

and thus the entire combination, being apparently new in the art, may be patentable. It seems quite plain from the language of the patent that the inventor selected a bifurcated, rather than the unbifurcated, extension, to accomplish that very result,—the locking of the tongue. And we are of the opinion that, if the first claim is to be sustained at all, it can only be by reading into it, not merely the limitations suggested by the circuit court, viz. that the tongue should be pivoted directly to the tongue plate, and below its face, and between its bifurcated ends, but also the further limitation that the tongue should have the broadened position to combine with the elastic arms. As thus modified, however, the invention is described in claim 4 of the patent:

"(4) In combination, the catch plate, the tongue plate provided with the laterally elastic bifurcations extending rearward of the pivot, and the tongue swinging in the bifurcations, with a broadened portion which passes between the elastic arms as the tongue is swung, all substantially as described, and for the purpose set forth."

—Which is really all that the inventor was entitled to claim. The defendants' clasp, however, has no such broadened tongue,—the locking of the tongue being secured by the use of flattened, laterally projecting pivots,—and does not infringe complainant's patent, as it must be construed to sustain its validity.

The decree of the circuit court is reversed, and cause remanded, with instructions to dismiss the bill, with costs of both courts.

DELEMATER et al. v. HEATH.

(Circuit Court of Appeals, Second Circuit. October 17, 1893.)

1. PATENTS FOR INVENTIONS—VALIDITY—PRIOR USE—WHAT CONSTITUTES.

A single unrestricted sale is sufficient to establish the defense of a prior public use, and, where a machine is sold unconditionally in the ordinary course of business for a substantial price, the fact that the maker's workmen made frequent visits to it in the purchaser's house, to make repairs, observe its workings, and see if any improvements suggested themselves, is not sufficient to prove that the use was experimental merely. *Elizabeth v. Pavement Co.*, 97 U. S. 126, distinguished.

2. SAME—LIMITATION OF CLAIMS—REFERENCE LETTERS.

A mere reference in a claim to a letter on the drawing does not of itself limit the claim to the precise geometrical shape shown in the drawing, even though the description in the specifications refers to the part by an adjective descriptive of its shape, unless that particular shape is pointed out by the specifications or is known by the state of the art to be the particular improvement the patentee claimed.

3. SAME—EQUIVALENTS—HOT-AIR ENGINES.

Attaching the pump plunger of a hot-air engine to the same oscillating beam to which the working piston is connected, but further from the center of oscillation, so as to give a longer stroke, is mechanically the same thing as attaching it further from the center of oscillation to an arm at one side of the beam, parallel with it, fastened to the same axle, and describing the same arc; and a claim for the former includes the latter.

4. SAME—PRIOR USE.

The Ericsson reissue patent No. 9,414, for a hot-air engine, is invalid, because of prior public use of the machine.

'Appeal from the Circuit Court of the United States for the Southern District of New York.

In Equity. Suit by William Delemater and another against Marcellus C. Heath for infringement of a patent. The court below dismissed the bill, and complainants appeal. Affirmed.

Statement by LACOMBE, Circuit Judge:

This is an appeal from a decree of the circuit court in the southern district of New York, dismissing a bill in equity brought for the infringement of reissued letters patent No. 9,414, granted to the assignees of the late John Ericsson on October 24, 1880, and assigned by mesne assignments to the complainants. The original patent was granted March 30, 1880, being numbered 226,052. The patent is for an improved hot-air engine, and contains four claims. Infringement of all these claims is charged in the bill and denied in the answer. The evidence, however, clearly shows that defendant's engines are covered by all the claims, and the fact of infringement is practically conceded. The principal defense is that the machine had been in public use and on sale for more than two years prior to the application, February 19, 1880. The circuit court sustained that defense, and it is assigned as error by the appellants that said court did not hold (1) that the prior use or sale was for purposes of experiment only; (2) that the invention recited in claim 2 was patentably distinguishable from the structures held to have been in public use; and (3) that the invention recited in claim 3 was similarly distinguishable.

William C. Witter, for appellant.

S. A. Duncan, for appellee.

Before LACOMBE and SHIPMAN, Circuit Judges.

LACOMBE, Circuit Judge, (after stating the facts.) Of the defense of prior use and sale, as shown by the proof in this case, it is to be said that much of the perplexity which usually accompanies such a defense is not present. There is no question as to the measure of credit to be given to the unaided memory of individuals as to remote dates, or as to the structure of a machine seen years before. Of the four or five engines that were sold and used two are exhibits in the case, and it is not disputed that the others so sold and used were of the same model, while the dates on which they were sold are shown in complainants' own proofs. Upon their filed brief it is admitted that the Delemater, Thorne, Francke, and Hoadley engines (so called on the argument, after the names of the respective purchasers) were sold and used prior to February 19, 1878. The evidence points strongly to the conclusion that a fifth engine, the Appleton, was also sold and used before that date. The complainants seek, however, to avoid this prior use by showing that it was an experimental one only, within the principal enunciation by the supreme court in *Elizabeth v. Pavement Co.*, 97 U. S. 126.

