

character and value of the labor performed and improvements made upon the claim. The sufficiency of such labor and improvements was a matter to be determined by him from his own observations or those of his deputy, or from the testimony of persons having knowledge of the subject. *U. S. v. Iron Silver Min. Co.*, 128 U. S. 673, 685, 9 Sup. Ct. 195. The bill does not charge that this testimony was furnished to the surveyor general, or that it influenced his action in any way. The presumption is that he did his duty as an officer. Moreover, the charge is that the affidavit was filed in the land office, and that the register and receiver, believing the same to be true, issued their certificate of final entry. The answer of the defendants King and Ducie is under oath. They deny all the allegations of the bill charging fraud, and allege specifically that the affidavit in question was procured and filed in the land office by the deputy United States mineral surveyor, who made a survey of the claim for a patent. It is plain that there would be some difficulty in making out a case against the defendants upon the allegations of the bill, but the trial appears to have proceeded upon the broad question whether, at any time prior to the final entry of the claim at the land office on November 23, 1882, \$500 worth of labor had been expended or improvements made upon the claim. With respect to this issue, the testimony taken establishes the character of the improvements, but is conflicting as to their value. A number of witnesses testified that the shafts would cost less than \$100, and a number of other witnesses testified that they would cost more than \$500. The question was left in doubt. The burden of proof was upon the government. It was required to establish the fraud, and connect the defendants with it. The presumption that the patent was correctly issued could only have been overcome by clear and convincing proof of the false and fraudulent representations whereby the patent was secured. *Maxwell Land-Grant Case*, 121 U. S. 325, 7 Sup. Ct. 1015; *Colorado Coal & Iron Co. v. U. S.*, 123 U. S. 307, 8 Sup. Ct. 131; *U. S. v. San Jacinto Tin Co.*, 125 U. S. 273, 8 Sup. Ct. 850; *U. S. v. Iron Silver Min. Co.*, 128 U. S. 673, 9 Sup. Ct. 195; *U. S. v. Hancock*, 133 U. S. 193, 10 Sup. Ct. 264; *U. S. v. Budd*, 144 U. S. 154, 12 Sup. Ct. 575. The trial court having held that the proof was insufficient to establish the fraud as charged against the defendants, we do not feel justified in reversing its judgment. The decree of the circuit court is affirmed.

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

(Circuit Court of Appeals, Sixth Circuit. November 1, 1897.)

No. 476.

**PATENTS—LIMITATION OF CLAIMS—INFRINGEMENT—MINING MACHINES.**

The Lechner patent, No. 432,754, for an improvement in mining machines, which combine, with a traveling frame and an endless belt cutter, a cutter and holding device to resist the lateral thrust caused by the belt cutter, is limited by the prior state of the art and the proceedings in the patent office to a machine having an independent holder, which is stationary

with relation to a movable cutter which precedes and cuts a channel for it into which the holder follows, and is therefore not infringed by a machine in which the auxiliary cutter itself acts as the holder. 76 Fed. 981, reversed.

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

This was a suit in equity by the Independent Electric Company against the Jeffrey Manufacturing Company, Joseph A. Jeffrey, and Charles W. Miller for alleged infringement of a patent for improvements in mining machinery. In the circuit court the patent was sustained, and a final decree for an injunction and accounting ordered. 76 Fed. 981. The defendants have appealed.

