

folding plates pass into the tuck. Then the presser plate, 98, comes down on the bag blank, the sweeper shafts, 206 and 207, and the plate, 214, all swinging from above, enter the forward opening of the bag blank,—said opening having been enlarged so that such entrance is facilitated by the cutting away of a strip along the forward edge of the upper half of the bag blank,—and while the upper members of the folding plates part from the lower, and revolve through the half circle forming the inner triangular fold of the bag bottom, the lower forward edge of the bag blank is held and controlled in the formation of the box, 8, by the lower extremities of said sweeper shafts, 206 and 207, and said plate, 214. In the patent in suit the inner folds of the tucks are creased or flattened to an edge, and when the presser plate comes down across the bag blank the two divisions of the tuck are expected to spring apart so that the folding plates may pass into the tuck, and the rod, D, into the forward end of the bag blank. Honiss swears that the method of moving the folding plates in their approach to the tuck is better in the earlier than in the later patent. This depends on the allied mechanism. It might, perhaps, be true, as between the patents, if means be provided in the first machine for holding the lower half of the bag blank securely, and parting it from the upper half so that the folding plates, f, can certainly enter the tucks with the horizontal movement given them in the patent in suit. In the machine used by the defendant the folding plates do enter in a horizontal plane, but both the under and upper sides of the bag blank are securely held by suction tables while the plates so enter the tuck.

As the record stands, I am not sufficiently assured that the folding plates, f, of the ninth claim, with the associated mechanism as described in the patent, were to any degree practically operative for the purpose of making paper bags. I overrule the motion for the injunction pendente lite. Further than this, I do not mean to conclude the parties by anything in this opinion.

WESTERN MINERAL WOOL & INSULATING FIBRE CO. v. GLOBE
MINERAL WOOL CO.

(Circuit Court, D. West Virginia. June 25, 1896.)

PATENTS—INVENTION—ANTICIPATION—PROCESS FOR MAKING MINERAL WOOL.

The Rockwell patents, Nos. 447,360 and 452,733, for process of manufacturing mineral wool by remelting hardened slag or scoria from smelting furnaces, with lime and silica, or silica and lime-bearing stone, and blowing the same into mineral wool, show useful and patentable invention, and were not anticipated by the Brodmer patent, No. 70,510, or the Player & McAllister patent, No. 103,650.

This was a suit in equity by the Western Mineral Wool & Insulating Fibre Company against the Globe Mineral Wool Company for alleged infringement of letters patent Nos. 447,360 and 452,733, issued to Charles H. Rockwell on March 3, 1891, and May 19, 1891, respectively, for process of manufacturing mineral wool.

Chilton & Thayer and W. J. Townsend, for complainant.
J. L. Parkinson and Ewing, Melvin & Ewing, for defendant.

GOFF, Circuit Judge. This is a suit in equity, in which the defendant is charged with infringing two letters patent of the United States, owned by the complainant. One of them, No. 447,360, dated March 3, 1891, was issued to Charles H. Rockwell, and by him, on the 9th day of March, 1891, duly assigned to the complainant. By the first of said patents, there was granted to the patentee, his heirs and assigns, the exclusive right of manufacturing mineral wool in accordance with the process claimed therein, which was (claim 1) by remelting hardened slag or scoria from a smelting furnace, with lime and silica, or silica and lime-bearing stone, mixed in the proper proportions, and blowing the same into mineral wool, substantially as described; (claim 2) the process of manufacturing mineral wool, consisting of remelting hardened slag or scoria from a smelting furnace, with lime or lime-bearing stone, mixed in proper proportions, and blowing the same into mineral wool. The said second-mentioned patent granted to the patentee the right to the process, in the manufacture of mineral wool, of melting in a cupola hardened slag or scoria, with silica or silica-bearing stone, mixed in proper proportions, and converting the same into mineral wool. The defenses are anticipation, nonpatentability, and noninfringement.

Defendant insists that by printed publications, as well as by prior knowledge, and universal use for many years by others, it is shown the process described in complainant's patents was not novel at the time of its alleged invention. The publications referred to—to wit, Enc. Brit. (9th Ed.); Literary Dig. 1895; Engineering & Mining Journal, 1872—do not, in my judgment, sustain this contention. They show the use to which slag can be put, and how mineral wool has been and can be made from it, but do not even remotely discuss or suggest the process included in the first Rockwell patent. Complainant admits, and it is a fact well known, of which the court will take judicial notice, that mineral wool has been for many years manufactured from the slag taken from blast furnaces; but it must be conceded that the process of manufacture resorted to before the discovery now protected by the Rockwell patent of March 3, 1891, was very different from that described in said patent. Formerly, the slag, in molten condition, as it came from the blast furnace,—a residuum,—and before it had cooled, was subjected to a hot-air blast or steam jets, and the wool then used produced. No other process was then known or used. At that time there was no way known or in use by which the cold slag could be remelted or used. It was to overcome this difficulty that Rockwell made his experiments, and the process patented by him is the result. Formerly the successful operation of a mineral wool plant depended on the continuous running of a blast furnace from which molten slag could be taken. If the furnace was not in blast, mineral wool could not be made. All prior attempts to remelt slag which had become hardened by cooling, and then use it successfully in the making of min-

eral wool, had failed. There is no evidence that such slag was ever profitably worked into mineral wool until after it was mixed with lime, in the manner indicated by the Rockwell patent. Some slag which, when in melted condition fresh from the furnace, could be converted into mineral wool, would not, when remelted, produce such wool until such mixture was added; and the character of the mixture depended upon the quality of the slag, which in some cases required lime, and in others silica. The mineral wool so obtained was of better quality, better color, freer from impurities, and commanded better price in the market. The testimony on these points is clear and uncontradicted. The only process now used in the making of mineral wool is that described in the Rockwell patents, and it is plain that they have entirely revolutionized the method of manufacturing it.

