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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 31

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DOUGLAS J. DAWLEY and JAMES B. VROTACOE

Appeal No. 1999-0231
Application No. 08/472,354

ON BRIEF

Before ABRAMS, STAAB and GONZALES, Administrative Patent Judges

GONZALES, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 1 through 3 and 5 through 7. Claims 4 and 8 through 27, the only other claims remaining in the application, stand withdrawn from consideration under 37 CFR § 1.142(b).

We REVERSE.

The subject matter on appeal is directed to an apparatus for reducing procession of a gapless tubular printing blanket in an offset printing press.[1] With reference to the appellants' Figure 3, the invention includes a groove 50 extending straight across the circumferential surface of the blanket cylinder 40 and connecting the interface of the blanket cylinder 40 and a printing blanket (not shown) to an air canal 60. During operation of the printing press, air canal 60 is vented to atmosphere so that the fluid wave can escape to a region of low pressure via the groove 50. See specification, pp. 7, 8. Claim 1 is illustrative of the subject matter on appeal and is reproduced in an appendix attached to the main brief (Paper No. 24).

The prior art references of record relied upon by the

[1] We are inform by the appellants' specification (p. 2) that printing blanket procession is a phenomena caused by air trapped in the interface between a printing blanket, e.g., printing blanket 16 (Fig. 1), and the outer surface of its corresponding blanket cylinder, e.g., blanket cylinder 14 (Fig. 1). The trapped air creates a continually advancing wave (see bulge 26 in Fig. 1) in front of a nip between the blanket cylinder and an adjacent cylinder against which it is pressed causing the printing blanket to bulge.

examiner in rejecting the appealed claims are:

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| Fellows | 4,030,415 | Jun. 21, 1977 |
| Smith | 4,056,057 | Nov. 01, 1977 |
| Fischer | 4,589,339 | May 20, 1986 |
| Tittgemeyer | 4,913,048 | Apr. 03, 1990 |
| Vrotacoe | 5,245,923 | Sep. 21, 1993 (Filed Jul. 07, 1992) |
| Arkell (British) | 1,401,695 | Jul. 30, 1975 |

The appealed claims stand finally rejected under 35 U.S.C. § 103(a) on the following grounds:

(1) Claims 1 through 3, 5 and 7, unpatentable over Fellows in view of Arkell, Tittgemeyer, Vrotacoe and Fischer; and

(2) Claim 6, unpatentable over Fellows in view of Arkell, Tittgemeyer, Vrotacoe and Fischer, as applied to claim 5, and further in view of Smith.

The full text of the examiner's rejections and response to the arguments presented by the appellants appears in the answer (Paper No. 25), while the complete statement of the

appellants' arguments can be found in the main brief and the reply brief (Paper Nos. 24 and 26 respectively).

OPINION

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

Upon evaluation of all the evidence before us, it is our conclusion that the evidence adduced by the examiner is insufficient to establish a prima facie case of obviousness with respect to the claims under appeal. Accordingly, we will not sustain the examiner's rejections of claims 1 through 3 and 5 through 7 under 35 U.S.C. § 103.

Before addressing the examiner's rejections based upon prior art, it is an essential prerequisite that the claimed subject matter be fully understood. Analysis of whether a claim is patentable over the prior art under 35 U.S.C. §§ 102 and 103 begins with a determination of the scope of the claim.

The properly interpreted claim must then be compared with the prior art. Accordingly, we will initially direct our attention to the appellants' claim 1, which is the only independent claim on appeal, to derive an understanding of the scope and content thereof.

