

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 41

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BRIAN DAROVIC

Appeal No. 1994-4016
Application 07/793,824¹

ON BRIEF

Before JOHN D. SMITH, PAK, and WALTZ, Administrative Patent
Judges.

PAK, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final
rejection of claims 1 through 21, which are all of the claims
pending in the application. No amendments to the claims have
been entered subsequent to the final Office action. See Paper

¹Application for patent filed November 18, 1991.

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No. 38.

CLAIMED SUBJECT MATTER

The claimed subject matter is directed to a device for trimming excess material applied to a workpiece. Claims 1 and 21 are illustrative of the claimed subject matter and read as follows:

Claim 1. A device for trimming excess material applied to a workpiece, comprising:

horizontal planar surface for supporting a workpiece, said horizontal planar surface having front and back ends;

vertical support means supported by said horizontal planar surface, said vertical support means having a tracing assembly support means disposed thereon; and

means for cutting the excess material applied to a workpiece, said cutting means supported and guided by a tracing assembly means which traces a surface of the workpiece as the workpiece is moved from said front end toward said back end of said horizontal planar surface.

Claim 21. A device for trimming excess material applied to a workpiece, comprising:

horizontal planar surface, having front and back ends, said horizontal planar surface further having a tracing assembly cavity;

vertical support means in proximity and perpendicular to said horizontal planar surface, having disposed thereon a tracing assembly support

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means, said tracing assembly support means having disposed thereon a plate, a sliding support means movably connected to said plate, a cutter rotating means disposed on said plate, a cutting means connected to said cutter rotating means, the cutting means aligned with a tracing assembly means sized to fit within said tracing assembly cavity, said tracing assembly means having a means for tracing which traces a surface of the workpiece, a roller, and a means for adjusting the tracing means so that it is aligned with said cutting means.

PRIOR ART

The references of record relied upon by the examiner are:

Bottcher et al (Bottcher) 1975	3,863,543	Feb. 04,
Draper 1979	4,142,444	Mar. 06,
De Muynck 07, 1981	4,260,001	Apr.
Hosoi 1982	4,317,644	Mar. 02,
Wirth, Jr. (Wirth '735) 1986	4,593,735	Jun. 10,
Ford et al.(Ford) 1988	4,733,997	Mar. 29,
Wirth, Jr. (Wirth '292) 1990	4,909,292	Mar. 20,
Butler 1991	4,991,637	Feb. 12,

(filed Aug. 3, 1989)

REJECTIONS

The appealed claims stand rejected as follows:

(1) Claims 1 through 21 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly

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point out and distinctly claim the subject matter which applicant regards as the invention;

(2) Claims 1 through 3, 5, 6, 12, 13, 14, 17 and 20 under 35 U.S.C. § 103 as unpatentable over Hosoi and Bottcher;

(3) Claims 4, 7, 15 and 21 under 35 U.S.C. § 103 as unpatentable over Hosoi, Bottcher and Butler;

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- (4) Claims 8, 10, 11, 16, 18 and 19 under 35 U.S.C. § 103 as unpatentable over Hosoi, Bottcher, Butler and Wirth '292;
- (5) Claims 1 through 4 under 35 U.S.C. § 102(b) as anticipated by Ford;
- (6) Claims 5 through 12 under 35 U.S.C. § 103 as unpatentable over Ford in view of Hosoi and Wirth '292;
- (7) Claims 13 through 20 under 35 U.S.C. § 103 as unpatentable over either Ford or Draper, in view of Wirth '292, Hosoi and Wirth '735; and
- (8) Claim 21 under 35 U.S.C. § 103 as unpatentable over either Ford or Draper, in view of Wirth '292, Hosoi, Wirth and De Muynck.

OPINION

We reverse each of the foregoing rejections. Our reasons for this determination follow.

INDEFINITENESS

We will not sustain the examiner's rejection of claims 1 through 21 under 35 U.S.C. § 112, second paragraph, for the reasons expressed at pages 11 and 12 of the Brief.

PRIOR ART REJECTIONS

The initial inquiry into determining the propriety of the

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examiner's prior art rejections is to correctly construe the scope and meaning of the claimed subject matter. Gechter v. Davidson, 116 F.3d 1454, 1457, 43 USPQ2d 1030, 1032 (Fed. Cir. 1997). As a matter of law, we construe the scope of the claimed subject matter. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979, 34 USPQ2d 1321, 1329 (Fed. Cir. 1995)(en banc), aff'd, 517 U.S. 370 (1996). Generally, we give the broadest reasonable interpretation to the terms in the claims consistent with appellant's specification. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997). When the terms in the claims are written in a "means-plus-function" format, however, we interpret them as the corresponding structure described in the specification and the equivalents thereof consistent with 35 U.S.C. 112, paragraph 6. In re Donaldson Co., 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1848 (Fed. Cir. 1994)(en banc). The manner in which a "means-plus-function" element is expressed, either by a function followed by the term "means" or by the term "means for" followed by a function, is unimportant so long as the modifier of that term specifies a function to be performed. Ex parte Klumb, 159 USPQ 694, 695 (Bd. App. 1967).