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

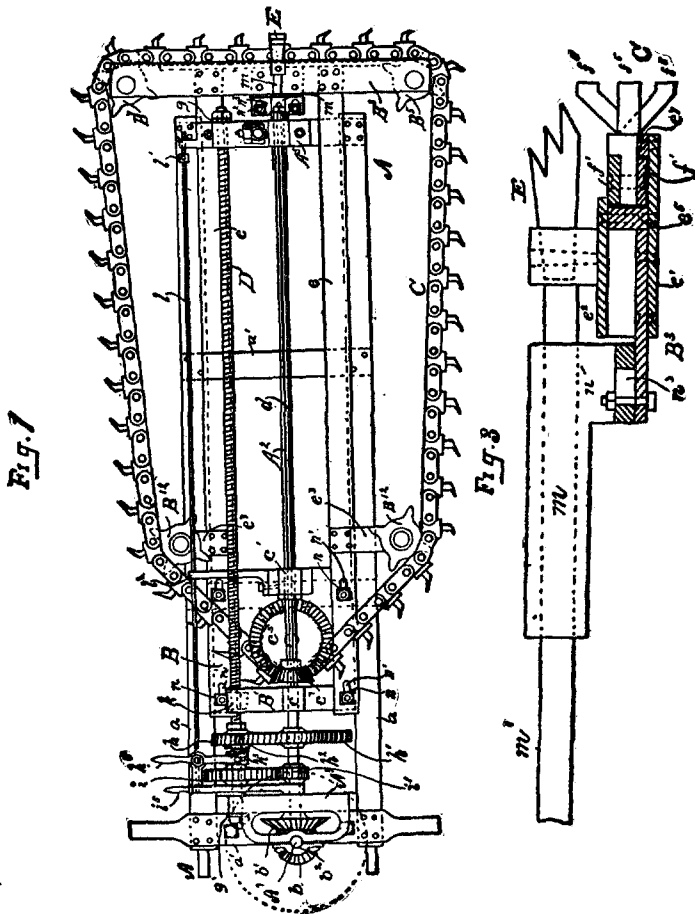
Francis W. Parker, Thomas B. Kerr, and James H. Hoyt, for appellee.

Before TAFT and LURTON, Circuit Judges, and SEVERENS, District Judge.

LURTON, Circuit Judge. This is a bill in equity to restrain infringement of patent No. 432,754, granted July 22, 1890, for improvements in mining machinery, to Francis M. Lechner, assignor to the Lechner Electric Mining-Machine Company. Upon a final hearing the circuit court sustained the complainant's patent, found the defendants guilty of infringement, granted an injunction, and ordered an accounting. From this decree an appeal has been perfected by the Jeffrey Manufacturing Company and the other defendants. The invention involved is for an improved means of overcoming the lateral thrust of the chain cutter carrying frame of single chain breast coal-mining machines. A mining machine of this class has a fixed frame and a forwardly moving chain cutter carrying frame which is intended to be forced in at the floor of the mine under the coal, a kerf being thus cut by the cutters rigidly attached to an endless chain on the forward end of the moving frame. As this movable frame moves forward under the coal there is more or less of a sidewise tendency in the direction opposite to the motion of the chain, which tends to throw the frame out of line, and unless controlled by some guiding device will prevent the successful operation of the machine. To some extent this lateral tendency is overcome in machines of this class by firmly anchoring the stationary frame by means of jacks or braces, and such appliances are usually found in all such machines. But, as the movable frame is pushed further and further beyond this anchored frame, the lateral pressure increases, and the steadying effect of the stationary frame becomes very much lessened. Both lateral motion and vibration operate against the proper alignment of the projected cutter frame, and impair the durability and operativeness of the machine.

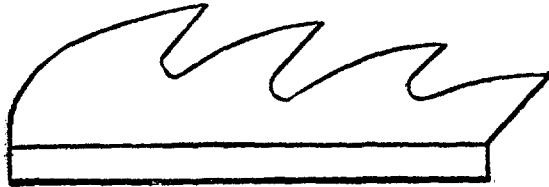
The device in controversy is one whose object is to overcome this lateral tendency, and guide the cutter frame in a straight line. As described in the specifications and shown in the drawings of the Lechner patent, it consists in a reciprocating auxiliary chisel or cut-

ter, a rod or stem extending from this cutter back to the power devices, whereby the cutter is reciprocated, and a holder adapted to follow the cutter into the kerf or channel cut by it. This holder is stationary in relation to the cutter to which it corresponds in size. Its function is to steady and guide the forward movement of the chain cutter frame and operate against the lateral tendency of the machine. We here set out Figs. 1 and 3 from the drawings of the patent. Fig. 1 is a plan of the machine embodying Lechner's invention, and Fig. 3 is an enlarged view, partly in section, of a portion of the cutting and holding mechanism and its supporting frame. In Fig. 3, E is the cutter, and m is the holder adapted to follow the cutter chisel at the end of the rod, m'.



