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HARTSHORN *v.* SAGINAW BARREL COMPANY.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR
THE EASTERN DISTRICT OF MICHIGAN.

Argued November 30, 1886.—Decided January 10, 1887.

When two persons invent the same invention at about the same time, and employ the same solicitor, who in good faith assigns the priority of invention to the wrong person, and makes claims, and takes out patents for each on that theory, limiting the claim of the real inventor to a narrower claim, not within the claim of the other inventor, and both acquiesce in this decision for a period of nine or ten years, the acquiescence of the real inventor must be regarded, so far as his claims are concerned, as an abandonment of any right on his part to a patent for the broad and real invention; and so far as the patentee of it is concerned, the validity of his patent fails, because he was not the inventor, and was not entitled to the patent.

The shade roller manufactured by the appellee, does not infringe patent No. 69,189, granted to Jacob David, September 24, 1867, and assigned to the appellants.

This was a bill in equity to enjoin alleged infringements of letters-patent. The bill was dismissed, and the complainant appealed. The case is stated in the opinion of the court.

Mr. James T. Law for appellant. *Mr. S. D. Law* was with him on the brief.

Mr. Charles J. Hunt for appellee.

MR. JUSTICE MATTHEWS delivered the opinion of the court.

This is an appeal from a decree of the Circuit Court dismissing the complainant's bill, which was a bill in equity for the purpose of enjoining the alleged infringement of three several letters-patent for improvements in shade rollers, designated as follows: 1st. Reissued patent No. 7370, dated October 31, 1876, granted to the complainant, called the Hartshorn reissue. 2d. Reissued patent No. 7367, dated October 31, 1876, granted to the complainant as assignee of William Campbell, called the Campbell reissue. 3d. Patent No. 69,189, dated

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September 24, 1867, granted to Jacob David, and assigned to the complainant, called the David patent.

The questions in the case involve the validity of the reissued patents and the alleged infringement of the David patent. The Hartshorn reissue was the reissue of original letters-patent No. 68,502, dated September 3, 1867. The Campbell reissue was the reissue of original letters-patent No. 69,176, dated September 24, 1867. In each case there was, therefore, a delay of about nine years in obtaining the reissue.

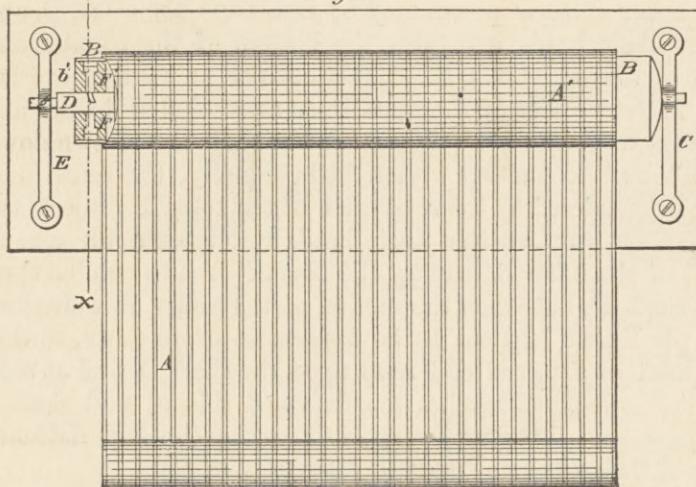
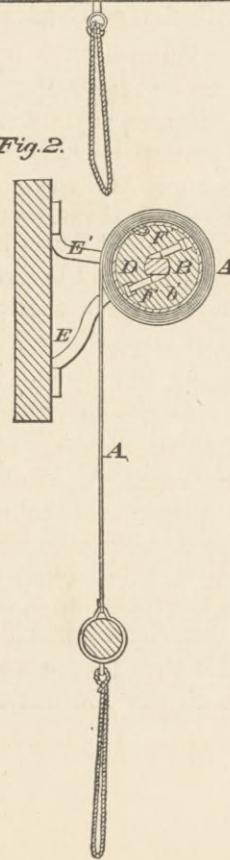
In order to understand and resolve the questions arising in the case it will be necessary to consider the state of the art at the time of the issue of the patents. This may be briefly stated as follows: The inventions in question are in that class of shade rollers which are rolled up by the unwinding of a coiled spring; the roller was hollow and the spring placed within it, one end being attached to the roller and the other end to the shaft or rod on which the roller revolved. Sometimes this rod passed entirely through the roller, and sometimes only partially through. As the curtain was drawn down the spring was wound up, and when the tension upon the curtain was released and the curtain allowed to roll up, the spring was unwound, thereby producing the desired result. The upward movement of the curtain was controlled by a pawl and ratchet at one end of the roller, the pawl or the ratchet being attached to the bracket. The pawl might be operated by a cord hung at the side of the window; by pulling down on this cord the pawl was disengaged from the ratchet and the curtain immediately rolled up under the action of the spring. Hartshorn, the appellant, obtained a patent, not in controversy in this suit, but to be considered in reference to the state of the art, dated October 11, 1864. The invention described in that patent consisted 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 single manipulation of the shade, the usual cord for operating or turning the shade roller being dispensed with entirely, as well as counterpoises, which had in some instances been employed, in connection with spring

