plained of is identical with the complainant's in appearance, is substantially so in construction, and in our judgment is manufactured by adopting the essential features of the complainant's invention. We have said enough to indicate the grounds of our decision, and it would be unprofitable to enlarge upon the subject. A decree must be entered for the complainant.

WHITCOMB et al. v. Spring Valley Coal Co.

(Circuit Court, N. D. Illinois. January 26, 1891.)

1. PATENTS FOR INVENTIONS—ISSUE TO ASSIGNEE—PRESUMPTION.

Where a patent has been issued to the inventor in part, and in part to one named as his assignee, it will be presumed that the assignment was properly made and entered of record in the patent-office, as required by Rev. St. U. S. § 4895, providing that patents may be issued or reissued to the assignee of the inventor, but that the assignment must be first entered of record in the patent-office.

2. Same—Reissur to Guardian of Insane Patentee.

Where the patentee of an article has become insane, the reissue of the patent may be made in the name of his guardian, though the law (Rev. St. U. S. § 4916) in terms only authorizes a reissue to the original patentee, or his assigns, or, if he be dead, to his executor or administrator; and the reissue would be valid if issued to the insane patentee himself.

Even if the reissue of a patent to the guardian of an insane patentee were invalid, because the law does not in terms provide for reissue to the guardian, no one but the patentee could complain.

Where a patentee of an invention, after the issue of his patent, has become of poor health, and so mentally deranged as to be unable to attend to business, and afterwards insane, a reissue of the patent to his guardian two years and seven months after issue of the patent is not invalid, on the ground of laches in not applying for the reissue within two years.

5. SAME—REISSUE—VALIDITY.

The reissue of a patent for an invention is not invalid on the ground that the specifications have been amended and the claims expanded beyond the original patent, where the changes consist merely in describing what was suggested in the original drawings and specifications, or in explaining the functions or effect of the mechanism.

6. Same—Mining-Machines.

Reissued letters patent No. 9,408, October 12, 1880, to Sarah J. Harrison, guardian, etc., (original patent No. 198,610, December 25, 1877, to Jonathan W. Harrison, etc.,) covering a coal-mining machine for under-cutting and shearing in, or producing cuts or excavations preparatory to wedging out or displacing coal, are not void for want of novelty.

Reissued letters patent No. 9,439, November 2, 1880, to Sarah J. Harrison, guardian, etc., (original patent No. 219,090, September 2, 1879, to Jonathan W. Harrison, etc.,) for a mining-machine, consisting of a cylinder, mounted on two wheels, and connected directly with their axle, so that it may be oscillated by the oscillation of the axle, for the purpose of drilling and cutting in mining coal, are not void for want of novelty.

8. SAME—HANDLES TO MACHINE.

Letters patent No. 222,792, September 28, 1880, to George D. Whitcomb and others, for improvements in mining-machines, and consisting of the application of handles to a mining-machine by which to manipulate and move it, are void for want of novelty, in view of the prior use of such handles on plows.

In Equity.

Coburn & Thacher, for complainants.

Paul Bakewell and G. S. Eldredge, for defendant.

BLODGETT, J. The bill in this case charges the defendant with the infringement of reissued patents No. 9,408, granted October 12, 1880, to Sarah J. Harrison, guardian of Jonathan W. Harrison, an insane person, and Charles R. Miller, assignee of one-half interest in said patent, for a "coal-mining machine," (the original patent, No. 198,610, having been granted December 25, 1877, and issued to said Jonathan W. Harrison and J. E. Ingersoll, as assignee of one-half interest therein;) reissued patent No. 9,439, granted November 2, 1880, to said Sarah J. Harrison, guardian, etc., John J. Harrison, and Orange Butler, (the original patent being No. 219,090, granted to Jonathan W. Harrison, and the said John J. Harrison and Orange Butler, assignees of Jonathan W. Harrison, on the 2d of September, 1879;) and patent No. 232,792, granted to George D. Whitcomb, Sarah J. Harrison, John J. Harrison, and Orange Butler on the 28th of September, 1880.

