

Case No. 2,467. CARSTAEDT v. UNITED STATES CORSET CO.

[13 Blatchf. 119; 2 Ban. & A. 119; 9 O. G. 151; Merw. Pat. Inv. 217.]¹

Circuit Court, S. D. New York.

Sept. 10, 1875.

PATENTS—"TAKE-UP MECHANISM FOR LOOMS"—VALIDITY—INFRINGEMENT.

1. The first and third claims of reissued letters patent granted to Hugo Carstaedt, November 19th, 1872, for an "improvement in take-up mechanism for looms for weaving irregular fabrics," the original patent having been granted to him March 30th, 1869, namely, "(1.) The two rolls B and C, continuously rotating at a suitable distance apart, and the series of sectional rollers or wheels D, mounted and operated so as to be pressed wedgewise between them when the take-up is to act, all substantially as and for the purpose herein set forth; (3.) A series of needles, k, k, in combination with a take-up composed of rollers or wheels D, arranged to take up at intervals on parts of the work, and to liberate other parts, substantially as and for the purpose herein specified," are not infringed by a mechanism in which the take-up is not effected by rollers divided in sections, and in which, although the effect of the take-up is sectional, such effect is due not to the sectional action of the take-up but to the action of the lay.
2. The second claim of said patent, namely, "(2.) The needles or points, k, k, fixed on a stationary bar K, and arranged, as specified, so that the fabric, being drawn by the take-up proper, is continuously carried across the needles, to be received by their points and to be arrested when a reverse movement of any part of said fabric is commenced, substantially as herein set forth," is not limited to the sectional take-up described in the patent, nor does it extend to every take-up, regular or irregular, but it embraces the combination of the needle-bar with any take-up mechanism for weaving irregular fabrics. Thus construed, said second claim is not void for want of novelty. A change of position of the needle-bar, as involving invention, considered.

[In equity. Bill by Hugo Carstaedt against the United States Corset Company to enjoin infringement of letters patent No. 88,365 (reissue No. 5,150).]

John Van Santvoord, for plaintiff.

George Gilford, for defendants.

SHIPMAN, District Judge. The patent which is alleged to have been infringed by the defendants was granted to the complainant on March 30th, 1869, for an "improvement in take-up mechanism for looms for weaving irregular fabrics," and was reissued on November 19th, 1872. The patented machine was designed especially for the weaving of corsets. In weaving articles of irregular size, it is necessary to give greater fullness to one side or portion of the woven article, than is given to another portion. The cloth, notwithstanding this irregularity.

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is woven in one piece, so that "sometimes the weaving proceeds regularly across the whole width of the fabric," and sometimes irregularly across an increasing part of the width. The mechanism which "takes up" or carries along the woven cloth must be so constructed that the irregularly woven cloth shall be taken up, while the remainder of the cloth shall be kept stationary, and the edge of the entire width be kept in a straight line. One practical difficulty in accomplishing this result by the mechanism which was in use prior to the complainant's invention, arose from the fact that the cloth, having been beaten up by the reed, and taken up by the rollers, slipped out of them again when the lay was receding, because, in consequence of the fullness of a part of the cloth, the tension of the take-up upon the fabric was irregular, and the take-up mechanism "drew" unevenly. The complainant's improvement consisted, in the language of his specification, of a "sectional take-up, composed of two rolls, continuously rotating at a suitable distance apart, and a series of sectional rollers mounted and operated so as to be pressed, wedgewise, between the two first-named rolls, when the take-up is to act; also, in a series of needles, or points, arranged upon a stationary bar, in such relation to the take-up rollers that the fabric is continually carried across said needles, to be received by their points, and to be arrested when a reverse motion of any part of the fabric is commenced; further, in the combination of a series of needles with a take-up composed of rollers or wheels D, arranged to take up, at intervals, on parts of the work, and to liberate other parts, so that, as the fabric, or any part thereof, is carried in by the take-up, it is withdrawn "from the needles, but the needles prevent the fabric, or any part thereof, from moving back." The mechanism is clearly described in the specification, as follows: "B and O are rollers, continuously but slowly rotated by gearing, as indicated. The woven fabric, represented by m, is led under each of these, and between them and short rollers or wheels, which are peculiarly mounted below. The cloth is taken up or drawn forward by being pinched between the wheels D and the rollers B, O, and the former are pressed up, so as to take hold of the cloth firmly, or are let down so as to liberate it, according as the work requires. When all the wheels D are pressed up, the woven fabric is taken up uniformly over its whole breadth when the rollers D, on one side of the cloth, are pressed up, and the rollers D, on the other side, are allowed to remain depressed, the cloth will be taken up only on the side where the cloth is pinched. * * * K is a cross-bar, immediately behind the roller C, and provided with a series of needles k, in its lower edge, which catch in the goods, and prevent its being drawn back under any circumstances when the take-up mechanism releases it." The claims of the patent are as follows: "(1) The two rollers, B and C, continuously rotating at a suitable distance apart, and the series of sectional rollers or wheels D, mounted and operated so as to be pressed wedgewise between them when the take-up is to act, all substantially as and for the purpose herein set forth; (2) the needles or points k, k, fixed on a stationary bar IC, and arranged, as specified, so that the fabric, being