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rollers, for holding the shade at the desired point. He made a ratchet with two notches, one on each side in the periphery of the ratchet wheel, and constructed a pawl to engage with such notches. The pawl was on the bracket, and the ratchet was on the roller. When the curtain was drawn down the spring in the roller was wound up, and when the curtain was released, while the pawl rested on the perimeter of the ratchet-wheel, the curtain would roll up, and continue so to do as long as the velocity of the curtain was sufficient to carry the notches in the ratchet past the pawl before it could fall into them.

Such was the condition of the art when Campbell obtained his original patent dated September 24, 1867. He described his invention as having "for its object to furnish an improved device, by means of which the spring roller of a window-shade may be made to hold the shade stationary at any desired elevation, and yet allow the same to be drawn down or run up, without obstruction or stoppage, as far as may be desired; and it consists in the combination of the loose or sliding pins or bolts, having heads formed upon them, with the flattened shaft of the roller, as hereinafter more fully described." The description, as contained in the specifications, is as follows, having reference to the annexed drawings: "A is the window-shade. B is the hollow roller, one end of which is pivoted to the bracket C, and the other end of which revolves upon the shaft D, that carries the coiled spring, and the projecting end of which is secured in the jaws of the bracket E, so that, by drawing down the shade A, and thus revolving the roller B, the coiled spring may be wound closer around the shaft D. In the block, or part of the roller B that closes or forms the end of the said hollow roller B, and forms its bearing upon the shaft D, are formed two holes leading, upon opposite sides, from its outer or convex surface to a little at one side of its centre, as shown in Fig. 2. The outer ends of these holes are countersunk, as shown. The two opposite sides of the shaft D within the block or part b' are flattened or notched, as shown in Fig. 2. F are two pins or bolts, the bodies of which fit into the holes in the block b', and their heads fit into the countersunk parts of said holes. The bolts or pins F are of such a

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*x'**Fig. 1.**x**Fig. 2.*

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length that when their heads rest against the case or shell of the roller B, their points may be free from the shaft D, and when their heads rest upon the bottom of the countersunk part of the said holes, their inner ends or points may overlap the flattened sides of the shaft D, so as to bind said shaft and prevent its revolution. Whenever the shaft D is drawn down or allowed to run up with a little rapidity, the centrifugal force engendered by the revolution of the roller B projects the pins F outward, so that their heads rest against the case or shell of the roller B, leaving the block b' free to revolve upon the shaft D, but when the motion of the roller B is checked, the pin F that happens to be uppermost drops down, so that its point or forward end rests upon the shaft D, and as soon as the said point reaches the flattened side of said shaft it drops down a little further, so as to overlap the said flattened side of the said shaft and hold it securely in place.

“Having thus described my invention, I claim as new and desire to secure by letters-patent —

“The combination of the loose or sliding pins or bolts F, having heads formed upon them, with the flattened or notched shaft D, substantially as herein shown and described, and for the purpose set forth.”