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Nevertheless, the term "means" as used above is not considered as a means-plus-function element if the claimed "means" includes sufficient structural limitations to perform the recited function. See Al-Site Corp. v. Vsi Int'l, Inc., 174 F.3d 1308, 1319, 50 USPQ2d 1161, 1167 (Fed. Cir. 1999); Unidynamics Corp. v. Automatic Prods. Int'l., 157 F.3d 1311, 1319, 48 USPQ2d 1099, 1104-1105 (Fed. Cir. 1998).

Applying the above precedents to the present situation, we initially determine that "vertical support means," "a tracing assembly support means," "means for cutting the excess material applied to workpiece" and "a tracing assembly means" in claim 1 are means-plus-function elements within the meaning of 35 U.S.C. § 112, paragraph 6. Nowhere does claim 1 recite sufficient structural limitations for the above-mentioned "means". Similarly, we also determine that "a vertical support means," "a sliding support means," "a cutter rotating means," "cutting means," "means for tracing" and "a means for adjusting the tracing means" in claim 21 are means-plus-function elements within the meaning of 35 U.S.C. § 112, paragraph 6. However, we do not construe "a tracing assembly support means" in claim 21 as a means-plus-function element

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since sufficient structural limitations for the tracing assembly support means, i.e., a plate and a sliding support means (which is interpreted as the corresponding structure described in the specification and the equivalents thereof) movably connected to the plate, are recited. Nor do we construe "a tracing assembly means" in claim 21 as means-plus-function elements, since sufficient structural limitations for the tracing assembly means, i.e., means for tracing, a roller and a means for adjusting, are recited.

Having determined that certain "means" in claims 1 and 21 meet the requirements under 35 U.S.C. § 112, paragraph 6, we now look to the specification for the structure corresponding to such means to define the structure of the claimed device. We observe that the specification defines "vertical support means" as the vertical support structure (15) having a cavity illustrated in Figures 1 and 2. See page 8, lines 14-15. We observe that the specification defines "means for cutting the excess material applied to workpiece" or "cutting means" as the particularly designed rotary cutter structure (145, 305 or 445) illustrated in Figures 6, 16 and 17. See page 2, line 14, page 8, line 22, and page 15, lines 6 and 15. We observe

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that the specification defines "a tracing assembly support means" as follows (the paragraph bridging pages 7 and 8 together with Figures 1 and 2):

Figures 1 and 2 also show the complete tracing assembly 5 attached to plate 55, in turn attached to sliding support 60. The support consists of parallel bars 65 and 70 (not shown) (see also Figure 15) oriented at an angle. It may be desired, but not

limited thereto, to use a 45 degree angle to the plane defined by the horizontal table 20. The bars 65 and 70 are securely attached to bar supports 75 and 80, and bar supports 85 and another (not shown), which are securely attached to vertical support 15. The vertical support 15 is attached perpendicularly to the table base 35. The plate 55 is movably attached to the parallel bars 65 and 70 (not shown) by means of a bore through plate supports 95 and 100 and plate supports 105 and 110 so that the plate 55 and attached tracing assembly support 10 can slide freely along the length of the parallel bars 65 and 70 (not shown). The tracing assembly support 10 is then disposed on the vertical support 15 so that the tracing assembly support 10 is allowed by the force of gravity to rest at the bottom of the sliding support 60 at point 112. A portion of the complete tracing assembly 5 nests in tracer cavity - 50, so that the bottom of the complete tracing assembly 5 rests below the upper surface 115 of the horizontal table 20.

We observe that the specification defines "a tracing assembly means" as follows (page 9, lines 10-18, Figure 6, page 14, line 21 to page 15, line 7, Figure 16, and page 15, lines 16-22, Figure 19):

Figure 6 depicts the complete tracing assembly 5 in detail, having a tracer subassembly 150, a roller 155, rod 215, cavity 210, and a tracing adjustment assembly 160 having rods 230 and 235, having threads 240 and 245, and locknuts 250 and 255. The tracer subassembly 150, having upright member 185 and horizontal member 190, is supported by sidewalls 165 and 170, which are fastened at right angles to assembly support 175. The assembly support 175 is attached perpendicularly to plate 55. Protruding through plate 55 is cutter 145 on shaft 135 through

cavity 140.

. . . .

An alternative embodiment as shown in Figure 16, where the invention is substantially the same as the preferred embodiment, except that the tracing assembly consists of a cube 345 attached to assembly support 300, in turn connected to the plate 55, as shown in Figure 1. Disposed on either side of the cube 345 are movable links 350 and 355. Attached to the movable links 350 and 355 are rollers 360 and 365. Rods 310 and 320 having threads 330 and 335 extend through the assembly support 300 so that when the distance between the links 350 and 355 and the assembly support 300 is increased or decreased by turning rods 310 and 320, the rollers 360 and 365 are raised or lowered, adjusting the cutting depth of the cutter 305. Locknuts 340 lock rods 310 and 320 in place.

