

Statement of the Case.

the implied power to issue bonds therefor, especially where, as in the present case, special provisions were made for paying the subscription by taxation.

Our views as to the proper construction of the general laws of Tennessee, Code of Tennessee, §§ 1142 to 1161, have been fully expressed in the case of *Kelley v. Town of Milan*, just decided.

It is further contended for the plaintiff in error, that this court should, in any event, hold the town liable as upon non-negotiable bonds or notes, treating the issue of the negotiable bonds as an excess of authority only, and not invalidating the loan, with interest, as agreed upon. It is a sufficient answer to this proposition to say that this suit is brought solely for a recovery upon the bonds and coupons, and no question growing out of the liability of the town for the subscription to the stock can be inquired into in this suit.

The judgment of the Circuit Court is affirmed.

FORNCROOK v. ROOT.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR
THE NORTHERN DISTRICT OF OHIO.

No. 225. Argued April 13, 1888. — Decided April 23, 1888.

Letters-patent No. 243,674, granted to James Forncrook, June 28, 1881, for an "improvement in sectional honey-frames," on an application filed May 13, 1879, are invalid, for want of novelty.

The claim of the patent, namely, "As a new article of manufacture, a blank for honey-frames formed of a single piece of wood, having transverse angular grooves *c*, longitudinal groove *d*, and recesses *b*, all arranged in the manner shown and described," is not infringed by a blank which does not contain the longitudinal groove, or any substitute or equivalent for it.

IN EQUITY to restrain alleged infringements of letters-patent. Decree dismissing the bill. Complainant appealed. The case is stated in the opinion of the court.

Opinion of the Court.

Mr. William P. Wells for appellant.

Mr. M. D. Leggett and *Mr. J. A. Osborne* for appellee.

MR. JUSTICE BLATCHFORD delivered the opinion of the court.

This is a suit in equity, brought in the Circuit Court of the United States for the Northern District of Ohio, by James Forncrook against Amos I. Root, for the infringement of letters-patent of the United States, No. 243,674, granted to the plaintiff, June 28, 1881, for an "improvement in sectional honey-frames," on an application filed May 13, 1879.

The specification, claim, and drawings of the patent, are as follows:

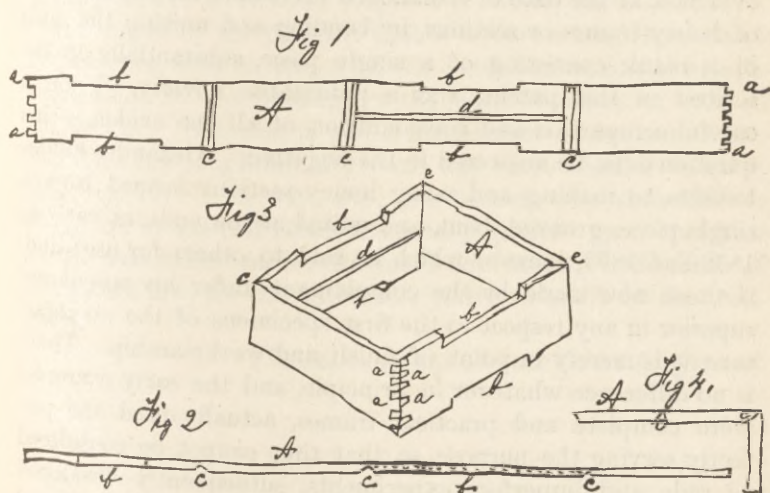
"Be it known that I, James Forncrook, of Watertown, in the county of Jefferson and State of Wisconsin, have invented certain new and useful improvements in sectional honey-frames, and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification. This invention relates to an improvement in sectional honey-frames, the object being to so construct them that they shall be stronger and in a more portable form than the frames now used for such purposes; and the invention consists essentially in forming the frames from a single blank or piece of material having all the necessary grooves and recesses required to form a complete frame cut in it, the ends of the blank being notched or dentated, and angular grooves cut across it at those points which are to form the corners. These blanks, after being thus prepared, may be packed solidly in boxes, or otherwise, for transportation, and, when required for use, are bent into the square forms, and their ends united at one of the corners, by means of the interlocking notches or teeth, thus forming a complete frame ready for use. In the drawings, Fig. 1 is a plan of one of the blanks, showing the various recesses and grooves with which it is sup-

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plied. Fig. 2 is an edge view of the blank, and shows the form and depth of the angular grooves which form the corners of the frame. Fig. 3 shows the blank bent into a square form, with the ends united, making a complete frame ready for use. Fig. 4 shows a modification of the groove or mitre *c*, Fig. 2. The blanks for these frames are preferably formed from some light, tasteless, and comparatively tough wood, which will bend at the corners without steaming or boiling, such as bass wood or white wood, the material being produced by cutting it from the log in the form of a thick veneer, or by sawing into thin stuff and then planing both surfaces. The blanks *A* are then cut from this material, of the proper width and length, the ends dentated, as shown at *a a*, by means of a series of circular saws placed close together upon an arbor or other suitable tool, so that they will interlock when brought together. The recesses *b b* are then formed in its edges, at such points in its length as will bring them at the top and bottom of the frames when set up in the hive. These recesses form openings which allow space for the passage of the bees between the frame, and for the ventilation of this part of the hive. Three triangular grooves *c c c* are then cut across the blank at such points in its length as will divide it into four nearly equal parts, each of which forms one side of the frame after the blank is bent into a quadrangular shape. These triangular grooves are cut nearly through the blank, sufficient wood only being left to hold the parts firmly together. As the sides of the grooves *c* are inclined toward each other at a right angle, it follows that, when the blank is bent into the form of a frame, these grooves make perfectly fitting interjoints at three of its corners, the fourth corner being that at which the ends of the blank are united to each other by means of the interlocking teeth formed thereon. In one of these spaces, between two of the grooves *c*, and preferably that which will form the top of the frame when placed in the hive, is formed a longitudinal groove, *d*, for the guide-strip, which makes a secure point of attachment for the comb, when the bees begin to build in the frames set side by side in the hive, with the parts of the frame containing the recesses *b b* at top. These