The scope and purpose of reissued patent No. 9,403 is explained in the opening paragraph of the specifications:

"This invention relates to a machine or apparatus for under-cutting and shearing in, or producing any other cuts or excavations, such as are required in mining coal preparatory to wedging out or displacing the mass of material. The machine is constructed with a reciprocating drill or pick of peculiar construction, operated by a piston worked by compressed air or steam, under control of either a rotary or reciprocating valve, deriving its motion from bucket-wheels which are actuated either by a current or by direct pressure of air or steam conducted from the supply-pipe from which the drill-piston is worked. * * * The peculiarity in the reciprocating drill or pick consists in forming it with a double flaring point and a concave face, whereby it is caused to cut properly in line, and is preserved from deflection by contact with the coal, the piston-rod which carries the drill or pick being guided so as to keep the working face in one plane."

Infringement is charged as to the first, second, and third claims of this patent, which are:

"(1) In a coal-mining machine, a drill-rod of irregular form in cross-section, in combination with a nose on the end of the piston cylinder, provided with a bearing for the drill-rod corresponding in shape to the contour thereof, whereby said drill-rod is guided, supported, and prevented from turning, substantially as described. (2) The combination of the concave-faced or double-pointed pick-head, A, and the rod, B, having a longitudinal reciprocating motion, and guided by a tongue or groove, so as to retain the pick-points in a vertical plane. (3) The combination of the drill or pick, A, a, a', the piston-rod, B, the cylinder, C, and the cylinder head, D, constructed with a projecting nose, D', provided with means for guiding the drill-rod, in the manner explained."

An important process in the work of mining coal is "the shearing in" or under-cutting by making a deep horizontal cut under the mass of coal, beginning at the front and working back, so that the body of the coal above the cut may be broken down or wedged off into pieces readily handled for removal from the mine; and one of the necessities of the cut is that it must be deeper at the front than at the rear, so that the blocks

of coal may fall away as they are wedged off from the mass. And, while the proof shows that many attempts have been made to produce a machine which will do this work, no practical, successful machine seems to have been devised until those covered by the patents involved in this suit, and up to the advent of this machine the undercutting was done by hand, with picks. These machines are made comparatively light, so that they are readily handled and kept to their work by the strength and attention of not to exceed two men, and embody the characteristics of a power tool; that is, an implement where the working force is compressed air or steam, but with such working force applied and directed by the workmen. The peculiar and new and meritorious features of this patent, as claimed by the patentee, are:

"(1) The long cylinder nose projecting from the cylinder head, adapted to follow into the channel as it is cut out, so as to keep the support for the pick near to the point where the blows are delivered. (2) The holding of the pick-rod within this nose in a bearing of irregular shape, so that the rod has a long firm support, which may be extended into the cut under the coal while the pick is held from turning, so that its blows are always delivered in the same straight line. (3) The particular form of the cutting edge or point of the pick, these points being, first, to engage the coal, thus giving the pick a firm hold upon the material it attacks, keeping it from glancing as it delivers its blows."

Reissued patent 9,439 has several peculiar features, but the only one in controversy in this case is described in the following quotation from the specifications:

"The cylinder is mounted on two wheels, being connected directly to their axle, so that the cylinder may be oscillated by the oscillation of the axle, and the center of oscillation is the same as the center of the revolution of the wheels."

And the claims upon which infringement is charged are the first, second, and third, which are:

"(1) In a coal or rock drilling machine, a pair of supporting-wheels, in combination with the drill cylinder mounted on the axle of said wheels, substantially as and for the purpose set forth. (2) In a coal or rock drilling machine, a pair of supporting wheels, in combination with a drill-cylinder, arranged to oscillate about a center coincident with the center of revolution of the supporting wheels, substantially as and for the purpose set forth. (3) The supporting and carrying wheels, W, in combination with the drill cylinder or cylinders, C, attached directly to the axle of the carrying wheels, substantially as described."

The proof shows that, by mounting the machine on wheels as described, it is made more manageable and effective, and capable of being more readily moved, and the blows delivered at the required points of attack with greater facility and accuracy.

Patent No. 232,792 relates to improvements on the machine described in the two preceding patents; the improvements covered by this patent, which are in question in this case, being the application of handles by which the more easily to move and manipulate the machine, and a chisel-shaped pick, which features are covered by the third and fifth claims:

"(3) In a mining-machine, the arms, P, sliding in guides, Q, and adjustable by means of pins, q, and holes, p, substantially as shown and described."

"(5) The chisel-shaped pick, R, having the V-shaped notch in its edge, substantially as and for the purpose set forth."

