

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(2) is not binding precedent of the Board.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. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RONALD P. MARX

Appeal No. 1996-0208
Application 08/098,153¹

HEARD: July 15, 1999

Before CAROFF, JOHN D. SMITH and LIEBERMAN, Administrative
Patent Judges.

JOHN D. SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal pursuant to 35 U.S.C. § 134 from the

¹Application for patent filed July 28, 1993. According to applicant, the application is a division of Application No. 07/884,302, filed May 11, 1992, now U.S. Patent No. 5,249,946, issued October 5, 1993, which is a continuation of Application No. 07/666,618, filed March 8, 1991, now abandoned.

final rejection of claim 14, the only claim in the application. The subject matter on appeal is directed to a method of retrofitting a forming apparatus.

Claim 14 is reproduced below:

14. A method of converting a forming apparatus for receiving a paper web and press forming multiple blanks into a plurality of three-dimensionally shaped paper products within a single die cavity in each forming cycle into a forming apparatus in which the plurality of blanks are simultaneously shaped into a plurality of three-dimensionally shaped paper products within separate die cavities in each forming cycle, comprising the steps of:

(a) retrofit installing an existing forming apparatus having a die set that defines a single cavity with at least one reciprocating die plate, at least one upper die plate and at least one lower die plate in vertically stacked relationship with respect to the die set of the existing forming apparatus so as to form a respective additional die cavity; and

(b) forming [sic, providing] a guide means for cyclically transferring a single paperboard blank from a blanking means into each of said die cavities during a first portion of each forming cycle; wherein said guide means includes a plurality of stationary guide means, and said providing step² includes placing each of said stationary guide means in alignment with a respective one of said die cavities

² Antecedent basis for the claim language "said providing step" is not present. As discussed at the oral hearing, appellant apparently intended to define step (b) of the claim as a "providing" step. We trust that the examiner and appellant will correct this informality prior to the allowance of this application.

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for receiving and transferring a single paper blank into the respective die cavity aligned therewith in each forming cycle; and wherein said guide means also includes a movable guide means for receiving each paper blank from the blanking means and for successively moving and transferring said paper blank into each of said stationary guide means, and said providing step also includes installing the movable guide means with an inlet end positioned in proximity to an outlet side of said blanking means and with an outlet end arranged so as to be successively movable into proximity with an infeed side of each said stationary guide means during each forming cycle.

Prior art references relied upon by the examiner as evidence of obviousness are:

Clark	2,878,728	Mar. 24, 1959
Axer et al. (Axer)	3,824,058	Jul. 16, 1974
Dowd	4,242,293	Dec. 30, 1980

The appealed claim 14³ stands rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Dowd, Axer and Clark. We cannot sustain this rejection.

BACKGROUND

The subject matter on appeal relates to a method of converting (retrofitting) an existing forming apparatus (such as shown in the Dowd reference) which is used for the production of three-dimensionally shaped paper products such as paper plates. The existing forming apparatus of the prior

³ The examiner's statement of rejection in the answer at page 3 inadvertently refers to claim 1, not claim 14.

art, as represented by Dowd, includes a single die press means which is used to shape two or more paper blanks (formed by a cutter) into shaped paper products (specification, page 4, lines 15-27 and Dowd, claim 1). In Dowd, the paper blanks are stacked vertically on one another and the stack is fed into the single die cavity through a guide means (see figure 1 of Dowd) thus resulting in a substantial increase in the number of press formed products produced per cycle and per minute. According to appellant, the problem with the operation of this prior art device is that it results in paperboard products of poor quality which are unsuitable both functionally and aesthetically (specification, page 4, line 30 to page 5, line 18).

Appellant's invention involves an improvement to the Dowd apparatus in that it "retrofits" Dowd's existing forming apparatus "having a die set that defines a single cavity with at least one reciprocating die plate" by installing "at least one upper die plate and at least one lower die plate in vertically stacked relationship with respect to the die set of the existing forming apparatus" thereby providing an additional die cavity. See step (a) in appealed claim 14.

