

a written transfer to the receiver of his title to the patent, it is entirely clear that any equitable title which he may have had vested in the receiver, and passed by the sale to Vermilyea, and from Vermilyea to the defendant, by the assignment from Vermilyea. Newton never acquired anything but an equitable title to the patent,—the right to compel a reformation of the agreement of March 6, 1889. He did not acquire the legal title, because, without an assignment such as the statute requires to effect the transfer of a patent interest, that title remained in the prior owner, the present defendant. *Wilder v. Gayler*, 10 How. 498. As that equitable title had, at the date of his assignment to Dooley, passed to the receiver, and the complainant's title is derived through that assignment, she took nothing by the instrument. The decree is reversed, with costs to the appellant, and with instructions to the circuit court to dismiss the bill.

WESTINGHOUSE AIR-BRAKE CO. v. NEW YORK AIR-BRAKE CO. et al.

(Circuit Court, S. D. New York. October 13, 1896.)

1. PATENTS—VALIDITY AND INFRINGEMENT—AIR BRAKES.

The Westinghouse patent, No. 360,070, for a fluid pressure automatic brake mechanism, construed, and *held* valid and infringed as to claims 1, 2, 4, and 5, and not infringed as to claim 3.

2. SAME.

The Westinghouse patent, No. 376,837, for fluid pressure automatic brake mechanism, construed, and *held* infringed as to claim 1 (65 Fed. 99, reaffirmed), and not infringed as to claims 3 and 4.

This case, which comes up for hearing upon pleadings and proofs, is a suit in equity to enjoin infringement of certain letters patent of the United States. These patents are three in number, viz.: No. 360,070, to George Westinghouse, Jr., March 29, 1887, for "fluid pressure automatic brake mechanism," complainant alleging infringement of claims 1 to 5, inclusive; No. 376,837, to George Westinghouse, Jr., January 24, 1888, for "fluid pressure automatic brake mechanism," complainant alleging infringement of claims 1, 3, and 4; and No. 393,784, to Harvey S. Park, December 4, 1888, complainant alleging infringement of claims 1, 3, 4, 5, 7, 8, 9, 10, 12, 13, 14, 15, and 16.

J. Snowden Bell, George H. Christy, and Frederick H. Betts, for complainant.

Frederick P. Fish and Charles Neave, for defendants.

LACOMBE, Circuit Judge (after stating the facts). Judicial opinion as to the validity and construction of these three patents has been so fully expressed in the various decisions already rendered, and which are referred to below, that no extended disquisition is either necessary or proper in this court. Reference may be had to the opinions cited, for a statement of the reasons which have induced the conclusions hereinafter briefly indicated.

Suit was brought in this court upon 376,837 and the Park patent, and came on for hearing before Judge Townsend, who sustained the validity of both patents, found infringement of 376,837, and non-infringement of the Park patent. *Westinghouse Air-Brake Co. v. New York Air-Brake Co.* (Nov. 20, 1893) 59 Fed. 581. This suit was appealed to circuit court of appeals in the Second circuit, and Judge Townsend's decision as to these two patents was affirmed. *Id.* (Oct. 15, 1894) 11 C. C. A. 528, 63 Fed. 962. Defendants modified their device, and the suit at bar was brought to enjoin the sale or use of their new "Quick-Action Triple Valve B." Application was made upon elaborate affidavits for a preliminary injunction, the motion was argued at great length, was duly considered by this court, and an opinion filed December 24, 1894, sustaining the validity of No. 360,070 (which had not been in issue in the earlier suit), and finding infringement of claims 1, 2, and 4 of that patent, and also of claim 2 of 376,837. *Id.*, 65 Fed. 99. Suit was also brought in the circuit court for the district of Maryland on No. 360,070, to enjoin still a different form of mechanism; and the cause coming on before Judge Morris, March 11, 1895, he held claims 1, 2, and 4 to be valid, and found infringement of claim 2, but not of claims 1 or 4. *Westinghouse v. Power-Brake Co.*, 66 Fed. 997. An appeal from the preliminary injunction issued in the suit at bar came up for hearing before the circuit court of appeals in the Second circuit, and was decided May 28, 1895. The decision sustained the circuit court as to patent 360,070, but reversed as to 376,837, on the sole ground that the question was "too doubtful to be resolved in favor of the complainant upon a motion for a preliminary injunction, and should be reserved for disposition upon the final hearing of the cause." *New York Air-Brake Co. v. Westinghouse Air-Brake Co.*, 16 C. C. A. 371, 69 Fed. 715. An appeal from Judge Morris' decision was subsequently decided by the circuit court of appeals, Fourth circuit, November 11, 1895. That court sustained him as to claims 1 and 4 of 360,070, but reversed as to claim 2, holding that it is fatally defective in claiming only a result, and not identifying the specific means by which that result is achieved. *Westinghouse Air-Brake Co. v. Boyden Power-Brake Co.*, 17 C. C. A. 430, 70 Fed. 816. In the light of these decisions, the questions now presented are to be disposed of.

