

invention. It was declared in *Atlantic Works v. Brady*, 107 U. S. 192, 2 Sup. Ct. Rep. 225, that the design of the patent law was to reward those who make some substantial discovery or invention which adds to our knowledge, or makes a step in advance in the useful arts; and that it was never the object of those laws to grant a monopoly for every trifling device, every shadow of a shade of an idea which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufactures, and that to grant a monopoly for 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. See, also, *Hill v. Wooster*, 132 U. S. 693, 700, 10 Sup. Ct. Rep. 228.

There exists another, and, to my thinking, a fatal, objection. Each part of the device within the first claim of the patent is related to the use to which it had been previously applied, and, in conjunction with the other parts, operates not differently, and performs no other function. The horizontal base, the raised stop or partition, and the grating each perform the same, and no other or different, office that it did before. Each element of the combination operates separately, performing its separate function, and in its old way. There is no new result as the product of the co-operative action of the parts. The oblique grating may produce better results because oblique, but not by reason of combination with the other parts. Failing therein, within the principle established, there is lack of patentable combination. The device is a mere aggregation. *Burt v. Ivory*, 133 U. S. 349, 10 Sup. Ct. Rep. 394. The bill will be dismissed.

MURPHY v. TRENTON RUBBER CO.

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

PATENTS FOR INVENTION—ANTICIPATION.

Claims 2 and 3 of reissued letters patent No. 10,953, June 12, 1888, covering a method for stretching uncured rubber belting during the application of heat and pressure in the process of vulcanization, which consisted of a fixed clamping device at one end of the machine, and a combined clamping and stretching device at its opposite end, is anticipated by the process described in letters patent granted to Gately and Forsyth in 1873, in which, though the clamps are not identical in form or construction, the function is the same, and the act of performance is substantially similar.

In Equity. Bill for injunction.

Livingston Gifford, for complainant.

F. C. Lowthorp, for defendant.

GREEN, J. This bill is filed to restrain an alleged infringement by the defendant of letters patent No. 10,938, (reissued,) dated June 12, 1888, granted to the complainant, John Murphy, for a "machine for manu-

facturing rubber belting." Rubber belting has been, since 1850, a perfectly well-known article of commerce. It is composed of layers or piles of duck cloth, cut into strips of required width, and coated with a plastic and adhesive compound of rubber, compressed by rolling into a thoroughly compacted belt, and properly vulcanized or cured by the application of heat. In the manufacture of rubber belting, it became a matter of moment to take out of the duck cloth its elasticity or "stretch," as it is termed, before or at the time of vulcanization; by which was meant, the duck cloth, forming the successive layers or piles of the belt, must be stretched to such an extent, before having its surface of rubber cured, that it would not thereafter lengthen by stretching from the strain incident to its use as a belt; otherwise, it would thereby be rendered rough and uneven on its surface and crooked in its length, and its successful use be seriously interfered with. It was to meet and overcome this difficulty, and to secure, as it is claimed, a uniform, smooth, stretched, straight, and vulcanized belt that the complainant made his invention, secured to him by these letters patent. The specification of the patent is as follows:

"In the manufacture of rubber belting, usually composed of cotton cloth coated with rubber, the method ordinarily practiced in curing or vulcanizing it is to place the prepared belt between hot plates heated by steam, and subject the same to pressure. Presses constructed with the above features are generally made 20 feet long, or more, with continuous plates of corresponding length, and when steam is admitted in contact therewith an unequal expansion takes place, which causes them to warp and present an irregular surface, that produces an uneven finish by the consequent variation of pressure; and, further, the plates are often broken when the pressure is applied, and are rendered unfit for use. The object of my present invention is to overcome these defeats in the machine itself, and to produce a superior product. The invention consists—*First*, in substituting for the continuous plates a series of pairs of short press-heads, and corresponding platens, divided by a space a trifle less than the length of a platen, each pair operating independently of the others, or connecting two or more of them for simultaneous operation, and applying the same to the entire surface of the prepared belt by moving it longitudinally a distance equal to the length of each platen at each application of the pressure. In subjecting the prepared belt to hot plates, it is necessary to apply a longitudinal strain before the pressure is applied, and stretch the same sufficiently, not only to straighten it, but to produce a permanent set that will be practically maintained in use; and, to accomplish the latter result, my invention consists, *secondly*, in the adaptation of a fixed clamping device at one end of the machine, and a combined clamping and stretching device at its opposite end, hereinafter more particularly referred to."

