

CAMPBELL AND ANOTHER V. KAVANAUGH.

Circuit Court, N. D. New York. January 23, 1882.

PATENTS—IMPROVEMENT IN
KNITTING—MACHINES.

Where a portion of the structure was useless, and not sold to be used, and was not used in any infringing structure, the patent is not infringed in making and selling it. An article is not an infringement unless it is to be used in the manner pointed out in the patent.

E. S. Jenney, for plaintiffs.

E. Caren, for defendant.

BLATCHFORD, C. J. This suit is brought on reissued letters patent No. 8,391, granted to the plaintiffs, September 3, 1878, for an “improvement in burrs for knitting-machines;” the original patent, No. 43,636, having been granted to W. H. Carr and M. P. Akin, July 26, 1864, for an “improvement in knitting-machine burrs,” on the invention of said Carr. The specification of the reissue is not signed by Carr, but is signed by Campbell and Clute. It is as follows, including what is inside of brackets and what is outside of brackets, omitting what is in italics:

“Figure 1 is an end view [.] Figure 2 [is] a side view, with part of the blades removed [.] *and* figure 3 [is] a section [as indicated by] *at or about* the [lines] *line z, z*, in figure 1[.] *of a knitting-machine burr embodying my invention; and* figure 4 is a side view of one of the [wings or] blades [.] *and* figures 5 and 6 [are] perspective views of the two parts of the slotted hub which holds the blades, and figure 7 [is] a side view of the [screw bush] *part* by which the two parts of the slotted hub are secured together [.] *with at burr; like* Like [letters of reference indicate like] parts [in the several] *being marked by the same letters in all the figures.* [figures of the drawings.] *Before this invention burrs for knitting-machines had been made*

*with removable wings or blades, clamped in a slotted hub in such manner that the blades, when broken or worn out, could be readily removed and replaced by new ones, upon simply loosening or removing the devices by which the blades were clamped in the slotted hub, examples of such knitting burrs being shown in the specifications and drawings of English patent No. 10,724, granted in the year 1845, and United States letters patent No. 35,565, dated June 10, 1862. But, in such knitting burrs, the removable blades were secured in a slotted hub by rings or disks clamped against the lateral edges of the blades, outside of the slotted part of the hub, at its ends; so that part of the body of the burr which held the blades had a considerably greater thickness than the slotted part of the hub in which the blades were inserted, which greater thickness rendered the burr much more bulky and far less convenient to use in some kinds of knitting-machines than the common knitting burr having blades of like width soldered fast in a simple slotted hub. [This invention consists in the peculiar construction 84 of the removable wings or blades of knitting-machine burrs, and also in the combination of such wings or blades with the hub and bush, whereby a more complete and efficient knitting-machine burr is produced than heretofore, and in which the necessity for clamping the removable blades at their extreme ends, as has heretofore been done, is avoided. * **

**) Now one part of my invention consists in making the inner ends of removable wings or blades, A, of knitting-machine burrs, each with a dovetail or flaring projection, b, figure 4, and two shoulders, c, c, one on each side of the said flaring projection, in such manner that blades thus formed can be firmly secured in a hollow slotted hub of suitable construction by means of devices located within or inside of the hub, instead of at the outer ends or on the outside thereof. Another part of my invention consists in making a slotted [the]*

hub [is constructed] *for a knitting-machine burr* of two separate rings, D, D', [see figures 5 and 6, which are provided with central holes to receive the screw bush] *having equal series of slots, e, e, in and around them, and held together and to end by a central screw bolt, F, or its equivalent, and [with oblique slots, e, e, figures 5 and 6, and have] having the unslotted inside parts of their inner ends, g, g, made hollowing or inclined outward towards each other. [substantially as shown in figures 3, 5, and 6,] so as to form thereby an outwardly narrowed annular space, h, [see] figure 3, between the two hub rings [.] in such manner that a series of separate knitting burr blades of suitable size and shape can be fully inserted and firmly clamped within and by the said united hub rings themselves, without the aid of any other device or devices.* [The hubring, D', is provided with a screw thread, substantially as shown in figure 5. The central screw bush, F, or its equivalent, is constructed, substantially, as shown in figures 3 and 7, of a diameter to fit the central hole in ring D, and is provided with a central hole, (see figure 3,) to receive the arbor or stud upon which the burr revolves. This is provided upon one end with a collar of somewhat longer diameter than the central hole in ring D, (see figures 3 and 7,) and upon the other end with a screw thread which fits and screws into the screw into the central hole of ring D'. The blade or wing, A, (see figure 4,) is constructed from sheet metal of proper thickness in the ordinary way, and is provided with and has attached to its inner edge the dovetail or flaring projection, b, wider at its inner extreme end than at the point where it is joined to the blade or wing. The ring, D, is placed upon the screw bush, F, close to the collar, (see figure 3,) and the ring, D', is screwed upon the screw of the bush, F, a proper distance. The rings were adjusted so that the slots, e, e, exactly correspond with each other when on the bush, F. A series of wings or blades,

A, are placed in proper position successively in the slots, *e, e*, with the dovetails or flaring projections, *b*, extending into the outwardly narrowed annular recess, *h*, formed by and between the ends, *g, g*, of the hub rings, *D, D'*, (see figures 3, 5, and 6,) and the screw bush, *F*, is then firmly screwed into the ring, *D'*. This action of the screw closes together endwise the two hub rings, *D, D'*. *And another part of my invention consists in the arrangement of a series of knitting-burr blades, A, each having on its inner end a dovetail or flaring projection, b, and shoulders, c, c, on both sides thereof, in combination with a knitting-burr hub composed of two rings, D, D', having equal series of slots, e, e, in and around them, and held together end to end by a central screw bolt, F, or its equivalent,*