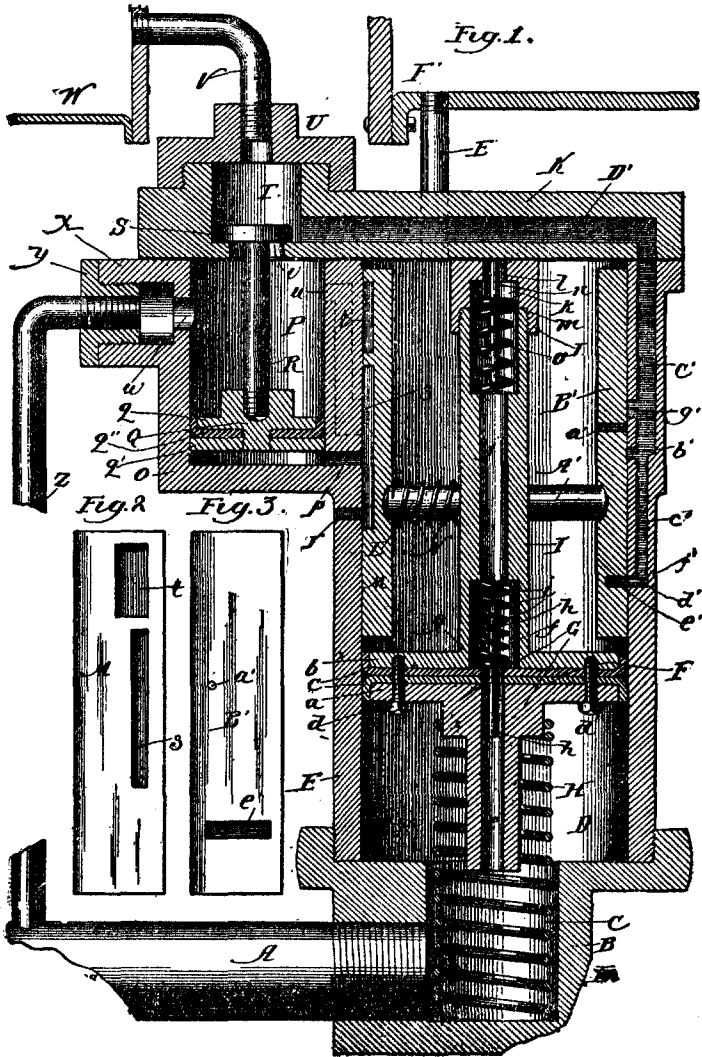
Patent No. 360,070: Claims 1, 2, and 4 were sustained by this court on motion for preliminary injunction, and infringement found. The court of appeals in this circuit has sustained that decision in these words: "We agree with the court below that the defendants' apparatus is an infringement of the first, second, and fourth claims of patent No. 360,070, and deem it unnecessary to add anything to the opinion." In the record now presented at final hearing there is nothing which calls for any modification of the opinion already expressed. To enter into any extended discussion of the case as to this patent would be a work of supererogation, inasmuch as the case in the Fourth circuit, above cited, has been taken by certiorari to the supreme court, and because of the existing difference of opinion between the courts of appeal in the two circuits has been advanced

on the calendar, so that it will be submitted to that tribunal for final disposition within the current month. The fifth claim of this patent was not passed upon on the motion. It differs from the fourth only in adding a check valve to the combination of that claim. It is not disputed that defendants' device contains a check valve, and, if it be held to infringe the fourth claim, it infringes the fifth as well. The third claim contains, as an element, "a second admission of air from the auxiliary reservoir to the brake cylinder." Manifestly, this is a narrower claim than those discussed when the case was here before; and, since the patentee has chosen to make a "second admission of air" material, infringement is not found in a device which substitutes a "single admission of air," although such single admission be continuous.