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Thus a press with vertically stacked multiple dies is provided so that a "plurality of blanks are simultaneously shaped into a plurality of three-dimensionally shaped paper products within separate die cavities in each forming cycle. . . . " (preamble of appealed claim 14). Thus, because each paper blank is separately shaped from the other (specification, page 9), shaped paperboard products having superior shape definition, rigidity, and patterning characteristics are produced. See the specification at page 6, lines 1 and 2. The appealed claim also requires the step of "providing" (see footnote 2) an accompanying guide means to this multi-die press which means includes a movable guide means and multiple stationary guide means aligned with the multiple die cavities and allows for feeding of the paper blanks into each die. See step (b) of appealed claim 14.

THE REJECTIONS UNDER 35 U.S.C. § 103

The examiner relies on three references in an attempt to establish that the claimed method would have been obvious to one of ordinary skill in the art. Dowd, referred to above, is cited by the examiner to teach the basic forming apparatus which appellant seeks to retrofit (see Dowd's Figure 1).

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Initially, we note that while Dowd appears to describe a "retrofit" application (column 3, lines 35-39) in that Dowd's invention "may be operatively integrated with a prior art plate forming machine . . . ," Dowd contains no teaching or suggestion that his "improvement over the prior art" should be further modified by any additional retrofitting operations.

Axer and Clark are relied upon by the examiner as describing combined guiding means and multi-die presses used in apparatus for the production of pressed particle boards (Axer, Figure 5; Clark, Figure 1). We note, as argued by appellant, that Axer and Clark are not directed to apparatus used for forming three-dimensionally shaped paper products by reshaping of thin paperboard blanks as claimed but, instead, are directed to apparatus used for press-forming particulate and/or fibrous materials into flat boards or sheets (Axer, column 1, lines 6-7; Clark, column 1, lines 27-32). Thus, appellant argues that the Axer and Clark references constitute non-analogous art. See the brief at pages 4-6 and page 2 of the Wnek declaration executed December 22, 1992. Even if we agreed with the examiner on this issue, we agree with appellant that the examiner's proposed reasons for modifying the Dowd apparatus are not derivable from the relied upon references or from any compelling scientific evidence.

The examiner advances four reasons to justify why it would have been obvious to modify Dowd's single die press apparatus to include the multi-die press of Axer and Clark. These reasons are:

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1. the obvious reason of "duplication of function, increase the productivity of the apparatus, . . ." (answer, page 4);

2. the obvious advantage of increased productivity (answer, page 4);

3. the obvious cost savings provided by retrofitting an existing press forming apparatus versus building a new machine (answer, pages 4-5); and

4. the obvious reason to conserve space (answer, page 5).

The examiner's first and second justifications are, in effect, one and the same, i.e., that the use of a multi-die press will increase productivity. However, the examiner's contention does not take into account that Dowd's apparatus and appellant's retrofitted apparatus are both directed to similar paper forming devices operating at the same speed (appeal brief, page 6; Dowd at col. 3, lines 1-22; specification at page 7) and at the same productivity rate. Dowd, with his single die press, can shape from one to three or more paper products in one cycle (Dowd at col 4, lines 19-22). Dowd's high productivity results from the fact that he

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can feed two or more vertically stacked blanks into his single die to make multiple products (specification, page 4).

Appellant's retrofitted multiple die press performs the same operation as Dowd's, except that it shapes each paper blank separately (specification at page 7). Thus, appellant's apparatus provides no increase in productivity over the device of Dowd. As emphasized above, appellant's invention is directed, inter alia, to the goal of producing a product of enhanced quality which cannot be achieved by the Dowd apparatus.

With respect to the examiner's third reason to justify the combination of reference teachings, appellant argues, and we agree, that the examiner has not factually demonstrated how any cost savings are attained by retrofitting an existing apparatus, such as Dowd's, in the manner claimed herein. See the brief at pages 8-9. The examiner's argument is conclusory and devoid of any evidentiary support.

With regard to the fourth reason, we note that neither Dowd nor Axer expressly indicate that the conservation of space is a factor of significance with respect to the design of the prior art devices disclosed. We do not consider this

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reason persuasive.

Although the examiner argues that in view of Clark and Axer, it would have been obvious to retrofit the Dowd apparatus in the manner claimed by appellant, "[t]he mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). We find, based on the record before us, that there is no adequate reason, suggestion, or motivation to combine the reference teachings in the manner proposed by the examiner. Thus, a prima facie case of obviousness has not been established for the subject matter defined by the appealed claim. Hence, we reverse the stated rejection.

The decision of the examiner is reversed.

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

REVERSED

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MARC L. CAROFF)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JOHN D. SMITH)	
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