

was intended to furnish a remedy. The invention in question was for a side-discharge separator, and undoubtedly it was an improvement to such centrifugal creamers, although the evidence shows that it did not entirely remove the difficulty, as the cream slot or notch, *j*, sometimes becomes stopped by extraneous matter. But this can never happen in defendant's separator.

As to who is entitled to the credit of originally devising the vertical cut or depression in the mouth of the rotary vessel for the top discharge of the cream we need not here inquire. It is sufficient to say that, in view of the prior state of the art, the obvious and declared purpose of the invention embodied in the first claim of the patent in suit, and the terms of the specification and claim, it is totally inadmissible so to construe that claim as to make it cover the top cream discharge orifice of the defendant's machine. Let a decree be drawn dismissing the bill, with costs.

### JOHNSON CO. v. TIDEWATER STEEL-WORKS.<sup>1</sup>

(Circuit Court, E. D. Pennsylvania. March 1, 1892.)

#### 1. PATENTS FOR INVENTIONS—ROLLING RAILS—INVENTION.

Claim 1 of patent No. 360,036, for method of rolling side-bearing girder rails, consisting in rolling down the metal forming the side tram in rolls provided with passes, in one or more of which that portion of metal forming the offset or head of the rail is subjected to elongating action, and that portion only forming its side tram is subjected to displacing or dummy action, does not involve patentable invention, since it was old to roll girder rails with a dummy action on both the head side and the tram side, and it was old in other forms of rails to turn the whole lateral flow of metal to the tram side, and the changes necessary to accomplish this result in the rolls used for rolling girder rails were obvious to a skilled mechanic.

#### 2. SAME—LIMITATIONS OF CLAIM.

Claim 1 of patent No. 360,036, if valid, is limited to a process in which all the rolls described in the specification are employed, and in the specific form shown and described, and is not infringed by a process of rolling in which the rolling of the rails prior to their insertion into the dummy pass is performed by rolls of a substantially different construction.

In Equity. Suit by the Johnson Company to enjoin the Tidewater Steel-Works from infringing letters patent No. 360,036, for method of and rolls for rolling side-bearing girder rails, granted to Arthur J. Moxham, March 29, 1887. Bill dismissed.

*George J. Harding* and *George Harding*, for complainant.

*William A. Redding*, for respondent.

ACHESON, Circuit Judge. The bill charges the defendant with the infringement of letters patent No. 360,036, dated March 29, 1887, for a "method of and rolls for rolling side-bearing girder rails," granted to Arthur J. Moxham, and by him assigned to the plaintiff. This form of rails is used principally for street railways, and consists of an offset, upon which the wheel of the car runs; a side tram, at a lower level, and

<sup>1</sup>Reported by Mark Wilks Collet, Esq., of the Philadelphia bar.

to the opposite side, upon which the wheels of ordinary vehicles may travel; a verticle or girder web and base flanges on the opposite sides of the foot of the web. The object of the invention, as described in the specification, "is to reduce to a minimum the number of the dummy passes required in rolling the side-tram girder rail, and also, if desired, to dispense with the use of tongues in said passes." The specification defines "dummy passes" as those in which a special part of the entering mass of hot metal is subjected to a widening action, or transverse flow across the rolls, instead of being rolled out in the direction of the rolls' rotation, while the rest of the billet is subjected to that amount of elongation only which will prevent distortion during the passage of the mass.

The "tongues" referred to as used in such passes are protrusions on the grooves of the rolls, which press upon the central mass, and, as the specification states, form "a line of neutral flow of metal," and "thus tend to prevent the distortion that would otherwise occur from the difference in flow of metal on either side of said tongues." The patent drawings illustrative of the invention show three sets of rolls, having altogether twelve passes, numbered from 1 to 12, each pass having a special configuration. The described rolling is effected by entering the hot bloom first into pass No. 1, and, after passing it there-through, then passing the hot billet through each of the other passes in regular order. By the successive actions of the first five passes the billet is brought approximately to the general shape in cross-section of a side-bearing girder rail, the part intended for the side tram having been rolled down so as to project outwardly a greater distance than the part underneath, intended for the base flange; and, as the billet emerges from pass No. 5, it is adapted in conformation to enter and be effectively acted upon in pass No. 6, which is the only dummy pass shown by the patent drawings. The succeeding passes are all edging passes, the last, or No. 12, having the shape of the finished rail in cross-section. In pointing out "the essential difference in the treatment of the metal by the patented rolls from that before practiced," the specification states that it had been customary "to quickly work down in the rolls that portion of the metal which subsequently forms the side tram of the rail, and to produce this effect by providing tongues in the dummy passes;" but that "in the rolls forming the subject of this invention" the working down of the part intended for the side tram "is more gradually effected," and the necessity for the tongues is obviated, although their presence is optional. The specification further states that "in using a dummy pass, divided by a tongue as above mentioned," the requisite width of "head of rail"—that is, from the outside of the offset part, or head proper, to the outside of the tram—was obtained by dummy action on both sides,—the head proper and the side tram; but by that operation there was not a sufficient lateral displacement or widening on the tram side to properly fill out the tram to the required width. The specification then proceeds:

