### EASTMAN CO. v. GETZ et al.

# (Circuit Court of Appeals, Second Circuit. January 7, 1898.)

### No. 13.

1. PATENTS-MACHINES FOR COATING PHOTOGRAPHIC PAPER. The Eastman & Walker patent, No. 358,848, for a machine for manufacturing sensitive photographic films, was anticipated by the Saroney & Johnson machine, for making carbon paper (English patent of May 18, 1878), as to claim 3, which is a broad one, covering a combination of driven smooth-faced rolls, a suitable hang-up machine, and a coating mechanism consisting of a smooth-faced roll partly submerged in the coating material, arranged at such a distance from the hang-up machine as to allow the gelatinous coating to set before it reaches the looping slat. 77 Fed. 412, affirmed.

2. SAME-PROCESS PATENTS.

The Eastman & Walker patents, Nos. 370,110 and 370,111, for processes of coating photographic paper, were anticipated by the method used in the Sarony & Johnson English machine.

8. SAME-SUPPRESSION OF TESTIMONY-COSTS.

A large mass of testimony introduced into a patent case, merely in response to a remark by one of plaintiff's witnesses as to the inferiority of the defendants' product, and having no bearing on the real issues, together with nearly 100 pages of printed testimony by an expert witness, consisting mainly of argumentative matter, comments, and criticisms, mingled with opinions, beliefs, and hearsay, held to have been improperly introduced into the record, so that no costs of either court should be allowed therefor.

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

The complainant's bill in equity in the circuit court for the Northern district of New York alleged the infringement by the defendants of claim 3 of letters patent No. 358,848, dated March 8, 1887, for apparatus for manu-facturing sensitive photographic films, and of the four claims of letters patent No. 370,110, and of claim 3 of patent No. 370,111, each dated September 20, 1887, and each for a process of coating photographic paper, the three patents having been granted to William H. Walker and George Eastman, and having been assigned to the complainant. The original application for Nos. 358,848 and 370,110 was filed October 25, 1884. It was divided, and an application for Nos. 370,110 and 370,111 was filed March 5, 1887, which was also divided, and the application for 370,111 was filed August 20, 1887. The circuit court dismissed the bill (77 Fed. 412), and the complainant appealed to this court.

M. H. Phelps and M. B. Phillipp, for appellant.

W. A. Jenner, for appellees.

Before WALLACE, LACOMBE, and SHIPMAN, Circuit Judges.

SHIPMAN, Circuit Judge (after stating the facts). Bromide paper, which is chiefly used for making photographs of life size, was discovered in or about the year 1873. The photographic agent is finely divided bromide of silver, and the paper is coated with a gelatino bromide emulsion, the gelatine being the vehicle by which the bromide is conveyed to the paper. A uniform distribution of the silver is necessary in order to produce good photographic re-The coated paper must be free from streaks or bubbles or sults. specks of dust, and must be preserved from inequalities of expansion which cause unevenness, and therefore coating by hand was

unable to produce, with regularity, a satisfactory article. No machine was in ordinary commercial use which coated bromide paper with a sufficiently uniform degree of evenness and freedom from defects to satisfy the needs of the photographer until the patented machine of 1884, when its product promptly became a reliable and standard article.

The patentee said, in the specification of the machine patent, that the invention involved "the use of a partially submerged roller, by which the paper is carried into the emulsion, to be coated on one side only, a series of carrying or conducting rolls and a hang-up frame of any approved construction being located at such distance from the coating roll that the gelatino argentic emulsion may have time to dry before the web is deposited on the drying frame." The specification points out that the feeding rolls must be positive and uniform in their action, and must not bear upon or make contact with the coated face of the paper, and that, as the paper web is limp with moisture, nothing but smooth, plain-faced rolls can be used as feeders. It is also said that as the tendency of a moist web, after leaving one support, is to assume an irregular form, this unevenness is remedied by the straight surfaces of the rolls which remove the depressions, so that evenness of the emulsion is maintained. In the process patent, No. 370,110, another action is pointed out, which is due to the position of the rollers relatively to each other, whereby the direction of the motion of the paper is changed, so that it passes upward and then downward, and the flow of the emulsion is reversed, so as to "regulate and maintain its uniformity," and to prevent it from "settling" or hardening unequally.