The defenses interposed in this case are: (1) That both the reissued patents are void, because the originals of these patents were issued to Jonathan W. Harrison as the inventor, and to certain assignees named in each of the patents, and that the reissues are to Sarah J. Harrison, guardian of the patentee, an insane person; while the law only allows a reissue to be made to an assignee, executor, or administrator of the patentee, and does not authorize a reissue to the guardian of an insane patentee. (2) That the original patents which formed the basis of the two reissues 9,408 and 9,439 were all granted to the alleged inventor, assignor of certain interests therein to other persons, and there is no proof in the record that Jonathan W. Harrison ever assigned any interest in the invention to the respective persons named as assignee which the patent purports to vest in those assignees. (3) That the reissued patents are void because of delay in applying for the reissues, and because the reissues are broader than is allowable under the law. (4) That all said patents are void for want of novelty. (5) That defendant does not infringe.

I will consider, first, the second objection urged. Section 4895 of the Revised Statutes provides that "patents may be issued or reissued to the assignee of the inventor or discoverer, but the assignment must first be entered of record in the patent-office." The original patent No. 198,610 having been issued to Jonathan W. Harrison, assignor of onehalf to Ingersoll, and original patent No. 219,090 having been issued to Harrison, assignor of one-third each to John J. Harrison and Orange Butler, the court will, in the absence of proof to the contrary, presume than an assignment of one-half interest in the invention was properly made by Harrison, the inventor, to Ingersoll, and to John J. Harrison and Butler, before the issue of the patent, and that such assignment was duly entered of record in the patent-office; the general rule being that acts done by public officers in the course of official duty have been regular, and in accordance with their authority, until the contrary is shown. Ross v. Reed, 1 Wheat. 482; U. S. v. Arredondo, 6 Pet. 691; Strother v. Lucas, 12 Pet. 410; Railroad Co. v. Stimpson, 14 Pet. 448: Wilkes v. Dinsman, 7 How. 89; Minter v. Crommelin, 18 How. 87. Under this statute, the commissioner of patents is as much bound to act upon proof of the assignment of the invention, or of an interest therein, which is brought to his attention in accordance with the statute, as he is to pass upon any other matter of fact required to be passed upon by him in the course of the proceeding for the issue of the patent, and his decision upon such matter of fact is certainly prima facie evidence of the existence of such fact. Nail Factory v. Corning, 1 Blatchf. 467; Teese v. Phelps, 1 McAll. 48. He passes upon the fact that the device for which the patent is sought is new, and therefore patentable; and his decision on that question is prima facie evidence of novelty, and throws the burden of proof upon the parties asserting want of novelty. So, also, he passes upon the question of fact as to

whether the inventor has assigned an interest in the invention by an assignment entered of record in the patent-office; and if a patent is issued in part to an assignee, the presumption is that an assignment of such interest had been properly entered of record in the patent-office.

It is urged by the learned counsel for the defendant that the commissioner of patents has no judicial powers, and therefore no judicial examination of the sufficiency of these assignments or transfers can be made until they are called in question in some forum having power to examine into and pass upon them. But, with the presumption of regularity which accompanies the official acts of a public officer, the party calling these acts in question must, if he wishes to have a judicial examination of these assignments or their legal effect passed upon judicially, make an issue upon them, and put in some proof of want of sufficiency or regularity. In this case, it is true, the defendant by its answer denied that the assignments had been made to Ingersoll of a half interest in the invention covered by patent 198,610, and also denied that any assignment of an interest in the invention covered by patent No. 219,090 to John J. Harrison and Orange Butler had been made, and demanded strict proof of such assignments. So defendant also denied that Jonathan W. Harrison was the original and first inventor of the device covered by this patent. But the production of the patents themselves is sufficient prima facie proof of the respective assignments, and of the fact of invention by the said Jonathan W. Harrison, to meet defendant's demand for proof, and put defendant upon proof to overcome the prima facie case made by the patents.

