

## EASTMAN CO. v. BLAIR CAMERA CO.

(Circuit Court, D. Massachusetts. June 1, 1894.)

No. 2,883.

## 1. PATENTS—ANTICIPATION—PHOTOGRAPHIC FILM HOLDERS.

The Houston patent, No. 248,179, for an improvement in photographic apparatus, consisting in connecting with one of the rollers connected with the sensitized slip within the camera a pointer, placed outside the camera, to indicate the revolutions of the roller and the length of the negatives, and attaching to the same roller a pin to perforate the edge of the strip at the spaces between the negatives, so that the division lines could be detected in a dark room, was not anticipated by previous cylindrical cloth-measuring machines, having no such device for marking lengths.

## 2. SAME.

The Walker and Eastman patent, No. 317,049, for a device to keep the sensitized strip in a photographic camera in proper tension, consisting in the insertion of a spring in the receiving reel to take up the slack of the film, or always draw it against the resistance of the spool, was not anticipated by such prior devices as the map rack described in the Mann patent of 1876.

## 3. SAME—CONSTRUCTION OF CLAIM.

In the Walker and Eastman patent, No. 317,049, for an improvement in photographic apparatus, claim 3 described the device as "acting to maintain the film in a tense condition during exposure." *Held*, that this meant, not that the tense condition was maintained only during the instant of exposure, but that the film should always be so acted upon that when exposure should take place it would be found in a tense condition.

This was a suit by the Eastman Company against the Blair Camera Company for infringement of a patent.

M. B. Philipp, for complainant.

John L. S. Roberts, for defendant.

COLT, Circuit Judge. The two patents in controversy in this case are for improvements in photographic apparatus. The first patent was granted to David H. Houston, October 11, 1881, and is No. 248,179; the second patent was granted to Walker and Eastman, May 5, 1885, and is No. 317,049.

In the old photographic camera, the plate upon which the image of an object was taken was made of glass covered on one side with a thin film of sensitive material. The film consisted of collodion, sensitized in a bath of nitrate of silver, and exposed in the camera while wet. This was known as the wet process. This form of apparatus was cumbersome and difficult to operate in the field. In 1880, Mr. Eastman, one of the inventors of the Walker and Eastman patent, commenced the manufacture of dry plates. These plates were coated with a film composed of an emulsion of gelatine and bromide of silver, and then dried, but they were open to the objections of all glass plates, namely, they were heavy and liable to break. It was sought to overcome these objections to the use of glass plates by the substitution of strips of sensitized paper supported on rollers.

A camera must be so constructed as to exclude the light, or, as commonly expressed, it must be a light-tight box. It is apparent that where a long strip of material was used it became necessary to devise some means to determine the position and movement of the strip in the camera. This was done by marking off the strip into lengths proper for exposure, before introduction into the camera, and by inserting a colored window in the box, through which the operator could observe the marks on the paper from the outside. A device of this type, which appeared in 1875, is known as "the Warnerke roll holder," and is described in Abney's Treatise on Photography, and other publications. It consisted of a light-tight box, containing two rollers and two rounded bars or guides, and the sensitized film was wound from one roller to the other over the exposing bed; one end of each roller projected through the side of the box, and was provided with a mill head and lock nut. The sensitized film was previously marked by black patches of paper, which could be seen through a colored glass window at the back of the holder. The defects in this form of construction were—First, it was difficult to mark the strip without injuring it; second, the colored glass window did not form a perfect protection to the entrance of white light into the box; third, it was difficult to observe the division lines on the strip through the window. In 1877, E. & H. T. Anthony & Co. made one roll holder after the Warnerke pattern, but slightly modified in structure. There is also found described in a London publication entitled "Notes and Queries," published in 1855, what is called "Captain Barr's dark slide for paper." In this apparatus, the paper used in connection with the rollers was in short lengths, secured to a band of calico, leaving intervals of about two inches between the lengths. The indicating device consisted of a short roller outside of the box, fitted to one of the inside rollers, on which was wound a tape of the exact length of the calico strip. There were numerous defects in this apparatus, and it does not appear to have ever gone into use.

Before the inventions of Houston, and Walker and Eastman, there were two problems which had to be met in the practical use of a long strip of film in a camera,—the sensitized strip must be properly marked, and it must be held in sufficient tension. These inventions solved these problems.

