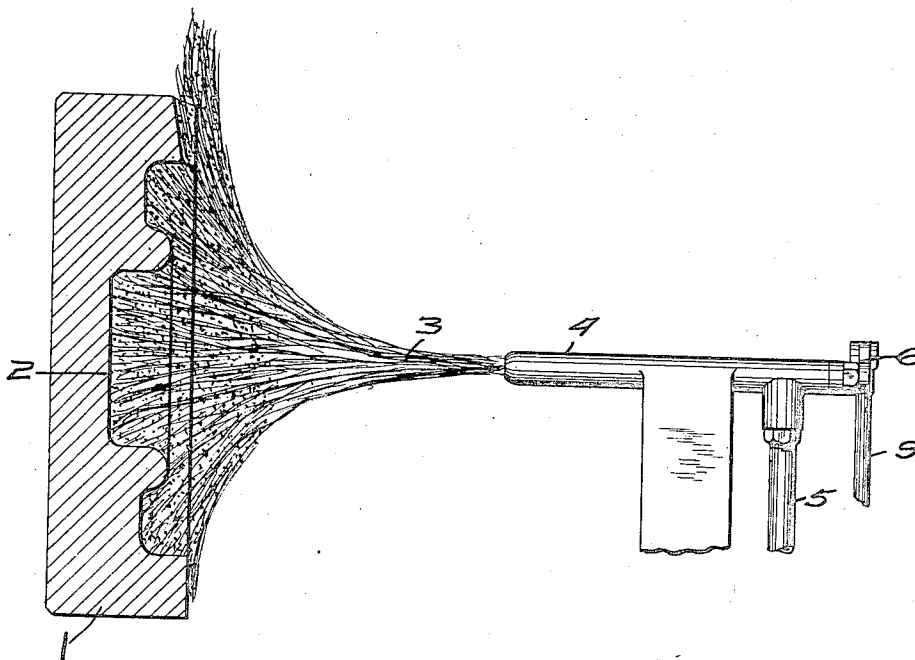


Nov. 13, 1923.

1,474,009

A. D. STRAW
METHOD OF COATING MOLDS
Filed Jan. 13, 1922



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UNITED STATES PATENT OFFICE.

ARTEEMES D. STRAW, OF WAUSEON, OHIO, ASSIGNOR TO THE HUBERT A. MYERS COMPANY, OF TOLEDO, OHIO, A CORPORATION OF OHIO.

METHOD OF COATING MOLDS.

Application filed January 13, 1922. Serial No. 528,932.

To all whom it may concern:

Be it known that I, ARTEEMES D. STRAW, a citizen of the United States, and a resident of Wauseon, in the county of Fulton and State of Ohio, have made an Invention Appertaining to a Method of Coating Molds; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

My invention has for its object to rapidly form coatings of lamp black over the surfaces of the matrices of molds. The invention particularly has for its object to form such coatings from ignited fluid hydrocarbon fuel, under pressure. Acetylene or natural or ordinary fuel gas, or gas or vapor formed from oil or gasoline, may be used, the coatings being formed by manipulating the burner so as to produce an incomplete combustion flame which results in a smoky lamp-black producing flame. The lamp black will thus be deposited in all the crevices of the matrix of the mold. I preferably use acetylene gas as it is particularly rich in hydrocarbon.

The invention is of particular value when applied to molds located in casting machines whereby a substantially perfect and complete coating of lamp black may be deposited over the surface of the matrix of each mold as it is moved through the zone of the flame.

The figure of the drawing illustrates conventionally a mold being treated with the flame of the gas.

1 in the figure indicates a part of a mold. 2 indicates the surface of a part of the matrix, which is to be coated with the deposit from the smoky flame 3. The flame 3 issues from the nozzle 4 which is preferably so constructed as to produce a brush flame. The flame spreads or diverges from the end of the nozzle 4 and thus causes the deposit of the incomplete products of combustion of the flame over the sur-

face of the matrix of the mold. The fuel gas is fed to the nozzle 4 through a suitable pipe 5 and its rate of flow may be controlled by a suitable valve member connected to the arm 6 that may be operated, if desired, by means of the rod 9, whereby the flame may be caused to spurt intermittently towards the molds as they are passed before the flame, as in a machine, which may be constructed so as to operate the valve that controls the flow of the gas. The means for controlling the flow of gas may be constructed in any suitable manner. When the part of the mold is in position to be coated, or is about to enter the position to be coated, the valve may be opened wide so as to permit the full or an increased pressure of the gas to cause the flame to impinge upon the entire molding surface and coat it thoroughly and evenly with lamp black.

By thus coating the mold with lamp black produced by a burning fuel gas under pressure, the lamp black is deposited in all the corners and parts of the matrix and the sprue hole of the mold.

I claim:

1. The method of depositing lamp black over the surface of the matrix of a mold, which consists in directing an incomplete combustion flame formed from a hydrocarbon fuel over the surface of the matrix of the mold, the hydrocarbon fuel that supplies the flame being under pressure to cause the products of combustion to impinge against the surface of the mold and to penetrate all crevices of the mold.

2. The method of depositing lamp black over the surface of the matrix of a mold, which consists in directing an incomplete combustion flame formed from an acetylene gas over the surface of the matrix of the mold, the acetylene gas that supplies the flame being under pressure to cause the products of combustion to impinge against the surface of the mold and to penetrate all crevices of the mold.

In testimony whereof I have hereunto signed my name to this specification.

ARTEEMES D. STRAW.