As to the first objection urged, it is claimed that patents No. 9,408 and No. 9,439 are void, because they are not issued to Jonathan W. Harrison himself, but, as far as his interest is concerned, are issued to Sarah J. Harrison, guardian of Jonathan W. Harrison, an insane per-The first of these original patents was issued to Jonathan W. Harrison and one Ingersoll, his assignee of a half interest, December 25, 1877, and the other original patent was issued September 2, 1879. The reissue of the first-mentioned patent was applied for in August, 1880, by Sarah J. Harrison, guardian of Jonathan W. Harrison, and the other parties interested in the patent. And it also appears from the proof that Jonathan W. Harrison resided in the state of Michigan at the time both the original and reissued patents were issued; that the said Jonathan W. Harrison's health became poor, and that he became nervous and flighty, with indications of insanity, during the years 1878 and 1879; and that in the early part of 1880 he became insane, and was sent to the insane asylum, and adjudged insane by the probate court of Jackson county; and that Sarah J. Harrison, his wife, was appointed his guardian before the date of either of these applications for a reissue. of the state of Michigan in force at the time of this application for the appointment of a guardian (sections 6314-6316) provides that an application may be made by the relatives of an insane person to the judge of probate of the proper county for the appointment of a guardian for an insane or incompetent person, and that after notice of such application for such supposed insane or incompetent person such judge may, after full hearing, appoint a guardian for such insane person, and that such guardian shall have full power to dispose of and manage the estate of such insane person. In *Kinney* v. *Harrett*, 46 Mich. 89, 8 N. W. Rep. 708, it was held "that the guardian may dispose of the personal estate of the ward, but cannot dispose of the real estate without license from the probate court."

Section 4916 of the Revised Statutes of the United States provides for the reissue of patents in case of defective specifications or insufficient claims, etc., to the original patentee or his assigns, or, if he be dead, to his executor or administrator, but does not, in terms, authorize a reissue to the guardian of an insane person. The question of the right of the guardian of an insane patentee to apply for a reissue of his patent does not seem to have ever been judicially settled; at least, the industry of counsel, and my own researches, have not shown any decision on the It is very clear from the proof in this case that at the time these reissues were applied for, and for several months prior thereto, the patentee, Jonathan W. Harrison, was wholly incapable of applying for a reissue, or of managing his own affairs in any manner, and, if any person could protect his interest in the invention he had made by applying for a reissue, such application must be made by his guardian. As the guardian was then in full possession and control of the estate of her ward, I can see no fatal error in the issue of the reissued patents directly to the guardian, although it might, perhaps, have been equally valid if issued to the insane person by name. Suppose this guardian of the insane patentee had, in the course of her duties, taken a note from a debtor of the ward payable directly to herself as such guardian, instead of making it payable to the insane person, I take it for granted that the note would have been a valid note in all respects, and that the action of the guardian in changing the title of the indebtedness directly to herself, in her representative capacity, would not have vitiated the transaction, and the act of the guardian now in question seems to me in all respects wholly analogous to that which I have supposed.

The guardian was acting in a capacity purely representative, but upon the facts in the case, and on the face of the patent itself, could claim no personal interest in the reissued patent; it runs to her in her representative capacity, and belongs as much to the insane person as if it ran directly to him by name. It leaves no opportunity for the guardian to wrong either the public or her ward. No one, I think, would contend that Mr. Harrison lost his right to a reissue by reason of his insanity, nor does there seem to be any ground for doubt that the application for a reissue was properly made by his guardian. The only question is, does the technical issue of the patent to the guardian, as far as it covered the interest of her ward, invalidate it? In Wilson v. Rousseau, 4 How. 646, an extension of a patent was granted to the administrator, the patentee being dead, although there was at that time no law authorizing the granting of an extension to an executor or administrator, and the statute in regard to extensions in terms authorized an extension only to the patentee. And the same disposition to give a liberal construction to the

v.47 r no.9-42

patent laws, so as to secure the full benefit of the patent to those entitled to it, is shown by the supreme court in the case of Grant v. Raymond, 6 Pet. 243. Guided by the same liberal spirit evidenced by this and other decisions which might be quoted, I have no doubt that this reissue to Mrs. Harrison, as guardian of her insane husband, is a valid reissue, both as to the interest of her husband and the other patentees. to me that these reissues would have been equally valid if made to either the guardian, or made direct to Jonathan W. Harrison. tial interest—that is, the property right in the invention—would have been equally protected in either form of reissue. Further than this, I do not see that any one but Jonathan W. Harrison could be heard to complain as to these reissues to his wife as his guardian, and the proof shows that he has recovered his reason, and has been managing his own affairs since 1884, but there is no proof that he has at any time repudiated the action of the patent-office in making this reissue to his wife and guardian.

