

to a lacing device having a concentric stem, but it may be used to advantage, also, with the stem eccentric, as in a lacing hook."

And one of the claims is for:

"(3) In combination, the head, a, having the tubular stem, g, the glove material, b, the lacing, f, and the plate, e, substantially as and for the purpose set forth."

Obviously, the difference between the fastenings of these patents consists in the rearward extension and elevation in the latter of the head and neck of the former, making more room there for the cord. The size of these parts is so small that these differences in extent seem very little, but, notwithstanding this, the change in the mode and effect of the operation of the parts is quite considerable. The freedom of movement of the cord provided for, by the enlargement of the place for it in the fastenings, must make the tightening of the glove easier, and the fitting of it more perfect, and the fastening more secure. This seems to be a patentable difference. Many and various prior devices are shown and known, some having hooks of enlarged interior, into which cords and cables are drawn, and others some other of these parts, but none of all of them combined and operating together in this way. As this patent is for this difference as an improvement merely upon the former devices, nothing can be an infringement but what has this specific thing. *Railway Co. v. Sayles*, 97 U. S. 554. The defendants' fastenings seem to contain the features of this improvement, in the same relation to each other, in somewhat different forms, except that the front of the head and the glove material are brought close together by raising the plate, or portions of it, below, instead of by inclining the head above. In operation and effect, the parts are the same, and so the defendants infringe. Decree for plaintiffs.

INDEPENDENT ELECTRIC CO. v. JEFFREY MANUF'G CO. et al.

(Circuit Court, S. D. Ohio, E. D. October 29, 1896.)

1. PATENTS—ASSIGNMENT OF INTEREST—FURTHER INVENTIONS.

Where a patentee conveys an interest in his patent for an improvement in mining machinery, and any and all improvements which he may thereafter make, acquire, or invent in "connection and in any way appertaining to the aforesaid improvement in mining machinery," this does not give any interest in a subsequent patent for an entirely distinct mining machine, which works on a principle radically different from that of the former one.

2. SAME—CLAIMS—DEDICATION TO PUBLIC.

Where an application for a patent shows an improvement, but does not claim the same, and, before the patent is issued, another application is filed by the inventor which does claim such improvement, the presumption that what is shown or described in a patent, but not claimed therein, is dedicated to the public, does not arise as to such improvement.

3. SAME—CONTRACTS—FUTURE IMPROVEMENTS.

An inventor contracted to convey to a certain party a one-half interest in several inventions, and in any improvements thereon thereafter made, and in any applications for patents thereon. Subsequently another agreement was made in writing by which such party was to have a one-tenth interest in certain patents, and none other. This agreement contained no stipulations as to improvements. In a suit for specific performance the party secured his one-tenth interest. *Held*, that his rights were merged in the decree, and that he had

no claim under his contracts to any other patents or improvements of the inventor.

4. SAME—PRACTICABILITY.

The mere fact that a machine constructed by the inventor on the lines of his patent was a failure does not affect the validity of the patent, when it appears that the failure was due to defective construction, not to the particular improvement patented, and that successful machines were afterwards made.

5. SAME—MINING MACHINES.

The Lechner patent, No. 432,754, for a mining machine, which combines, with a traveling frame and an endless belt cutter, an auxiliary cutter operating in a different plane, and a holding projection adapted to follow such auxiliary cutter into the incision made thereby, and to form a holder to operate against the thrust or force of the belt cutter, *held* valid, and infringed, and not anticipated as to the first claim.

This is a suit in equity by the Independent Electric Company against the Jeffrey Manufacturing Company and others for alleged infringement of a patent for an improvement in mining machinery.

James H. Hoyt, Thomas B. Kerr, and Francis W. Parker, for complainant.