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frames meet a want long felt by bee keepers, as those in common use are either dovetailed or nailed together at the corners, and, if set up at the manufactory, form a large bulk for transportation, and are very liable to breakage in handling; but, if sold to the user in pieces, to be put together by him, the numerous joints to be made cause loss of time and produce a very fragile article when finished, which loses its rectangular shape with the slightest rough usage, as the joints at the corners lack the necessary strength and rigidity to hold them in shape. My frame will be found to possess none of the above named defects, as it is intended for transportation in solid packages before being set up, and, when set up, possesses great strength and rigidity, preserving its form without difficulty during all the rough handling to which such frames are frequently subjected. Having thus described my invention, I claim as new, and desire to secure by letters-patent, the following: As a new article of manufacture, a blank for honey-frames formed of a single piece of wood, having transverse angular grooves *c*, longitudinal groove *d*, and recesses *b*, all arranged in the manner shown and described."



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The answer sets up as defences non-infringement and want of novelty. After issue joined, proofs were taken on both sides, and the Circuit Court, on a hearing, dismissed the bill. Its decision is reported in 21 Fed. Rep. 328.

The plaintiff does not carry his invention further back than the summer or late spring of 1877. The answer sets up that the same invention as that patented was known to Alexander Fiddes, who resides at Centralia, in the State of Illinois, as early as May or June, 1873.

The Circuit Court, in its decision, said, that if the patentee was entitled to claim the blank for honey-frames as a new and useful device, it was because it is a constituent of the frame or section into which it is formed by bending, no matter who bends it, whether the maker or the purchaser for use; and that, if the state of the art at the date of the alleged invention was such that the patentee could not claim as his invention the honey-frame or section when formed by bending and uniting the ends of such a frame, he, for the same reason, could not claim as his invention such a blank for the purpose of forming it into a frame or a section. The opinion then proceeded: "The question, therefore, is whether, upon the evidence, at the date of the alleged invention, the manufacture of honey-frames or sections, by bending and uniting the ends of a blank consisting of a single piece, substantially as described in this patent, was a patentable novelty. Upon a careful comparison and consideration of all the evidence this question must be answered in the negative. Alexander Fiddes testifies to making and using honey sections formed from a single piece, grooved, bent, and united at the ends, as early as 1872 and 1873, some of which he sold to others for use; and, if those now made by the complainant under his patent are superior in any respect to the first specimens of the manufacture, it is merely in point of finish and workmanship. There is no difference whatever in principle, and the early examples were complete and practical frames, actually used and perfectly serving the purpose, so that they cannot be considered as rude and imperfect experiments, subsequently developed into a successful manufacture." We concur in these views of the Circuit Court.

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In addition to this, the claim of the patent is as follows: "As a new article of manufacture, a blank for honey-frames formed of a single piece of wood, having transverse angular grooves *c*, longitudinal groove *d*, and recesses *b*, all arranged in the manner shown and described." The description in the specification states that "the invention consists, essentially, in forming the frame from a single blank or piece of material having all the necessary grooves and recesses required to form a complete frame cut in it." It also says, that "in the drawings, Fig. 1 is a plan of one of the blanks, showing the various recesses and grooves with which it is supplied." One of those grooves is the longitudinal groove *d*. The description further says: "In one of these spaces, between two of the grooves *c*, is formed a longitudinal groove, *d*, for the guide strip, which makes a secure point of attachment for the comb, when the bees begin to build in the frames, set side by side in the hive, with the parts of the frame containing the recesses *b b* at the top." Thus, the longitudinal groove *d* is made by the patentee a necessary element in the structure. The defendant's structure has no longitudinal groove, and no substitute or equivalent for it. *Fay v. Cordesman*, 109 U. S. 408; *Yale Lock Co. v. Sargent*, 117 U. S. 373; *Dryfoos v. Wiese*, 124 U. S. 32.

It is urged by the plaintiff that it is shown that the defendant's section is to be used with the comb foundation or attachment made by the putting, by the user, of pieces of wax on the section. But this is not a mechanical equivalent in the blank for the longitudinal groove, any more than, in *Gage v. Herring*, 107 U. S. 640, 648, the person who shovelled or swept up, by manual labor, the meal deposited upon the floor of the dust-room, was a mechanical equivalent, in the sense of the patent law, for the automatic conveyor shaft in the dust-room.

The decree of the Circuit Court is affirmed.