FLORSHEIM AND ANOTHER *V.* SCHILLING.[1]

Circuit Court, N. D. Illinois. January 11, 1886.

1. PATENTS FOR INVENTIONS—CORSETS.

Letters patent No. 238,100 corsets, and No. 238,101, elastic gore or gusset for wearing apparel, granted February 22, 1881, to Simon Florsheim, as inventor, and Thomas H. Ball, as assignee, are void for want of patentable novelty over the English patent to John Mills, of March 14, 1815; the English patent to Miller, of December 31, 1866; and the American patent to Mary J. C. Van Norstrand, of February 1, 1876.

2. SAME—MECHANICAL SKILL.

Patent No. 238,100 claimed a corset having elastic side sections comprising two layers of cloth, stitched together transversely so as to form tubes, wherein were inserted, in groups, spiral metal springs, formed of one continuous spring, and such sections having plain margins or edges for uniting the elastic sections to the non-elastic sections of the corset. The prior patents, 257 taken together, disclosed this construction, except that they did not show an elastic section composed of groups of spiral metal springs. *Held,* that no invention, but only mechanical skill, was required to group such springs.

3. SAME—CHANGE OF MATERIAL.

The substitution of one material (metal for India-rubber springs) is not a patentable difference, even where a superior article is produced by such substitution.

4. SAME—COMPLETE DEVICE NOT SHOWN IN SINGLE PRIOR PATENT.

Although the complete devices described in these patents may not be found in any one of the prior patents, yet enough is shown in the Miller (1866) patent to invalidate them.

In Equity.

Coburn & Thacher, for complainants.

Wm. Zimmerman, West & Bond and *J. C. Chumasero,* for defendants.

BLODGETT, J. The complainants, by this bill, seek an injunction and accounting for the alleged infringement by defendant of patent No. 238,100,

granted by the United States to Simon Florsheim and Thomas H. Ball, February 22, 1881, for a "corset;" and letters patent No. 238,101, granted to the same parties, on the same date, for an "elastic gore or gusset for wearing apparel;" the invention in both patents appearing to have been made by the complainant Florsheim, and the patent issued to himself and Ball.

No. 238,100 is for a corset constructed with an elastic section extending from the top to the bottom, the mode of construction and advantages of which are explained in the specifications as follows:

"The corset is composed of two separable parts, A, B, which are secured together at the front, as usual, by studs and loops, and at the back have eyelets for receiving lacings. The central sections, C, D, at the sides of the corset, which extend from under the arms down over the hips, instead of being made as usual, are constructed of two layers or thicknesses of cloth, or other material, which thicknesses are sewed or woven together, a portion of their width to form horizontal tubes, which receive and cover small, closely-coiled, spiral springs of metal. The pieces of cloth from which the sections, C, D, are formed, are considerably wider than such sections when completed, so that when puckered latterly they will be of the desired width. The tubes are located in the center of the sections, and do not extend to the edges of the same, so that margins will be left at the ends of the tubes, which margins are lapped with the adjoining sections of the corset, and stitched thereto. The springs are arranged in groups, as shown, with puckered spaces of cloth between such groups. The number of springs composing the groups will vary, according to location, so as to give the requisite stiffness and elasticity. Thus, at the top and bottom of the elastic side sections, the groups of springs should not be made so stiff as at the waist of the corset. The springs are passed through the tubes, which are puckered over the springs to the desired

extent. The springs terminate at the ends of the tubes, and are secured to the thicknesses so as to leave clear margins of unpuckered cloth outside of such springs. This is a great advantage, since it enables the elastic sections to be stitched into the corset on a sewing-machine, which cannot be well done when the ends of the spring are secured by the same stitching, since the needle strikes the coils of the spring, and either cuts the spring or breaks the needle. Herein, also, is one of the peculiar advantages over rubber cloth. Rubber cloth, when stitched into a corset, always has more or less of the rubber 258 cords cut off by the needle, and it is thus greatly weakened, while in my corset the elasticity of the sections cannot be affected by the stitching.

"The cheapest manner of arranging and securing the groups of springs, to secure the above advantages, is by making all the groups of each section from a single, continuous length of metal spiral spring. The spring is secured at its upper end by stitches, passed through the thickness at the end of the upper tube, and inclosing one or more coils of the spring. The spring is then passed back and forth through the tubes, which are puckered at the same time. After forming one group, the spring extends down between the thicknesses to the next group, and so on, till the lowest group (or the uppermost group, as the case may be) is finished, when the spring may be cut off, if there is more than required, and will be secured by stitches passed through the thicknesses. The elastic section can then be placed in the corset; the plain margins being lapped with edges of the adjoining sections, and secured by lines of machine stitching. By having the elastic sections in the sides of the corset, the corset can adapt itself to different forms without the use of other elastic sections or gores, and such elastic side sections, by extending the entire length of the corset, from under the arms down over the hips, allow the

front and back of the corset to expand and contract from these central side points, independently of each other, and more easily and freely than when a back elastic section is used."