On the 3d of September, 1867, Hartshorn, the appellant, also obtained his original patent for an improved shade fixture. In that specification he describes his invention as relating “to a new and useful improvement in that class of shade fixtures in which the shade roller is provided with a spiral spring for automatically winding up the shade. The present invention is an improvement on a shade fixture of this class, for which letters-patent were granted to me, bearing date October 11, 1864, and is designed to obviate an objection attending the original device, which consists in the unwinding of the spring whenever the shade roller is removed from its brackets or bearings, a contingency which involves the necessity of winding up the spring previous to the replacing of the roller in its bearings, and which cannot be done by an unskilled person without considerable difficulty.” He then proceeds to describe in the specification, by reference to the illustrations, the device which

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embodies this invention, and adds as follows: "The difference, however, between the within described arrangement and that of the original invention is essential. In the original plan, the spring unwinds immediately as soon as the roller is removed from its bracket or bearings, as the pawl, instead of being attached to the roller or any part connected therewith, is attached to the bracket, the notched hub being attached to the journal of the roller, and when the notched hub is removed from the pawl the spring immediately unwinds. In my present improvement the pawl and notched hub, being both connected with the roller, the spring is retained or prevented from unwinding equally as well when the roller is removed from its brackets or bearings as when adjusted in them." His claim is as follows: "The attaching of a pawl and a ratchet or notched hub to a window-shade roller, provided with a spring or to parts connected with said roller, in such a manner that the tension of the spring will, without any manipulation or adjustment of parts whatever, always be preserved, whether the roller be fitted in the brackets or bearings or removed therefrom substantially as set forth."

The principle embodied in the Hartshorn patent of 1864 was that of an automatic pawl and ratchet, or a pawl so constructed and arranged, with respect to the ratchet, that the pawl would be caused to engage with the ratchet to stop and hold the shade at any desired height or point, or would be prevented from engaging with the ratchet by merely varying the speed of the revolution of the roller, which was effected through the simple manipulation of the shade alone by the hand of the operator, the pawl engaging with the ratchet when the roller was revolved slowly, and not engaging when the roller was made to revolve quickly. He thus dispensed entirely with cords for operating the roller, and with counterpoises, and with the old spring pawl and ratchet which required the use of both hands in manipulating the roller and controlling the shade in its ascent under the force of the spring, as by its use the shade could be raised or lowered by the manipulation of the shade alone in the hands of the operator. In what was previously known as the coach fixture, it

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was necessary, while one hand of the operator lifted the pawl from the ratchet by means of the cord, to hold the shade with the other hand, or else the shade would quickly fly up for its whole extent. The particular construction or arrangement of pawl and ratchet described by Hartshorn, in his patent of 1864, as his invention, consisted of a ratchet or notched hub on the end of the roller and revolving with it, and a pawl placed upon the bracket or stationary part of the fixture and dropping into the ratchet or notched hub by gravity. The pawl being mounted on a different part of the fixture from that on which the ratchet was mounted, the latter being on the revolving roller and the former on the stationary part of the bracket, it was the necessary result, from such a construction, that, when the roller, as a whole, was removed out of its bearings, there would be a disconnection and disengagement of the pawl and ratchet, and the spring would uncoil or run down, necessitating the winding up of the spring before the roller was again replaced in its bearings, which was a difficult thing to be done, particularly by those having the fixture in use. It was also inherent in the arrangement of the pawl and ratchet used in this roller—the pawl being stationary and resting on the upper side of the revolving notched hub or ratchet as the roller and its notched hub or ratchet revolved under the stationary pawl—that there would be more or less noise in its operation, caused by the notched hub striking against and throwing up the pawl.