Claim 1 calls for an apparatus for reducing procession of a gapless tubular printing blanket in an offset printing press comprising: a gapless tubular printing blanket; a blanket cylinder having an outer circumference which is greater than the
inner circumference of the printing blanket; means [e.g., air

canal 60, Fig. 3] for radially expanding the gapless printing blanket during installation of the blanket onto and removal of the printing blanket from the blanket cylinder; a print cylinder in rolling engagement with the blanket cylinder; and means extending axially across a length of the blanket cylinder circumferential surface, for connecting an interface of the blanket cylinder and the printing blanket to a low

pressure region.[2]

In construing the language "means extending axially across a length of the blanket cylinder circumferential surface," we note that the "means" may comprise, for example, a groove 50 as shown in Figure 3. The groove 50 is described in the specification (pp. 7, 8) as "extending straight across the circumferential surface of the blanket cylinder" and as connecting the interface of the blanket cylinder 40 and a printing blanket mounted thereon to an air canal 60.

We also note the appellants' argument on page 5 of the brief that the circumferential grooves 10b in the embodiment illustrated in Figure 1 of Fellows do not meet the claimed means limitation because the grooves 10b in Fellows would only allow air trapped between the blanket and cylinder at the circumferential grooves to escape. In fact, Fellows teaches that the grooves 10b in Figure 1 are 6 mm wide (col. 2, l. 67) and "typically located 25 mms from the ends of the tube 10 and at about 30 cms spacing along the length of the tube 10" (col.

[2] According to the appellants' specification (p. 8), the "low pressure region" may be the atmosphere.

2, ll. 59-66).[3]

In light of the specification and the arguments made in the brief, we understand the language "means extending axially across a length of the blanket cylinder circumferential surface" as requiring the "means" to be unbroken or continuous across the length of the cylindrical interface between the blanket cylinder and the printing blanket such that all trapped air in the interface will necessarily encounter the "means" as the cylinder is rotated 360**N**.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established by presenting evidence that the reference

teachings would appear to be sufficient for one of ordinary skill in the relevant art having the references before him to arrive at the claimed invention. See In re Lintner, 9 F.2d

[3] Six (6) mm is approximately ¼ inches and 30 cm is approximately 12 inches.

1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Furthermore, the conclusion that the claimed subject matter is prima facie obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Rejections based on § 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968).

Fellows discloses a first embodiment (see Fig. 1) in which a stretchable seamless printing sleeve 17 is fitted onto

a tube 10

having a larger external diameter than the internal diameter of the sleeve. The tube 17 has a passageway 16 and a series of spaced apart circumferential grooves 10b on its outer surface. The passageway 16 and each of grooves 10b is connected to the inside of the tube 10 which, in turn, may be connected to a source of compressed air. Fellows teaches that the printing roll is assembled by sliding the sleeve axially over the seal 13 to the conical part 10a of the tube, at which point the space 13a between seal 13, the end of the sleeve 17 and the end of the tube 10 becomes pressurized. As the sleeve passes over the tube, the interior of the sleeve is internally pressurized by compressed air distributed from inside the tube through the holes 10c and circumferentially through the grooves 10b to expand the sleeve.

See col. 3, ll. 21-39. Once the sleeve is fully fitted on the tube, the compressed air supply is removed and air inside the tube escapes through passageway 16. Id. at 40-50.

Fellows also discloses a second embodiment (see Fig. 4) in which the internal diameter of the sleeve 17 is larger than

the external diameter of the tube 10 so that the sleeve can easily slip over the tube. In this embodiment, the sleeve grips the

tube by a vacuum applied from inside the tube 10. The vacuum is directed to the underside of the sleeve 17 by virtue of circumferential grooves 26 (arranged like grooves 10b in FIG. 1) each connected to the inside of the tube 10 by a single hole 27. See col. 4, ll. 25-42.

The examiner relies on Arkell, Tittgemeyer, Vrotacoe and Fischer as teaching examples of conventional offset printing apparatus including a blanket cylinder and a printing blanket. See answer, p. 4. The examiner also relies on Arkell as teaching a blanket cylinder formed with means (i.e., grooves 22 (Fig. 2)) extending substantially across a length of the blanket cylinder for connecting an interface of the blanket cylinder and the printing blanket to a low pressure region, i.e., a vacuum source. Id. It is the examiner's position that

> [i]t would have been obvious . . . to utilize the mounting and supporting system in Fellows for any conventional printing member, including a blanket cylinder and printing blanket such as exemplified by each of Arkell (GB 1 401 695), Tittgemeyer, Vrotacoe and Fischer. The motivation would have involved merely the desire to obtain the expected and desired results from a choice of conventional tubular sleeve members.

