

fabric of great elasticity would be produced by multiplying the rubber cords. Merwin on Pat. 21. Applying this reasoning to the case under consideration, it follows, as it was known that the elastic character of duck cloth could be reduced by stretching, it was a mere inference that the greater the stretch, the greater the loss of elasticity. Inventive genius was not called into operation to solve the problem; hence the devices of the complainant to effect such solution are not patentable. The bill of complaint is dismissed, with costs.

ZINSSER *et al.* v. KRUEGER.

(Circuit Court, D. New Jersey. March 24, 1891.)

1. PATENTS FOR INVENTION—*STARE DECISIS*.

In proceedings for infringement of letters patent, where their validity is put in issue on the grounds of want of inventive novelty and of prior use, a prior decree of the court in other proceedings, involving the same issue, sustaining the patent, will be conclusive, under the doctrine of *stare decisis*, notwithstanding the action is against a different defendant.

2. SAME—DISTINCT EVIDENCE.

But where, in the second suit, it appears that the evidence to be offered upon the issue of prior use is very different from, and of much more weight than, that submitted to the court in the former case, the court will re-examine the defense upon its merits.

3. SAME—AERATING LIQUIDS—ANTICIPATION.

Complainants' reissued letters patent No. 9,129, of March 23, 1880, to F. C. Mussgiller and R. W. Schedler, for a "new and useful improvement in treating beer and other liquids," covered "the process of charging beer and other liquids of a similar nature with carbonic acid, by dropping into and through the liquid lumps of bicarbonate of soda or of other alkali, thereby causing the acid discharged from the lumps to pass through the entire column of liquid," was anticipated by an article from Dingler's Polytechnic Journal, published in 1863; by English letters patent No. 910, granted in 1852 to Barse and Gage; by English letters patent No. 1,609, granted in 1863 to Clark; by English letters patent No. 8,160, granted in 1872 to Cooper; by French letters patent No. 58,807, granted in 1863 to Dufourmental and Poire; by French letters patent No. 59,527, granted in 1853 to Le Perdriel,—setting forth processes for aerating liquids by the use of gas-producing salts compressed into lumps, cylinders, lozenges, granules, or drops, which sink speedily to the bottom of the liquid, and from which the gas, as it is slowly evolved and rises to the surface, permeates all portions of the liquid, and thoroughly and effectually charges it as desired, instead of using the necessary salts in the form of powder strewn upon the surface of the liquid, where the resulting violent effervescence frequently causes an overflow and waste,—and are consequently void.

4. SAME—APPLICATION OF OLD PROCESS TO NEW PURPOSE.

The fact that complainants' patent was for a process of treating beer and similar liquids, and the anticipating processes were applied to water or neutral liquids, is immaterial, since the application of an old process to an analogous subject, with no change in the manner of application, and no result substantially distinct in its nature, will not sustain a patent.

In Equity. On bill for injunction.

A. v. Briesen; for complainant.

J. M. Deuel, for defendant.

GREEN, J. This suit is brought to restrain an alleged infringement of reissued letters patent No. 9,129, granted to Frederick C. Mussgiller and

Robert W. Schedler, on March 23, 1880, for a "new and useful improvement in treating beer and other liquids." The claim is stated thus:

"The process of charging beer and other liquids of a similar nature with carbonic acid, by dropping into and through the liquid, lumps of bicarbonate of soda, or of other alkali, thereby causing the acid discharged from the lumps to pass through the entire column of liquid, substantially as specified."

