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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
11/867,359 10/04/2007 Karl-Heinz Helmstadter A-4565 8883

24131 7590 11/25/2016
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Table with 1 column: EXAMINER

MARINI, MATTHEW G

Table with 2 columns: ART UNIT, PAPER NUMBER

2854

Table with 2 columns: NOTIFICATION DATE, DELIVERY MODE

11/25/2016

ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KARL-HEINZ HELMSTADTER
and THOMAS SCHMIDT,

Appeal 2015-005851
Application 11/867,359
Technology Center 2800

Before TERRY J. OWENS, LINDA M. GAUDETTE, and LILAN REN,
Administrative Patent Judges.

GAUDETTE, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants¹ appeal under 35 U.S.C. § 134(a) from the Examiner's decision² finally rejecting claims 3, 6, 8, and 10. App. Br. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

“The invention relates to a reversing gripper system disposed on a reversing drum in a sheet-processing machine, in particular a printing press.” Specification filed Oct. 4, 2007 (“Spec.”) ¶ 3. Claim 3, the sole independent claim on appeal, is reproduced below:

3. A sheet-transporting drum, comprising:
 - a pincer gripper system formed of a number of fixed grippers and a number of spring-loaded grippers cooperating with said fixed grippers; and
 - a device for pivoting said fixed and spring-loaded grippers about a common axis and opening said pincer gripper system, said device including:
 - a first rotating drive motor for driving said fixed grippers;
 - a second rotating drive motor for driving said spring-loaded grippers;
 - said drive motors configured to be controlled or regulated in mutual dependence on each other for opening, closing and pivoting said grippers;
 - said drive motors each being disposed inside a periphery of the sheet-transporting drum; and
 - said drive motors each being in drive connection with said gripper system through a respective belt transmission disposed in the sheet transporting drum and including a belt

¹ Appellants identify the real party in interest as Heidelberger Druckmaschinen AG of Heidelberg, Germany. Appeal Brief filed Dec. 23, 2014 (“Br.”), 1.

² Final Office Action mailed June 26, 2014 (“Final Act.”).

pulley configured to provide a connection between a respective drive motor and said gripper system.

App. Br. 11 (Claims App'x).

The claims stand rejected under 35 U.S.C. § 103(a) as follows:

1. Claims 3, 6, and 10 over Haupenthal (US 6,263,794 B1, iss. July 24, 2001) in view of Muller et al. (6,877,430 B2, iss. Apr. 12, 2005 (“Muller”)) and Yamamoto et al. (US 5,253,583, iss. Oct. 19, 1993 (“Yamamoto”));

2. Claim 8 over Haupenthal in view of Muller, Yamamoto, and further in view of Pfisterer et al. (US 5,333,547, iss. Aug. 2, 1994 (“Pfisterer”)).

Haupenthal discloses a rotary printing press comprising a reversing drum 200 “for transporting sheets to be printed or sheets which have already been printed in a recto or first-form printing operation.” Haupenthal 3:12–15. Pincers grippers 1 are distributed along an axial length of reversing drum 200. *Id.* at 3:30–33. Each pincers gripper 1 includes first pincer 2, which serves as a pincer seat, and second pincer 3, formed as a gripper finger. *Id.* at 3:26–29. First pincer 2 is fixed to gripper shaft 4. *Id.* at 3:33–34. Second pincer 3 is braced by stop 7 via compression spring 8 against restraint 9, which is fixed to gripper tube 6. *Id.* at 3:36–39. Second pincer 3 is thus supported on gripper tube 6 so as to be swivellable about gripper shaft 4. *Id.* at 3:34–36.

Muller discloses a sheet-fed rotary printing press that includes a device for pivoting and opening pincer gripper system 4. Muller 9:64–67. Pincer gripper system 4 includes electric linear drive 10 for rotating gripper 6 to a closed position where it cooperates with gripper pad 12 to hold sheet of paper 24. *Id.* at 10:1–5, 23–25, 55–57. The clamping force on sheet of paper 24 can be varied by electromagnetic drive 14 which linearly drives gripper pad 12 into engagement with gripper 6. *Id.* at 10:7–11. Drives 10 and 14 are controlled by control device 26. *Id.* at 10:33–37, 49–50.

Yamamoto discloses a device for positioning printing material in a printing apparatus in which printing is applied by passing the printing material between an impression cylinder and a blanket cylinder. Yamamoto, Abstract. Yamamoto's device includes positioning member 14 for engaging a leading end of printing material 26. *Id.* at 4:33–35. Positioning member 14 includes pivotal lever 27 having a gripper secured thereto by screw member 38 that is spirally fitted to screw shaft 41 of drive means 40. *Id.* at 3:64–66; 4:3–8. Drive means 40 includes: drive motor 44, mounted to a side face of pivotal lever 27; timing belt mechanism 45, for transmitting a driving force of drive motor 44; and worm gear mechanism 46, for deceleratingly transmitting the rotational force of timing belt mechanism 45 to screw shaft 41. *Id.* at 4:9–15. By driving screw shaft 41, drive means 40 allows minute adjustment of the operative position of the gripper, e.g., to a position where it presses the leading end of printing material 26 to restrain it. *Id.* at 4:15–17, 33–39.