An extraordinary mass of testimony has been introduced in support of this contention. It has been shown that it was very desirable that the engine should be made the subject of experiment, not only in the shops, but also in private houses, where it might be operated by unskilled hands; that the workmen and employes of the manufacturer "believed" or "supposed" or "considered" that the use was experimental; that some of the persons to whom the engines were sold were personal friends of the inventor, or of the owners

of the patent; that frequent visits were made to the engines by their employes, and the results of such visits reported to the makers; that the engines were repaired by them from time to time, sometimes without charge; that improvements suggested by watching the engines in operation were made; that, although a substantial price was paid for each of the engines so sold, it was not high enough to be remunerative of the cost of production; that no effort was made to press the sale of the engines, and that they were not exhibited, price-listed, or advertised. All this evidence would be valuable and persuasive if it were coupled with even a scintilla of proof that the sales of the machines were restricted. But not only is the case barren of evidence in support of that proposition, but the converse is shown by direct and positive proof, certainly in one instance, probably in others; and a single instance is quite sufficient to make out the defense. *Egbert v. Lippmann*, 104 U. S. 333.

A mechanical invention can be put to use only when embodied in a concrete machine, and it is as much embodied in one such machine as in a thousand. Whether, when thus put to use, it is put "in public use," is a fact to be determined, not by the number of machines in which it is so embodied, nor by the length of time they are run, but by the extent of use to which such inventor allows such embodiment to be put. He may retain his control over the machine which embodies his invention, and reserve to himself the right to select the individuals who shall use it, or secure to himself right of access to it for the purpose of conducting his experiments; but when he parts with such machine unreservedly, so that thenceforth the right to take, and hold, and use, and sell it is free to the public, that machine, and the invention it embodies, is by him put in public use. And he does so part with it when he sells it under a contract which not only allows the individual purchaser to use it, but leaves him free to transfer machine and use to whom he will. Whether the purchaser choose to resell it or not is immaterial; he has the power to do so, and that is enough. If the inventor wishes to keep control of the machine which embodies his invention, to secure his own access to it for examination, and to keep it in the friendly hands of those who, he intends, shall aid him by practical experiment, he must make such restrictions a part of the contract of sale, and the court cannot assume them to exist in the absence of proof.

It will not be necessary, therefore, to refer to more than the Hoadley engine. Mr. Hoadley, in the spring of 1877, bought a house, No. 11 West Forty-Ninth street, and immediately began to overhaul the plumbing, preparatory to occupying it. A pump was needed to fill a tank in the upper story. He objected to a hand pump, because the working of it took up so much of the coachman's time. The master plumber, who had the house in charge, called his attention to "these hot-air engines." One of them had been placed in Mr. Thorne's house October, 1875, and another, February, 1877, in Mr. Francke's house, No. 2 West Fiftieth, nearly in rear of Mr. Hoadley's. To this last-named engine his attention was called by the plumber. Hoadley did not go to Francke's house, however,

but to Delemater's office and salesroom, where, upon stating his business, the engine was shown and explained, and its advantages described. Either at that time or upon a subsequent visit he concluded the purchase of one of the engines. He puts the date some time in June, 1877, but cannot give it precisely, which is immaterial, as appellants concede it was sold and put up in his house prior to October, 1877. He testified that it was not a gift; that he purchased it in the ordinary course of business, and paid the price asked, after an ineffectual effort to secure some abatement; that the price was, as he remembered, \$250, but, not having receipt or check at hand, he could not state positively as to that. Certainly he paid a substantial sum for it, and appellants do not contend that less than \$200 was so paid; that being about the price paid for the other engines sold within the period in question. The record is barren of any evidence to show that this was a restricted sale. The circumstances that the engine was frequently visited by employes of the complainants "to see if it was all right, and make a kind of study of it, to see if any little thing could be improved on," that besides repairs which were made by an outside party there were some which were made by complainants; that of these repairs so made by complainants some were charged against Hoadley, and collected from him, some charged against him, and not paid, because he thought the amount excessive, and some made without charge,—are in no way inconsistent with an unrestricted sale. There is not a scintilla of evidence to show that Hoadley was not, as any ordinary purchaser of a machine would be, entitled to exclude complainants from any access to his premises, to have repairs made by whom he chose, to carry the machine wherever he pleased, to use it as he saw fit, and sell it to any one. One of complainants' firm testified generally, as to all the engines sold prior to 1880, that "they regarded the money paid for them as a sort of trust, and that, if the engines had not been of some practical value to the parties, the money would have been refunded." And in 1884, the Hoadley engine being out of repair, they sold him a new one for \$260,—\$100 in cash, and \$160 as allowance for the old machine, which they took back. But there is no evidence that any agreement to take back the engine was embodied in the contract of sale, nor even that there was any guaranty of its efficiency. The very phraseology of the witness above quoted is persuasive to the conclusion that the contract of sale was as Hoadley testified, "in the ordinary course of business," the complainants' intentions in case the machine proved a failure being locked up in their own minds, and not communicated to the purchaser.

