The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LEE ARNOLD WEINIG

Appeal No. 2004-1523
Application 09/506,920

ON BRIEF

Before FRANKFORT, McQUADE, and NASE, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 21, 23 through 27 and 34 through 40, all of the claims currently pending in the application. Claims 22 and 28 through 33 have been canceled.

Appellant's invention is directed to a process and apparatus for folding a moving web which can more consistently and more accurately fold a selected side portion of the moving web. Independent claims 1, 16, 34 and 35 are representative of the subject matter on appeal and a copy of those claims can be found in the Appendix to appellant's brief.

The prior art references relied upon by the examiner in rejecting the appealed claims are:

Osborn et al. (Osborn)	4,819,928	Apr. 11, 1989
Smithe et al. (Smithe)	6,210,309	Apr. 3, 2001

Claims 1 through 7, 10, 11, 16, 17, 21, 23, 24, 27 and 34 through 40 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Smithe.

Claims 8 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Smithe in view of Osborn.

Claims 12 through 15, 18 through 20, 25 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable Smithe.[1]

Rather than attempt to reiterate the examiner's full commentary with regard to the above-noted rejections and the conflicting viewpoints advanced by the examiner and appellant regarding those rejections, we make reference to the examiner's answer (Paper No. 18, mailed October 3, 2003) for the reasoning in support of the rejections, and to appellant’s brief (Paper No. 17, filed July 23, 2003) for the arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to appellant’s specification and claims, to the applied prior art references, and to the respective positions articulated by appellant and the examiner. As a consequence of our review, we have made the determinations which follow.

[1] Although the examiner has included claims 22 and 28 through 33 in the rejections set forth on pages 3 through 12 of the answer, as we have noted above these claims have previously been canceled.

With regard to the rejection under 35 U.S.C. § 102(e), we note that independent claims 1 and 34 are directed to an apparatus for folding a moving web wherein the apparatus includes, *inter alia*, a first holder mechanism joined to a first guide member to control a first portion of the web by drawing and tightening the web against a first entrance edge of a first blade member during the folding operation. Independent claim 35 is also directed to an apparatus for folding a moving web which includes a first holder mechanism similar to that set forth in claims 1 and 34, but which is said to be configured such that the above-noted tensioning force generates a reflex bend in a side portion of the moving web about said first entrance edge of said first blade member. In the examiner's view, the sheet folding apparatus of Smithe is fully responsive to that set forth in independent claims 1, 34 and 35 on appeal and generally includes a first blade member (48) which can operatively engage and fold a first portion of a moving web; the first blade member having a first entrance edge (Figure 1, edge under roller 18); a first guide member (60) joined to the first blade member and having a longitudinally extending folding edge (62) oriented parallel to the feed path (20); and a first holder mechanism (26) joined to

the first guide member (60) to control a first portion of a moving web by drawing and tightening the web against the first entrance edge of the first blade member during the folding operation. More particularly, on page 13 of the answer, the examiner indicates that

> The folder of Smithe et al. consists of a blade member (62), a guide member (60), and a holder mechanism (24, 26). The holder mechanism (24, 26) is a vacuum table described in column 5, lines 41-45 as a means for retaining the material conveyed through the folder apparatus in a desired position. Although Smithe et al. does not use the words “drawing” and “tightening” to describe the effect of the vacuum on the material conveyed along the blade member (62) and guide member (60), one skilled in the art would deem it inherent that the material would be drawn and tightened against the first entrance edge of the blade (62). The first entrance edge of the blade member (62) has been interpreted to be the portion of the blade member (62) along which the edge (76) of the material conveyed in guided along (figure 5) at the initial entrance area of the material to the blade member (62).

Like appellant (brief, pages 5-8), we fail to see that the sheet folding apparatus of Smithe discloses each and every element of the claimed invention as arranged and set forth in claims 1, 34 and 35 on appeal. In particular, we agree with appellant’s assessment that the vacuum table (24) and apertures (26) therein of Smithe do not define a first holder mechanism joined to a first guide member to control a first portion of the

web by drawing and tightening the web against the first entrance edge of the first blade member during a folding operation. Suffice to say that the examiner's assertion that one skilled in the art "would deem it inherent" that the material in Smithe would be drawn and tightened against the first entrance edge of the blade member (48) by operation of the vacuum at apertures (26), is based on total speculation and conjecture.

As is apparent from reading Smithe at column 5, lines 7-34, the envelope blanks (70) are advanced along a horizontal feed path (20) through the folding mechanism (10) by a transport device (12) which includes a plurality of endless belts (16) extending around driven rollers (18) and a vacuum table (24) positioned below the belts. See Figures 1 and 4. Air is drawn through apertures (26) in the table (24) by a vacuum created by evacuation of air from a vacuum box (not shown) positioned below the table (24) and the vacuum force is said to be exerted at a magnitude to maintain the blanks fixed on the belts (16) so that when the blanks pass through the folding mechanism (10) the edge portions of the blanks are folded along the desired score line (e.g., 76).