The device which the defendants below admit to have used for accomplishing the same purpose consists of a small steel plate stationarily fastened to the movable frame of the machine, and moved only by the forward push of the carriage, and having behind the cutter no supplemental projection adapted to operate as a holder. The device used by them is substantially exhibited by the figure following:

*Appellants' "Standard Holder."*



Claims 1 and 2 of the Lechner patent are as follows:

Claim 1.

"It is obvious that the constructions shown and described admit of modifications in the details of construction and arrangements without departing from the spirit of my invention. I do not, therefore, limit myself to the exact construction set forth, but claim as my invention—

"(1) 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."

Claim 2.

"(2) The combination, with a traveling frame and an endless-belt cutter thereon, of a reciprocating auxiliary cutter arranged above and slightly in the rear of the line-cut of said endless-belt cutter, a holding projection having substantially the same size as said auxiliary cutter and arranged in the rear and in line with said cutter, and means, substantially as described, for imparting motion to said cutters, substantially as specified."

Claim 2 differs from claim 1 only in that a reciprocating cutter is distinctly an element, while in claim 1 it is not expressly described as an element. There are many other claims, but all which have any bearing upon this controversy are identical with the second claim in describing the cutter as reciprocating. Claim 1 is the only one here involved, inasmuch as it is not contended that defendants use either a reciprocating or other form of movable cutter.

The defenses presented below were that complainant had no such title to the patent in suit as would support a suit for infringement, that the Lechner patent and especially the first claim was void as being anticipated in the earlier patents, and, finally, that defendants' device did not infringe. We shall find it only necessary to consider the last defense. Coal-mining machines intended to cut a kerf or incision under a breast of coal, and to do away with the primitive method of undercutting by pick and other hand tools, are old, and more than a half hundred patents, American and foreign, have been put in evidence for the purpose of establishing the history of the art. These patents may be divided into several general classes. One class comprises those in which the coal is undercut by means of reciprocating

ing bars with picks. The Stutz patent, No. 302,958, of 1884, is an illustration of this class. Another class consists of machines having revolving cutter bars, revolved generally by large heavy chains extending from seven to nine feet to the driving mechanism at the back of the frame. A patent issued to F. M. Lechner, the patentee whose invention is here involved, in 1876, and numbered 172,637, is an example of this class. A third class consists of those with reciprocating cutter saws, of which patents No. 321,103 of 1885, to Harrison, and No. 342,614, to B. A. Legg, dated 1886, are examples. Another class is that of machines in which the undercutting is done by wheel cutters on carrier arms, which thrust them directly forward, such as shown by the patent to Wilverth, No. 26,726, of 1860, and Haupt and Smith, No. 47,168, of 1865, and Morris, No. 92,871, of 1869, and Blyth, No. 208,361, of 1878. Still another class consists of those in which the cutter carrier is an endless chain, which class may be subdivided into two subclasses,—those operated by two chains running in opposite directions, and those with a single chain. Examples of the double chain carrying cutter class are to be seen in patents No. 287,032, of 1883, to S. C. Lechner, and No. 295,183, issued in 1884, to Van Amburg Lechner; and of the single chain machines in patent No. 135,874, to Alexander, and No. 179,464, in 1876, to Prosser, and in the German patent of A. Weber, No. 6,848, issued in 1879. In the operation of all these machines there is found present, in greater or less degree, a reactionary thrust tending to throw the cutting head in a lateral direction opposite to that of the motion of the cutters, whether picks, saws, wheels, or chains. This conclusion seems thoroughly established by the voluminous evidence in the record, and accords with the conclusion of Judge Sage, who heard the case below, and who said as to this lateral tendency that:

"Incidental to the operation of every mining machine is a reaction or thrust exerted by the carriage upon the cutters and in a 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." 76 Fed. 981-985.

