circumstances are disclosed by the record which lead the court to entertain doubts whether the Cincinnati agents of the defendant had constructed and successfully and publicly applied the Miller device to the No. 9 machine as early as August, or even September, When parties, as in the present case, are each interested in carrying the date of the discovery of an improvement in a machine as far back as possible,—the one for the purpose of supporting a patent, and the other for the purpose of invalidating it,—the testimony on both sides, for obvious reasons, must be scanned with the greatest caution. Perhaps there is no safer rule in such cases than to give great weight to the presumption created by the patent and to treat it as valid, unless the party seeking to overthrow it shows a prior public use of the invention by evidence of facts or circumstances which are so persuasive as to leave no room for doubt or controversy. Applying these principles to the case at bar, the court has reached the conclusion that defendant's evidence is insufficient to establish such a prior public use as will defeat the patent.

3. With respect to the defense of anticipation, it is quite sufficient to say that I do not find in any of the prior patents the exact combination which Miller claims in his patent, No. 419,863. The nearest approach to an anticipatory device is to be found in the Farrar, Van Sant, and Post patents, Nos. 136,314, 172,676, and 281,296. It may be conceded that all of these patents show devices which very closely approach the complainants' device, but the identical combination claimed cannot be found in either. In neither of these patents is it stated that the object of the alleged anticipatory device therein shown was to prevent the tangling of the thread, nor is it apparent that such devices were applicable to the Wheeler & Wilson No. 9 machine without a modification in the form of the device such A more important consideration is the fact as Miller proposed. that these old devices did not for some months suggest a remedy for the defect in defendant's No. 9 machine, although they appear to have been well known to the defendant company and to its machinists.

While the case is not free from doubt, because it is difficult to say in view of the prior state of the art whether the improvement in question rose to the dignity of an invention, yet the views heretofore expressed must result in a decree for the complainants, and it is so ordered.

McKAY & COPELAND LASTING MACHINE CO. v. DIZER et al. SAME v. CLAFLIN et al.

(Circuit Court of Appeals, First Circuit. March 28, 1894.)

Nos. 77 and 78.

1. Patents—Infringement—Equivalents—Lasting Machines.

The substitution of spring rockers for a pivot or hinge, for the purpose of producing a tipping or oscillating motion in one of the plates of a lasting machine, does not avoid infringement, for the two are well-known mechanical equivalents.

2. Same—Invention. The discovery of a means of remedying a defect which has long baffled the skill of inventors, and made all previous machines failures, thus producing a machine which is recognized as perfected, and goes into extensive general use, constitutes invention, although the new device is simple, and apparently obvious after the event.

8. SAME.

The Copeland, Woodward, and Brock patent No. 197,607, for an improvement in lasting machines, *held* valid, and infringed as to the eighth claim. 58 Fed. 353, reversed.

Appeal from the Circuit Court of the United States for the District of Massachusetts.

These were two bills filed by the McKay & Copeland Lasting Machine Company against M. C. Dizer and others, and William Claffin and others, respectively, for the infringement of letters patent No. 197,607, issued November 27, 1877, to Copeland, Woodward and Brock, for an improvement in lasting machines for boots and shoes. The bills were dismissed by the court below (58 Fed. 353), and the complainant appealed.

Fish, Richardson & Storrow, for appellant.

John L. S. Roberts (Elmer P. Howe and Walter K. Griffin, of counsel), for appellee.

Before COLT, Circuit Judge, and NELSON and WEBB, District Judges.

NELSON, District Judge. In these two cases the plaintiff alleges the infringement by the defendants of the eighth claim of the patent in suit. The claim reads as follows:

"In a lasting machine, the combination of the adjustable carriage, B, provided with means for supporting an oscillating plate, and said oscillating plate, substantially as described."

The patent is for improvements in machines for lasting boots and shoes; that is, for machines which aid the workman in performing the operation of stretching and drawing the upper leather of a boot or shoe over a last. The carriage, B, mentioned in the claim, is the carriage that carries the heel-lasting mechanism, and its adjustability is the longitudinal adjustment on the bed of the machine towards and from the toe-lasting mechanism, to accommodate lasts of different lengths. The oscillating plate is the plate upon which is arranged the heel-lasting mechanism, which consists of plates that slide forward and inward on each side of the heel end of the last, and bend over and press down the edges of the upper leather upon the insole. The means described in the specification for supporting the oscillating plate upon the carriage is a pivot or hinge connection, constituting the axis of oscillation, which is in line with the length of the last. The oscillating plate tilts on its axis of oscillation to accommodate the lasting plates to the ends of the sole of the last. The defendants' machine contains the adjustable carriage and the oscillating plates of the patent, the oscillating plate being supported on the carriage through the intervention of springs on each side of the longitudinal axis of the carriage, and the plate tilting or oscillating with relation to the carriage by the yielding

The meaning of the eighth claim is perfectly clear and plain. It is for a combination in a lasting machine of two elements, an ad-

justable carriage provided with means of supporting an oscillating plate, and the supported oscillating plate. The defendants' machine has both these elements combined, the only difference being the substitution of spring rockers for a pivot or hinge in the supporting mechanism. There can be no question that a spring rocker is a perfectly familiar way of obtaining a tipping or oscillating motion, as well as a pivot or hinge, and that one is a well-known equivalent for the other. The defendants' machine is a manifest infringement of the eighth claim of the patent, if the claim is valid. The court below held that it was invalid for lack of invention.

