

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. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte LOUIS J. DOUCET

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Appeal No. 2000-0581  
Application No. 08/429,155

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ON BRIEF

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Before FRANKFORT, NASE and BAHR, Administrative Patent Judges.  
BAHR, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1, 3-8, 10, 12-22 and 24-28. Claims 9 and 11, the only other claims pending in this application, stand withdrawn from consideration under 37 CFR § 1.142(b) as being drawn to a nonelected species.<sup>1</sup>

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<sup>1</sup> We note that appellant (Paper No. 5, page 6) elected the embodiment of Figures 2-2b in response to the examiner's election requirement (Paper No. 3, pages 4-5). While it appears to us that claims 5 and 6 are directed to the embodiment of Figures 3-3b and claims 7, 13 and 26 are directed to the

(continued...)

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BACKGROUND

The appellant's invention relates to a product delivery apparatus, such as a fan wheel or the like of a printing press, having replaceable elements (replaceable fan blade tips, in particular) (specification, page 1). Further understanding of the invention can be derived from a reading of exemplary claims 1, 22 and 28, which appear in the appendix to the appellant's brief.

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

Poland et al. (Poland)	3,162,439	Dec. 22, 1964
Marti	4,681,209	Jul. 21, 1987
Breton	5,112,033	May 12, 1992

The following rejection is before us for review.

Claims 1, 3-8, 10, 12-22 and 24-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Breton in view of Poland and Marti.

Reference is made to the brief (Paper No. 20) and the answer (Paper No. 21) for the respective positions of the

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<sup>1</sup>(...continued)  
embodiment of Figures 4-4b, rather than to the elected embodiment, we note that the examiner has not withdrawn these claims from consideration.

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appellant and the examiner with regard to the merits of this rejection.

OPINION

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

In rejecting all of the claims on appeal, the examiner relies on the combined teachings of Breton, Poland and Marti. The examiner's explanation of the rejection, as set forth on page 3 of the answer, is as follows:

Breton discloses a device for receiving signatures 14 from a web and rotatable mounts 15 and 16 with blades and pockets. It would have been obvious to have included replaceable fan blade tips in order to ease the maintenance requirements thereof as taught by Poland et al (71-73). Moreover, it would have been obvious to have included aligning means in order to facilitate assembly as taught by Marti (note the unnumbered aligning pin means to the left and right of element 18 in Figure 5). Re claims 8, 10, 14-21, 24, 25 and 27, the use of the claimed conventional reinforcing or other plated material would have been obvious to one skilled in the art.

Breton (Figures 2-8a) discloses several different embodiments of the two fan arrangement used to receive and deliver printed products 14. Each of the embodiments is designed to permit the two fans to cooperate to alternately receive products in the pockets formed by the fan blades while preventing the respective blade tips of the fans from colliding. In the embodiments illustrated in Figures 2-4, for example, this is accomplished by providing recesses, cutouts or notches 5, 7, 10 in the fan blades to accommodate the passage of blade tips of the other fan. In the embodiment illustrated in Figures 8 and 8a, the tips of the fan blades are extensible to divert an oncoming printed product or signature into respective receiving pockets and then retractable so as to avoid any possibility of a collision. The disclosed mechanism for effecting the extension and retraction of the tips comprises a linkage or push rod 44 pivotally connected at one end thereof to the respective pivotal end tip of the blades of those fans located at one side of the respective fan arrangements, the linkage having a cam roller at the other end thereof which follows a suitably

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configured cam 46 fixed to a stationary side wall of the machine (column 7, line 52, to column 8, line 16).

In all of the embodiments of fan arrangements disclosed by Breton, with the exception of the one illustrated in Figures 8, 8a, the fan blade tips appear to be unitary with the remainder of the blade. In the Figure 8, 8a embodiment, the blade tips 35, 36 are pivotally mounted to the blades 37, 38, but the details of this mounting arrangement (for example, whether it is a

replaceable mounting and includes aligning structure) are not specified.