It will, therefore, be perceived that the Hartshorn patent of September 3, 1867, and the Campbell patent of September 24, 1867, are for improvements upon the invention described in the Hartshorn patent of 1864, and in any comparison between the two former the invention embodied in the original Hartshorn patent of 1864 must be eliminated as common to both. The circumstances relied upon to justify and make valid the reissues in 1876 of the Hartshorn patent of 1867, and the Campbell patent of the same year, are conceded to be as follows: In 1873 a suit was brought in the district of Massachusetts upon the David patent by the *Salem Shade Roller Company*, then the owner of it, against one *William G. Harris*,

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who was selling rollers made by Hartshorn, the present appellant, who assumed the defence of that suit. The rollers sold by Harris had the pawl arranged so as to move towards and away from the axis of the roller, as described and claimed in the David patent, but this pawl was different in form from that shown in the David patent, and engaged with the spindle instead of with the bracket. The transcript of the record in that suit is in evidence in this, and shows that it was made to appear, in the effort to fix the dates of the inventions described in the three patents of David, of Campbell, and of Hartshorn, that Campbell made his invention on the 1st of May, 1867, while Hartshorn was not able to fix the date of his invention as earlier than about the 1st of August, 1867. It was thus shown that while Hartshorn had the elder patent he was the junior inventor, and as the claim in the Hartshorn patent of 1867 covered the invention described in the Campbell patent, there was a conflict between the two which it was sought to reconcile by reissues, Hartshorn becoming the owner by assignment of the Campbell patent. Accordingly, in the reissue of the Hartshorn patent of 1867, made October 31, 1876, being one of the patents now sued upon, the patentee enters the following disclaimer. He says: "I do not claim generally the arrangement of both the pawl and ratchet upon or in connection with the roller, so that the roller can be removed from its brackets without permitting the spring to unwind, as I believe such an arrangement of pawl or detent and ratchet, as shown in the patent of William Campbell granted to him September 24, 1867, had been known previous to being made by myself." He then adds his claim, modified as follows: "In a spring shade roller having a pawl or detent and ratchet, or their equivalent, constructed and arranged so as to engage automatically for holding the shade at any desired point or height, the combination with a ratchet, or its equivalent, upon the stationary spindle or stationary part of the fixture, of a hinged or pivoted pawl placed upon the end of the roller and acting substantially at right angles to the ratchet or notched hub."

In the Campbell reissue of October 31, 1876, the claims are stated as follows:

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“1. In a spring shade roller, having a pawl or detent and a ratchet, or their equivalent, so arranged as to allow the shade to be drawn down or run up without obstruction, and which engage automatically with each other to hold the shade in any desired position, the arrangement of such pawl or detent on the roller which carries the notched spindle or ratchet, so that, when the roller is removed from its brackets, the tension of the spring will be preserved.

“2. In a spring shade roller, having a detent and ratchet, or their equivalent, constructed and arranged to engage automatically with each other for holding the shade, the combination, with the ratchet, or its equivalent, of a loose pawl or detent, moving in a chamber or guide, and adapted to engage with the spindle.

“3. The combination of the loose or sliding pins or detents F, constructed as described, with the flattened or notched shaft or spindle, substantially as herein shown and described.”

It thus appears that the third claim of the reissued Campbell patent of 1876 is identical with the entire claim of the original Campbell patent of 1867, the first and second claims in the reissued patent being entirely new.

In the original Hartshorn patent of September 3, 1867, he characterizes the invention as an improvement upon that contained in his patent of 1864, in this, that the pawl and notched hub, being both connected with the roller, the spring is retained or prevented from unwinding equally as well when the roller is removed from its brackets or bearings as when adjusted in them; and he states his claim as follows: “The attaching of a pawl and a ratchet or notched hub to a window-shade roller provided with a spring, or to parts connected with said roller, in such a manner that the tension of the spring will, without any manipulation or adjustment of parts whatever, always be preserved, whether the roller be fitted in the brackets or bearings or removed therefrom, substantially as set forth.” This claim in the reissued patent of October 31, 1876, is changed so as to read as follows: “In a spring shade roller having a pawl or detent and ratchet, or their equivalent, constructed and arranged so as to engage

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automatically for holding the shade at any desired point or height, the combination with a ratchet, or its equivalent, upon the stationary spindle or stationary part of the fixture, of a hinged or pivoted pawl placed upon the end of the roller and acting substantially at right angles to the ratchet or notched hub."