This patent has three claims, which are as follows:

"(1) In a corset, an elastic section composed of two thicknesses of cloth or other material, *a b,* having tubes, c, in combination with the spiral metal springs, E, inclosed by such tubes, and arranged in groups to regulate the elasticity of the section; such groups being all composed of a single continuous spring passed back and forth through the tubes, and secured at its ends, substantially as described and shown. (2) An elastic section or gore, composed of material having tubes extending only part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups in such tubes, the springs of the several tubes being made continuous, substantially as described. (3) A corset, laced at the back, and having the elastic side sections C, D, extending from under the arms down over the hips, each of such sections being composed of material having puckered tubes extending part way across the same, and plain margins outside of said tubes, and spiral metal springs arranged in groups in such tubes, and made continuous, substantially as described and shown."

Patent No. 238,101 is for an elastic gusset or gore for wearing apparel, and describes a gore or gusset made by forming tubes in the central portion of two strips of cloth or leather, laid together by stitches, or by weaving such tubes into the cloth fabric, into which tubes spiral metal springs are run, so as to draw or pucker the central portion of the cloth or leather, thereby making the central portion of the cloth elastic to the extent of the elasticity of the spring, leaving a non-elastic end, edge, or margin, by which the gore or gusset can be fastened into the garment where it is to be used. This patent has four claims,

all covering a gore, gusset, or section for wearing apparel, constructed, as described, of metal springs inclosed in a covering material, and puckered over such springs; the springs not extending to the edges of such covering, and being stayed at their ends in the tubes.[259] The defenses are: (1) That there is no patentable novelty in either of these inventions; (2) that the defendant, Gustav Schilling, was the first inventor of the device in question, instead of the complainant Florsheim.

The English patent of John Mills, of March 14, 1815, shows elastic sections or gores in corsets made of cloth, with tubes stitched into the same, into which are inserted metal spiral springs so as to pucker the cloth over the springs, and give the sections the required elasticity. The patentee in his specification says:

"Fig. 1 is a representation of a stay composed of the same material as common stays, with the introduction of an elastic or expansive portion or slit down the middle, which will dilate or expand by a more than ordinary force or pressure being exerted, as in the case of breathing or exercise of the arms. This flexible portion is composed of springs either of brass, copper, or iron wire, or of any other matter or thing capable of producing sufficient elasticity; but this which I recommend is small brass wire worm-springs, which extend by a small degree of force. These I place close together, in runners or spaces stitched in between two pieces or layers of silks, satin, or other fit material, puckered or quilted loosely, to give room for expansion; the ends of the springs, and their covering of silk, satin, or other matter on them sewed or otherwise fastened to and between the two half pieces of the stay previously made of the usual material."

Here we have an elastic section for a corset, the elasticity being secured by spiral springs transversely set into the material of which the section is made, and

this section extending from the top to the bottom of the corset, either at the back or front or both.

In the American patent granted February 1, 1876, to Mary J. C. Van Nostrand, a corset is shown with elastic sections at the sides, extending from under the arms to the hips or bottom of the corsets, this section being made of elastic webbings, the elastic material being presumably India rubber. The elastic sections of this corset are located in the same place, and perform the same function, as those shown in the complainant's corset.

In the English patent to Miller, of December 31, 1866, elastic gussets suitable for use on boots, stays, and for other purposes are described, where the elastic material used is India-rubber strips run continuously back and forth in tubes formed in the cloth. The patentees say:

"According to our invention, we secure the vulcanized India-rubber springs between two pieces of woven fabric, leather, or other material by stitching with the sewing-machines,—the stitches running in parallel lines, and passing through the two pieces of fabric or material, between the India-rubber springs,—and the springs, in place of being each a separate piece, are in one piece. The length of vulcanized India-rubber cord at the end of each traverse across the gusset being turned around, and caused to return parallel to itself, thus the liability of the India rubber to slip and work out of the gusset is much reduced. *When gussets made in this manner are worked into boots or other articles, the stitches by which they are secured are passed through a margin on each side of the gusset, and not through the India-rubber part of the gusset, as heretofore.* * * * We first cut the material, leather, silk, cotton, 260 or any other woven fabric, and the lining, to the size required of the gusset when it is finished, *and for leaving the required margin.* We then turn over

the top edge, and baste or tack it down to the lining. We then commence to stitch, with a sewing-machine, a series of rows in parallel lines transversely across the gusset; the stitching passing through the two materials, commencing at the top, and so on from row to row, until the whole of the gusset is stitched. The distance between the rows of stitching will depend on the thickness of the India-rubber thread to be inserted."

