

appropriation by him, for the purposes for which he made the appropriation, namely, for irrigation. The defendant's subsequent appropriation and use of the waters of the stream was, however, controlled by the maxim, "Sic utere tuo ut alienum non lædas." For any injury done to the plaintiff's land during the time limited by, and with the exception stated in, the instructions of the court below, by the discharge into the stream of tailings or other debris from the defendant's mill, the defendant was clearly liable. *Woodruff v. Mining Co.*, 18 Fed. 753, and the numerous cases there cited.

What deterioration in quality would injuriously affect the water for irrigation, and whether or not the deterioration to which the defendant company subjected the waters in question injured the land of the plaintiff, were matters of fact; and those facts, we think, were left to the jury with sufficient clearness by the instructions of the court as given, although the court improperly instructed the jury, in effect, that, if the company used proper care in impounding the tailings from its mill, it would not be liable. This error was, however, favorable to the plaintiff in error, of which it has no just cause of complaint. Judgment affirmed.

A. B. DICK CO. v. HENRY.

(Circuit Court, S. D. New York. April 24, 1896.)

1. PATENTS—INVENTION—CARRYING FORWARD PREVIOUS INVENTION—NEW RESULTS.

The rule that a mere carrying forward or more extended application of the original invention, so as to obtain higher finish, greater beauty, and increased commercial value, is not patentable invention, has no application where the improvement, by reason of its adaptation to new uses and hitherto undeveloped possibilities, virtually performs new functions, and accomplishes new results. If such results are produced by novel means, there is a presumption of patentable invention.

2. SAME—STENCIL SHEETS.

The Brodrick patent, No. 377,706, for prepared sheets for stencils, consisting of yoshino or other similar porous paper coated with a wax so soft that the impression made thereon by the stylus or typewriting machine does not materially disintegrate the fibers, but expresses the wax out of the sheet in the form of the impressing letter, shows patentable invention, and was not anticipated.

3. SAME—PROOF OF TITLE—WAIVER OF OBJECTION.

The technical objection that complainant has failed to prove title will not be allowed to prevent a disposition of the case on the merits, when the question is not raised until near the close of the final hearing.

This was a suit in equity by the A. B. Dick Company against defendant, Sidney Henry, for alleged infringement of a patent.

Dyer & Driscoll and J. Edgar Bull, for complainant.

A. Bell Malcomson, for defendant.

TOWNSEND, District Judge. Complainant herein, by this bill, charges infringement of patent No. 377,706, granted to John Brodrick February 7, 1888, for prepared sheets for stencils, alleged to belong to complainant. The answer sets up the usual defenses.

The accurate definition of the invention, and exhaustive discussion of the patent and prior art, by Judge Green in *A. B. Dick Co. v. Fuerth*, 57 Fed. 834, dispense with the necessity of referring in detail to the matters therein considered. The decree was vacated as collusive; but I concur with Judge Wheeler in his opinion in *A. B. Dick Co. v. Wichelman*, 74 Fed. 799, that this fact "does not destroy, nor much weaken, the force of the reasoning by which the decision was reached." Subsequent proceedings before Judge Green indicate his continued belief in the validity of the patent. This opinion will therefore be confined to a consideration of the new evidence presented on this hearing, and of the reasons why, in the light of said evidence, I agree with Judges Green and Wheeler in their conclusions as to said patent.

The objection to the patent forcibly urged by counsel for this defendant, and which considerably impressed me at the hearing, is that, in view of the prior art, Brodrick's invention was only a carrying forward or more extended application of the original invention, so as to obtain higher finish, greater beauty of surface, and increase in commercial value, thus bringing the patent within the well-settled rule laid down in *Smith v. Nichols*, 21 Wall. 112, and *Burt v. Evory* (1890) 50 O. G. 1294, 133 U. S. 349, and 10 Sup. Ct. 394, and other cases. I am satisfied, however, upon thorough examination and consideration, that this argument, vigorously pressed and supported by abundant illustrations, fails to affect the invention in dispute.

