The judgment will be reversed and the cause remanded to the District Court for further proceedings in conformity with this opinion.

Reversed.

SARANAC AUTOMATIC MACHINE CORPORATION *v.* WIREBOUNDS PATENTS COMPANY ET AL.

CERTIORARI TO THE CIRCUIT COURT OF APPEALS FOR THE SIXTH CIRCUIT.

No. 51. Argued January 13, 1931.—Decided February 24, 1931.

1. Patent No. 1,128,145 (Claim 25), granted to Inwood and Lavenberg, for mechanical means of holding in proper relative positions side pieces and step-mitered end cleats, preformed and separate, while joining them by stapling and wiring into a foldable box-blank,—*held* invalid for want of invention. P. 711.
2. The method of making the box-blanks out of separate, preformed pieces, suitably held for stapling and wiring, was involved in and disclosed by an earlier, and now expired, product patent to the same persons. P. 709.
3. The present patent (Claim 25) covers only a mechanical means, useful in pursuing that method but which did not in itself involve invention. It can not be construed as embracing the method, nor be given the effect of extending the monopoly, of the expired patent. P. 714.

37 F. (2d) 830, reversed.

CERTIORARI, 281 U. S. 711, to review a decree holding a patent valid and infringed and reversing a decree of the District Court, which adjudged otherwise, 24 F. (2d) 872.

Messrs. Howard M. Cox and *Amasa C. Paul* for petitioner.

Mr. Laurence A. Janney, with whom *Mr. Edward F. Dunne, Jr.,* was on the brief, for respondents.

MR. JUSTICE STONE delivered the opinion of the Court.

In this case certiorari was granted, 281 U. S. 711, to resolve a conflict of decision between circuit courts of appeals with respect to the validity of Claim 25 of Patent No. 1,128,145, granted February 9, 1915, application filed October 27, 1904, to Inwood and Lavenberg, for a machine for making box blanks. In the present suit, brought by respondents in the District Court for Western Michigan to enjoin infringement of this and other patents, the District Court held the patent "invalid if infringed," and entered a decree for petitioner, 24 F. (2d) 872, which the Court of Appeals for the Sixth Circuit reversed, holding Claim 25 valid and infringed. 37 F. (2d) 830. The Court of Appeals for the Seventh Circuit had held the patent invalid, *Wirebounds Patents Co.* v. *Gibbons Box Co.*, 25 F. (2d) 363, affirming a decree without opinion of the District Court for Northern Illinois.

The present suit was based on three patents, all issued to the same patentees: the machine patent, already referred to; No. 1,128,144, issued February 9, 1915, application filed October 14, 1904, for a "work holder," used in connection with the box blank machine; and No. 1,128,252, issued February 9, 1915, application filed April 21, 1914, for a method of making wirebound boxes. The first two were based upon co-pending applications filed in October, 1904, and the third upon a divisional application cut out of the work holder application. Typical claims are printed in the margin.[1] A fourth product patent, now

[1] *Machine Patent No. 1,128,145, Claim 25.* A machine for making box blanks comprising work-controlling means having cleat-positioning means to receive sectional cleats in parallel lines, and spacing means to space cleats endwise from each other in each line, preparatory to connecting said cleats in their spaced relation, said work-controlling means being arranged to receive side material to be secured

expired and only indirectly involved, was No. 799,854, issued to the same patentees September 19, 1905, application filed October 17, 1904 (reissued in 1907, No. 12,725), covering a specific form of box blank, which could be produced by the use of the machine and method patents, but also might be made without resort to either.

The court below, after pointing out that the three patents directly involved were all issued on the same day and will expire at the same time, and that there could be no commercially important infringement of any of the patents which did not infringe the machine patent, limited its decision to determining the validity and infringement of Claim 25 of that patent. It gave the usual decree for injunction and accounting with respect to this claim, and dismissed the bill as to the work holder and method patents, but with leave to counsel to apply for further consideration of any other claim of the patents in suit if deemed necessary to settle the controversy. No

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to said cleats; fastener applying means for securing binding means to the side material and cleats controlled by the work-controlling means; means for relatively feeding the work-controlling means and fastener applying mechanism for securing said binding means across the intervals between said spaced cleats to secure them together in their spaced relations to form a foldable blank.

Machine Patent No. 1,128,145, Claim 55. A machine for making box blanks comprising a plurality of groups of work-controlling means, each group for a separate individual side section of the box, and comprising means to support cleats and side material in coöperative relationship for being secured together to form a box side, and each group having means to support its cleats and side material in a relationship to enable the same to be folded coöperatively with corresponding portions of a side section controlled by another group; and means to secure wire binding to the respective side sections and to provide wires for connecting one section and another in foldable relationship.