It is to be premised that there was nothing new in the coating devices. The patentees had received, in 1881, from Anthony & Co., of New York, an English machine, which was designed to coat photographic paper, known as "carbon tissue," and which the patentees took for the purpose of seeing if bromide paper could be made upon it. It was not successful, but its coating devices were substantially the same in construction and operation with the coating devices of the machine patent, and applied the emulsion to the face of the paper.

Claim 3 of letters patent No. 358,848 is as follows:

"(3) In an organized machine for making sensitive gelatine argentic paper for photographic use, the combination of one or more driven smooth-faced rolls for maintaining the coated paper in motion, a suitable hang-up machine; and a coating mechanism, consisting of a smooth-faced roll partially submerged in the coating material, said coating roll being arranged at such a distance from the hang-up machine as to allow the gelatinous coating to set before it reaches the looping slat, substantially as described."

It is strongly urged that, inasmuch as the machine was the original successful device which introduced a new department in the art of photography, the questions of novelty and patentability are in a great measure settled. The success of the machine was due to the details of its construction, and not to the naked combination of a coating mechanism, a smooth driven roll, and some one of the numerous kinds of "hang-ups" which may be in the market. The patentees made such a union of these three elements that success .was attained; but in claim 3 they described their invention in such broad terms that any one who combined by means of different mechanical details would be an infringer, but so broadly that it is not strange that the patentable validity of the combination could be successfully attacked.

The same elements were in combination in the English patent of May 18, 1878, to Sarony & Johnson, for a machine for making carbon paper, if the succession of rolls and cords upon which the finished paper is hung in loops can properly be called a "hang-up." It is admitted that it has the partially submerged coating roll, the coating trough, the apparatus for heating the trough, and a driven smooth-faced roller, but it is said that it does not have a hang-up. It has a succession of rollers over which the paper is kept progressing while hanging in loops between them. The coating is "set" or hardened by the time a few loops are hung, and the paper is carried forward to the other rollers until all the loops are hung, to remain at rest until dry, and until wanted for use or for the market.

The main attack upon the anticipatory character of this machine is that it cannot be operative and successful, and it is true that the feed depends upon the frictional adhesion of the paper to the driven rollers, and that the paper, not being under sufficient tension, will occasionally, more or less, "buckle" or crinkle at the bottom of the With obvious modifications of the machine, it is admitted loops. that the complainant filled 20 loops, each of 17 feet in length, The three times out of four, with narrow paper, 14 inches wide. buckling or crinkling which occurred when the machine failed was on the third loop from the beginning, after the paper had progressed three or four loops more. It may well be admitted that the Sarony & Johnson machine, either as originally described or as modified, cannot be a commercial success for the manufacture of paper in large quantities. It is subject to too many stoppages from the buckling of the loops of paper, and commercial success requires certainty and exactness of manufacture, and does not permit detention; but it can make bromide paper of a fair quality, and is an operative machine.

The next objection to it is that its hanging mechanism, which consists of rollers and cords, is not the "hang-up" to which the Apparatus for hanging up and carrying off in patent refers. festoons or loops moist paper hangings, so as to be dried without injury from handling, was well known, and was easily procured. The bars of this class of hang-ups were at rest after the paper was The Sarony & Johnson device is not a hang-up put upon them. which is continually at rest, the slats or bars being continually motionless; but it is in motion until it is filled, and then it rests. and the drying process is completed, and it is used exclusively for drving purposes. There would be an argument that the patentees meant some one of the well-known wall paper hang-ups if the requirements of the specification in regard to the hang-up were not as vague as those of claim 3. It was called "a suitable mechan-

ism in which the coated paper is automatically hung up to dry in pendent loops," and it was to be "a hang-up frame of any approved construction." When, however, the process patent, No. 370,111, which relates especially to the delivery of the web upon a support to dry, is looked at, the Sarony & Johnson drving frame and its mechanism fully correspond with the description of the final part of the process, which is said to be the delivery of the web "to a suitable rack or frame to dry." or "to a suitable drying frame or rack." or "depositing that part of the web on which the coating has set or stiffened at rest with relation to its supports to dry." Our conclusion is that the patentees, for the purpose of making a claim broad enough to include infringers who took merely the skeleton of the invention, made it so broad as to include the preceding machine of Sarony & Johnson, and that there is no proper method of construction by which claim 3 can be cramped into narrower limits than it was intended to include.