H. H. Bliss and John R. Bennett, for respondents.

SAGE, District Judge. This suit is for infringement of patent No. 432,754, granted July 22, 1890,—application filed March 31, 1890,—for mining machine to F. M. Lechner, assignor to the Electric Mining Machine Company of Columbus, Ohio, under which company by mesne assignments, complainant claims title. It describes a single chain cutter breast machine mounted on a traveling frame, which in operation is moved outwardly from the main or bed frame, and, as it is advanced, an endless belt cutter makes an incision, or kerf, extending into the vein or seam of coal to the desired distance. To hold the traveling frame against lateral movement in the operation of the cutting device, when the frame has been moved outwardly from the main frame, the specification sets forth that an additional or auxiliary cutter is provided, which is adapted to cut a channel immediately above the incision or kerf made by the endless belt cutter, and furnish on the traveling frame a holding projection, adapted to engage in said channel as the frame is advanced, and thus prevent any side or lateral movement of the traveling frame. This is preferably accomplished by placing, immediately above and slightly back of the line or cut of the endless belt cutter, a cutter or chisel, having a bearing near its outer end in a bearing box, through which it is adapted to reciprocate,—the bearing box being preferably formed rectangular in cross section, and of a size substantially equal to or slightly less than that of the reciprocating cutter,—to which a reciprocating motion is given by means of a connecting rod, which extends backwardly through a supporting stand, and is connected to an eccentric on the vertical shaft on the traveling frame. As the vertical shaft revolves to impart motion to the endless chain cutter, a reciprocating motion is imparted to the reciprocating cutter through the medium of the eccentric. This cutter, operating against the seam or vein immediately above the kerf or incision formed by the endless belt cutter, produces a channel substantially rectangular

in shape, and opening into the kerf or incision, into which the projecting bearing enters as the traveling frame is advanced, thus holding the traveling frame firmly against lateral movement in the direction opposite to the thrust of the endless chain cutters as they are advanced into the coal. Then follow descriptions of methods of adjustment, and of connections and fastenings, which, being matters of detail, may be omitted, as unnecessary to the discussion of the questions involved in this case. In a subsequent paragraph of the specification the inventor says:

"By the use of the supplemental cutter and the holding projection, adapted to follow in a channel made by said cutter, I am enabled to produce a machine in which a single endless cutting belt is adapted to perform all the operation of cutting."

Complainant's title to the patent is denied, upon the ground that it is within the terms of a contract made by F. M. Lechner, the inventor, on the 21st of October, 1876, with the defendants Francis C. Sessions and Joseph A. Jeffrey, whereby he transferred to them ¹³/₂₄ of his patent, No. 172,637, dated January 25, 1876, for an improvement in mining machines, and ¹³/₂₄ of any and all improvements which he might thereafter make, acquire, or invent, and patent, in "connection and in any way appertaining to the aforesaid improvement in mining machines." By contract dated July 24, 1877, he assigned, transferred, and set over to the Lechner Mining Machine Company ¹⁷⁰/₄₈₀ of all his right, title, and interest in and to the same patented invention (which left to him ⁸⁰/₄₈₀), and in and to any further improvement that he might make or acquire. Each of these assignments was duly recorded in the patent office at Washington. The name of the Lechner Mining Machine Company was subsequently changed to Jeffrey Manufacturing Company, one of the defendants herein. It appears, therefore, that whatever title either of these instruments conveyed is the property of one or the other of the defendants in this case.

The machine of patent No. 172,637 was a cutter-bar machine, by which the kerf or drift in the vein of coal was made by means of a horizontal cutter shaft, preferably square,—except where rounded to form bearings to turn in the metallic shoes,—and armed with cutting teeth, the shanks of which were adjustably secured in the shaft by means of set screws. These teeth were of such width, upon their cutting edges, that, as the shaft revolved, and was advanced, there were but thin walls of coal left between them. To break these down in front of the bearings of the shaft, each shoe was armed at its lower side with a sharp, projecting, cutting spur. In operation, a rotary motion was imparted to the cutting teeth as they were forced directly forward into the coal. That machine had no cutting chains, had no lateral tendency, and needed no holding device to prevent lateral motion. In each of these respects it was radically different from complainant's machine, which is an entirely distinct machine, and not merely an improvement on the machine covered by patent No. 172,637. To hold that the assignments in question would pass all of Lechner's future mining machine patents would, as counsel for complainant suggests, "be equivalent to hold-