In the case of *Hartshorn v. The Eagle Shade Roller Company & Others*, 18 Fed. Rep. 90, decided in the Circuit Court of the United States for the District of Massachusetts, the validity of the Campbell reissue of 1876 was questioned and affirmed. It appears also in that case that the original patent of Hartshorn of 1864 had been surrendered and a reissue obtained, No. 2756, August 27, 1867, being the same in evidence in this cause, for the purpose of showing the state of the art at that time. This reissue, No. 2756, was also questioned in the case just referred to, and held to be invalid on the ground that the reissued patent extended the claim of the original patent, so as to cover a shade roller where the pawl and the ratchet are both affixed to the roller, so that the roller might be detached from the bracket without unwinding; and that within the decision of *Miller v. Brass Company*, 104 U. S. 350, there had been an unreasonable delay in obtaining the reissue amounting to laches. That reissue was accordingly held void, but the Campbell reissue of 1876 was held valid, notwithstanding the admitted enlargement of the claim and the delay in obtaining the reissue for nearly ten years. The ground of the decision was that the patentee did not discover until in 1874 that he was entitled to a priority of invention over Hartshorn, whose patent of 1867 covered the same claim. His solicitor, who was also the solicitor for Hartshorn, in obtaining the two patents had assumed that Hartshorn was the first inventor, because his application was received first, and had framed the application of Hartshorn accordingly, and caused that of Campbell to correspond, limiting his claim to the particular form of the device, and granting to Hartshorn the broad claim now found in the Campbell reissue. This mistake seems to have been discovered, as already stated, by the taking of the testimony of the parties in the case of the

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Salem Shade Roller Company v. Harris, ubi supra, the proceedings and decree in which are in evidence in this cause. The reissue of both patents was applied for and obtained within two years after the discovery of this alleged mistake, and as the exclusive right to the invention was apparently covered by the claim of the Hartshorn patent of 1867, it was inferred and held by the learned Circuit Court of the Massachusetts District that there were no laches in the delay, and no evidence of an abandonment to the public of the invention. In the opinion of that court it is said, 18 Fed. Rep. 92: "Campbell, misunderstanding perhaps his rights, or the true state of things, acquiesced through his solicitors, who were common to both parties, in the broad claim of Hartshorn. When the mistake was discovered, it was corrected by a simple exchange of claims. We are of opinion that, under these unusual circumstances, the lateness of the application is explained and shown to have been brought about by an actual mistake without fraud, and to have been one from which no innocent person could have suffered."

We are not satisfied, however, with either this reasoning or the conclusion. Campbell's acquiescence in Hartshorn's claim must be regarded, so far as he is concerned, as an abandonment of any right on his part to a patent for the same invention, and, having deliberately rested in that acquiescence for a period of between nine and ten years, it is too late, according to the settled course of decisions in this court, to resume his rights. It is, accordingly, no answer to this view to say that, in the meantime, the invention was not dedicated to the public by Campbell's abandonment, because it was covered by Hartshorn's claim; for, according to the supposition, Hartshorn's was a false claim, and though it may not be regarded as fraudulent, but founded upon an honest mistake, nevertheless the validity of his patent must have failed whenever called in question and the facts were made known, as they did become known, in the suit against Harris. The mutual mistakes of the two parties cannot be considered as correcting each other. Hartshorn claimed an invention to which he now confesses he was not entitled, and for that reason his original patent was

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invalid. Campbell contented himself with the narrow claim originally contained in his patent of 1867, and thereby acknowledged that he was not entitled to the broader claim which he now asserts under his reissue. He had the means and the opportunity at the time the application for his original patent was pending to have asserted his claim to priority of invention; he chose not to do so. He acquiesced in the claim of his adversary; he cannot now claim what he then abandoned.

