movement of the handle to the right raises the fulcrum of the lever, which imposes upward pressure upon the piston. It moves upward until the elastic resistance below the piston is reduced so much that the train-pipe pressure on top of the piston can lift the escape valve by means of the lever known as "43." If the third and fourth claims require that one or both valves must be both opened and closed by the motion of the piston, and that the interposed stem must move with the piston to open one or both valves, then there is no infringement. The third claim, for example, is for the combination of piston head, charging valve, interposed stem, and escape valve with reference to the opening and closing of the charging valve. As the invention did not consist in the particular way in which the elements of this combination co-operated, in reference to the mere opening of the valve, and as the language of the claim is not limited to anything more narrow than the actual invention, the construction which the defendants seek is not necessary. The only question is whether the differences which have been stated, and which are in substance the difference between the direct action in the patented device of the piston, through the interposed stem, in opening the valves, and the action of the bell-crank lever, pin, and lever, which are the interposed stem of the defendants' device, constitute such a departure from the means which the patentee used and described as to constitute new and different means, which escape a just charge of infringement. The question of infringement is controlled by the principles restated in Machine Co. v. Lancaster, 129 U. S. 263, 9 Sup. Ct. 299, and confirmed in subsequent and recent cases (Miller v. Manufacturing Co., supra), and which makes these actual differences, which would be important in a subordinate patent, unessential when a patent for a pioneer invention is under examination. If such differences should be regarded by courts as essential, when the claims do not make the specific devices essential, patents for pioneer inventions would ordinarily have but little value.

All the decrees of the circuit court in case No. 4,976 and in case No. 4,977, which have been appealed from, are affirmed, with costs of this court. The interlocutory decree of the circuit court in case No. 5,315 is reversed, with costs of this court, and the cause is remanded to that court with instructions to dismiss the bill, with costs of that court.

## ACCUMULATOR CO. v. EDISON ELECTRIC ILLUMINATING CO. OF NEW YORK.

(Circuit Court, S. D. New York. October 8, 1894.)

1. Patents—Process and Product—Infringement — Secondary Batteries. Reissue No. 11,047, of the Swan patent for a secondary battery, in which the active material is packed in and confined to perforations extending through the plate, is a patent for a product, and not for a process; and hence infringement is not avoided by arranging pastilles or buttons of the material in molds, and then casting the plate around them, instead of first making the plate, and then packing the material in the perforations.

2. SAME—INFRINGEMENT SUITS—LACHES—EXCUSE FOR DELAY.

Delay in suing an infringer may be excused on the ground that the infringing article, as at first constructed by defendant, was not believed by complainant to be commercially harmful, the grounds for such belief being reasonable.

This was a suit in equity by the Accumulator Company against the Edison Electric Illuminating Company of New York, impleaded with the Electric Storage Battery Company.

Betts, Hyde & Betts, for complainant. Eaton & Lewis and J. R. Bennett, for defendant.

LACOMBE, Circuit Judge. The Battery Company, which is named as a defendant, but which, being a nonresident, has not been served, and does not appear, manufactures the articles alleged to in-The Illuminating Company has contracted to purchase a large number of them, and is about to put them to use in this city. Complainant is the owner of letters patent, reissue No. 11,047, December 17, 1889 (original No. 312,599, February 17, 1885), to J. W. Swan, for "secondary battery,—a variety of electric storage battery. The original patent, No. 312,599, was considered by this court in Electrical Accumulator Co. v. Julien Electric Co., 38 Fed. 117, and held invalid, as it described and claimed more than the inventor discovered. Thereupon, reissue was obtained, and such reissue was considered by this court, and sustained, in Electrical Accumulator Co. v. New York & H. R. Co., 50 Fed. 81 (opinion by Judge Coxe). In an application therefore for preliminary injunction on the same patent, the construction laid down in that opinion will be adhered to.

The claim of the patent is for "a perforated or cellular plate for secondary batteries, having the perforations or cells extending through the plate, and the active material, or material to become active, packed in the said perforations or cells only, substantially as described." Judge Coxe held that although the art already showed plates in which the active material was packed into grooves or holes not extending through the plate, and also plates where the active material filled, not only the perforations, but also the entire surface of the plate itself, Swan's combination, in which the perforations extended through the plate, and the material filled the perforations only, was original with him; that it was not only new, but useful,—an important advance in the art; and that "the idea which has made these plates a commercial success was first given to the world, in a practical embodiment, by Mr. Swan." evidence tending to modify Judge Coxe's opinion being introduced, it settles the law of this case, and the only question here is whether defendant's plates infringe.