The process patents are next to be considered. Patent No. 370,-110 does not relate to the portion of the process after the coating has set or stiffened, and confines itself, speaking generally, to the application of the coating material evenly upon the face of the web, and to the change of the flow of the emulsion, so as to regulate and maintain the uniformity of the coating. Patent No. 370,111 includes, as an additional step, the method of manipulating the web after the coating has set, whereby the coated web is deposited upon a frame to dry. The four claims of No. 370,110 are as follows:

"(1) The herein-described method of producing uniform coatings upon continuous webs or strips of fabric, which consists in applying the coating material in a fluid condition evenly upon the face of the web, and in changing the flow of the coating upon the web to regulate and maintain its uniformity, and maintaining the web in motion, and its coated surface unobstructed by contact with foreign bodies until the coating has set or hardened sufficiently to prevent running, substantially as described.

"(2) The herein-described improvement in the art of producing photographic paper, which consists in applying to one face of a web of paper a thin uniform coating or surface of fluid gelatino argentic emulsion, by causing the paper to emerge from the level surface of a body of emulsion, and subsequently maintaining the coated web flat and in motion continuously and uniformly in the same direction, and the surface of the coating undisturbed by contact with foreign substances until the gelatine has set or stiffened sufficiently to prevent running, substantially as and for the purpose set forth.

"(3) The herein-described process of producing gelatino argentic fabric for photographic reproductions, consisting in applying to a moving continuous web of fabric a uniform layer of sensitive gelatino argentic emulsion, keeping said web in motion and the coated side unobstructed until the coated gelatine is set or stiffened sufficiently to prevent flowing, and finally drying said coating.

"(4) The herein-described method of producing uniform coatings upon continuous webs or strips of fabric, which consists in applying the coating material in a fluid condition evenly upon the face of the web, and subsequently maintaining the web in motion and its coated surface unobstructed by contact with foreign bodies until the coating has set or hardened sufficiently to prevent running, substantially as described."

Claim 3 of No. 370,111 is as follows:

"(3) The herein-described continuous process of producing gelatino argentic fabric for photographic reproductions, consisting in applying in a suitable nonactinic light, to a moving continuous web of fabric, a uniform layer of sensitive argentic fluid emulsion, keeping said web in motion and the coated side unobstructed until the coated gelatine is set or stiffened sufficiently to prevent flowing, and, finally, while the web is in motion and the coating being applied, depositing that part of the web on which the coating has set or stiffened at rest with relation to its supports to dry."

We shall omit the discussion of the questions whether these two patents are invalid because they describe merely the function of the patent, or because the processes involve nothing more than mechanical operations, inasmuch as the processes of these two patents, so far as they are described in the claims which were alleged to have been infringed, were exhibited in the Sarony & Johnson machine. All the steps in the process, including that stated in claim 1 of 370,110, which consists "in changing the flow of the coating upon the web to regulate and maintain its uniformity," and which, though alluded to in the machine patent, was not the subject of especial comment, were taken by Sarony & Johnson in their apparatus.