. . . .

In another alternate embodiment as shown in Figure 19, the invention is substantially the same as that shown in the preferred embodiment, except that the upright and horizontal members of the tracing assembly are replaced with upright cam 595 and horizontal cam 590. The cams 595 and 590, like the upright and horizontal members of the preferred embodiment are adjustable via adjusting rods 510 and 515.

We observe that the specification defines "a sliding support means" as follows (page 7, lines 20-25):

The [sliding] support consists of parallel bars 65 and 70 (not shown) (See also Figure 15) oriented at an angle. It may be desired, but not limited thereto, to use a 45 degree angle to the plane

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defined by the horizontal table 20. The bars 65 and 70 are securely attached to bar supports 75 and 80, and bar supports 85 and another (not shown), which are securely attached to vertical support 15.

We observe that the specification defines "a cutter rotating means" as follows (page 8, lines 12-21, and page 15, lines 8-15):

Also attached to plate 55 is a cutter rotation assembly 125, the cutter rotation assembly 125 protruding through a vertical support cavity 120 in the vertical support 15. The vertical support cavity 120 is sized to accommodate the cutter rotation assembly 125 through the complete movement of the sliding support 60 from the point where the plate 55 rests at the bottom point 112 of the parallel bars 65 and 70 (not shown) to the point where the plate 55 is moved to the top of the parallel bars 65 and 70 at top point 130. The cutter rotation assembly 125 has a shaft 135, extending through a hole 140 in the plate 55.

. . . .

Another alternate embodiment shown in Figure 17 is constructed substantially as the preferred embodiment, except that the cutter rotation assembly 425 is not attached to plate 55 (shown in Figure 1). Instead, as shown in Figure 17, bar 405 is attached to a stationary support (not shown) which allows tracing assembly 410 to move up and down through an arch which allows the cutter 445 to cut the front face of the workpiece and then the top surface of the workpiece as the workpiece is moved under the cutter 445.

We observe that the specification defines "means for tracing"

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as follows (page 9, lines 13-17 and 19-26, and page 10, line 1):

The tracer subassembly 150, having upright member 185 and horizontal member 190, is supported by sidewalls 165 and 170, which are fastened at right angles to assembly support 175. The assembly support 175 is attached perpendicularly to plate 55.

. . . .

In the preferred embodiment shown in Figure 7, the tracer subassembly 150 is a two piece apparatus consisting of an upright member 185 and a horizontal member 190, so that when fitted together, the pieces have a predominately L-shaped configuration. The surfaces on the outside of the L, 195 and 200 are rounded, while the inside surface 205 of the upper member 185 is beveled at an angle pointing towards the top of the L. The upright member 185 and horizontal member 190 have excess material removed from them to form a cavity 210 so as to accommodate a roller 155.

We observe that the specification defines "a means for adjusting the tracing means" as follows (page 10, lines 11-21):

The tracer subassembly 150 is secured into position with tracing adjustment assembly 160. The tracing adjustment assembly 160 consists of two extensible rods 230 and 235 extending through threaded bores in assembly support 175. The rods have threads 240 and 245 so that when rods 230 and 235 are turned, the distance between the end of the rods 260 and 265 and the assembly support 175 can be varied. The end 265 of rod 235 is positioned so that it makes contact with the beveled portion 205

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of the upright member 185, whereas the end 260 of rod 230 is positioned to make contact with the top surface 270 of the horizontal member 190. Locknuts 250 and 255 lock rods 230 and 235 in place.

Consistent with our observation, we interpret the claimed means-plus-function elements as the corresponding structures specifically described above and their equivalents. A structure is an "equivalent" if it differs from the above described structure by an insubstantial change which adds nothing of significance. Valmont Indus., Inc. v. Reinke Mfg. Co., 983 F.2d 1039, 1042, 25 USPQ2d 1451, 1454 (Fed. Cir. 1993).

With the above interpretation in mind, we now turn to the prior art rejections. Our review of the prior art references relied upon by the examiner indicates that none of them, either individually or in combination, teaches or would have suggested the claimed subject matter. The examiner simply has not taken into consideration the importance of interpreting means-plus-function elements in the claims as the corresponding structure in the specification and the equivalents thereof. Donaldson, 16 F.3d at 1197, 29 USPQ2d at 1850. Accordingly, we determine that none of the

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examiner's prior art rejections can be sustained.

CONCLUSION

In view of the foregoing, the decision of the examiner is reversed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

REVERSED

JOHN D. SMITH)	
Administrative Patent Judge)	
)	
)	
)	BOARD OF PATENT
CHUNG K. PAK)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
)	
)	
THOMAS A. WALTZ)	
Administrative Patent Judge)	

CKP:svt

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TIMOTHY T. PATULA
PATULA & ASSOCIATES
116 South Michigan Avenue
Chicago, IL 60603