

THE THATCHER HEATING COMPANY *v.*
SPEAR AND ANOTHER.

Circuit Court, S. D. New York. January 28, 1880.

PATENT—IMPROVEMENTS IN AIR-HEATING
FURNACES.

Infringement of Patent.

B. F. Lee, for plaintiff.

E. Cowen, for defendants.

BLATCHFORD, J. This suit is founded on letters patent No. 71, 244, granted to John M. Thatcher, November 19, 1867, for an “air-heating furnace.” The specification states that 412 the invention is one of “improvements in air-heating furnaces.” The right figures in the drawings are all of them views of different parts of a furnace. The specification says: “My said invention consists of several improvements in hot air furnaces designed to be set in brick-work or inclosed in any suitable manner.”

The specification then divides the invention into six parts. The first part consists of one particular; the second part of three particulars; the third part of one particular; the fourth part of two particulars; the fifth part of one particular; and the sixth part of one particular. There are as many claims as there are particulars, namely, nine. Only the second and third claims are involved in this suit. They relate to particulars 1 and 2 of the second part of the invention.

The text of the specification says, in respect to those particulars: “My invention also consists in the combination and arrangement of a passage way from and through the furnace front to and into the fire-pot at the bottom thereof, the passage way being of sufficient width and height to admit of the introduction of a slicer or poker for the purpose of slicing the fire and removing the clinkers from the grate-bars forward; the bottom of the passage way being on a line with the

top surface of the grate bars, and the top and sides of the passage way being formed by an enclosing plate, extending from the fire-pot to the furnace front, and joining at the sides the ash pit box, so as to prevent any communication between said passage way leading from the furnace front into the fire-pot and the hot-air chamber surrounding the fire-pot; and this part of my invention further consists in combining with said enclosed passage from the furnace front to the fire-pot a downward opening between the furnace front and fire-pot, leading from said enclosed passage to the ash pit, whereby clinkers and other matter removed from the fire-pot may fall into the ash pit.”

The specification also says: “The drawings illustrate a furnace for brick-work, in which my inventions are embodied. The fire-pot a is a cylindrical casting, such as commonly used for that purpose, and sets upon a box, also of cast-iron, which 413 encloses the ash pit b. * * * The fire-pot is placed at sufficient distance from the furnace front a to allow the hotair chamber enclosed in the inner surrounding walls to extend around the fire-pot, between it and the furnace front. * * * At the bottom of the fire-pot, in the front part thereof, is a clinker cleaning aperture i, which extends forward to and through the furnace front, the passage way being enclosed by the plate i, so that it shall not have any communication with the surrounding hot-air chamber e¹ A stopper may be used to close this clinker cleaning passage, or that part of it which leads into the fire-pot, if desired, or it may be left open to supply air to the fuel in the fire-pot. The aperture should be of sufficient width and height to permit the introduction and use of a slicer, or a poker, or other suitable instrument, for the purpose of slicing the fire, cleaning the grate-bars from clinker. and removing the clinker, which may be drawn out through this passage into the room in front of the furnace front, if desired,

when the downward passage j is not used, in which case there should be a plate across the space between the fire-pot and furnace front, on a level with the top surface of the grate-bars, The downward passage j, between the furnace front and grate, is an opening leading from the clinker cleaning passage down to the ash pit, for the purpose of allowing the clinker and ashes to fall from the clinker cleaning opening into the ash pit.”

The second and third claims are in these words: “2. The clinker cleaning passage from and through the furnace front to and into the fire-pot, enclosed by the plate connected with the fire-pot, furnace front and ash pit, so as to prevent communication with the hot-air chamber surrounding the fire-pot, substantially so described. 3. In combination with the clinker cleaning passage, the downward passage leading there from to the ash pit, substantially as described.”

Various prior structures and patents are set up as anticipating the second and third claims on the question of novelty. One is the furnace represented by the defendants’ exhibit—” O d Philadelphia Heater.” It is adduced to defeat the second claim. On the whole evidence it did not contain a practically 414 useful clinker cleaning passage, nor one operating as Thatcher’ does. The passage was so narrow at its inner end, in proportion to the diameter of the grate, as to require all the clinkers on the grate surface which could be reached to be drawn to such narrow aperture, and thus a large part of the clinkers which could be reached would be drawn through, and carry along with them the live coals remaining in the parts previously cleaned of clinkers. This difficulty is obviated in Thatcher’s arrangement by the relation which the size of the inner end of the passage bears to the size of the grate. Moreover, in the “Old Philadelphia Heater” the sides of the fire-pot were nearly at right angles to the opening, and this made it impossible to reach

considerable portions of the grate surface. The structure had no downward passage.

The Spear car-heater does not contain Thatcher's inventions.

The John P. Hayes patent, of June 22, 1858, is adduced. The upwardly projecting studs on the grate prevented Hayes' arrangement from operating like Thatcher's, and there was no downward passage leading out of a clinker cleaning passage. The same remarks apply to "defendants' exhibit, J.P. Hayes' heater," and to "complainant's exhibit, New Jersey representation of Hayes' heater"

The Moore patent of May 22, 1866, has no bearing on the case.

The patent to James Morrison, Jr., of February 21, 1865, is for a stove, not a furnace. The stove has near its base an opening from the outside, on a level with the grate, to and into the fire-pot, for the purpose of raking out the clinkers and dropping them into the ash pit over the edge of a projection from the grate. The clinker cleaning passage does not extend through a chamber containing hot air, as in Thatcher's arrangement. Nor is the downward passage wholly within the clinker cleaning passage, as in Thatcher's structure, but, on the contrary, it is wholly outside of the clinker cleaning passage. The Morrison model, if differing from the description and drawings of the patent, cannot be regarded to affect Thatcher's patent. The Thatcher patent requires that the 415 clinker cleaning passage shall be enclosed by a plate connected with the fire-pot, furnace front and ash pit, which shall prevent communication with a hot-air chamber surrounding the fire-pot, and that the downward passage shall be wholly between the furnace front and the grate, and none of it out side of the furnace front. No such arrangement is found in Morrison's structure.

The material question is that of infringement. In the defendants' structures, represented by the plaintiff's exhibits D, E, F, G, H and I, and which are represented, also, in substance, by the defendants' model, "Anti-clinker Heater," the anti-clinker arrangement for cleaning the grate is placed wholly below the hot-air chamber, and below the bottom of the fire-pot and within the ash pit. The clinker cleaning passage does not go through the hot-air chamber. In the Thatcher arrangement the clinker cleaning passage is above the ash pit and goes through the hot-air chamber. As the defendants do not have the clinker cleaning passage of the second claim of the Thatcher patent, they do not have the clinker cleaning passage of the third claim, and so neither claim is infringed.

Nor do the exhibits K and L and Angus' stove infringe either the second or the third claim. They do not have any hot-air chamber surrounding the fire-pot, and so do not infringe the second claim. They do not have the clinker cleaning passage of the third claim, because they do not have the clinker cleaning passage of the second off communication with a hot-air chamber surrounding the fire-pot.

The bill is dismissed, with costs.

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