

(No Model.)

E. P. EASTWICK.

TOP PLATE FOR BONE BLACK KILNS.

No. 316,610.

Patented Apr. 28, 1885.

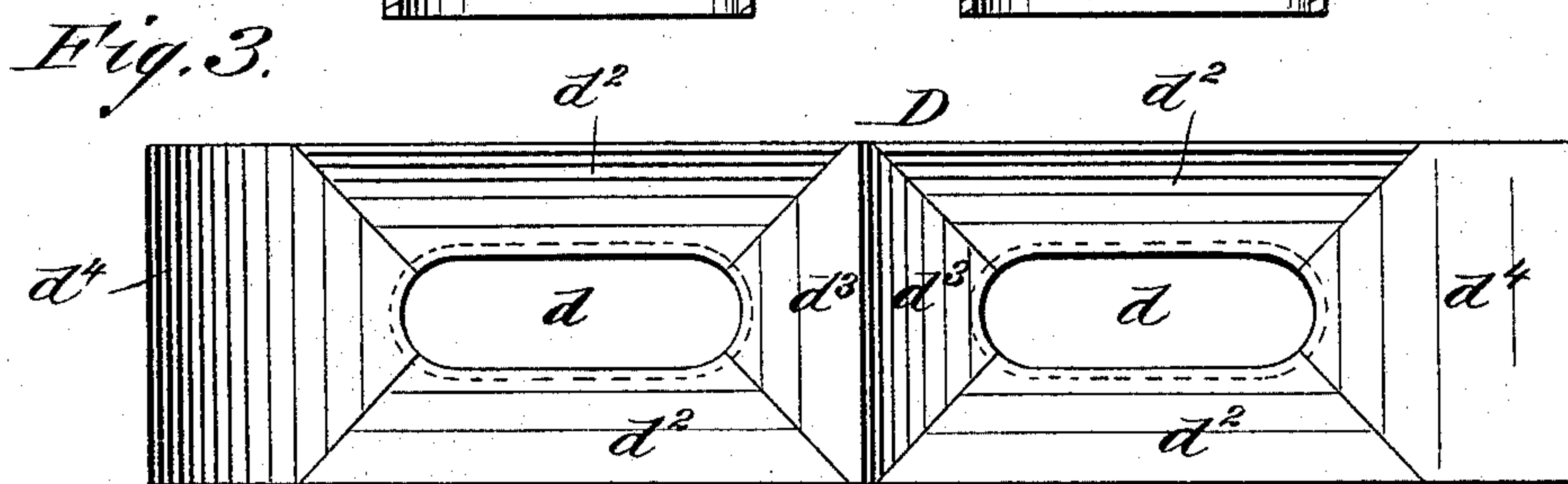
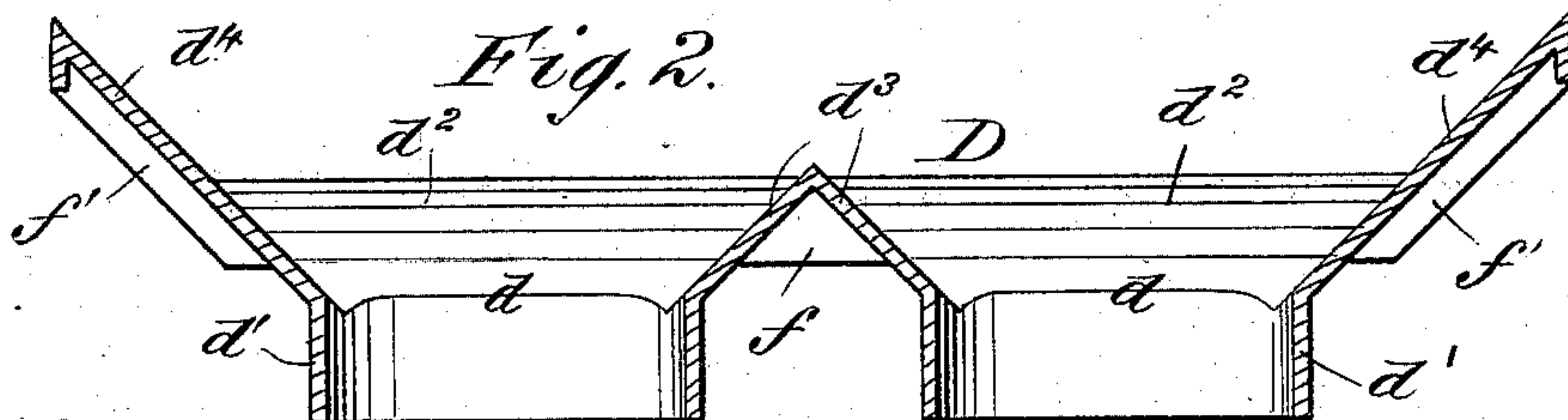