The specification is as follows:

"This invention consists in treating beer and other liquids of a similar nature with lumps of bicarbonate of soda, or of other alkali, said lumps being compacted by means of a suitable cement, so that they are heavy enough to at once drop through the liquid to be treated, upon the bottom of the vessel containing the liquid. The carbonic acid evolved from said lumps is thus compelled to permeate the entire column of liquid above it, and at the same time to give up the requisite quantity of alkali matter. Together with the lumps of bicarbonate of alkali may be used lumps of tartaric or other suitable acid, compacted in the same manner as the lumps of bicarbonate of alkali, so that the amount of carbonic acid evolved from the latter can be easily controlled. It is a common practice with brewers and others to use bicarbonate of soda, either alone or together with tartaric acid, in the manufacture of beer, sparkling wines, and other effervescent liquids, for the purpose of increasing the life of such liquids. The mode of applying such article or articles—by brewers, for instance—is to apply about one ounce of the bicarbonate of soda to each quarter barrel with a table spoon, the bicarbonate being in the form of a powder. The powder, on being thrown into a barrel of beer, will at first float on the surface of the liquid, and immediately evolve carbonic acid, a large portion of which is lost, together with the beer which is thrown out by the action of the acid before the barrel can be closed by a bung. Besides this, the operation of filling barrels is carried on in a great hurry, and a large quantity of the bicarbonate of soda handled with a spoon is spilled over the barrel and wasted. Like defects occur in the use of tartaric acid in crystals when applied together with powdered bicarbonate of soda. These disadvantages we have obviated by preparing the bicarbonate of soda or of other alkali and the acid in solid lumps of such weight that the lumps at once drop through the liquid upon the bottom of the vessel, and give off the carbonic acid to the entire column of liquid, and not only, as heretofore, to the upper stratum. These lumps we produce by mixing powdered bicarbonate of alkali with a suitable cement, such as a solution of dextrine, and then compressing the same in moulds of suitable size and shape. Lumps of acid are made in like manner. The advantage of using the bicarbonate of alkali, either alone or in connection with acid, in this shape, is perceptible at once. The lumps, being in compact form, when dropped into a barrel filled with beer, ale, or other liquid, will at once sink to the bottom, and the carbonic acid evolved from them is forced to stay in the liquid. The barrel can be easily closed by the bung without losing a particle of carbonic acid or of beer, and the said lumps can be introduced into the barrel without any waste. Besides this, the weight or size of our lumps is so gauged that each barrel will receive the exact quantity of bicarbonate of alkali and of acid required, and that the liquid in a number of barrels, after having been treated with the bicarbonate of alkali, with or without acid, will be of uniform quality."

The validity of this patent was established by this court in the case of *Zinsser v. Kremer*, 39 Fed. Rep. 111. In that case the patent was attacked upon the grounds of want of inventive novelty, and of prior use. In rendering the opinion of the court upon the first of these issues, Judge BUTLER, then holding the circuit court for the district of New Jersey, uses this language:

"The inventive novelty claimed consists in passing compacted lumps of bicarbonate of soda or other alkali through beer and similar liquids, in casks, and depositing the same at the bottom, where it will slowly dissolve, and the carbonic acid evolved be distributed equally throughout the liquid. The treatment of beer and other liquids with bicarbonate of soda was not new. It was in common use, and had been for a long time. The method employed, however, was that of dropping powdered bicarbonate on top. This was attended with serious disadvantages. The liquid was not thoroughly permeated, and the powder floated on top instantly evolved acid in quantities so large as to cause overflow before the cask could be closed. The patentee sought for means to obviate these disadvantages. He saw that if the bicarbonate could be deposited at the bottom of the liquid, and its dissolution retarded, the entire contents of the cask would be equally treated, and the loss from overflow be avoided. He further saw that, if the bicarbonate could be compressed into solid lumps, it would pass to the bottom when dropped, and the dissolution also be retarded. Experimenting with this method, he found the result beneficial and satisfactory. Thereupon he applied for and obtained the patent. The novelty thus exhibited seems quite sufficient to sustain his claim. It is true that nothing more is done than charging the liquid with carbonic acid gas, and this had been done before; but he does it in a different way, and with different results, producing a better article more economically, avoiding all waste."