As supplemental to the support afforded by the jacks, which anchor the stationary frame of such machines, it has, in both tunneling and mining machines, been found expedient to provide some means of guiding and centering the sliding frame, which carries the principal cutters, whether arranged in circular form as in tunneling machines, or in a straight horizontal line as in mining machines. A few examples taken from these allied arts will serve to show how narrow a field remained for further invention in respect to such holding de

vices. British patent No. 1,424, of 1876, to Brunton, is for an improvement in tunneling machinery. That patent shows a steering pipe which the specification describes as "intended to facilitate the guiding or directing of the head in its motion," which pipe passed through the center of the cutting head and protruded slightly beyond its exterior. A passage for this pipe is made in advance of the "head" by means of a screw auger on its interior. In the British patent to Gay, No. 1,857, of 1863, for an improvement in boring apparatus, is shown "a guiding bar for maintaining the cutter (drum) in a straight or fixed direction." In the German patent to Weber, of 1879, is shown an auger for cutting a kerf above and at right angles with the horizontal kerf. Touching this auger drill and its shaft the inventor says: "To allow of the following of the projecting parts of the shaft, the drill placed upon it works out the necessary space, and the diameter is determined thereby." Then come a class of cutter-wheel holders illustrated by the British Stanley patent of 1886, No. 1,449, which was guided or steadied by cutter wheels both on the top and bottom of the tunnel which cut into the top and bottom of the material, and holds or steadies it against any reactionary thrust. Patent No. 340,791, issued April 27, 1886, to Van Amburg Lechner and Samuel C. Lechner, is for a coal-mining machine in which are found two chain carrying cutters moving in opposite directions, the advantage of which is stated in the specifications as being "that the cutters moving in opposite directions \* \* \* balance each other, so that the strain on the machine is equalized and the amount of bracing necessary to hold it up to its work is reduced to a minimum." But the inventor further steadies his machine by a vertical revolving cutter wheel, of which the patent says:

"In order 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, we have provided the vertical cutter, 90, which is 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 and top, of the kerf. The cutter, being in this vertical crease or groove, will prevent the machine from moving laterally."

Other means for holding were also resorted to, such as the "keel pieces," shown in the Brunton patent, already referred to, where their function is described as follows: "To plough 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." In patent No. 172,637, issued in 1876, to F. M. Lechner, "each carrier has a guiding plate, D, secured by one end to block, D; the free end of each plate being adjusted vertically by means of a set screw." "These plates press against the upper side of the kerf or drift which is cut by the cutting teeth, and the shoes rest on the bottom of this drift. Thus they (the teeth) are always maintained in proper working relation to the coal." A holding device is found in patent No. 232,280, for improvements in mining machines, issued to F. M. Lechner, September, 1880, which in Figs. 6 and 7 show a supporting shoe, the upper member of which may be provided with what the inventor calls "a dove-tailed rib" projecting

inwardly from the vertical face, "whereby this rib assists in supporting the upper member, E, against the upward thrust which is produced by the cutting action of the bits of coal," etc.

The clear and manifest purpose of the auger in the center of the sliding frame of the German patent to Weber, as well as the augers at the end of the bar carrying cutter in the Legg patent, is to guide or steady the movable frame and counteract any sidewise tendency. This function, where the shaft of the auger is much smaller than the auger bit, would be performed by the auger bit alone. But, if the auger stem be but slightly less in diameter than the cutting points of the auger drill, the stem itself would assist as a holder, inasmuch as the hole drilled would not be smooth or regular, and these irregularities might be such as that an auger shaft of less size than the auger bit would also act as a holder, and this seems to be the opinion of Messrs. Davis and Sperry, two of complainant's experts. In the German patent the idea that the projecting parts of the auger shaft might serve as a holder, as well as the auger bit, seems to be foreshadowed by the statement that the diameter of the drill is determined by the diameter of the projecting parts of the drill shaft, though the drawings show the auger shaft and its projection to be much less in diameter than the bit of the auger. This foreshadowed idea found later distinct expression in a patent issued to this same patentee, F. M. Lechner, May 27, 1890, being No. 428,920. The application for that patent was filed December 10, 1889, and is for an improvement. The inventor thus states his improvement:

"The difficulty which my improvement is designed to remedy is the tendency of a machine having chain cutters to vibrate laterally, and thus often to move the machine so far as to jam the cutters and to oppose such resistance to the cutters as to stop the machine. To obviate this I employ in connection with a machine a drill or boring shaft which advances with the cutters, and which has a bearing on the moving frame of the machine, which bearing is of substantially the same diameter as the end of the drill or boring shaft, so that it shall enter the hole made thereby, and shall afford means for holding the machine frame stationary and for preventing the lateral motion mentioned above."