A practical illustration of the results of the prior art, as compared with those obtained by the use of the patented improvement, was afforded upon the hearing. The complainant, in court, at the opening of his case, made and exhibited a stencil and copies therefrom sufficient in number to show its adaptation to the exigencies of commercial use, and claimed that, while the products of other devices were either imperfect or could only be duplicated a comparatively small number of times, by the patented device thousands of perfect copies could be made from one stencil. The defendant then strenuously contended that like results could be obtained by the use of the machines and paper of the prior art. On the last day of the hearing, defendant produced a sheet of gampi, or so-called "bamboo-fiber paper," of the prior art, and made a stencil and copies. A comparison of these copies with those of complainant indicates to my mind the crucial practical test of the validity of this patent, to wit, the successful result. It is true, the defendant made certain explanations of the reasons why his copies were unsatisfactory; but in a hearing of this character, with so much manifestly depending upon a comparison of the results of the prior art with those of the alleged invention, with the court suggesting that such comparison would be worth more to it than the mass of expert testimony, it would seem as though defendant must have been able to make a fair showing of the best results of the prior art. A comparison of these exhibits showed that, while, by means of the earlier devices, legible copies could be made from the original stencil, yet that the outlines of the letters were so broken and defective as to be mani-

festly unsatisfactory for ordinary commercial use. Complainant's copies, on the other hand, were so perfect as to be capable of universal use. In fact, they were so clear and distinct that each copy simulated and suggested the original typewriting. The well-settled limitations already considered do not apply to an invention of this character, where the improvement, by reason of its adaptation to new uses and hitherto undeveloped possibilities, virtually performs new functions and accomplishes new results. Such useful improvements may be the result of invention, and, if novel means be furnished to produce the new results, the presumption arises that the essential requirements of patentable invention have been met.

If there be any distinction between invention and discovery, as suggested by some text-book writers and courts, Brodrick may be said to have discovered a new process, and invented new means for its practical application. Prior devices used certain kinds of soft Japanese gampi, or so-called "bamboo-fiber paper," so impregnated with wax that, by the use of a perforating instrument, the portion of wax necessary to make the letters of the stencil was so cut out that, when an ink roller was passed over such sheet, the ink would pass through these perforations, and produce a printed impression on the under sheet. The defects in this apparatus were twofold: First, the wax was so hard as to rupture or abrade the fiber of the paper, and destroy the solidity of the stencil; second, the fibers were so close in the so-called "bamboo-fiber paper" that the wax could not be removed, so as to allow the ink to pass through the paper freely, without making said perforations therein. Brodrick, confronted by these objections, conceived the idea of a paper or veil of such porosity as to dispense with the necessity of perforations; and, having discovered such material in the yoshino paper, he invented the product of the patent in suit, namely, yoshino or similar paper coated with such a soft wax that the impression made thereon by the stylus or typewriting machine did not materially disintegrate the fibers of the paper, but discharged or expressed the soft coating of wax out of the sheet in the form of the impressing letter, leaving minute threads holding the various letters and portions of letters in their appropriate places. The result of this invention and discovery is to preserve said paper, and substitute the natural interstices between the fibers for the artificial perforations of the prior art. A further result was that these natural fibers served as a bridge between the otherwise disconnected solid portions of such letters, which was much more satisfactory and certain in operation than that of the walls of said artificial perforations. The effect of the use of a soft wax has already been pointed out. In view of what Brodrick's invention consisted in, and in view of the new results obtained, and of the admitted evidence that it was the first successful device of this character, and is of the greatest utility, and, further, in view of the long-continued and general public acquiescence, I think the patent discloses invention, and is entitled to a favorable consideration.

The evidence as to the Gestetner United States patent of 1885 supports the view taken by Judge Green, that it did not anticipate,

because it perforated the paper. I agree with Judge Green in the view that the paper therein referred to was gampi, and not yoshino. Counsel for defendant assumes that the earlier Gestetner provisional specification of 1881 and English patent of 1880 describe an apparatus which does not make perforations in the paper, and that, therefore, the paper to be used therein is the same as that now claimed by Brodrick; but the evidence fails to show that the earlier patent did not rely upon perforations. The preponderance of evidence is to the effect that perforations are necessary in order to secure the results therein claimed. Thus, the defendant himself says that he has to perforate the Gestetner paper, which was the same as that sold in England for use with said Gestetner apparatus, in order to get a readable stencil. And, finally, it appears that the Japanese copying paper of the provisional specification also was gampi, and not yoshino. The prior art first coated paper, and then cut holes. Brodrick discovered a paper having holes, and coated it. As Judge Wheeler accurately and clearly states it, the invention "appears to be of paper having uniform direct pores through it, of a proper size for the passage of fluids, and waxed to such density that types will so clear the spaces impressed as to make way there for the passage of ink to the surface to be printed upon."