"Now, in order to obviate this defect, the whole lateral action of the dummy pass No. 6, used in this invention, so far as displacement of metal is con-

cerned, is thrown upon one side of said pass,—the tram side; and the full width of the tram proper and the tram are thus secured without sacrificing any of the necessary thickness of the tram, a greater body of the metal being thus acted on to accomplish the desired purpose than in the other case.”

It is added that, so efficient is “this one-sided action dummy pass,” that girder rails may be rolled with a less number of such passes than by any other plan of rolling, so that in some cases, “as shown in the drawings at pass No. 6,” but one of such dummy passes is necessary, though in some cases, depending upon the proportion and shape of the rail, it may be advantageous to increase the number of such dummy passes. The defendant is charged with infringing the first claim of the patent, which is as follows:

“(1) The method hereinbefore described of rolling side-bearing girder rails, consisting in rolling down the metal forming the side tram in rolls provided with passes, in one or more of which that portion of the metal forming the offset part or head of the rail is subjected to elongating action, and that portion forming its side tram is subjected to displacing or dummy action only, whereby requisite elongation of metal is obtained without pinching the end of said tram, or excessively reducing it in thickness, substantially as described, and for the purpose set forth.”

The experts on both sides agree that in the described operation there must of necessity be some elongation of the tram portion, and, as this is undoubtedly the case, the claim should be read with the word “only” transposed thus: “And only that portion forming its side tram is subjected to displacing or dummy action.” As I understand the matter, all concur in this reading.

The second and only other claim is for rolls whose passes have the respective configurations described; but, as it is not alleged that the defendant infringes that claim, it need not be quoted at length.

The defendant manufactures side-bearing girder rails, and in so doing employs rolls having 13 passes. The first eight of them differ from the plaintiff's first five preparatory passes both in configurations and result. The defendant's pass No. 8 is an oblique dummy pass, and its dummy action upon the hot billet taken from No. 7 is upon the offset part, or head proper, and upon the diagonally opposite base flange, simultaneously. Then the billet of pass 8 enters pass Nos. 9, which is also an oblique dummy pass, and it acts simultaneously upon the side tram and upon the diagonally opposite base flange,—that is, the flange beneath the offset part. The succeeding passes are edging passes. The only dummy passes employed by the defendant are Nos. 8 and 9, and each of them is essential to the defendant's method. Now, it is clear that the defendant does not violate the first claim of the patent in suit unless it is by the employment of dummy pass No. 9, in which the dummy action, as respects the head part, is concentrated upon the tram side, while the offset side is confined by the rolls, and subjected to elongation only. This pass, as already noticed, is arranged obliquely to the axis of the rolls, while the plaintiff's dummy pass No. 6 is at right angles to the rolls; and a further difference between these two passes is that in the plaintiff's there is no dummy action upon the base flange. Is the use

by the defendant of pass No. 9, in its method of rolling side-bearing girder rails, any encroachment upon the exclusive rights of the plaintiff? To intelligently answer this question we must first look into the prior state of the art of rolling rails for railways. It is quite evident, upon the face of the specification itself, that the invention which is the subject of the patent in suit was at the most a mere improvement in the art. But when we come to consider the proofs in the case it becomes still clearer that the invention was not one of any primary character. The rolls long in prior use for making the well-known "T" rail,—which has a head central on a vertical web and a double-flanged base,—besides the preparatory roughing passes, were provided with both dummy passes and edging passes; and in one of the dummy passes the base flanges (both at the same time, it is true) were spread out or widened laterally, while simultaneously the head and web were subjected to vertical compression and were thus elongated. Moreover, during this operation the web was unrestrained laterally. Again, many years before the date of the invention in question, flat, side-bearing street rails were made by rolling down the hot billet in rolls having flat passes, in which the offset part or head of the rail was confined vertically and elongated, while simultaneously therewith the side tram was widened. But, still further, the double-flanged side-bearing girder rails shown in the plaintiff's patent were old, and had been successfully and perfectly made in rolls, furnished with suitable passes. Such a side-bearing girder rail is disclosed in letters patent No. 272,154, dated February 20, 1883, granted to T. L. Johnson, and by him assigned to the plaintiff; the expressed object of the invention there patented being to improve the form of that class of street-railroad rails theretofore used, and which combined the principal features of the tram rail and those of the "T" rail.

