

infringement. True, the invention at the first was applied to the defendant's furnaces with the plaintiff's consent, and therefore the original use by the defendant was not wrongful. But, under the proofs, it is certain that the furnaces to which the improvement was applied by the plaintiff were worn out long before this suit was brought. The life of such a furnace, it would seem, does not exceed one year. The plaintiff left the defendant's employ in 1890. Now, the evidence warrants the conclusion that, continuously since, the defendant has used the invention in its furnaces as they were erected from time to time. The defendant has offered no evidence to overthrow the fair inference of unlicensed use arising from the plaintiff's proofs. Upon this branch of the case, the full proof was in the defendant's own hands. I feel quite justified, then, upon the plaintiff's prima facie proofs, in overruling the defense of noninfringement. *Bennet v. Fowler*, 8 Wall. 445, 448; *Spring v. Machine Co.*, 9 Fed. 505.

Let a decree be drawn in favor of the plaintiff.

MAST, FOOS & CO. v. STOVER MFG. CO.

(Circuit Court, N. D. Illinois, N. D. January 31, 1897.)

1. PATENTS—PRELIMINARY INJUNCTION—PRIOR ADJUDICATION.

On motion for preliminary injunction, a prior adjudication upon the validity of the patent is conclusive unless there is a new defense supported by evidence so cogent as to convince the court that, if introduced in the former case, it would have changed the result. *Electric Mfg. Co. v. Edison Electric Light Co.*, 10 C. C. A. 106, 61 Fed. 834, 13 U. S. App. 641, followed.

2. SAME—ANTICIPATION—WINDMILL.

The Martin patent, No. 350,281, for an improvement in windmills, consisting of the substitution for external driving gear of internal gear which is a combination of internal toothed wheels with the pinion, pitman, or pump of a windmill, was not anticipated by the Perkins mill, which had internal gear similar to that in mowing machines.

Suit by Mast, Foos & Co. against the Stover Manufacturing Company to restrain the alleged infringement of letters patent No. 433,531, issued August 5, 1890, to S. W. Martin, for a windmill.

Lysander Hill and H. A. Toulmin, for complainant.
Offield, Towle & Linthicum, for defendant.

GROSSCUP, District Judge. Motion for injunction to restrain infringement of letters patent No. 433,531, relating to a new and useful improvement in windmills. The patent was before the United States circuit court of appeals for the Eighth circuit, where its validity was upheld, and a device almost precisely like that of the defendant in this case was held to be an infringement. *Mast, Foos & Co. v. Dempster Mill Mfg. Co.*, 82 Fed. 327. The majority of the court held that the invention consists in the combination of an internal toothed spur gear with any suitable pinion, wind shaft, wrist pin, pitman, and pump rod of a windmill. Within the ruling in that case relating to the scope of the patent, the device of the defendant in the case under consideration is clearly an infringement.

The only question left is whether this court shall follow the judg-

ment of the circuit court of appeals both with respect to the validity of the patent and its scope. The rule laid down by the circuit court of appeals for the Seventh circuit (*Electric Mfg. Co. v. Edison Electric Light Co.*, 18 U. S. App. 641, 10 C. C. A. 106, and 61 Fed. 834) is as follows:

"That where the validity of a patent has been sustained by prior adjudication, upon final hearing, and after bona fide and strenuous contest, the matter of its validity upon a motion for a preliminary injunction is no longer at large, all defenses, except that of infringement, being reserved to the final hearing, subject, however, to the single exception that, where a new defense is interposed, the evidence to support it must be so cogent and persuasive as to impress the court with the conviction that, if it had been presented and considered in the former case, it would probably have availed to a contrary conclusion."

Under this rule, the preliminary injunction should unquestionably go, unless the new evidence is so cogent and persuasive as to impress the court with the conviction that, if it had been presented and considered in the former case, the decision there would have been other than it was.

In the case before the court of appeals for the Eighth circuit it was clearly shown that windmills having the precise combination of the complainant's patent, except that the driving gear was external instead of internal, had been long in prior use. The single advance said to have been made in the art by the Martin patent was the substitution of the internal for the external gear. In this lies the gist of his invention, if any invention there be. It was also shown in that case that internal gear wheels had been long in previous use to drive analogous machines, such as machines for mowing, for sawing wood, and for other purposes. But the court held that the adaptation or transference from these other uses evinced sufficient inventiveness to make it patentable. There was in that case an attempt to prove a prior use of the internal gear in windmills, but such fact was not established to the satisfaction of the court. In the case before that court, therefore, Martin was shown to have been the first man to use an internal gear to drive windmills.

Without questioning the soundness of the court's judgment upon the question of whether patentable invention was shown, I can on this motion only inquire whether, in all probability, that judgment would have been changed had credible new evidence—such as is before me—been before the court of appeals. That evidence goes on two points: (1) That the internal gear feature of the Martin patent was anticipated in previous patents; (2) that it was anticipated by prior use.

