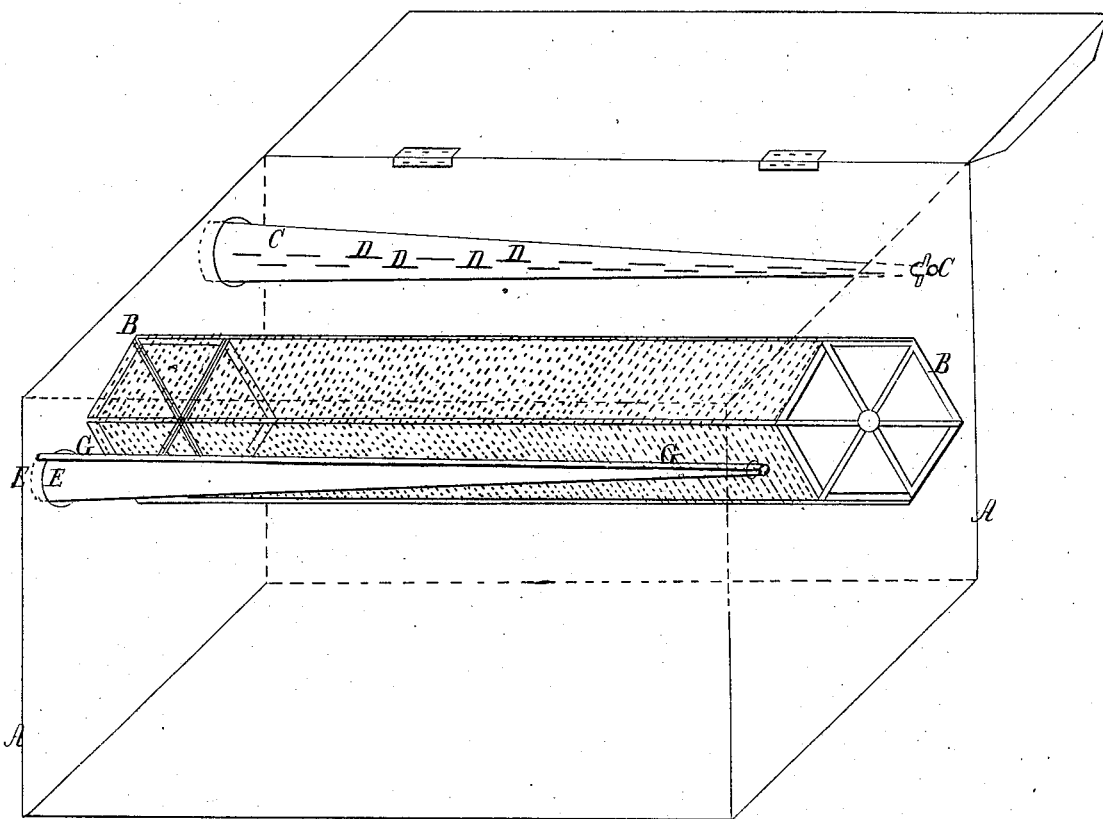


*S Godfrey,*

*Flour Bolt.*

*No. 51,939.*

*Patented Jan. 9. 1866.*



*Inventor,*

*Solomon Godfrey*

*Witnesses;*  
*J M. Regart*  
*H S Gulaney*

*By his Atty J Franklin Regart*

# UNITED STATES PATENT OFFICE.

SOLOMON GODFREY, OF PEORIA, ILLINOIS.

Letter's Patent No. 51,939, dated January 9, 1866.

## IMPROVEMENT IN BOLTS FOR FLOURING-MILLS.

The schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, SOLOMON GODFREY, of the city and county of Peoria, in the State of Illinois, have invented a new and useful Improvement in Bolts for Flouring-Mills, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing which makes part of this specification, and which represents a view in perspective of so much of a bolting-chest and reel to which my improvement is applied, as is necessary to illustrate my invention, the chest being represented with its lid thrown open, and as if its sides were transparent.

Previous to the date of my invention much difficulty has arisen in bolting flour, from the tendency of the bolting-cloths to become clogged, owing both to the glutinous nature of the flour and the sticking of the shives, or outer coating of the grain, in the meshes of the cloth. The meal also passes from the bolts in a warm state, and, consequently, must undergo a cooling process before packing, thereby causing extra labor, expense, and loss of time.

Now, it is the object of my invention to provide means for keeping the bolting-cloth clear from obstructions, and at the same time, when necessary, cooling the meal in passing through the bolt; and to these ends my improvement consists, first, in applying a blast of air to the exterior surface of a bolting-reel; second, in combining with a bolting-reel one or more perforated air-pipes so arranged as to discharge the air in jets upon the exterior surface of the cloth; third, in combining with a bolting-reel a perforated air-tube capable of revolving on its axis so as to direct a current of air upon the bolting-reel at any angle desired.

To carry out my invention, which may readily be applied to bolting-chests of ordinary construction, I arrange inside the chest and near the reel one or more cylindrical or tapering tubes of suitable size and material, either perforated continuously throughout their whole length in the form of a long slit, or at intervals in the form of tubes or short slots, as may be deemed most desirable, a current of air being forced through the pipes from a proper fan or pump.

In the accompanying drawing, which exemplifies one mode of carrying out the object of my invention, a bolting-reel, B, of any suitable construction, is shown as mounted in a chest

or frame, A. An air-tube, C, in this instance of tapering form, is mounted in the frame so as to turn on its axis, and is perforated with a series of holes, D, for the escape of the air, which is forced in at the larger end of the tube from a suitable fan or pump, and impinges upon the outer surface of the bolting-cloth as the reel revolves, thus driving off the shives and gummy matter sticking to the cloths. The blast escapes partly through the cloth on the other side of the reel (thus incidentally aiding the bolting) and partly through the end with the offal.

The air may be of any temperature desired, and when it is lower than that of the flour, which comes warm from the stones, the flour will be proportionately cooled. If desired, it can be cooled sufficiently for packing without passing through the hopper-boy.

The pipe E is shown as constructed with a slot, G, extending continuously from one end to the other, which is of course a mere modification of the other one, C. By turning the tubes on their axes the blast can be caused to strike the reel at a greater or less angle, as may be found most desirable. The air-tubes may be made cylindrical, if desired, but I prefer the tapering form, as it insures a more equable distribution of the blast. Two or more pipes may be used, if desired, and they may be applied on the same or different sides of the reel. The details of construction of the bolt may also be modified in various ways without departing from the spirit of my invention.

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

1. Applying a blast of air to the exterior surface of a bolting-reel, substantially in the manner described, for the purpose of cleaning the bolting-cloth and cooling the flour.

2. The combination, with a bolting-reel, of one or more perforated air-pipes arranged to discharge the air in jets upon the external surface of the cloth, substantially as described.

3. The combination, with the bolting-reel, of one or more air-pipes capable of turning on their axes to vary the angle at which the blast strikes the cloth, as set forth.

SOLOMON GODFREY.

Witnesses:

DENNIS HAYES,  
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