Id.

The appellants argue in the main brief (p. 4) that the combination of the expansion means for installation and removal

of an undersized gapless tubular printing blanket and the means extending axially across a length of the blanket cylinder for removal of the fluid wave is not taught or suggested by Fellows or Arkell, either individually or in combination. We agree.

The embodiment shown in Figure 1 of Fellows does include an expansion means for installation and removal of an undersized gapless tubular printing blanket in the form of passageway 16 and grooves 10b. However, as we have interpreted claim 1, supra, the language "a means extending axially across a length of the blanket cylinder

circumferential surface, for connecting an interface of the blanket cylinder and the printing blanket to a low pressure region" cannot be read on the widely spaced grooves 10b in Fellows. The embodiment shown in Figure 4 of Fellows has neither the expansion means nor the means extending axially across a length of the blanket cylinder circumferential surface, for connecting an interface of the blanket cylinder and the printing blanket to a low pressure region.

Further, the embodiments shown in Figures 1 and 4 of Fellows are so disparate (one uses an undersized sleeve mounted on an oversized cylinder by expanding the sleeve with compressed air, the other uses an undersized cylinder connected to a vacuum source for securing an oversized sleeve to the cylinder) that we know of no reason why one of ordinary skill in the art would have been motivated to combine their various features in the specific manner set forth in claim 1.

While we recognize that Arkell does suggest a printing

plate vacuum hold down system including a cylinder having either circumferential grooves 11 (Fig. 1) or axial grooves 22 (Fig. 2), we know of no reason why one of ordinary skill in the art would have been motivated to substitute the axially extending grooves disclosed in Arkell, which are connected to a vacuum within the mounting cylinder to maintain a printing plate in position during operation of the printing press, for the circumferential grooves
10b disclosed in Figure 1 of Fellows, which are connected to pressurized air inside the printing cylinder to expand a printing sleeve during mounting of the sleeve on the cylinder. Along this same line, it is not absolutely clear to us that the axially extending grooves 22 in Arkell, which are interconnected by a single circumferential groove 24 to the interior of the cylinder, would successfully perform the function of the circumferential grooves 10b in the embodiment shown in Figure 1 of Fellows.

In our view, the only suggestion for combining the

disparate teachings of Fellow's Figure 1 and Figure 4 embodiments or for modifying either the Figure 1 or the Figure 4 embodiment of Fellows in view of Arkell stems from hindsight knowledge derived from the appellants' own disclosure. The use of such hindsight knowledge to support an obviousness rejection under 35 U.S.C. § 103 is, of course, impermissible. See, for example, W. L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983).

We have reviewed the Tittgemeyer, Vrotacoe and Fischer references applied along with Fellows and Arkell by the examiner against claim 1 on appeal and the Smith reference applied along with Fellows, Arkell, Tittgemeyer, Vrotacoe and Fischer against claim 6. However, we find nothing in these additional references which makes up for the deficiencies of Fellows and Arkell discussed above.

In light of the foregoing, we will not sustain the standing § 103 rejections of independent claim 1 and dependent claims 2, 3 and 5 through 7.

## CONCLUSION

To summarize, the decision of the examiner to reject claims 1 through 3 and 5 through 7 under U.S.C. § 103 is reversed.

## REVERSED

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| NEAL E. ABRAMS<br>Administrative Patent Judge | ) | |
| LAWRENCE J. STAAB<br>Administrative Patent Judge | ) | BOARD OF PATENT APPEALS AND INTERFERENCES |
| JOHN F. GONZALES<br>Administrative Patent Judge | ) | |

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