baugh, 5 Iowa, 300; Wilson v. Coal Co., 43 Pa. St. 424, 427; Merrill v. Bank, 31 Me. 57; Came v. Brigham, 39 Me. 35; Milliken v. Whitehouse, 49 Me. 529.

The judgment below is affirmed, with costs.

GRISWOLD v. HARKER et al.

(Circuit Court of Appeals, Eighth Circuit. June 25, 1894.)

No. 373.

Patents—Limitation by Prior State of Art—Infringement—Waffle Irons. In the Selden and Griswold patent, No. 229,280, for an improvement in waffle irons, consisting in a construction of the hinge connecting the parts of the pan, whereby one of the pivots or journals on which the pan rotates forms part of the hinge, while the opposite pivot or journal is formed on the divided handle, so that the pan opens in the same plane with its axis of rotation, the claims for such hinge and journals or pivots are not restricted to the peculiar constructions described, either by the prior state of the art, or by patents describing various similar cooking utensils not provided with a hinge; and therefore those claims are infringed by the waffle iron described in the Harker and Williams patent, No. 277,422, the only variation in construction being the making of the hinge itself the journal. 55 Fed. 991, reversed.

Appeal from the Circuit Court of the United States for the District of Minnesota.

This was a suit by Matthew Griswold, doing business as the Griswold Manufacturing Company, against John B. Harker and F. M. Ruttan, doing business as John B. Harker & Co., for infringement of a patent. The circuit court dismissed the bill. 55 Fed. 991. Complainant appealed.

- J. C. Sturgeon (F. M. Catlin, on the brief), for appellant.
- A. C. Paul, for appellees.

Before CALDWELL and SANBORN, Circuit Judges, and THAYER, District Judge.

SANBORN, Circuit Judge. This is an appeal from a decree dismissing a bill brought by the appellant, Matthew Griswold, against the appellees, John B. Harker and F. M. Ruttan, for infringement of the first two claims of letters patent No. 229,280 to Selden and Griswold, issued June 29, 1880, for improvements in waffle irons. The claims are:

"(1) In a waffle iron, the hinge upon which the pan opens, provided with one of the journals or pivots on which the pan is rotated. (2) The journals or pivots on which the pan rotates, formed upon or connected, one with the hinge upon which the pan opens, and the other on the handle for rotating and opening said pan."

In their specifications the patentees say:

"In waffle irons, as ordinarily constructed, the hinge connecting the two parts of the pan has been made separate from the pivot on which the pan rotates, and located on one side of the pan, relatively to said pivot. Our improvement consists in a novel construction of the hinge connecting the two parts of the divided pan, whereby one of the pivots or journals on which

the pan rotates is made to form a part of said hinge, the hinge and pivot being thus brought together, while the opposite pivot or journal on which the pan rotates is formed on the divided handle, by means of which the pan is rotated, and by means of which, also, either portion of the pan which for the time being is uppermost is lifted for opening the pan. It further consists in a novel construction and arrangement of the socket in the rim or supporting ring for the reception of the hinge and pivot, whereby the tilting or dumping of the pan is prevented when the cover is raised, and in a novel manner of attaching the wooden handles, as hereinafter described."

The patentees then minutely describe all the parts of the waffle iron,—the supporting ring upon which the journals rest, and within which the pan rotates; the handle to this ring; the hinge, a part of which forms one journal for the pan; the other journal, which is formed by the divided handle, one-half of which is attached to each half of the pan opposite the journal formed with the hinge; the sockets in which the journals rest; the pin which limits the revolving movement of the pan; and the particular method in which they preferred to construct all the parts of the iron. They accomplish their purpose, of bringing the hinge and one of the pivots or journals on which the pan rotates together, by inserting the small end of a wedge-shaped block between the two inner lugs or ears formerly in common use to form the hinge of the pan, and running the pin of the hinge through it. They make this block project beyoud the socket provided for it in the supporting ring, and provide it with a head that prevents it from slipping through the socket to the inner side of the ring.

