

result. Foresight after the event is the simplest and commonest of endowments. But the fact that constancy of temperature was a pressing need in the art of refrigeration, and had been for a long time, and that no mechanism, prior to this combination, had accomplished that end, is a cogent argument that the result, when accomplished, was the product of thought and conception, rather than mere mechanical selection.

In *Loom Co. v. Higgins*, 105 U. S. 580, Justice Bradley says:

"It may be laid down as a general rule, though perhaps not an invariable one, that if a new combination and arrangement of known elements produces a new and beneficial result never attained before, it is evidence of invention."

The discovery of the exact point at which the fault of previous machines lay, and of the expedient of counteracting this by relays of valves, required a reasoning beyond mere adaptation, and were thus pre-essentials to the selection of the removable cage feature. I am constrained, therefore, to look upon the introduction of these elements into the combination as patentable invention.

It is sufficient to say that in the respect pointed out the defendants' device infringes upon the complainant's patent. There are some minor differences in the adjustment of the cages and in the construction of the mechanism, but they are differences which to any skilled mechanic, with this combination clearly in mind, would be naturally suggested. A decree may be entered for the complainant, sustaining both claims of the patent, and for an accounting.

JOHNSON CO. v. PENNSYLVANIA STEEL CO.

(Circuit Court, E. D. Pennsylvania. May 14, 1895.)

No. 53.

1. PATENTS—INVENTION AND MECHANICAL SKILL.

For the purpose of meeting a defense that only mechanical skill was required to produce the device of the patent, complainant showed that a device was made by another person, prior to the application, to accomplish the same result, which was different from and much inferior to the device of the patent, and argued therefrom that a mechanic did not and could not learn from the prior art the mode of construction shown in the patent. *Held*, that this was not conclusive, because the scope of mechanical skill is not restricted to the skill of any particular mechanic.

2. SAME—RAILWAY SWITCH.

The Moxham patent, No. 333,474, for a railway switch for street cars, is void as disclosing only mechanical skill. *Johnson Co. v. Pennsylvania Steel Co.*, 62 Fed. 156, applied.

This was a bill by the Johnson Company against the Pennsylvania Steel Company for alleged infringement of a patent for a street-railway switch.

Harding & Harding, for complainant.

Philip T. Dodge and Joshua Pusey (Mark Wilks Collet, of counsel), for defendant.

DALLAS, Circuit Judge. This is a suit brought by the Johnson Company, a corporation of Kentucky, and having works located at Johnstown, Cambria county, Pa., against the Pennsylvania Steel Company, a corporation of Pennsylvania, and having works at Steelton, Pa., for infringement of letters patent No. 333,474, granted to Arthur J. Moxham, December 29, 1885, for railroad switch, and by him assigned to the plaintiff company. The bill is in the usual form, and the answer and amended answer deny infringement, and set up certain prior patents as anticipations of the invention of said patent.

The only claim of the patent is as follows:

"A railway switch for street-car tracks, composed of two rolled side-bearing girder rails, of similar forms, devoid of guards, cut and fitted together at the necessary angle to deflect the car, secured together at their junction and at their divergent ends to the main rails of the track, substantially as and for the purposes set forth."

This claim calls for side-bearing girder rails, but says nothing about a tram. In the specification, as in the claim, however, it is stated that "the object of this invention is to provide a form of switch more particularly for street-car tracks"; and street-car tracks have been commonly constructed of tram rails, and in the specification and drawings a tram is referred to and shown. Therefore, as this case is to be decided upon the question of invention, and as that question is presented most favorably for the plaintiff by relating it to side-bearing girder tram rails, I will so relate and consider it, without pausing to inquire whether the existence of a tram upon the rails to be dealt with, if controlling, could properly be assumed. The evidence, but for one matter which will presently be separately mentioned, would be convincing, to the preclusion of doubt, that the pre-existing switches left nothing to be done which a skilled mechanic would not naturally have done if he had desired to construct a switch, such as is described in the patent, of side-bearing girder rails, whether with or without trams. Patent No. 145,013, issued to Thomas J. Reynolds on November 25, 1873, is a partial exemplar of the prior art; and to that patent alone, though the record includes others of much pertinency, it will suffice to refer. In making the Moxham switch a form of rail is used which differs from that used by Reynolds; the Reynolds switch being made of T rails, and the Moxham of side-bearing rails. Both forms of rail, however, were old, and the only thing which it was necessary to do, or which was done, was to apply the T-rail device to side-bearing rails, and in making this application all that was needed was the removal from the side-bearing rails of such portions thereof as stood in the way, and to fit and unite the parts in an obvious manner. This Moxham did most expediently; yet the intelligence which he exercised was but the discreet judgment of a competent constructor, and not the higher faculty of creation which distinguishes the inventor. The only difficulty I have encountered in arriving at this conclusion has, as I have intimated, arisen from a single piece of evidence which was offered by the complainant in rebuttal; but upon

fully considering that evidence, and giving all possible weight to the presumption in favor of the validity of the patent, I am still unable to sustain it. The particular evidence referred to consists of a switch which was actually made of side-bearing girder rails, and which was used in San Francisco before the patent in suit was applied for. That switch was different from and was inferior to the switch in question; and from these facts it is argued that a mechanic could not—certainly did not—learn from the prior art the mode of construction pointed out by Moxham. This argument merits and has received very careful attention; but, upon mature reflection, I do not think it should prevail. The constructor of the San Francisco device may have had some special object in resorting to the mode of construction which he adopted; or it may be—and this seems to be the more probable explanation—that he was not skillful enough to perform the work in the most desirable manner. The scope of mechanical skill is, however, not restricted to the skill of any particular mechanic. The line to be marked is that which separates mere constructive ability from inventive capacity; and, as the lowest order of invention is something more than mechanical skill, so the highest degree of mechanical skill is something less than invention. All mechanics are not equally skillful, and the question is not whether every mechanic would do the work in one and the best way, but whether any mechanic might, without invention, do the work in the particular manner sought to be exclusively appropriated. This test, when applied to the present case, is conclusive. The testimony of George W. Parsons upon the subject is quite accordant with the weight of the evidence. It is, in substance, that, before the issuance of the patent in suit, nothing beyond mechanical skill was requisite to the construction of the switch in question.

In principle, this case cannot be distinguished from that of *Johnson Co. v. Pennsylvania Steel Co.*, 62 Fed. 156, and the views which I there expressed are equally applicable here.

The bill is dismissed.

THE COLUMBIA.

SHORT et al. v. THE COLUMBIA.

(Circuit Court of Appeals, Ninth Circuit. May 6, 1895.)

No. 172.

ADMIRALTY APPEALS—NONJOINER OF PARTIES—LIMITATION OF LIABILITY.

All persons who file claims for damages in a proceeding for limitation of liability are interested adversely to the owner in respect to a decree which limits his liability; and where such petitioners are not treated, in the proceedings, as adverse to each other, part of them cannot maintain alone an appeal from such decree, in the absence of any proceedings to effect a severance of their interests.

Appeal from the District Court of the United States for the District of Oregon.