On the second issue he also found in favor of the complainant, holding that while there was some evidence of such "prior use," yet the evidence clearly showed that such use was strictly secret, and, as such, availed not as against the rights of the patentee. The result was a decree in favor of the complainant. In this case, the complainant, invoking the doctrine of *stare decisis*, contends that such decree is binding, and cannot be disregarded; that all discussion as to the validity of the patent in controversy is finally closed; that the only open issue is that of infringement, and, so far as this defendant is concerned, even that issue must be found against him, as the proofs show a confession of infringement formally entered in the records of the court by way of stipulation. The defendant admits the force of the doctrine invoked by the complainant, but insists that the parties are different from those in the case relied upon to sustain complainants' contention, the issues are different, and the evidence upon those issues is different, and therefore he claims to be entitled to have the validity of the patent passed upon again by this court.

The fact that the present defendant was not a party to the cause decided by Judge BUTLER is immaterial in considering the controlling effect of that opinion. The main issue in that case, as in this, was the validity of the letters patent. That was the question of law presented to the learned judge for decision, and it is as to that same issue as now made that the doctrine of *stare decisis* is invoked. The fact that the defendant in the present case was not in any wise personally interested in the former case cannot be regarded as lessening in any degree the binding effect of a solemn decision made in that cause. What was decided was a question of law arising upon these very letters patent. Such decision becomes a precedent, to be followed in all cases in which the same legal question arising from the same letters patent presents itself for consideration, and an authority implicitly to govern, unless it clearly appears that the principles which underlie it have been grossly misunder-

stood or misapplied. Nor does it appear that the issues in this cause differ materially from those raised and passed upon in the former case. As the defendant, Kremer, in that case claimed, so now does the defendant, Krueger, in this present case claim and insist, that the patent is invalid because of lack of inventive novelty, and because of prior use. Both of these issues, as appears from the opinion of Judge BUTLER, were carefully considered by him in the *Kremer Case*, and were by him found adversely to the claim of the defendant.

Of more consequence is the allegation that the evidence now submitted to the court in the present case by the defendant is different from, and of much more weight than, that offered by Kremer to sustain his contentions. If the case of the defendant Krueger be dissimilar from that made by the defendant Kremer; if principles are to be applied to a state of facts variant from that considered by the court before; if new testimony, not merely cumulative, but actually supporting issues which were left unsupported in the previous case, has been introduced by the defendant in the present case,—then it becomes the duty of the court to re-examine the defense upon its merits, and render such judgment as shall be in accord with facts as they appear. In the *Kremer Case* the only proof offered by the defendant, as appears from the record, offered as an exhibit in this case, was upon the issue of prior use. It seems that the question of want of novelty was fully argued by counsel upon final hearing; but, so far as the argument was made on part of the defendant, it was drawn from general experience, or from facts, not proved, which it was suggested would be taken notice of by the court. In the present case the defendant produces a witness, not before examined, to sustain his theory of prior use, but whose testimony does not strengthen him on this point, if I view it correctly. It is simply a statement of a use upon one occasion only of compacted forms of bicarbonate of soda in the treatment of beer by a brewer named Meckert, which was almost immediately discontinued because it was too expensive. It amounted, therefore, simply to an experiment abandoned for good cause. This was prior to 1870. Its results were so unsuccessful that its discontinuance became final. It was never resuscitated. It had proved that, as Meckert used bicarbonate of soda in the treatment of his beer, the use was too costly to be practical or popular; and doubtless it was speedily forgotten. Such use, under such circumstances, would not destroy the invention afterwards made and perfected by these patentees. On this issue, therefore, I am constrained to hold that the case of the defendant Krueger is no better than the case of the defendant Kremer.

Upon the other issue, however, there is certainly testimony which is entirely novel. Neither the testimony itself, nor anything similar, was before the court in the *Kremer Case*. This testimony consisted in an article from Dingler's Polytechnic Journal, published in 1863; English letters patent No. 910, granted in 1852 to Barse and Gage; English letters patent No. 1,609, granted in 1863 to Clark; English letters patent No. 3,160, granted in 1872 to Cooper; French letters patent No. 58,807, granted in 1863 to Dufourmental and Poire; French letters patent No.

