

Case No. 13,841.

TERRY CLOCK CO. v. NEW HAVEN CLOCK
CO.[3 Ban. & A. 332;¹ 17 O. G. 908.]

Circuit Court, D. Connecticut.

June 27, 1878.

PATENTS—CLAIM—INVENTION—ANTICIPATION—CLOCK
ESCAPEMENT.

The patent granted to Silas B. Terry, assignor of the complainant, dated December 1st, 1868, for a new manner of constructing the pallets of clock escapements, construed by the court, and upon the construction given, *held*, that the patent is broader than the invention, and that the invention as claimed has been anticipated.

In equity.

Charles W. Gillette and Charles E. Mitchell, for complainant.

John S. Beach, for defendant.

SHIPMAN, District Judge. This is a bill in equity to restrain an alleged infringement of letters patent [No. 84,517] which were granted to Silas B. Terry, the assignor of the plaintiff, on December 1st, 1868, for a new manner of constructing the pallets of clock escapements. The answer denies that the patentee was the original inventor of the improvement which is described and claimed in the letters patent. An amendment of the answer sets up another defence, which it is not important now to consider.

Prior to the date of the Terry invention, escapements constructed with pallets to regulate clock-work movements were well known. One well-known class was called a "recoil escapement" and another class was called a "dead-beat escapement." Dead-beat verges were generally made by pressing from solid steel. Recoil verges were made by bending from flattened steel. The patentee constructed a combined recoil and dead-beat escapement, and in the specification of his patent described this part of his

Invention as follows: "This invention relates to a new manner of constructing the pallets of a clock escapement, * * * and consists in a novel construction of the pallets of a combined recoil and dead-beat anchor escapement, of which one is turned outward and the other inward, with a view of allowing the motive power of the wheel to aid the weight of the pendulum to overcome its momentum. * * * I prefer to have the whole escapement made of one piece of flattened steel, as shown."

The pallet D is bent almost radially to the centre E of the escapement-wheel F, and has a bent-in flange, d, which has a rounded outer face, as shown, so as to allow the teeth of the wheel to easily act upon the pallet.

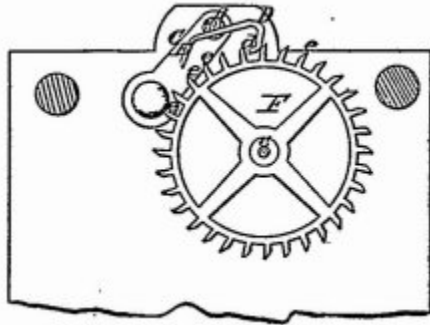
The other pallet, E, is bent outward, as shown, and the teeth of the wheel should be somewhat rounded or bevelled to act easy on the pallet E.

The operation of the escapement will easily be understood. During the oscillation of the verge-shaft, the pallets will alternately arrest the teeth of the wheel, so as to bring the same to a dead stop, the pallet E causing a recoil of the wheel. But at the moment when the momentum of the pendulum is being overcome by the weight of the same, the motive power, acting upon the same, will materially aid the weight of the pendulum, as the teeth of the wheel can then easily act upon the inclined respective outer and inner faces of both pallets D and E. It will be noticed that this is a combined recoil and dead-beat escapement, the pallet D arresting the motion of the wheel while the pallet E produces a recoil of the wheel by the vibration of the escapement. In this manner I have succeeded in obtaining a perfect regularity of motion and a full control over an unevenly-operating spring.

The claim was as follows: "The anchor escapement, constructed as described, with one pallet, D, having a flange, d, and the other pallet, E, bent out, whereby

one pallet is made dead-beat and the other recoil, for the purpose of equalizing the vibrations of larger or smaller pendulums produced by unequal motive power, as herein shown and described.”

{Drawings of patent No. 84,517, granted Dec. 1, 1868, to S. B. Terry. Published from the records of the United States patent office.}



The plaintiff makes its patented escapement entirely by bending from flattened steel. The defendant largely uses the patented 860 invention, and manufactures by bending. A combined dead beat and recoil verge is a decided improvement in the manufacture of cheap clocks.

It was clearly proved that S. N. Botsford, of Whitneyville, Connecticut, made and sold between 1853 and 1858 many thousands of clocks which had combined dead-beat and recoil-anchor escapements, made by pressing from solid steel. These escapements did not differ in the shape of the working-surfaces, or in operation, or in construction from the Terry escapements in any manner, except that the former were shaped by pressing out of solid steel instead of being formed and shaped by bending out of a piece of flattened steel. The defendant offered evidence to show that Botsford, during the first part of the time between 1853 and 1858, was in the habit of making for use and sale the same combined bent escapement. The plaintiff offered evidence to show that such manufacture, if it existed, was merely

experimental. In the view which I take of the case it is not necessary to find whether or not the defendant affirmatively established the fact of such manufacture for sale.