His second claim, as allowed, was as follows:

"In a coal-mining machine, the combination, with the cutters and a forwardly movable cutter frame, of a rotary drill which advances with the cutters, and is so situate relatively thereto that the hole drilled thereby shall not be coincident in width with or included by the cutter kerf, said drill having bearings of substantially the same diameter as the drill, whereby the bearings will enter the drill hole and will steady the machine, substantially as and for the purposes described."

The application for the patent in suit was filed January 4, 1890, and granted May 27, 1890. There was therefore a co-pendency of the two applications from January 4, 1890, until May 27, 1890, on which day both were issued. Neither of these applications makes any reference to the other. The effect of this earlier application upon the patent in suit we shall not now determine. Thus it clearly appears, from the history of the art prior to Lechner's auxiliary auger-cutting and holding application, that the devices used as supplementary to the well-known support by jacks for guiding and steadying

the movable frame as it progressed deeper and deeper under the coal, included the auger and steering pipe of the Brunton patent, the guiding bar of the Gay patent, the auger auxiliary drill of the Weber patent, the auxiliary cutter wheel of the A. and S. C. Lechner patent, the auxiliary auger drills at the extremities of the saw cutter bar of the Legg patent, and the "keel pieces" of the Brunton patent, to say nothing of other patents using one or more of these means.

Counsel for appellee have contended that Lechner is entitled to a liberal construction of the claim here involved, and in their printed brief they say:

"Here we have a pioneer invention of great merit. It solved the problem of economic and successful application of mechanical power to the mining of coal by chain-breast machines. It made practical the use of the chain-breast machine; the very best form that had ever been devised. The contribution which this invention made to the art was the holder; that was the last step, the happy thought, the lucky stroke, the novel element. Lechner embodied it in two forms. Each form was separately patented, but the applications were contemporaneously pending. It enters equally into the claim of each patent. These two patents are not inconsistent any more than two separate claims in one patent. They must be read together and share in common the merit of pioneer patents."

Referring again to Lechner's two patents covering two means of holding, they say:

"In one he made use of an auger for boring the groove or seat for the holding device, and in the other he made use of a cutter for cutting the groove or seat. These two forms exhausted the art so far as Lechner could see, and instead of attempting to obtain a generic claim which would cover them both and which might be expressed in the following terms, viz.: 'The combination in a chain cutter machine, of means for forming a groove or seat, and a holding device which bears against the side of such groove or seat, for steadying the machine and preventing lateral motion,' he applied for and obtained, upon applications which were contemporaneously pending in the patent office, two separate patents,—one for the holder in combination with the auger, and the other for the holder in combination with the cutter."

In the light of the history of this and kindred arts it cannot be admitted that Lechner's contribution to this art was the holder. The steering pipe and keel pieces of the Brunton patent, the auger auxiliary cutters found in both the Weber and Legg patents, the auxiliary cutter disc of the A. and S. C. Lechner patent, were all holders. Some were more efficient than others, and none were possibly as efficient as a holder independent of the auxiliary cutter and adapted to follow such a cutter into the channel cut by it. The cutter disc of the A. and S. C. Lechner patent was both a cutter and holder in one piece, having no other function than to prevent lateral motion. It may be that the holding function of the disc cutter was impaired to a degree by the fact that the channel cut by it was somewhat wider and deeper than the disc by reason of the projecting character of the cutter blade extending beyond its sides, as shown by the drawing. But the degree of effect upon its holding function caused by this slight projection of these cutters must, under the evidence, be very slight, if any. Both Sperry and Davis, experts for appellee, in speaking of the variance between the diameter of the auger bit and the projecting parts of the auger shaft, having the function of a holder



in early auger machines used by appellee, say that the irregularities of the hole bored by the bit and the presence of chips operate to give a tight bearing against the sides of the following holder, although slightly smaller than the bit.

