

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* SHERIDAN JOHN RICHARDS and  
CHARLES REIF HAMMOND

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Appeal 2008-2486  
Application 10/795,540  
Technology Center 2800

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Decided: September 16, 2008

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Before TERRY J. OWENS, ROMULO H. DELMENDO, and KAREN M. HASTINGS, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

The Appellants appeal from a rejection of claims 1-8, 10 and 12-17, which are all of the pending claims. We have jurisdiction pursuant to 35 U.S.C. § 6(b).

## THE INVENTION

The Appellants claim a method for controlling the print-to-cut register in a web printing press, and claim a web printing press having a controller for controlling the print-to-cut registration. Claims 1 and 10 are illustrative:

1. A method for controlling the print-to-cut register in a web printing press having at least one print unit printing a web, each print unit having at least one drive driving the print unit independently of any other print units, the method comprising the steps of:

presetting a web compensator position so as to set a proper print-to-cut registration between a print unit and a cross-cutter; and

controlling the print-to-cut register during printing by controlling the drives of the print units and/or a drive of the cross-cutter.

10. A web printing press comprising:

at least one print unit having a cylinder for printing a web, and a drive motor for driving the cylinder independently of any further print units;

a web compensator downstream of the print unit for adjusting a path length of the web;

a cross-cutter downstream of the web compensator for cutting the web; and

a controller for controlling the web compensator and the drive motor, the controller presetting the web compensator to a position with proper print-to-cut registration between a print unit and a cross-cutter, and controlling the drive motor during printing to maintain the proper print-to-cut register.

## THE REFERENCES

Bergland	5,016,182	May 14, 1991
Goldberg	5,458,062	Oct. 17, 1995
Seiler	6,748,857 B2	Jun. 15, 2004 (filed Jul. 28, 2003)

## THE REJECTIONS

The claims stand rejected as follows: claims 1-6, 8, 10, 12, 16 and 17 under 35 U.S.C. § 102(e) over Seiler; claim 7 under 35 U.S.C. § 103 over

Appeal 2008-2486

Application 10/795,540

Seiler in view of Bergland; and claims 13-15 under 35 U.S.C. § 103 over Seiler in view of Goldberg.

## OPINION

The rejections are affirmed as to claims 1, 4, 6-8, 10, 12, 13, 16 and 17, and reversed as to claims 2, 3, 5, 14 and 15.

### Rejection of claims 1-6, 8, 10, 12, 16 and 17 under 35 U.S.C. § 102(e) over Seiler

We limit our discussion of the claims for which the rejections are affirmed to the claims for which the Appellants have provided a substantive argument for separate patentability, i.e., claims 1 and 10. The Appellants state that claim 12 is separately argued, but the Appellants do not provide a substantive argument as to the separate patentability of that claim (Br. 6).<sup>1</sup> Claims 4, 6, 8 and 16 stand or fall with claim 1 from which they depend, and claims 12 and 17 stand or fall with claim 10 from which they depend. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2007).

### Claims 1, 4, 6, 8, 10, 12, 16 and 17

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

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<sup>1</sup> The Appellants’ argument that the applied reference does not disclose what is recited in claim 12 (Br. 6) is tantamount to merely pointing out what the claim covers, and that is not a substantive argument for separate patentability. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2007).

Seiler discloses “a process for setting the crop mark of printed web strands, which were obtained from one or more webs by lengthwise cutting” (col. 1, ll. 7-10). Seiler transfers printing ink onto a web from cylinders (2a) that preferably are not coupled mechanically with one another but, rather, are driven by separate motors in a synchronized manner (col. 4, ll. 47-50). Seiler then slits the web lengthwise using a cutting roller (3a) to form two web strands (B1, B2) (col. 4, l. 62 – col. 5, l. 5). The web strands pass through a crop mark setting device (10) and then follow separate paths (col. 5, ll. 5-7). One web strand (B1) is guided directly to a lengthwise folding means (9), and the other web strand (B2) is guided to a turning bar means (8) for turning or reversing that strand, and then to the lengthwise folding means whereat the two web strands are formed into a web strand bundle (col. 5, ll. 7-17). Seiler states:

The web strands **B1** and **B2** lying one on top of another in the bundle are folded lengthwise together while passing through the lengthwise folding means **9** and are delivered into a crosscutting means **25**.

....

It is ensured by means of the crop mark setting device **10** that the prints of the web strands **B1** and **B2** will always come to lie between consecutive cuts of the cross-cutting means **25** and are properly centered between the cuts in the practical operation, i.e., they are positioned with sufficient accuracy in relation to the common crop mark.

Seiler, col. 5, ll. 20-24, 38-43.

