

their machinery, and in which they occupied themselves, and for which they were paid salaries, and an allowance of 26 1-5 per cent. for the superintendence and general expenses of this single infringement, which was entirely outside of and detached from its regular business, is excessive. While the usual and reasonable salaries of such portion of the managing officers as have concern with the infringing business are to be allowed, the items of taxes, insurance, and use of real estate owned by the infringer are not a part of general expenses. It is proper to allow "for the use of tools, machinery, power, and other facilities employed in the manufacture." *Manufacturing Co. v. Cowing*, 105 U. S. 253. It is impossible to estimate with accuracy, for the defendant's testimony is not very helpful in this regard, how much ought to be allowed for this class of expenses in this case. I have concluded, rather than refer the question again to the master, to allow 10 per cent., which I consider a high estimate, upon the cost of the machines, which makes the whole cost \$8,067.87, and the profit upon the entire sets of machinery \$2,932.13. In the final decree, interest should be allowed upon the sum adjudged to be due as profits from November 17, 1893, the day when the master's report was submitted. *Tilghman v. Proctor*, 125 U. S. 136, 8 Sup. Ct. 894.

The defendant took sundry exceptions to the master's findings in regard to the cost of the entire sets of machines, and also to his finding of the cost of the patented machines. I am of opinion that his findings were correct, except that 10 per cent. for general expenses, instead of 26 1-5 per cent., should be added to the particular items of cost of labor and material and of expenditures. As the questions relate exclusively to profits, and not to damages, I have not examined the subject of the willfulness of the defendant's infringement.

The second exception of the complainant and the sixth exception of the defendant are sustained. The residue of the report of the master, so far as it relates to pecuniary profits, is confirmed.

PACIFIC CONTRACTING CO. v. BINGHAM.

(Circuit Court, N. D. California. May 28, 1894.)

PATENTS—NOVELTY AND INVENTION—ASPHALT PAVING.

The Thurber patent, No. 319,125, claiming a process of working bituminous rock by softening it by application of hot water or steam, and pressing it under heated rollers or other heated irons, although these features of the process were old, covers a patentable invention, consisting in the immediate use and compression of the softened material without the expulsion of moisture; all previous processes having involved either rigid exclusion or evaporation of moisture. *Pacific Contracting Co. v. Southern California, etc., Co.*, 48 Fed. 300, followed.

This was a suit by the Pacific Contracting Company against Bingham for infringement of patents.

Wheaton, Kallock & Kierce, for complainant.

Page, Eells & Wheeler and J. P. Langhorne, for defendant.

GILBERT, Circuit Judge: This is a suit in equity to enjoin the infringement of letters patent No. 319,125, issued June 2, 1885, to Rice, Steiger & Thurber, and letters patent No. 342,852, issued June 1, 1886, to Austin Walrath. Both patents are for processes in the preparation of material for asphalt pavements, and laying and rolling the same. In both the material so to be prepared and laid is the natural bituminous rock of California, a substance composed of sandstone and bitumen or asphaltum, commingled in such proportions as to require the addition of no other material for pavement purposes. So far as this suit is concerned, there is no discernible difference in the processes described in the two patents. The earlier, or, as it is called, the Thurber, patent is clearly an anticipation of the Walrath patent, and it will be unnecessary to make further reference to the latter, as it conferred upon the complainant no right not acquired under the earlier patent. The claim of the Thurber patent is as follows:

"The process of preparing roofing and paving material, consisting in the following steps: First, softening pure native asphaltum by the application of hot water or steam thereto; and, secondly, pressing it under heated rollers or other heated irons, substantially as and for the purpose set forth."

It is admitted that the defendant has laid pavements under the process above described, and that he has infringed the same if the patent is held valid. The defenses relied upon are that the patent is void for want of novelty and invention, that the invention was made by only one of the three joint patentees, and that the description of the invention in the specification is not in such full, clear, concise, and exact terms as to enable any person skilled in the art to use the same.