The same thing is evidently true of the disc holder and cutter, and the evidence strongly tends to show that when used as an adjunct to the jacks it does operate quite effectually as both a holder and cutter. So, in the auxiliary auger drill of the German patent to Weber, the bit itself is the holder,—a holder which in degree is doubtless less satisfactory when used in connection with steam or electric power than when employed in a mere hand machine, as contemplated by Weber. Nevertheless, there is present in that patent the principle of an auxiliary holder in a single chain breast-cutting machine. The bit of the auger is both a cutter and a holder, the latter function resulting from the persistent push of the point and blades of the bit against the material into which it bores. Lechner improved on this by journaling his auger shaft in a box “of substantially the same diameter as the end of the drill,” so that it would enter the hole made thereby, and “afford means for holding the machine frame stationary and for preventing lateral motion.” In the patent in suit he substitutes for the auger a reciprocating chisel, and journals the shaft of this chisel in a projecting box adapted to engage the channel cut by the chisel cutter, and thus prevent any lateral motion of the traveling frame. It may be admitted that this idea of furnishing a holder corresponding in size to the kerf cut by the auxiliary cutter which is stationary in relation to the cutter, and adapted to follow it into its channel, is a more satisfactory solution of the problem of steadying and centering such machines than that afforded by the disc cutter and holder or that found in the auger cutter and holder. But the spirit of his invention is an independent holder for which a position is furnished by an auxiliary cutter in advance of it. If Lechner's first claim is to be sustained, it must be limited by his specifications and drawings so as to include only that which is different from the earlier means used for the same purpose. The specifications and drawings may properly be looked to for the purpose of limiting this claim, and they show most clearly that the principle of his invention consisted in an independent holder stationary with relation to a movable cutter which preceded the holder and cut a channel into which the holder follows. The claim itself includes as an element “a holding projection adapted to follow” an independent auxiliary cutter into the kerf made thereby, and to thus form a holder against the thrust or force of the endless cutter. Whenever we eliminate the principle of an independent holder adapted to follow an independent cutter from this claim, and broaden it so as to include a cutter which has the double function of a cutter and holder, we find that such combined holder and cutter was old, and his claim would be invalid, unless it could be sustained for a reciprocating or movable chisel, as distinguished from an auger drill or a disc wheel cutter, a distinction which would still further narrow the claim and clearly exclude the device of appellants, who do not use a movable chisel or auger. The construction we have placed upon this claim is

supported by the occurrences in the patent office, as shown by the file wrapper and contents.

When the application for this patent was pending, his claims 1, 2, 3, 4, 6, 8, and 9, were rejected. The first claim thus rejected was identical with claim 1 in the patent as finally issued. The rejection was based upon references to the German patent to Weber, No. 6,848, and the patent to Legg, of 1886, No. 347,813. In an amendatory paper filed thereafter the applicant among other things said:

"Claims 1 and 2 have not been inclosed in this amendment, as a copy of the German reference is not available to this office, and it is respectfully requested that the office submit to the undersigned an estimate of the cost of a tracing of so much of said German patent as will convey an intelligent idea of the same in its bearing on this application. \* \* \* The claims, with the exception of claims 1 and 2, which, as before noted, have not received action, have been amended so as in the opinion of the applicant to free them from the references cited. Attention is called to the fact that claim 6 includes as an element the 'holding projection,' which does not seem to be found in the reference devices. Claim 1 also seems free from the references for this reason, unless the German reference discloses some such device, of which we are not at present advised. We respectfully request that the claims herein submitted receive an early and favorable action, and that the estimate concerning the German reference be forwarded to applicant at an early date.

Very respectfully,

Francis M. Lechner,

"By Paul A. Staley, Atty."