The Examiner finds Hauptenthal discloses a sheet-transporting drum comprising “a pincer gripper system” having fixed and spring-loaded grippers, but that Hauptenthal's device for pivoting and opening the grippers does not include all of the features recited in appealed claim 3. Final Act. 2–3. The Examiner finds Muller discloses a device for pivoting and opening the grippers of a pincer gripper system. *Id.* at 3. The Examiner finds the device includes first and second drive motors for moving the grippers, and that the drive motors are disposed inside a periphery of a sheet-transporting drum. *Id.* at 3. The Examiner finds the ordinary artisan at the time of the invention would have replaced (or modified) the device for pivoting and opening the grippers in Hauptenthal's sheet-transporting drum with Muller's device for pivoting and opening grippers, based on Muller's disclosure that separately operable motors, a controller, and transmissions provide a pincer

gripper system capable of regulating closing force via the control device, ensuring proper gripping of sheets during operation. *Id.* at 3–4 (citing Muller 8:39–46 (“The tendency of the gripper to bounce can . . . be reduced . . . by . . . regulation of the closing force via the control device.”)).

The Examiner finds the drive motors of Muller’s device for pivoting and opening grippers are not rotating motors and that Muller’s device does not include a belt transmission as required by claim 3. *Id.* at 4. The Examiner finds Yamamoto discloses the use of a rotary motor and belt drive for driving grippers used to grip printing material in a printing apparatus. *Id.* The Examiner finds one of ordinary skill in the art at the time of the invention would have understood that Yamamoto’s rotary motor and belt drive were an alternative to the linear motors used by Muller, and would have made this substitution in the device for pivoting and opening grippers in the sheet-transporting drum Hauptenthal, as modified by Muller, to achieve the predictable result of moving a gripping element to a position for gripping a sheet. *Id.*

Appellants present several arguments in support of patentability of claim 3. *See* App. Br. 3–10. The Examiner addresses these arguments fully in the Response to Argument section of the Answer. *See* Ans. 2–4. The Examiner demonstrates that a preponderance of the evidence supports a conclusion of obviousness as to claims 3, 6, 8, and 10, explains persuasively why Appellants’ arguments fail to identify error in the Examiner’s conclusion of obviousness. *See id.*; Final Act. 2–6. We add the following for emphasis.

There is no dispute that Hauptenthal discloses a pincer gripper system for use in a reversing drum. *See* App. Br. 5–10. Appellants argue there is no evidence that Muller’s device for pivoting and opening the grippers of a pincer gripper system is capable of being used with a reversing drum in a perfecting operation

(i.e., two-sided printing (*see* Spec. ¶ 4)). App. Br. 5. Appellants argue, more specifically, that Muller’s grippers 6 are not configured for gripping a sheet at the trailing edge (*id.*), i.e., when the sheets are turned for printing on a second side (*see* Hauptenthal 3:10–24). The Examiner determines the broadest reasonable interpretation of claim 3 does not include “any limitations directed towards ‘perfecting’ or ‘gripping a sheet at the trailing edge.’” Ans. 2. However, even applying the narrower claim construction advanced by Appellants, we find Appellants’ argument is not supported by Muller’s disclosure, which describes the pincer gripper system as including “a gripper cooperating with an associated gripper pad for producing a clamping force for holding the sheet at a leading edge *or trailing edge* thereof” (Muller 4:37–41 (emphasis added)).

Appellants argue Yamamoto’s system for driving grippers is not capable of opening, closing, and pivoting grippers. App. Br. 6. Appellants thus contend that if Yamamoto’s drive system were used in place of Muller’s drive system in the sheet-transporting drum of Hauptenthal, as modified by Muller, the device for operating the pincer gripper system would be incapable of opening and closing the grippers. *See id.* at 8. As observed by the Examiner, Appellants’ argument appears to be based on a misapprehension of the Examiner’s rejection as involving an actual replacement of the Hauptenthal-Muller structural arrangement for pivoting and opening the pincer gripper system with Yamamoto’s gripper positioning device. *See* Ans. 3–4. The Examiner’s rejection, however, is based on a finding that one of ordinary skill in the art would have recognized from the collective teachings of Yamamoto and Muller that a rotary motor and belt drive (Yamamoto) and a linear motor (Muller) are equivalent means of moving grippers used to hold papers in a printing operation. *See id.* Appellants have not explained why this finding is erroneous or unreasonable. *See Rolls-Royce, PLC v. United*

Appeal 2015-005851
Application 11/867,359

Technologies Corp., 603 F.3d 1325, 1338 (Fed. Cir. 2010) (“If a person of ordinary skill, before the time of invention and without knowledge of that invention, would have found the invention merely an easily predictable and achievable variation or combination of the prior art, then the invention likely would have been obvious.”).

Appellants do not present separate arguments in support of patentability of any dependent claims. *See* App. Br. 10. Accordingly, we sustain the rejections of independent claim 3 and dependent claims 6, 8, and 10 for the reasons stated in the Final Office Action, the Answer, and above.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. §1.136(a)(1)(iv).

AFFIRMED