

H. W. JOHNS MANUF'G CO. v. ROBERTSON et al.

(Circuit Court, S. D. New York. March 31, 1894.)

1. PATENTS—CONSTRUCTION OF CLAIM—REFERENCE TO SPECIFICATIONS.

In a patent for an improvement in packing for steam joints, one claim was for the packing, composed of strands of asbestos with a saturated central core, "as hereinbefore set forth." The specifications described the packing, and the process of making it by means of external manipulation,—explaining at length the details of the treatment and materials, and the advantages of the packing over others,—and added that the central strand might be saturated with a solution of India rubber, imparting elasticity without affecting the solidity of the packing; this being the first suggestion of India rubber. *Held*, that the claim did not cover, as a separate invention, the saturation of the central core with India rubber, securing adhesion of the strands; such saturation being suggested merely as an incidental feature, and the central core not being described as a distinct invention, or as an element in a combination.

2. SAME—ANTICIPATION.

Such saturation of the central core with India rubber was anticipated by the previous use of asbestos and India rubber, in various forms, and with various solutions or coatings, for steam packing, the packing being made in the form of braid and ropes.

3. SAME—INFRINGEMENT.

A claim for a steam packing composed of strands of asbestos with a central core saturated with India rubber is not infringed by a packing using starch to secure adhesion of outside strands and the core; the twisting of asbestos, mixed with a glutinous or adhesive substance, into a rope, being previously known.

4. SAME.

The third claim of the Johns patent, No. 257,167, for improvements in packing for steam joints, must be limited by reference to the specifications, and, if not so limited, was anticipated.

This was a suit by the H. W. Johns Manufacturing Company against Henry M. Robertson and George T. Sinclair for infringement of a patent. On final hearing.

Wetmore & Jenner, for complainant.

Gallagher, Richards & Dodd, for defendants.

TOWNSEND, District Judge. This case is presented upon final hearing, on the usual bill for injunction for infringement of letters patent No. 257,167, granted to Henry W. Johns May 2, 1882, for improvements in steam packing for steam joints. As the decision of the questions involved chiefly depends upon the construction to be given to the claims in the light of the interpretation of the whole patent, it has seemed desirable to set it out fully. The specification is as follows:

"Be it known that I, Henry W. Johns, a citizen of the United States, residing at New York, county of New York, and state of New York, have invented new and useful improvements in steam packing, of which the following is a specification. My invention relates to certain new and useful improvements in packing for steam joints and similar uses. Prior to my invention, among other desirable materials suggested for the purpose, asbestos in the form of a rope has fulfilled the object sought, with considerable success. Its use, however, has been attended with the objection that in order to prevent the strands composing the rope from being rubbed away or disintegrated by handling it has been necessary to confine them with a cloth covering or

woolen netting. This feature of covering renders the structure expensive and laborious to produce, and the covering does not serve any purpose as a packing, but, on the contrary, being of a comparatively inflammable nature, soon becomes charred by the heat of the box in which it may be used. Asbestos has also been braided, but this is not only expensive, but fails of the object attained by my invention, because the strands cannot be separated when desirable. The object of my invention is to provide a rope composed of asbestos which shall be free from the objections named and highly desirable as a steam packing; and, with these ends in view my invention consists of a steam packing composed of a series of strands of asbestos twisted or 'laid' into the form of a rope, and having the ordinarily projecting fibers laid flat in the direction of the length of the rope, and also having the interstices between the several strands of which the rope is composed filled or built up practically even with the outside surfaces of the strands by a paste or sizing composed wholly or in part of asbestos, as will be hereinafter more fully explained. My invention also consists in a novel process by which the interstices are filled or built up and the strands bridged or tied, as will be hereinafter more fully explained. My invention further consists in the details hereinafter described and specifically claimed.