In a later communication the applicant undertook to remove the objection based upon the reference to the Weber patent by saying in a communication to the office:

"It is thought that claim 1 is clearly distinguished from the reference devices, as explained to the examiner in charge in a recent personal interview, inasmuch as none of the reference devices show a stationary holding device adapted to follow a cutting device. A cutting device when relied upon as a holding device is not a success, because the thrust of the machine against the cutter will make it run in the direction of the thrust."

Thereupon claim 1 was allowed, together with certain other claims which had been so amended as to conform to the requirements of the office, but which do not materially affect the question as to the proper construction of the first claim. This correspondence, followed by this action of the patent commissioner, clearly indicates that this first claim did not include a cutter relied upon as a holder, and that in respect of this matter there was a substantial difference between an auxiliary drill, whether an auger or a chisel, when relied upon as a holder, and a device in which the holder was an independent element adapted to follow the cutter, and thus form a holder. This was the construction which Lechner placed upon his own claim, and the presumption is, in view of the subsequent allowance of the claim, that the judgment of the office was that this was the distinguishing feature, and not found in the reference device. The object of Lechner was to make an improvement upon existing means for holding such machines against lateral movement. The only advance he made was in providing an independent holder adapted to follow an auxiliary cutter as a substitute for various forms of auxiliary cutters theretofore used as combined cutters and holders. This he did by enlarging the journal of his cutter bar so that it would conform

to the size of the channel cut by his chisel, and thus form a holder independently of any action of his chisel in that respect. He is not a pioneer in any sense of the word.

Having described an independent holder adapted to follow an independent auxiliary cutter into the channel cut by it, he is not entitled to claim that an auxiliary cutter which operates as a holder and cutter is within the claim of his patent. He is not entitled to invoke the doctrine of equivalents. A broad construction such as is now insisted upon, which would include all cutting devices relied upon as holders, would make his claim void for anticipation. In view of the history of devices intended to perform the same function performed by his holder, his patent can only be saved by confining him to the specific form he has described and claimed. *Knapp v. Moore*, 150 U. S. 221, 228, 229, 14 Sup. Ct. 81; *Miller v. Manufacturing Co.*, 151 U. S. 186, 207, 14 Sup. Ct. 310; *Wells v. Curtis*, 31 U. S. App. 123, 158, 13 C. C. A. 494, and 66 Fed. 318; *Ney v. Manufacturing Co.*, 37 U. S. App. 371, 16 C. C. A. 293, and 69 Fed. 405.

The device used by defendants departs from this principle of an independent holder stationary in relation to the auxiliary cutter and following behind the cutter, and returns to the old means of using the auxiliary cutter itself as a holder. That it is effective as a holder is due not only to the fact that the spur-like points of the cutter are persistently held in constant contact with the material being cut, but also from the fact that the inner and flat side of the cutter is in contact with the wall of the channel cut by the points of the chisel-like teeth, and which must therefore, to some extent, co-operate with the imbedded chisel points in the function of holding. There is no movable chisel in appellants' device, and no supplemental holder adapted to follow the cutter. It does not for these reasons infringe. We have not considered the patent issued to Dierdoff for the device used by appellants, and only decide that appellants do not infringe the first claim of the Lechner patent. For this reason the decree must be reversed, and the bill dismissed.

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CONSOLIDATED STORE-SERVICE CO. v. WILSON et al.

(Circuit Court, D. Massachusetts. October 20, 1897.)

No. 788.

**1. PATENTS—INVENTION—CASH CARRIERS.**

The Osgood patent, No. 357,851, for a cash carrier, in which the car is propelled upon a horizontal wire from one station to another by the momentum imparted by a single impulse or push, thereby eliminating the double track necessary in the gravity system, and the intermediate mechanical contrivances inherent in the endless-cord system, discloses patentable invention.

**2. SAME.**

The Osgood patent, No. 293,192, covering, in a cash-car system, an arresting stop or spring buffer, consisting of a pair of spring arms supported parallel with the track, and opening outward at their free ends, to catch the car and bring it gradually to a stop by friction, covers a new and useful invention, and is infringed by a car having a spring at each end