Seiler also discloses that to adjust for longitudinal offset of the web strands relative to each other, the web strands’ relative longitudinal positions can be adjusted using deflecting means (11, 12) (which correspond to the Appellants’ web compensator) and their associated deflecting rollers (5, 6)

Appeal 2008-2486

Application 10/795,540

(col. 6, ll. 1-10). The deflecting means are rollers, each web strand passing over one of the rollers, that are movable independently of each other back and forth in the web strands' longitudinal direction to change the web strand's path lengths (col. 8, ll. 10-22; fig. 1). The adjustment of the deflecting means is controlled by a control and regulating means comprising a control and regulating member (20), two sensors (23, 24), and two motor-driven final control elements (21, 22) (col. 7, ll. 22-27). Sensors 23 and 24 sense, respectively, the positions of web strands B1 and B2, and send position signals to the control and regulating member (col. 7, ll. 27-32). The control and regulating member uses an algorithm to form setting signals for the final control elements which act on the deflecting means to adjust their positions (col. 7, ll. 32-43; col. 9, l. 47 – col. 10, l. 6). The control and regulating means also sets the correct crop mark position for each web strand (col. 7, ll. 43-47). If, because of the change in a web strand's path length, the web strand is not in register with the cut, the web strand can be brought into register with the cut by adjustment of the circumferential registers of the ink-transferring cylinders and/or the cross-cutting means (col. 10, ll. 7-32).

The Appellants argue that Seiler's deflecting means set a relative registration between two strands, not between a print unit and a cross-cutter (Br. 5).

Seiler's deflecting means (11, 12) are part of the crop mark setting device (10) which, Seiler teaches, ensures that the prints of the web strands always lie between consecutive cuts of the cross-cutting means (25) (col. 5, ll. 38-43; col. 6, ll. 1-6). By adjusting the relative positions of the web strands so that the web strands' prints lie between consecutive cuts of the cross-cutting means, the deflecting means, which correspond to the

Appeal 2008-2486  
Application 10/795,540

Appellants' web compensator, set a proper print-to-cut registration between the print unit and the cross-cutter.

The Appellants argue that any presetting in Seiler can ruin the print-to-cut registration which then must be compensated for by movement of the ink-transferring cylinders and the cross-cutting means (Br. 5-6).

Claim language is to be given its broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). The Appellants' claim 1, as most broadly construed in light of the Appellants' Specification, merely requires that the web compensator is preset "so as to" set a proper print-to-cut ratio. Hence, the claim encompasses presetting the web compensator such that the proper print-to-cut register is set by control of the drives of the print units and/or the cross-cutter. That is what Seiler does when the color marks are in alignment before but not after path adjustment (col. 10, ll. 7-22). Furthermore, Seiler's disclosure that the strands "may" not be in registration with the cut after the adjustment (col. 10, ll. 7-9, 23-25) indicates that the strands may be in registration with the cut after the adjustment. In that case the proper print-to-cut register has been set by the deflecting means (11, 12) corresponding to the Appellants' web compensator, and no adjustment of the circumferential registers of the ink transfer cylinders or the cross-cutting means is needed. As required by the Appellants' claim 10, Seiler's controller presets the deflecting means (web compensator) to a position with proper print-to-cut registration between a print unit and the cross-cutter and, if the strands are not in print-to-cut registration after the path length adjustment, controls the

Appeal 2008-2486

Application 10/795,540

drive motor of the ink-transferring cylinders or the cross-cutting means to maintain the proper print-to-cut register (col. 10, ll. 7-22).<sup>2</sup>

For the above reasons we are not persuaded of reversible error in the rejection of claim 1, claims 4, 6, 8 and 16 that stand or fall therewith, claim 10, and claims 12 and 17 that stand or fall therewith.

### Claims 2, 3 and 5

Claim 2, which depends from claim 1, requires “storing a first value, the first value being a function of an angular position of a cylinder of the print units and/or the cross-cutter after a print job.”

The Examiner argues that “[t]he controller that controls the print units and the drive of the cutter can be said to store the value with which it drives the print units and/or the cutter at any moment in time” (Ans. 9), and that “one angular positional value used to drive a cylinder (first value) is always a function of any other angular positional value of the cylinder. In essence, every number is a function of any other number.” *See id.*

A function is “a mathematical entity that assigns to each element of one set at least one element of the same or another set”.<sup>3</sup> The Examiner has not established, as required by the Examiner’s argument, that Seiler uses a mathematical entity to assign to one angular position the value of another angular position.

Hence, the Examiner has not established a *prima facie* case of anticipation by Seiler of the inventions claimed in the Appellants’ claim 2 or its dependent claims 3 and 5.

