SEELEY *ET AL. V.* BRUSH ELECTRIC CO. *ET AL.*

Circuit Court, N. D. Illinois. January 5, 1891.

PATENTS FOR INVENTIONS—INFRINGEMENT—ELECTRIC LIGHTS—FEEDING DEVICES FOR CARBONS.

Letters patent No. 147,827, granted January 24, 1874, to Matthias Day, for an "improvement in electric lamps," were for a device by which the upper and lower carbon holders of an electric lamp, each arranged to carry two or more carbons, are caused to be fed towards each other in such relations that the arc will be established and burn between one pair of carbons for a short interval and then shift to the other pair, so that the arc shifts from one pair to the other until both are consumed; but the carbons carried by each carbon holder move together. *Held,* that this patent is not infringed by letters patent No. 219,208, granted September 2, 1879, to Charles F. Brush, for a device whereby the upper carbons are separated dissimultaneously from the lower, whose holder is fixed, so that the arc is established between the pair last separated, the upper carbon of which is fed towards the lower until they are entirely consumed, and then the arc is established between the other pair, which burns in the same way.

In Equity.

George P. Barton and *John R. Bennett,* for complainant.

M. D. & L. L. Leggett, for defendants.

BLODGETT, J. In this case complainants seek an injunction and accounting by reason of the alleged infringement by defendants of patent No. 147,827, granted January 24, 1874, to Matthias Day, for an "improvement in electric lamps." The patentee states in the opening paragraph of his specifications the difficulties in the art of electric lighting which his device is intended to overcome, as follows:

"In the use of electric burners the following difficulties are found: *First.* Causing the carbons or points to approach automatically, with a speed commensurate to waste by the current. A greater or less speed breaks the current and extinguishes the light. *Second.* The waste of the point connected with the carbon pole of the battery is greater than that of the other, and, from various causes, is irregularly so. Hence the carbons must approach at unequal, and at consequently varying, speed in order that the point of light may always be stationary in the focus of the lens or mirror. *Third.* Owing to the rapidity of the waste, electric lights have been of short duration, requiring a constant attendant to replace the carbons, during which time the light is of course extinguished."

He then describes his device as consisting of an arrangement by which the upper and lower electrode, or carbon holders, each arranged to carry two or more carbons, are caused, by the action of the electric current end an intermediate automatic device, to be fed towards each, other in such relations that the arc will be established arid burn between one pair of carbons for a short interval and then shift to the other pair of carbons, whereby each, pair of carbons, carried by the carbon holder, will be alternately burned, by shifting the arc from one pair to the other pair, at short intervals, until the carbons of all the pairs carried in the carbon holders are consumed, the term "pair of carbons" meaning the upper and lower carbons which are arranged so that their points or ends will meet and form the arc between them. The carbon holders are constructed each with two or more sockets, in which the carbons or electrodes are held; as the specifications say, "preferably arranged in parallel, not touching each other, arid those in the upper socket opposite those in the lower;" that is, as I understand the specifications, the sockets of each carbon holder are so arranged as to carry the carbons parallel to each other, but the surfaces of the carbons carried by the holder must not come in contact with each other. An upper and lower carbon holder is shown in the patent, each of which carries two carbons, so that the carbons carried by each carbon holder move together. Infringement is insisted upon only as to the first claim of the patent, which is:

"(1) In an electric light, the combination, with each electrode holder and one electrical circuit, of two or more electrodes, substantially as and for the purposes set forth."

The defenses are (1) that the defendants do not infringe; (2) that the patent is void for want of patentable novelty. I do not, under the proof,

however, think it necessary to consider any question but that of infringement. It is conceded that this claim requires that each electrode holder, that is, the upper and lower holder, shall be arranged to carry at least two carbons or electrodes, and it is necessarily a law of the machine that the same movement to establish the arc and feed the carbons towards each other is imparted to all the carbons at once; that is, the two or more lower carbons move together and alike, and the two or more upper carbons move together and alike. The defendants' lamp, which, complainants contend, infringes their patent, is constructed according to the drawings and specifications of patent No. 219,208, granted September 2, 1879, to Charles F. Brush. It is a double carbon lamp, the distinctive features of which are that the carbons of each pair are dissimultaneously separated to establish the arc between the pair last separated, and the carbons between which the arc is so established are wholly consumed before the other pair of carbons are brought into circuit and lighted, instead of a light which is alternately changing from one pair of carbons to the other, thus burning the carbons of each pair in alternation as in complainant's lamp, and this result in defendants' lamp is secured by a feeding device, actuated by the electric current alone, the lower carbons being stationary, and the feeding device acting only upon the upper carbon of the burning pair, the other pair of carbons being held out of the electric circuit until the pair first lighted is consumed.

