

# UNITED STATES PATENT OFFICE.

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## COMPOSITION FOR COATING CORES.

SPECIFICATION forming part of Letters Patent No. 538,135, dated April 23, 1895.

Application filed July 27, 1892. Serial No. 441,421. (Specimens.)

*To all whom it may concern:*

Be it known that we, CHARLES I. THOMPSON and BENJAMIN M. STEELE, citizens of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented a new and useful Composition of Matter to be Used in Connection with the Casting of Metals, of which the following is a specification.

Our composition consists of the following ingredients, combined in the proportions stated, viz: alcohol, four pints; bisulphide of carbon, one-half pint; shellac, one-half pint; oil of wintergreen, one-fiftieth pint; soap-stone, six pints; Venetian red, one-tenth pint; graphite, one-sixteenth pint; calcined magnesia, one-sixteenth pint. These ingredients are to be thoroughly mingled by agitation.

In using this compound in connection with casting metals and to facilitate and aid in the same the cores before being placed in the flasks are dipped in the solution or mingled compound and the mixture is of such a consistency that a thin coating thereof readily adheres to the metal core which dries very rapidly and when so dry and the molten metal is poured within the flasks and around the body of the said core and when the metal chills the contraction thereof, which would tend to make the cast rigid with the core were the same a solid core is resisted effectually by the compound coating and when the casting is taken from the flask by slightly tapping the solid core the compound coating is readily pulverized which accommodates the easy re-

moval of the said core and when removed it will leave the opening or surface that was in contact with the coating perfectly smooth and free from grit and does not require to be dressed, smoothed or polished as would be necessary were a sand core used.

Different thicknesses of coating upon a solid core may be had by re-dipping or by slightly altering the consistency of the composition to make the same firmer or less liquefied.

The contact of the molten metal has no effect whatever upon the coating formed of this composition not changing its chemical composition in the slightest, the same being non-combustible or non-calcinable, and the use of the coating lessens the chances of blowing and serves generally to facilitate the economical casting of metals. It may be applied for use in connection with any kind of metal whatsoever and serves equally as well with one as with another.

What we claim, and desire to secure by Letters Patent of the United States, is—

The herein described composition of matter to be used in connection with the casting of metal consisting of alcohol, bisulphide of carbon, shellac, oil of wintergreen, soap-stone, Venetian red, graphite and calcined magnesia, in proportions specified.

CHARLES I. THOMPSON.  
BENJAMIN M. STEELE.

Witnesses:

JOSIE TEFFT,  
BOB McCORMICK.