ing that these two assignments constituted, in fact, a mortgage on Lechner's brain, to bind all his future products, which is exactly the thing objected to by the court in *Manufacturing Co. v. Gill*, 32 Fed. 697." In that case Justice Bradley made it clear that, under the rule in *Littlefield v. Perry*, 21 Wall. 226, only improvements on the particular machine secured by the patent would pass by an assignment of a patent with future improvements. This rule is in accord with the acts of Lechner and Joseph A. Jeffrey, defendant, one of the assignees under the first assignment and president of the defendant company. From Jeffrey's testimony it appears that he knew, as early as 1882, and from then until the date of his testimony, that Lechner was engaged in mining machines other than cutter-bar machines. In 1892 Lechner came to him, and described to him his chain machine, and he (Jeffrey), after considering the matter some little time, agreed, if his machine should prove successful, and better than any machine on the market, to manufacture it, and pay Lechner a royalty, provided the machine was free from infringing existing patents or inventions.

The patent in suit, as has already been stated, was issued to the Lechner Electric Machine Mining Company as the assignee of Lechner. Mr. Slade, the president of that company, acting in his official capacity, notified the defendants that his company would sue them for infringement if they manufactured the chain machines covered by the patent, as they were contemplating under their verbal arrangement with Lechner. The defendants claimed no interest in the invention, nor did they give Slade any notice thereof. The Lechner Electric Mining Machine Company failed. The patent was assigned to Dyer, and sold by him, as assignee, to Slade, for a valuable consideration, without notice of any claim on the part of the defendants, and he sold it to the complainant for a valuable consideration. It would seem that, under such circumstances, the defendants should be estopped from setting up, as against the complainant, any claim of title to said letters patent by application of the rule that, if one was silent when it was his duty to speak, he shall not be permitted to speak when he should be silent. *Pickard v. Sears*, 6 Adol. & E. 469.

Defendants also produced in evidence a transcript of the proceedings in *Brisbin v. Lechner*, in the circuit court of the United States for the Western district of Pennsylvania, a suit which grew out of certain contracts between Brisbin and F. M. Lechner relating to certain improvements, invented by him, for mounting an electric motor with the operative mechanism of a mining machine by belt or like device, and adjusting the position of the motor to the machine, and in the apparatus employed in practicing said invention. Lechner agreed to convey a one-half interest in and to the several inventions referred to, and in "any improvement or improvements thereon thereafter made by him, and in any application or applications made in any letters patent of the United States granted for said several inventions, or for any such improvement thereon." Subsequently, December 19, 1888, Brisbin and Lechner made a second agreement, in writing, by which Brisbin was to

have a one-tenth interest in certain undescribed patents, alleged by the bill to be Nos. 287,032, 295,183, and 340,791, and none other. That agreement contains no stipulation relating to improvements. The suit was for specific performance. It resulted in a decree for the complainant, entered December 26, 1891,—more than 17 months after the date of the patent in suit,—whereby Brisbin secured his own one-tenth interest stipulated for. Brisbin's rights were merged in the decree, and he has no title or claim, under his contracts with Lechner, to any other patents of his, or any improvements thereon. The stipulation, in the first contract, for the assignment of improvements, cannot be properly construed to cover the patent in suit, for reasons already stated in this opinion, which are directly in point, and apply as well to the papers in the suit of the Electric Mining Machine Company v. Francis M. Lechner et al., now pending in this court. Without stopping to assign other reasons, it is sufficient to state the conclusions of the court that the complainant's title, which is otherwise good, is not impaired or affected by reason of any of the contracts or suits above referred to.