As to the third point, that these reissued patents are void—First, because the patentee was guilty of laches in not applying for the reissues at an earlier day; and, second, because the claims have been expanded beyond what was allowable in the original specifications. The first original patent, No. 198,610, was granted December 25, 1877, and the reissue applied for August 9, 1880, and the reissue granted October 12, 1880, so that a little over two years and seven months intervened between the original issue and the application for the reissue. The proof, however, shows that the inventor, Jonathan W. Harrison, was in poor health, and at times mentally deranged during the years 1878 and 1879, so that he was much of the time unfit to attend to business, and that in the spring of 1880 he became wholly insane, and continued so about four years, or until some time in 1884. I do not understand the cases of Miller v. Bridgeport Brass Co., 104 U. S. 350, and James v. Campbell, Id. 356, as laying down the inexorable rule that an application for a reissue must be made within two years after the issue of the original patent. The court in these cases, as I construe the decisions, only intended to insist that a party could not sleep upon his rights after a defect in his patent had been discovered, and that he was bound to discover it within two years, as a general rule; but so strict a rule can hardly, with justice, be applied to a person who is insane, or so far bordering on insanity as to be at times incapable of managing his business from the time his original patent issues. Here the ill health and partial mental derangement of the patentee which intervened very soon after the issue of the original patent No. 198,610 seems to me is an ample excuse for the delay that occurred in making the application for the reissue of that patent; while the application for the reissue of patent No. 219,090 was applied for in about 13 months after the issue of the original, thus coming clearly within the general rule laid down in the two cases referred to.

As to the objection that the specifications have been amended and the claims expanded in the reissue. The statute allows the revision and correction of the specifications on an application for a reissue. In Carcu

v. Fabric Co., 3 Cliff. 356, it was held "that an applicant for reissue may redescribe his invention, and include in his description and claims, not only what was well described before, but also what is suggested in the original drawings, specifications, and patent-office models," and I know of no decision which has essentially changed the ruling thus laid down. An examination of the original and reissued patents shows no amendment or change in the specifications as to the description of the mechanism of the devices covered by the two patents, the interpolated matter being wholly explanatory of the functions or effect of the mechanism. For illustration, near the foot of the second claim of the second patent of the reissue, immediately preceding the paragraph, "I am aware that the rotary drills," etc., the following paragraph, not found in the original, is inserted: "The projecting nose or end, D', of the cylinder head, also provides a long bearing for the drill-rod, which gives strength and steadiness to the drill in its reciprocations." Now, this paragraph does not describe a new element of the mechanism, but only suggests the function or utility of the projecting nose, D', in steadying the drill. This is clearly no material change in the description of the patent, but only a statement of the utility of this one element of the combination covered by the first claim. The guiding nozzle or projecting end of the cylinder head being fully described in the original patent, obviously the new claim, which is claim 1 of the reissue, could have been supported by the original specifications and drawings which describe this projecting nose, D'. In the original patent No. 219,090 the drawings showed cylinders mounted on an axle with two wheels, while the specifications describe them as mounted on wheels, and a clause is interpolated into the specification of this reissue requiring the cylinder to be mounted on two wheels, and connected directly with the axle, so that the cylinders are oscillated by the oscillation of the axle. But this is manifestly an allowable revision and correction of the specification, as it only makes the specification agree more fully with the drawings. All the other new matter in the specification to this reissued patent is merely explanatory of the functions of the machine, or some of its principles. In fact, as I read them, the most that can be said of any of the changes in the specifications of the reissue of either of these patents is that they serve to make more clear and elucidate what appears in the original. The new claims which are the first, second, third, and fourth claims of patent No. 9,439 are all for features found in the drawings and specifications of the original patent, and, as this reissue was applied for within a little over a year after the issue of the original, I do not see that the objections to it are well taken.

Upon the question of want of novelty in these patents, a large number of prior patents, both American and English, are introduced; but I can say generally that I find in neither of them any device which covers or anticipates the claims which are covered by the claims in question in the two reissued patents. The nearest approach to the Harrison machines, perhaps, of any of the patents cited, is the English patent of 1870 to Osterkamp. This may be said to be a power tool, and in many of

its features resembles in its mode of operation, and the facility with which it is handled, the Harrison machine; but it lacks the irregular form of the drill-rod in cross-section, and the bearing of the drill-rod corresponding to its shape, whereby the drill is held in the same position while delivering its blows. This may be said to be but a slight change, but it constitutes the difference between a drill for boring a hole into a rock and a machine for shearing in under a body of coal. A deep gash could not be cut with facility with this Osterkamp machine, but only a series of round holes drilled into the body of the coal, even if it were applied to the work for which the Harrison machines were designed. It is true that several of the machines cited as covered by former patents are mounted on wheels, but they are invariably mounted on four-wheel truck platforms, or on trucks in the form of a wheelbarrow; but none of them, so far as I can see, are balanced upon the axle of the carrying-wheels so as to admit of the facility of handling which is given to the Harrison machine by the wheels upon which it is mounted.