From the numerous prior patents in evidence it appears that rails of the most irregular shapes in cross-section had been rolled through passes of peculiar and diverse configurations. It was old to arrange in series for such purposes preparatory and finishing rolls, provided with roughing, dummy, and edging passes. In rolling the rails it was common to apply dummy action to secure the lateral spreading, wherever it was desired to widen out a special portion of the mass of hot metal, while other parts of the billet were simultaneously subjected to elongating action. Moxham's patent, No. 312,213, dated February 10, 1885, shows a method of rolling flangeless, side-bearing girder rails, consisting in first rolling the billet through the preparatory passes to bring it to the proper sectional shape, and then through dummy passes wherein the offset or head part is confined against lateral spreading, and is subjected to elongation under vertical pressure, while at the same time the side tram is widened out by dummy action, which is concentrated wholly on the tram side, and then the billet is put through finishing passes. Moxham's patent No. 330,998, dated November 24, 1885, for rolls for rolling a hot metal bloom into a trilobe form, suitable for subsequent rolling into any of the ordinary forms of side-bearing girder rails, shows a three-sided action dummy pass, whereby simul-

taneously dummy action is applied to the offset or head part, the tram-side part, and the central web part of the billet. The Moxham and Trauter patent, No. 292,759, dated January 29, 1884, described and shows rolls for rolling double-flanged side-bearing roll girder rails having dummy passes provided with tongues and edging passes; and in each of these dummy passes the dummy action is simultaneously upon both that portion of the billet which goes to form the offset part or head proper and that portion which goes to form the side tram, the metal spreading laterally in opposite directions, while the rest of the billet is subjected to elongation. It is to be noted that during the two-sided dummy action of the Moxham and Trauter rolls the web portion of the billet is unconfined and unrestrained laterally, which, as we have seen, is also the case in the manufacture of the "T" rail. This feature, which is common to the plaintiff's pass No. 6 and to the defendant's pass No. 9, is not referred to at all in the specification of the patent in suit, but, if it is a matter of any importance in securing the result, certainly it is not new.

Enough has been said to show that at the date when Moxham devised his dummy pass No. 6 the domain of invention with respect to rolls for making side-bearing girder rails had become very contracted. Now, what did Moxham really here do? Comparing the dummy passes of the prior Moxham and Trauter rolls with pass No. 6 of the patent in suit, we find that he simply extended the collar of the lower roll upwardly, so as to bear against the outer end of the offset head of the billet, and thus turned the whole lateral flow of the metal to the other or tram side. Did the conversion of the two-sided dummy action pass into a one-sided dummy action pass constitute invention? The idea of concentrating the entire dummy action upon the tram-side portion of the billet was old, and had been practiced in the manufacture of flat, side-bearing street rails; and it was also shown in Moxham's earlier patent for rolling flangeless, side-bearing girder rails. Was it, then, anything more than the exercise of ordinary mechanical skill and good judgment to carry up the collar of the under roll to prevent the lateral flow of metal at the offset side, and confine the transverse flow to the tram side, where the metal was needed to fill out the tram? Looking at what had been accomplished in the art of rolling railroad rails of all forms, and having regard to the views and decisions of the supreme court upon the subject of what amounts to patentable invention, as announced in *Atlantic Works v. Brady*, 107 U. S. 192, 2 Sup. Ct. Rep. 225; *Hollister v. Manufacturing Co.*, 113 U. S. 59, 5 Sup. Ct. Rep. 717; *Thompson v. Boisselier*, 114 U. S. 12, 5 Sup. Ct. Rep. 1042; *Aron v. Railway Co.*, 132 U. S. 84, 10 Sup. Ct. Rep. 24; *Burt v. Ivory*, 133 U. S. 349, 10 Sup. Ct. Rep. 394; *Trimmer Co. v. Stevens*, 137 U. S. 423, 11 Sup. Ct. Rep. 150; and other cases,—I cannot avoid the conclusion that the change in the construction of the rolls, whereby the dummy action was confined to one side of the pass No. 6, and thus was concentrated upon the tram, did not call into exercise the inventive faculty in the true sense.

But, were a different conclusion allowable, what construction should

be given to the first claim of the patent? Undoubtedly it is for the particular method of rolling side-bearing girder rails, disclosed in the specification and accompanying drawings. "The method hereinbefore described" are the opening words of the claim; "substantially as and for the purpose set forth," the closing words. Now, the use of pass No. 6 is but one of the steps in the described method. There are other co-acting rolls necessary to the specified operation. Mr. Hunter, the plaintiff's expert, correctly apprehends the alleged invention as consisting "in subjecting the billet to successive rolling actions in a number of passes," in one of which it is subjected to peculiar dummy action; and he truly says:

"The billet, prior to being subjected to the peculiar action in the pass wherein the dummy action is concentrated upon the tram or side bearing, must be brought to a cross-section which adapts it to enter the said pass, and be capable of permitting the intermediate steps in the process being carried into effect."

