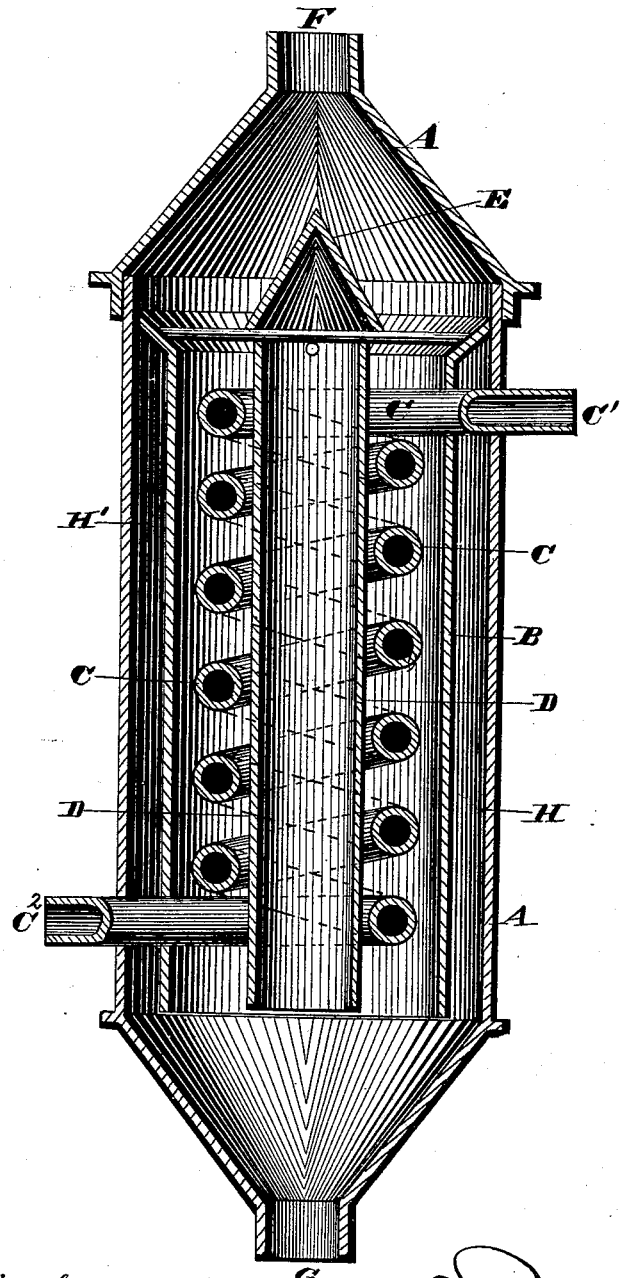
S. M. BRADEN.
Wheat-Heater.

No. 217,923. Patented July 29, 1879.



WITNESSES
E. J. Nottingham
A. M. Bright

INVENTOR
Samuel M. Braden
By Edgett and Edgett
ATTORNEYS.

UNITED STATES PATENT OFFICE.

SAMUEL M. BRADEN, OF LIGONIER, INDIANA.

IMPROVEMENT IN WHEAT-HEATERS.

Specification forming part of Letters Patent No. **217,923**, dated July 29, 1879; application filed May 20, 1879.

To all whom it may concern:

Be it known that I, SAMUEL M. BRADEN, of Ligonier, in the county of Noble and State of Indiana, have invented certain new and useful Improvements in Wheat-Heaters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawing, which forms part of this specification.

My invention relates to a device for heating wheat immediately previous to grinding; and consists in the construction hereinafter described and claimed.

In the drawing is represented a vertical sectional view of my device.

A is the outer casing, preferably cylindrical in form, having an inner casing, B. C represents the steam-pipe closely coiled, having the inlet C^1 and exhaust C^2. D is a tubular device located longitudinally within said steam-coil, and is adapted to reduce the space and force the wheat against the steam-pipe C. This inner flue may or may not be filled with steam or heated in any suitable manner, and is provided with a conical cap, E, placed with its apex immediately beneath the inlet-pipe F, so as to evenly distribute or divide and drive the wheat against the steam-pipe C. G is the outlet-pipe for the grain after it has become thoroughly heated.

It is a well-known fact that the heating of hard winter or spring wheat immediately before grinding not only greatly improves the quality of the flour produced, but actually increases the amount from a given quantity of wheat.

A very important element to the success of treating heated grain is that of heating it evenly. This I claim to have succeeded in doing.

The operation of my device is as follows: The inlet-pipe C^1 is connected in any suitable manner with the boiler. The steam enters the coil C through this inlet, and after traversing the length of the coil passes out through the exhaust C^2. This operation soon thoroughly heats the coil C. The wheat is now introduced through the opening F into the heater, striking the apex of the conical cap F of the tubular device D, by means of which it is divided and forced in every direction in the passage containing the steam-pipe C, and passes downward through the space formed between the tubular device D and the steam-pipe C, and that formed between the pipe C and the inner casing, B, in either way being forced into close contact with the steam-pipe by the surrounding walls B or D. After traversing the length of the heater the wheat passes out through the opening G to the stone.

I may or may not fill the space between the outer casing, A, and the inner casing, B, with any non-conducting non-combustible material, as asbestus or the like.

In coiling the steam-pipe C, I prefer to leave sufficient space between the coils to permit the free passage of the wheat, thus utilizing the whole surface of the steam-pipe for heating purposes, so that if either the inner or outer passage becomes clogged the wheat can readily pass to the other.

What I claim is—

In a wheat-heater, the combination, with the outer casing and the inner casing, of the coil of steam-pipe located within the latter, together with the device extending longitudinally within said coil, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL M. BRADEN.

Witnesses:

JOHN ABDILL,

WILLIAM CULVEYHOUSE.