

G. WEGELIN.
PROCESS OF MAKING LAMPBLACK.

(Application filed June 28, 1899.)

(No Model.)

Fig. 1.

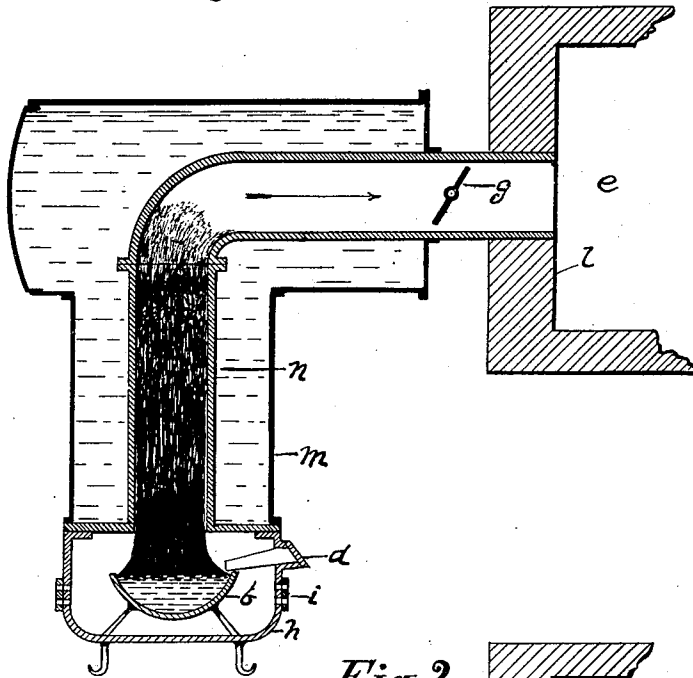
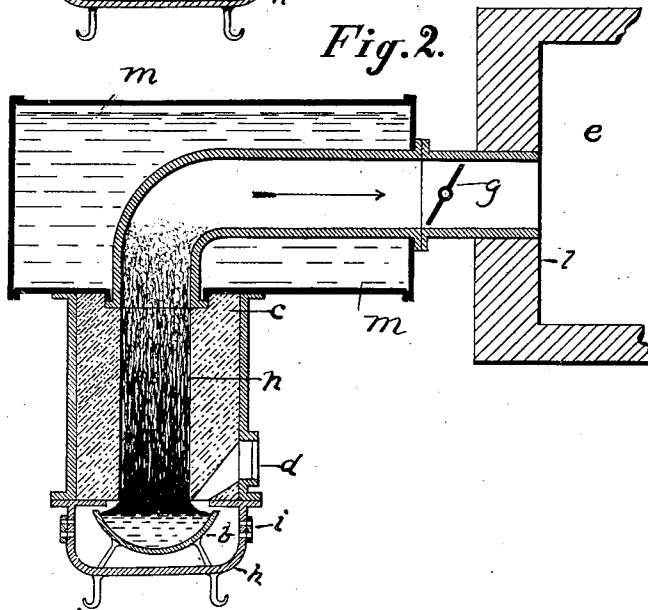


Fig. 2.



Witnesses.
 Henry S. Morton.
 Cornelius Bagney.

Inventor
 Grotified Wegelin
 by *[Signature]*
 Attorney.

UNITED STATES PATENT OFFICE.

GOTTFRIED WEGELIN, OF RONDORF, GERMANY.

PROCESS OF MAKING LAMPBLACK.

SPECIFICATION forming part of Letters Patent No. 680,093, dated August 6, 1901.

Application filed June 28, 1899. Serial No. 722,196. (No specimens.)

To all whom it may concern:

Be it known that I, GOTTFRIED WEGELIN, a subject of the King of Prussia, Emperor of Germany, residing at Rondorf, in the Kingdom of Prussia and German Empire, have invented certain new and useful Improvements in Processes for the Manufacture of Soot, Lampblack, and the Like of High Specific Gravity, (for which I have applied for patents in England, No. 10,342, dated May 16, 1899; in France, No. 276,813, dated May 15, 1899; in Belgium, No. 112,041, dated May 15, 1899; in Russia, No. 7,772, dated May 5, 1899, and in Germany, dated May 5, 1899,) of which the following is a specification.

In the manufacture of lampblack and other soot of high specific gravity the specific weight of the product may be varied within certain limits by the alteration of the transverse dimensions of the flame effected through a peculiar manner of admitting the air. However, it is rather difficult to obtain considerable variations of the specific gravity of the product readily as desired, the alterations requiring manipulations which are difficult and consume time.

This invention relates to improvements in such manufacture, and has for its object the manufacture of soot and other lampblack of any desired specific gravity in such a manner that the conical flame of combustion, which is obtained by the peculiar manner of admitting the air and which is of a high incandescent temperature, is deprived of a part of its great heat in immediate proximity to the throttling-point or point of constriction of the flame, so that the amount of abstraction of heat from the flame regulates the specific gravity of the product. In order that the heat thus taken from the flame of combustion may be used for some industrial purpose, the invention is conveniently carried out by arranging a water-reservoir or the like above the cone of the flame, so that the abstracted heat may be used for the production of steam. If soot of low specific gravity is desired, the water-reservoir is arranged closely around the base of the flame of combustion in order to abstract a large quantity of heat, and when soot of high specific gravity is desired the water-reservoir is arranged farther away from the base of the flame of combustion, so as to abstract less heat from the flame.

In the accompanying drawings apparatus for carrying out the invention is illustrated. 55

Figure 1 illustrates the arrangement for producing lampblack or other soot of low specific gravity, and Fig. 2 illustrates the arrangement for producing lampblack or other soot of high specific gravity. 60

A receptacle *b* is suitably mounted in the chamber *h*. In the side of this chamber or in the continuation of its side an inclined feed-supply passage-way *d* is constructed capable of discharging the combustible medium into the receptacle *b*. Ports or valves *i* are placed in the sides of the chamber *b* for the purpose of regulating the supply of air to the chamber. The chamber *h* is hermetically sealed on top to allow the water bath or jacket *m* to be placed on top of it. This water-bath *m* completely surrounds the flue *n* throughout a portion of its length. This flue is placed directly over the receptacle *b* and carries off all the products of combustion arising therefrom, finally discharging the gas, carrying the soot with it, into the chamber *e*. 65 70 75

In Fig. 2 the water-jacket is located considerably above the chamber *h*, the intermediate space being filled with a fireproof substance *c*. The valve *g* regulates the amount of draft in the flue. 80

I do not herein claim the subject-matter embraced by Letters Patent of the United States No. 673,185, issued to me April 30, 1901. 85

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

The process of manufacturing soot or lampblack and of controlling the specific gravity of the product, which consists in controllably abstracting heat from the flame of combustion by passing the flame through a somewhat-restricted cooling flue or chimney, and cooling the flue externally at determined points varying with the quality of product desired, substantially as set forth. 90 95

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

GOTTFRIED WEGELIN.

Witnesses:

NIKOLAUS NEURER,
WILLIAM H. MADDEN.