

defendants, with costs, unless within five days defendants apply on affidavit for leave to amend, in which case the entry of judgment or further order will await the determination of such motion.

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NATHAN and others v. NEW YORK ELEVATED RAILROAD CO.

(Circuit Court, S. D. New York. March 10, 1880.)

**PATENT—DESCRIPTION IN PRIOR PATENT OR PUBLICATION.**—A patent, or printed publication to defeat a patent subsequently obtained must describe the invention so as to enable one skilled in the art to which it belongs or pertains to construct and use it

**SAME—SUBSEQUENT PATENTEE.**—A subsequent patentee can acquire no right in the devices of a former patentee included in his machine.

**SAME—FOREIGN PATENT FOR SAME INVENTION.**—Where a patent for the same invention has been granted in a foreign country, prior to the one allowed in this, the patent here will run 17 years from the date of the issuance of the foreign patent.

**SAME—INJECTORS FOR STEAM BOILERS.**—Claims of certain patents for improvements in injectors for boilers determined.

In Equity.

*Edmund Witmore*, for complainants.

*George Harding and F. C. Chambers*, for defendant.

**WHEELER, D. J.** This suit is brought upon letters patent No. 57,057, dated August 7, 1866, issued to James Gresham for an improvement in injectors for boilers, and now owned by the plaintiffs. The questions raised and relied upon in argument relate principally to the novelty of the invention described in the patent.

The invention purports to be of an improvement upon an apparatus known as Gifford's Injectors, patented to Henry J. Gifford by letters patent of Great Britain, No. 1,665, dated July 23, 1858.

The defendant sets up these letters patent to Gifford; and letters patent of Great Britain, No. 2,775, granted to Andrew Barclay and Alexander Morton, dated November 7, 1863; and No. 1,151, granted to Andrew Barclay, dated May 6, 1864,

each for improvements in certain apparatus for injecting and ejecting fluids, to defeat the plaintiff's patent.

Gifford's injector underlies all these inventions. When once started it seems to have been all or nearly all that was desirable for forcing water into boilers; but in starting it would not, of itself, raise the water from any considerable depth, to force it into the boilers. Where the water had to be so raised, before being forced it was necessary to first prime the injector with water by some outside means, and then, when started, it would continue to both raise and force the water. His patent provided for an additional jet of steam, coming in and striking the principal column of steam and water after it had passed the overflow in its course towards the boiler, and aiding in forcing the column along; but this jet merely aided the injector as such, after it was started, and did nothing of itself towards removing the difficulty of starting when the water had to be raised.

Barclay and Morton, in their patent, described peculiar shaped chambers to change the direction of, and facilitate the flow of, the fluids after they had passed the injecting apparatus, but described nothing for raising them to the apparatus, and added: "It may be necessary to combine two of the before mentioned apparatuses, so that the one may merely raise or lift the water or other fluids, whilst the other then merely forces it; and also one lifting apparatus may be combined with that known as Gifford's Injector, and by this means supply water to steam-boilers from any depth where an ordinary lift-pump is required."

Barclay's patent described an injector into which a column of cold fluid could be brought when that to be injected was too warm to condense the steam sufficiently, and which took the water and steam through alternate concentric annular passages to combine them, to make the combination of them more perfect and the apparatus more effective; but it described no means for priming the injector in order to start it to drawing fluids from low depths and injecting them.

Means for raising fluids into open vessels, or discharging them into open air, by throwing a jet of steam past the upper

end of a tube leading from the fluid upward, out into a larger descending nozzle, making an apparatus in the nature of a siphon operated by steam, were well known. Gresham contrived means for throwing a jet of steam past the end of the passage for water from the reservoir to the overflow opening of a Gifford, or other injector, at that opening, into such a nozzle arranged there, so as to draw water from the reservoir to the overflow and prime the injector, ready for starting, to raise water and force it into the boiler.

His patent is, and purports to be, for the mechanical devices by which this is accomplished, and does not rest at all upon the discovery of any of the principles of philosophy employed in its accomplishment. Neither Gifford, nor Barclay and Morton, nor Barclay, described in their patents any such devices; nor does it appear that they, or any one else, ever knew of or used any such before Gresham's invention. Barclay and Morton suggested in their patent, in the part quoted, that one lifting apparatus might be combined with a Gifford injector, and by that means supply water to steam boilers from depths where lift pumps were required; but they did not suggest, in that immediate connection, what sort of a lifting apparatus. Probably they meant, and are to be understood as having meant, such lifting apparatus as they had before described in other parts of their patent. Such apparatus would not be at all like Gresham's, nor could it be employed for the same purpose as Gresham's, namely, to raise water, before starting the injector, to prime it.

All injectors will, in starting, draw water upwards to some extent, but not much when they have the injector apparatus only. Whatever they do draw they draw upon a similar principle to that upon which Gresham's lifting apparatus works. They to that extent lift water, and his lifts water; still, they cannot lift to the extent his does. They do not do it by the same mechanical means that his does, nor do they employ all the philosophical principles that his does. His jet of steam works in a nozzle which is the reverse of theirs; his projecting into a nozzle increasing in size, which increases