As to the Whitcomb patent No. 232,792, infringement is charged only as to the third and fifth claims which embody the elements of the sliding or adjustable arms or handles, and the chisel-shaped pick with a V-shaped notch in its edge. Both these claims are, I think, anticipated in the prior art. The patents to Huff of June, 1869, and Rafferty of April, 1872, both show adjustable handles attached to a plow; and I can see no reason why the adjustable handles which are covered by the third claim of this patent are not, in all respects, like the adjustable handles of the Huff and Rafferty patents, and that they perform precisely in this patent the function which they did upon the plow patent. And it is admitted by complainants in their brief that the chisel-shaped pick, with the V-shaped notch in its edge, is anticipated by the Walton patent No. 144,808, of November, 1873.

. Upon the question of infringement, the proof shows that defendant uses a coal-mining machine, worked by compressed air, having a drill-rod of irregular form in cross-section; that this drill-rod works in a nose or extension of the piston cylinder, whereby it is guided and kept to its work; that the drill-rod has a reciprocating motion; that its machine has a double-pointed pick-head; that the machine is mounted on two wheels, so as to rock or oscillate on the axle. In fact, the defendant's machines, so far as working elements and their function and mode of operation are concerned, embody all the features and elements of the machines covered by the first three claims of the two reissued patents. I therefore conclude that the reissued patents No. 9,408 and 9,439 are valid, and that the defendant has infringed the first three claims of each of said patents, for which an accounting for profits and damages should be had; and I further find that in the patent No. 232,792, to George D. Whitcomb, assignor, etc., the third and fifth claims of that patent are void for want of novelty.

WHITCOMB v. SPRING VALLEY COAL CO.

(Circuit Court, N. D. Illinois. January 26, 1891.)

1. PATENTS FOR INVENTIONS-NOVELTY-MINING-MACHINES.

Letters patent No. 267,047, to George D. Whitcomb, November 7, 1882, for a coalmining machine, covering (claim 3) the combination of an inclined platform and mining-machine, the platform sloping towards the work of the machine, so as to hold it to its work, and assist in overcoming the recoil from the blow of the pick, is not void because it required no inventive genius, nor for want of novelty, either because of the use of an inclined platform in artillery to prevent the recoil of the gun, or otherwise.

2. Same-Infringement.

Letters patent No. 335,328, to George D. Whitcomb, February 2, 1886, for a mining-machine, covering (claim 6) a main air-inlet, and inlet and exhaust ports of the valve-motor, having their valves arranged at the rear face of the machine below the top thereof, is not infringed by the use of a machine which acts by the direct pressure of the air upon the cylinder.

In Equity.

Coburn & Thacher, for complainant.

Paul Bakewell and G. S. Eldredge, for defendant.

BLODGETT, J. This is a bill for an injunction and accounting by reason of the alleged infringement of patent No. 267,047, granted November 7, 1882, to George D. Whitcomb, for a "coal-mining machine," and patent No. 335,328, granted February 2, 1886, to George D. Whitcomb, for a "mining-machine." Patent No. 267,047 covers several improvements in coal-mining machines, but the only feature of the patent brought in question in this case is that covered by the third claim, which is described in the patent as—

"An inclined portable platform, upon which the mining-machine is placed when in operation. It is made to slope towards the work of the machine, so that the weight of the machine holds it to its work, and assists to overcome the recoil from the blow of the pick. The incline of the platform also enables the operator to give the machine a downward pitch, so that the weight of the piston and piston-rod assists in giving force to the blow of the pick. This inclination of the platform operates in this way to save power, and assist the operator in operating the machine and holding it to its work. I ordinarily make my platform double, with loose sections, and in such manner that the machine is moved laterally from one platform to another, as it is moved from place to place in its work."

This feature of the machine is covered by claim No. 3, which is:

"(3) The combination of the inclined platform, M, and mining-machine, for the purpose of holding the machine to its work, substantially as specified and shown."

Patent No. 335,328 has nine claims covering features which are claimed as improvements upon the machine described in the first-mentioned patent, and also in the machines covered by the patents involved in the preceding suit of Whitcomb and others against the same defendant, but the only claim involved in this case is No. 6, which is:

"(6) In a mining-machine of the character described, the main air-inlets, and inlet and exhaust ports, L and N, of the valve-motor, having their valves