

NATIONAL SHEET-METAL ROOFING CO. V. GARWOOD.

*Circuit Court, D. New Jersey.*

April 30, 1888.

PATENTS FOR INVENTIONS—PATENTABILITY—INVENTION—METAL SHINGLES.

Letters patent No. 189,115, issued April 3, 1877, for improvement in sheet-metal shingles, consists of a metallic sheet shingle, being a plate bent upward at one edge and downward at the other, to form plain, hollow ribs to interlock and form a joint, and having a central hollow hood or rib, the plan of laying them being so as to begin the second course with a half shingle, and following with full ones, the central rib of the second course receiving the seam of the course below, thus breaking joints as ordinary shingles. There were many prior patents for earthenware and metal tiles or shingles, all having the interlocking side edge, the central rib, and plan of breaking joints appearing in all the tiles, but no metallic shingle combined entirely both features, although one patent of a metallic shingle had the feature of breaking joints, the upper course protecting the heads of the seams of the lower by a central cap at the lower end of the shingle. *Held*, that plaintiffs shingle was not an invention, but the combination of known contrivances for the same purposes with the substitution of different materials.

In Equity. Injunction to restrain infringement of patent.

Bill by the National Sheet-Metal Roofing Company against John T. Garwood to restrain infringement of a patent for metal shingles.

*Duncan, Curtis & Page*, for complainant.

*F. C. Lowthorp, Jr.*, for defendant.

WALES, J. This is a suit brought for the infringement of letters patent No. 189,115, issued to Edward Locher and Christian Knispel, April 3, 1877, for improvement in sheet-metal shingles. The complainant became owner of the patent by purchase and assignment. The specification states the object of the invention to be “a metallic shingle which is durable, comparatively light, and can be cheaply and easily manufactured and applied.”

“Figure 1” [of the accompanying drawing] “is a perspective view, showing a roof constructed from the improved shingles. Figures 2, 3, 4, 5, 6 and 7, plan and edge views of the shingle, showing different forms. The shingle consists of a metal plate, T, having at one or both edges ribs, A, C. B represents a small tag with a rib which fits over a corresponding rib of the plate, T, as hereafter described. *E* is a raised rib, midway between the ribs, A, C, of the plate, T. The ribs, A, are formed by bending the edges of plates to curl upward, and the ribs, C, by bending the edges downward, and these ribs, C, are made slightly larger than the ribs, A, so that the latter may slide easily, and fit snugly into the larger ribs, C. The rib of the tag, B, slides over the smaller rib, A, and the flat part is nailed down to the roof or rafters, and prevents the slipping of the plates. The shingle, T,—Fig. 3,—intended for the bottom of the roof or lower course, need have no central rib, D, and the side shingles, T”,—Figs. 2 and 4,—need have but one rib, the opposite side being plain, so as to facilitate bending it down and nailing to the edge of the roof, as shown in Fig. 1.

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“The shingles, T, are placed on the lower course, the smaller hollow rib, A, of each shingle being slipped into the larger rib, C, of the next shingle. In applying the next course, the side half shingle, T”, is first seamed, and then the shingles, T, successively, in the same manner as the first row, the hollow

ribs, D, receiving the ribs of the course below, so that the joints of the shingles in each row are midway between those of the other rows, permitting the desirable alternate arrangement common with ordinary shingles.”

The claim is for “the within described shingle, consisting of a metallic plate bent upward at one edge and downward at the other, to form plain hollow ribs, A, C, and having a central hollow rib, D, as set forth.” Although the specifications and drawings describe and show three forms of shingles,—one adapted for the lower layer of the roof, which does not require means for “breaking joints” with a layer below, and another adapted to form the ends of any course across the roof,—yet the patent claims only the third form, namely, those shown in the central joint of the two upper courses of Fig. 1 and Fig. 6 of the drawings. These shingles are designated by the letter, T, and are provided with a central rib or hood located at the bottom of the shingle and designated by D, which is the shingle of an upper course, fits over and receives the upward projecting seam or joint formed by interlocking the side edges, A and C, of two contiguous shingles of the next lower course, as seen in Fig. 1.

The defenses are two: want of invention, and non-infringement.

