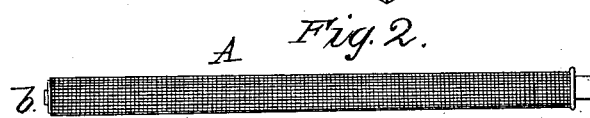
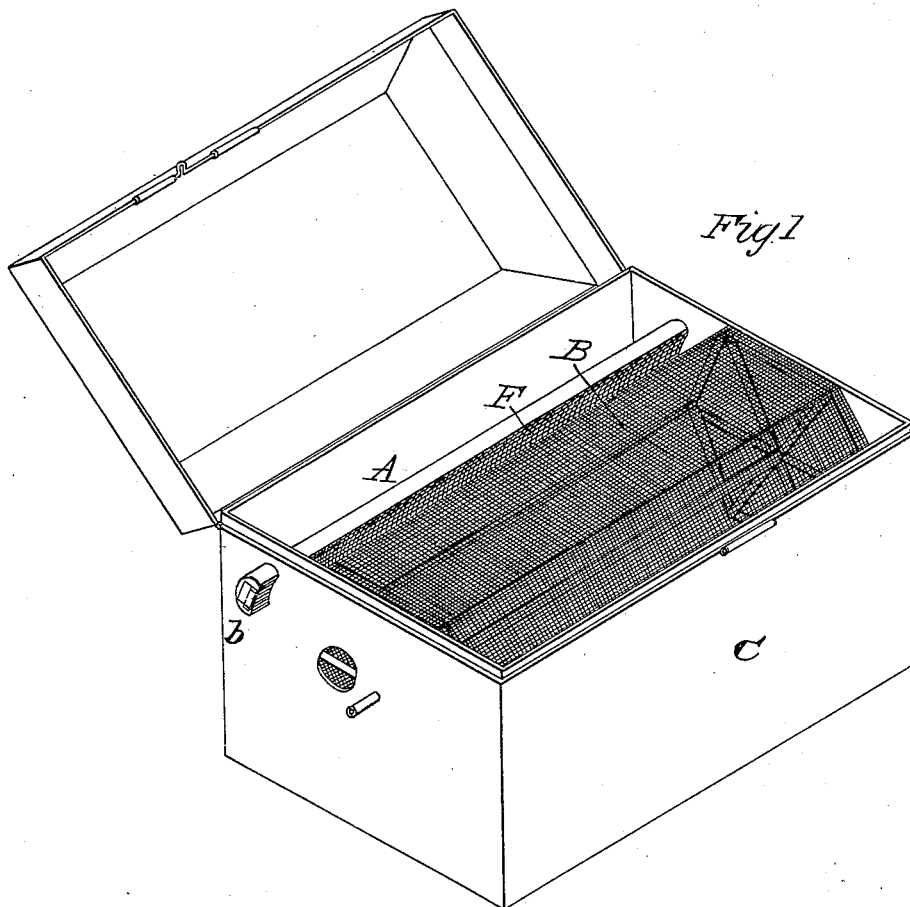


S. GODFREY.

Mill Bolt.

No. 50,466.

Patented Oct. 17, 1865.



Witnesses  
J. P. Peyton  
S. S. Fehnestock

Inventor  
Solomon Godfrey  
by his atty  
Baldwin & Son

# UNITED STATES PATENT OFFICE.

SOLOMON GODFREY, OF PEORIA, ILLINOIS.

## IMPROVEMENT IN BOLTS FOR FLOURING-MILLS.

Specification forming part of Letters Patent No. 50,466, dated October 17, 1865.

*To all whom it may concern:*

Be it known that I, SOLOMON GODFREY, of Peoria, in the county of Peoria and State of Illinois, have invented a new and useful Improvement in Bolts for Flouring-Mills; 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 perspective view of a flour-bolt with my improvements attached. Fig. 2 is a front view of my improved cooling-tube; and Fig. 3 is an end view of the valve over the end of the tube.

Like parts are referred to by like letters in all the figures.

It is the object of my invention to cool the flour and prevent the bolt from clogging and to arrest impurities from the air and prevent them from mingling with the flour by forcing a strong current of dry cool air in very small jets upon the outer surface of the bolt while in operation; and my invention consists in the employment of a semi-cylindrical metal tube, and covering the front thereof with a concave piece of wire-gauze, through the meshes of which a current of cool and dry air is forced by a regulated blast.

I have now pending an application for a patent for an improvement in flour-bolts that involves the direct application of a blast through a tube to the outer surface of the bolt for the purposes of cooling the flour and cleansing the bolt; but in this application my invention is limited to the construction of the tube for delivering the cool air to the bolt, both to keep it clean and to cool the flour, for I have found by careful experiment that my present improvement is in both particulars far more effective than any previously known, and that besides these marked advantages it wholly prevents any dust that may mingle with the blast or be raised by it from passing onto the bolt or among the flour.

I form a semi-cylindrical tube, A, of any suitable metal, of a length and circumference

adapted to the size of the bolt B, with which it is to be used, being careful to let it rest on perforations in the ends of the chest C, as seen on its outside at D in Fig. 1. The front half of the tube E is covered with fine wire-gauze properly secured and curved inward, so as to present a uniform concave of fine perforations to the convex surface of the bolt B. One end of the tube A thus constructed has a slide-valve, *a*, (shown detached in Fig. 3,) to regulate the quantity of air to be admitted into the tube from a fan or other blast, while the opposite end of the tube A has a slide-valve, *b*, to be closed when the blast is in operation and opened when it becomes necessary to remove the dust which accumulates within the tube.

The tube being placed at a proper distance from and directly in front of the bolt and parallel with its shaft, a blast of air created by a fan or otherwise is let into the tube, and its strength, being under the control of the sliding valve, can be regulated with precision. From the concave form of the wire-gauze the blast will be forcibly ejected upon the bolt in minute jets, crossing each other in many directions, so as to mingle quickly with the flour and cool it rapidly, and at the same time prevent any of the flour from clogging on the bolt. The wire-gauze will permit the free passage of pure air to the flour and bolt, but will arrest all gross impurities and dust that may mingle with the blast, and these will fall to the bottom of the tube, whence they can be easily removed by opening the valve opposite to that by which the blast is admitted.

What I claim as my invention, and desire to secure by Letters Patent, is—

The tube A, constructed with a concave wire-gauze front, arranged and operating substantially as described, in combination with the bolt B, for the purposes set forth.

In testimony whereof I have hereunto subscribed my name.

S. GODFREY.

Witnesses:

J. A. MCCOY,  
P. C. REDING.