59,527, granted in 1853 to Le Perdriel; and one or two others, which, however, are not material. The article from the Polytechnic Journal describes with particularity how an effervescent powder upon mixture with water "instantly effervesces violently;" so violently, indeed, that the greatest part of the foaming mixture frequently rises over the vessel in which it may be, and runs to waste. The article then proceeds to describe a means by which the effervescent powder may be transformed into a coarse-grained powder, which effervesces slowly, upon contact with a liquid, but abundantly, and up to the last granule. The Barse and Gage patent was for improvement in apparatus for the manufacture of aerated liquids, and in the preparation of the substances therein used. The second claim of this patent was for "the preparation and shape of the substances employed for producing the gas;" and what the inventors did was to transform powdered material used to generate the gas, for the aeration of the liquid to be treated, into cylindrical cartridges by the aid of cement; and they graduated these cartridges in exact proportion to the quantity of gas to be produced. These cylinders of gas-producing material dissolved slowly, and with uniformity. The Clark patent relates to improvements in the preparation of gaseous liquids, and, among other things, describes a process for charging a liquid with carbonic acid gas, by dropping into it pastilles, lozenges, or drops of the gas-producing material, previously prepared for that purpose, the liquid necessarily being contained in a closed vessel for the purpose of charging. The Cooper patent was for the manufacture of effervescing lozenges from a mixture of ingredients in a dry state by means of pressure. The Dufourmental and Poire patent describes a method of producing an effervescing mixture in the form of blocks or lumps, and, in addition, makes known the intention of the inventors to offer their mixture to commerce in the form of cylindrical cartridges, a single one of which would be sufficient for charging the apparatus described. The Le Perdriel patent undertakes to overcome some of the objections, and to produce ameliorations in the aeration of liquids, by a process converting the powdered gas-producing substances into artificial granules, which are projected in designated quantities into the liquid to be gasified, in order to obtain the liberation of the carbonic acid gas.

This brief statement of the processes and means of aerating liquids, as contained in these foreign letters patent, shows very clearly the state of the art at the date of the letters patent in this suit, and very materially changes the character of the defense from that in the *Kremer Case*. For the first time are these patents submitted to the scrutiny of the court as affecting the validity of the complainant's patent. They are entitled to the most careful consideration. The following deductions may be fairly drawn from them: Liquids were primarily aerated by the use of necessary salts in the form of powder, strewed upon the surface. Experiment and experience taught that gas-producing salts, compressed into lumps, cylinders, lozenges, granules, or drops, were, for that purpose, more convenient, more certain, more uniform in action, and more economical than in the powdered state, and that such compression could be readily

and easily accomplished. Such compressed gas-producing salts, when cast into liquids, instead of producing gas with immense ebullition on coming in contact with the liquid, thereby causing waste both of gas and liquid, sank speedily to the bottom; compression retarded solubility; and gas, as it was gradually evolved, sought again the surface of the liquid, in its devious course permeating all portions of the liquid, and thoroughly and efficiently charging it as desired. Says the specification of the complainants' patent:

"This invention consists in treating beer and other liquids of a similar nature with lumps of bicarbonate of soda or other alkali, said lumps being compacted by means of a suitable cement, so that they are heavy enough to at once drop through the liquid to be treated, upon the bottom of the vessel containing the liquid. The carbonic acid evolved from said lumps is thus compelled to permeate the entire column of liquid above it, and at the same time to give up the requisite quantity of alkaline matter."

If the view of the state of the art at the time of the application for the complainants' letters patent is correct, certainly it must be conceded that their alleged invention demanded the exercise of no inventive genius, but rather exhibits them as mere copyists and appropriators of the ideas of others. What reason can be urged for sustaining this patent, when the proofs show that, prior to the application for it, others, anticipating by years the complainants, had fully occupied the same field, and, to avoid the same annoyances and wastes, had compressed the powdered gas-producing salt into lumps and cylinders and granules and lozenges, the better to accomplish the desired object, and had used such compressed salts in a manner and for a purpose exactly similar to that described by the complainants? I am constrained to hold the letters patent of the complainants void for want of novelty; and I am satisfied that, had the proofs in this cause been presented to the court in the *Kremer Case*, a very different result would have been reached.

