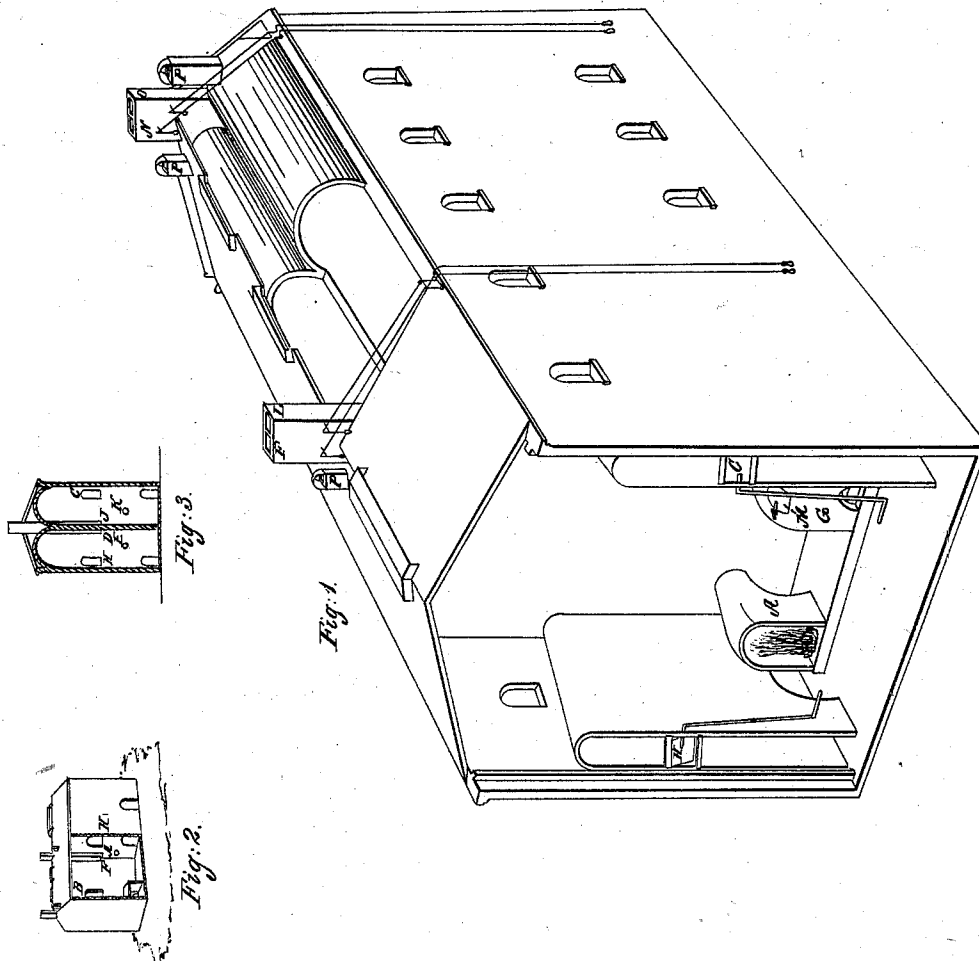


W. G. W. IAEGER.
Making Lamp Black.

No. 11,331.

Patented July 18, 1854.



UNITED STATES PATENT OFFICE.

WM. G. W. IAEGER, OF BALTIMORE, MARYLAND.

MANUFACTURE OF LAMPBLACK.

Specification of Letters Patent No. 11,331, dated July 18, 1854.

To all whom it may concern:

Be it known that I, WM. G. W. IAEGER, of Baltimore, in the State of Maryland, have invented a new and Improved Mode of Manufacturing Lampblack; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

10 Figure 1 represents a side view of one half of the said house. The house is divided lengthwise into two chambers arched with brick and connecting by aperture marked B. Fig. 2, A, is the furnace with a goose neck, 15 in this the materials composing the black are burned; the smoke then proceeds through the left half of the said house passes through aperture B, proceeds through the right half of the house, passes a chamber marked C, Fig. 1, proceeds through the right half of the other side of the house, crosses by an aperture into the left half of the other side of the house, and the residue of the black not condensed (with 25 the gas and steam that usually accompany the black) passes out of the chimney marked D, Fig. 3. The aperture of the said chimney is about half way between the roof and the floor of the house. The furnace is 30 double placed in the center of the building and fronting in each direction so that while one is cooling the other can be in operation and the manufacture proceed without interruption, the black being carried in a 35 direction opposite to the one above described.

