

sons already suggested, that it is not capable of vulcanization, and that it cannot be made into a plate by the process prescribed by Cummings. It may be conceded the patentee is protected against equivalents for any part of his invention. He would be, whether he had claimed them or not. But when a product arrived at by certain defined stages or processes is patented, only those things can be considered equivalents for the elements of the manufacture which perform the same function in substantially the same way. The same result may be reached by different processes, each of them patentable, and one process is not infringed by the use of any number of its stages less than all of them.

In view of these considerations, we are constrained to rule that a celluloid dental plate is not an infringement of the Cummings patent. Celluloid is not an equivalent for the material which the patent makes essential to the invention, and in the use of it for a dental plate, the process which is inseparable from the invention is not, and cannot be, employed.

Decree affirmed.

GARNEAU *v.* DOZIER.

1. *Ball v. Langles* (*supra*, p. 128) reaffirmed.
2. Reissued letters-patent No. 6397, granted April 20, 1875, to Duncan McKenzie for a new and useful improvement in baker's ovens, must, in view of the state of the art at the time the original letters were granted, be so construed as to limit the element of the combination which relates to the communication between the furnace or fireplace and the interior of the oven, to the peculiar structural arrangement, whereby the products of combustion are admitted into the baking-chamber through openings in the arch or top of the furnace, and through the floor of the oven that separates it from the fire-chamber along the flues extending rearward from the furnace to the back part of the oven.
3. There is, therefore, no infringement of the reissued letters where the bottom of the baking-chamber is not separated by any partition or diaphragm from the fire-chamber or furnace, and there are no flues to conduct the generated heat into the chamber.

APPEAL from the Circuit Court of the United States for the Eastern District of Missouri.

Joseph Garneau brought his bill of complaint against James Dozier and others. It is founded upon two letters-patent, the first being a reissue granted to Hosea Ball on the fourteenth day of June, 1870, and extended for seven years from Sept. 23, 1870. The original letters were granted to Ball Sept. 23, 1856, for an alleged "new and useful improvement in ovens," and were surrendered and reissued Oct. 12, 1869, and again June 14, 1870. The second letters set forth in the bill were granted to Mary Ann Elizabeth McKenzie May 1, 1860, also "for a new and useful improvement in ovens." They were surrendered and reissued April 19, 1870, reissued again April 20, 1875, numbered 6,397, assigned to Duncan McKenzie March 24, 1874, and extended for seven years from May 1, 1874. By sundry assignments these extended reissues have become the property of the complainant, and it is for the alleged infringement of them that this suit was brought.

The bill was dismissed on a final hearing upon the pleadings and proofs, and Garneau appealed.

The case was argued by *Mr. Robert H. Parkinson* for the appellant, and by *Mr. Edward Boyd* for the appellees.

MR. JUSTICE STRONG delivered the opinion of the court.

Among the defences set up in the answer of the defendants is one that strikes at the validity of the reissue of the Ball patent. It is insisted that the reissue is not for the same invention as that for which the original patent was granted, but is "for more and other matters and things than those of which he was the original and first inventor, and more than were described or included in the specification attached to said original patent granted to him, or shown in the drawing attached thereto, or in the model forming part of the application for said patent."

It is hardly necessary to say that if the reissue is, in fact, what the answer alleges it to be, if it is not for the same invention as that described or shown in the specification of the original patent, or in the drawings or model accompanying it, and if this clearly appears from a comparison of the two patents, the original and the reissue, then the reissue is

invalid. The question is not a new one in this court. It was before us in the recent case of *Ball v. Langles* (*supra*, p. 128), in which we held the reissue to be void. We expressed our opinion in that case that in the original specification, drawing, or model of Ball's patent there was no hint of conducting the products of combustion from a fire-chamber under or below an oven *directly* into or through the baking-chamber, but that what was claimed or exhibited was conducting the heat or other products of combustion into flues leading from the fire-chamber, and exterior to the baking-chamber, towards the chimney, and permitting no access to the interior chamber, or the oven, except through perforations in its side or back walls. By that arrangement the oven was principally heated by radiation from its sides, and not at all by radiation directly from the fire-chamber. But the reissue was for a very different arrangement. It claimed an invention for passing the heat or products of combustion *directly* from the fire-chamber into the oven, not by any circuitous route, but immediately through apertures in the bottom of the oven, as well as indirectly through perforations in the side flues. This we regarded as radically different from the original invention, as new matter, for which the reissue was unauthorized. We have seen in this case no reason for changing the opinion. The Ball reissue, therefore, is held to be invalid, and its further consideration may be dismissed from the case.

We pass, then, to a consideration of the McKenzie patent, the only one that confers any rights upon the complainant. The original was, as we have seen, granted on the first day of May, 1860. There have been two reissues, the first granted April 19, 1870, and the second April 20, 1875, after an extension had been allowed.

