

**Case No. 17,858.** WINANS v. BOSTON & P. R. CO.

[2 Story, 412; 2 Robb. Pat. Cas. 136; Merw. Pat. Inv. 313; 37 Jour. Fr. Inst. 63.]<sup>1</sup>

Circuit Court, D. Massachusetts.

Oct. Term, 1843.

PATENTS FOR INVENTIONS—SPECIFICATIONS—AXLES FOR RAILWAY CARRIAGES.

Where the plaintiff, in the specification of his patent, claimed as his invention “an improvement in the construction of the axles or bearings of railway, or other wheeled carriages,” and it appeared, that the improvement, though it had never before been applied to railway carriages, was well known as applied to other carriages, it was *held*, that the patent was not good.

Case for infringement of a patent dated the 30th of July, 1831, for “a new and useful improvement of railway and other wheeled carriages.” Plea, the general issue with special matters of defence: (1) That the invention was not new. (2) That the invention was in public use before the patent, with the consent of the patentee. The specification annexed to the patent was in substance as follows: “To all whom it may concern, be it known, that I, Ross Winans, have invented an improvement in the construction of the axles, or bearings, of railway, or other wheeled carriages, and that the following is a full and exact description thereof: The axle, with my improved journals, or bearings, may be made straight, and the wheels placed thereon in the usual way; but instead of forming the bearing under the body of the carriage, and within the naves or hubs, of the wheels, there to sustain the weight of the load, I extend the axles out at each end, projecting beyond the naves to such a length

as shall enable me to form them into gudgeons. The lengths and diameters of these gudgeons, I regulate according to the load they are intended to sustain, and to other circumstances. In all cases, however, the value of my invention depends upon the gudgeons having their diameters, as small as a due attention to the strength required will allow. The causing the axles to run in boxes, or upon bearings, without the naves, admits of their being made much smaller than usual, the degree of diminution which I have found to answer well in practice, will hereafter be stated. They should be formed of good wrought iron, and case-hardened: or overlaid, or cased with the best steel, and hardened, which materially diminishes the extent of bearing surface necessary to enable them to receive and resist the pressure of the load, and their tendency to wear; they may therefore be short, and are consequently strong, when of comparatively very small diameter. The tendency to lateral movement is checked, or limited by forming the end, or point of the axle, or gudgeon, so as to be met occasionally by the external cap or cover of the gudgeon box, when lateral pressure occurs. By placing the bearing outside (as aforesaid), the diameter of the wheels may be enlarged with more advantage than formerly, as the axles between the wheels may be made of any required strength (to resist the increased stress thrown on to that part of them by an enlargement of the wheels,) without affecting the size or strength, of the bearing journals. By the foregoing means, the leverage of the wheels (or the mechanical advantage with which the moving power acts, to overcome the resistance to motion), is increased, and consequently the friction or resistance to motion in rail-road carriages, diminished to a greater extent than heretofore. This improvement in the axles or journals of rail-way carriages, was devised and carried into operation on my experimental rail-way, and exhibited to various persons in the early part of the year 1827; and it was put into practical operation, under my direction, on the Baltimore and Ohio, and on the Liverpool and Manchester rail-roads, in the early part of 1829, in connection with another improvement for the further diminution of friction, by means of a revolving bearing, or friction wheel, for which other improvement a patent was granted to me on the 11th of October, 1828." "The object of the invention, and a practical demonstration of its utility having been shown, its application and adaptation to the different railroad carriages, burden wagons, locomotive engines, &c., and to the different bearing boxes that may be preferred for different purposes, (either revolving or common,) will be evident and easy, to any person acquainted with the building of railway carriages. But to render it still more so, the following general directions and proportions are given," &c. "I, therefore, declare that the improvement, or improvements, above explained and described, in diminishing the resistance to motion in wheeled carriages to be used on railways, which I claim as my own invention, is the extending the axles each way outside of a pair, or pairs, of wheels, far enough to form external gudgeons to receive the bearing box of the load body, and diminished as aforesaid with a view to lessen the resistance of friction, as small as its sit-

uation, with the use of the most favorable metal for wear, will permit. Thus conveniently increasing the leverage of the wheels, without impairing their effective strength or durability.”

At the trial, it appeared that Winans had obtained a patent for the invention in England, in Oct., 1828, and afterwards on the 80th of July, 1831, he took the present patent.

It was argued by B. R. Curtis, for the defendants, that this was too late; and *Shaw v. Cooper*, 7 Bet [32 U. S.] 292, 320, 322, Act 1839, c. 88, § 7 [5 Stat. 351], and *McClurg v. Kingsland*, 1 How. [42 U. S.] 202, were cited. But the main ground was, that the invention was not new, but had been before applied to other carriages, although not to railway carriages, before the patentee applied it to railways. The patent was not for the application of the improvement to railway carriages alone, but it was “to rail-way and other wheeled carriages.” *Edgew. Roads & Carriages*, printed in 1817, Append. 2, pp. 71, 73, 76; and *Dr. Hook’s Essay upon Carriages*, printed in 1684, pp. 145, 146, were cited in support of the objection.

C. G. Loring, for plaintiff, argued, that it was the intention of the plaintiff to claim as his invention the application of extended axles of wheels to carriages with flanges on railroads; that the plaintiff claimed this particular combination as new, and it was so. But he did not mean to claim the invention as applicable to all other wheel carriages.

STORY, Circuit Justice. I fear that it is impossible to give this limited interpretation to the plaintiff’s patent. The patent itself is for “a new and useful improvement of railway, and other wheeled carriages;” and the specification expressly states, that the patentee has invented “an improvement in the construction of the axles, or bearings, of rail-way, or other wheeled carriages,” and then he proceeds to give a description thereof. It is plain from this language that he does not limit his invention to rail-way carriages; but he insists, that it is new as to other carriages. It is true, that in summing up his claim, in the close of the specification, he seems to use language somewhat more restrictive; but even there he says, that what he claims as his invention is, “the extending the axles each way outside of a pair or pairs of wheels, far enough to form external gudgeons to receive the bearing box of the load body, and diminished as aforesaid

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with a view to lessen the resistance of friction, as small as its situation, with the use of the most favorable metal for wear, will permit; thus conveniently increasing the leverage of the wheels without impairing their effective strength or durability." Now the invention, as stated in this general form, is precisely what the defendants insist is not new, but was well known before, as applied, not to railway, but to other carriages. If this be true, it seems difficult to perceive how the present patent can be maintained.

A verdict was thereupon taken pro forma for the defendants, with liberty to move a new trial upon the question of law. No such motion was made.

<sup>1</sup> [Reported by William W. Story, Esq. Merw. Pat. Inv. 313, and 37 Jour. Fr. Inst. 63, contain only partial reports.]