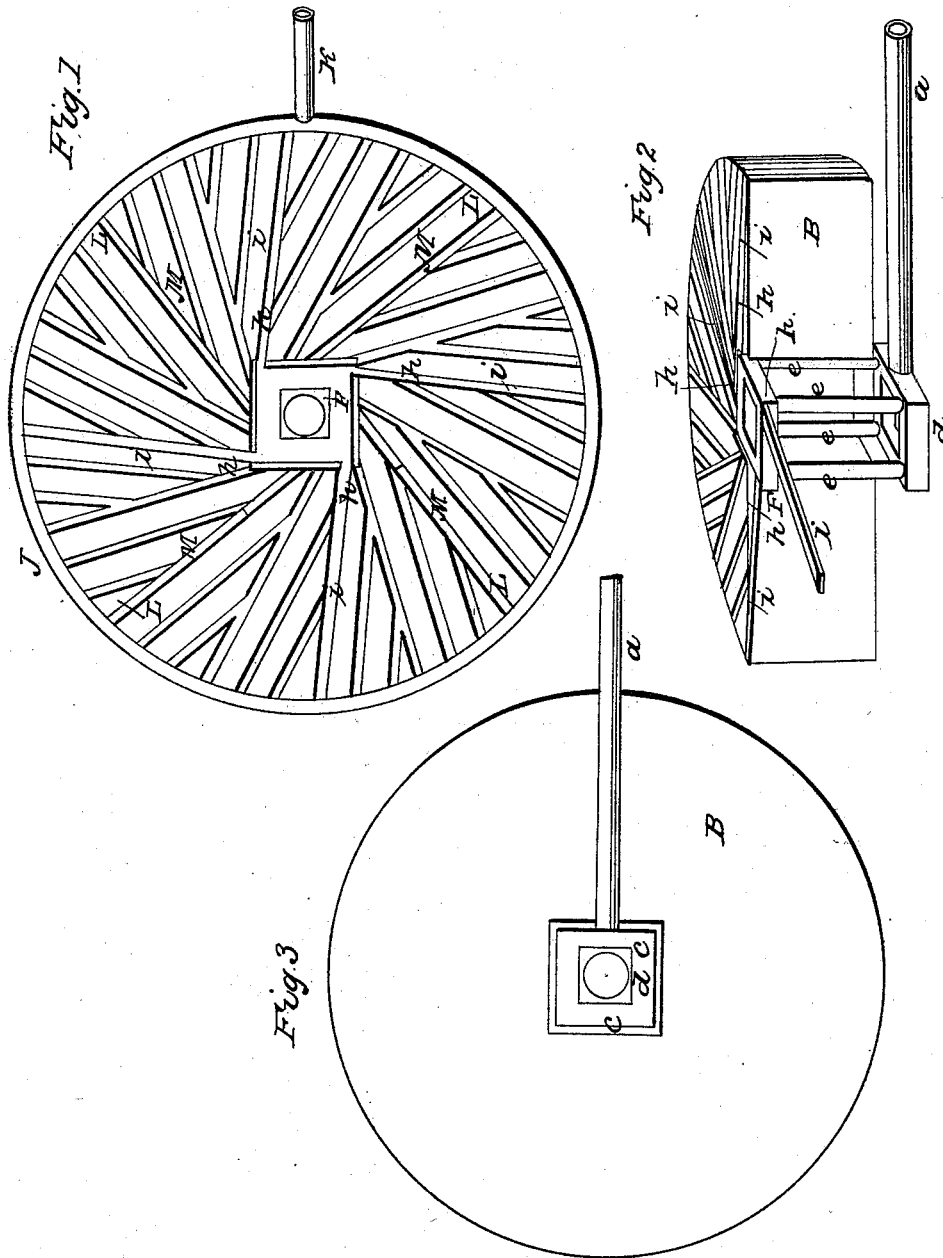


F. FRELIGH.

Preventing Millstones from Heating.

No. 3,969.

Patented March 26, 1845.



UNITED STATES PATENT OFFICE.

FERRIS FRELIGH, OF STOWE, OHIO.

MODE OF PREVENTING MILLSTONES FOR GRINDING GRAIN FROM HEATING.

Specification of Letters Patent No. 3,969, dated March 26, 1845.

To all whom it may concern:

Be it known that I, FERRIS FRELIGH, of Stowe, in the county of Summit and State of Ohio, have invented a new and useful
5 Mode of Preventing Millstones from Heating While Grinding; and I do hereby declare that the following is a full and exact description.

The nature of my invention consists in introducing metallic pipes or tubes between the mill stones with a long aperture in one side to permit the air to escape between the stones for the purpose of cooling them when heated by the friction caused in grinding.

15 To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I apply my invention to mill stones of all kinds by means of metallic pipes of sufficient diameter to admit what air may be necessary. I construct a tube (A, Fig. 2) of suitable dimensions which passes under the bed stone (B) to the square or circular tube (D) connected with this square or circular tube are four pipes (E, E E E) Fig. 2
25 which are made to pass up through the four corners of the bush (C) Fig. 3 and are connected with a square or circular tube (F) Fig. 2, lying on the top of the bush within the eye of the bed stone. Inserted into the square or circular tube are four or more flat tubes or pipes (*h h h h*) to conduct the air toward the verge of the stone. These tubes are made as wide as the furrow will admit

by $\frac{1}{4}$ or $\frac{3}{8}$ inch thick and sunk into the furrow of the bed stone so deep as to avoid coming in contact with the runner and also admit a furrow of the usual depth above them, these tubes are to be laid in some adhesive cement as plaster of Paris or melted alum. I make long apertures or holes (*i i i i*) in the sides of the tubes to permit the escape of the air in the same direction that the stone runs. The blast is created in any of the known forms, and is applied to the tube (*a*) Fig. 2, which being connected with the others conducts the air between the stones as required.

I have also another method of introducing air between the stones by a tube (*J J*, Fig. 1), surrounding the stones with a pipe connected (*K*) to introduce the air with also pipes (*L L L L*) connected with the circular pipe or tube (*J J*) sunk in grooves in the stone, with apertures or holes, (*M, M, M M*) as described at (*i i i i*) to be used should the circumstances requiring.

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

The application of air through metallic pipes or tubes to mill stones as herein described to prevent mill stones from heating and also facilitate grinding.

FERRIS FRELIGH.

In presence of—

ROBERT M. CURDY,
THOS. H. GOODWIN.