not, in the present situation of the case, deem it desirable to enter upon a discussion of it. It is sufficient for the present purpose to say, as has often been said before, that a preliminary injunction should never be awarded where the right is doubtful, or the wrong uncertain, and that the infringement here charged has not been clearly established. American Nicholson Pavement Co. v. City of Elizabeth, 4 Fish. Pat. Cas. 189, Fed. Cas. No. 312. Consolidated Electric Storage Co. v. Accumulator Co., 5 C.C.A. 202, 55 Fed. 485; Van Camp Packing Co. v. Cruikshanks Bros. Co., 33 C.C.A. 280, 90 Fed. 814; Williams v. McNeely, 56 Fed. 265. The question of infringement, as it was presented in the prior adjudications which have been brought to the attention of the court, is not identical with that which arises upon this record. It is, of course, possible that upon final hearing the complainants may appear to be entitled to the relief which they seek; but that, upon the proofs as now submitted, the court below erred in refusing a preliminary injunction, the only legitimate purpose of which is to preserve the existing state of things until the rights of the parties can be thoroughly investigated, we cannot adjudge. The decree is affirmed.

UNITED STATES REPAIR & GUARANTY CO. et al. v. STANDARD PAVING CO.

(Circuit Court of Appeals, Second Circuit. May 25, 1899.)
No. 143.

1. Patents—Anticipation—Method of Repairing Asphalt Pavements.

The Perkins patent, No. 501,537, for an improved method of repairing asphalt pavements, was not anticipated by the French patent No. 137,208, granted to Crochet in 1880. The rock asphalt used in French pavements, and to which the Crochet process is applied, differs materially from the Trinidad asphalt, of which American pavements are made, and is affected differently by the heat applied in repairing. In repairing the former by the Crochet method, the damaged part of the pavement is removed, while by the Perkins method, as applied to the Trinidad asphalt, the damaged part is melted, and, uniting with new material added, is reused. Hence, if the methods are regarded as the same, the Perkins patent is valid, as an application of such method to different and dissimilar materials.

2. SAME—INFRINGEMENT.

The Perkins patent, No. 501,537, for an improved method of repairing asphalt pavements, an essential feature of which is the perfect commingling of old and new material in the process of repairing, is not infringed by a process by which no such commingling is attempted, but the damaged material is removed, the depression scraped out, and new material added, with cement to cause it to adhere.

Appeal from the Circuit Court of the United States for the Northern District of New York.

Letters patent No. 501,537, dated July 18, 1893, were issued to Amos H. Perkins, assignor to the Western Paving & Supply Company, for an improved method of repairing asphalt pavements. The patent was subsequently assigned to the United States Repair & Guaranty Company, which gave an exclusive license to the co-complainant, the Barber Asphalt Paving Company. A bill in equity brought in the circuit court for the Northern district of New York (87 Fed. 339), which charged the defendant with an infringement of

their patent, was dismissed upon the ground of the anticipation of the patented process by a French patent, No. 137,208, granted to Paul Crochet and others on June 11, 1880.

Edwin H. Brown, for appellants.
William Macomber and Tracy C. Becker, for appellee.
Before WALLACE, LACOMBE, and SHIPMAN, Circuit Judges.

SHIPMAN, Circuit Judge. The old mode of repairing asphalt pavements was to dig out with a pick "the surface material around the spot to be repaired, sometimes applying heat to the spot to soften the material so that it could be more easily removed." the material was removed, the hole was cleaned and coated with tar. The new material, which was placed in the hole in a heated state, was ironed and smoothed in the usual manner. This system is said to have been defective, because a thorough union or commingling was not made between the old and new material, and was expensive, because the old material, which was torn away by the pick, must be discarded. The patented method subjected "the spot to be repaired and the surrounding edges to such a degree of heat that the surface asphalt, not only the exact spot to be repaired, but the surrounding portion to a greater or less degree, is reduced to the soft, pliable state in which it was originally laid. With a rake or other suitable instrument, it is then agitated and mixed with enough new material to fill up the spot to be repaired. It is then subjected to the usual finishing operation of ironing and burnishing." There is no soldering and no dividing line between the new and the old, "because the new material has been mixed with, and becomes a part of, the old material." The apparatus for the application of heat which is described in the patent is a portable gasoline tank, with burners underneath, which throw a sudden strong blast of heat upon the spot to be repaired. The flame, it is said, creates a thin burned skin or crust upon the surface of the asphalt, and melts or liquifies the particles underneath so that they do not lose their cohesive character, but can be used again, after being suitably stirred and mixed with new material. The claims of the patent are as follows:

"(1) The method of repairing asphalt pavements which consists in subjecting the spot to be repaired to heat, adding new material, and smoothing and burnishing it, substantially as described. (2) The method of repairing asphalt pavements which consists in subjecting the spot to be repaired to heat until the material is softened, agitating it, and mixing with it new material, and finally smoothing and burnishing it, substantially as described."