At the close of the evidence in chief for the complainant, its counsel gave notice, as appears of record, that the complainant would rely on the first claim of the patent, which reads as follows:

"The combination, with a traveling frame and an endless belt cutter, of an auxiliary cutter, operating in a different plane from said endless belt cutter, and a holding projection, adapted to follow said auxiliary cutter into the kerf or incision made thereby, to form a holder to operate against the thrust or force of the endless belt cutter, substantially as specified."

With reference to this claim the defendants insist:

First. That, even when liberally construed, it is not tenable, and is invalid in view of the facts of record concerning the earlier art and the conduct of the patentee.

Second. That, irrespective of the question of validity, it is not infringed by the construction of the defendants because (1) the claim was intended to exclude such devices, and (2) the structure of the claim and that of the defendants are radically different.

More than 75 patents for devices which, it is contended, anticipate the complainant's, have been offered in evidence. They may be divided into the following classes: Plows, power coal-mining picks, coal-tunneling machines, coal-mining machines having coal-cutting cutter saws, coal-mining machines having coal-cutting cutter bars, coal-mining machines having long wall-cutting chains, breast coal-mining machines having two chains, coal-mining machines having reaper-bar cutters, single-chain breast hand coal-mining machines, and double-chain breast mining disk-holder machines. Incidental to the operation of every mining machine is a reaction or thrust, exerted by the carriage upon the cutters, and in direction opposite to their operating motion. Every "heading" or "breast" machine, whether "bar," "saw," "chain," or what not, has a bed frame, a sliding carriage, and a cutting apparatus at the front of the carriage. It has always been necessary to provide for each machine two "jacks,"—one at the front, and one at the rear of the bed frame. The rear jack engages with the mine roof,

and the front one, inclined upward, and at a sharp angle to the right, bites into the vertical wall just above the kerf. They bear down with great force upon the bed, each having a powerful screw, and a hand wheel for clamping the bed to the floor of the mine, and holding it in position when the machine is set, ready for operation, with its cutter head close and parallel to the coal. As the kerf, or incision made by the cutter, deepens, extending seven feet or more into the coal, it is obvious that the leverage against the holding power of the jacks increases with a corresponding increase of the lateral strain upon the moving or sliding carriage and upon the frame. The auxiliary or holding cutter, being immediately above the chain cutters, is in position to most effectively counteract this leverage, and to furnish with the least force the greatest resistance to the lateral strain, upon the principle whereby the course of the great ship is controlled by the use of the comparatively insignificant rudder. Hence the value and efficiency of the auxiliary cutter or holder. As is well said by counsel for defendants, it "is to be regarded merely as an adjunct to the jacks and the frames," provided too much stress be not placed on "merely." The anticipating devices show various forms of holders. The British patent No. 1,424, of 1876, to Brunton, shows a "steering pipe" provided with a screw auger, as is the guiding bar shown in British patent No. 1,857, issued to Gay in 1863, and the drill in German patent No. 6,848 to Weber in 1879. Then followed cutter-wheel holders, shown in British patent No. 1,449, of 1886, to Stanley, of which the Colliery Engineer says:

"The top of the machine is guided by two wheels, m, which have two sharp-edged flanges [in front and one at each side], which cut into the top of the tunnel, and prevent any lateral motion of the machine."

Then comes the disk holder as in United States patent No. 340,791, to V. A. & S. C. Lechner in 1886. That machine had two chain cutters which moved in opposite directions. To prevent lateral movement, by reason of one of the chains working against harder material than the other, or from any other cause, a vertical cutter was provided of a diameter somewhat in excess of the height of the kerf cut by the horizontal chain cutters so as to make a guiding groove or crease in the bottom or top, or both in the bottom or top, of the kerf. So cutting and holding wheels have been used in plows, as in reissue patent No. 10,641, to St. John, in 1885, which shows a revolving blade or disk placed above the cutting edge or skin of the mold board, and employed as a landslide to prevent the plow from crowding to land in getting or in running the furrow; the side pressure being borne, ordinarily, by a very small portion of the disk and at the point of least resistance. A wheel holder is shown in United States patent to Brown, No. 197,090,—1877,—to prevent the chain from drawing the carriage inward. The Brunton patent shows also a rib-like device on the movable carriage or frame, provided with a cutter at its front end and "keel pieces" to "plow up a groove in the interior surface of the tunnel, for their own passage, and in which they may be imbedded, to resist the