The Houston improvement consists in attaching to substantially the old Warnerke roll holder a device for marking automatically the sensitized material within the camera in such a manner as to form guides by which the operator can cut the film between successive exposures when taken into a dark room. This is accomplished by placing a pointer outside of the box, connected with one of the rollers, which indicates the revolutions of the roller, one revolution measuring half the length of the negative, or two revolutions the whole length. The same roller which carries the pointer also carries a pin which perforates the edge of the material at each revolution, and consequently every other perforation marks

the space between the negatives. By this device, something more is done than merely measure the length of film which passes between the rollers. The pointer outside of the box indicates accurately when the film has advanced sufficiently for each negative or exposure, at the same time the pin on the periphery of the roller marks the exposed length in such a way that the division line can be readily detected in a dark room. This was clearly an improvement over anything which existed in the prior art.

The defendant attacks the validity of this patent by the introduction of various old registering devices for measuring cloth and other materials. A type of this class of machines is found in the Dodson patents of January 20, 1880, and August 3, 1880, and it is upon these patents that the defendant chiefly relies. The machine of the Dodson patents is for measuring cloth or bagging. The material passes over one roller, and under another roller, then over a measuring cylinder, to a spindle upon which it is wound; the measuring cylinder has points on its periphery, and a tooth at one end of the cylinder outside of the frame, which works with a toothed registering wheel, and another tooth on the inside of the frame, which works a click spring; the cylinder is described as being exactly a yard in circumference, and provided with projecting points which enter the bagging and prevent it from slipping. By this device, the registering wheel operates to register the number of yards unwound from the roll, while the click spring enables the operator, by counting the clicks, to know how many yards have been unwound. In all the cloth-measuring and registering devices which existed in the art prior to the Houston patent, as disclosed by this record, there is not found the special feature of the Houston invention, namely, a projecting pin which spaces off and defines, for the purpose of cutting, a certain given length of the material. Some device of this kind was necessary in a camera using a strip of film, and, although such device may seem only a modification of old devices, yet, as the result accomplished is new and useful, I think it patentable.

On the question of the infringement of the first and second claims of the patent, I have no doubt; the defendant's device embodies the essential features of the Houston invention, and the changes which are made are merely structural.

The Walker and Eastman patent represents a still further advance in the art. The strip of film ready for exposure must always be kept in a condition of tension. As the camera may be left standing for days, it was found that the film was liable to contract or expand under different conditions of weather, and, further, in the old apparatus, the devices for holding the film in tension did not always work perfectly. The object of the Walker and Eastman patent was to remedy this defect. The inventors spent months of effort before they hit upon the device which is the subject-matter of their patent. The means employed by them were simple, but this fact does not detract from the merits of the invention. The improvement consists in the insertion of a spring in

the receiving reel, which operates to take up the slack end of the film, or to always draw the film against the resistance of the spool. The spool and the receiving reel, with their retarding mechanism, will, under the ordinary process of feeding the film along, hold it in tension; but this is not sufficient to answer all the conditions which arise in the use of the instrument. By the addition of the spring, this defect was overcome, and the film maintained in tension under all conditions. The fact that the Walker and Eastman device has gone into general use, both in this country and abroad, proves the utility of the invention; and, if the question of invention were in doubt, this circumstance should weigh strongly with the court in resolving that doubt in favor of the patentee. *Smith v. Dental Vulcanite Co.*, 93 U. S. 486, 495; *Consolidated Safety-Valve Co. v. Crosby Steam Gauge & Valve Co.*, 113 U. S. 157, 171, 5 Sup. Ct. 513; *Magowan v. Packing Co.*, 141 U. S. 332, 343, 12 Sup. Ct. 71; *Topliff v. Topliff*, 145 U. S. 156, 164, 12 Sup. Ct. 825.

The validity of this patent is attacked on the same line of defense as the Houston patent. I shall only refer to one of the prior patents which are introduced as anticipations. I confine myself to this because it comes closer to the patent in suit, and is chiefly relied upon by the defendant. This is the Mann patent, of August 8, 1876, for improvement in map racks. In that apparatus there are two rollers close together, and the map is wound from one roller upon the other. These rollers are geared together by either cog or friction wheels, so that on turning a crank the two rollers move in unison. There are also two additional guide rollers situated above and below the center rollers. The map to be displayed passes from the upper center roller, under and over the upper guide roller, then over and under the lower guide roller, back to the lower center roller; the lower guide roller is journaled in slides, which move in the framework, and springs are introduced above these slides, which cause the roller to move downward. An inspection of the Mann patent demonstrates that the organization of rollers, brakes, and springs is quite different from that found in the Walker and Eastman patent. In fact, there is nothing in the prior art which anticipates this invention.