The waffle iron made and sold by the appellees is described in letters patent No. 277,422, May 8, 1883, to Harker and Williams. It is provided with divided handles which form one of the journals for the rotation of the pan, and the other journal is formed by the hinge which is on the side of the pan opposite the handles. Their pan opens in the same plane with its axis of rotation, and their construction remedies the same defects and accomplishes the same purposes as does the improved construction described in the patent to Selden and Griswold. The only variation from the construction of the improvements claimed by Selden and Griswold is that the appellees do not use the block inserted between the double lugs of the hinge and the socket in which it rests to form the hinge journal, but in lieu of this they extend beyond the supporting ring a single, semicylindrical lug from each half of the pan, pin these lugs together, and thus make the hinge itself the journal.

The court below dismissed the bill on the ground that the claims of the patent to Selden and Griswold must be restricted, in view of the prior state of the art, to the peculiar construction of the hinge formed with the journal, and the novel construction and arrangement of the socket described in the patent, and that the appellees did not infringe these claims, when thus construed.

The title of the appellant to this patent, and the utility of the invention it describes, are not contested in this court. A glance at the claims of the patent is sufficient to show that, unless they are restricted by the prior state of the art, the appellees are infringers. It was not the mere form of the hinge described in the patent in

suit that Selden and Griswold were seeking to claim. It was any hinge in a waffle iron which itself formed, or was provided with, one of the journals or pivots on which the pan was rotated. It was not a new hinge that they thought they had discovered or invented, but it was such an improvement in the construction of the waffle iron that the hinge could be placed in the same line with the axis of rotation of the pan, and at the same time perform the function of holding the two halves of the pan together at all times, and the further function of a journal for its rotation, while the handles attached to the pan opposite the hinge formed the other journal. It was the combination of the following essential elements that the patentees fairly described, claimed, and sought to secure by their patent: A hinge to the pan, located in the same plane with its axis of rotation; a hinge that would hold the two halves of the pan together continuously while it was peforming its functions; a hinge that was provided with a journal on which the pan might be turned; a handle to each half of the pan, located directly opposite to the hinge, and together forming another journal for the rotation of the pan. It is undoubtedly true that if the prior state of the art exhibits the combination of all these essential elements, except the peculiarly constructed hinge the patentees show, accomplishing substantially the same purpose which their improved construction brings about, then the claims of this patent must be restricted to the peculiar construction of this hinge. Stirrat v. Manufacturing Co., 61 Fed. 980. But the mere fact that the patentees' invention is but the combination of old ingredients or materials is no answer to the patent, for it is a general rule that a patentable invention may consist entirely in a new combination or arrangement of old or well-known ingredients or elements, provided a new and useful result is thereby attained. Thomson v. Bank, 10 U. S. App. 500, 509, 3 C. C. A. 518, 53 Fed. 250; Seymour v. Osborne, 11 Wall. 516, 542, 548; Gould v. Rees, 15 Wall, 187, 189.

The general rules governing the rights of patentees and inventors are now so well settled that they present but little difficulty, but the multiplication of patents to improvements, great and small, upon all classes of machines and implements, constantly presents the difficult question whether or not the claims of the patentees are so much broader than the actual invention they have made that those who are claimed to be infringers are authorized by the prior state of the art to use the machine or device they present, notwith-standing the patent. This is the question presented in this case. In other words, the question of infringement or noninfringement must be determined by the limitations placed upon this patent by the state of the art when it was issued. McCormick v. Talcott, 20 How. 402, 405.

Turning to the prior state of the art, as it is disclosed by the record before us, we find that prior to the invention of these patentees the two halves of the double pan of a waffle iron were hinged together by a pin passing through two lugs or ears that projected from each half of the pan. Pindles projected from the double pan,—on the sides of it, relatively to the hinge, and at right angles to

the plane in which the pan opened,—and these pindles were journaled upon a supporting ring or frame, in which the pan was suspended so that it could be turned upon the pindles. The pan was not provided with handles for turning it, but was made to rotate by pushing one side of it with a knife or some other utensil; and no pan of a waffle iron had ever been constructed, so far as this record discloses, which opened in the same plane with its axis of rotation, or which turned upon journals, one of which was connected with or formed the hinge, while the other was formed of the handles to the pan. In this state of the art the patentees made this invention. It is plain that there was nothing in the prior construction or use of waffle irons to restrict the claims of their patent.