The invention, as described in the patent, consists, first, in the combination in an oven for baking bread and other substances, of the following elements: "A furnace or fireplace, one or more, a baking-chamber arranged above such furnace or fireplace, and in direct communication therewith, and a rotating reel located within said baking-chamber, and provided with gravitating pans or shelves arranged or hung around the shaft of said reel from rods attached to the end plates or arms

thereof," by which, as the specification declares, the patentee produced a "continuously baking oven, in which the bread or other substances are subjected to the direct action of the gaseous products of combustion, ascending from the lower portion or bottom of the oven." Second, "in an arrangement of flues or openings communicating from the fireplace or fireplaces with the baking-chamber, directly through the floor of the latter;" and, third, "in certain combinations and arrangements of exit flues . . . for securing a proper circulation of the gaseous products of combustion through the oven or baking-chamber, both when baking and lighting the fire." Having thus stated generally the nature and object of his invention, the patentee proceeded to describe the construction and arrangements by which the oven is heated. From the back of each furnace or fire-place a flue is constructed extending horizontally to the rear wall of the oven. From the fireplaces and along those flues a series of openings is made through the floor of the oven, communicating with its interior. Between the two furnaces and extending from the front to the rear of the oven, directly under the floor, another flue is constructed communicating with a vertical flue at the rear of the oven, which leads to the chimney. In this latter horizontal flue there are openings into the baking-chamber at its front and rear, which may be closed by valves operated from the front. This flue is the exit-flue by means of which the gaseous products of combustion escape from the oven through the valvular openings. In the centre of the top of the oven there is also a valvular opening, communicating by a horizontal flue with the vertical flue that leads to the chimney, which is also an exit for the products of combustion. Having thus described the arrangements for heating the oven, the specification next proceeds to set forth the arrangements for the reel with its gravitating pans or shelves. These it is unnecessary to notice particularly.

The specification claims five combinations, the first of which only is charged to have been infringed by the defendants. It is as follows: "The combination of the following elements, to wit, a furnace or fireplace (one or more), a baking-chamber arranged above such furnace or fireplace, and in direct com-

munication therewith, and a rotating reel located within said baking-chamber and provided with gravitating pans or shelves arranged or hung around the shaft of said reel from rods attached to the end plates or arms thereof, substantially as and for the purpose described."

To determine accurately the extent of the invention secured by this patent, the state of the art at the time when the original patent was granted (May 1, 1860) must be considered. Before that time, ovens were well known, and they had been constructed with a baking-chamber, a fireplace or furnace (one or more) arranged immediately under the chamber, and with a rotating reel located within the chamber, and revolving around a horizontal shaft, the reel provided with gravitating shelves or pans suspended on rods attached to its arms. Some of these ovens were arranged so that a portion of the heated products of combustion should pass into and through the baking-chamber, though indirectly by a circuitous route. Such was the Carrot oven patented in France in 1840, and notably the oven patented to Hosea Ball in 1856. And the Jennison oven, in use in the spring of 1859, and patented Feb. 1, 1859, was constructed so as to admit the products of combustion directly from the fire or furnace into the baking-chamber. It is obvious, therefore, that if the McKenzie patent can be sustained at all, it must receive a very limited construction. The element of the combination which relates to the communication between the furnace or fireplace and the interior of the oven must be restricted to the peculiar structural arrangement by which the products of combustion are admitted into the baking-chamber.

They are admitted, as we have seen, through openings in the arch or top of the furnace, and through the floor of the oven along the flues extending rearward from the furnace to the back part of the oven. But the oven has a floor which separates it from the fire-chamber. The communication with the baking-chamber is by means of flues, short it may be, but admitting the products of combustion into the baking-chamber only at intervals, and always near the side. Manifestly neither such an arrangement, nor anything equivalent to it, is found in the defendants' ovens. In them the bottom of the baking-

chamber is not separated by any partition or diaphragm from the fire-chamber or furnace, and there are no flues to conduct the generated heat into the chamber. The charge of infringement is, therefore, not sustained.

Decree affirmed.

HERYFORD *v.* DAVIS.

1. In Missouri, where personal chattels have been sold and delivered, the vendee's mortgage or deed of trust on them to secure the purchase-money, he still retaining possession of them, is invalid against his creditors, unless it be acknowledged or proved, and recorded in the county in which he resides, in such manner as conveyances of land are, by law, directed to be acknowledged or proved and recorded.
2. A contract between A., a manufacturer of cars, and B., a railroad company in Missouri, recites that A. thereby agrees to loan to B., for hire, certain cars to be used upon its road "for hire as aforesaid;" that A. has received from B. its three promissory notes, two at sixty days and the other at four months, together with certain bonds of the company as collateral for said notes; that A. is to hold the notes as collateral security and collect them at maturity, and hold the proceeds for the safe custody and return to A., when demanded, of said cars delivered to B. "for the term of four months, for hire as aforesaid," the latter to have the right and privilege at any time during the four months to purchase the cars upon the payment to A. of \$6,338.40, that being the amount of the notes; that until such payment is made in full B. shall have no right, title, claim, or interest in or to the cars, except as to their use for hire, but that they shall remain the property of A., to be accounted for by B. and redelivered to A. in default of the payment of the \$6,338.40; that in the event of default being made in the payment of said notes, and A. shall elect to take the cars into his possession, the sums collected on the notes shall be retained by him for his own use, together with such a sum, to be realized from the sale by him of the cars, as may be needed to make the amount due and unpaid on the notes, the balance, if any, to be paid to B.; that upon the payment by the latter of said notes at maturity without hinderance or delay said cars shall belong to and become the property of B., and that A. will relinquish his ownership to them, and give B. a good and sufficient bill of sale or conveyance thereof. The cars were delivered to B., but the contract was not recorded. C., having obtained a judgment against B., levied his execution on the cars. *Held*, 1. That the contract was not a bailment nor a conditional sale, but that under it the ownership of the cars passed to B. 2. That to protect them from seizure and sale under C.'s execution the contract should have been recorded in the manner prescribed by the laws of Missouri for recording mortgages or deeds of trust of personal property.