tendency to turn the chambers when the head is being rotated." Each keel piece was provided at its front end with a cutting chisel point, which was in line with the outer edge of the keel piece. Two patents issued to F. M. Lechner are cited: No. 172,637,—1876,—for a mining machine, in which each carrier has a guiding plate secured to a block. These plates pressed against the upper side of the kerf or drift, and the shoes at the front end of the carriers, on which the cutters were mounted, rested on the bottom of the drift, in order that the cutting teeth should be always maintained in proper working relation to the coal. Patent No. 232,280, the other patent to Lechner, issued in 1880, shows a device provided with a shoe, the upper member of which has a dovetailed rib, projecting inwardly from the inner vertical face, and adapted to enter a correspondingly shaped seat formed in the front end of the carrier, whereby this rib assists in supporting the upper member against the upward thrust which is produced by the cutting action of the bits upon the coal, thereby relieving the bolts or set screws which are used for the purpose of securing the shoe to the sliding carrier. Patent No. 47,168, to Hanpt & Smith,—1865,—for a rotary pick mining machine, shows a stationary cutter between the top and bottom main wheels, and, when the machine was in operation, pressed forward against the coal for the purpose, as is set forth in the specification, of cutting away the coal or ore core in front of the picks and gear; but it is contended for defendants that they had "the necessary secondary function of steadying and holding the carriage against lateral thrust or reaction." The last patent mentioned by defendants' counsel as anticipating complainant's device is No. 104,396, to Lynch,—1870,—for a cotton scraper or cultivator. The guide, which constituted the invention, consisted of a wrought-iron plate, sharpened where it entered the soil, and secured to the lower end of the standard of the cultivator. It was arranged parallel to the beam, and located near the middle of the share, forming an acute angle therewith. It projected below the cutting edge of the share sufficiently to enter the soil not cut by the share, from the cutting edge of which it extended far enough in the rear of the standard to form a brace in the earth to prevent any lateral movement through the soil.

Of these patents, No. 340,791, to Van Amberg Lechner and F. C. Lechner, is the only one showing a chain breast machine provided with any sort of device proposing to "keep the machine from being moved laterally by reason of one of the chains working against harder material than the other, or from any other cause." That was a double-chain machine, and the chains were driven in opposite directions, which, it was supposed, would equalize the strain on the machine, and reduce to the minimum the amount of bracing necessary to hold it to its work, and the vertical cutter or disk was intended to prevent lateral motion when the cutters on one of the chains might encounter harder material than the other. The drawings show a disk having cutters projecting radially beyond its periphery, and laterally beyond its sides. The channel which they cut was of necessity both wider and deeper than the

disk, so that no continuous pressure of the disk against the side of the channel was possible. The disk was in no sense a holding device, nor could it be made to perform that function in a single-chain machine. The defendant company's superintendent admitted as much in answer to cross questions 318, 319, and 320, page 154, Defendants' Record. Practical tests of the machine were made at the Shawnee mine, whereby it appeared that whatever was done in the way of holding the machine against the tendency to lateral displacement was accomplished by the jacks, which bore upon the main frame, and not appreciably so as to be available for practical use, by the disk. The details of the tests made cannot be entered upon without expanding this opinion beyond reasonable limits. The holder, to be completely successful, must not only prevent lateral motion, which would occur without it, but also prevent harmful vibration of the frame of the machine. The disk device cannot be made to operate unless the teeth or bits have a spread. The result is, necessarily, a cut so wide and deep as to make the disk ineffective to prevent either lateral motion or harmful vibration. These remarks apply to every disk device put in evidence by the defendants. The English patents to Brunton, to Gay, and to Stanley,—this last patented also in the United States,—have the general form of what we call "tunneling machines." The main frame is securely jacked or held in position in the mine, out in front of which is a great, circular, revolving cutter, which described a circle larger than the transverse section of the machine itself, and by its revolution, as it is fed forward, produced a rotary tendency of the main frame in the opposite direction. The devices to counteract this strain are all on the main frame, and consist of jacks which hold the main frame in position as the main frame of complainant's patent is held. Most of these machines bore, at the same time, a central hole, for the avowed purpose of the introduction of a charge of powder. The bit or auger which bores the hole has no holding function, nor was it designed to have. None of these machines have any device which gives that constant and persistent holding effect, steadying against vibration and jar, which tend to disintegrate and crystallize the whole machine; nor is any such device possible in this class of machines.