It will be observed that there are two distinct steps in the process as described—First, softening the material by hot water or steam; second, rolling it with heated irons while still hot and permeated with moisture from the steam. It is in the immediate use of the material so softened and moistened that the invention which is involved in the process is said to consist. The other features of the process—the application of the steam and the use of the heated rollers—are undoubtedly old. The bituminous sandstone of California, which is the subject of this process, is a hard substance when quarried, and is required to be made soft and pliable before it is available for pavements. Prior to the experiments of Thurber and his associates with hot water and steam, it had been the practice to soften the rock either by dry-heating the same in caldrons, or by cooking it with the addition of coal tar. The result was unsatisfactory, as the material was either burnt in the process, and thereby rendered porous and brittle, or, through the addition of the coal tar, was left sticky and difficult to handle. The patentees of the Thurber process discovered that the use of hot water or steam directly applied to the bituminous rock, and without the addition of coal tar or any other substance, produced a better result, left the material in condition for immediate use for paving, and greatly simplified the preparation of the same. The Thurber patent has been twice sustained in this court,—in *Rock Co. v. Walrath*, 41 Fed. 883,

and Pacific Contracting Co. v. Southern California, etc., Co., 48 Fed. 300. In the latter case the same defenses were made that are presented in the case now before the court. It was there held that, although the idea of the application of hot water or steam to a substance for the purpose of rendering it soft and pliable was undoubtedly old, yet that the idea of such application to bituminous rock in the course of preparation for roofing or paving purposes involved an element of invention from the fact that it was opposed to the generally accepted theory of the treatment of that substance, and the universal belief of those engaged in using the same, which was that the material must be kept waterproof, and must only be heated by dry heat, to the rigid exclusion of moisture, and that the presence of water or steam tended to its disintegration and destruction. That decision will be decisive of this case unless the evidence now offered presents the defenses in a new or different light.

The defendant insists that he has furnished new evidence of the want of invention in the Thurber patent in the fact that the same process was described and given to the public in the book of E. Dietrich entitled "Die Asphalt Strassen," published in Berlin, in Germany, in the year 1882. Reference was made to the contents of that volume in the answer to the bill, and it is now produced in evidence. It treats of the construction of asphalt streets and roads. On page 23 is described the process of preparing the bituminous rock of Lobsann for transportation from the quarry and for use in street-making. The Lobsann bituminous rock is described as consisting of limestone unevenly impregnated with bitumen, with portions of the limestone wholly unimpregnated. One of the objects of the process is the elimination of the unimpregnated rock. This is done by placing the crude rock in iron vessels, into which steam is forced. The steam causes the rock to fall to pieces, and the non-impregnated portions are thrown out, while the remainder is ground between rollers. The author proceeds to say:

"But since the material, in consequence of this steaming process, is so completely penetrated with moisture (which afterwards it does not lose in the immediately following process of crushing and grinding), and since the removal of this moisture is of great importance as well in the manufacture of mastic as in the production of compressed asphalt, it might perhaps be preferable to conduct hot air into the vessel of about 100 deg. celsius."

On page 108 the exclusion of the moisture is further insisted upon:

"The expulsion of the natural moisture from the asphalt stone is absolutely necessary, because the powder cannot be pressed into a solid body by roller or press unless it be in a perfectly dry condition. Therefore bring up the temperature to the highest degree possible without running any danger of driving the bitumen out with the water."

In short, the process described by Dietrich consists in first steaming the rock, for the double purpose of separating the unimpregnated portions of the rock from the remainder, and softening the latter for grinding, and, second, evaporating the moisture from the ground product to render it fit for compression into pavement. The Thurber process consists in first softening the rock by steam, and, second, in compressing it into pavement while still hot, and permeated with moisture.

The question whether or not there is invention in the Thurber process is not perceived to be affected by any fact disclosed in the book of Mr. Dietrich. If the process described in that volume has any bearing upon the questions involved in this case, it is rather to emphasize the fact that the Thurber process ran counter to all the accepted ideas of the treatment of bituminous rock for pavement purposes, for Dietrich adheres to the view that all moisture must be excluded. Through the publication of his volume there was constructively brought to the knowledge of all the world the fact that bituminous rock could be and had been softened by the application of steam, and that such application was not deemed injurious provided the moisture so introduced was expelled before compressing and using the material. This was the state of the art prior to the invention of Thurber and his associates. What they added was the idea of the immediate use and compression of the steam-softened material into pavement without the expulsion of the moisture, or perhaps it would be more accurate to say they omitted from the Dietrich process a step which Dietrich and all others considered essential, namely, the evaporation of the moisture which had been introduced in the steaming process. Therein is the essence of the Thurber invention. It was not the discovery of the fact that bituminous rock may be softened by steam. That fact may be presumed to have been known from time immemorial. It was the discovery that the presence of the moisture in the substance thus treated did not tend to destroy and disintegrate the finished product,—the pavement. The complainant is entitled to a decree as prayed for.