It was urged upon the argument that, as the patent of the complainants was for a process of treating beer and other similar liquids, like processes for treating water or neutral liquids could not be regarded as anticipatory. I do not think this contention is sound. In *Pennsylvania R. Co. v. Locomotive Engine S. T. Co.*, 110 U. S. 490, 4 Sup. Ct. Rep. 220, Mr. Justice GRAY, in delivering the opinion of the court, says:

"It is settled by many decisions of this court, which it is unnecessary to quote from or refer to in detail, that the application of an old process or machine to a similar or analogous subject, with no change in the manner of application, and no result substantially distinct in its nature, will not sustain a patent, even if the new form of result has not before been contemplated."

Applying this principle to the contention of counsel, it is apparent that it cannot prevail; for the charging of liquids with gas by the use of compressed salts was an old process. Using such process to charge beer and other similar liquids was an application of it to a similar or analogous subject. The manner of the application remained the same. The result was not in any degree variant nor distinct in its nature; and hence a patent for such an application for an old process cannot be sustained.

The bill is dismissed, with costs.

MADDOCK, v. COXON *et al.*

(Circuit Court, D. New Jersey. March 24, 1891.)

PATENTS FOR INVENTION—INFRINGEMENT—CONSTRUCTION OF CLAIM.

The protection of letters patent is limited by the language of the claim, and letters patent No. 229,326, to Thomas Maddock, June 29, 1880, for "a flushing device for water-closet bowls," to provide a more secure joint for the metallic supply pipe, consisting of an earthenware flushing pipe passing through the side of the bowl, and being joined thereto, having an annular recess at the outer end, in which shall be permanently secured a flanged metallic tube, provided upon its projecting portion with a screw-thread for receiving coupling nut, in which the claim is made for "the earthenware nozzle, *b*, of the flushing-device, provided at its outer end with the interior annular conical recess, *b'*, in combination with the flanged metallic coupling pipe, *C*, and the annular mass of cement, *c*, substantially as and for the purposes set forth," is not infringed by the use of a device similar in every respect, except that instead of the interior recess at the outer end of the earthenware pipe being conical in its shape, with its apex nearest the outer edge of the recess, the defendants have cut away the overhanging wall of the cavity of the conical on both sides, changing it to a rectangle so as to admit the flanges of the metallic pipe, but leaving enough of it to perform a locking function after the parts have been placed together, and the spaces between filled with cement.

In Equity. On bill for injunction.

F. C. Lowthorp and *Edwin H. Brown*, for complainant.

W. P. Preble, Jr., for defendants.

GREEN, J. The bill in this cause is filed to enjoin the defendants from infringing letters patent No. 229,326, granted to the complainant, Thomas Maddock, for "a flushing device for water-closet bowels," and bearing date June 29, 1880. In the specifications of the patent it is declared that the object of the invention was twofold, to-wit: *First*, to simplify the construction and mode of application to water-closet bowls of the devices by which the flushing water is introduced; and, *secondly*, to provide a more secure joint for the metallic supply pipe with the outer end of the earthenware flushing pipe. The first part of the invention was said to consist "of an earthenware flushing pipe, which is inserted bodily through the side of the bowl, and joined thereto by the union of the wall of the bowl with the periphery of the flushing pipe. The flushing pipe is introduced at the proper angle to enable it to direct a jet of water against the inner wall of the bowl near the top, and the inner end of the flushing pipe takes the place of fans or spreaders heretofore employed." The second part of the invention was described as consisting "in forming a conical annular recess at the outer end of the flushing pipe, and in permanently securing therein a flanged metallic tube, provided upon its projecting portion with a screw-thread for receiving an ordinary coupling nut."

The patentee makes two claims only:

"(1) A flushing device for an earthenware water-closet bowl, consisting of an earthenware tube inserted bodily through a hole in the side of the bowl, and joined thereto by the union of the material composing the edges of the hole in the side of the bowl, with the material composing the periphery of the flushing pipe, substantially as described. (2) In a water-closet bowl, the earthenware nozzle, *b*, of the flushing device, provided at its outer end with