drawn by the take-up proper, is continuously carried across the needles, to be received by their points, and to be-arrested when a reverse movement of any part of said fabric is commenced, substantially as herein set forth; (3) a series of needles, k, k, in combination with a take-up composed of rollers or wheels, D, arranged to take up at intervals on parts of the work, and to liberate other parts, substantially as-and for the purpose herein specified.” The fourth claim has no relation to the present suit.

The defendants’ mechanism is also a take-up mechanism which is adapted to irregular fabrics, but is not “sectional” in its character. A sectional take-up is one which, takes up the cloth “only on some parts of the fabric, while the rest remains unmoved; that is, the rolls which are used to take up the cloth are divided in sections, and can be used independently of each other.” The defendants’ take-up consists of an endless sheet or sheets of rubber pressing the fabric against a roller. The pressure is regulated, by set screws. All parts of the roller at all times bear with equal pressure against the-whole width of the fabric. The effect of the take-up is sectional, but that effect is due-not to the sectional action of the take-up, but to the action of the lay. The needle-bar of the defendants, in its construction and mode of operation, and in the effect which it produces, is substantially like the complainant’s needle-bar. It has the same position in the loom with relation to the take-up, and is designed to accomplish, and does, accomplish, the same result.

From this description of the two machines, it is obvious that the defendants’ mechanism does not infringe the first or third claims of this patent. The defendants’ take-up is materially unlike the corresponding part of the plaintiff’s machine, and their needle-bar is not in combination with the sectional rollers or wheels which are described in the plaintiff’s patent.

The material question in this case is, whether the defendants’ needle-bar is an infringement of the second claim, and the answer to this question depends upon the construction which shall be given to that claim. If the “take-up proper” is the patented take-up, then the second claim is not infringed. On the other hand, if the claim

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is to be construed as a claim for a combination of the needle-bar with any mechanism for taking up woven fabrics, whether regular or irregular, then, if the claim is not void for uncertainty and vagueness, it is void for want of novelty; for, as will be remarked more particularly hereafter, needle-bars in combination with take-ups upon looms for weaving regular fabrics have long been known. It will be observed, that, while the patentee describes his take-up as sectional in its character, and claims that the particular device which he has invented is a patentable improvement, yet, it is manifest that he did not intend to limit his second claim to a combination of his needle-bar with his improved take-up, or with a sectional take-up. After describing the needle-bar, he states that "the working part of the loom, as well as the take-up, may be of any approved character," and, also, "for the purpose of operating the take-up, if a sectional take-up is used, I prefer the mechanism represented." These portions of the specification forbid a construction which should confide the patentee to a combination of the needle-bar with his own take-up. Such a construction would make the second and third claims identical, and would prevent the patentee from reaping the benefit of a part of the invention which he actually made, for his invention originally consisted of a needle-bar in combination with the take-up which was in use at the time of his experiments.

The claim should also be considered in connection with the subject-matter of the invention. The improvement did not consist in a take-up upon every kind of looms, but in mechanism which was especially adapted to the weaving of irregular fabrics. To that kind of weaving and to such improvements therein that irregular fabrics might be woven mechanically, it is evident that the attention of the inventor was exclusively directed. I am, therefore, of opinion, that the take-up which is mentioned in the second claim does not mean every kind of take-up, or the take-up in every kind of looms, but refers only to take-ups which are designed or adapted to the weaving of irregular fabrics.