The claims of the inventor were as follows:

"(1) In a machine for manufacturing rubber belting, a series of presses arranged in line with each other, with intermediate spaces, in combination with suitable end clamp and stretching devices, said presses being operated by any suitable means, substantially as set forth. (2) The combination of the cam-rollers, fixed cross-bar, and roller provided with the projecting arms, substantially as described. (3) The improvement in machines for manufacturing rubber belting, in which the prepared belt is subjected to hot plates, which consists in the adaptation of a fixed clamping device at one end of the machine, and a combined clamping and stretching device at its opposite end, whereby

the belt is stretched to produce a permanent set, that will be practically maintained in use, the said fixed clamping device consisting of a stationary holding clamp, and the said combined clamping and stretching device consisting of a vibrating stretching clamp, composed of a stationary roller, having vibrating arms, carrying a cam-roller and suitable devices for operating the same, substantially as set forth."

There is no pretense that the first claim is infringed by the defendant. The contention of the complainant is that claims 2 and 3 are, however, clearly infringed, and in fact it is admitted that, if these claims are valid and sustainable, the defendant corporation does undoubtedly infringe, as the mechanism employed by it in the manufacture of rubber belting is, substantially, that described. The insistence of the defendant, however, is that such claims are wholly invalid, and it charges that the letters patent are void from want of novelty, and because of anticipation, as clearly shown by the state of the art at the time when the complainant made application for letters patent.

Claims 2 and 3 are claims for combinations admittedly so; and it is not denied by the complainant that the several elements of each were old and well known at the date of the patent. But such fact does not of itself negative the novelty of the invention. Such invention has been found to exist in the act of selection of the elements collected to form the combination, or in the novelty of the result of the co-operating action of the various units of the combination. In the case at bar there might fairly arise some discussion whether the combination claimed by the complainant is a true patentable combination, or a mere aggregation of elements; but it is not necessary to press it, in view of the fact that the validity of the claims in question may be more easily tested. After a careful sifting of the proofs, it is impossible to resist the conclusion that there is shown by the evidence an entire lack of patentable novelty in the combination covered by these claims 2 and 3 of the letters patent. There seems to be no doubt that, at the time when the complainant made his application for the original letters patent granted to him, the Gately and Forsyth machine, for which letters patent had been granted in 1873, had long been known, and was in constant use. The letters patent to Gately and Forsyth were for "an improvement in apparatus for the manufacture of vulcanized rubber belting;" and the machine, as described, was an apparatus for stretching belts of rubber and canvas during the process of vulcanization. The heating or vulcanizing device, composed of two hollow chambers heated by steam, and supplied with mechanism by which they could be drawn together, and thereby compress the uncured belting placed between them, was by Gately and Forsyth admitted to be the invention of one Daniel Hayward, deceased, and secured to his executor by letters patent No. 3,531, dated July 6, 1869. The stretching device, which was combined therewith, was declared to be the joint invention of Dennis C. Gately and James B. Forsyth, the patentees. Its object was to effect a stretching of the rubber and canvas belt, and retain it in its stretched condition until the vulcanization was perfected by heat and