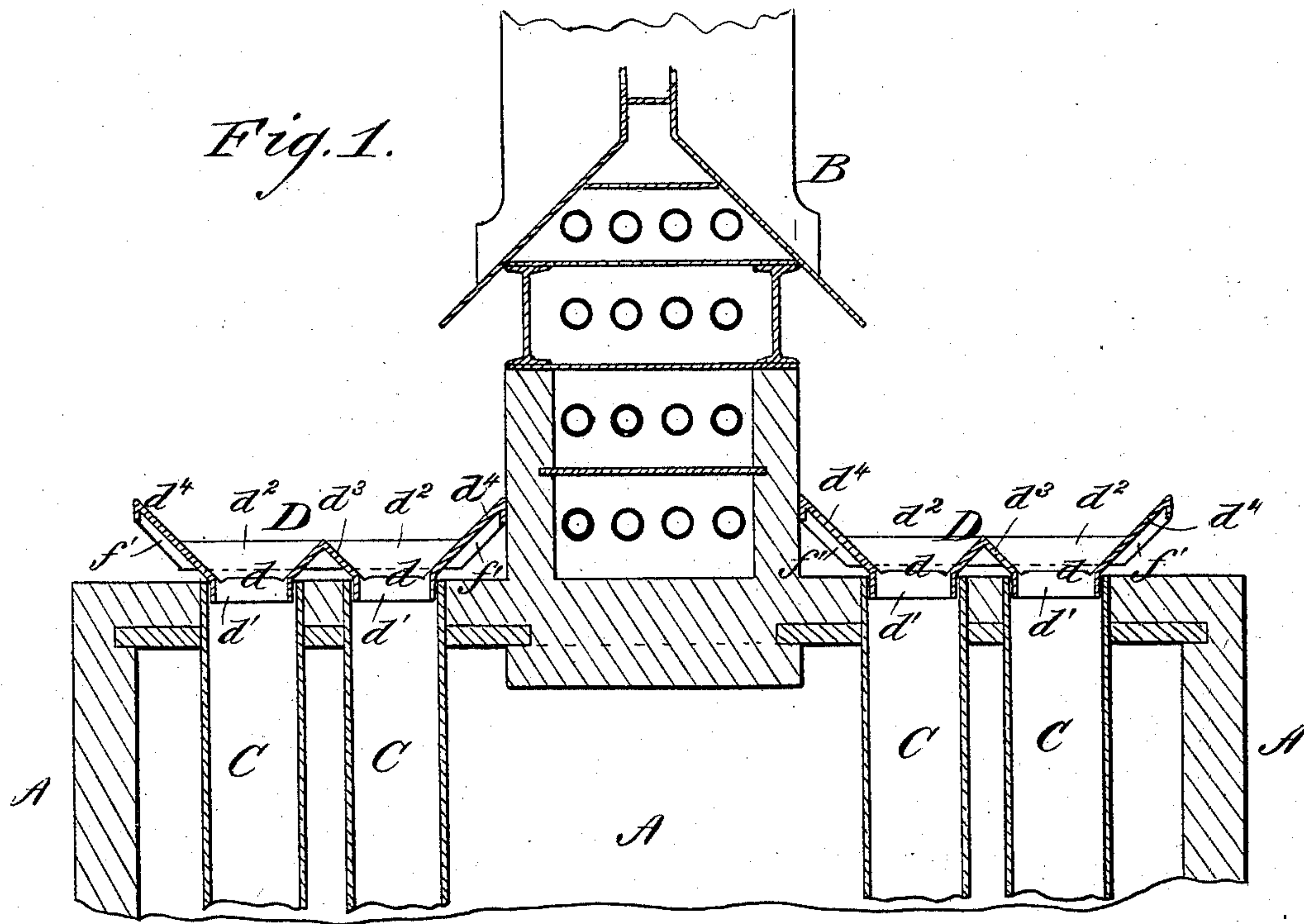
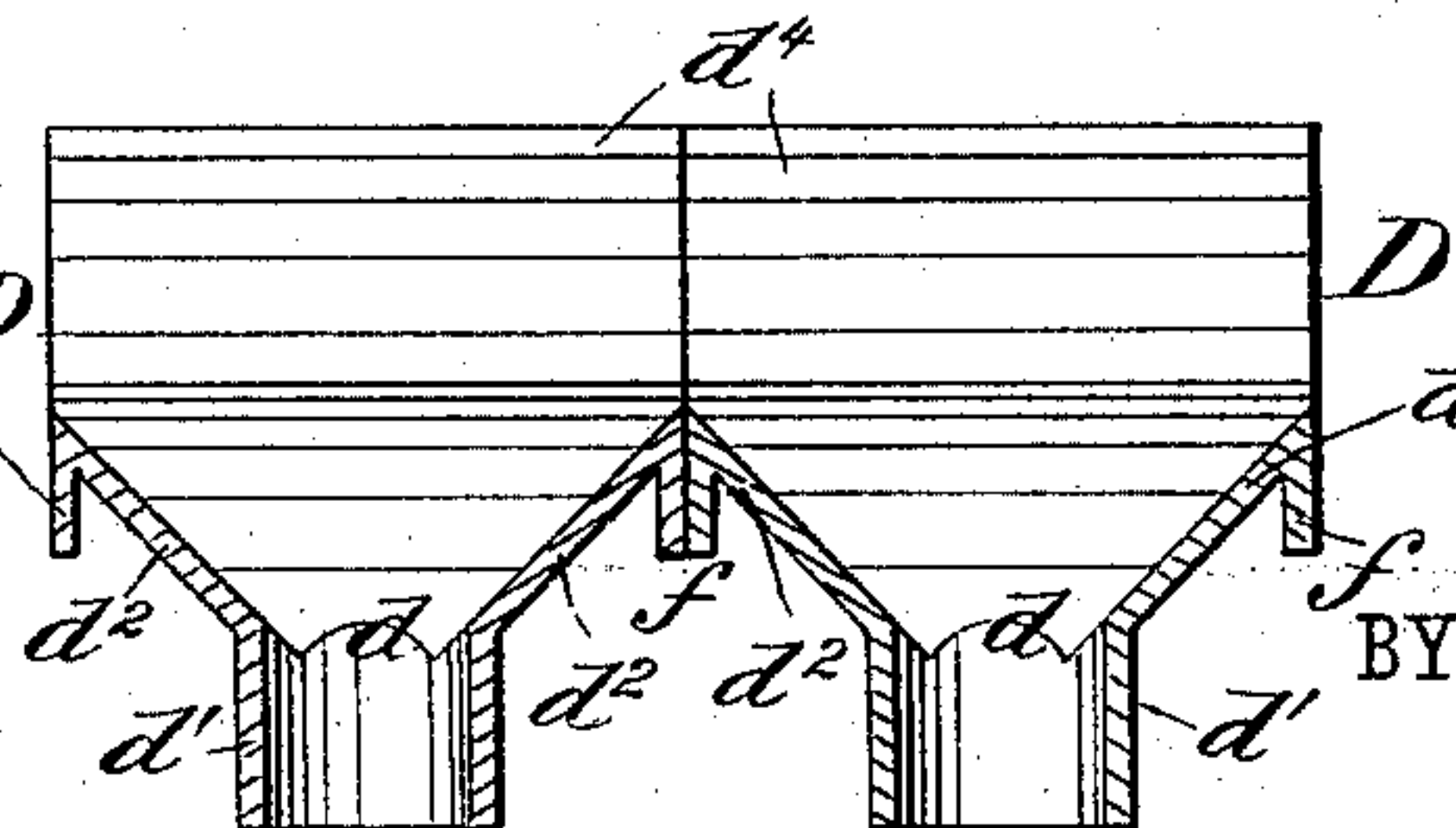


