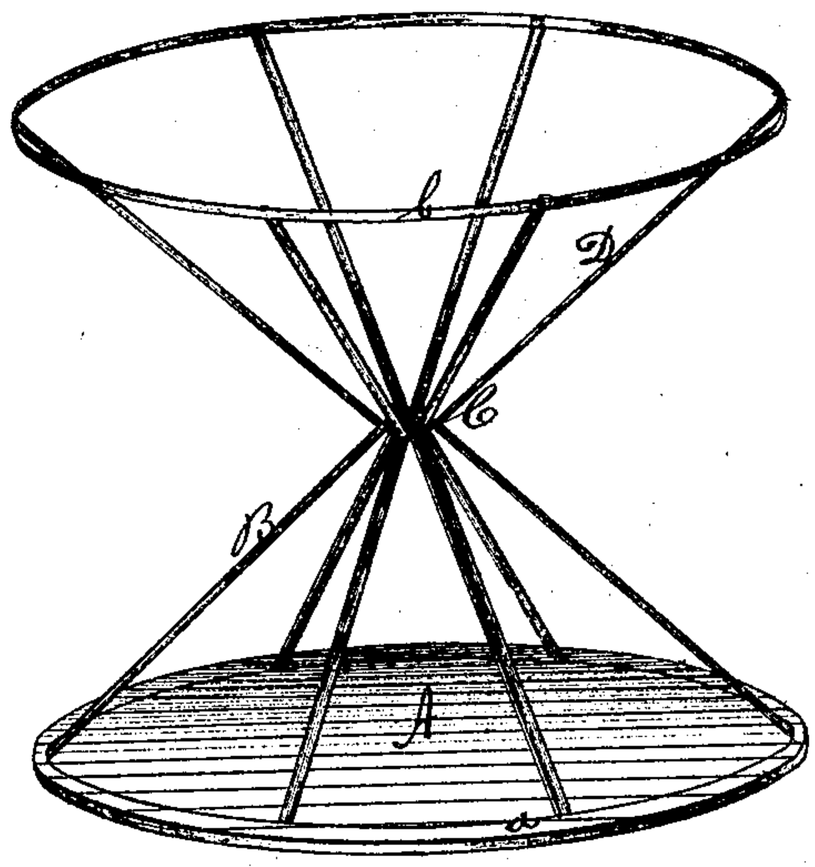
J. Amick,

Bagasse Furnace.

No. 101,968. Patented Apr. 12. 1870.



Witnesses.

H. A. Jenkins

Jno. L. Thompson

Inventor

John Amick

United States Patent Office.

JOHN AMICK, OF ASSUMPTION PARISH, LOUISIANA.

Letters Patent No. 101,968, *dated April* 19, 1870.

SPIDER-FURNACE FOR BURNING BAGASSE.

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

I, JOHN AMICK, of the parish of Assumption, State of Louisiana, have invented a certain Improved Spider-arched Furnace for Burning Bagasse, of which the following is a specification.

My invention relates to bagasse furnaces in sugar-mills, whatever may be their form or construction, for it is equally applicable to every description of furnace and chimney, and its object is to provide more space than is contained in any existing furnace for the bagasse, and for a fuller and better ventilation, and, therefore, for an improved draught in and through the furnace.

My invention will be at once understood by referring to the drawing, which shows it as it stands over the bottom of the furnace, the walls of the latter not being shown, although they may be said to be represented by the rim of the bottom A at *a*, and the ring *b* at the top of the drawing.

In constructing my improved furnace I project from its exterior walls a number of arches, B, if I may so call them, toward the center of the furnace, and at such an inclination that they will come together at C, three feet, or thereabouts, above the bottom A, which I need hardly say consists of grates, and not of a surface in which there are no openings, as shown on the drawing.

The arches B may be of brick, or of any other suitable material. From the apex of the open dome-like structure, created by the arches B I, project a corresponding number of arches, D, toward the walls of the furnace, and at the same angle with arches B.

I may or may not fill up the vertical space between the arches B and D with a thin wall, according to circumstances. The upper open work or spider-like inverted dome, which is produced by the radiating arches D, constitutes that part of the furnace which receives the bagasse, and where it is burned, whilst the space below the arches B receives the fuel, wood or coal, which is necessary to accomplish the active consumption of the bagasse.

To introduce this fuel three or more doors communicate with this open space from the outside of the furnace. The bagasse is thrown into its section of the furnace through a large drop that is placed a little above said section, between the boilers. The furnace to which the structure shown on the drawing would be adapted would be circular, but, as I have before stated, very slight modifications would adapt it to any form of furnace.

I have tested my invention by actual practice, and found it superior to any bagasse furnace I have ever seen.

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

The placing of two reverse open-work or spider-like domes within the furnaces of sugar-mills, when the same is done by means of arches B and D, as herein described, for the purpose set forth.

JOHN AMICK.

Witnesses:

H. N. JENKINS,

JNO. J. THOMPSON.