The testimony on both sides is almost entirely expert in its character, and consists mostly in explanations of various constructions described in prior letters patent, and in pointing out differences and resemblances between the same, and comparing them with the Locher and Knispel patent. The defendant’s exhibits show no less than eight different styles or kinds of roofing tiles or shingles made of earthenware or metal, for which letters patent were issued to their respective inventors prior to the date of the complainant’s patent. It is perfectly clear that these inventors had constructed sheet-metal plates with interlocking side edges; and it is equally clear that the centrally located hood, answering to the rib or hood, D, in the complainant’s patent, appears in all of the tile shingles; but the complainant contends that, up to the date of the Locher and Knispel patent, no sheet-metal shingle had been invented which combined the twofold capacity of the interlocking side seams with the central hood and the “breaking of joints,” and that this combination was useful and patentable. On the other hand, the defense claims that the Locher and Knispel shingle presents merely an aggregation of old parts, without any modification or new effect. It is admitted that the interlocking of side edges of metal shingles was old, but that the joints thus made extended unbroken from the peak to the eaves of a roof; nor is it denied that tile shingles had been made which broke joints, and had the central hood or rib. In defendant’s exhibit, Graessle patent, dated December 11, 1855, is shown a roof composed of tiles laid alternately so as to break joints. The right hand side of each tile has on its upper surface two parallel ridges running vertically, while the left-hand side of the tile is moulded into a downwardly curved form. When placed in position, this curved edge on the left-hand side of one tile fits into the gutter lying between the two

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raised ridges on the right-hand side of the adjacent tile. On the lower end of each tile is a centrally located hood or pocket into, which fits the head of the joint or seam between two contiguous

tiles in the row below. The seam or joint is thus protected, and the descending water cannot enter. Cook's patent of November 12, 1867, Hughes' patent of December 5, 1871, and Weybrecht's patent of May 5, 1874, show roofing tiles embodying the same elements, and operating in the same general way, with the side edges joined and curved at their upper joints by a cap or hood centrally located in the lower ends of the tiles in the course next above. That these tiles are widely different in material and process of manufacture from the sheet metal-shingles of Locher and Knispel cannot affect the novelty of the contrivance, since the substitution of one material for another, in such a case, would not be material. *Hotchkiss v. Greenwood*, 11 How. 248; *Hicks v. Kelsey*, 18 Wall. 670; *Terhune v. Phillips*, 99 U. S. 592. Nor does it make any difference that the manufacture of tiles falls under a distinct art from that of making sheet metal shingles. But even if this were so, the Gateau patent of January 6, 1874, shows sheet-metal shingles constructed in such manner that when laid on a roof they break joints, and the upper courses protect the heads of the seams in the lower courses. The sides of the Gateau shingles are corrugated, and lap one over the other, and each has a central cavity or cap at its lower end for covering the seams or joints of the underlying courses. With so much and from these prior inventions it could have required nothing more than the exercise of mechanical skill to make the Locher and Knispel shingle. No new idea was presented in its construction, nor was the inventive faculty called into requisition.

The complainant's shingle may perhaps be made more cheaply than the others, but that advantage arises from a change of material and the adaptation of machinery to its manufacture, and does not impart to it the element of novelty, or make it a patentable combination. It cannot be said with any degree of confidence that the combination of old and well-known parts in the complainant's patent has produced a new result, or an old result in a better or more efficient way; and these are some of the principal tests of a patentable combination. *Hailes v. Van Warmer*, 20 Wall. 353; *Reckendorfer v. Faber*, 92 U. S. 347; *Pickering v. McCullough*, 104 U. S. 310; *Atlantic Works v. Brady*, 107 U. S. 192, 2 Sup. Ct. Rep. 225; *Slavism v. Railroad Co.*, 107 U. S. 649, 2 Sup. Ct. Rep. 663. In *Atlantic Works v. Brady*, *supra*, Mr. Justice BRADLEY said, in reference to the distinction between invention and mechanical skill:

"The process of development in manufactures creates a constant demand for new appliances, which the skill of ordinary head workmen and engineers is generally adequate to devise, and which, indeed, are the natural and proper outgrowth of such development. Each step forward prepares the way for the next, and each is usually taken by spontaneous trials and attempts in a hundred different places. To grant to a single party a monopoly of every slight advance made, except where the exercise of invention somewhat above ordinary mechanical or engineering skill is distinctly shown, is unjust in principle, and injurious in its consequences."

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These remarks may be applied to inoperative articles as well as to machinery. The Locher and Knispel shingle was in fact little more than an

imitation of pre-existing designs, and, where it departs or differs from what was already well known and used, the alteration is not of such character or importance as to establish a patentable invention. This conclusion dispenses with a consideration of the defense of non-infringement, and for the reasons assigned the complainant's patent cannot be sustained. The bill must therefore be dismissed.