

ELECTRIC GAS-LIGHTING CO. *ET AL.* V. FULLER *ET AL.*

*Circuit Court, D. Massachusetts.*

May 2, 1890.

PATENTS—NOVELTY—ELECTRIC GAS—LIGHTING APPARATUS.

In patents No. 225,071, to Henry F. Packard, and No. 232,804, to Frank V. Sanford, for improvements in electric gas-lighting apparatus, the claims consisted of a combination of a gas-burner, a fixed electrode, a ratchet, a pawl, a spring, a lever pivoted loosely on the stem of a stop-cock, and having two arms, to one of which was attached an elastic contact point, and stop-pin; the combination being so arranged as to open and close the gas passage to the tip at each alternate movement of the lever, and, conjointly with such opening, to ignite the gas by an electric spark, generated by such movement,—devices which should, without actuating the gas-cock, repeat the electric spark by the return movement of the opening devices to their normal position for further use. *Held* that, though some parts of the mechanism were old, the combination was new and useful, and the invention was patentable.

In Equity.

*Causten Browne, Walter D. Edmonds, and Edward P. Payson*, for complainants.

*Livermore, Fish & Richardson*, for defendants.

COLT, J. This is a bill in equity, brought for the infringement of letters patent No. 225,071, granted to Henry F. Packard, and No. 232,304, granted to Frank V. Sanford, for improvements in electric gas-lighting apparatus. The patents relate to that form of electric gas-lighting where the burner is operated by hand, and which does away with the use of matches. Packard says in his specification:

“My invention consists in certain novel devices, hereinafter fully described, by means of which the gas is turned on by pressing or pulling down and then releasing a lever fitted loosely to the stem of the cock, and thereby causing a vibrating arm to sweep past the tip of the burner; also, in the combination, with the said devices, of an electric contact-point fixed upon the end of the said vibrating arm, and of a fixed electrode located in close proximity to the orifice from which the gas issues, one of the said electrodes being insulated from the burner, and which, by the action of the said devices, are caused to make and break contact when the gas is turned on, thereby producing an electric spark and igniting the gas.”

The claims relied upon are the third and fourth, which are as follows:

“3. In combination with a gas-burner, A, and a fixed electrode, *n*, the ratchet, D, pawl, *h*, spring, F, lever, E, pivoted loosely upon the stem of the cock and having two arms, and *f* and *g*, to the latter of which is attached an elastic contact-point, and stop-pin, *k* as and for the purposes set forth.

“4. In an electric gas-lighting apparatus, in combination with devices constructed and arranged to open and close the gas-passage to the tip at each alternate movement thereof, and, conjointly with such opening to ignite the gas by an electric spark generated by such movement, devices which shall, without actuating the gas-cock, repeat the electrical spark

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by the return movement of the opening devices to their normal position for further use, substantially as described and shown.”

The Sanford device is substantially like the Packard, with the addition of a chain which is attached to the arm of the lever. By pulling the

chain with the hand, the burner is operated. The apparatus covering both of the patents is called the "Packard-Sanford Burner," and it appears to have been the first burner of this class which obtained any large degree of commercial success. The defence mainly relied upon is that there was no invention in what Packard did, in view of the state of the art at the time. It is not denied by the complainants that every element covered by the claims of the Packard patent may have been old, but it is said that they were never so combined before, and that the result is a great improvement over all prior devices of this class. The complainants insist that it is by taking one element from one prior patent, and another element from another, that the defendants seek to destroy this patent; and, in answer to this position, they cite the reasoning of the supreme court in *Parks v. Booth*, 102 U. S. 96, where, in stating the rule as to anticipation of a patented combination; the court says:

"Where the thing patented is an entirety, consisting of a separate device or of a single combination of old elements incapable of division or separate use, the respondent cannot make good the defence in question by proving that apart of the entire invention is found in one prior patent, printed publication, or machine, and another part in another, and so on indefinitely, and from the whole or any given number expect the court to determine the issue of novelty adversely to the complainant."

The constituents of the Packard gas-burner are a fixed electrode; a stop-cock with one way or several ways; a ratchet rigidly secured, so as to move with the stem of the cock, and having four teeth for a oneway Stop-cock, and a proportionably increased number of teeth according to the number of ways through the cock; an angle-lever fitted loosely upon the stem of the cock, one of its arms for operating by hand, and the other extended so as to carry an electric contact point against and past the electrode fixed at the burner tip when the first arm is depressed; a pawl attached to the lever to engage with the ratchet; a spring to retract the lever when released after being depressed; and a stop-pin to limit the movement of the lever. To light the gas, it is necessary to pull down the lever-arm once, whereby the pawl engages with and turns the ratchet, which opens the valve, and admits the gas through the orifice, while the other lever-arm sweeps past the contact point across the fixed electrode, making and breaking the circuit, and thereby producing an igniting spark. Upon releasing the arm, the spring will return the lever to its position, making another spark on its return, and, the pawl not engaging with the ratchet on its return, the gas will be left burning. To extinguish the gas, a single pull will revolve the plug so as to close the cock, and the spring will return the lever to its position. No one of the prior devices referred to by the defendants discloses the combination of elements embraced in the Packard patent. Those devices, at most, contained but a part of the Packard mechanism; and, if practically operative, they seem to have, been of doubtful utility. To have constructed the Packard apparatus, and so make a practical and useful burner, I think

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showed invention. The Smith patent, No. 20,305, shows a ratchet wheel fixed to a gas-cock, a lever moving freely on the gas-cock,

a pawl which engages the ratchet, and an arm carried by the lever to the tip of the burner; but it does not show that the teeth of the ratchet are proportioned to the ways through the cock. Nor is the curved magnet of Smith, pivoted at its center and carrying a rod, the two-armed lever of Packard. The Smith arm is not carried past, but only up to the burner tip, and, from all that appears, must be moved forward several times to turn on or off the gas. There are also other differences between the two devices. The Tirrell patent, No. 232,661, bears a closer general appearance to the Packard apparatus. The date of the Tirrell patent is subsequent to the Packard, but it appears that the Tirrell invention was prior in point of time. But in the Tirrell patent there is missing the ratchet, the pawl, the spring, and the stop of Packard. It is said that all Packard did was to apply the ratchet and pawl, which were old, to the Tirrell structure, and that this was not invention. But he did something more than this. We must take the combinations in their entirety; and, so viewed, I do not think the Tirrell invention destroys the Packard patent. It is clear that the Packard device is a great improvement over Tirrell's, and that the combination of elements employed is different. For the same reason, and without entering into the specific distinctions between the two structures, the Heyl patent, No. 58,943, does not anticipate Packard. I find in none of the prior devices the combinations referred to in the third and fourth claims of the Packard, patent; and, recognizing the prior state of the art, I think it called for the exercise of the inventive faculty, as distinguished from mere mechanical skill, to produce the Packard burner. Upon the question of infringement I have no doubt. Decree for complainants.