I have looked carefully through all previous patents brought specifically to my attention as not having been in the case in the Eighth circuit, and am convinced that the internal gear shown in each of them had no function relating to the driving of the shaft or the creation of reciprocal action. The function of the internal gear appliance, in nearly all these cases, was merely to keep the wheel in the wind. I do not feel that the presence of this information in the mind of the court of appeals would have changed its judgment respecting the validity of the patent.

The device principally relied upon to show prior use is that of the Perkins mill, manufactured at Mishawaka, Ind. It is not disputed

that this mill, in fact, antedates the Martin device; the inquiry simply is whether it, in the sense of the patent law, anticipates the Martin device. The Martin device is described by the inventor as follows:

"The invention consists, essentially, of an improved back-gear organization, involving an external toothed pinion and an internal toothed spur gear, the pinion being mounted on the wheel shaft, and the gear having formed on or connected with the wrist pin to which the operating pitman is attached, whereby the speed of the main shaft as applied to the wrist pin and pitman is reduced, and whereby, also, all the pounding and lost motion is prevented as the pitman connection passes over the center, and changes from a pushing to a pulling action. This object is accomplished by the fact that a plurality of the pinion teeth are always engaged with the internal spur gear, resulting in giving a perfectly uniform and smooth and noiseless reciprocating motion to the actuating rod, thereby prolonging the life of the machine by saving it from constant jarring, and preventing wear and tear.

"In the accompanying drawing, forming a part of this specification, and on which like reference letters indicate corresponding parts, the figure represents a side elevation of my improved organization, with some of the parts in section, showing the same applied to any approved type of windmill structure.

"The letter A designates a cast frame or structure carried by the upper part of the turntable of the windmill, of which B refers to one of the bearing blocks, and C to an arm to which is pivoted the pitman, D. This pitman is triangular, and of the type on the market in windmills manufactured by my assignees of this invention. To one extremity of this pitman is attached a pitman bar, E, the other end of which bar is fitted upon a wrist pin, F, carried by the internal gear, G. This gear may be of any approved type, so long as it is provided with internal teeth. In the present case it is constructed with a disk, H, having a hub, I, and a rim, J. It is mounted upon a stud or shaft, K, carried by the bearing block, B.

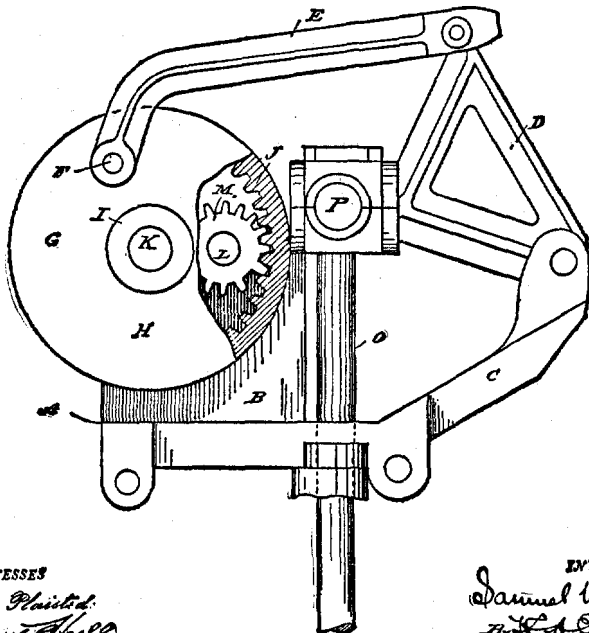
"(No Model.)

S. W. Martin,

"Windmill.

"No. 433,531.

Patented Aug. 5, 1890.



WITNESSES

H. M. Plaster,
Charles Hill,

INVENTOR

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"On the main shaft, L, is placed an external toothed pinion, M. It will be observed from the drawing that the pinion is within the circumference, J, and is intermeshed with the teeth of said rim. It will also be noticed that a plurality (three in the present instance) of the teeth of the pinion are engaged with the teeth of the gear rim. This is due to the fact that the rim encircles the pinion. Thus, it will be seen that, when the main shaft is rotated with its pinion, the internal gear wheel, G, will also be rotated, though at a reduced speed; and, as several of the teeth of the pinion are always engaged with the teeth of the rim, no lost motion will occur, as the wrist passes the center, and the strains are engaged from a pull to a push upon the pitman bar, E. The actuating rod, O, connects with the pitman, D, in any approved manner, at P, and extends down from the tower to any appliance to be operated; say, a pump. The freedom of the organization from lost motion and sudden jerks as the wrist pin passes over the center renders the operation of the pump smooth and regular. This increases the effectiveness of the pump, and prevents undue wear and tear."

