

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

Paper No. 35

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FREDERICK MORELLO

Appeal No. 2001-2689
Application No. 09/215,021

HEARD: JANUARY 10, 2002

Before FRANKFORT, STAAB, and NASE, *Administrative Patent Judges*.
STAAB, *Administrative Patent Judge*.

DECISION ON APPEAL

Frederick Morello appeals from the examiner's refusal to allow claims 12-21 and 28 as amended by an amendment¹ filed subsequent to the final rejection in this reissue application of Patent No. 5,249,445.² Claims 1-11, which are original patent claims, and claims 22-27, added by amendment, have been allowed.

¹Two amendments subsequent to the final rejection have been filed. The first, filed on December 4, 2000 (Paper No. 19), has not been entered. The second, filed on January 4, 2001 (Paper No. 22) has been entered.

²The instant reissue application was filed on December 17, 1998, approximately 4 years and 10 months subsequent to the issue date of October 5, 1993 of the original patent.

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No other claims are pending.

We reverse and remand this application back to the examiner for further consideration.

Appellant's invention pertains to a machine for forming sheet metal into panels having combined wall and roof panels, at least a portion of which are arched or curved. A copy of original patent claim 1 and newly added reissue claim 12, presented in side-by-side parsed format for ease of comparison, is appended to this decision.

No references are relied upon in the final rejection.

The Examiner's Rejection

Claims 12-21 and 28 stand rejected under 35 U.S.C. § 251 as being broadening reissue claims presented in a reissue application filed more than two years after issuance of the original patent.

By way of background, the examiner explains on page 2 of the answer that

appellant obtained a patent on an apparatus with the apparatus being defined in terms of means-plus-function language. These claims are represented by claims 1-11 in this reissue application. Appellant has added claims 12-21 and 28 to this reissue application directed to the similar subject matter as claims 1-11, only now reciting the subject matter in traditional structural language. The issue presented . . . in this case . . . revolves around whether means-plus-function

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claims originally presented in appellant's patent can be reissued more than two years after the patent with claims directed to structural claims. The question is whether the structural claims of the reissue application are *broader* than the means-plus-function claims of the original patent.

The examiner cites *Tillotson, Ltd. v. Walbro Corp.*, 831 F.2d 1033, 1037 n.2, 4 USPQ2d 1450, 1453 n.2 (Fed. Cir. 1987) for the proposition that a claim of a reissue application is broader in scope than the original claims if it contains within its scope any conceivable apparatus or process which would not have infringed the original patent. The examiner cites *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1320, 50 USPQ2d 1161, 1168 (Fed. Cir. 1999) for the proposition that means-plus-function claim language is limited to the corresponding disclosed structure for performing the claimed function plus art recognized equivalents thereof in existence at the time that the patent was issued, and that such means-plus-function claim language does not embrace "after arising equivalents," which would only be covered by resort to the doctrine of equivalents. Based on the above, the examiner advances the following theory as to why the appealed reissue claims are broader than the original patent claims:

It appears, therefore, that the patent claims, insofar as they employ means-plus-function language, were expressly limited to the corresponding disclosed structure plus art recognized equivalents in existence

at the time that the patent issued, and that the claims could not embrace "after arising equivalents" by resort to the doctrine of equivalents. The proposed reissue claims, by reciting the specific structure in the preferred embodiments rather than the means-plus-function language of the patent claims would, however, potentially cover such "after arising equivalents" under the doctrine of equivalents. Thus, in the language of Tillotson, the proposed claims would contain within their scope a conceivable apparatus which could not have been held to infringe the original patent. This is a broadening of the patent claims. [Answer, pages 4-5.]

Discussion

(1)

Fundamental to the examiner's theory of unpatentability under 35 U.S.C. § 251 is the belief that an infringement analysis under the doctrine of equivalents may be used when determining the scope of a claim in a reissue proceeding.

In the reply brief, appellant cites *In re Freeman*, 30 F.3d 1459, 1464, 31 USPQ2d 1444, 1447 (Fed. Cir. 1994) for the proposition that the test for determining whether a new claim enlarges the scope of an original claim in reexamination proceedings under 35 U.S.C. § 305 is the same as that under the two-year limitation for reissue applications enlarging claims under the last paragraph of 35 U.S.C. § 251. Appellant further cites *Thermalloy, Inc. v. Aavid Eng'g, Inc.*, 121 F.3d 691, 694, 43 USPQ2d 1846, 1849 (Fed. Cir. 1997) for the proposition that

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the Federal Circuit has stated that the doctrine of equivalents is irrelevant when determining whether the scope of the claims has been enlarged in reexamination proceedings under 35 U.S.C. § 305. Appellant then concludes (reply brief, pages 2-3) that

[b]ecause the test for determining whether a new claim enlarges the scope of the originally issued claims is the same for both reissue proceedings under § 251 and reexamination proceedings under § 305 and because an infringement analysis under the doctrine of equivalents is irrelevant to the issue of whether claims have been enlarged under § 305, the doctrine of equivalents is also irrelevant to the issue of whether the claims have been enlarged under § 251.