The opinions of the supreme court in *Fruit Jar Co. v. Wright*, 94 U. S. 92; *Egbert v. Lippmann*, 104 U. S. 333; *Hall v. MacNeale*, 107 U. S. 90, 2 Sup. Ct. Rep. 73; and *Manufacturing Co. v. Sprague*, 123 U. S. 249, 8 Sup. Ct. Rep. 122,—abundantly sustain the proposition that proof of a single unrestricted sale is sufficient to establish the defense of prior public use; and the case at bar is plainly distinguishable from *Elizabeth v. Pavement Co.*, 97 U. S. 126. There the inventor obtained permission from the corporation owner of a
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public toll road, in which he was a stockholder and treasurer, to lay a section of his pavement, 75 feet in length, on the road adjoining the toll house, where he could observe the effect upon it of public travel. The corporation did not buy his pavement, nor acquire any right to resell it to others, nor even to put it to use elsewhere than where he laid it.

That the invention embodied in the Hoadley engine was in public use for more than two years prior to the inventor's application, within the meaning of section 4886, Rev. St. U. S., is established by the proof.

Complainants contend, however, that in two respects that engine was patentably distinguishable from the machine claimed in the patent, claims 2 and 3.

Claim 2 is as follows:

"(2) The combination of the working pistons, A, B, beam, C, connecting rod, D, crank, E, connecting rod, F, bell-crank lever, G, and rods or yoke, H, all substantially as described."

The differences are in the "rods or yoke, H." Briefly stated, these rods are used to connect a crank lever, which plays outside of the cylinder, and near its lower end, with a piston called the "exchange piston," which plays vertically above the cylinder. In the engines sold prior to February, 1878, these rods were straight, and at a sufficient height above the cylinder to allow of free motion. They were connected by a straight horizontal crosspiece, to the center of which the head of the exchange piston was fastened. In the drawings annexed to the patent these rods are curved; that is, for so much of their length as is parallel with the cylinder they are straight, but at a distance above the cylinder head sufficient to clear the rest of the mechanism they are curved inwardly till they meet, forming an arch, to the center of which the exchange piston head is fastened. It is insisted that this latter construction is an improvement over the straight crosspiece, because in the latter form there is developed an "axial twist" when the machine is in action. The evidence supports the contention that the change was a beneficial one, but the difficulty with the complainants' case is that the new construction was not regarded either in the specification or the claim as a patentable one. It is true that the rods are shown arched in the drawing, and once in the specification they are referred to as "arched side rods," forming an "arched yoke." But nowhere in the specification is there pointed out any advantage arising from their shape. There is no suggestion that anything depends upon their forming an arched yoke instead of a straight one, and the claim itself does not even refer to them as "the arched rods or yoke, H." A mere reference in a claim to a letter on the drawing does not of itself limit the claim to the precise geometrical shape shown in the drawing, (*Reed v. Chase*, 25 Fed. Rep. 100,) even though the description of the drawing in the specification refers to the part thus lettered by an adjective appropriate to the form shown in the drawing, unless that particular form is pointed out in the specification, or was known by the state of the art to be the particular improvement the inventor claimed. Claim 2, as phrased, covered not

only arched rods and arched yoke, but also the old and well-known equivalent of such a device for moving pistons, namely, the straight rods and crosspiece of the Hoadley type of engine.

Claim 3 is as follows:

"(3) The combination with the working cylinder and piston of an air engine, and a beam with which the said piston is connected, of a pump, having its piston or plunger connected with said beam at a greater distance from the center of oscillation thereof than the connection of the working piston, substantially as and for the purpose herein described."