The defendant's apparatus, though modified in some particulars, is clearly within this patent, and I am of opinion that it infringes the third, twenty-sixth, twenty-ninth, thirtieth, thirty-first, and thirty-second claims. The phrase "acting to maintain the film in a tense condition during exposure," in the third claim, does not mean, as contended by the defendant, that the tense condition is only maintained during the instant of exposure, but it should be construed as meaning that the film shall always be acted upon by such instrumentalities that, when exposure takes place, it will be found in a tense condition.

Decree for complainants.

## FASSETT v. EWART MANUF'G CO.

(Circuit Court of Appeals, Seventh Circuit. May 31, 1894.)

No. 145.

## 1. PATENTS—DECISION OF PATENT OFFICE—ON INTERFERENCE.

A decision by the patent office in an interference proceeding is conclusive between the parties, even if wrong, when no steps have been taken to set it aside. 58 Fed. 360, affirmed.

## 2. SAME—SECOND PATENT TO SAME PATENTEE—MACHINE FOR COUPLING CHAIN LINKS.

The Fasset patent, No. 377,376, for a machine for coupling chain links by an endwise motion, and also by a sidewise motion, being substantially for a combination, with broader claims, of the machines described in patent No. 347,338, to the same patentee, and in application No. 174,962, filed by him, is void. 58 Fed. 360, affirmed. *Miller v. Manufacturing Co.*, 151 U. S. 186, 14 Sup. Ct. 310, followed.

Appeal from the Circuit Court of the United States for the Northern District of Illinois.

This was a suit by Nelson B. Fasset against the Ewart Manufacturing Company for infringement of a patent. The circuit court dismissed the bill. 58 Fed. 360. Complainant appealed.

The appellant filed his bill in the court below to restrain the infringement of letters patent 377,376, issued February 7, 1888, for "machine for coupling chain links." Prior to 1874, outdoor machinery was operated by leather or rubber belting. In that year William B. Ewart invented an attachable link metal belt to overcome the objections found to obtain with respect to leather and rubber belting. The novelty of the invention consisted in the form of the link, it being capable of being made into a chain of any desirable length by assembling or coupling the necessary number of links together by a side motion, the end bar of one link being forced into the hook of a companion link by forcing the link sidewise while standing at an acute angle to the link with which it is being coupled. This invention was patented on September 1, 1874, and its validity sustained in *Ewart Manuf'g Co. v. Bridgeport Malleable Iron Co.*, 31 Fed. 151. About 1881 the complainant invented a detachable chain link, which differed from the Ewart link in that it was so constructed that it could not be coupled with another link by a sidewise motion, but only by an endwise motion. A patent therefor seems to have been issued to him February 22, 1881, No. 237,967. Prior to 1882 these links were assembled or coupled by hand. During the winter of 1882-3, Mr. Fasset invented and constructed a machine for assembling the links together, and operated the same experimentally in the first half of the year 1883. This machine assembled the links of the drive chain together by an endwise thrust of the links. In January, 1884, one Eugene L. Howe constructed, and on the 6th day of October, 1884, applied for a patent for, a machine for assembling the links of a drive chain together by a sidewise thrust suitable to assemble the Ewart chain links; which machine was put in operation and publicly used by the appellee in January, 1884, and has been continued to the present time. On the 8th of April, 1884, the complainant, Mr. Fasset, filed a caveat in the patent office, which he renewed on April 4, 1885, for the term of one year. On the 6th of October, 1884, Mr. Howe filed his application in the patent office for a patent upon his machine, which resulted in the issuance to him, as assignor to the Ewart Manufacturing Company, the appellee, of letters patent No. 317,790, dated May 12, 1885. On the 21st of August, 1885, the complainant, Fasset, filed in the patent office an application, serial No. 174,961, which resulted in the issuance to him of the patent No. 347,338, dated August 17, 1886. This patent is known as case A. On the 21st of August, 1885, Mr. Fasset also filed in the patent office his application, serial No. 174,962, which is known as case B. On the 7th of September, 1886, an interference in the patent office was declared between the Howe patent, No. 317,790, and the Fasset application, case B., which resulted in a decision