Appellant's argument appears to be sound, and has not been specifically addressed by the examiner. Our reading of *Thermalloy, Inc. v. Aavid Eng'g, Inc.*, 121 F.3d at 694, 43 USPQ2d at 1849 indicates that the court reasoned that because the doctrine of equivalents involves going *beyond* any permissible interpretation of the claim language, i.e., involves determining whether *an accused product* is "equivalent" to what is described by the claim language, and because reexamination under § 305 involves *no accused product*, the doctrine of equivalents has no place in reexamination proceedings. By extension, the same reasoning would apply in reissue proceedings. *In re Freeman*, 30 F.3d at 1464, 31 USPQ2d at 1447 (test for determining whether a new claim enlarges the scope of an original claim is the same

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in reissue applications and reexamination applications).

In light of the foregoing, we consider that the examiner has not persuasively established that the doctrine of equivalents should be utilized when determining the scope of a claim in a reissue proceeding. The examiner's failure in this regard is fatal to the standing rejection, and constitutes a first reason necessitating reversal.

(2)

In rejecting the appealed reissue claims, the examiner contends that because the reissue claims replace means-plus-function language with specific structure, they could *potentially* cover after arising equivalents under the doctrine of equivalents. However, given the file history of the present application and the pronouncements of the Federal Circuit in the recent case of *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558, 56 USPQ2d 1865 (Fed. Cir. 2000), it is difficult for us to image a scenario in which a court would resort to the doctrine of equivalents to expand the literal scope of the reissue claims on appeal here in order to permit them to embrace after arising equivalents. This is especially so given

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appellant's express statement that "newly added Claim 12 is not entitled to any range of equivalents under the doctrine of equivalents, including after arising equivalents" (main brief, page 8).

Based on the file history of the present reissue application, we simply cannot accept the examiner's argument that the literal scope of reissue claims on appeal here could potentially be expanded to cover after arising equivalents under the doctrine of equivalents. This constitutes an additional reason necessitating reversal of the standing rejection.

Remand

This case is remanded to the examiner for consideration of the following matters.

Patent claim 1 is directed to a machine comprising "roll forming means," "shear means," "crimping means," "panel curvature measuring means" and "automatic digital control means," all for performing stated functions. These "means" limitations invoke the strictures of the sixth paragraph of 35 U.S.C. § 112. As such, each "means" limitation is limited to the "corresponding structure" disclosed in the specification for accomplishing the claimed function and equivalents thereof. *In re Donaldson Co.*, 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1848-49 (Fed. Cir. 1994).

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A claim is broader in scope than the original claims if it contains within its scope any conceivable product or process which would not have infringed the original patent. Thus, a claim is broadened if it is broader in any one respect even though it may be narrower in other respects. *Tillotson, Ltd. v. Walbro Corp.*, 831 F.2d at 1037 n.2, 4 USPQ2d at 1453 n.2. Therefore, in order to determine whether the reissue claims on appeal here are broader than patent claim 1, the metes and bounds of patent claim 1 must first be determined. A review of the file history of the present application reveals that this has not been done.³

³Appellant appears to be of the view that because reissue claim 12 "covers" a particular embodiment within the scope of patent claim 1 by replacing the "means" limitations of patent claim 1 with individual structural elements, reissue claim 12 necessarily is narrower in scope than patent claim 1. However, consider the case of a first claim that includes a 35 U.S.C. § 112, sixth paragraph, means-plus-function limitation for accomplishing a stated function, where the corresponding structure disclosed in the specification for accomplishing the claimed function is ABCD, and a second claim that is the same in all respects as the first claim except that the means-plus-function limitation is replaced by a specific recitation of elements ABC for accomplishing the same stated function. The second claim is broader than the first claim within the meaning of 35 U.S.C. § 251, notwithstanding the fact that it specifically recites elements ABC, in that it does not require element D. However, a different result would follow if it was determined that the corresponding structure of the means-plus-function limitation of the first claim was, for example, AB or ABC.

Looking at the application disclosure, it is clear that appellant's machine is a complex structure that requires the interaction of many elements in order to accomplish the patent claim 1 preamble function of "automatically and controllably forming sheet metal into panels for metal buildings having combined wall and roof panels, at least a portion of which are arched or curved." By way of example, the application disclosure makes clear that the functions expressly set forth in paragraphs (c) through (e) of patent claim 1 require the utilization of a considerable number of disclosed elements.⁴ The application disclosure indicates that the crimping rolls 70, 72 for bending small folds into the bottom portion of a formed panel are driven by a chain drive arrangement, best seen in Figure 3, comprising a variety of chains, sprockets and gears. As explained at column 6, lines 13-20, this chain drive is not merely a matter of convenience, but rather it is provided for the specific purpose

⁴Paragraph (c) of patent claim 1 expressly call for, among other things, "continuously crimping by bending small folds in the bottom portion of [a] formed sheared panel . . . to provide a curvature of the formed panels, the depth of the folds establishing the curvature," and paragraph (e) of patent claim 1 expressly calls for, among other things, "controlling the crimping means [of paragraph (c)] to vary . . . the extent of curvature of the formed panels by varying the depth of the folds."

