

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JUKKA KOSKINEN and VILHO NISSINEN

Appeal No. 1997-2931
Application 08/237,034

ON BRIEF

Before STAAB, NASE and BAHR, *Administrative Patent Judges*.

STAAB, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's refusal to allow claims 1-10 and 12 as amended by an amendment filed subsequent to the final rejection. No other claims are currently pending.

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The Invention

Appellants' invention pertains to an apparatus for coating a paper web. According to appellants (specification, pages 1-2), problems in coating a web sometimes arise when the coating applicator and doctor blade units of the coating apparatus share a single common backing roller. For example, in this type of coating apparatus, air pockets may form in the area between the applicator and the doctor blade causing uneven distribution of web tension in this area. Appellants' solution to this alleged problem is to provide separate backing surfaces and separately controlled drive means for the coating applicator and doctor blade units such that "at least one of the backing surfaces has a speed that is independently controlled relative to the speed of the other backing surface . . . in order to maintain control of the tensile stress of the web" (specification, page 3).

A copy of the appealed claims can be found in an appendix to appellants' brief.

The Applied References

The references of record relied upon by the examiner in

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support of rejections under 35 U.S.C. § 103 are:

Murray 1941	2,249,088	Jul. 15,
Murray 1943	2,312,927	Mar. 2,
Bauling 1955	2,711,156	Jun. 21,
Hornbostel 1962	3,019,130	Jan. 30,
Kuhnel 1963	3,088,842	May 7,
Steel 1975	3,870,778	Mar. 11,
Sieberth et al. (Sieberth) 1989	4,856,454	Aug. 15,

The Examiner's Rejections

Claims 1, 2, 4, 6-8, 10 and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Sieberth or Murray '088 or Murray '927 in view of Kuhnel. The examiner concedes that the primary references are silent as to controlling the speed of the separate backing rollers for the coating applicator and doctor units. However, the examiner considers that it would have been obvious to provide the separate backing rollers in the primary references with independent drive means in order to achieve proper web tension in view of the teachings of Kuhnel.

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Claims 3 and 9 stand rejected under 35 U.S.C. § 103 as being unpatentable over the references applied in the rejection of claim 1, et al., and further in view of Steel or Bauling. The examiner considers that it would have been further obvious to utilize a backing belt instead of a backing roller for one or both of the backing surfaces of the primary references in view of the teachings of Steel or Bauling.

Claim 5 stands rejected under 35 U.S.C. § 103 as being unpatentable over the references applied in the rejection of claim 1, et al., and further in view of Hornbostel. The examiner also considers that it would have been obvious to provide the backing roller of the coating applicator units of the primary references with air cushion means for urging the coated web into engagement with the applicator unit in view of Hornbostel.

Opinion

The linchpin of the examiner's rejections is found in the following statement found in the answer:

Kuhnel illustrates the well known expedient of

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providing independent drive motors for the rolls used in supporting a web in each treatment station, e.g., coating and drying including the backing roll as shown in Fig. 1, in order to control and achieve proper web tension. Thus in view of Kuhnel, it would have been obvious to provide the backing rolls in Sieberth et al or Murray with independent drive means in order to achieve proper web tension.
[Answer, page 4.]

Hence, it is the examiner's position that Kuhnel would have suggested to one of ordinary skill in the art providing the devices of the primary references with drive means for controlling the speed of the backing roller of one of the coating applicator and doctor units relative to the other in order to control tensile stress of the web between said units. We do not agree.

An objective of Kuhnel is to insure that the web is held taut between the spaced pressure lines resulting from the applicator nip 17 and the edge of the doctor blade 30 (column 5, lines 52-57; column 5, line 71 through column 6, line 1). Kuhnel accomplishes this by controlling a number of operating parameters of the apparatus. Upstream of the application nip 17, the web is subjected to a predetermined amount of inherent tension by an adjustable tension device 26 of the supply roll 24 and by snubbing the web around a lead roll 28 before

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entering the applicator nip 17 (column 5, lines 58-63; column 6, lines 50-56). In the area where the coating is applied, the speed of the applicator roll 16 relative to the backing roll 18 is controlled to "minimize[] forces which might tend to oppose the substantial inherent tension under which the web must be maintained both during initial application of the coating thereto and during the subsequent blading operation" (column 3, lines 72 through column 4, line 1). Downstream of the doctor blade 30, the speed of the wind-up device 36 is adjusted to insure proper tautness after coating and during wind-up (column 4, lines 17-19). In addition, the circumferential distance that the web is snubbed around the

backing roll plays a role in maintaining web tautness in the space between the applicator nip and the doctor blade (column 6, lines 48-56).

We appreciate that Kuhnel discloses a web coating apparatus having separate drive motors for the applicator roll 16, backing roll 18, dryer 34, and wind-up device 36. We also appreciate that Kuhnel may be viewed as teaching that the

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relative speeds of the drive motors for these components should be carefully controlled to ensure proper tautness of the web. However, where we part company with the examiner is in assessing how one of ordinary skill in the art would have modified the devices of the primary references in view of Kuhnel's teachings.

From our perspective, one of ordinary skill in the art would have learned from Kuhnel that, in order to control the tension in the web in the area between the point where the coating is applied (Kuhnel's applicator nip 17) and the point where excess coating is removed (Kuhnel's doctor blade 30), the tension of the web *upstream* of the application location and *downstream* of the doctor blade should be carefully controlled. In addition, we believe the ordinarily skilled artisan would have learned from

Kuhnel that the speed of the application roll relative to the backing roll and the amount the web is snubbed around the backing roll are considerations in maintaining web tautness in

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the area between the point where the coating is applied and the point where excess coating is removed. Applying any or all of these teachings to the primary references would have resulted in controlling the corresponding parameters in the primary references. For example, applying the teachings of Kuhnel of controlling the tension of the web upstream of the application roll and/or downstream of the doctor blade would have resulted in doing exactly the same thing in the primary references, and would not have resulted in controlling the speed of the backing roller for the applicator unit relative to the speed of the backing roller of the doctor blade unit. It is not apparent to us, and the examiner has not convinced explained, why the artisan would have provided drive means in any of the primary references for controlling the speed of one of the backing surfaces for the applicator and doctor units relative to the other backing surface, especially when none of the applied references teach such an arrangement. Kuhnel, in particular, is deficient in this respect in that it does not even disclose separate backing surfaces for the applicator and the doctor units.

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What the examiner has done here, in our view, is unfairly generalize the teachings of the Kuhnel reference in light of appellants' disclosure in order to establish a higher level of commonality between Kuhnel and the claimed subject matter in an effort to justify the rejection. This is improper.

In light of the above, we will not sustain the standing rejection of claims 1, 2, 4, 6-8, 10 and 12 under § 103.

We have also reviewed the Steel and Bauling references additionally relied upon by the examiner in the rejection of claims 3 and 9, and the Hornbostel reference additionally relied upon by the examiner in the rejection of claim 5, but find nothing therein which makes up for the deficiencies of Sieberth, Murray '088, Murray '927 and Kuhnel discussed above. Accordingly, we also will not sustain the standing rejections of these claims under § 103.

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The decision of the examiner is reversed.

REVERSED

LAWRENCE J. STAAB)	
Administrative Patent Judge)	
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JEFFREY V. NASE)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
)	
JENNIFER D. BAHR)	
Administrative Patent Judge)	

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Thomas C. Pontani
Cohen, Pontani, Lieberman & Pavane
551 Fifth Avenue, Suite 1210
New York, NY 10176