Work holder Patent No. 1,128,144, Claim 6. Work-controlling means for use in the manufacture of wire bound boxes comprising, in combination, cleat-positioning means to receive a plurality of

such application was made; and it was conceded at the bar that the disposition here of the issues raised with respect to Claim 25 will be, for all practical purposes, determinative of the case.

By the teachings of the Inwood and Lavenberg patents, to which reference has been made, wirebound box blanks may be produced, consisting usually of four panels which may be conveniently folded and attached to box ends so as to form strong, light weight, commercially useful boxes. The blanks, before folding, comprise the panels of side material in straight edged sheets of thin wood or veneer, stapled, at each end, to cleats placed at right angles to the side material, the staples straddling reinforcing wire. The cleats, which have previously been step-mitered or bevelled, and which in practice are usually eight in number, one at each end of the four panels of side material, are fastened to the side material in such position with respect to it and to each other that, when the blank is folded, the reinforcing wires serve as hinges; the ends

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rows of cleats disposed substantially end to end; and cleat-spacing means relatively adjustable to suit individual cleats of different lengths to be received in said positioning means.

Method Patent No. 1,128,252, Claim 2. The method of making wirebound boxes having individual cleats and individual side pieces separated at the lateral corner edges of the completed box and connected by wires at said edges, which comprises assembling previously formed individual cleats with the separate previously formed side material for an individual side to provide a side unit of the box; assembling additional such side units to provide the other sides of the box; securing to the cleats of each side unit a wire binding extending completely across said unit; connecting said side units by said wire binding, while leaving the latter laterally flexible to accommodate relative shifting of the separate meeting edges of the pieces of side material, arranging said side units in box form; and completing the continuity of the wire binding; whereby relative longitudinal shifting of meeting edges of pieces of side material tends to bend the wire-binding out of normal alinement, and is resisted by the tensile strength of the wire.

of adjoining cleats engage; and the panels form the four sides of a box, with or without overlapping edges, as may be preferred.

Before Inwood and Lavenberg, the method of manufacturing box blanks, under the so-called Rosback patents, had been to form a blank of a single sheet of side material, stapled, at each of its two sides, to a single cleat. The rigid blank formed by this first step was then prepared for folding by a second and distinct mechanical procedure, in the course of which each of the cleats was cut into four separate cleats, step-mitered at their ends, and the single sheet of side material scored. The blank was then capable of being folded by bending the side material along the scored lines so that the adjacent ends of the cleats would meet. Before any of their applications, Inwood and Lavenberg appear to have devised a machine or work holder for holding in position, and fastening, pre-formed cleats to a single piece of side material; but that did not wholly eliminate the second part of the earlier procedure, by which the side material was scored before folding. The final step which brought them to their improved method was taken only when both cleats and side panels, assembled in position, were fastened into a foldable box blank by a single operation. The difference between the two methods was that the old taught the production of foldable relationships by cutting the rigid box blanks. Inwood and Lavenberg taught the new by assembling and fastening together the separate elements. Their method constituted an important advance over the old, which had not been commercially successful. The new, by the substitution of a single for a two-step procedure, saved the expense and inconvenience of double handling, and made it practicable to use cleats which could be preformed in quantities cheaply, and permitted the use for that purpose of short and otherwise waste pieces of lumber. It eliminated certain mechanical difficulties of the

old method of mitering and scoring the rigid blanks, and resulted in a product with fewer defects and which folded more easily than the forms produced by the earlier.

Numerous details of the new procedure had been taught by the prior art. The idea of folding wire- or metal-bound sides into a box was old. Averill (1900, No. 661,481) and Rosback (1898, No. 608,796) specifically taught the binding of the sides together with wire. Howenstine (1891, No. 453,479), Hamilton (1887, No. 373,828), and others had developed the idea of using pre-formed cleats attached or to be attached to a plurality of side sheets. Rosback had developed elaborate machines for step-mitering (1898, No. 609,630; 1899, No. 623,258); and for stapling box blanks (1898, No. 614,348; 1899, No. 630,303); and devices for feeding box blank material into the stapling machine (1899, No. 625,958, No. 636,068).

The conception of Inwood and Lavenberg which was new, was that the pre-formed cleats and side materials could be assembled and so positioned with reference to each other, that they could be stapled together to manufacture, in the single stapling operation, the finished product, the box blank ready for folding. This constituted an important advance over the use of the rigid box blanks in the two-step method of the prior art, which had been developed by Rosback. The new method had a large and immediate commercial success; and we assume, as the court below held, that it involved invention. See *The Barbed Wire Patent,* 143 U. S. 275, 283; *Krementz* v. *S. Cottle Co.,* 148 U. S. 556, 560; *Minerals Separation, Ltd.* v. *Hyde,* 242 U. S. 261.