The German patent to Weber is for a hand machine having a single chain journaled on the opposite ends of a cross bar, and driven by a spindle operated by hand wheel by means of beveled gear wheels. The rear end of the spindle is provided with a sleeve nut, having a point for bearing against a post, and the front end is provided with an auger bit, which projects beyond the front side of the cutter chain, and is supposed to bore into the coal as the spindle is turned by the hand wheel. This machine, which was, at best, feeble and ineffective, operated as it was by manual power, was not liable to vibrations, nor to any serious lateral tendency. It had no holding device, because the bearing of its spindle was less than one-half the width of the auger bit, and consequently would not come into contact with the sides of the hole bored by the auger bit, nor have any holding action.

The Haupt & Smith patent has a pair of horizontally arranged saws, one above the other, which, in operation, are moved forward into the coal, excepting that the saws or cutters are mounted on a moving frame. They contain no element bearing any analogy to any element of the patent in suit. Each machine is provided with two saws. These act in opposite directions, and balance each other, thereby obviating the necessity for a holding device to prevent lateral movement. Some of the machines are provided with a pick, or other device, between the two saws, for the purpose of breaking up the piece of coal which is cut out by the saws. There is nothing in these machines which anticipates complainant's patent. The power picks and plows, under the doctrine of *Potts v. Creager*, 155 U. S. 597, 15 Sup. Ct. 194, do not belong to related arts. If they did, not one of them anticipates complainant's device. In fact, many, if not most, of the machines above referred to are relied upon by defendants to sustain their contention that complainant is not a pioneer, rather than as anticipations. The wheel holder, to prevent the chain from drawing the carriage of the Brown machine, patent No. 197,090, cannot be recognized as an anticipation.

There are also in the record two double-chain breast machines,—patents No. 287,032 to S. C. Lechner, and No. 295,183 to Van Amberg Lechner; but neither of these patents shows a holding device. They are provided with double chains, moving horizontally in opposite directions, and were constructed upon the theory that the chains, thus moving, would balance the machine, and hence no other or special provision was made against lateral motion.

Patent No. 428,920, to Francis M. Lechner (inventor of complainant's machine), is also relied upon against the validity of complainant's patent. This patent is known as the "Lechner Auger Patent." It was applied for December 10, 1889. The patent in suit was applied for March 31, 1890. The auger patent was issued May 27, 1890, and the patent in suit July 22, 1890. The two applications were pending at the same time. The auger patent describes and claims an auger, or drill, with bearings, as a holder against lateral motion. The complainant's patent describes and claims a reciprocating cutter or chisel for the same purpose. Generally, what is shown or described in a patent, but not claimed therein, is dedicated to the public. *Miller v. Brass Co.*, 104 U. S. 350. But if, at the date of the issue of such patent, the patentee has another application pending, which describes and claims what he describes, but does not claim, in the patent issued, the presumption of dedication to the public does not arise. In *Suffolk Co. v. Hayden*, 3 Wall. 315, the supreme court said:

"The first point of the plaintiff in error is that the description, in the patent of March, of the improvement patented the December following, and on which the present suit is brought, and omission to claim it on such earlier patent, 'operated as an abandonment or dedication of it to the public,' and that for this reason the subsequent patent of December 1st was void. But the answer to this ground of defense is that it appeared that Hayden, the patentee, had pending before the commissioner of patents an application for this same improvement at the time he described it in the specification of March 17th, which was, doubtless, the reason for

not claiming it in this patent. The description in no sense affected this application thus pending before the commissioner, and, while it remained before him, repelled any inference of abandonment or dedication from the omission to again claim it."