pressure as applied by the steam-chambers of the Hayward machine. This stretching device consisted of a clamp, formed of two parallel plates at one end of the Hayward vulcanizing machine, one of which was permanently fastened to the frame, the other placed above it, and secured to it by screws, so as to hold firmly, when properly and tightly screwed together, an end of the belt placed between them. At the opposite end of the machine was a windlass, upon which the belt, carried forward upon it, could easily be wound; and intermediately between the vulcanizing chambers and the windlass was a metallic plate, working upon slides in the direction of the line of the belt, and moved in such line by screws turning in nuts, secured to the sliding plate, and propelled by beveled-toothed wheels, connecting them to a shaft provided with another windlass. To the sliding plate—which in reality forms the lower half of a pair of clamps—is attached, by screws, a movable clamp, between which clamps the belt is to be fastened, and by turning the screws by means of the windlass on the apparatus the belt is stretched longitudinally in that part between the vulcanizing chambers. In other words, the Gately and Forsyth machine is a belt-stretching device in combination with a vulcanizing apparatus, by which a rubber belt may be stretched and vulcanized at the same time. In the operation of this stretching device there is no variance or dissimilarity from the practical operation of the stretching device of the complainant. The stretching, in each instance, is accomplished by the movement of movable clamps securely grasping the rubber belt, in a direction away from the fixed clamp which holds and secures the other end of the belt. The clamps are not identical in form or in construction, but the function performed is the same, and the act of performance substantially similar; and it necessarily follows that the devices are equivalents. *Eames v. Godfrey*, 1 Wall. 78; *Blake v. Robertson*, 94 U. S. 732. In each machine the stationary clamp grips the belt, and holds it securely, and in each machine the movable clamp grips the belt, and, moving away from the stationary clamp, accomplishes the stretching. The method and the manner of the work done are therefore substantially the same in both machines. The conclusion seems irresistible that the prior Gately and Forsyth machine must destroy the patentability of the complainant's machine. Gately and Forsyth's machine disclosed and made known the method, the means, and the practicability of the simultaneous stretching and vulcanizing of an uncured rubber belt, in a machine adapted to produce such result. As has been stated, this was accomplished—*First*, by seizing the belt with two pairs of clamps, the one immovable, the other movable, and by propelling the movable clamp in the direction of the line of the belt, but away from the immovable clamp, necessarily effecting the stretch desired. Then, *secondly*, or simultaneously, subjecting the belt thus stretched, and firmly held in that condition, to the action of the heated steam-chambers, producing vulcanization, and the operation became complete. The only material change made by Murphy, in his machine, was to substitute a clamp differing in form from the clamp selected by Gately and Forsyth. The proofs show that the

clamp selected by the complainant was one which had long been known and was in common use. It had been for many years, and is now, actually used in the operation of holding and stretching what is known as "Union Belting," a belt composed of duck cloth and leather. Its selection and substitution by Murphy involved only the exercise of the ordinary faculties of reasoning. Inventive genius played no part in the making of such selection. It was the result, simply, of choice—a choice easily and readily capable of being made by a skilled mechanic from a large number of equivalents. Its final selection, and its consequent substitution for the clamping device already appropriated by Gately and Forsyth, cannot justly be declared to evidence in any degree inventive novelty; such inventive novelty, at least, as would rightly confer a monopoly upon the chooser.

It was strenuously contended for the complainant that by means of his combination, covered by his letters patent, an excellence in manufacture of rubber belts was attained which had never before been equaled; that the duck cloth forming the foundation of the belt was more thoroughly stretched, and the plastic compound of rubber was the more surely and more largely pressed into the opened interstices of the stretched cloth, where, being vulcanized and hardened, the cured belt obtained a "permanent set." In other words, the insistence was that by the use of the Murphy machine, stretching the belting more thoroughly, and vulcanizing the belting in its stretched condition, a better belt was produced than by the use of the Gately and Forsyth machine. And this increased excellence was claimed to arise primarily from the greater stretching, and upon this alleged novel result was predicated inventive novelty; but it is apparent on the mere statement of this contention that it involved the question not of novelty, but of degree only. What Murphy did was simply to carry forward an old idea, and thereby accomplish what had been theretofore accomplished by the prior device of Gately and Forsyth, in substantially the same way as they, but with better results. Stretching the duck cloth used in the manufacture of rubber belt had been shown by experience to be a good thing. It was a matter of inference, only, that stretching the cloth in a greater degree, taking out of it a little more of its elasticity, would be adding to the excellence of the belt. But it is well settled that mere improvement in degree is not invention. The leading case of *Smith v. Nichols*, 21 Wall. 112, is directly in point. The patent was for an elastic fabric, used for the gores of gaiter boots. The elasticity was imparted by narrow strips of rubber woven into the cloth. The patentee's fabric differed from one previously used for suspenders, only in that it was more tightly woven, and that the strips or cords of rubber were nearer together. By thus increasing the elasticity of the material, the patentee made it available for a new purpose, namely, the gores of gaiter boots. The improvement was a valuable one; but inasmuch as it was an improvement in degree, simply, it was held to be no invention. The way to increase the elasticity of such corded fabrics was well known. It was to increase the proportion of elastic cords to that of the other cords used. It was therefore a mere inference that a

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 Dingle'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 1863 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