This conception is that of the reissue (product) patent, held valid as a basic patent in *Wirebounds Patents Co.* v. *Chicago Mill & Lumber Co.,* 238 Fed. 929, and by the Seventh Circuit Court of Appeals in *Wirebounds Patents Co.* v. *Gibbons Box Co., supra.* As it has now expired, the public is free to use the new procedure of making

wirebound folding box blanks, so far as taught by that patent. The patent is for a product, an improved wirebound box blank, foldable into a box with overlapping sides. It describes the earlier two-step procedure by which the rigid box forms were first assembled and then, by a second separate step, prepared for folding by step-mitering the cleats and scoring the side material. The specification of the patent is: "Our invention relates to certain improvements in wirebound boxes, especially of that class in which the blanks constituting the four sides of the box are assembled and secured in relative position to each other prior to folding by reinforcing wires, and has for its object the assembling and fastening together such parts constituting the completed blank so that the same when folded will produce overlapping edges of the side sheets." The drawings of the patent, which show a completed blank ready for folding, read with the specifications, indicate unmistakably that the advance, achieved by the improvement over the existing method of manufacturing box blanks, was in the process by which the product of the patent could be made by assembling and positioning pre-formed cleats and sides, so spaced that, when stapled, they will fold to form the four sides of a box.

Thus this patent completely discloses the invention of Inwood and Lavenberg and the advance which it made over the prior art. It taught all that was disclosed by their method patent, for the method claimed is but the process of the now expired reissue patent resulting in the product of the patent. As only the validity and infringement of the machine patent are now before us, it is unnecessary to consider whether, for the reason just stated, the later method patent is invalid, although granted on a co-pending application, as was held in *Mosler Safe & Lock Co.* v. *Mosler,* 127 U. S. 354, 361, or whether it is invalid

because of the delay in filing the divisional application, as was held by the District Court below.

All else embodied in the machine and work holder patents, we think, involved not invention, but the application of mechanical skill to the solution of the problem of devising suitable mechanical means for the manufacture of foldable box blanks by the process or method disclosed by the reissue patent.

The prior art had taught how to construct a machine which would fasten with staples the elements of the box blank of the reissue patent. That of Rosback, No. 614,348 and No. 625,958, used for stapling the rigid box forms of the earlier art, consisted of a stapler, stationary guides for directing the sheets and cleats, and an endless chain with attached pushers for feeding the materials along the guides to the stapler. Once it became apparent that an improved method could be employed in manufacturing the completed box blank by assembling all its pre-formed elements and holding them in their appropriate relative positions while they were being fed through a stapling machine, it was equally apparent that the new method could be used only by resort to some appropriate mechanical means for holding the elements of the blank in position until fastened. But the solution of that problem was, we think, obvious, involving only the adaptation of familiar mechanical means for holding cleats and sides in place, and requiring no more than the mechanical skill of the calling. That, we conclude, was all Inwood and Lavenberg achieved by their work holder and machine patents; and it is all that petitioner has done in the adaptation of the Rosback machine which it employs in the use of the method which it is now free to make.

The work holder patent describes and claims a portable work holder, embracing two parallel channels in which are placed the pre-formed cleats, their ends engaging space

blocks of such size, shape, and location as to hold the cleats in appropriate position. The box sides, resting upon the cleats so engaged, are positioned by the space blocks and held in place by clamps. The work holder, with the assembled elements of the box blank thus held in position, is then passed through the stapling machine, which staples together wire, sides, and cleats. Claim 25 of the machine patent, it will be observed, relates only to cleat treatment. The mechanism which it claims could be operated to make box blanks having multiple preformed cleats and a single piece of side material. It obviously would not, without some modification, hold both cleats and separate side panels in appropriate relative positions for stapling, and so could not be used for making boxes by the improved method. As other claims of the machine patent may be taken to supply this deficiency, we assume, for present purposes, that Claim 25, with others of the machine patent, is broad enough to embrace the essential elements of the work holder, and that the work holder is an exemplification of them. The machine patent, aside from the work controlling means, consists generally of a stapling head surmounting a table with feed roller mechanism for pushing the work holder under the stapler.

