

Specification of William Taylor : air furnace.

Contributors

Taylor, William.

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A.D. 1793 N° 1966.

S P E C I F I C A T I O N

OF

WILLIAM TAYLOR.

—
AIR FURNACE.
—

LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
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A.D. 1308 No. 1088

SPECIAL EDITION

WILLIAM TAYLOR

AIR PURINACE

LONDON

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SUBMITTED AT THE GREAT BRITAIN OFFICE

NO. 1088

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A.D. 1793 N° 1966.

Air Furnace.

TAYLOR'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, WILLIAM TAYLOR, of the Old Park, in the Parish of Dawley, in the County of Salop, Forgeman, send greeting.

5 WHEREAS His present most Excellent Majesty King George the Third, by His Letters Patent under the Great Seal of Great Britain, bearing date at Westminster, the Sixth day of November, in the thirty-fourth year of His reign, did give and grant unto me, the said William Taylor, my executors, administrators, and assigns, His especial licence, full power, sole privilege and authority, that I, the said William Taylor, my executors, administrators, and assigns, by myself and themselves, or by my or their deputy or deputies, servants, or agents, or such others as I, the said William Taylor, my executors, administrators, or assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term of years therein expressed, should and lawfully might make, use, exercise, and vend my new invented "**AIR FURNACE ON AN IMPROVED CONSTRUCTION, MORE SIMPLE IN ITS PRINCIPLE AND MECHANISM, AND LESS EXPENSIVE IN WORKING AND CONSUMPTION OF FUEL, AND PRODUCTIVE OF A GREATER PROPORTIONABLE EFFECT, THAN ANY OTHER HITHERTO DISCOVERED,**" within that part of His Majesty's Kingdom of Great Britain called England, his Dominion of Wales, and Town of Berwick upon Tweed, in such manner as to me, the said William
20 Taylor, my executors, administrators, and assigns, or any of us, should in our discretion seem meet ; in which said Letters Patent is contained a proviso that if I, the said William Taylor, should not particularly describe and ascertain the nature of my said Invention, and in what manner the same is to be performed, by an instrument in writing under my hand and seal, and cause the same to be

Taylor's Improved Construction of Air Furnaces, &c.

inrolled in His Majesty's High Court of Chancery within one calendar month next and immediately after the date of the said Letters Patent, that then the said Letters Patent, and all liberties and advantages whatsoever thereby granted, should utterly cease, determine, and become void, anything therein-before contained to the contrary thereof in anywise notwithstanding, as in and by the said 5 Letters Patent, relation being thereunto had, may more fully and at large appear.

NOW KNOW YE, that I, the said William Taylor, in pursuance of and compliance with the said proviso, do hereby describe and ascertain the nature of my said Invention, and declare the same is to be performed in manner 10 following (that is to say):—

The air furnace now invented is built with brick and cast iron, and also some wrought iron, and may be built for the purposes of this Invention with stone or any other material that will stand fire, and cast or wrought iron. It consists of two fire grates or fire-places at each end of the furnace, which may 15 open either to the front or back, each of which fire grates communicates by a flew, which is taken out of the bottom or the side, with a stack or chimney built with brick or stone, which is situate at the back of the furnace and in the middle between the two fire grates, or as near to the middle as possible. The furnace might be built of various dimensions so as to suit the different purposes 20 to which it may be applied, but it must necessarily consist of the two fire grates and flew, with the stack or chimney in the middle, as above described, which forms the principle of this Invention and the advantage which it has over other furnaces. The mode of working it is upon an iron bottom covered with sand or any other material that will stand fire, which is kept cool by a draft of air passing 25 under it. The men work in the same way as at the furnaces that are now used for the same purposes. The said furnace may be used for making or refining pig iron sufficient to hammer or roll into stampt iron or half blooms, or for heating stampt iron to a sufficient heat to shingle under a hammer or roll into half blooms, or for heating half blooms to draw under a hammer or roll into 30 bars, or for heating bar iron to roll or slit into nail rods, or any other purpose that bar, rolled, or rod iron is used for, or for melting pig iron into a proper state to make castings of any kind. The said furnace is so contrived throughout the whole process of making malleable iron, from the pig to the nail rod, that the following great savings are made in the manufacturing, that is to say : 35 first, that no blast is wanting, and that iron of the same quality and quantity as that made by this Invention cannot be made with pit coal without blast; secondly, that it takes less fuel, pit coal being used in its raw state; and, thirdly, that iron is by this Invention made with les waste, in greater quanti-

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ties, and of a better quality, from the pig to the nail rod, than by any other process now in use.

5 In witness whereof, I, the said William Taylor, have hereunto set my hand and seal, the Twenty-eighth day of November, in the thirty-fourth year of the reign of our Sovereign Lord George the Third, by the grace of God of Great Britain, France, and Ireland, King, Defender of the Faith, and so forth, and in the year of our Lord One thousand seven hundred and ninety-three.

WILLIAM TAYLOR. (L.S.)

10 Sealed and delivered by the above-named William Taylor (being first duly stamped) in the presence of us,

ROB^T PEMBERTON, jun^r.

W^M COUPLAND.

15 **AND BE IT REMEMBERED**, that on the Twenty-eighth day of November, in the thirty-fourth year of the reign of His Majesty King George the Third, the said William Taylor came before our said Lord the King in His Chancery, and acknowledged the instrument aforesaid, and all and everything therein contained and specified, in form above written. And also the instrument afore-
20 said was stamped according to the tenor of the several Statutes made in the sixth year of the reign of the late King and Queen William and Mary of England, and so forth, and in the seventeenth and twenty-third years of the reign of His present Majesty King George the Third.

Inrolled the Second day of December, in the year above written.

LONDON :

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1854.

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... of the ...
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WILLIAM TAYLOR (18)



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