

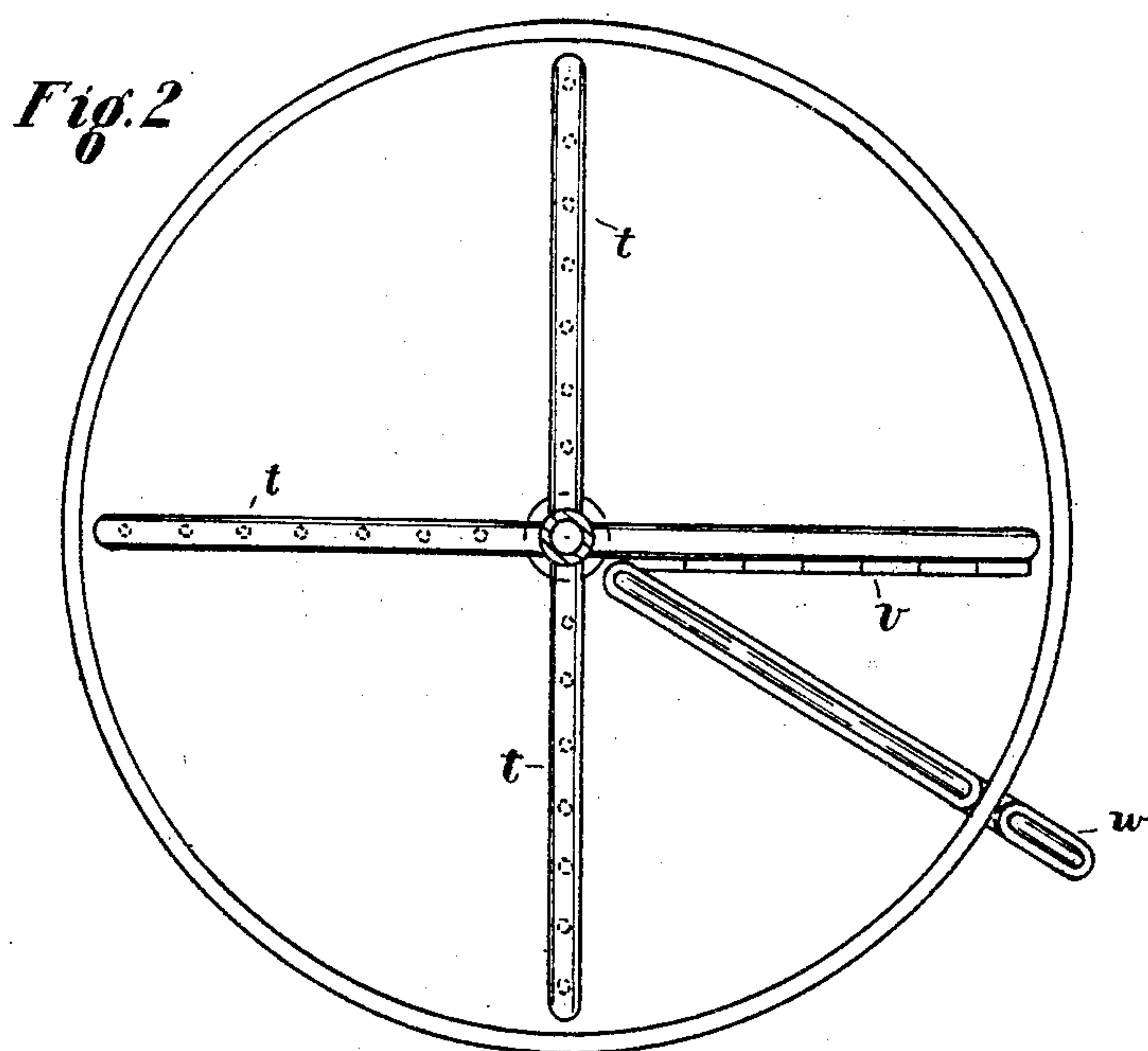