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with the inside unslotted part, g, g, of their inner ends inclined outward towards each other in such manner [as to cause their] that the said inclined inner ends, g, g, [to] of the hub rings clamp against the inclined edges, i, i, of the flaring projections, [or dovetails on,] b, of the blades [or wings] and [thus] thereby draw and hold [them into place] the blades into and with their [edges] shoulders, c, c, [tightly pressed,] tight against the bottoms of the [oblique] slots, e, e, in the hub rings [.] and thus produce [from this it will be seen that] a cheap and durable knitting burr [is produced] from which any or all of its blades can be readily removed and replaced by others, [by] upon simply [unscrewing the screw bush, F, thereby,] loosening the hub rings [and] in which the blades are clamped [.] in a slotted hub, not only by means of devices located inside of the hub, but by means of the inner ends of the two united hub rings that constitute the slotted hub itself. [This] And such a knitting burr is thinner and lighter and generally more readily applied to knitting machines of close and compact construction than a knitting burr having

projected blades of like width clamped in a slotted hub by means of devices applied to the [ends] *edges* of the blades *at the outer ends or* on the outside of the slotted hub.”

Reading in the foregoing what is outside of brackets, including what is in italics, and omitting what is inside of brackets, gives the text of the original specification.

The claims of the reissue are as follows:

“(1) A knitting-burr blade, *A*, having on its inner edge a dovetail or flaring projection, *b*, and shoulders *c, c*, substantially as herein described. (2) A series of knitting-burr blades or wings, having a dovetail or flaring projection on the inner edge of each, in combination with a hub having oblique slots and an outwardly narrowed annular space, wherein the dovetails or flaring projections of the blades are secured. (3) The combination of a series of wings or blades having a dovetail or flaring projection on the inner edge of each, a hub having oblique slots and an outwardly narrowed annular space, and a central hollow screw bush or its equivalent, all operating together, as described, so as to clamp within the outwardly narrowed annular space the edges of the dovetails or flaring projections, substantially as described.”

The claims of the original patent were as follows:

“(1) A knitting-burr blade, *A*, having on its inner end a dovetail or flaring projection, *b*, and lateral shoulders, *c, c*, substantially as herein described. (2) A knitting-burr hub composed of two rings, *D, D'*, slotted and secured together, end to end, and having an outwardly narrowed annular space, *h*, formed by and between the inner ends of the said united hub rings, substantially as herein described. (3) The combination of a series of wings or blades, *A*, each having a dovetail or flaring projection, *b*, and shoulders, *c, c*, on its inner end, with a hub composed

of two rings, D, D', slotted and clamped together, end to end, and having an outwardly narrowed annular recess, *h*, formed by and between the inner ends of the said united hub rings, substantially as herein described."

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It cannot fail of observation that the hub composed of two slotted rings, secured together with an outwardly narrowed annular space between the inner ends of the rings, is not claimed in the reissue either by itself or in combination with the wings. Such a hub is claimed in claim 2 of the original. Such a hub, in combination with the wings, is claimed in claim 3 of the original. Such a hub is made a prominent feature of invention in the original, so that the wings may be clamped between and by the wings without other device. In claims 2 and 3 of the reissue, the effort seems to be to reduce the hub to a hub not necessarily of two slotted rings, and to a hub having an outwardly narrowed annular space somewhere, but not between the two slotted rings. It is clear, from the description and drawings of the except a hollow low interior annular space in a hub formed of two slotted rings. The description in the reissue speaks only of "an outwardly narrowed annular space, *h*, between the two hub rings, which are both of them slotted rings. Therefore, the hub, in claims 2 and 3 of the reissue, must be construed to be only a hub formed of two slotted rings, and the "outwardly narrowed annular space" in those claims must be construed to be only such a space when it is a hollow space between two slotted hub rings.

The original specification points out that the old way of securing removable rings in a slotted hub was to press disks against their edges outside of the end of the slotted part, and that Carr's idea was to put the pressing device, and, of course, the part to be pressed, inside of the hub. He did this by a hollow hub, made

of two separable rings, having an outwardly narrowed annular space between them, and put into this space a correspondingly shaped dovetail attached to the ring in the slot, and made the rings press against the inclined edges of the dovetail, and so hold it tightly against the bottom of the slot. Under the above construction the defendant does not infringe claims 2 and 3 of the reissue.

In the defendant's burr No. 7 the hub is in one piece, and not in two. There is no hollow space between two rings. The wings No. 6 have a projection downward at one end, which projection is bevelled on its inner edge. That edge comes against a shoulder on one face of the hub, and a disk outside next that face presses against the edges of the wings. This disk is no part of the hub. It is not slotted. It is pressed up by a screw bolt and holds the wings in 87 place. It does so in substantially the same manner referred to as old in the original specification.

The wings No. 6 are no infringement of claim 1. They have but one shoulder, and could not be used in the Carr burr.

The wings No. 5 made and sold by the defendant, though like Carr's wing, were not sold to be used in a burr made like Carr's. Carr's burr, it is shown, went out of use and was superseded by forms not covered by the patent. The burrs in which such wings were to be used were not covered by the patent, because they did not have a hub of two slotted wings. The wing *per se* is useless, and it was not sold to be used, nor was it used, in any infringing structure. Hence, the patent was not infringed by making or selling it. Claim 1 must be limited to a wing to be used in a hollow-slotted hub. Otherwise it is not a claim to any mechanism or to any patentable structure, but only to a piece of metal of a certain shape, incapable of use till incorporated in another structure. The article is not Carr's knittingburr

blade unless it is to be used in the manner pointed out
in the patent.

The bill must be dismissed, with costs.

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