The letter M, Fig. 1, represents a door in the neck of the furnace, by which the furnace may be cleaned without stopping the other furnace or opening the house.

40 When the materials are consumed in furnace A, Fig. 1 the damper in chimney D, Fig. 3 should be closed and the damper in chimney F, Fig. 1, opened. The fire in furnace E, Fig. 3 is then to be lighted, and 45 the smoke then proceeds through the left half of the house, crosses by an aperture into the right half of the house passes chamber marked C, Fig. 1, proceeds through the right half of the other house, passes through 50 aperture B, Fig. 2, into the left half of the other side of the house and the residue of the black not condensed (with the gas and steam that usually accompany the black) passes out of the chimney F, Fig. 1.

55 When the materials are consumed in fur-

nace E, Fig. 3 the damper in chimney F, Fig. 1 and chamber C, should be closed and the damper in chamber H, Fig. 1, should be opened and also chimney J, Fig. 3. The fire in furnace G Fig. 1 is then to be lighted 60 the smoke then proceeds through the right half of the said house passes through aperture B, proceeds through the left half of the house passes chamber H, Fig. 1 proceeds through the left half of the other 65 side of the house crosses by an aperture into the right half of the other side of the house and the residue of the black not condensed passes out of the chimney marked J, Fig. 3. 70

When the materials are consumed in furnace G, Fig. 1, the damper in chimney J, Fig. 3 should be closed and the damper in chimney L Fig. 1, opened. The fire in furnace K is then to be lighted the smoke then 75 proceeds through the right half of the house passes through an aperture proceeds through the left half of the house passes chamber H, Fig. 3 proceeds through the left half of the other side of the house crosses aperture 80 B into the right half of the other side of the house and the residue of the black not condensed passes out of the chimney marked L, Fig. 1.

The chimneys marked N, and O, Fig. 1, 85 are only to be used in lighting the fires when the material used is difficult to ignite. For instance, the fire in furnace A, Fig. 1, is lighted the chimney N, is to be opened say about ten minutes or until the fire is 90 in full blast and then closed, for the furnace G, the damper O, is to be opened in the like manner. The small chimneys marked P, Fig. 1, are only to be opened when the 95 house is to be cooled and the black taken out, which can be done every twenty four hours. The black ought not to remain in longer than forty-eight hours.

The furnace doors ought to be about 20 by 24 inches and to work in a slide with 100 a weight to raise and lower them at pleasure and when the fire is burning the slide of the furnace door ought to be raised about one inch so as to admit air enough to drive off the steam and gas that may be in the house. 105 In this way there is no danger of any explosions or collapses.

The dimensions of a double house on the above plan ought to be 200 feet long 30 or 34 feet wide and 34 feet high. In a house of 110

this size the kettles ought to hold about sixty gallons. For a house with two furnaces as represented in Fig. 1 to burn from thirty five to forty gallons ought to be
5 eighty by twenty eight and thirty feet high or in proportion to the size of the kettles. In a house like this you can dispense with the connecting chambers marked H and C, Fig. 1. In a house of this description the
10 damper L, Fig. 1 is to be opened, the fire in furnace A lighted, the smoke then proceeds through the left half of the said house passes through aperture B, proceeds through the right half of the house and the residue
15 of the smoke not condensed passes out of the chimney marked L Fig. 1.

When the materials are consumed in furnace A, Fig. 1; the damper L, Fig. 1, should be closed and damper F, opened, the
20 fire in furnace G, Fig. 1, lighted, and the smoke proceeds in the opposite direction and the black not condensed (with the gas and steam that usually accompany the black) passes out of the chimney marked F, Fig. 1.
25 Having thus fully described the construction and operation of my improved lamp-black house, what I claim therein as new

and originating with myself and desire to secure by Letters Patent, is—

1. The division of the house lengthwise 30 with the aperture B, Fig. 2, and the connection of the two houses by the chambers marked H, and C, Fig. 1, by which I am enabled to carry the smoke around the whole length of the house and return it, 35 either way by means whereof a superior quality and a greater quantity of lampblack is condensed.

2. I also claim the use of the two furnaces marked A, and G, Fig. 1, in the mode de- 40 scribed in my specification, by which the manufacture can be carried on uninterruptedly.

3. I also claim the waste chimneys marked F, and L, Fig. 1; and B, and J, Fig. 3; 45 that open some distance below the roof and represented in Figs. 2 and 3, constructed and arranged substantially in the manner and for the purposes set forth in my specification.

WM. G. W. IAEGER.

Witnesses:

SAML. GRUBB,
W. D. PORTER.