The claim of defendant as to "prior description," in the patents to John James Brodmer, dated November 5, 1867 (No. 70,510), and to Augusta Amelia Player and Henry McAllister, Jr., administrators, dated May 31, 1870 (No. 103,650), is without merit. The former relates to the production of a cement, and contemplates the use of slag as it is received from the furnace in a fluid or semifluid state. This patent used slag as it came from the furnace, while the Rockwell patent takes and utilizes the slag that has been thrown away as useless. The one uses molten slag fresh from the furnace, before it has cooled, and adds to it unslacked lime, for the purpose of making a cement; and the other takes hardened slag, and using with it lime or silica, or lime and silica-bearing stone, or both, fuses the combination in a cupola, and, blowing with a steam jet, produces mineral wool, using for the said mixture certain proportions or per cents not required to be now set forth.

It will not be necessary to examine in detail the other patents relied upon by defendant on this point. I do not find that they sustain the contention we are now considering. I conclude that there is novelty and invention in the Rockwell patents, now owned by the complainant. The previous process—the prior art—related to an entirely different method of manufacturing mineral wool from slag. The Rockwell improvements have been productive of most beneficial results, not only to the owners thereof, but to the consumers of mineral wool, as well as to the owners of the raw material thereof, which otherwise in many cases would remain useless articles. The claim is now made, as has frequently been the case, that the process covered by the invention is so plain and simple as to exclude the possibility of inventive genius. But why was it never resorted to before if so simple? Why not used if so plain? It may be simple, yet, nevertheless, an invention; and, while now very plain, it is still meritorious. Evidently, the patentee has produced something new and useful, the benefits of which have been enjoyed by the public ever since he promulgated it. The process described in the patents has clearly assisted in the manufacture of mineral wool, and greatly benefited the particular art to which it relates. If it was to-day eliminated, the formula lost, and the method of procedure

forgotten, would not the public suffer a loss? I think so; and hence it follows that the owners of the patents in suit are entitled to the benefits of the same.

Without further discussing the questions involved, it follows from what I have said that there is no merit in the defense, that the process described had not been anticipated, and that it was patentable. That the defendant has infringed it is so clear as not to admit of doubt, and a reference to the testimony on that point is entirely unnecessary. A decree will be passed sustaining the bill of complaint, and granting the relief prayed for.

BEMIS CAR-BOX CO. v. BOSTON & R. ELECTRIC ST. RY. CO.

(Circuit Court, D. Massachusetts. June 23, 1896.)

No. 114.

1. PATENTS—INFRINGEMENT—CAR AXLE BOX.

The Bemis patent, No. 239,702, for a car axle box, was not anticipated, and is infringed by a device made in substantial accordance with the Brill patent, No. 418,439, for a dust shield for car axle boxes, which simply adds to the device of the patent an "abutment," thus changing its form, but leaving it still adapted to perform the office of the straight incline shown in the Bemis patent.

2. SAME.

The Bemis patent, No. 330,372, for a car wheel and axle box, in which the invention consists substantially in having the annular flange of the wheel detachably secured to the wheel, instead of cast integral with it, held not infringed by a wheel in which, though it was possible to remove the flange and substitute another, the change would amount substantially to a reconstruction.

John L. S. Roberts, for complainant.
Francis Rawle, for defendant.

CARPENTER, District Judge. This is a bill in equity to enjoin an alleged infringement of the first claim of letters patent No. 239,702, issued April 5, 1881, to Sumner A. Bemis, for car axle box, and the single claim of letters patent No. 330,372, issued November 17, 1885, to said Bemis, for car wheel and axle box. The claims are as follows:

(1) The combination, in a car axle box, of the car wheel provided with a flange projecting out from the side of the wheel and around the axle, a tapered sleeve on the box or its housing projecting into the said flange on the wheel and surrounding the axle, and a washer placed upon said tapered sleeve on the box and there confined by contact with the end of the flange on the wheel, substantially as described. The combination, with external axle box, A, having a recess at its rear end containing an elastic packing-ring, of the axle, the flat-faced car wheel on said axle, and a tubular piece, c, detachably secured to the flat face of the car wheel and extending against the elastic ring, substantially as described.

I find on the evidence that the device used by the respondent is, for the purposes of this case, substantially that shown in the drawings of the letters patent No. 418,439, issued December 31, 1889, to John A. Brill, for dust shield for car axle boxes.