

UNITED STATES PATENT OFFICE.

DAVID J. OGILVY, OF CINCINNATI, OHIO.

BINDER FOR CORE-MAKING.

1,054,933.

Specification of Letters Patent.

Patented Mar. 4, 1913.

No Drawing.

Application filed May 9, 1906. Serial No. 316,008.

REISSUED

To all whom it may concern:

Be it known that I, DAVID J. OGILVY, a citizen of the United States, residing at the city of Cincinnati, in Hamilton county and State of Ohio, have invented certain new and useful Improvements in Binders for Core-Making, of which the following is a specification.

The object of this invention is to produce an economical and satisfactory core binding agent for use in foundry purposes. This object I attain by utilizing rosin pitch which being usually a secondary or byproduct is therefore low in price. This pitch may be used for corebinding either in a solid or liquefied condition. When it is used in a solid state it is preferable to have a pitch which is brittle and which may be easily powdered and which will remain in a powdered condition under the ordinary weather conditions. A hard pitch suitable for grinding if not at hand may be produced from a soft rosin pitch by removing a percentage of the more volatile products by heat, thereby I easily obtain a pitch of the necessary hardness. When it is preferred to use the pitch in a liquefied condition this is attained by liquefying with a high fire test crude or refined petroleum aided by heat, a mixture of say 40 parts rosin pitch and 60 parts petroleum being an average example. This results in a viscous liquid in which the rosin pitch is very finely divided insuring a thorough diffusion of the rosin pitch throughout the core mixture.

Among the many advantages of rosin pitch as a core binding agent are its low price, the ease with which the hard pitch may be powdered and which may be kept in a powdered condition at ordinary temperatures, the facility of liquefying the pitch in heavy petroleum and the stability of the resulting liquid. Rosin pitch has not the disagreeable and irritating effect that many other corebinding agents have. Cores in which rosin pitch is used as the binding agent are not deliquescent. By the term rosin pitch is understood the dark colored residues obtained by heating or distilling rosin or rosin mixtures, varying from a semifluid to a hard solid state depending on the temperature and duration of heating to which the rosin or rosin products have been exposed.

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

1. In a binder for core making, a composition of matter consisting of brittle rosin pitch and a material suitable for use in the making of cores, as set forth.

2. As a binder for core making, a composition of matter consisting of powdered brittle rosin pitch and a powdered material suitable for use in the making of cores, as set forth.

DAVID J. OGILVY.

Witnesses:

JNO. W. STREHLI,
REUBEN TYLER.