The claims are as follows:

(1) "The combination with a windmill driving shaft and a pinion thereon, of an internal toothed spur wheel, mounted adjacent to the said shaft, and meshing with said pinion, a pitman connected with the spur wheel, and actuating rod connected with the pitman."

(2) "The combination with a wind-driving shaft and a pinion mounted thereon, of an internal toothed spur wheel, mounted adjacent to said shaft, and meshing with said pinion, a pitman bar connected to the spur wheel, a pivoted pitman connected to said bar, and an actuating rod connected to said pitman."

(3) "The combination with the upper part of the windmill turntable, the main shaft mounted thereon, and a pitman pivoted thereto, and actuating rod carried by the pitman, and a pinion mounted on said shaft, or stud adjacent to the main shaft, an internal spur gear mounted on said shaft or stud, and having a wrist pin, and a pitman bar connected to the wrist pin, and said pitman."

The large-toothed wheel, to which motion is imparted by the small wheel connecting with the fan, carries with it the pitman bar, E, thus, by the backward and forward motion imparted, communicating action to the pump. It is apparent that, at the moments when the wrist pin, F, passes directly over and under the axis, K, the pitman action changes from a pushing to a pulling, or from a pulling to a pushing, action, thereby immediately changing the direction of the strain upon the axis of the wheel. Were the wheel an external gear, intermeshing with the pinion, M, this change of strain would have alternately the tendencies to tighten and then widen the interlacings of the cogs. This, I infer, is what the court of appeals referred to, in the following sentence, respecting the external wheel windmill:

"As the cogs on the spur wheel and pinion and the other parts of the machinery wore away, the spur wheel and the pinion drew apart; and as the pitman connection passed over the center, and the motion changed from a pulling to a pushing one, or vice versa, a pounding and racking of the machinery arose, which shortened its life, and sometimes stripped the cogs from the pinion."

Martin's internal cog wheel obviated this trouble, inseparable to the combination of wheel and pitman, by the fact, as stated in his patent:

"A plurality of pinion teeth are always engaged with the internal spur gear, resulting in giving a perfectly uniform and smooth and noiseless reciprocating motion to the actuating rod."

Whether the mechanical results pointed out in the patent, and approved by the opinion of the court of appeals are, in fact, justified,

is no part of my inquiry. I must accept the judgment of that court as to that fact.

In the Perkins mill the fan is attached to, and turns, the large wheel, into the internal cogs of which the cogs of the small wheel attached to the end of a wrist shaft, on the other end of which is a larger cog wheel, which, by external gear, meshes with a small wheel on the top end of a vertical shaft. It will be observed that the motion imparted is necessarily constant, and that the strain on the axis of the several wheels is at all times uniform. There is no period in the revolution of the wheel when the strain on the axis of either wheel changes directions, and no moment of lost motion. The absence of the pitman bar attached towards the outer rim of the wheel, as in the Martin device, eliminates all changes arising from pushing to pulling action, and vice versa. There is in the Perkins device, therefore, whether it is run by external or internal gear, no danger of pounding or lost motion. In the case of either gear the motion would be constant and noiseless. The Perkins device is, in this respect, similar to the internal gears used in mowing and harvesting machines, spoken of by the court of appeals. It is in no sense, either technically or substantially, a combination of internal toothed wheels with the pinion, pitman, or pump of a windmill, and therefore could no more have suggested either the purpose or the result of the Martin device. I am not convinced that the presence of the Perkins device in the case before the circuit court of appeals would have changed its judgment. On the contrary, I feel sure that that court, holding to its other postulates, would have classed the Perkins device with the others referred to, as being no such sufficient anticipation of the thought embodied in the Martin invention as to invalidate its patentability. The motion for an injunction must therefore be sustained.

WESTINGHOUSE AIR-BRAKE CO. v. CHICAGO BRAKE & MANUFACTURING CO. et al.

(Circuit Court, N. D. Illinois. March 7, 1898.)

1. PATENTS—ASSIGNMENT—FUTURE IMPROVEMENTS.

The Park patents, Nos. 554,086, 543,102, 555,877, and 573,790, for improvements in air brakes for railway trains, are improvements on his patent No. 393,784, so as to be included in an assignment made by him of the latter patent and any future "improvements" thereon to be made by him.

2. SAME—ASSIGNMENTS OF FUTURE INVENTIONS—PUBLIC POLICY.

A contract assigning a patent, and all future improvements thereon to be made by the patentee, is not against public policy, though it binds the inventor to assign, for a consideration already paid, inventions made many years thereafter. *Littlefield v. Perry*, 21 Wall. 226, and *Manufacturing Co. v. Gill*, 32 Fed. 697, followed.

3. SAME.

A contract to assign a patent, and all future improvements thereon, will be enforced as to patents for such improvements, as against assignees thereof who take with knowledge of the contract or with notice sufficient to put them on inquiry.