Poland discloses a document stacking device including a drum-like stacking member comprised of a pair of discs 60 mounted in spaced-apart relation on a shaft 61. The discs 60 are formed with arcuate slots 66a, 66b which communicate with the peripheral surface of the discs and extend part way around the discs for receiving documents 40 introduced thereinto. Carried by each of the discs 60 at the entrance of each of the slots 66a, 66b is a document deflector member 71 made of low friction material and attached by means of a leaf spring 72 to

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a rib 73 mounted between and secured to the discs near the beginning of the slots. The deflector 71 is supported to lie in a cut-away area of the discs 60 at the entrance of each of the slots 66a, 66b and is formed to provide a deflecting tip which normally projects beyond the circumferential plane of the discs so as to intercept a document advancing at higher speed from the guide plates 39, 41 and direct the document into the associated slot. See column 3, lines 23-49.

As the leading edge of each successive document being fed is ejected from guide plates 39, 41 of Poland and into engagement with the feed rollers 76, one of the deflectors 71 will be located at a rotated position slightly in advance thereof to thereby intercept the faster feeding document and direct it into the associated slot of the drum (column 4, lines 34-45). After a document has been brought into contact with a stop 101, the continued rotation of the drum acts to withdraw the document from the slot. The stack of documents 40 is held in upright position on a stacking table 103 by the periphery of the drum discs 60 and the outer surface of the deflectors 71. The deflectors 71, when brushing against the stack, are flexed slightly inwardly to a position where their

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outer surface will lie within the plane of the drum's periphery and in which position the associated slot is not closed off but still retains a sufficient opening for ejection of a document therefrom (column 5, lines 30-40).

While the deflectors 71 of Poland are resiliently mounted to the discs 60, Poland gives no express indication that they are replaceably mounted thereto, as the examiner's rejection suggests. Moreover, the examiner's basis for concluding that the deflector tip mounting arrangement (71-73) disclosed by Poland would ease maintenance is not apparent to us.<sup>2</sup> In any event, we perceive in the combined teachings of Breton and Poland no teaching or suggestion to provide resiliently mounted blade tips as taught by Poland on the blades of any of the fan arrangement embodiments of Breton.

The examiner apparently finds no teaching or suggestion of an aligning means, on either the blade or blade tip as called for in the claims, in the combined teachings of Breton

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<sup>2</sup> Rejections based on 35 U.S.C. § 103 must rest on a factual basis. In making such a rejection, the examiner has the initial duty of supplying the requisite factual basis and may not, because of doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968).

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and Poland and relies for this feature on the additional teachings of Marti. Marti is directed to an apparatus for positioning containers placed into a hopper. The apparatus includes an upper moving disc 11 inclined to the vertical which carries a series of parts 16 of different characteristics, which extend radially and which define a series of spaces designed to accept containers 9 in a lying position. The parts 16 are joined to the disc 11 by inserting an extreme axial section 18 into one of female sections 19 located in equidistant series on the disc 11 (column 7, lines 13-16). The examiner directs our attention to the "unnumbered aligning pin means to the left and right of element 18 in Figure 5."

Even assuming that the elements of Marti's parts 16 alluded to by the examiner are aligning pins, we are at a loss to understand why one of ordinary skill in the field of appellant's invention would have found any suggestion therein to use aligning pins in mounting a fan blade tip to a fan blade as the examiner proposes.

In establishing a prima facie case of obviousness, it is incumbent upon the examiner to provide a reason why one of

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ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellant's disclosure. See, e.g., Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988).

For the reasons discussed supra, we find no teaching or suggestion to combine the applied references in the manner proposed by the examiner. Moreover, even if the references were combined as the examiner proposes, it is not apparent to us, and the examiner has not explained, how appellant's claimed invention would result. In this regard, the examiner has not pointed out where in the references the attaching devices of the blades (claim 1), the mounting devices of the blades (claim 22) or the attaching device and fastening means of the blade tips (claim 28) are taught or suggested.

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In light of the foregoing, we shall not sustain the examiner's rejection of claims 1, 3-8, 10, 12-22 and 24-28.

REMAND TO THE EXAMINER

The application is remanded to the examiner for consideration of the following.