The Crochet patent, which was for a method of repairing the French pavements of rock asphalt, and which used the intense heat of the patent in suit, seemed to the circuit court an anticipation. Crochet heated the part to be repaired, by a movable furnace, until the surface became friable. The upper and damaged part of the layer was removed by a toothed iron hoe, which performed the function of a rake, and roughened the part not removed. A suitable thickness of asphalt in powder was then spread over the depression, and tamped in the ordinary way. From the similarity of the two patents, it seemed well-nigh manifest that the French patent had been read

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by the patentee, who was urged by the first assignee of the patent in suit to invent an economical method of repairing asphalt pavements. It is, however, important, upon the question of anticipation, to appreciate the fact that the rock asphalt of France, from which its asphalt pavements are made, is a limestone or a sandstone rock containing from 15 to 25 per cent. of bitumen, and that the pavement made of this kind of limestone, when reduced to fragments and compressed, is a different thing from the surface asphalt pavement of this country, which is formed from Trinidad asphalt, consisting to a great extent of bitumen, united with petroleum and heated sand, and is melted by heat. The application of heat to rock asphalt causes it to crumble, and reduces it to sand or powder, which does not firmly unite or "bond" with the old material, while a similar sudden application of violent heat to the surface of a Trinidad asphalt pavement melts the particles, which, when commingled with a new mixture, can become united with the fresh material.

It is, however, noteworthy that Crochet thought that the beneficial effect of his process was to soften the subjacent layer of the French pavement so that it should "unite perfectly with the new layer, and form with it a thickness, without solution of continuity." Nevertheless, there is, in fact, a difference in the material of the two pavements, and we are inclined to differ from the circuit court, and to regard the Perkins patent as patentable, because it was an application of an old process of intense heating, by means of a movable furnace, to different and dissimilar materials. The two processes were not exactly alike. Crochet treated the surface by vivid heat, removed the damaged part, roughened the remaining surface, and added new material. Perkins heated in the same way, reduced the old material to a soft, pliable state, agitated it with a rake, and mixed it with enough new material to fill up the spot to be repaired. No other anticipation of importance was presented in the record.

The defendant used in Buffalo, for its heating purposes, a coke furnace upon wheels, and its process is described by Mr. Kent, who carefully watched it for two months, for the purpose of giving testimony, as follows:

Asbestos sheets were placed on the outside of the edges of the spot to be repaired so as to protect the surrounding pavement from the heat. The complainants also use these sheets. "This coke heater was then left over the spot to be repaired a sufficient length of time to soften the asphalt to a depth of half an inch, more or less. The coke heater was then wheeled away, the asbestos removed, and the heated portion of the pavement scraped off to a depth of half an inch, more or less, with notched hoes, and the edge of the portion scraped off was made even and smooth, and then the surface of the patch was sprinkled with asphalt cement, and the edges daubed with the same material. New asphalt was then thrown on, and made level with the surrounding pavement with the back of an iron rake. It was then compressed or tamped with iron tampers or smoothers, and rolled with a hot roller." The cement was in very slight quantity, and was sprinkled in narrow threads from a broom. The softened asphalt was generally removed with an iron rake, the action of which on the lower surface left it in a rough or in a sort of grooved state. It was not deemed necessary that the new asphalt should be added at once, while the spot to be repaired was hot, though that was the rule. There was no agitation or raking of the bottom when the new material was added, which was thrown in with a shovel and smoothed off or made level.

The question is whether this process is that of the patent. If claim 1 is to be literally construed, it is void, for it is simply for the application of heat for a purpose, and of a character and amount, not expressed, the addition of new material, and the usual smoothing and burnishing; but no contention is made that it is not to be construed for the process substantially as described,—that is, that the old material shall be heated until it is softened or partially melted, shall be agitated, and that the new material is to be mixed with, and become a part of, the old material. The claim could hardly be construed to permit the omission of any of the described steps of the process, unless such omission had been recognized in the specification. Claims 1 and 2 do not, therefore, materially differ from each other.

The patented process omits the use of tar as a solder, and does not look to the use of any material for that purpose. The defendant, after the burned or crusted portion of the surface had been scraped off, sprinkled the hole with asphalt cement. The sprinkling, though the amount of the cement which was applied was very small, was for the purpose of causing the new material to adhere to the old. It was for a solder, and not for the purpose of fusion. The sprinkling shows the existence of another variance between the two processes which is substantial. In the Perkins process, the old and melted material is used. It is agitated so as to become thoroughly plastic, is mixed with the new material, and the two become homogeneous. In the defendant's process, the hole is scraped, the softened asphalt is removed with a rake, which leaves the lower surface in a rough state, "the surface of the patch is sprinkled with asphalt cement," which shows that the old material had practically disappeared, and new asphalt is shoveled into the hole and tamped down. The Perkins process places stress upon the perfect commingling of old and new asphalt as a result of the agitation of the particles of old and new material. The defendant's process places no reliance upon this kind of commingling, but scrapes or cleans out the depression, sprinkles a little cement upon the bottom and edges, to be of some benefit in causing the old and new to adhere, and shovels in and tamps down the new material. Wherein the defendant's process differs from that of Perkins it corresponds with that of Crochet. The decree of the circuit court is affirmed, with costs.

UNION WRITING MACH. CO. v. DOMESTIC SEWING-MACH. CO.

(Circuit Court, D. New Jersey, June 20, 1899.)

PATENTS—Construction and Infringement—Typewriting Machines.

The Brooks patent, No. 454,845, for improvements in typewriting machines, if valid at all, in view of the prior state of the art, must be limited, as to claims 5, 6, 7, 8, and 9, to the specific construction shown and described, and said claims are not infringed by the Williams typewriter.

In Equity.

H. D. Donnelly and Charles E. Mitchell, for complainant. Harry E. Knight and Edmund Wetmore, for defendant.