The question of laches is perhaps immaterial, for the reissue of the Campbell patent was not for the same invention described and claimed in the original. This does not rest merely on the enlargement and change in the nature of the claim. The specification itself was substantially altered. The alterations, it is said in argument, had the effect only of giving a more full, complete, and accurate description of the same mechanism; but, in point of fact, the alterations changed the shape of the specification in such a way as to admit the new and enlarged claim in a manner in which it could not have been made upon the original description. A comparison between the original and reissued patents shows that the specification of the latter has been materially changed so as to cover, as the invention of the patentee, that function of the structure by which the spring will be locked when the roller as a whole is removed from the brackets, in respect to which the original patent is entirely silent. We are, therefore, of the opinion that the first claim of the Campbell reissue, the only one alleged to be infringed in this case, is void.

We are also of opinion that the Hartshorn reissued patent, No. 7370, of October 31, 1876, is void on a different ground. That reissue disclaims what was claimed in the original patent, viz.: The arrangement of both the pawl and the ratchet upon or in connection with the roller, so that the roller can be removed from its brackets without permitting the spring to unwind, for the reason that such an arrangement had been previously invented by Campbell; and, instead of that claim, the reissued patent is confined to claiming "the combination with a ratchet, or its equivalent, upon the stationary spindle

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or stationary part of the fixture, of a hinged or pivoted pawl placed upon the end of the roller, and acting substantially at right angles to the ratchet or notched hub." But, according to the admission of all the parties, Campbell was a prior inventor of the arrangement by which the pawl and ratchet were combined upon the roller in such a way as to allow the roller to be removed from its brackets without permitting the spring to unwind. Such a combination, therefore, was not the subject of a subsequent patent of itself, unless some additional novelty and utility were introduced into the combination by reason of some substantial change in the form or mode of operation of the parts. But in this reissued patent of Hartshorn there is nothing novel, either in the pawl or the ratchet, or the mode in which they jointly coöperate to produce the desired result. The fact that the pawl is described as acting substantially at right angles to the ratchet or notched hub does not seem to introduce any new or useful element. The combination covered by the claim in the reissued patent is, in law and in fact, merely a mechanical equivalent for that which was already covered by the Campbell patent, which had the priority of invention. For this reason, therefore, we hold the Hartshorn reissue of 1876 to be invalid.

It remains now only to consider the question of the alleged infringement of the David patent, No. 69,189. The invention is claimed to have been made in December, 1866, though the patent was granted on September 24, 1867. It is for an improvement upon the original invention of Hartshorn, as described in his patent of 1864, and must be construed with reference to that. It seems to have had for its object to do away with the noise produced in the Hartshorn roller by the contact of the pawl with the ratchet. That objection to the Hartshorn roller, David says in his testimony, was what incited him "to invent something that would do away with the noise." He gave a new form to the pawl and ratchet used, and also shifted the ratchet from the roller and made it a part of the bracket, which was a stationary part of the fixture, and applied the pawl or engaging part to the revolving roller. His pawl was "an arm or detent," hinged or pivoted in a radial slot in,

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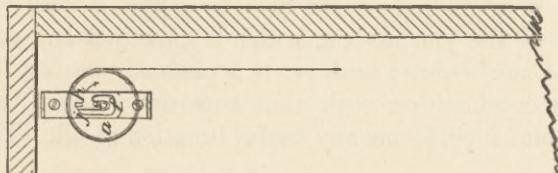
and arranged in the plane of the axis of, the roller; the free end of the arm projecting beyond the end of the roller, so that, as the latter revolved rapidly, the free end of the pawl or arm would be carried away from the axis of the roller by the motion of the roller itself. By this movement, when the roller was rapidly turned, sending the detent outward, it would pass over the elevated side of the journal-box, which constituted the ratchet. When the roller moved slowly or was in a state of rest, the action of gravity brought the detent toward the centre of the roller when the detent was above the centre, and at such time the detent engaged the elevated side of the journal-box or ratchet, and the revolution of the roller was arrested. His roller was also made of wood bored out at one end to receive the spring, and he placed at one end of the roller the spring which caused the shade to rise, the stationary spindle to which one end of the spring was attached, and the arm or pawl, whereby he was able to saw off the other end of the roller to fit any width of window. As the pawl was on the revolving roller and the ratchet on the bracket, when the roller was removed from its brackets the pawl and the ratchet became disconnected, so that the spring would uncoil instead of holding the parts in place. The claims of the David patent are as follows:

“1. The arm or detent *k*, arranged upon the roller in such a manner that it moves toward and away from the centre or axis of the roller *a* by the action of gravity and centrifugal force, substantially as described.