In the case of *Singer v. Braunsdorf*, 7 Blatchf. 521, 535, 22 Fed. Cas. 201, Judge Blatchford said:

"A patent is not invalidated by the fact that the invention claimed in it was described, but not claimed, in a patent granted subsequently to the making of the application for the patent secondly issued, but before it was granted."

In *Railway Register Manuf'g Co. v. Broadway & S. A. R. Co.*, 22 Fed. 655, Judge Wheeler said:

"The application for this patent was on file when the prior patent to this invention was granted, and therefore the description of this invention in that patent would not affect at all the validity of this one."

In *Holmes Electric Protective Co. v. Metropolitan Burglar Alarm Co.*, 33 Fed. 258, in which the patent in suit was held to be invalid because the invention was disclosed in a prior patent to the same inventor, Judge Coxe said:

"This is not the case of a patentee who has made application for the second patent before the first is issued."

In *Graham v. McCormick*, 11 Fed. 859, a prior patent was issued on July 23, 1867, upon an application filed December 2, 1865. The patent in suit was issued February 11, 1868, upon an application filed February 11, 1867. As to the contention that the second patent was invalid by reason of the issue of the first patent, Judge Drummond said:

"It is to be borne in mind that the application for the second patent, that of 1868, the one in controversy here, was made while that for the previous patent was pending, and before the prior patent had been issued. There were thus pending before the patent office two applications at the same time, where the claims were different, and we understand it to be in accordance with the practice of the patent office to allow applications to be made at the same time, by the same party, for different parts of the same machine."

The foregoing was followed in the case of *Graham v. Manufacturing Co.*, 11 Fed. 138.

In *Swift v. Jenks*, 29 Fed. 642, Judge Coxe said:

"The conclusion cannot be resisted that the claims in question are invalid, for the reason that the invention covered thereby was disclosed in a previous patent, and belonged to the public when the application was filed."

In *Electrical Accumulator Co. v. Brush Electric Co.*, 2 C. C. A. 682, 52 Fed. 130, the court of appeals held that the prior issue of a patent for a subordinate invention did not invalidate a subsequently issued patent for the broad claims, the application for which was pending in the patent office at the time the first patent was issued. This decision was also followed by the same court in the case of the *Thomson-Houston Electric Co. v. Elmira & H. Ry. Co.*, 18 C. C. A. 145, 71 Fed. 396.

The complainant's patent is not invalidated or impaired by Lechner patent No. 428,920.

An attempt was made by defendants to show that the Lechner auger machine was old, or in public use for more than two years prior to the date of the application for the complainant's patent; but it appears, from the testimony, that all that was accomplished

was a series of unfortunate experiments. According to the testimony of one of defendants' witnesses, Lechner's auger holding device for single-chain machines was first tried and demonstrated to be practicable late in 1889, and the application for that patent was filed December 10th of that year. The application for the patent in suit was filed March 31, 1890.

It is contended, also, that a machine made by Lechner on the lines of the patent in suit did not work successfully, and was a failure. There is no contention that there was any defect in that machine on account of its principle. It appears that, while Lechner was a great inventor, he was a poor mechanic. The machine upon the construction of which the contention is made was not strong enough to do any work, and, irrespective of the holding device, it would have been unsatisfactory. The defendants have not shown that the failure was due to the holding device, and the burden was on them. The device of the complainant's patent can be put into proportions to make it successful, and this has been done by complainant. Moreover, the inventor is not required to bring his device into absolute perfection in order to make his patent good. *The Telephone Cases*, 126 U. S. 1, 8 Sup. Ct. 778.