The brief submitted in behalf of the plaintiff contains a clear and accurate statement of the history of the art of lasting by machinery, and the condition of the art at the date of this invention. many years prior to 1877, inventors had been at work on the problem of lasting machinery, but had not solved it. In an earlier patent, dated June 12, 1877, the three inventors of the patent in suit, who had been engaged for several years in endeavoring to invent a perfected laster, had described the most advanced machine which then existed; but it was not satisfactory, because it could not satisfactorily last the toes and heels of the shoes ordinarily Finally these inventors discovered where the defect lay, and the cause of it, and remedied it by introducing a new feature never before used in any lasting machine. The end-closing mechanism had hitherto been carried directly on the main carriage. The improvement consisted in mounting it on a separate bed-plate, which was made capable of lateral tipping by inserting a joint between the bed-plate and the main carriage, thus securing an adjustability never before found, while the direction of the main tip, which was lateral, permitted the tipping-plate to offer the same resistance to the longitudinal and vertical strains required for the operation of the mechanism as if the latter were rigidly attached to the main carriage. The machine with this improvement was accepted as perfected, and went into extensive general use. It was the first that was ever so accepted and used, and no machine without it has ever been commercially used since that time.

We are of opinion that the discovery by these patentees of the proper means for remedying the fatal defect which existed in all prior machines of this character, simple as the device was, amounted to something more than the exercise of merely ordinary mechanical skill, and reached a higher domain of invention. The simplicity of the device, and its apparent obviousness after the event, ought not to detract from its meritoriousness. That it had never been suggested or thought of before, and effectually supplied the one thing necessary to bring success, when before there had been nothing but failure, is sufficient to entitle it to rank as a new and useful improvement in the mechanic arts, within the meaning of the patent law.

In each case the decree of the circuit court is reversed, and the case is remanded to that court, with directions to enter a decree for the complainant upon the eighth claim of the patent in suit for an injunction and an account.

HOLMAN et al. v. JONES.

(Circuit Court of Appeals, Third Circuit. April 13, 1894.)

No. 13.

PATENTS—Construction of Claims—Easel Albums.

The Jaegar patent, No. 432,411, for an easel album supported upon rigid. immovable standards, with a longitudinal bar resting thereon, which is pivoted to the back of the book, is valid, but the claims must be narrowly construed, and are therefore not infringed by an album in which the standards are hinged at the base. 58 Fed. 973, reversed.

Appeal from the Circuit Court of the United States for the Eastern District of Pennsylvania.

This was a suit by Joshua R. Jones, trading as the National Publishing Company, against William A. Holman and George S. Lare, trading as A. J. Holman & Co., for infringement of a patent for easel albums. The circuit court rendered a decree for complainant in the usual form (58 Fed. 973), and defendants appealed.

H. T. Fenton and George Harding, for appellants.

Augustus B. Stoughton, for appellee.

Before ACHESON, Circuit Judge, and BUTLER and GREEN, District Judges.

BUTLER, District Judge. The suit is for infringement of letters patent No. 432,411, issued to Christian Jaegar, July 15, 1890, and assigned to the appellee.

The circuit court sustained the suit, granting an injunction, and

awarding damages; and this is assigned for error.

The validity of the patent, and the alleged infringement, are both denied.

The invention claimed and covered by the patent, comprises a photograph album "having its first and last leaves connected with its covers, without the use of a separate fastening, its covers being connected by a flexible back; a base adapted to support the back of the book, and to permit the flexible back or edge of the book to be rolled over it as the book is opened or closed; and provided with standards; a rod held on, or secured to, the standards, and pivotally connected to the outside of one of the covers of the book, the book always turning on the rod as a fulcrum;" as stated in the specifications and described in the drawings.

The claims involved read as follows:

"(1) In an album, the combination, with a stand provided with standards. and a transverse rod held on the same, of a book pivoted on the outside and at or near the middle of one of its covers to the said rod, substantially as shown and described."

"(3) In an album, the combination, with a stand, of a fixed rod supported on the said stand and a book, provided on one of its covers with bearings engaging the said fixed rod, to permit the said book to swing on the said fixed

rod as a fulcrum, substantially as shown and described."

"(4) In an album, the combination, with a stand, provided on top with an incline, of a fixed rod supported on the said stand, a book adapted to rest with its back on the said incline, and eyes secured at or near the middle of one of the covers of the said book and engaging the said fixed rod, substantially as shown and described."