“2. The combination and arrangement, at the same end of a shade roller, of a spring *e*, rod *d*, and arm or detent *k*, or their mechanical equivalents, substantially as described.”

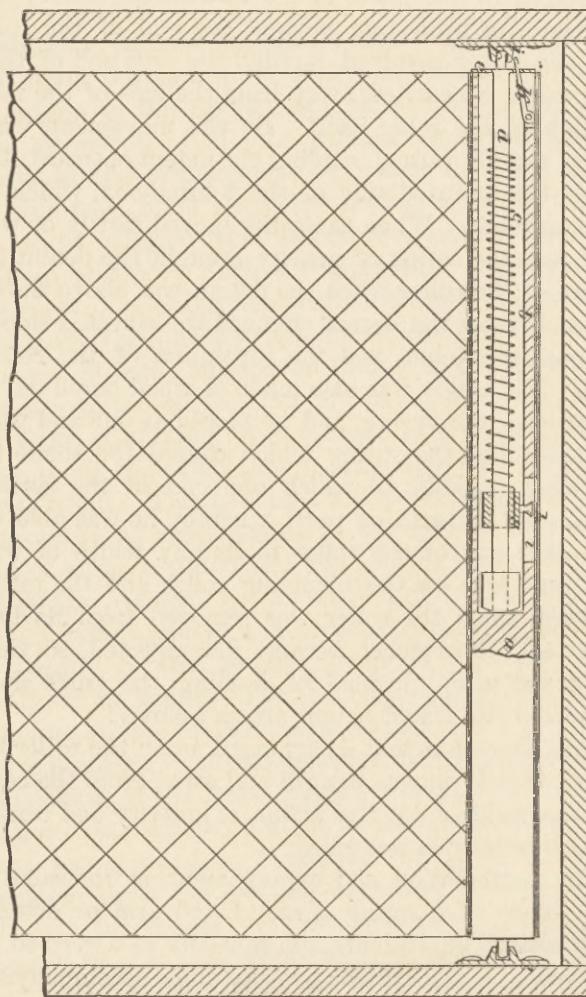
The device is illustrated by drawings accompanying the specification of the patent, as follows:

Fig. 2.



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Fig. 1.



It is to be observed that in these claims nothing is said about the combination of the arm or detent *k* with the elevated side of the journal-box, which is a distinct and separate part of the mechanism; and yet it is perfectly obvious that it is only in combination with that separate ratchet that the arm or detent *k* performs any useful function at all. The fact

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that the arm or detent *k*, arranged on the roller in the manner described, moves toward and away from the centre or axis of the roller in consequence of the motion of the roller itself, is not patentable independently of any useful combination in which it performs a necessary part. Any arm or detent, pivoted at one end and loose at the other, would necessarily follow the motion of the roller, the loose end flying outwardly. The same remarks apply to the second claim of the combination and arrangement of the roller and spring, the rod, and the arm or detent at the same end of the roller. They perform no function by reason of the circumstance of their being at the same end of the roller, except in conjunction with the ratchet on the bracket, and there is no novelty in such a combination and arrangement, as the same thing was found in the original Hartshorn patent. It follows, therefore, that in the construction of the David patent the claims must be confined, by reference to the specification, to the use of the devices named, in a shade roller, where the pawl or detent is upon the roller, moving with it, and the ratchet or engaging part is separated by being placed upon a journal-box or bracket, or other fixed part of the mechanism, and that it must also be limited to the particular form of the arm or detent described. It follows from this that the shade roller manufactured and used by the defendants is not an infringement of the David patent. In the defendants' roller, the pawl and the ratchet are both upon one end of the roller, the pawl being upon the revolving part and the ratchet upon the fixed part of the roller, and the pawl and ratchet are of a different form from those covered by the David patent.

We hold, therefore, upon this part of the case, there was no infringement.

The decree below was, therefore, right, and is affirmed.