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of allowing the crimp rolls 70, 72 to be mechanically coupled while permitting complete freedom of movement of the rolls without affecting their timing and without gear backlash. In order to move one crimp roll relative to the other, appellant's machine is provided with an adjustment mechanism, best seen in Figure 8, comprising a chain drive for simultaneously driving shafts 148 and 174. It appears that these shafts are in turn coupled to screw and nut drive units (see Figure 7) that are connected to the ends of the shaft of the lower crimp roll 70 so that the shaft ends move together to maintain the alignment of the crimp rolls. In addition, an electronic encoder 82 is used to determine the position of the crimp rolls relative to each other, which position in turn determines the depth of the folds in the bottom portion of the formed panel, and thus the extent of curvature of the formed panel (column 5, lines 54-57).

In that the above noted elements play a key role in adjusting the position of the crimp rolls relative to each other, and in that adjustment of the position of the crimp rolls directly brings about the variation of the depth of the folds in the bottom portion of the formed panel to thereby vary the extent of curvature of the formed panel, the question arises as to whether at least some of these elements are part of the

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"corresponding structure" disclosed in the specification for accomplishing the functions set forth in the functional statements found in paragraphs (c), (d) and/or (e) of patent claim 1. If so, the reissue claims would be broader than the patent claims in that they do not require all of the structure required by the patent claims.

We also note that paragraph (e) of patent claim 1 calls for "*automatic* digital control means" (emphasis added), whereas paragraph (e) of reissue claim 12 only calls for "a digital controller." The elimination of the word "automatic" in the reissue claim raises the question of whether the scope of reissue claim 12 is broader than patent claim 1, at least with respect to the digital controller limitation.

In light of the foregoing, this case is remanded to the examiner for the purpose of having the examiner take the following actions:

(1) The examiner should make specific findings as to what constitutes the "corresponding structure" disclosed in the specification for accomplishing the claimed function for *each* of the means-plus-function limitations appearing in original patent claim 1.⁵

(2) Based on the findings made in (1), the examiner should compare the reissue claims to the original patent claims for the purpose of determining whether the reissue claims are broader than the patent claims in any respect, including (a) whether any element required by the various "means" limitations of patent claim 1 is not recited in reissue claim 12, and (b) whether the absence of the word "automatic" in paragraph (e) of reissue claim 12 has the effect of broadening claim 12 relative to patent claim 1 with respect to the digital controller limitation.

(3) The examiner should take whatever action is deemed appropriate as a result of (1) and (2) above.

⁵We appreciate that with respect to the "roll forming means" and the "shear means" limitations of original claim 1 this task may be complicated by the fact that roll forming machine 38 and shear 40 are only described in the specification (column 4, lines 38-51) as being machines known in the prior art, and are only illustrated schematically in the drawing figures.

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Summary

The decision of the examiner finally rejecting reissue claims 12-21 and 28 is reversed.

This case is remanded to the examiner for the reasons explained above.

REVERSED AND REMANDED

CHARLES E. FRANKFORT)	
Administrative Patent Judge)	
)	
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)	BOARD OF PATENT
LAWRENCE J. STAAB)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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)	
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Administrative Patent Judge)	

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Original patent claim 1

1. A machine for automatically and controllably forming sheet metal into panels for metal buildings having combined walls and roof panels, at least a portion of which are arched or curved; the machine comprising:

- a) roll forming means for roll forming sheet metal material into a desired panel profile having a central bottom portion between upturned lateral edge portions;
- b) shear means adjacent the roll forming means for shearing the roll formed panel;
- c) crimping means for continuously crimping by bending small folds in the bottom portion of formed sheared panel lengths fed through the crimping means to provide a curvature of the formed panels, the depth of the folds establishing the curvature;
- d) panel curvature measuring means for measuring the curvature of bottom crimped formed panels, and;
- e) automatic digital control means for controlling the crimping means to vary the control the extent of curvature of the formed panels by varying the depth of the folds, the automatic digital control means being at least partially responsive to the measuring means and a control input setting of desired curvature.

Newly added reissue claim 12

12. A machine for automatically and controllably forming sheet metal into panels for metal buildings having combined walls and roof panels, at least a portion of which are arched or curved, the machine comprising:

- a) a plurality of metal forming rolls arranged to form sheet metal material into a desired panel profile having a central bottom portion between upturned lateral edge portions;
- b) a movable shear blade adjacent said plurality of metal forming rolls, wherein said moveable shear blade cooperates with an other severing implement to cut said panel;
- c) crimping rollers for continuously crimping by bending small folds in the bottom portion of said cut panel lengths fed through said crimping rollers to provide a curvature to said formed panels, the depth of the folds establishing the curvature;
- d) a curvature gauge for measuring the curvature of bottom crimped formed panels, and;
- e) a digital controller to control the crimping rollers to vary the depth of the folds produced by said crimping rollers to control the extent of curvature of the formed panels, the digital controller being at least partially responsive to said radius [sic, curvature] gauge and a control input setting of desired curvature.