Patent No. 376,837: In reversing the former finding of this court as to the first claim of this patent, the court of appeals did not pass upon the merits. It held only that the question was too doubtful to be resolved upon motion for a preliminary injunction, but should be reserved for final hearing upon a complete record, where abundant opportunity has been given to reply to testimony, expert or other, and to cross-examine all witnesses. An examination of the record as it now stands has not changed the conclusion of this court as heretofore expressed, and it is therefore unnecessary to do more than refer to the former opinion as stating the reasons for holding the first claim to be infringed. The third and fourth claims have not been passed upon by this court, and were not presented to the court of appeals. Both of them contain, as an element of the combination, "a passage establishing communication between said supplemental piston and an auxiliary reservoir." The complainants contend that this passage is to be found in defendants' port, p. Inasmuch as this court finds "an auxiliary reservoir" in the space which is contained in the chamber, P, above the piston, and in the port or passage, p, below the cut-off, 14, in the sliding valve, it is manifest that there is no "passage establishing communication" between the supplemental piston and such "reservoir." If this court is right in holding that the space referred to is "an auxiliary reservoir," then it abuts directly on the supplemental piston, and any "passage" between the two is dispensed with. For this reason it is thought that the third and fourth claims of No. 376,837 are not infringed.

Park patent No. 393,784: The court of appeals in this circuit has held that this is a subordinate patent, and must receive a narrow construction. The feature which Park introduced into the quick-action operation was the working of the emergency valve piston by train-pipe pressure. This specification states that the object of the invention is "to enable a better, quicker, and more certain action to be had of pneumatic controlling devices for air brakes, * * * and at the same time have the valve controlling the direct passage of the pressure from the train pipe to the brake cylinder under the direct action of the train-pipe pressure." In describing the operation of his device, the patentee says: "The train-pipe pressure through the pipe, Z, will act on the under side of the valve, S, opening

the valve," etc.; and also: "It will be thus seen that the valve, S, is controlled in both opening and closing by the train-pipe pressure, * * * and, with this construction, the train-pipe pressure performs the office of both opening and closing the valve." Many of



the claims contain words describing the valve or the valve and passages as "actuated by train-pipe pressure," or "controlling the pressure to the brake cylinder direct by train-pipe pressure," or some equivalent phrase. Other claims there are which contain no such phrase; but, since Park's invention was a device for working the emergency-

valve piston by train-pipe pressure, the complainant's expert is entirely correct in the statement that "all [the claims] refer to combinations of parts which relate to the various structural features of a triple valve, in which the extra traverse of the piston so adjusts the parts that the valve between the train pipe and the brake cylinder can be opened by the compressed air in the said train pipe. * * * The improvement that Park introduced in the art, and has described in his patent, only threw upon the main piston the extra labor of compressing the spring, H. The valve, S, being a poppet valve, did not have to be slidden over its seat while under pressure by the movement of the piston, but was raised by the air pressure in the train pipe. This is thought to be an improvement, * * * a minor improvement, of the Westinghouse patent. * * * Thus, it will be seen that all the claims of the Park patent relate to that improvement." The conclusions expressed in the former opinion of this court when granting the preliminary injunction, and which are still adhered to, as to the relation between the defendants' valve and the first claim of patent 376,837, dispose of the contention that such valve infringes the Park patent. All compressed air in any part of the entire brake system behind the engine is or has been train-pipe air. It is compressed in the main reservoir on the locomotive, and thence passes into the train pipe proper, and from that train pipe into its several branches and such chambers connected therewith as may admit of its entry. All agree that, while it is still in the train pipe, the force it exerts is "train-pipe pressure." All agree that, when train-pipe air has passed through the charging port into the auxiliary reservoir of the original triple-valve device or its subsequent modifications, the force it exerts is "auxiliary reservoir pressure." This court has found further on complainant's contention, and against defendants' opposition, that when train-pipe air has passed through some other port or passage into another chamber, and has been confined therein and cut off from further connection with the source of supply, the force which it exerts is "pressure from an auxiliary reservoir," and because of such finding has held defendants' valve to be an infringement of patent 376,837. If this finding be correct, defendants' valve does not infringe the Park patent, because in that patent the compressed air whose expansive force lifts the piston is within a chamber in free communication with the train pipe, it has not yet passed beyond any barrier which segregates it from the whole body of train-pipe air, and its force may fairly be called train-pipe pressure, while in the defendants' valve the compressed air, by the dissipation of whose expansive force the piston is induced to move, is within a chamber which has been absolutely cut off (by the slide 14) from the train pipe, it has been segregated from the general body of train-pipe air into an independent reservoir, and its force may fairly be called "pressure from an auxiliary reservoir." For these reasons it is thought that defendants' "Quick-Action Triple Valve B," the device complained of, does not infringe the Park patent.