But patents No. 24,024, dated May 17, 1859, to J. D. Harrington. for improvements in machines for roasting coffee; No. 27,176, dated February 14, 1860, to E. Webster, for improvements in revolving gridirons; No. 61,478, dated January 22, 1867, to E. J. Smith, for an improved cooking utensil; and No. 96,930, dated November 16, 1869, to Link and Curtiss, for an improvement in steak broilers, are pressed upon our attention as anticipations of this invention, or restrictions of the scope of this patent. In our opinion they do not have this effect. They do not describe waffle irons. They describe cooking utensils consisting of supporting rings and revolving parts composed of divided halves opening in the same planes of the axes of their rotation. Each half is provided with two semicylindrical stems on the opposite sides of the revolving parts; and these stems, when the utensils are closed, form the journals on which the revolving parts are supported, and rotated upon the rings or frames. But the sine qua non of a waffle iron is a hinge which will hold the divided halves of the pan continuously together during all the operations of opening, filling, emptying, and closing the pan, so that all these operations can be conveniently and quickly per-Such a hinge was a part of every waffle iron referred to in this record. Such a hinge, provided with a journal for the pan to turn upon, was an essential element of the combination claimed by Selden and Griswold. None of the utensils described in these anticipating patents have such a hinge. Not one of them is provided with any hinge at all. They are provided with different devices (such as a knob on the end of one of the stems, with a notch in it, into which the corresponding stem may be inserted when the utensil is closed,—patent No. 27,176, supra), by which the divided halves of the rotating parts are held together when they are closed; but the moment they are opened these halves become detached. and must again be attached to each other before they can be turned or operated. A waffle iron constructed on this principle would be useless. From such crude and hingeless utensils as these, or from the old, loosely-swinging waffle iron, without handles, and with its hinge on one side relatively to the pivots on which the pan was journaled, to the hinge provided with one of the journals on which the pan rotates, and the divided handles to the pan forming the other journal, so that the pan would open in the plane of its axis. and could be completely controlled by the handles at all times. shown by the patent to Selden and Griswold, was a notable step in advance,—a marked improvement; and, to those who made it, we think the quality of inventors ought not to be denied. Thomson v. Bank, 10 U. S. App. 512, 3 C. C. A. 518, 53 Fed. 250; Loom Co. v. Higgins, 105 U. S. 580, 591; Consolidated Safety-Valve Co. v. Crosby Steam-Gauge & Valve Co., 113 U. S. 157, 179, 5 Sup. Ct. 513; Magowan v. Packing Co., 141 U. S. 332, 341, 343, 12 Sup. Ct. 71; The Barbed-Wire Patent, 143 U. S. 275, 281, 283, 12 Sup. Ct. 443, 450.

This view is confirmed by the facts that the patent in suit was dated June 29, 1880; that one or both the patentees have ever since been continuously manufacturing and successfully selling the irons constructed under this patent; that one of the appellees was a partner for several years in a firm which purchased these irons of one or both of the patentees; and that we now find him and his partner manufacturing and selling, not the hingeless utensils shown by the patents they plead, nor the old waffle iron, without handles, and with its hinge on one side of the pan relatively to its pivots, but an iron which embodies the very improvements of the patentees, with the exception of the mere colorable evasion of making the hinge itself the journal, in place of inserting the journal in the hinge. Actions often speak louder, and frequently more truthfully, than words. It is not impossible that the reason why the appellees are not using the old devices they plead is that the improvements described in this patent have made them useless and unmerchantable. If this is not so, they can abandon the improvements of Selden and Griswold, and go back to the devices they plead.

In our opinion the first and second claims of the patent in suit are neither anticipated nor restricted by the prior state of the art, nor by the patents pleaded in the answer, and the appellees are

infringers of them.

The decree below is reversed, with costs, and the cause remanded, with directions to enter a decree in favor of the appellant for a perpetual injunction, damages, and costs.

LE FAVOUR v. RICE.

(Circuit Court of Appeals, First Circuit. April 26, 1894.)

No. 74.

- 1. Patents—Limitation of Claim—Boot and Shoe Shanks.

 In a patent claiming a boot and shoe shank, made of leather and steel, secured together by rivets, the specification stated that steel shanks were well known, but were objectionable, because almost certain to cut the parts against which they bear. Held, that the patent covered only a shank composed of two parts,—leather and steel, or their equivalents.
- 2. Same.

 The Rice patent, No. 68,652, for a boot and shoe shank, construed as limited by reference to the specification, and held not infringed.

In Error to the Circuit Court of the United States for the District of Massachusetts.