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<sup>2</sup> As pointed out by the Appellants, in the Appellants’ claim 10, “[m]ovement of the cross-cutter and print cylinder thus for example is not required” (Br. 5).

<sup>3</sup> *Webster’s New Collegiate Dictionary* 465 (G. & C. Merriam 1973).

Rejection of claim 7 under 35 U.S.C. § 103  
over Seiler in view of Bergland

Claim 7, which depends from claim 1, requires “adjusting a phase of the print cylinder relative to the knife of the cross-cutter during printing through an operator console.”

Bergland discloses a register control means for a web processing apparatus wherein, when the register control means is in automatic correction mode, an operator can change the print-to-cut register by pressing switches on a control panel (col. 1, ll. 7-8; col. 4, ll. 11-12; col. 11, ll. 26-29; fig. 4).

The Appellants argue that there is no reason to add Bergland’s register control means to Seiler’s device (Br. 7).

That reason is to permit the print-to-cut register to be changed by an operator as taught by Bergland (col. 11, ll. 26-29).

We therefore are not persuaded of reversible error in the rejection of claim 7.

Rejection of claims 13-15 under 35 U.S.C. § 103  
over Seiler in view of Goldberg

Claim 13

Claim 13, which depends from claim 1, requires that “a single web compensator contacts the web printed by the at least one print unit.”<sup>4</sup>

Goldberg discloses a continuous web printing press having a page cutting apparatus (col. 1, ll. 9-11). Each of Goldberg’s webs passes over a single compensator roller (96 for web 20, 99 for web 23) and then is

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<sup>4</sup> The web printed by Seiler’s print unit (2) is slit longitudinally and then contacted by two web compensators (deflecting means 11 and 12) (col. 4, l. 65 – col. 5, l. 3; col. 6, ll. 20-24; figs. 1, 4).

Appeal 2008-2486  
Application 10/795,540

longitudinally slit (slitter 24 for web 20, slitter 25 for web 23), after which a single compensator roller is used for each web strand (76 for web strand 26, 77 for web strand 27) (col. 3, ll. 46-48; col. 5, ll. 34-35; fig. 1A).

The Appellants argue that Seiler's entire purpose is to avoid Goldberg's separate compensator for each web (Br. 7).

Like Goldberg (col. 5, ll. 42-44; fig. 1A), Seiler uses a separate web compensator for each strand (col. 6, ll. 20-24; fig. 4). Seiler's printed web is slit longitudinally to form web strands, each of which passes over a separate web compensator (deflecting means 11, 12) (col. 4, ll. 39-47; col. 6, ll. 20-24). Those web compensators for the web strands, in combination, form a single web compensator for the printed web from which the web strands were formed. Hence, Seiler discloses a single web compensator which contacts the printed web as required by the Appellants' claim 13.

We therefore are not convinced of reversible error in the rejection of claim 13.

#### Claims 14 and 15

Claim 14, which depends from claim 1, requires that "the web contacting the web compensator is not slit." Claim 15, which depends from claim 1, requires that "the web is slit after the web compensator."

The Examiner argues that "Goldberg discloses a printing device where the web is never slit lengthwise" (Ans. 11).

That is incorrect. Goldberg's webs are slit after they pass over the compensator roller (col. 3, ll. 46-48; col. 5, ll. 34-35; fig. 1A).

The Examiner argues that one of ordinary skill in the art would have eliminated Seiler's slitting because the apparatus would function equally well and have less moving parts (Ans. 11-12).

Appeal 2008-2486  
Application 10/795,540

The Examiner has not established that an unslit web would function equally well in Seiler's device wherein the web must be slit for the web strands produced by the slitting to have their relative paths adjusted by the deflecting means (col. 5, ll. 1-5; col. 8, ll. 10-22), or that one of ordinary skill in the art would have eliminating that slitting to reduce the number of moving parts.

Hence, the Examiner has not established a *prima facie* case of obviousness of the inventions claimed in the Appellants' claims 14 and 15.

#### DECISION

The rejection of claims 1-6, 8, 10, 12, 16 and 17 under 35 U.S.C. § 102(e) over Seiler is affirmed as to claims 1, 4, 6, 8, 10, 12, 16 and 17, and reversed as to claims 2, 3 and 5. The rejection of claim 7 under 35 U.S.C. § 103 over Seiler in view of Bergland is affirmed. The rejection of claims 13-15 under 35 U.S.C. § 103 over Seiler in view of Goldberg is affirmed as to claim 13 and reversed as to claims 14 and 15.

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

#### AFFIRMED-IN-PART

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