The complainants moved before the circuit court to suppress a portion of the defendants' testimony, on the ground of its irrelevancy, which motion was denied; but the court properly refused any costs for the testimony of Hudson and Rogers. The record, including paper exhibits, contains 3,924 printed pages, and is unnecessarily voluminous, by reason of the multiplicity of issues of fact which were entered into, and the extent to which testimony was introduced upon them. The complainant's prima facie case occupied 28 pages. The defendants' testimony occupied 357 pages, denied infringement, and introduced the machines which were alleged to anticipate. The complainant's rebuttal was at very great length, occupying 1,662 pages. The defendants were apparently permitted, by order of the circuit court, to take testimony in reply to the complainant's case, and their oral testimony occupied 989 pages. The complainant's testimony in surrebuttal occupies 403 pages. A great deal of testimony was introduced on both sides in regard to the method of construction of the defendants' roll, which bore upon the question of infringement; and the investigation in regard to this part of the case became both lengthy and acrimonious, and out of it grew indictments for perjury. The complainant moves to suppress the testimony of John Hatch, James Hatch, Carrie E. Townsend, George W. Stump, and portions of the testimony of Ernest L. Caflisch, Edward Wilhelm, and De Witt C. Hoover, all of which related to the subject of the use of a smoothfaced roll by the defendants, and therefore bore upon the question of infringement, and was in a near or remote degree relevant to that issue.

The complainant's rebuttal, in addition to the testimony which has been mentioned, was much occupied by the opinions of experts, by tests and experiments in regard to the ability of pre-existing machines to coat bromide paper, and by the history of the Allen & Rowell machine; and the defendants replied with opinions, tests, and experiments, which on each side were varied and exhaustive. Indeed, controverted questions of fact sprang up and were cultivated with expensive frequency; and therefore some of the defendants' testimony which was objected to, and which seems not valuable for the development of the real issues in the case, was admissible. In this class are the depositions of Blair, Hahn, Vandenbergh, Wilhelm, Hoover, and Reichenbach. The depositions of Alfred Simon, Charles Tomlinson, Luke A. Power, Arthur P. Yates, and questions and answers 1 to 19 of the deposition of Ernest Caflisch, were to prove the superiority of defendants' bromide paper over the complainant's product. The deposition of Harry Littlejohn was to show the inferiority of some of complainant's paper which his company had received and been unable to sell. The complainant moves to suppress all this testimony on the ground of its immateriality, and although it seems to have been introduced to meet a little testimony from George G. Rockwood, who spoke of the inferiority of the defendants' paper, the issue had no bearing upon the real issues in the case, was immaterial, and the motion, so far as it related to that testimony, should have been granted. The testimony of Mr. Abbott for the defendants, in reply to the rebuttal of the complainant, is deserving of censure. He was the defendants' patent expert, and testified in their behalf. After the complainant's experts had replied in rebuttal, he was again examined; and, in reply to a single question, made an argument from previously prepared manuscript notes, of 100 printed pages, consisting of comments and criticisms upon the testimony, and his opinions and beliefs occasionally mingled with hearsay. While a portion of his testimony related to experiments in which he had assisted, and was not objectionable, the argumentative portion went entirely beyond the proper bounds of expert testimony; so that it ought not to be treated as testimony for which costs should be allowed. No costs should be allowed in either court for the first hundred pages, and no costs should be allowed in either court for the other testimony which has been pronounced inadmissible. The decree of the circuit court, except as modified in the matter of costs, is affirmed, with costs of this court as specified.

## KANSAS CITY HAY-PRESS CO. v. DEVOL et al.

#### (Circuit Court of Appeals, Eighth Circuit. September 6, 1897.)

No. 808.

PATENTS-VALIDITY AND CONSTRUCTION-HAY-BALING PRESSES. Patent No. 495,944, to Knight, Kelly, and Alderson, as assignees of Livengood et al., for improvements in hay-baling presses, if valid at all as to its fifth claim, must, in view of the prior state of the art, as shown especially in the Whitman patent, No. 446,311, be narrowly construed. 81 Fed. 726, reversed.

Appeal from the Circuit Court of the United States for the Western District of Missouri.

This was a suit in equity by the Kansas City Hay-Press Company against H. F. Devol, George Devol, and W. S. Livengood, for alleged infringement of certain patents relating to hay-bailing presses. In the circuit court the bill was dismissed after a hearing on the merits (72 Fed. 717), and the complainant appealed. This court heretofore, on May 10, 1897, reversed that decree, and directed the court below to enter a decree dismissing the bill as to certain of the patents sued on, but sustaining others, and directing an injunction and accounting