"In order that those skilled in the art to which my invention appertains may fully understand the same, I will proceed to describe in detail the peculiar characteristics of the rope and the process by which I am enabled to close the interstices between the strands, and in order that the differences between an ordinary rope and that forming the subject of my invention may be illustrated in the accompanying drawings I have shown at Fig. 1 a cross section of an ordinary rope devoid of the jacket or covering hereinbefore referred to; Fig. 2 illustrates a similar section of a rope embodying my invention; and Fig. 3 a plan view of the same, to more fully illustrate the tying or bridging of the interstices. At Fig. 1 it will be observed that short spurs or fibers a, project from the rope, and that the strands, b, composing the rope, are, when twisted into form, separated by V-shaped or similar interstices, while by reference to Fig. 2, it will be seen that the interstices are built up or filled to about level with the outside surface of the rope, as illustrated by the blackened spaces marked c. At Fig. 3 I intended by the short, straight lines marked d to illustrate how the ordinary spurs or fibers shown at a, Fig. 1, are laid across or bridge the helical spaces marked by the curved lines e. The fine lines branching off from the lines d, are intended to represent the felting or locking which takes place as hereinafter referred to, after the interstices have been filled with the cement or sizing. The process of manufacture which I have adopted as best calculated to accomplish the ends sought is, first to form a rope of the desired size and of any suitable number of strands of asbestos fiber in any well-known manner, but preferably by the use of double strands twisted together around strong central twisted strand, which may be of hemp or other material, though I prefer asbestos. This enables me to retain the 'spring' of the twist, which I find can be accomplished in no other manner so well as when using asbestos. It is then laid in such way that the exposed or outside surface of the several strands shall be slightly flattened to approach in their cross-section curvature as near as possible to a circle surrounding the whole number, and in this way to a considerable degree lessen the proportions of the interstices which naturally occur between the 'lay' of the strands. After the rope has been thus formed I then apply water or moisture in small quantities and in any suitable manner to the outside surface of the rope, and subject the same to rapid longitudinal manipulations. This manipulation removes small particles of asbestos, and the water serves as a vehicle to deposit the asbestos, in the form of a paste or sizing, within the interstices of the rope in an even and smooth condition. This paste or sizing, being composed of asbestos, will, according to the character of the asbestos, form a film or membranous coating of considerable strength when subjected to friction. The longer fibers or spurs, which are not removed and taken up by the water, are laid across or bridged over the filled interstices, and I have found that they are at the same time felted or matted together, as illustrated at Fig. 3. In manipulating the rope to accomplish these results I

have found the human hand best adapted for the purpose; but of course, I do not desire to confine myself in this particular, nor to the fact that I first apply the water or other moisture, as I may begin to manipulate the rope a little while before applying the moisture; nor do I wish to confine myself to the use of asbestos and water alone as the agents for filling the interstices, as other ingredients may be used so long as they are not of a character to be objectionable when placed within a steam joint. I have found that a successful paste or cement for the purpose may be made from asbestos flour, water, glue, paraffin, kerosene, or other oleaginous matter and ordinary flour, or any two or more of the above, a superior material being the two flours combined with a little paraffin and a small quantity of kerosene. I prefer that asbestos should always form one element of the paste. A packing, when made according to my invention, possesses one great advantage over any other that I am familiar with, except hemp packing, in that the strands of which it is composed may be readily separated so as to form a packing for very small joints, or they may be combined to make a rope or packing of any desired size or shape. The manipulation of this form of asbestos rope with water or sizing reduces its size and renders it more solid and compact than asbestos can be made by any other process, which is a great desideratum for heavy engines. The central strand may be saturated with a solution of India rubber which I find imparts a degree of elasticity which does not interfere with the solidity of the packing."

Infringement of the third claim, only, is alleged. Said claim is as follows:

"The asbestos-rope packing for steam joints, composed of a series of strands of asbestos, with a central core saturated with a solution of India rubber, as hereinbefore set forth."

The defenses are invalidity and noninfringement. In support of the defense of invalidity, the defendant introduced nine American patents and one British provisional specification. It is not necessary to refer to any of the patents in detail. They show that long before the date of the patent in suit the use of asbestos and India rubber in various forms, and with various solutions or coatings, for steam packing, was well known in the art; that, for this purpose, asbestos was coated, mixed, or otherwise combined with India rubber in solution, and with vulcanized or unvulcanized India rubber, and that such packing was made in the form of braid and ropes. The purposes for which the rubber was thus combined are not stated, but its utility is recognized, and various modes of combination are suggested in said patents.