These plates, which are for secondary batteries, are perforated plates. The perforations extend through the plate. The active material is found in the said perforations, and in them only. Infringement by the completed structure is so plain that defendant has been constrained to insist that Swan's patent is practically for a process, and therefore, as defendant's process of making the plates

Thus, Swan constructed is a different one, there is no infringement. a plate with perforations or cells extending through it, and then packed the material in the perforations. Defendants arrange pastilles or buttons of the material in a mold, and then cast the plate around them. Manifestly, the result is the same whether the material is packed within the bounding walls of the perforations, or whether the bounding walls of the perforations are packed around the material. Defendants also insist that the material which they use is not active when the process of packing antimonious lead around it is complete, and that it does not become active the moment it is placed in the battery fluid, but requires further electrolytic treatment before it becomes active. But the patent is not confined to active material; it includes "material to become active;" and whether it becomes active by one process or another is apparently The gist of Swan's invention, as found by Judge Coxe, was the confining of the material which was to do the work within perforations which extended completely through the plate. The advantages of such plates is pointed out in his opinion, and those which defendant threatens to use are plainly such plates. There is nothing in the patent, or in Judge Coxe's opinion, which supports the contention that the claim is other than what it appears to be,—a claim for a completed article, not for a process of manufacture. Infringement is clear.

It is further contended on behalf of the defendant that complainant has been guilty of such laches as should preclude the granting of a preliminary injunction. In a case where this defendant, or its allied corporation, was complainant, the court of appeals, in this circuit, held that the owner of a patent was under no obligation to sue every infringer forthwith upon discovery of the infringement, provided he proceeded with due diligence against the one whom he did sue. Edison Electric Light Co. v. Sawyer-Man Electric Co., 53 Fed. 592, 3 C. C. A. 605. There is no suggestion of any unreasonable delay in prosecuting the test suits against the Julien Company and the New York & Harlem Railroad Company. Judge Coxe's decree in the last-named suit is dated April 12, 1892. present action was begun in August, 1894. During the intermediate period, and for some years before,—certainly, since 1889,—the Storage Battery Company made plates which differed from those sold to the Illuminating Company, both in the size of the plate and in the size of the buttons. The plate now complained of is 15 inches square, and contains 256 buttons of active material. older plates were 6 by 8 inches, and contained 9 or 12 buttons. Both were equally infringements of the patent, which is not confined to plates or buttons of any particular, absolute, or relative Complainant insists that it did not prosecute for infringement by the earlier plates for the reason that it did not believe The grounds for that belief are them to be commercially harmful. said to be the relative size of plate and button. In the later plates the loss by accident, while in use, of the contents of a single hole, would not, it is asserted, practically destroy the usefulness of the plate, being only a loss of 1-256 of the active material. A similar

accident to the older plate, however, would destroy its usefulness, as the single perforation holds 1-9 or 1-12 of the active material. This explanation seems a reasonable excuse for failing to prosecute against the older plates, and I find nothing in the transactions between the complainant's officers and those of the Storage Battery which should estop complainant from maintaining this action. In April, 1893, certainly, both sides understood, and expressed their understanding in writing, that the question of infringement of the several patents owned by complainant would be tested by suit. As to the Danish patent, the conclusion reached by Judge Coxe, without argument, viz. that "it is not for the same invention as the Swan reissue," is concurred in by this court, after argument. Motion for preliminary injunction granted.

## WHITCOMB ENVELOPE CO. v. LOGAN, SWIFT & BRIGHAM ENVELOPE CO. et al.

(Circuit Court, D. Massachusetts. July 17, 1894.)

No. 2,738.

1. PATENTS-INFRINGEMENT-ENVELOPE MACHINES.

In a patent for improvements in the drying apparatus of an envelope machine, a claim for a revolving drum having ingers projecting from its rim, with intervals between them slightly greater than the thickness of the envelope, so that it may be retained by pressure between the fingers, is not infringed by a drum in which, instead of fingers, there is a plate with a rib extending across its face, against which the flap of the envelope catches, and the envelope is thus held in position.

2. SAME.

The Swift reissue, No. 9,800, for an improvement in the drying apparatus of an envelope machine, limited, and held not infringed by a dryer retaining the envelope in position by means different in operation and result from the bulged finger described in the patent; but infringed by the so-called "basket dryer."

This was a suit in equity by the Whitcomb Envelope Company against the Logan, Swift & Brigham Envelope Company and others for infringement of a patent.

George O. G. Coale and Elmer P. Howe, for complainant. Causten Browne and William W. Swan, for defendants.

COLT, Circuit Judge. The Swift reissued patent, No. 9,800, upon which the present suit is brought, is for an improvement in the drying apparatus of envelope machines. In place of a flexible belt with pockets, which is found in the old dryer, Swift substitutes a revolving drum with rigid fingers projecting from its rim, so arranged "that an envelope may be held in the space between two consecutive fingers, and no pressure be exerted on the recently gummed parts while the gum on the seal flap is drying." The fingers are provided with a bulge, and the interval between the adjacent fingers is slightly greater than the thickness of the envelope, and the envelope is held between the adjacent fingers. The specification also describes guard flanges surrounding the ends of