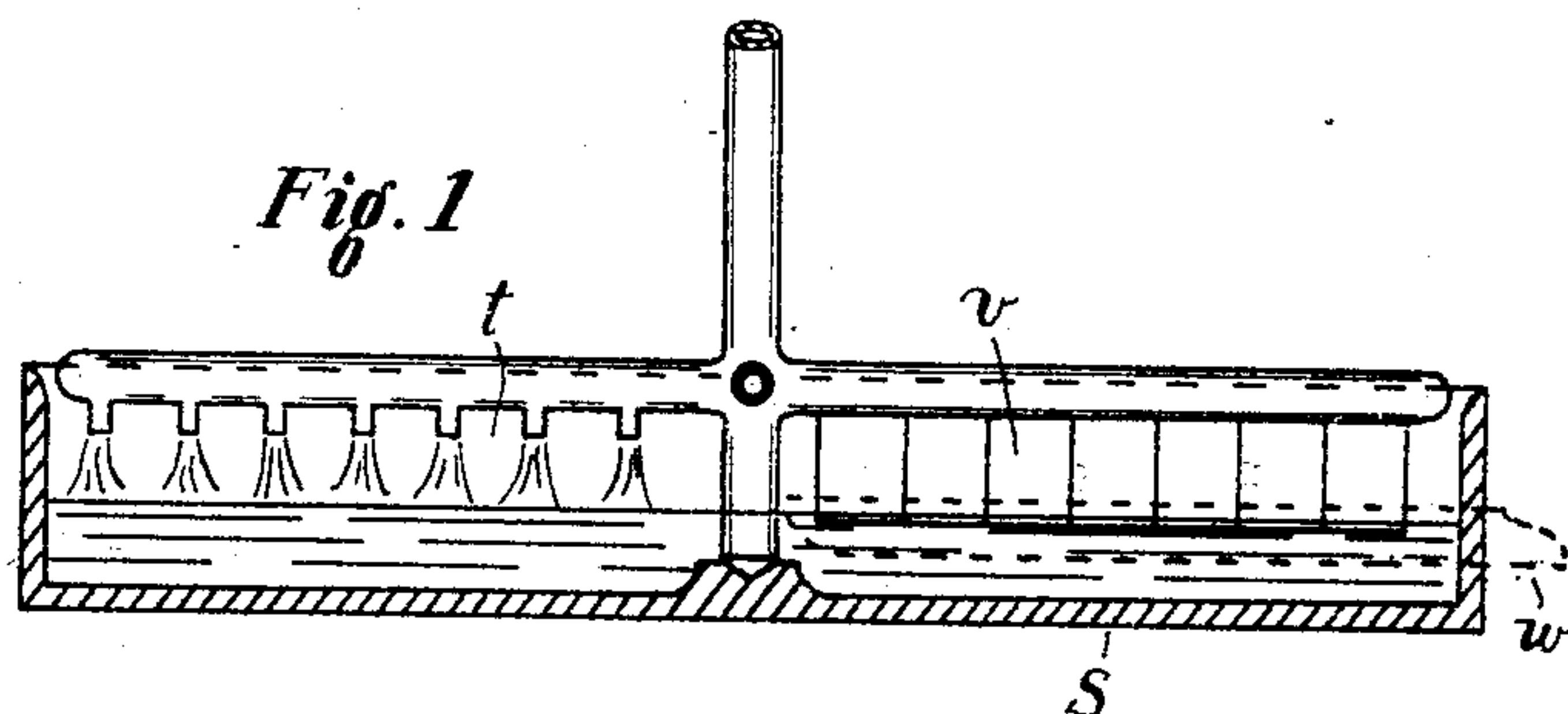
No. 785,696.