It will be seen from this brief statement that the result or operation of the two lamps is widely different; that complainant's lamp burns its carbons by alternate arcs between each pair, necessarily producing a light unsteady and unsatisfactory, and varying in intensity, because the increase of distance between the burning carbons causes the light to weaken, and finally to form the arc between the other pair of carbons to repeat the same process of weakening the light until it shifts back to the first pair, and so on, while in defendants' lamp the light burns steadily until the pair of carbons between which it is first produced are wholly consumed, when it shifts to the other pair and consumes those. This statement of the operation of the two lamps would seem to sufficiently indicate that their operative parts cannot be identical, and an inspection of their mechanism seems to show that the defendants' lamp does not contain the elements of the combination contained in the first claim of complainant's patent. This first claim of the complainant's patent calls for two electrode holders, that is, a holder for the upper and lower electrodes, and that each holder shall carry two or more electrodes. Complainant's expert contends that the lower holder in complainant's patent includes the sockets for the electrodes, and the means for bringing the electrodes into the electrical current, and for moving the electrodes up and down for the purposes of lighting and feeding. The defendants's lamp shows a lower electrode holder, or carbon holder, with sockets, for two electrodes, but with no capacity for movement up or down, as all the movements for establishing the arc and feeding are

confined to the upper carbons or electrodes in defendants' lamp, while the upper carbons in the defendants' lamp move independently of each other.

I therefore do not find in the defendants' lamp two electrode holders, but find that the defendants have three electrode holders, arid while externally there is a constructive or mechanical resemblance between the defendants' lower holder and that of the complainant when the respective parts are at rest, yet; they are functionally so different that this physical resemblance counts for nothing. When we come to the upper carbons of the defendants' lamp, I find them each carried by a separate holder, arranged in such relations to the other parts of the lamp that each carbon has an independent movement entirely unlike that of the carbons in the complainant's upper holder. The effect of this arrangement is that in the defendants' lamp the upper carbons of the burning pair are fed down as fast as the carbons of that pair are consumed, the carbons of the other pair remaining stationary, and out of the circuit, during the burning of the first pair, while in the complainant's lamp both the upper and lower carbons of each pair are fed towards each other simultaneously to compensate for the consumption by burning, and the arc changes alternately, and at short intervals, from one pair of carbons to: the other, thus producing a different light from that produced by the defendants' lamp.

In the case of *Brush Electric Co.* v. *Ft. Wayne Electric-Light Co.*, 40 Fed. Rep. 826, heard, before the learned circuit judge of this circuit, the complainant's patent was presented as an anticipation of the defendants' patent now claimed to infringe, and in his opinion the circuit judge said:

"Patent No. 147,827, issued to Matthias Day, Jr., February 24, 1874, is relied on as an anticipation of the first, second, and fourth claims of the patent in suit. This defense is based upon a construction of these claims that gives no effect to their concluding restrictive language, which construction, we have seen, is not authorized. The patent in suit describes mechanism which designedly and positively effects a dissimultaneous separation of the carbons, and Professor Barker, the defendant's expert, testified that the Day lamp was not so constructed, and did not so operate. It is true that the Day patent describes a lamp which contains two or more pairs of carbons, but not such a double carbon lamp as Brush invented. * * * Owing to the constant and frequent shitting of the arc from one pair of carbons to the other in this lamp it produced an irregular and unsatisfactory light. It was unlike the Brush lamp both in construction and mode of operation."

And in the case of *Brush Electric Co.* v. *Western Electric & Power Co.*, 43 Fed. Rep. 533, tried in the northern district of Ohio, before Judges BROWN and RICKS, the learned judge (BROWN) who delivered the opinion of the court, said:

"The Day patent upon which defendants chiefly rely as an anticipation of the Brush patent, as construed by the complainant's exhibit, is a single carbon lamp, having two carbons, instead of one, attached to each carbon holder, so that in the operation of the lamp both branches of the carbon holder are raised, and lowered simultaneously. While the upper and lower carbons are in contract the current is divided between them, but when

separated to form the arc, though the separation of both sets occur at the same instant, owing to the difference in resistance of the carbons, only a single arc is formed. When this arc has burned for a few minutes, the arc will shift to the other pair of carbons, remaining; until they are so far consumed as to require additional

feeding, when the arc is shifted back to the first pair, and they are thus caused to burn alternately, instead of successively, as in the Brush patent. This alternation is, of course, owing to the fact that both sets of carbons are separated simultaneously, and not in succession, as in the Brush patent, in which one is held in reserve until the first pair is wholly consumed. The Day lamp, however, not only lacks the non-coincidence in the separation of the carbons, which is the prominent feature of the Brush patent, but in practice it never seems to have been a success."

The functions of the electrode holders of the two lamps are so different, and the results of their actions so different, that I do not think the electrode holders of the defendants' lamp can be said to be the same, in function or result, as those of the complainant's combination. I therefore do not find that the defendants are guilty of infringing the complainant's patent. The bill is therefore dismissed for want of equity.