That the described preparatory steps are matter of substance seems very clear when we consider, in connection with the words of the claim, that part of the specification in which the patented method is contrasted with the prior method:

"It has heretofore been customary to quickly work down in the rolls that portion of the metal which subsequently forms the side tram of the rail, and, to produce this effect, by providing tongues in the dummy passes. \* \* \* In the rolls forming the subject of this invention the working down of the side tram of the rail is more gradually effected, and any necessity for the presence of said tongues is obviated, though their presence is optional."

This language enables us to perceive the force of the opening words of the claim:

"The method hereinbefore described of rolling side-bearing girder rails, consisting in rolling down the metal forming the side tram in rolls provided with passes, in one or more of which," etc.

True, in the words immediately following, great prominence is given to the pass or passes in which the dummy action takes place, but still the preparatory passes described and shown for rolling down the part of the metal intended for the side tram are an essential part of the method as claimed. But, furthermore, in view of the gradual advances towards perfection in the art of rolling side-bearing girder rails, and the state of the art at the date of the invention here in question, the scope of the claim must, on well-settled principles, be limited to the specific forms of construction shown and described by the patentee. *Railway Co. v. Sayles*, 97 U. S. 554; *Duff v. Pump Co.*, 107 U. S. 636-639, 2 Sup. Ct. Rep. 487; *Castor Co. v. Spiegel*, 133 U. S. 360, 10 Sup. Ct. Rep. 409. The defendant's method of rolling is not a mere colorable departure from that of the plaintiff's. The differences between their rolls are substantial. I am, then, of the opinion that infringement is not shown.

It may be added that the conclusions I have here reached, both upon the question of patentability and the question of construction of the claim,

are in harmony with the views expressed by Judge HAWLEY in the case of *Johnson Co. v. Pacific Rolling-Mills Co.*, 47 Fed. Rep. 586, which was a suit upon the Johnson patent for improvements in street-railroad rails, above referred to in connection with the discussion of the prior art. Let a decree be drawn dismissing the bill with costs.

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**DEDERICK v. GARDNER et al.**

(Circuit Court, N. D. New York. April 19, 1892.)

**1. PATENTS FOR INVENTIONS—INVENTIONS—BALING PRESSES.**

Letters patent No. 145,029 and No. 341,559, issued to Peter K. Dederick November 12, 1889, and May 11, 1886, respectively, the latter being upon a divisional application for an improvement in horizontal "continuous" baling presses, cover, as the gist of the invention, a device consisting of a loose connection, as a chain or rope, between the toggle and the horse lever, so that the toggle is pulled back and forth across the center line by the vibration of the horse lever. *Held* that, in view of the fact that the press has gone into extensive use, the device must be considered to have patentable invention, over the somewhat analogous device shown in patent No. 261,828, issued July 18, 1882, to George Ertel, and which is adapted to an upright press.

**2. SAME—INVENTION—INFRINGEMENT.**

Letters patent No. 232,400, issued to Peter K. Dederick, as assignee of Albert A. Gehrt, are for a method in a baling press, resisting the backward movement of the traverser caused by the expansion of the hay, consisting of the application of friction, so as to stop the motion gradually. Claim 3 covers the combination, with the traverser having the rearward extension, of the lining or planking, and the set screw for adjusting the same, substantially as described. *Held* that, if this involved any patentable invention, it is limited to the specific device, and is not infringed by the device covered by patent No. 349,934, issued September 28, 1886, to George Ertel.

In Equity. Suit by Peter K. Dederick against Henry Gardner and others for infringement of a patent. Decree for complainant.

*Church & Church*, for complainant.

*George H. Knight*, for defendants.

COXE, District Judge. This is a suit for the infringement of three patents, Nos. 415,029, 341,559, and 232,400, granted to the complainant November 12, 1889, May 11, 1886, and September 21, 1880, respectively, for improvements in baling presses. The latter patent, No. 232,400, was granted to complainant as assignee of Albert A. Gehrt. The application for the first two patents was filed October 31, 1882. This application was divided and a new one filed December 18, 1885, on which No. 341,559 was granted. The invention of No. 415,029 relates to improvements in the manner of connecting the horse lever to the toggle in the power applying devices of "continuous" baling presses. Letters patent No. 257,153 granted to complainant May 2, 1882, show mechanism by which the toggle is pushed from one side of the center line to the other, the back expansion of the hay operating to return the traverser and project the joint of the toggle alternately out at opposite sides of the press as the horse lever is worked from side to side. This