They then describe the manner in which they pucker the cloth and a machine for doing puckering, and proceed:

"We then insert with the bodkin or needle the thread or strand of India rubber, which is in one length. We commence at the top cavity to insert the India-rubber thread or cord, and follow back in the next row or cavity, causing it to return parallel to itself, and so on, the same from row to row, until the whole of the cavities are filled with India rubber. *We then pull back the margin, that is left as large as required, and tack it down with an ordinary needle, and the gusset is ready for use."*

There can be no doubt that there is described in this patent a gusset with non-elastic margins, edges, or ends, and the only conceivable difference between this device and the elastic sections in the complainants' corset patent is that an India-rubber spring is used instead of a metal spiral spring, and the springs in this English patent are not grouped. This patent seems to fully instruct any person how to make a section like the section shown in the complainants' corset patent with India-rubber springs. It does not seem to me that there is any patentable difference between the gussets described in the English patent of Miller and the sections in the complainants' corset patent. The substitution of one material for another is not a patentable difference, even where a superior article is produced by such substitution. *Hotchkiss* v.

Greenwood, 11 How. 248; *Hicks* v. *Kelsey*, 18 Wall. 670; *Terhune* v. *Phillips*, 99 U. S. 593.

In the corset patent the patentee gives his reasons for grouping the springs. He says:

"The springs are arranged in groups as shown. The number of springs composing the group will vary according to location, so as to give the requisite stiffness and elasticity. Thus at the top and bottom of the elastic side sections the groups of springs should not be made so stiff as at the waist. It is essential, also, that these springs be arranged in groups, since, if placed contiguous throughout the elastic sections, the corset would be much too heavy and expensive, and such sections would be too stiff at some points, and not stiff enough at others."

Here is a mere mechanical reason for grouping these springs, clearly applicable to the change of material and the use to which the gusset or section is applied. Were a good mechanic to attempt to apply the Miller gusset or gore to a corset, in the manner shown in the complainants' corset patent, where an unequal degree of elasticity is required at different points, there can be no doubt that he would 261 provide for that inequality of elasticity by placing his rubber springs closer together or further apart, which would not require inventive ability, but mere mechanical skill or adaptation. With the art of corset-making so far developed in the direction of complainants' device, as is shown by the elastic sections of Mills and Van Nostrand, and with the Miller section showing continuous springs and non-elastic margins, it would seem that all complainant did in his corset patent was fully anticipated in the older art. The substitution of wire for rubber makes the Miller gusset in all respects an elastic section, such as is shown in complainants' corset, except, that the springs are not grouped, and this is not a patentable difference, as the only

advantage of the grouping is to make the section less rigid at some points than at others.

As to complainants' gusset or gore patent, it seems to me that all the elements of this patent are found in the English patent, (the Miller,) just considered. The only difference is the material of the springs, and that, I have already said in the discussion of the first patent, is not a patentable difference. Miller's patent shows a gusset with tubes, into which the springs are inserted, and upon which the cloth or gusset material is puckered, and margins for attaching the gusset to the garment where it is to be used or applied. The old Mills patent of 1815 showed a gusset with metal springs inserted in tubes, and the cloth puckered over those tubes, so as to provide for the expansion. But the patent did not expressly provide for a plain or a non-elastic margin, and all that Miller did in 1866, over Mills in 1815, was to put a non-elastic margin upon the Mills gusset; and all that Florsheim did was to substitute metal springs in place of the rubber springs shown in the Miller patent. This cannot amount to invention in the then state of the art. Coiled wire springs for a gusset or gore were old, and gussets with non-elastic margins were old, and well known long before Florsheim applied for his patent; and the proof shows that he examined the Miller patent before he applied for the patent now under consideration, so that he must have known that the field was already covered before his device was produced.

It is urged on the part of the complainant that the complete device as described in each of these patents is not found in any one of the older devices; but, as I have already said, I find enough in the Miller patent alone to meet and anticipate both these patents. When Miller had shown how to make an elastic gusset or section for wearing apparel with non-elastic margins, there was no invention in applying such a gusset or section to a corset, when corsets had already

been made with elastic sections, although these older sections did not have non-elastic margins, as it did not require invention to put Miller's elastic sections into Mills' or Van Nostrand's stays.

There is a large mass of testimony in the case bearing upon the questions involved in the second point of the defense; but, under the 262 view I take of the question of novelty, it is unnecessary for me to consider this testimony.

A decree may be prepared finding the complainants' patent void for want of novelty, and dismissing the bill for want of equity.

[1] Reported by Charles C. Linthicum, Esq., of the Chicago bar.