In reviewing appellant's claims and specification, we note the use of claim terminology such as "attaching device(s)" for mounting replaceable fan blade tip(s) (claims 1 and 28), "aligning means for aligning [the fan blade tips with the fan blades]" (all claims), "mounting device for receiving a fan blade tip" (claim 22) and "fastening means for fastening the replaceable fan blade tip to the fan blade" (claim 28).

The sixth paragraph of 35 U.S.C. § 112 states:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Neither the examiner nor appellant has indicated, on the record, whether any of the above-cited claim recitations invokes the sixth paragraph of 35 U.S.C. § 112. In any event, even if these limitations are interpreted as falling under the

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sixth paragraph of 35 U.S.C. § 112, appellant is still subject to the requirement in the second paragraph of 35 U.S.C. § 112 that a claim "particularly point out and distinctly claim" the invention. As stated in In re Dossel, 115 F.3d 942, 946, 42 USPQ2d 1881, 1885 (Fed. Cir. 1997) (citing In re Donaldson, 16 F.3d 1189, 1195, 29 USPQ2d 1845, 1850 (Fed. Cir. 1994)),

if one employs means-plus-function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112.

If the examiner determines that any of the above-noted recitations does invoke the sixth paragraph of 35 U.S.C. § 112, it is necessary to ascertain what structure in the specification corresponds to that language.

Turning first to the "attaching device(s)" recitation, appellant's specification states, on page 5, that

[a]n attaching device, represented as a mounting area 16, is defined by a plane where both fan blade 14 and replaceable fan blade tip 18 contact each other. A clip 20, as shown in Figure 2b, can be included on the replaceable tip 18 for engaging an aperture 17 (Fig. 2b) in the mounting area of fan blade 14.

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In describing the embodiment of Figures 3a, 3b, wherein a threaded receptacle 23 is provided, appellant's specification does not use the language "attaching device." However, the specification does state on page 6 that

[b]y means of any fastening device such as a screw 28 or the like, the fan blade tips 24 and 25 can be mounted on fan blade 14. The screw 28 or the like engages the threaded receptacle 23 provided in the plastic material as an alternative to the snap-on device shown in Figs. 2-2b.

These disclosures imply, but do not expressly indicate, that the attaching device includes cooperating structures on both the blades and the blade tips.

With regard to the "aligning means" limitation, appellant's specification discloses, in the first and second embodiments, an aligning pin 19 on the tip. Presumably the aligning pin is to be aligned with an associated recess on the blade. Thus, the aligning means also appears to include structures on both the blades and the blade tips.

With regard to the embodiment of Figures 4-4b, appellant's specification describes an arrangement wherein one of a cam and a recess is disposed on the tip and the other of the cam and recess is disposed on the blade, but does not use

the terminology "attaching device." In this same embodiment, appellant's specification also discloses abutting surfaces 36, 37 on the blade and abutting surfaces 36, 37 on the blade tips. Appellant's claim 7 suggests that the "attaching devices" include at least the recesses on the fan blades and claim 13 suggests that the "aligning means" includes at least one of the abutting surfaces on the blades. As the attachment function appears to result only from the cooperation of both the cam and the recess, it appears that the "attaching devices" require the cams on the tips, as well as the recesses on the blades. Similarly, in that the aligning function appears to result only from engagement of both the abutting surfaces of the blade and the abutting surfaces of the tips, the "aligning means" seems to require both structures.

In summary, from the above disclosure, it appears that each of the attaching device and aligning means includes cooperating structures on both the blades and the blade tips. In this regard, we note that claim 1 does not positively recite the tips and that claim 28 does not positively recite the blades. Accordingly, it is not clear whether (1) claim 1, in reciting attaching devices and aligning means, implicitly

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includes the tips and claim 28, in reciting an attaching device and aligning means, implicitly includes the blade or (2) an aperture, receptacle, recess, clip, screw or cam disposed on either the blade or tip constitutes an "attachment means" itself, and an aligning pin, a recess or an abutting surface disposed on either of the blade or tip constitutes an "aligning means" itself, without the cooperating structure on the other of the tip or blade.