We think that the machine and work holder patents, read separately or together, apart from such disclosure as they make of the process or method of the reissue patent, disclose only the results of the application of mechanical skill to the development of a convenient mechanism for using the method. Petitioner, by the adaptation of the Rosback machine which it uses to produce the box blank of the reissue patent, has done no more. It has increased the number of pushers to that required for the desired number of assembled separate elements—cleats and side material. The pushers are spaced at appropriate distances and used in conjunction with a detent or "hold back," so that, by the co-operation of the pushers

and hold back, cleats and side material are held in appropriate positional relationship as they pass under the stapler. By this multiplication of pushers, the Rosback machine did for each panel only what it had previously done for the single rigid box blank. In making the latter, as well as the former, the pushers performed a positioning function, a fact which, alone, challenges the patentability of respondents' machine claim. With the old blank, as well as the new, the pushers could not be placed at random, and cleats and side materials both had to be brought into appropriate relative positions. Moreover, the spacing of the panels with reference to each other in box- or crate-making machines of the Rosback type, by the use of a plurality of spaced pushers on the same endless feed chain, was old. Such an arrangement, where the pushers performed this positioning function, is shown in Greenstreet (1895, No. 547,486; 1897, No. 579,574); and Lipps & Springer (1905, No. 801,998).

The pushers and hold back, like the channels and space blocks of the work holder, are familiar mechanical means for holding materials in position while work is being done upon them. Given the method of the reissue patent, failure to adapt these obvious means to the solution of the problem in hand would, we think, have evidenced a want of ordinary mechanical skill and familiarity with them. Their adaptation to the new use was not the creative work of the inventive faculty. It was "but the display of the expected skill of the calling, and involves only the exercise of the ordinary faculties of reasoning upon the materials supplied by a special knowledge, and the facility of manipulation which results from its habitual and intelligent practice." *Hollister* v. *Benedict Mfg. Co.,* 113 U. S. 59, 72, 73; *Concrete Appliances Co.* v. *Gomery,* 269 U. S. 177; *Aron* v. *Manhattan Ry. Co.,* 132 U. S. 84, 90.

The court below upheld the validity of the machine patent because it had contributed to the market success of the product, which could not have been attained with-

out an automatic machine for its manufacture, and because it thought that the "dominating new result" was to be found in the combination of machine elements. In considering the objection that the machine patent did not involve invention, it said, p. 836:

"It has been suggested that the disclosure made by the method patent left no room for invention in the machine patent. This suggestion cannot be of force, since the patents were copending and one is not prior art as against the other, even if they had not both been issued on the same day. . . . If by the suggestion it is meant that the primary thought was in the method and that little or no invention was needed to make a machine, once the method had been conceived, that may be true; but that cannot militate against the validity of the machine patent when the two are practically simultaneous, for in such case the concept involved in the method is an important and perhaps a vital part of the machine invention. The concept which underlies and precedes the machine may or may not involve an independently patentable method; in either event alike the machine is patentable."

But this, we think, does not meet the objection, which, more precisely stated, is that the machine and work holder patents, fairly read, do not embrace a patent for the dominating new result, the process of the reissue patent, but are patents for a particular combination of mechanical means, useful, as is that of petitioner, in availing of the process, but which, as we have said, does not involve invention. That the new result is not so embraced is apparent from respondents' insistence, to establish the seniority of the machine invention over that shown by the reissue patent, upon the early use, to which we have referred, of the Inwood and Lavenberg machine for stapling a plurality of pre-mitered cleats to a single piece of side material. But such use of the machine invention did not

disclose or involve the conception of the reissue patent of producing foldable relationships in one step, which, as we have said, is the new result.

The machine and work holder patents describe and claim only a combination of mechanical elements enumerated and arranged as stated in Claim 25, as we have construed it. This combination, which had been found suitable for manufacturing blanks with a plurality of pre-formed cleats and a single piece of side material, was suitable for using the process of the reissue patent, as is the combination used by petitioner. Such possibilities of use might be spelled out of the machine and work holder patents by one skilled in the art and familiar with the process described in the reissue patent. But nowhere do they describe or claim, as the invention of the patent, the new method or procedure of Inwood and Lavenberg, which was their improvement on the prior art. That is told in full in the reissue patent, and it is there that the dominating new result appears. Obviously, from what we have said, if the method concept which underlay and preceded the machine had not been independently patentable, the machine could not have been. For the same reasons, the machine cannot be patentable merely because it is capable of use in applying a conception independently patentable.

The question therefore is not one of reliance upon the prior art of the reissue patent as against a co-pending patent, or of double patenting, or of the overlapping of specific and generic patents. It is the attempted extension of the monopoly of the expired reissue patent in Inwood and Lavenberg's invention by resort to the machine patent, and to the work holder from which the described invention had been subtracted by division, and which cover, not the invention of the reissue patent, but a mechanical device which does not involve invention.

Reversed.