ZAN et al. v. MCKENZIE.

(Circuit Court, N. D. California. May 28, 1894.)

PATENTS—EXTENT OF CLAIM—BROOMS.

The Flynn patent, No. 218,251, for an improvement relating to the manner of securing caps on wisp brooms concealing the fastening wire, and the construction of the handle, describes the cap as of velvet or similar material, and the handle as a paper tube, covered with such material, fitting over a wooden stock, and the description refers solely to its use in wisp brooms. *Held*, that claim 1, for the cap so secured, in combination with the wisp and such cylindrical handle, does not cover large brooms having a cap so secured, but using a metallic ferule, instead of the cylindrical handle, notwithstanding a statement in the specification that the manner of fastening the cap might also be applied to large brooms as a finish; as the only new feature in the combination was the cylindrical handle, and there was no intimation that it could be used on large brooms.

This was a suit by Zan Bros. & Co. against George F. McKenzie for infringement of a patent.

John L. Boone, for complainants.

Estee, Fitzgerald & Miller, for defendant.

GILBERT, Circuit Judge. This is a suit in equity brought by Zan Bros. & Co. against George F. McKenzie for the infringement of letters patent No. 218,251, issued August 5, 1879, to James H.

Flynn, for an improvement in wisp brooms. That portion of the improvement which is involved in this case relates to the manner of securing caps on wisp brooms, and its object is to enable a cap of velvet or other similar material to be fastened in a neat and secure manner without exposing the fastening wire which binds the ends of the broom straw to the broom handle, and to economize the construction of the handle without hurting its appearance. The invention consists in fastening the under edge of the cap to the wisp by wrapping it with wire, and then drawing the cap up over the wire, and fastening its upper edge by wrapped wire, which is thereafter concealed in the lower end of the handle; secondly, it consists of a handle made of a paper tube wrapped or covered with velvet or other fabricated material, adapted to fit over the wooden stock to which it is secured by glue or tacks. The claim which is said to be infringed reads as follows:

"Claim 1. As an improvement to wisp brooms, the cap, C, having its lower end, A, secured to neck, a, by a wire, c, while its body is drawn up over said wire, and its upper end, b, secured to the stock, B, by a wire, c, in combination with wisp, A, and a cylindrical handle, D, adapted to slip down over the stock, and rest upon the upper edge of cap, C, so as to conceal the wire, c, fastening the upper end of the cap to the stock, whereby a cap is furnished, made of velvet or other similar material, wherein the mode of its fastening is entirely concealed, substantially as described."

While the cylindrical covering for the upper edge of the binding wire above the cap is described as the handle of a wisp broom, and the claim just quoted refers expressly to an improvement in wisp brooms, and the invention of the patent is so denominated by the inventor, there is nevertheless in the specification the following reference to the adaptability of a portion of the combination to use in large brooms: "The manner of fastening the cap over the butts of the straw may also be applied to large brooms as a finish."

By virtue of rights which they claim to have acquired under the patent, the complainants have manufactured and sold large brooms or house brooms with the velvet cap secured in the manner described in claim 1, and have concealed the upper binding wire from view by means of a brass ferule of about an inch in width, which slips down over the broom handle, and is of such size as to fit snugly to the handle, while the lower half is widened or flared so as to rest neatly against the velvet cap, and cover the wires which, in the wisp broom, are covered by the cylindrical handle. The defendant has constructed large brooms in the same manner, but he defends against the charge of infringement upon the ground that the complainants' patent is applicable only to wisp brooms, and to the covering of the upper wire by means of a cylindrical handle of the form and material described in the specifications, and that it does not cover the use of a ferule upon large brooms, such as that used both by the complainants and defendant.

In deciding what is the invention covered by the complainants' patent, the court must be controlled by the language of the claim, and the description of the improvement as set forth in the specifications, and not by the construction which the patentee or his as-