A decree will be entered in accordance with the views above expressed.

MULLER v. LODGE & DAVIS MACHINE TOOL CO.

(Circuit Court of Appeals, Sixth Circuit. December 8, 1896.)

No. 392.

1. PATENTS—INVENTION—COMBINATIONS—IMPROVEMENTS.

If an inventor has greatly increased the effectiveness of the mechanism he claims, his patent may be sustained, though his elements are old, and no original result is accomplished. *Loom Co. v. Higgins*, 105 U. S. 580; *The Barbed-Wire Patent*, 12 Sup. Ct. 443, 450, 143 U. S. 275; and *Topliff v. Topliff*, 12 Sup. Ct. 825, 145 U. S. 156, applied.

2. SAME—LIMITATION OF CLAIMS—REFERENCE LETTERS.

Where each claim of a patent covers a combination of old elements, definitely specifying the elements entering into it, and by reference letters carrying into the combination each element specified, and the only operation described in the patent involves every one of the elements and their conjoint use, each element then becomes material, and the courts cannot enlarge the claims by dispensing with any one of them.

3. SAME—BROAD INVENTION.

If an invention is of a broad and meritorious character, such as to work a decided advance in the art, it will require something more than the use of reference letters in his claims to limit him to the exact form of device he has described.

4. SAME—TOOL HOLDERS FOR LATHES.

The Muller patent, No. 272,304, for an improved tool holder for lathes, must be limited, as regards claims 2 and 4, which consist of combinations of old elements, by reason of the prior state of the art, and in order to avoid anticipation, to the precise structure described and claimed by reference letters; and the patentee is not entitled to invoke a liberal application of the doctrine of mechanical equivalents. These claims are therefore not infringed by any device which omits any of their elements, or departs from the precise form described. 69 Fed. 738, affirmed.

Appeal from the Circuit Court of the United States for the Western Division of the Southern District of Ohio.

This is a bill in equity alleging infringement of patent No. 272,304, issued February 13, 1883, to the complainant, Conrad Muller, for what the inventor describes as a new and improved tool holder for lathes. The application states that the object of the invention is "to provide a new and improved device for holding and adjusting the cutting tool of a lathe in such a manner that it will be held firmly, and can be adjusted very nicely and accurately, without being affected by the inaccuracies and lost motion of the screw-spindle for moving the tool-holding block." The patentee then proceeds to say in what his invention consists, in the following words:

"The invention consists in a screw and nuts mounted thereon for adjusting the tool-holding block or slide of a lathe within the limits of the lost motion of the main spindle, which nuts have graduated collars to facilitate their accurate adjustment. The invention further consists in a crosspiece in which this adjusting screw is journaled, which crosspiece is provided with devices for locking it in position. The invention also consists in a wedge provided with a squared aperture, combined with an eccentric disk for moving the wedge to lock or unlock the crosspiece. Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures."

The drawings referred to, and made part of the specifications, are shown on next page.

These drawings, and the operation of the mechanism described, are thus explained by the patent:

"Figure 1 is a plan view of a tool holder for a lathe provided with my improvement. Fig. 2 is a longitudinal, sectional elevation of the same on the line, x x, Fig. 1. Fig. 3 is an end elevation of the same, parts being shown