

Case No. 6,168.

[7 Blatchf. 120.]¹

HARTSHORN V. TRIPP ET AL.

Circuit Court, S. D. New York.

Jan. 15, 1870.

PATENT—INFRINGEMENT—NOVELTY,—SPRING FIXTURE FOR SHADE ROLLER.

1. The claim of the reissued patent granted to Stewart Hartshorn, August 27th, 1867, on the surrender of the original patent to him, of October 11th, 1864, for an “improved shade fixture,” namely, “the application to a shade roller, provided with a spiral spring for automatically raising or rolling up the shade, of a pawl and a ratchet, or notched hub so arranged that the former will engage with the latter, at any point or height of the shade, by simply checking the rotation of the roller and the upward movement of the shade under the influence of the spring, substantially as set forth,” is infringed by a shade fixture which has such a spiral spring in a roller, and a scroll hub with a notch or rebate fixed to the bracket, and a pin or bolt eliding in a socket on the end of the roller.

[Cited in *Hartshorn v. Shorey*, Case No. 6,167; *Hartshorn v. Eagle Shade Roller Co.*, 18 Fed. 90.]

2. The patent sustained, in respect to the novelty of the invention, as against a pre-existing shade fixture which, only when out of order, operated like the patented fixture, and was not accessible to the public, and passed out of existence, and was unknown to the patentee.

[Cited in *Hartshorn v. Almy*, Case No. 6,166; *Wilson v. Coon*. 6 Fed. 627; *Davis v. Brown*, 9 Fed. 656.]

In equity. [Bill by Stewart Hartshorn against Lemon A. Tripp and Samuel M. Boyd.]

This was a final hearing, on pleadings and proofs.

Stephen D. Law, for plaintiff.

Charles M. Keller, for defendants.

BLATCHFORD, District Judge. The bill in this case is founded on reissued letters patent of the United States granted to the plaintiff, August 27th, 1867, for an “improved shade fixture,” on the surrender of letters patent granted to him, as inventor, October 11th, 1864. The specification of the reissue, which is signed by the inventor, says: “This invention relates to an improvement in that class of shade fixtures in which the shade roller is provided with a spiral spring for the purpose of automatically winding up the shade. The invention consists in the application of a pawl and ratchet or notched hub, arranged in such a manner that the shade may be stopped and retained at any desired height or point, within the scope of its movement, by a simple manipulation of the shade, as hereinafter fully shown and described, the usual cord for operating or turning the shade roller being dispensed with entirely, as well as counterpoises, which have in some instances been employed, in connection with spring rollers, for holding the shade at any desired point” The roller on which the window shade is wound has fitted within a spiral spring, which is arranged in such a manner that it will have a tendency to turn the roller and wind up the shade. This feature of a spring within a shade roller, for the purpose of winding or rolling up the shade, is stated, in the specification, not to be new. To one of

the brackets in which the shade roller is hung, there is attached, by a pivot, a pawl. The pivot passes through one end of the pawl. The opposite end of the pawl has a tendency to drop, by its own gravity, on a hub, attached concentrically to a plate, which is secured to one end of the roller. The pawl is provided with a projection, which, when the pawl drops, engages with either one or two notches in the hub, and holds the roller, preventing the shade from being wound upon it such projection is made rather oblique or inclined at one side, so as to admit of being forced out of the notch, when the shade is pulled down. The other side of the projection is made at right angles with the bottom of the pawl, so as to catch firmly against the front edge of the notch, and prevent the spring from forcing the projection out therefrom, and winding up the shade. But by pulling down the shade, so that the projection on the pawl will be forced out of the notch in which it is fitted, and then allowing the spring to turn the roller briskly back, the projection will slip over the notches, or the notches will pass under the projection, without catching, and the shade may be wound up to the desired height by the spring, the projection on the pawl catching into a notch as soon as the motion of the roller is checked. The patentee says, in his specification, that, if desired, the pawl may be placed underneath or at one side of the hub, instead of over it, as represented, and a spring be made to bear against it, in order that the projection on the pawl may engage with the notches, but that he prefers the former, method. The claim is as follows: "The application to a shade roller, provided with a spiral spring for automatically raising or rolling up the shade, of a pawl and a ratchet, or notched hub, so arranged that the former will engage with the latter, at any point or height of the shade, by simply checking the rotation of the roller and the upward movement of the shade under the influence of the spring, substantially as set forth."

In the shade fixture of the defendants, there is a roller, provided with a coiled or spiral spring, secured within it. Instead of the plaintiff's hub, with two notches on the roller, the defendants have a scroll hub, with one notch, or rebate, fixed to the bracket; and, in place of the pivoted pawl of the plaintiff, the defendants have a pin or bolt sliding in a socket, on the end of the roller. When the defendant's roller is revolving rapidly, carrying the socket and pin, the pin, which is wholly within the socket at that time, will not drop out of it by gravity, because the force of the centrifugal action,