In view of the history of the litigation concerning this patent, it has not seemed necessary to discuss at length the other points made by defendant. That the wax used in the Gestetner 1885 patent was of the consistency of the wax of the patent in suit is not sufficiently shown to prove anticipation. Mr. Brevoort's admission that "some of the fibers would be broken in making a stencil" is immaterial, and does not conflict with Judge Green's view of the invention in suit, as such breaking does not interfere with or practically affect the operation of the supporting fibers.

The complainant has sufficiently shown by expert testimony that the so-called "bamboo-fiber paper" was not in fact made from bamboo fiber; and if the photomicrographs introduced by defendant, which show certain selected samples of gampi or so-called "bamboo-fiber paper," closely resembling yoshino in construction, are correct, yet they do not show, by comparison, the qualities which made gampi a comparative failure, and yoshino a success; nor do they in any way affect the other essential inventive idea of the application of a soft wax for the production of this new result. Furthermore, the patent points out as the kind of paper which it is desirable to use, not merely any yoshino, but "one of the most porous and thinnest grades of paper made of the Japanese paper tree, or '*morus papyrifera sativa*,' commonly known as 'yoshino' in Japan, or as 'dental paper' here; having, by preference, a weight of about seventeen ounces to the ream."

The technical objection to the proof of infringement requires no consideration. The alleged prior uses not referred to in defendant's main brief or pressed upon the hearing, but discussed in the supplemental brief, would, if sufficiently proved, present a serious question; but Beale testifies from recollection as to what occurred 17 years ago. If Young was not otherwise discredited and his tes-

timony uncertain, his failure to claim or suggest his alleged invention to Brodrick, or to claim it in his subsequent patents, would be sufficient to place his evidence either within the rule of abandoned experiments, or without the requirement of proof of anticipation beyond a reasonable doubt. The denial of infringement may best be disposed of in the language of Judge Green, when a similar defense was presented after the main opinion in the Fuerth Case. Judge Green said:

"Their insistent is that as Brodrick described the wax he uses, preferably, as having a fusion point of 120° F., it follows that the wax they use is much harder, and not within the limitations of his letters patent. But the fusion point of the wax used is not the test of hardness. The true test is, will its particles move readily under slight pressure? If so, it is 'soft.' That the wax used by the defendants has this characteristic of softness cannot be denied. The fact that the stencil made by them is a perfect stencil proves it. * * * And, although the wax with which they coat their basic sheets may be different in composition from that used by the complainant, yet none the less it is a soft, waxy, or gummy coating, within the terms of Brodrick's patent."

The claim that complainant has failed to prove title might have been fatal to this bill if the objection had been seasonably taken. As, however, no objection was made at the time when the certified copies from the patent office were offered, this objection comes too late. In any event, this point not having been raised until after the case had been heard at great length, this court feels bound to dispose of the question upon its merits, and not to allow this technical objection, not raised or insisted upon until near the close of the final hearing, to interfere with the disposition of the case upon its merits. Let a decree for complainant be entered.

BENNETT et al. v. SHOOLEY.

(Circuit Court, W. D. Pennsylvania. June 16, 1896.)

1. PATENTS—CONSTRUCTION OF CLAIMS.

The words "detachable clip," as used in the claims of a patent for a railway torpedo, held to mean a removable clip, or one which is connected with, but not positively attached to, the torpedo shell, as by riveting or soldering.

2. SAME—INFRINGEMENT—RAILWAY TORPEDOES.

The Beckwith patent, No. 409,902, for a railway torpedo, construed, and held valid, and infringed as to claims 1, 2, and 5.

A. S. Pattison and J. M. Nesbit, for complainants.
William Yost, for respondent.

BUFFINGTON, District Judge. On August 27, 1889, patent No. 409,902 issued to Walter C. Beckwith for a railway torpedo. This patent was subsequently assigned to complainants, who file this bill for the alleged infringement by respondent of three claims thereof. The controversy relates to railway torpedoes, which are small tin shells or cases, charged with an explosive compound. These are placed on the rails, and attached thereto. Trains passing along ex-