

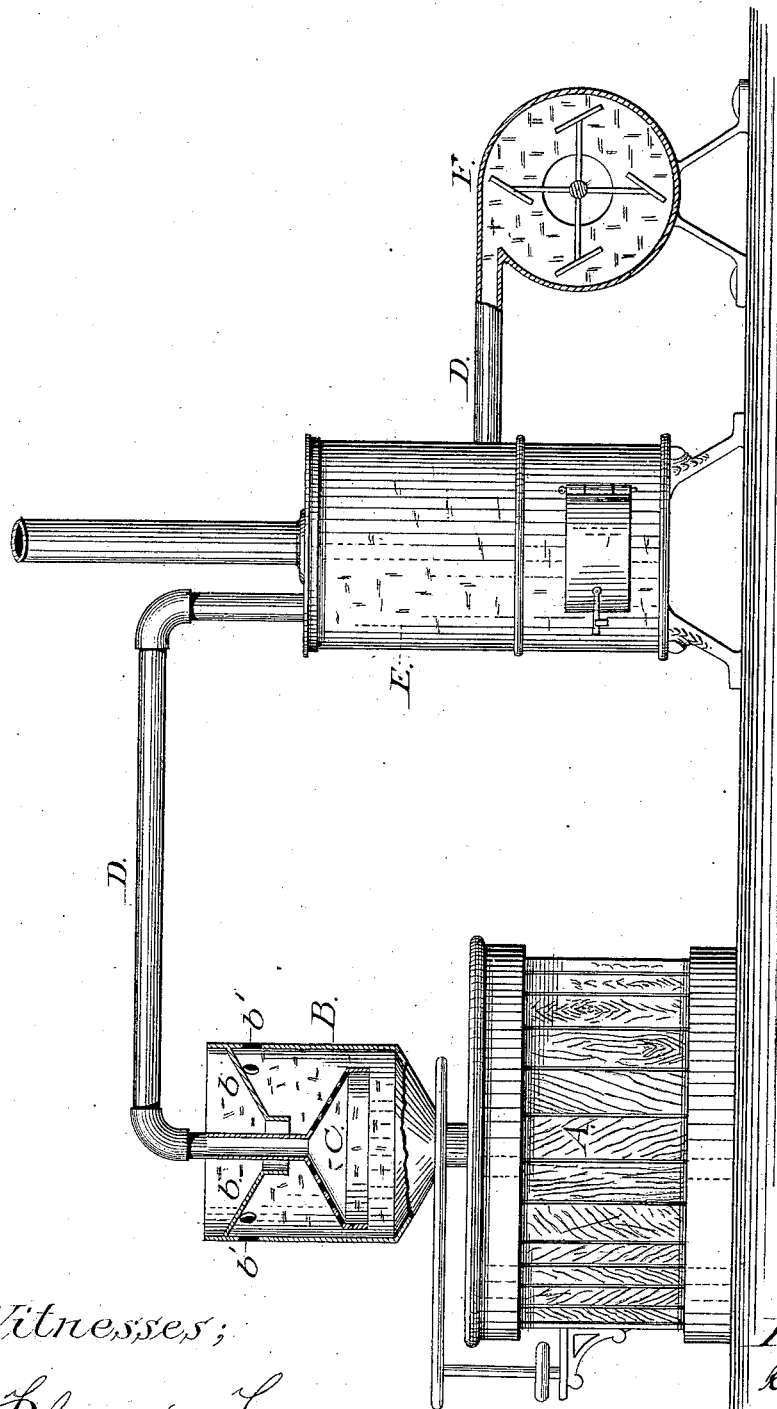
(No Model)

R. ENGLISH.

GRAIN HEATER.

No. 265,664.

Patented Oct. 10, 1882.



Witnesses;

*Shalter Fowler,*  
*H. B. Applewhite.*

Inventor;

*Robert English*  
*per attys.*

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# UNITED STATES PATENT OFFICE.

ROBERT ENGLISH, OF AUSTIN, TEXAS.

## GRAIN-HEATER.

SPECIFICATION forming part of Letters Patent No. 265,664, dated October 10, 1882.

Application filed June 12, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT ENGLISH, of Austin, Texas, have invented a new and useful Improvement in Grain-Heaters, of which the following is a clear, full, and exact description, reference being had to the accompanying drawing, making a part of this specification, in which the figure is an elevation, partially in section, of my improved grain-heater.

My invention relates to that class of heaters designed for heating grain and drying it prior to its being subjected to the grinding process; and it consists of a combination of devices hereinafter explained and claimed.

To enable others skilled in the art to make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the drawing, A represents the boxing in which the grinding-stones revolve, and B is a hopper over the same. Within this hopper I place the inverted-funnel-shaped mouth C, attached to the hot-air pipe D, leading from the furnace E, which furnace is provided with a blast-fan, F, in order that the hot air may be applied under pressure to the wheat or other grain as it enters the hopper B. The lower or under portion of the mouth C is entirely open to allow a free passage of the hot air, and, as it is of a diameter little less than the hopper itself, the hot air strikes through the grain as it is shed from the upper incline to the lower part of the hopper on its way to the grinding-stones, and dries it. To assist in the process of drying, I perforate the sides of the invert-

ed-funnel-shaped mouth C, so as to allow the heated air to strike the layer of grain as it slides down the inclined sides of the mouth.

On the inside of the hopper B, and above the funnel-shaped mouth C, I secure the centrally-inclined flange *b*, for the purpose of conducting the grain toward the center of the hopper and discharging it as much as possible on the highest point of the mouth C, so as to increase its line of travel over the inclined surface of the mouth, and thus perfect the drying of the grain before it reaches the grinding-stones. Beneath the flange *b*, I make the perforations *b'* around the hopper for the escape of the heat after it has passed through the grain.

It is evident that by the construction I have described a most effective and simple heater is secured, one that cannot get out of order, and not requiring skilled labor to operate it.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The hopper B, provided with the flange *b* and perforations *b'*, in combination with the hot-air pipe D, provided with the inverted-funnel-shaped mouth C, having its sides perforated, and all constructed and arranged to operate substantially as and for the purpose described.

ROBERT ENGLISH.

Witnesses:

M. ENGLISH,  
E. LEACH.