It was established to my satisfaction that the bent verges were cheaper, and that they were more easily made perfect, than solid verges. Under this state of facts the question of priority becomes one of construction of the patent. If the patent is limited to a bent verge, the invention has not been proved to have been anticipated, and the patent has been infringed. If the patent is for the peculiarly-shaped and described combined dead-beat and recoil escapement, it is devoid of novelty. In the latter case the patent is broader than the invention.

Upon the construction of the patent:

First. The claim does not, upon its face, show that the claimed invention was a peculiarity in the mechanical means by which the escapement was formed or shaped. The claim is for "the anchor escapement, constructed as described, with one pallet, D, having a flange, d, and the other pallet, E, bent out, whereby one pallet is made dead-beat and the other recoil." The apparent invention which is included in the claim is the combined dead-beat and recoil escapement, in which the different parts of the escapement are shaped as described; and unless the specification shows that the construction is necessarily to be by bending, and that the term "bent out" is used in its mechanical signification, and is not equivalent to curved or crooked, the claim would naturally be construed to be a claim for the peculiarly-shaped combined recoil and dead-beat escapement.

Second. In the descriptive part of the specification the phrases "turned outward," "bent almost radially," and "bent-in flange" are used; but there is nothing in the specification which shows that the hinge of the invention is a bent verge, as distinguished from

a solid verge of precisely the same shape. If such a distinction had been in the mind of the patentee, it would naturally be found in the patent, and it would not only be found but it would have been made prominent. It now appears that the invention consisted in the construction of an old verge by bending the pallets instead of by pressing them into shape by dies. If the patentee was of that opinion when the specification was drawn, it is unaccountable that the precise character of his invention should have been so dimly shadowed forth. If he knew that the secret which he had found out was not the combination made with a flange, as described, but a peculiarity in the method of producing an old combination, it was his duty to have distinctly announced to the public the true nature and extent of the invention which he had made. He was required by the statute to "particularly specify and point out the part, improvement, or combination which he claims as his own invention or discovery." If the patentee knew of what he was the actual first inventor, he did not comply with the statute. If he supposed that he was the first inventor of a peculiarly-shaped combined recoil and dead-beat verge, the language which he used was in accordance with such supposition, and is the language which would naturally have been used. There is no evidence of any fraudulent or deceptive intent on the part of the patentee.

Third. A broad construction of the patent is supported by its history, which shows that the patentee in fact claimed to be the inventor of the peculiarly-shaped combination. The application was rejected, the examiner saying that the combination was "no more patentable than the combination of a gilt and steel hand to indicate the time." In reply, the patentee—after stating that in common anchor escapements both the dead-beat and recoil verges are deficient; that the action of the dead-beat verge upon the pendulum in

large and small arcs of vibration causes large vibrations to be slower and small vibrations to be faster than the mean between the two, and that the action of the recoil escapement upon the pendulum has an opposite effect to that produced by the dead-beat, says:

“I have invented or discovered, after more than forty years’ experience in these matters, that a verge can be made with one pallet dead-beat and the other to recoil to such a degree that the vibrations of the pendulum shall be equalized, whether large or small, when produced by an unequal motive power. Such is the verge for which I ask a patent in claim first. It is entirely unlike any other verge in its essential features, as any one can see by comparing it with the remarks above made. To the common eye it might not be noticed; but to a man versed in these matters I think it will 861 be seen at once, and seen as a matter of the utmost consequence. Verges that are bent for common clocks are never bent like the model, but always as seen in the common. [Sample given]. This is entirely new in its form of being bent or shaped to produce a, dead-beat pallet. I do not believe anything has ever been made to accomplish the same purpose. New results are produced by making the vibrations equal. It is a matter that can be seen, and is of great consequence, and is, therefore, in my opinion, patentable.”

This quotation shows that the patentee placed the stress of his invention upon the combination as constructed, and not upon any peculiarity in the method by which the peculiar combination was formed and shaped from metal. He declares that he has discovered a way of equalizing the vibrations of the pendulum, which method is by making one pallet of the verge dead-beat and of a specified form, and the other recoil to a certain degree. This peculiar construction, it is now conceded, was old. But the manufacture of this peculiarly constructed combination

from sheet metal was novel. The peculiarity in which it is conceded that this invention consisted was not particularly pointed out or specified. The argument convinced the patent office, and the patent was issued.

It follows that the patent is broader than the invention, and that the invention as claimed had been anticipated by Mr. Botsford

Let there be a decree dismissing the bill, with costs.

{Patent No. 84,517 was granted to S. B. Terry, Dec. 1, 1868. For another case involving this patent, see Terry Clock Co. v. New Haven Clock Co., Case No. 13,840.}

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