The purpose described in the specification is to "obtain the well-understood advantage of a long stroke for the pump which is further from the center of oscillation, and a short stroke of the working piston of the engine," which is nearer to such center of oscillation. In the patent the piston of the pump is connected directly with the beam, which is prolonged in a straight line from the center of oscillation; and, in order that it may work both pistons, the pump is located, so to speak, beyond the cylinder, both pistons being in the same vertical plane in which the beam moves. In the machines of the Hoadley type the piston of the pump is not attached directly to the beam, but to an arm which is fixed rigidly to the same axle as is the beam; lies horizontally in the same plane as the beam, and moves with it, rotating within precisely the same angle as the beam. Mechanically the structure is the same as if the beam were a wide one, the working piston attached to its medial line, the piston of the pump to its outer edge. In this variety of structure, of course, the two pistons are no longer in the same plane as in the other one, and in the testimony and briefs the pump is generally referred to as being "at the side" of the cylinder. While in one way this statement is true, it is misleading; it would seem to indicate that the pump was located 90°, measured on the cylinder, from its location as shown in the patent. As matter of fact it falls substantially short of that distance, and in consequence its piston is located at a greater distance from the center of oscillation than is the working piston, thus securing the very advantage which the patent described,—a difference in the length of stroke of the two pistons. That the piston in one case is fastened directly to the main beam, in the other to the arm, is immaterial; the methods of attachment are mechanical equivalents. The difference in length of stroke is not so great in the one form as in the other, but it exists, and is produced in the same way, viz. by arranging the two pistons at different distances from the center of oscillation. Both varieties of model are within the claim of the patent.

We concur, therefore, with the circuit judge in the conclusion that the straight rods and the beam with arm attachment are equivalents, respectively, of the arched rods and the straight beam; that the Hoadley engine embodied the invention of the patent, and, being in public use more than two years prior to the application, invalidated the patent.

The decree of the circuit court dismissing the bill is affirmed, with costs.

PACIFIC CABLE RY. CO. v. BUTTE CITY ST. RY. CO.

(Circuit Court, D. Montana. November 6, 1893.)

No. 19.

1. PATENTS FOR INVENTIONS—EQUIVALENTS—CABLE CAR TURNABLES.

Two cable car turntables, having slots underneath the surface platform wide enough at the ends to permit the table to turn a quarter round without interfering with the cable, are equivalent structures, when each is composed of a surface platform comprising two semicircular parts, with a slot between for the passage of the griper shank, such parts resting upon supports, which, in the one case, are attached below to a secondary table supported by a vertical spindle stepped in a bearing at the bottom of the pit, and, in the other case, to end timbers running crosswise beneath the cable, and resting upon semicircular rails, which travel upon pulleys journaled into the bottom of the pit.

2. SAME—METHOD OF OPERATION—DESCRIPTION

A patent for turntables for transferring cable cars from one track to the other, in which the only method of operation described requires the use of duplicate tables operated simultaneously, does not cover the use of a single table for that purpose, although the claim may be sufficient, in itself, to include it, and the single table is an equivalent structure to each table of the patent.

3. SAME—PRIORITY—DATE OF APPLICATIONS—EVIDENCE.

A patentee, who, by evidence, carries back the date of his invention beyond the date of the application for a rival patent, which was first issued, will be adjudged the first inventor, when there is no evidence to carry back the rival invention.

4. SAME—PARTICULAR PATENTS.

Letters patent No. 181,817, issued September 5, 1876, to Joseph Britton, for cable railway turntables for transferring cars from one track to the other, is limited to the use of duplicate tables, and does not cover the use of a single table to accomplish the same function.

In Equity. Suit by the Pacific Cable Railway Company against the Butte City Street Railway Company for infringement of a patent. Bill dismissed.

Wm. F. Booth and C. P. Drennen, for complainant.

Geo. H. Knight, F. T. McBride, and Geo. Haldorn, for defendant.

KNOWLES, District Judge. In this case, plaintiff brings suit in equity against defendant, asking that it be enjoined from using a certain turntable in connection with its Butte City Street Railway, Mont., and for an accounting of profits derived from such use. The ground of plaintiff's claim is that it owns a patent for this turntable, dated September 5, 1876, the same being numbered 181,817. The patent was issued to one Joseph Britton, and, it is alleged, assigned to plaintiff by him. It is alleged in the bill that defendant is infringing the following two claims in said patent:

Claim 2: "A turntable provided with a slot and passage or chamber extending across it above the point of support of said table, and below its surface, where said chamber is made wide enough at each end to permit a propelling rope or cable to pass through it, and at the same time permit the table to make a quarter rotation without interfering with the rope or cable, substantially as and for the purpose set forth."

Claim 3: "A turntable consisting of the two upper sections, B, B, con-