Fig. 4.

WITNESSES:

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TOP PLATE FOR BONE-BLACK KILNS.

SPECIFICATION forming part of Letters Patent No. 316,610, dated April 28, 1885.

Application filed November 25, 1884. (No model.)

To all whom it may concern:

Be it known that I, EDWARD P. EASTWICK, of the city, county, and State of New York, have invented certain new and useful Improvements in Top Plates for Bone-Black Kilns, of which the following is a full, clear, and exact description.

In the construction of kilns for revivifying bone-black it is usual to form a drier upon the center of the kiln for drying the bone-black before it enters the retorts of the kiln. At either side of the drier it is usual to place the retorts in the kiln, so that the bone-black, as it falls from the drier, will fall into the retorts, and in ordinary kilns flat plates are placed horizontally upon the top of the kiln, which plates are formed with openings corresponding with and leading to the retorts. These flat plates are objectionable, for that a portion of the bone-black placed upon or falling upon them for being introduced into the retorts is retained on the upper surface of the plates, making it necessary to sweep the lodged bone-black from time to time into the openings. The bone-black that lodges upon the covering-plates is liable also to "burn white," as it is termed, which occurs when dry and hot bone-black is in contact with atmospheric air.

The object of my invention is to do away with these disadvantages; and the invention consists, principally, in making all of the surfaces of the covering-plates flaring or inclined toward the openings that direct the bone-black into the retorts.

The invention also consists in the special construction of the covering-plates, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of a part of a bone-black kiln and drier having my new and improved covering-plates applied thereto. Fig. 2 is a sectional elevation of one of the plates. Fig. 3 is a plan view of the same, and Fig. 4 is a transverse sectional elevation showing two covering-plates placed together.

The kiln A may be of the ordinary or of any

approved construction, with or without the drier B. The retorts C are placed in the kiln A in an ordinary way, and upon the kiln are placed my new covering-plates D. These are made of iron, and are by preference made double to fit upon two retorts, C, as shown, each having two openings, d , of the same shape as the retorts in cross-section. Upon the under side of the plates surrounding the opening d are formed the flanges or collars d' , that are adapted to fit snugly within the upper ends of the retorts C, as shown clearly in Fig. 1, to form a joint of the plate with the retorts. The upper surfaces, d^2 , d^3 , and d^4 , of the plates surrounding the openings d are all inclined upward and away from the openings d , and the inclination is made sufficient to cause the bone-black, as it falls upon the plates, to slide by its own gravity into the opening d , and pass thence into the retorts C, thus avoiding all necessity of sweeping the plates, and preventing all danger of the carbon of the bone-black burning at the mouths of the retorts.

For convenience in fitting the plates D together upon the kiln, I form the side inclined plates, d^2 , and ends of the inclined end plates, d^4 , with the downwardly-projecting flanges or lips $f f'$, and for preventing bone-black from falling upon the kiln the end inclined plates, d^4 , are extended somewhat above the plates d^2 , as shown clearly in Figs. 1, 2, and 4.

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

1. A top covering-plate for bone-black kilns, provided with one or more openings, a , upwardly and outwardly inclined surfaces d^2 d^3 d^4 , surrounding the openings, and with the downwardly-projecting flanges $f f'$, substantially as herein shown and described.

2. The apertured top covering-plate, D, for bone-black kilns, provided on its under side with the collars d' , surrounding the apertures, and with the upwardly and outwardly inclined surfaces d^2 d^3 d^4 on its upper surface, substantially as herein shown and described.

EDWARD P. EASTWICK.

Witnesses:

C. SEDGWICK,
EDWARD M. CLARK.