L. JACOBI.

Apparatus for Drying Coal.

No. 166,612. Patented Aug. 10, 1875.

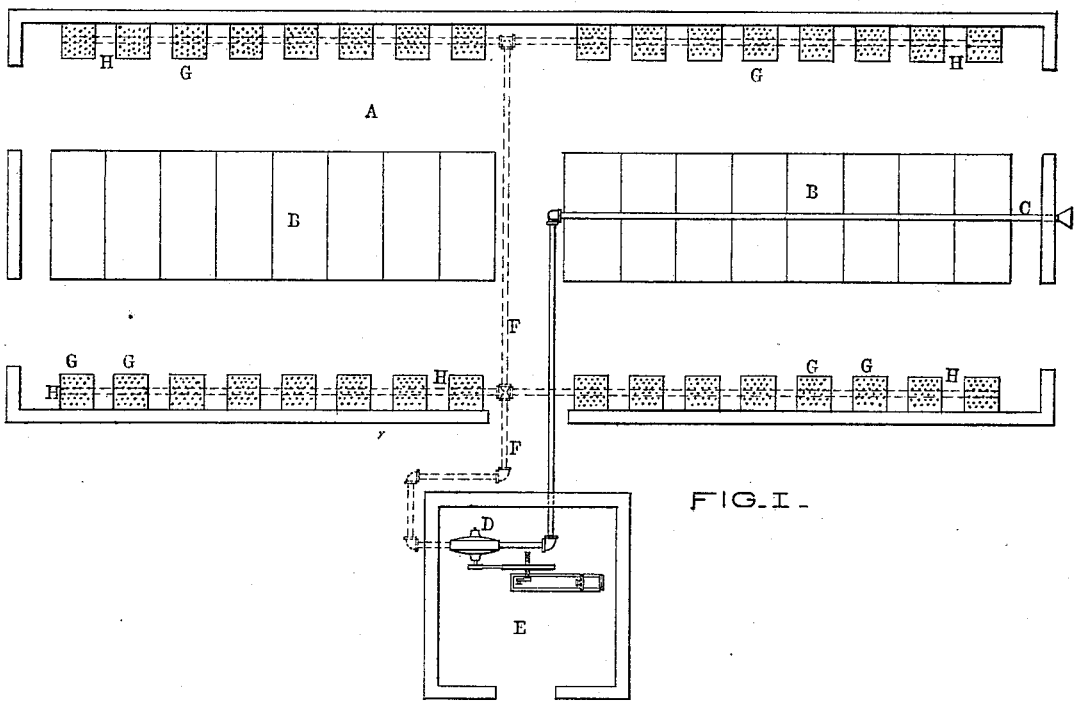

FIG. I.

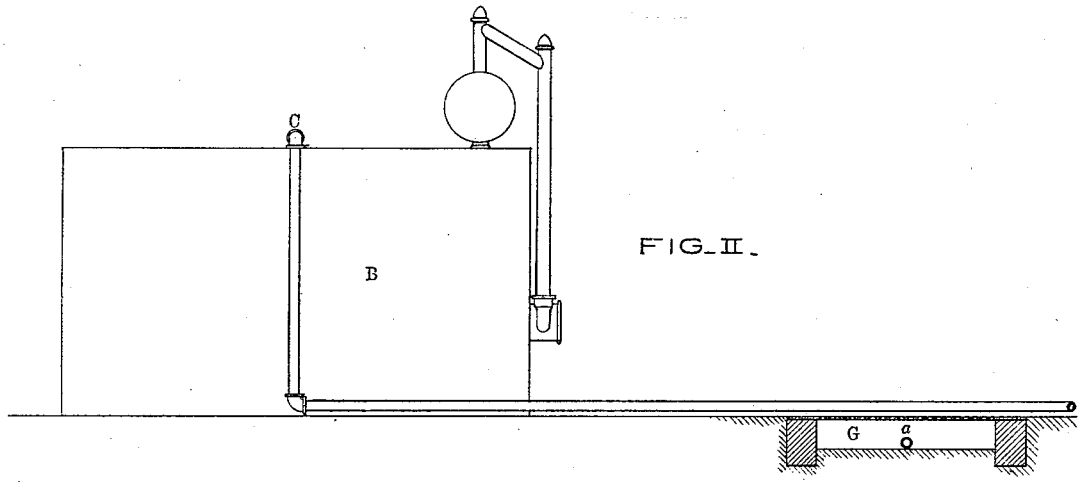

FIG. II.

WITNESSES

Wm. H. Towson

W. W. Wharton

INVENTOR

Louis Jacobi,

by Gth W. T. Howard

his Attys.

UNITED STATES PATENT OFFICE.

LOUIS JACOBI, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF HIS RIGHT TO MIRON A. WARD, OF NEW YORK, N. Y.

IMPROVEMENT IN APPARATUS FOR DRYING COAL.

Specification forming part of Letters Patent No. **166,612**, dated August 10, 1875; application filed June 17, 1875.

To all whom it may concern:

Be it known that I, LOUIS JACOBI, of the city of Baltimore and State of Maryland, have invented certain new and useful Improvements in Apparatus for Drying Coal, of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention relates to the evaporation of moisture from gas-coal previous to its introduction to the retorts; and consists of a supply and a discharge pipe and blower, in combination with a series of pits or excavations covered with perforated plates, by means of which currents of heated air may be passed through the gas-coal to absorb or carry off the moisture therefrom.

In the further description of my invention which follows, due reference must be had to the accompanying drawing forming a part of this specification, and in which—

Figure 1 is a plan of the retort and engine houses, showing the manner of application of my invention. Fig. 2 is an end view of a bench of retorts, and a sectional view of portions of the invention on an enlarged scale.

Similar letters of reference indicate similar parts in both figures.

A is the retort-house, and B B the benches of retorts. C is the supply air-pipe, leading from the outer air at one end of the house to the blower or fan D, located in the engine-house E. The pipe C passes over the benches and in close proximity thereto, or through the brick-work, in order to heat the air passing through it, and, if found necessary, may be covered, after leaving the benches, with some non-conducting material, to prevent radiation of heat. F is the discharge air-pipe, leading from the blower to the retort-house, where it is divided into branches, which extend the whole length of the benches, in the front thereof and below the pavement. In front of each bench, and on either side of the retort-house, are located pits G, sufficiently deep to allow of the passage through them of the pipe F. The pipe F is furnished with apertures *a*, which form the means of communication between said pipe and the pits G. H H are perforated plates covering the pits G, and upon which the coal to be used in the retorts is placed. Upon the blower being set in motion a strong current of dry and heated air is driven through the perforations in the plates H, and which air, while passing through the mass of coal upon the plates, absorbs or carries off the moisture from it.

The usual method of drying coal for use in the retorts is to store it in sheds built expressly for the purpose, and which, from their size and manner of construction, are necessarily expensive.

My invention is designed to obviate this expenditure of money for storage-sheds by the substitution therefor of the devices above described, which are comparatively inexpensive, but effective in operation.

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

The supply and discharge pipes C and F and blower D, in combination with the pits G and perforated plates H, substantially as and for the purpose set forth.

In testimony whereof I have hereunto subscribed my name this 20th day of May, in the year of our Lord 1875.

LOUIS JACOBI.

Witnesses:
WM. T. HOWARD,
JNO. T. MADDOX.