Contrary to the examiner's position, there is no disclosure in Smithe or any other basis we can discern to support the proposition that the vacuum force applied to the blanks (70) by air drawn through apertures (26) of table (24) to hold the blanks in contact with the upper surface (22) of belts (16) in any way provides control of a first portion of the blanks by drawing and tightening the blanks against the vertically oriented entrance and folding edge (62) of the blade member/plowshare (48, 60), especially in the region of the blade member located <u>under roller (18)</u> as pointed to by the examiner and shown in Figure 1 of Smithe. The particular portion of the guide member (60) pointed to by the examiner (i.e., that located below the roller 18), is also below the upper support surface (22) of belts (16) and would clearly not be contacted by the envelope blanks. Moreover, there is no basis to conclude that the vacuum force applied to the blanks (70) by apertures (26) would necessarily provide any level of control of a first portion of the blanks by drawing and tightening the blanks against the vertically oriented folding edge (62) of blade member (48, 60) at any other point in the folding process. See particularly, Figures 6 and 8-18 of Smithe and the disclosure relating thereto. As is made clear in Smithe beginning at column 9, line 15, and continuing through column 17, line 26, the first blade member or plowshare folding device (48,

60) is positioned with its base (108) in the plane (110) so as to assure that the folding edge (62) thereof acts upon the leading edge (88) of the envelope blank in alignment with the score line (76) and so that as the fold is executed the score line is captured and maintained in a position contacting the vertically oriented folding edge (62).[2] There is no mention that the vacuum of apertures (26) in any way provides control of a first portion of a blank or web "by drawing and tightening said web against said first entrance edge of said blade member" during the folding operation, as in the apparatus claims on appeal, and no reason stated by the examiner as to why such would necessarily occur.

In light of the foregoing, we will not sustain the examiner's rejection of independent claims 1, 34 and 35 under 35 U.S.C. § 102(e) as being anticipated by Smithe, nor that of claims 2 through 7, 10, 11, 36 and 37 which depend therefrom.

[2] We note in passing that reference character (62) in Figures 2, 3 and 5 of Smithe is incorrectly shown as pointing to the top surface of the elongated guide bar (60) at the receiving end (64) thereof, when in fact it should point to the vertically oriented folding edge of the guide bar, as is made clear in Figures 6 and 8-18.

Regarding the rejection of process claims 16, 17, 21, 23, 24, 27, and 38 through 40 under 35 U.S.C. § 102(e) as being anticipated by Smithe, the examiner has again pointed to the apertures (26) in the vacuum table (24) of Smithe as meeting the last step set forth in independent claim 16. We again note that there is no basis to conclude that the vacuum force applied to the blanks (70) by apertures (26) would necessarily provide control of a first portion of the blanks by urging the blanks against the vertically oriented folding edge (62) of the blade member (48, 60) at any point in the folding process, let alone at the point on guide member (60) located under roller (18) pointed to by the examiner. Thus, we also will <u>not</u> sustain the examiner's rejection of claims 16, 17, 21, 23, 24, 27, and 38 through 40 under 35 U.S.C. § 102(e) as being anticipated by Smithe.

The next rejection applied by the examiner is that of claims 8 and 9 under 35 U.S.C. § 103(a) as being unpatentable over Smithe in view of Osborn. Like appellant, it is apparent to us that adding the regulator mechanism associated with the vacuum module of Osborn to the vacuum apparatus of Smithe would not supply or otherwise account for the deficiencies of Smithe noted in our discussions above. Thus, we will <u>not</u> sustain the rejection of dependent claims 8 and 9 under 35 U.S.C. § 103(a).

Regarding the examiner's rejection of dependent claims 12 through 15, 18 through 20, 25 and 26 under 35 U.S.C. § 103(a) based on Smithe alone, suffice to say that our discussions of the deficiencies in Smithe above are determinative of this rejection also. Accordingly, we will not sustain the examiner's rejection of these claims under 35 U.S.C. § 103(a).

To summarize: the rejections under 35 U.S.C. § 102(e) and under 35 U.S.C. § 103(a) before us on appeal as posited by the examiner have not been sustained. Thus, the decision of the examiner rejecting claims 1 through 21, 23 through 27 and 34 through 40 of the present application is reversed.

In addition to the foregoing, we find it necessary to REMAND this case to the examiner under 37 CFR § 41.50 for consideration of the following issues:

1) During any further prosecution of the application, the examiner should consider whether a rejection of claim 16 under 35 U.S.C. § 102(e) based particularly on Smithe Figures 8-18 would be appropriate. In that regard, we note that the language of process claim 16 differs markedly from that set forth in the apparatus claims, in that claim 16 recites control of a first

portion of the web with a first holder mechanism that operatively cooperates with the first guide member "to urge said web against said first entrance edge of said blade member" (emphasis added), instead of the more specific recitation of controlling a first portion of the web "by drawing and tightening said web against said first entrance edge of said blade member," as set forth in the apparatus claims. Smithe, at column 14, line 41, *et seq*., describes how the forming blade or bar (52, 54) and its orientation relative to the first blade member or plowshare (48) and it cooperation with the convex surface (112) of the first blade member or plowshare (48) controllably urges the body of a blank (70) adjacent the score line (76) against and into contact with the first entrance and folding edge (62) of the blade member/plowshare.

2) The examiner should also consider whether the claims dependent from claim 16 are subject to rejection under either 35 U.S.C. § 102(e) or § 103(a) based on Smithe. In that regard, we note that the convex face (112) of blade member/plowshare (48) acts as a first guide member for directing a first portion of the

blanks or a web, while column 4, lines 62-65, discuss a second folding mechanism on an opposite side of the machine for folding a second portion of the blank or a web.

REVERSED AND REMANDED

CHARLES E. FRANKFORT Administrative Patent Judge	)	
JOHN P. McQUADE Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)	

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