which tends to make the pin hug the walls of its socket, is sufficient to overcome the tendency of the pin to fall out by the force of gravity and engage with the notch in the scroll hub. But, when the motion of the roller is checked sufficiently to allow the force of gravity to predominate, in respect to the pin, over the centrifugal action, the pin drops out of its socket, and engages with the notch, and the rotation of the roller is arrested. Having transferred from the bracket to the roller the instrument that engages with the notch, and having transferred the notch from the roller to the bracket, the defendants contend that the mode of operation of such instrument, in connection with the notch, to permit and arrest the rotation of the roller, is, in their shade fixture, so different from what it is in the plaintiff's, as to relieve them from the charge of infringement. It is contended by the defendants, that, in the plaintiff's fixture, the pawl is kicked or thrown up by the passage of the hub and notches under the pawl, when the roller is moving fast, and is by that means prevented from engaging with a notch; but that, in the defendants' fixture, the pin is not kicked or thrown up, but, when it has once dropped, by gravity, into its socket, is kept there, and prevented from dropping out, so as to engage with the notch, by the centrifugal force generated by the rapid rotation of the roller. It is contended that there is a difference in principle in the two operations. But, the defendants' fixture has a roller provided with a spiral spring, for the purpose of automatically winding up the shade. It has, in substance, a pawl and a notched hub, arranged in such a manner that the shade may be stopped and retained at any desired height or point, within the scope of its movement, by a simple manipulation of the shade, the usual cord for operating or turning the roller being entirely dispensed with, as well as counterpoises. The pawl and notched hub are so arranged, that the former will engage with the latter, at any point or height of the shade, by simply checking the rotation of the roller, and the upward movement of the shade, under the influence of the spring. In the plaintiff's fixture, the pawl engages with the notch by the force of gravity acting on the pawl. In the defendants' fixture, the pin engages with the notch, by the force of gravity acting on the pin. The mode of operation in engaging, in the two, is, therefore, alike. The withholding from engagement is effected, in the plaintiff's fixture, by the rapid passage of the hub and its notches under the projection on the pawl, the hub and notches throwing up the pawl, and not allowing the force of gravity to effect the engagement of the projection with a notch, until the rotation of the roller has become so slow as to permit the force of gravity to overcome the force with which the pawl is thrown up by the rotation of the hub and notches. The withholding from engagement is effected, in the defendants' fixture, by the rapid rotation of the pin over the notch, the centrifugal action on the pin not allowing the force of gravity to effect the engagement of the pin with the notch, until the rotation of the roller has become so slow as to permit the force of gravity to overcome the force of such centrifugal action. There is no difference between these two modes of operation, in the withholding from engagement so far as

regards the real invention of the plaintiff, and the scope of the claim of his patent In both fixtures, the withholding from engagement is effected by so arranging, in connection with each other, a pawl and a notch in a hub, the pawl being non-rotating when the notch is rotating, or the notch being non-rotating when the pawl is rotating, that, when the roller rotates with sufficient rapidity, the pawl and the notch will pass by each other without engagement. Whether the failure to engage is due to the thrusting away of the pawl by the direct application of force to it, or by the application to it of sufficient centrifugal action generated by its own rotation, is subsidiary to, and outside of, the mode of operation embraced in the scope of the invention and claim of the plaintiff. It may be that there is something in the defendants' arrangement that is patentable, as an improvement on the form of construction found in the plaintiff's description and drawings, but that gives no right to the defendants to use such improvement without the license of the plaintiff, so long as the fixture embodying such improvement contains, as it does, the invention patented by the plaintiff. The infringement by the defendants is, therefore, established.

It is shown, by the evidence, that a witness, named Franklin N. Willard, saw in Boston, more than thirty-five years ago, a shade fixture on the window of a carriage, which fixture had been originally constructed with a pawl and a ratchet wheel, the pawl being kept in the teeth of the wheel by a spring, so that, in order to allow the coiled spring in the roller of the fixture to act to roll up the shade, it was necessary to pull and keep the pawl out of the ratchet by means of a cord attached to the pawl. The teeth in the wheel had become so worn, from long use, that, when the shade was allowed to run up with a certain rapidity, the pawl would slip over the teeth and not be caught in any one of them, the force of the spring that bore on the pawl being too great. When the shade was allowed to run up slowly, the pawl would engage properly with the teeth. The witness never saw, prior to the plaintiff's invention, any other fixture operating like this carriage fixture, and never made one like it Such fixture was on a carriage that was brought for general repairs to a carriage shop in which the witness was employed as a workman at the time. In view of the facts, that the fixture referred to was not constructed

or designed for the purpose of being used to roll up the shade without the employment of the cord to pull and keep the pawl out of the teeth of the ratchet wheel, and that every person who looked at the fixture would see that such was its construction, and that no one would see, from looking at it, even in its worn condition, that it could be operated to roll up the shade without so employing such cord, and that it is not shown to have been so operated and used in a manner fairly accessible to the public, and that for aught that appears, it passed out of the memory of the witness until recalled to it by the controversy, in this suit, and gave birth to no progeny, but passed out of existence, giving no hint to any one at the time, even to the witness who now recalls it, that it was of any use in its worn and abnormal condition, and that the plaintiff never had any knowledge of it, it cannot be set up to invalidate the plaintiff's patent. *Gayler v. Wilder*, 10 How. [51 U. S.] 477; *Cahoon v. Ring* [Case No. 2,292]. Indeed, the learned counsel for the defendants did not so contend, on the hearing.

There must be a decree for the plaintiff, for a perpetual injunction and an account of profits, with costs.

{For other cases involving this patent, see note to *Hartshorn v. Almy*, Case No. 6,166.}

¹ [Reported by Hon. Samuel Blatchford, District Judge, and here reprinted by permission.]