PATENTED MAR. 21, 1905.

D. J. OGILVY.

PROCESS OF PRODUCING BLACK OR DARK CARBONACEOUS PIGMENTS.

APPLICATION FILED JULY 10, 1902.



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DAVID J. OGILVY, OF CINCINNATI, OHIO.

PROCESS OF PRODUCING BLACK OR DARK CARBONACEOUS PIGMENTS.

SPECIFICATION forming part of Letters Patent No. 785,696, dated March 21, 1905.

Original application filed August 13, 1897, Serial No. 648,167. Divided and this application filed July 10, 1902. Serial No. 115,049.

To all whom it may concern:

Be it known that I, DAVID J. OGILVY, a citizen of the United States, and a resident of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Process of Producing Black or Dark Carbonaceous Pigments, of which the following is a specification, the same being a division of the Patent No. 706,001, July 29, 1902.

Figure 1 is a sectional view of water tank or receiver, the pipes and jets and hinged paddles and central stem on which the pipes and paddles revolve not being in section. Fig. 2 is a plan or top view of the device shown in Fig. 1.

The object of this process is to produce economically and conveniently a superior quality of black and dark pigments. This object I attain by producing from any suitable material a carbonaceous flame and impinge the flame on water or an aqueous surface, which results in a carbonaceous deposit on the water. The carbonaceous flame is produced on a moving source from natural or artificial hydrocarbons, solid, liquid, or gaseous, and the flame when produced is then directed so that it will strike or impinge at any proper angle and distance (so as to bestow the most satisfactory results) on the water or aqueous surface on which it strikes. The water may be of any proper temperature and of any desired purity and in a stationary or in any proper condition of motion. As the carbonaceous deposits are often repellent in their disposition toward water, there may, when desired, be added to the water, which is necessary in the operation, substances which reduce or overcome the repellent nature of the deposit toward the water and which facilitates the miscibility of the deposit and the water. Among such substances are potassium and sodium hydroxids and carbonates, ammonia and ammonium chlorid, acetic acid and acetates of potassium and sodium, phenic acid, sugar, &c. For most purposes a dilute solution of sodium hydroxid is sufficient.

From the foregoing explanations it is obvious that there are numerous methods in which the general principles of my invention

may be applied. The simplest and most easily illustrated working example of my improvements is merely to allow the flame from a moving inverted jet of gas to strike or impinge on a stream of water at ordinary temperature. Thereupon a heavy deposit of carbonaceous pigment will be produced which may be separated by filtration, &c., and can be used in a moist or dried form, as desired.

Figs. 1 and 2 illustrate the application of a moving flame. *S* indicates a vessel containing water. *t* indicates revolving arms supplied with carbonaceous gas and pierced with jets or slits, so that the escaping gas when ignited will strike or impinge on the water. *v* indicates hinged paddles to carry the carbonaceous deposit to the trough, (indicated by *w*,) where it is carried over with the superfluous water.

The foregoing illustrative description suggests in a limited manner the principle of my invention. The number of apparatus that may be utilized for operating this invention are numerous.

By the term "stationary" as applied to the water on which the flame impinges I mean water which is at rest, except so far as the impingement of the flame on the atmosphere or varying temperature or the sinking of the carbon through the water or mechanical means for removing the carbon may impart thereto a slight motion. These motions are necessarily incident to the operation.

Among the advantages of my improved process are the following: Metallic scrapers are unnecessary for removing the deposit, as the carbon being collected on a wet surface is easily removed by a bath, &c. On account of the many motions which may be attained on the surface of water a fresh surface can always be presented to the impinging flame. Consequently there is little danger of burning the deposit. The process may be conducted continuously, as the carbon deposit may be removed while the process is in operation. The carbonaceous deposit may be conveniently handled with pumping appliances, as it is easy to have it in a semifluid condition of any desired consistency. Therefore from a hygienic

view this is a decided improvement over the old methods of making lamp and carbon blacks.

What I claim as new and of my invention, and desire to secure by Letters Patent, is—

- 5 1. The process of producing black or dark-colored pigments by impinging carbonaceous flames produced on a moving source, on water in a stationary condition.
2. The process of producing black or dark
10 pigments by impinging carbonaceous flame in motion on an aqueous solution containing soluble material necessary in the operation to over-

come the repellent nature of the carbonaceous deposit toward the water.

3. The process of making black or dark- 15 colored pigments by impinging carbonaceous moving flames on the surface of a fluid which is practically stationary for receiving and removing the carbonaceous deposit.

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Attest:

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