The remaining question is, whether or not the second claim of the patent, as thus considered, covers what was well known at the time of the invention by the patentee. A needle-bar is an old device, and has long been used upon hand corset looms. When so used, the needles hold the woven cloth, which is lifted by the weaver as the cloth is woven, is straightened by hand, and replaced upon the needles. This simple device is merely to hold the cloth firmly in its place while the new cloth is being woven, and does not anticipate a needle-bar working automatically, in connection with an automatic take-up. The device which is described in the patent of August 2d, 1853, to Joseph A. Scofield, and which is called "a spur jaw temple." is, in fact, a stationary needle-bar for holding the ends of regularly woven cloth, so as to present an even width to the lay. The pins or needles were so inclined "as to allow the cloth to be drawn over the tops of said pins as the lay beats up, and, from their inclination, preventing the cloth from receding during the backward movement of the lay." The unpatented devices which are described by the

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witnesses James Leggett, William H. Lord and A. J. Crossley were stationary needle-bars made of card clothing, or of brass pins, and were designed to hold the edge of the cloth even throughout its whole width, and to prevent the cloth from receding towards the lay, and from contracting in width. These devices were used in regular weaving only. No irregular weaving was ever attempted to be done by their aid, and it is not shown that, if the attempt had been made, it would probably have been successful.

A needle-bar in combination with a take-up, upon a loom for the weaving of irregular fabrics, performs the same general office which a needle-bar performs in a loom for regular weaving, that is, the fabric is received and arrested by the needle-bar when a reverse movement of the fabric has commenced; but, in the weaving of irregular fabrics, a difficulty is to be overcome in addition to the one which is experienced in regular weaving, and which additional difficulty requires that the needle-bar should be placed in a certain relation or position with reference to the take-up. If the take-up mechanism is not near to the place where the weaving is performed, the cloth being more full in some parts of the fabric than in others, and the take-up not having a firm hold upon the cloth, "the cloth wrinkles and doubles itself towards the centre," and is taken up irregularly. This difficulty is not experienced to the same extent in the weaving of regular fabrics, which are of the same width throughout, and upon which there is an even tension of the take-up throughout the entire width of the cloth. In order to obviate this fault, the take-up must be placed as close as possible to the needle-bar, which must also be placed as near as may be to the fell of the cloth. The complainant's needle-bar is placed in this relation to the cloth and to the take-up, and, by means of such position, it is enabled to accomplish a result which had previously been unattained in corset weaving, viz., the arresting of the fabric when it is released from the tension of the take-up, and so holding the cloth that it is prevented from doubling up in the centre, and, by this result, the mechanical weaving of irregular fabrics is now successfully practiced. The combination which produces this new and useful result is not simply a combination of the old needle-bar and the take-up, but the position of the needle-bar and its relation to the take-up and

to the edge of the cloth has been so changed, that a new combination of devices has been, in fact, created, and the new combination has accomplished a new and useful result, which was "not attained by the action of the old devices," as they were arranged with relation to each other prior to the date of the plaintiff's invention. *Hailes v. Van Wormer* [Case No. 5,904]; *Marsh v. Dodge & Stevenson Manuf'g Co.* [Id. 9,115].

It is said that this change of position of the needle-bar required no inventive skill, but could have been made by any person conversant with loom mechanism. It is noticeable, that, while the complainant's patent and the patent to James Lyall for the devices which the defendants are using, both attribute importance to the position of the take-up mechanism with reference to the place where the weaving is done, the latter patent stating that "it is important that the point of tension from the take-up device should be as near to the reeds, at the extreme movement, as possible," yet, prior to the plaintiff's invention, corset weaving was not successfully practiced upon the looms which were then in use, and favorable results were only obtained after the complainant's needle-bar was applied to the existing looms. [See, also, *Knox v. Murtha* Case No. 7,911].² In view of the previous state of the art, it can hardly be doubted that the retaining device has materially assisted in overcoming the obstacles which interfered with the success of irregular weaving, and that the accomplishment of this result is due to the labor and skill of the complainant.

It is strongly contended by the defendants that the complainant's needle-bar is antedated by the needle-bar which is described in the French patent, dated October 2d, 1846, to Messrs. Bender, Baudier and Madame Gobert. The devices mentioned in the patent, and exhibited in the drawings, are somewhat complicated, but the needle-bar, which, in one part of the specification, is styled a rotary bar, seems to have been either a rotary bar, or a fixed bar attached to a movable traction box or traction slide, and not, in any proper sense of the word, a stationary bar. It did not, therefore, anticipate the bar of the complainant's patent.

As the patent of William P. Brown and his knowledge and use of the plaintiff's invention were not set up or referred to in the answer, the testimony in regard to the Brown take-up was not considered.

Let there be a decree for an injunction against the use of the needle-bar, and for an account with costs.

[NOTE. For proceedings to punish an officer of defendant for violation of the injunction granted in accordance with the decree herein, see next following case, No. 2,468.]

¹ [Reported by Hon. Samuel Blatchford, District Judge, and here reprinted by permission. Merw. Pat. Inv. 217, contains only a partial report.]

² [From Merw. Pat. Inv. 217.]