"While his device is somewhat crude as compared with the improved style of trunk fasteners now in use, it contains the underlying principle of all of them. In short, we find no difficulty in holding that there is a patentable novelty in the Taylor fastener, and that it is not anticipated by any of the devices put in evidence." *Sessions v. Romadka*, 145 U. S. 29, 12 Sup. Ct. 799.

That the drawings of a patent need not be the working drawings, or on an operative scale, see *American Hide & Leather Splitting & Dressing Mach. Co. v. American Tool & Mach. Co.*, 4 Fish. Pat. Cas. 284, Fed. Cas. No. 302. That the patent is not limited to its exact form or dimensions of parts, see *Winans v. Denmead*, 15 How. 330.

With reference to infringement, defendants' device is within the scope of complainant's patent. It consists of a metal plate adapted to be permanently secured to the front end of the movable frame, and provided with a series of cutting teeth or chisels which rise at one side of the plate, are successively of greater height, and always so arranged as to present a vertical face on the side, which is to bear upon the channel cut by the teeth, and with clearance slots on the opposite side between the teeth. It is constructed, and it operates, upon precisely the principle of complainant's device, excepting that the teeth are not independently reciprocated, which relieves against infringement of the second claim of complainant's patent, but not against infringement of the first claim. The contention that the holding function of their device is performed by the continuous engagement of the teeth of their cutters with the coal in front of them, and not by reason of their engagement with the side or wall of the channel, is not tenable. Their proposition, that, if their holder were reciprocated, it would be worthless, just as if the complainant's cutter were made stationary, is fallacious, for the reason that, in fact and in operation, it is shown, by the evidence, that defendants' cutter does act recip-

roccally, upon exactly the principle of the action of complainant's cutter.

Upon all the points considered, the equity of this cause is with the complainant, and the decree will be accordingly.

OWEN v. LADD.

(Circuit Court, D. Connecticut. December 28, 1895.)

1. PATENTS—INFRINGEMENT SUITS—LACHES.

A delay of over 10 years in bringing suit, after charging infringement, and being met with a denial thereof, *held* such laches as would prevent relief against one who in the meantime succeeded to the alleged infringing business.

2. SAME—VALIDITY—INFRINGEMENT.

The Owen reissue, No. 10,348, for a gong bell, having in combination the novel element of a curved and bent vibrating standard, if valid at all, is not infringed by a gong in which the standard is neither curved nor bent, and is cast solid with the base.

This was a suit in equity by George B. Owen against W. C. Ladd for alleged infringement of a patent for a gong bell.

H. Albertus West, for complainant.
Newell & Jennings, for defendant.

TOWNSEND, District Judge. The hearing herein was on a bill alleging infringement of reissued letters patent No. 10,348, to George B. Owen, dated July 3, 1883, for a gong bell. The answer alleges invalidity of the reissue on various grounds, lack of patentable novelty, and laches, and denies infringement. The claims as to which infringement is alleged are the following:

"(1) A gong bell consisting of the combination with a base or attaching portion, a sounder, and a gong secured to the sounder, of a curved standard, connecting the base and sounder, substantially as set forth. (2) In a gong bell, a stationary base or attaching portion having a curved vibrating standard secured thereto, said standard being curved in a plane substantially parallel to that of the base, substantially as set forth. (3) In a gong bell, the combination, with the base or attaching portion, a curved vibrating standard connected therewith at one end, and a sounder connected with the opposite end of the standard, of a gong removably secured to the sounder, substantially as set forth."

The improvement originally claimed consisted in a construction of a gong bell attachment for clock cases with a curved standard bent in a plane parallel to its base, and having its ends bent outward in opposite directions, at right angles with said plane, so that the gong could be brought close to its base without having its vibrations checked. The only novel element in this combination was a curved standard. If there was any invention in this arrangement, it must be found in the claimed novel result of more musical tones, and not in the mechanical adaptability of the parts.

Defendant's assignor, Barnes, prior to this alleged invention, constructed various modifications of the old French clock gong, for one of which he obtained a patent in October, 1883. The defendant's bells are constructed substantially in accordance with the