Additionally, we note that claim 28 recites an "attaching device" and a "fastening means" as separate elements. This is in contrast to, for example, claim 5, which recites the attaching devices as further including a fastening means. In this regard, this recitation in claim 28 also appears to be at odds with page 6 of the specification, which seems to imply that the fastening means and the threaded receptacle make up the attaching device (the alternative to the snap-on arrangement of the first embodiment).

Moreover, the screw 28 or the like, the only "fastening means" disclosed in the specification, does not appear to be part of the blade tip as disclosed. Rather, the screw or the like fastening means appears to be a separate element which

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may be used with the tip to help attach it to a blade. This raises the question whether the various elements recited in claim 28, the attaching device, aligning means and fastening means, are required to be disposed on or part of the blade tip itself or whether they can be part of another structure capable of use with the tip.

In light of the above discussion, we remand the application to the examiner to ascertain (1) whether each of the above-cited "device" or "means" limitations invokes the sixth paragraph of 35 U.S.C. § 112 and (2) the disclosed structure in the specification which corresponds to each limitation that invokes the sixth paragraph of 35 U.S.C. § 112. If the examiner is not able to ascertain, with certainty, what structure corresponds to any limitations that invoke the sixth paragraph of 35 U.S.C. § 112, a rejection of the claims under the second paragraph of 35 U.S.C. § 112 may be appropriate, as discussed above. Additionally, upon remand, the examiner should also address the specific questions pertaining to claim 28 raised above.

After ascertaining the structure which corresponds to the claim limitations so that the scope of the claims can be

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determined, the examiner should review the Poland, Harless<sup>3</sup> and Campbell<sup>4</sup> patents, as well as other prior art references of which the examiner may be aware, to determine whether the claims are anticipated by or unpatentable over these references.

In particular, the examiner should reconsider the Poland patent to see whether any or all of the claims are anticipated or rendered unpatentable thereby. Poland discloses a document stacking device including a drum-like stacker comprised of a pair of discs 60, as discussed above. The portions of the discs located radially outwardly of the arcuate slots 66a, 66b appear to us to be "fan blades" which define pockets (the slots) for receiving signatures (documents 40). Appellant (brief, page 5) contends that the deflectors 71 and leaf springs 72 are attached to the discs via rivets which must be destroyed in order to remove the deflectors. The examiner should assess, on the record, even assuming arguendo that appellant is correct with regard to the rivets, whether the

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<sup>3</sup> U.S. Pat. No. 2,014,933, issued to Harless et al. on September 17, 1935, cited by the examiner in Paper No. 3.

<sup>4</sup> U.S. Pat. No. 4,357,008, issued Nov. 2, 1982, cited by appellant in Paper No. 2.

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deflectors 71 are nonetheless "replaceable" or, if such an attachment is found to be too permanent to render the deflectors "replaceable," whether it would have been obvious to one of ordinary skill in the art to replace the rivets with other less permanent fasteners, such as screws or the like. The examiner should also determine whether Poland's assembly of the discs, rib, leaf spring and deflector comprises structure which meets the attaching devices, mounting device, aligning means and fastening means limitations set forth in the claims.

Harless discloses a folding machine comprising discs 15 to which a plurality of blades 17 are attached (by screws, as illustrated). The blades 17, together with the discs, form product-receiving pockets 18. With regard at least to claim 28, the examiner should consider whether Harless is an anticipatory reference. For example, do the two bores for receiving the screws correspond, respectively, to the "attaching device" and "aligning means," with the screws corresponding to the "fastening means," as these terms are interpreted in light of appellant's specification?

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The examiner should make similar determinations with regard to Campbell. In Campbell's apparatus, the innermost end of each of a plurality of fingers 16 is bent at a 90 degree angle and inserted in a corresponding hole 20, as shown in Figure 4. Each of the fingers 16 is held in position by a retaining screw 22 threaded into the side of the support plates 12, 14.

#### CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 3-8, 10, 12-22 and 24-28 under 35 U.S.C. § 103 is

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reversed and the application is remanded to the examiner for  
consideration of the issues discussed above.

REVERSED AND REMANDED

CHARLES E. FRANKFORT	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
JEFFREY V. NASE	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
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JENNIFER D. BAHR	)	
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