signs may have placed upon or claimed for the patent subsequent to its issue. If the language of the claim is broader than the description of the invention, the claim must be so interpreted as to limit it to the improvement previously described. *Mitchell v. Tilghman*, 19 Wall. 287. The combination embraced in the patent added but one feature to the previously existing and known devices. The velvet cap had been used before, and it had been secured about the straw butts in the manner described in the patent. The new feature in the combination was the cylindrical handle, which was to perform the double function of covering the upper wire and affording a neat and economical handle to the broom. The description which the inventor gives of his improvement refers solely to its use in wisp brooms, and describes the cylindrical handle as a paper tube covered with velvet or other fabricated material. No allusion is made to its application to large brooms, except that above quoted, and that allusion refers solely to the manner of fastening the cap over the straw butts, and amounts to a statement that the velvet cap may be used upon large brooms. There is in his reference no intimation that in the mind of the inventor the cylindrical handle could be used with the cap, or as a part of the method of fastening the same, upon large brooms. The allusions to the possible use of the cap with large brooms does not in any way enlarge the right which the patentee would otherwise have by virtue of the specifications and claims of the patent. He has not described as his invention the combination of the cap in a broom with a cylindrical covering for the upper wire, but the combination in the wisp broom of the cap and a cylindrical handle of a certain form and material. It is true that the ferule, by covering the upper wire, performs a portion of the function which is accomplished by the velvet-covered handle of the patent, and performs all that that device could be made to do when applied to a large broom, for it is obvious that in a large broom the cylindrical covering could not be used as a handle; but the patentee has seen fit to confine all that is new of his combination to wisp brooms, and to the use of a cylinder of a certain form and a certain material. By so limiting his invention he left the public free to use upon large brooms a metallic ferule, which is a covering of different form and wholly different material from that described in the patent. *Manufacturing Co. v. Rosenstock*, 30 Fed. 67. The complainants have not acquired the sole right to cover the upper wires of a broom by a cylindrical covering in combination with the cap. They have only the sole right to the use of that which is substantially described in their patent. The bill must therefore be dismissed.

COSTA et al. v. DROBAZ.

(Circuit Court, N. D. California. May 28, 1894.)

PATENTS—PRIOR PUBLIC USE—FISHING-BOAT ATTACHMENTS.

To a suit for infringement of the Costa patent, No. 456,720, for attachments for fishing boats by which a net may be towed astern of a single vessel, consisting in part of stanchions on each side of the vessel, provided with metallic bands fitting their upper ends and having staples or eyes, booms having hooks on their inner ends fitting the eyes, stays by which the booms are held, and lines from the outer ends of the booms connecting with the net, prior public use of the attachment described with the exception of the stanchions, the booms being hooked into eyed plates bolted against the bulwarks, is not a defense; it appearing that the use of the stanchions resulted in greater safety and ease of navigation, and increased facility in handling the booms, and that this feature was new and original.

This was a suit by Pedro Costa and others against Mateo Drobaz for infringement of patents.

John L. Boone, for complainants.

E. S. Heller, for defendant.

GILBERT, Circuit Judge. Pedro Costa and others bring a suit in equity against Mateo Drobaz for the infringement of letters patent No. 456,720, issued July 28, 1891, to Pedro Costa, for an improvement in fishing-boat attachments. The invention is described as follows:

"The fishing boat has a mast, B, and upon each side of the boat near the rail is fixed a short vertical post, C, having an iron band, D, fitted around its upper end. Upon the side of the band nearest the rail is fixed a staple or eye, E. To the staple a boom, F, fifty feet in length, is attached by the hook, G. Near the outer end of each boom is fixed a band and an eye, H, and from these eyes the suspending stays, I, extend up to the mast where they pass over blocks, J, and lead down to the deck, so that, by means thereof, the outer ends of the booms may be raised and lowered at will. From the outer ends of the booms the stays, K, extend to the bow of the vessel. Upon the outer ends of the booms are also fixed the eyes, L, to which are attached the lines from the ends of the fishing net, the lines being about one hundred and twenty-five fathoms in length. By means of these attachments, a net, having a width equal to the length of the two booms and the intervening hull of the vessel, may be towed astern by means of a single vessel, and lowered for deep sea fishing, and raised and drawn upon the stern of the vessel, as occasion may require,—accomplishing a result that formerly required the use of two vessels, pursuing a parallel course and maintaining a uniform intervening space."

The claim of the patent is as follows:

"A vessel having the vertical stanchions, C, upon each side, provided with metallic bands fitting their upper ends, and having staples or eyes, E, booms having hooks on their inner ends adapted to fit said eyes, stays by which the booms are held in a horizontal position, projecting from the sides of the vessel, ropes extending from the outer ends of the booms, and connecting with a net adapted to be towed behind the vessel, the lines, O, having rings adapted to clasp the tow lines, the guiding sheaves or checks, P, at the stern of the vessel, and the winding drums forward of the sheaves, substantially as herein described."

The defendant has constructed and used a vessel with fishing attachments identical with those described in the patent, but he makes defense to the suit upon the grounds—First, that the im-