Let us now inquire what object the patentee had in view, how he proposed to accomplish it, whether he succeeded, and whether he invented anything. The construction of the patent seems most suggestive in the disposition of the questions at issue. The patentee first refers to the previous uses of asbestos for packing, and explains that the objection thereto lies in the fact that a covering is required to prevent the strands from being rubbed away or disintegrated. The object of his invention was to dispense with the necessity of this covering, and the manner in which this result was to be secured is fully explained by him, and embraces an ingenious adaptation of certain familiar processes of manipulation to the development of certain peculiar properties of the asbestos. He first describes the manufacture claimed as consisting of an asbestos rope having the ordinarily projecting fibers laid longitudi-

nally flat, and the interstices between the strands built up even with the outside surfaces by an asbestos paste. The process is next described as consisting in the method by which said outside surface is built up, and said strands are tied together. The patentee states that these results are accomplished as will be thereafter more fully explained, and that his invention further consists in the details thereafter described and claimed. About 150 lines of the specification are then devoted to explaining the details of the treatment and material employed, by means of which the outer surface of the asbestos rope is felted or cemented, by a film or membranous coating of considerable strength when subjected to pressure. At the close of this description of the details of his alleged invention, the patentee describes the advantages of his packing over others. Finally, he adds: "The central strand may be saturated with a solution of India rubber, which I find imparts a degree of elasticity which does not interfere with the solidity of the packing."

This is the first suggestion of India rubber in the whole patent. In the description of the details of the alleged invention, the preferable process in forming a rope is stated to be by the use of strands twisted around a strong central strand of hemp, asbestos, or other material. This is the only suggestion concerning the interior construction of the rope, and it makes no reference to the use of any sticky solution or coating, or to the desirability of having the outer strands adhere to such core.

I have thus reviewed the statements contained in the patent, because of the contention of complainant's counsel "that the inventor intended to claim the specific feature of having the central strand of asbestos rope packing saturated with India rubber, which is a distinct improvement, of itself, independent of and unaffected by the presence of the improvement of the other claims." And complainant's expert says that the invention set forth in the third claim consists of an asbestos rope packing "composed of a series of strands laid around a central core saturated with a solution of India rubber or equivalent material, so that the solution contained in the core will partially secure the strands to it by the adhesiveness of the solution," etc. I cannot thus interpret this patent. It seems to me that its whole language, taken together, clearly indicates that it is for an asbestos rope to be held together from the outside, not from the inside, and that the theory suggested by complainant's expert and counsel does violence to the whole construction of the patent. The court would not be justified in enlarging the scope of the claim so as to cover an invention not specified on its face. *Wollensak v. Sargent*, 151 U. S. 221, 14 Sup. Ct. 291; *Day v. Railroad Co.*, 132 U. S. 98, 102, 10 Sup. Ct. 11. The patentee describes a covering to replace other coverings. The drawings of the patent show that the strands are to be protected from outside pressure. The means described is external manipulation. There is no suggestion of the use of India rubber, except to impart a degree of elasticity. It does not appear that its adhesive quality is recognized, or desired to be utilized. If such quality, so applied,

were patentable, in view of the prior art, it should have been covered by the claims of the patent. *Grant v. Walter*, 148 U. S. 547, 554, 13 Sup. Ct. 699.

The failure of the patentee to refer to the rubber solution, when, in describing the details of his invention, he explained the construction of the central strand; the omission of the suggestion until after the detailed description had been completed; the language in which the use of the solution is suggested,—all seem to support the view that the patentee did not intend to claim the saturation with India rubber as a part of his alleged invention. It may well be that, in view of the state of the art, with which he must not only be assumed to be, but was in fact, familiar, as shown by his disclaimer, he realized that such use of an India rubber solution was well known in the art, and did not involve invention. The failure of the patentee to state all the objects or results of such saturation does not interfere with his claiming such use, provided it is patentable. A patentee is entitled to all the uses for which his invention may be beneficially employed, and this rule equally applies to the construction of the patents introduced by defendant. *Pfeifer v. Dixon-Woods Co.*, 5 C. C. A. 148, 55 Fed. 390; *Roberts v. Ryer*, 91 U. S. 150; *Rob. Pat.* § 514. But the lack of any such statement in said specification, in connection with the other circumstances already noted especially in view of the fullness with which the objects and results of the external manipulation are stated, seems to indicate that he did not rely upon this solution as an essential element in his process or manufacture, but merely as an incidental feature which might be used in connection with his alleged invention, as it had been previously used in connection with other processes, and which would not interfere with its practical operation, by reason of the elasticity of the rubber. In other words, the patentee may be conceived of as saying: "While the elasticity of rubber might be supposed to interfere with the solidity of my packing, and to cause it to disintegrate, I find that its elasticity is not sufficient in degree to prevent its use as stated."

