

Patented Sept. 5, 1854.



UNITED STATES PATENT OFFICE.

WILLIAM H. AKINS, OF ITHACA, NEW YORK.

FLOUR-BOLT.

Specification of Letters Patent No. 11,637, dated September 5, 1854.

To all whom it may concern:

Be it known that I, WILLIAM H. AKINS, of Ithaca, in the county of Tompkins and State of New York, have invented a new and useful Improvement on a Machine or Bolt for Bolting Flour, Meal, and other Substances; and I 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 elevation; Fig. 2, is a transverse section.

A, is the chest, to the outside of which the shafting and pulleys are attached. It also contains the reel and bolt.

B, is the driving shaft, and is to receive its motion from a revolving shaft, drum, or wheel of the mill, connected by a band, belt, or gears.

C, D, E, and F, are a train of pulleys connecting the driving shaft B, by means of bands or belts, to the shaft G, and so geared as to give the shaft G, from 250 to 300 revolutions per minute; the shaft G, having a short corresponding crank X, at each end. (In the drawings, only one end of shaft G being shown, in Fig. 2.)

H, H, are hangers, suspended from the driving shaft B, and through which the shaft B revolves. To the lower ends of the hangers H, H, is suspended the reel I, upon its journals. The ends of the reels projecting a little outside the chest.

J, is the bolt inclosing the reel, inside the chest.

K, K, are bands or belts, connecting the train of pulleys.

L, is a band or belt, connecting the head of the reel with the driving shaft B.

M, M, are connections connecting the cranks X, X, with the journals of the reel I.

The operation is as follows: The flour, meal or article to be bolted is introduced into the head of the bolt by a spout, in the usual way. The driving shaft B, being set in motion by the mill; the band L, will consequently slowly revolve the reel I, and bolt J, as usual in the common way of bolting, the train of pulleys rapidly revolving the shaft G, which being connected by the cranks X, X, to the journals of the reel I, by means of the connections M, M, giving the reel and bolt a rapid vibratory motion, in combination with its rotary motion, doing the same work, with about one-fourth part of the bolting cloth, usually required, and occupying only about one-fourth of the space usually occupied by bolts in flouring mills.

What I claim as new and desire to secure by Letters Patent is—

The connecting rod M, in combination with the vibrating bracket H, and pulley B', over which belt L, passes, said bracket being secured to axle B for serving the double purpose of giving the bolt a short, quick, horizontal, vibratory motion, and at the same time giving it a rotary motion, the whole apparatus being arranged as described and operating in the manner set forth.

WILLIAM H. AKINS.

Witnesses:

W. T. HUNTINGTON,
O. H. GREGORY.