In the interpretation of a doubtful patent, it may be helpful to apply some of the recognized rules for the interpretation of the ambiguities of other contracts. It is true that, in the case of a patent, one party to the contract (the public) is represented by the imaginary mechanic, skilled in the art; but, bearing this in mind, the ordinary rules of construction and interpretation may be applied, in determining the question of the intention of the parties. The considerations already suggested show a statement by the patentee of the objections attendant upon the external coverings known in the art; a process designed to obviate those objections by means of external manipulation; a statement of the results thus accomplished. It must be presumed that it was the intention of the patentee to supply this need, and of the patent office to contract that he should be protected in the provision of means therefor, assuming a sufficient consideration by way of invention to support such contract. The public must have intended to be bound by such contract only within the scope specified and claimed by the

inventor. To extend its scope beyond such limitations to embrace a distinct invention, depending upon qualities in the material and operations in the process not suggested or described, would operate to create a contract not intended or made, to grant an unwarrantable right to the patentee, and to inflict a monopoly upon the public, without sufficient consideration, and against its consent. It is settled that distinct and formal claims are necessary to ascertain the scope of the invention. *Grant v. Walter*, supra; *Merrill v. Yeomans*, 94 U. S. 568; *Western Electric Manuf'g Co. v. Ansonia Brass & Copper Co.*, 114 U. S. 447, 5 Sup. Ct. 941. The extent of the claim, and the objects contemplated by the patentee, are to be determined by the drawings and specifications. *Lace Co. v. Schaefer*, 1 U. S. App. 118, 120, 1 C. C. A. 488, 50 Fed. 106.

Finally,—although, in view of the conclusions reached, this suggestion may be immaterial,—it is questionable whether the alleged description of the process of saturation with a solution of India rubber, assuming it to be new in the art, is sufficiently definite to enable a person skilled in the art to understand how it is to be effected so as to secure the advantages claimed by complainant. *Howard v. Stove Works*, 150 U. S. 164, 14 Sup. Ct. 68; *Kilbourne v. W. Bingham Co.*, 1 C. C. A. 617, 50 Fed. 697; *Western Electric Manuf'g Co. v. Ansonia Brass & Copper Co.*, 114 U. S. 447, 452, 5 Sup. Ct. 941.

Counsel for complainant, in support of the construction of the patent contended for by him, argues that the third claim must be restricted to a packing having a central core saturated with a solution of India rubber,—thus excluding all external treatment described in the specification,—and assigns the following reasons, namely: That such saturated central strand is a distinct improvement, by itself; that it is useful without the external treatment; that the claim omits all reference to such external treatment. If the specification described an asbestos rope packing consisting of the combination of such central core and external covering, either element of such combination might be protected by a separate claim, even though said element, alone, might not be capable of useful operation. *Roberts v. Nail Co.*, 53 Fed. 916; *Pfeifer v. Dixon-Woods Co.*, 5 C. C. A. 148, 55 Fed. 394. But the general answer to this argument is suggested by the construction already given to the patent. The specification describes no such central core as a separate and distinct invention, and no such combination. There is nowhere any suggestion of any construction which does not include the external treatment,—in fact, no suggestion of any essential construction, process, or operation, except the external one, or as embraced therein. The third claim is for the packing composed of strands of asbestos, with a saturated central core, as “hereinbefore set forth.” These words are clearly words of limitation, and they refer back to the descriptive specification for qualification of such general statement by what is therein specifically described. *Electric Light Co. v. Westinghouse*, 55 Fed. 498; *Van Marter v. Miller*, 15 Blatchf. 562, Fed. Cas. No. 16,863; *Snow v. Railroad Co.*, 121 U. S. 617, 7 Sup. Ct. 1343. While the court will uphold that which was

really invented, it will not enlarge the scope of the claim beyond what was allowed by the patent office. *Wollensak v. Sargent*, supra; *White v. Dunbar*, 119 U. S. 47, 7 Sup. Ct. 72; *Merrill v. Yeomans*, 94 U. S. 568; *Keystone Bridge Co. v. Phoenix Iron Co.*, 95 U. S. 274; *Manufacturing Co. v. Greenleaf*, 117 U. S. 554, 6 Sup. Ct. 846; *Brown v. Manufacturing Co.*, 6 C. C. A. 528, 57 Fed. 731, and cases cited.

Another view of the question is suggested by the state of the art. If the prior patents and specification introduced by defendants do not show a direct anticipation, they certainly tend to show that it did not require the exercise of the inventive faculty to use the means and processes therein described in the manner claimed to be covered by the third claim. Thus, *Cleghorn & Paterson*, in their British specification, describe asbestos previously converted into a sort of paper by mixing it with suitable fibrous, glutinous, or adhesive substances, and cut into strips of suitable breadth, and then show how said strips, with or without being first coated with a solution of India rubber, may be twisted into strands, and then these smaller strands may be twisted into a larger rope, either with or without a core of vulcanized or nonvulcanized India rubber, or of other suitable elastic or flexible material, so that one or more of these strands may be used for steam packing. The suggestions of complainant's counsel and expert as to this specification do not seem to seriously affect its bearing upon the claim of lack of patentable novelty. The chief objection urged is that, as nothing is said about vulcanizing the packing so as to include the coatings of India rubber upon said strips, these coatings, when forced into the completed packing, will be in contact, and that as it is a well-known fact that India rubber, before vulcanization, has the property of uniting with adjacent surfaces of India rubber, said strands, upon the application of pressure, would become so firmly cemented together as to be practically a solid mass of unvulcanized India rubber, with a large percentage of ground asbestos mixed therein. But the patentee nowhere suggests in his patent the vulcanization of India rubber; and, if said property is well known in the art, and the use of vulcanized rubber was well known, in this connection, to *Cleghorn & Paterson*, as appears from the references to it in their specification and in the patents cited, it could not involve the exercise of invention to use it when desirable. The further objection that the alleged weakness of such asbestos paper, as compared with fiber, would prevent the separation of the individual strands, is answered by the statement in the specification that such asbestos paper may be made of pulp mixed with "suitable fibrous, glutinous, or adhesive substances."

It does not seem necessary to decide whether, as is further suggested by complainant, the packing described in said British patent would or would not be practicable. Said patent describes a core of twisted strands of asbestos paper, coated with a solution of India rubber, having other twisted strands, twisted on to said central core in the form of a rope, with or without the use of said solution. A core of rubber or other suitable elastic or flexible material, or "an elastic or flexible core," may or may not be used. This

description so strikingly suggests the alleged invention covered by the third claim that it does not seem necessary to further comment upon it. It seems to justify the application of the well-settled rule that, "that which infringes, if later, anticipates, if earlier." *Miller v. Manufacturing Co.*, 151 U. S. 186, 14 Sup. Ct. 310; *Knapp v. Morss*, 150 U. S. 221, 228, 14 Sup. Ct. 81; *Grant v. Walter*, 148 U. S. 553, 13 Sup. Ct. 699; *Peters v. Manufacturing Co.*, 129 U. S. 530, 9 Sup. Ct. 389; *Heating Co. v. Burtis*, 121 U. S. 286, 7 Sup. Ct. 1034. The only proof of infringement is an exhibit of defendants' packing, and the testimony that defendants have used starch in their packing to keep together the outside strands and the inside core. An examination of the exhibit in connection with said testimony does not show that the defendants use the article of manufacture covered by the third claim. But, giving to this evidence the greatest possible weight, and assuming that starch is the equivalent of India rubber, it does not appear that defendants have done anything more than to twist asbestos, mixed with a glutinous or adhesive substance, into a rope. This was described in the British patent; and the mere fact that they may have chosen to retain the adhesive substance for the inner core, and to reject it from the outer core, would not affect their liability, whether such construction were or were not described in said British specification.

Let a decree be entered dismissing the bill.

BOWMAN v. DE GRAUW et al.

(Circuit Court, S. D. New York. March 26, 1894.)

1. PATENTS—NOVELTY—FASTENING STARS TO FLAGS.

There is no novelty in fastening stars to the opposite sides of a flag by a method which had previously been employed to fasten letters to blankets, patterns to embroidery, and patches to fabrics.

2. SAME.

The Bowman patent, No. 469,395, for an improvement in the method of making flags, is void for want of novelty.

This was a suit by Henry A. Bowman against Walter N. De Grauw and others for infringement of a patent.

Campbell, Hotchkiss & Reilly and J. E. Maynadier, for complainant.
R. B. McMaster, for defendants.

TOWNSEND, District Judge. The questions herein are presented by a bill in equity for the alleged infringement of letters patent No. 469,395, granted to complainant February 23, 1892, for improvements in the method of making flags. The defenses are anticipation and lack of patentable novelty. The object of the alleged invention was to provide a practical and economical mode of so affixing stars or other emblems to the opposite sides of the field of a flag that they should accurately correspond in their respective relations without requiring especial care on the part of the operator. This was accomplished by temporarily fastening emblems, such as stars, on the face of the field, and unformed blanks, sufficient to cover the corre-