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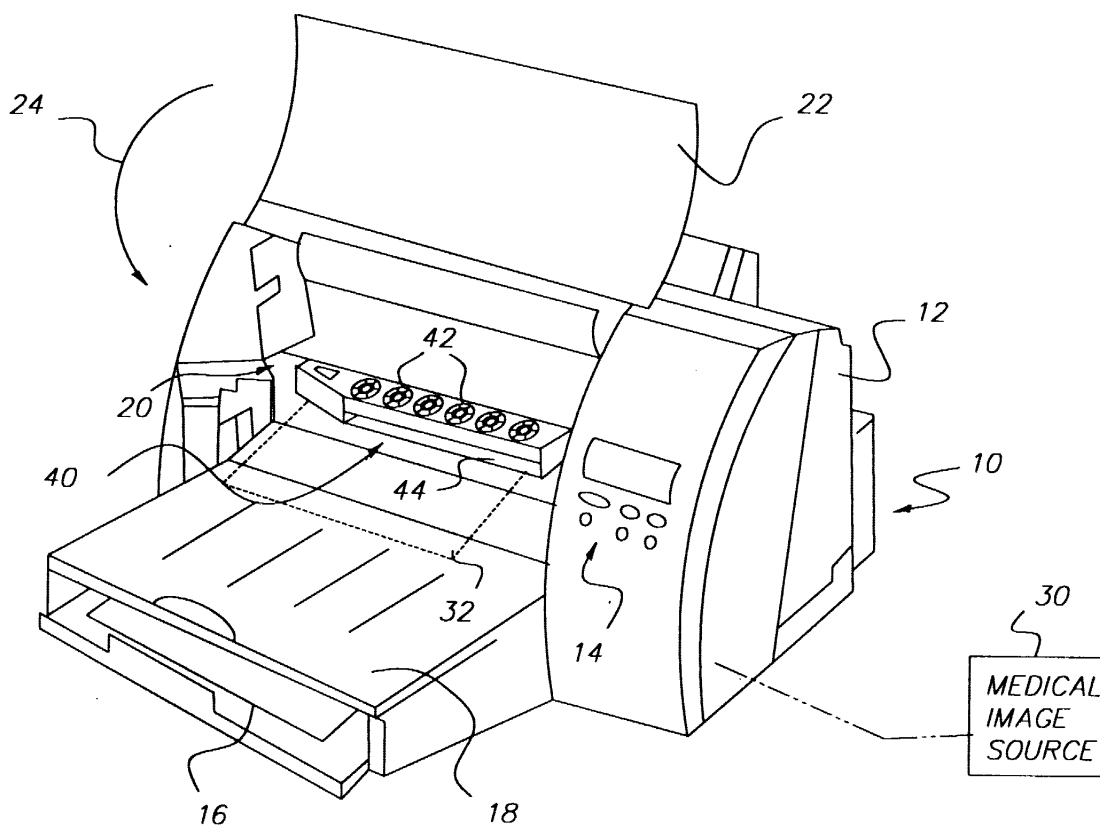
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(54) **Inkjet printer having accelerated print drying**

(57) Printer apparatus comprising:
an inkjet printer for producing an inkjet print of a

received image and a dryer associated with said inkjet
printer for drying said print as it exits from said inkjet
printer.



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Description

[0001] This invention relates in general to inkjet printers and relates more particularly to an inkjet printer having accelerated print drying.

[0002] With medical images it's common to have a dark gray or black background area. When printing medical images using inkjet technology these black background areas use a relatively high amount of ink, and consistently take longer to dry than areas printed with less ink. Wet areas on a print can cause problems for subsequent prints which may stick to the wet ink or cause the wet ink to smear.

[0003] The common practice, as documented in consumer inkjet printer user guides, is to advise users to remove prints from the exit tray before printing a subsequent sheet in order to avoid problems of multiple sheets sticking together or ink smearing.

[0004] Some models of inkjet printers are designed to mechanically hold a printed sheet above the previous sheet for some time to allow the previous sheet to passively air dry, and then drop the sheet onto the stack.

[0005] Some inkjet printer drivers provide a user-selectable dry time delay feature which delays the start of a subsequent print for a time, giving the previous sheet time to passively air dry.

[0006] Some inkjet printer exit trays have a raised center or raised edges intended to minimize the surface contact area between the sheet being printed and the previously printed sheet in the exit tray. This provides for better separation while a sheet is being printed which allows improved air exposure for drying.

[0007] To various degrees, inkjet manufacturers also continue to improve media and ink formulations for better dry time performance as well as suggesting customer print handling guidelines to avoid print dry time problems.

[0008] The present invention solves the problems discussed above.

[0009] According to a feature of the present invention, there is provided

[0010] Printer apparatus comprising:

An inkjet printer for producing an inkjet print of a received image and a dryer associated with said inkjet printer for drying said print as it exits from said inkjet printer.

[0011] The invention has the following advantages.

1. Media stacked in the exit tray does not stick together.
2. Wet ink does not transfer to the sheet above it when multiple sheets are stacked in the exit tray.
3. The leading edge of the sheet being printed does not stick to and push the previous sheet which can cause it to stack out of order, flip, or fall off the exit tray.

[0012] The sole figure is a perspective view of an

inkjet printer incorporating the present invention.

[0013] Referring now to the sole figure, there is shown an inkjet printer incorporating the present invention. As shown, inkjet printer 10 includes a housing 12, control panel 14, input tray 16, output tray 18, inkjet print exit region 20, and movably mounted top cover 22. Cover 22 is shown in an open position and is movable to a closed position by movement in the direction of arrow 24.

[0014] Enclosed within housing 12 are the well known components (not shown) of an inkjet printer. An exemplary inkjet printer is the Kodak 3600 Distributed Medical Imager supplied by the Health Imaging division of the Eastman Kodak Company, Rochester, New York. As is known, inkjet printer 10 receives an image from an image source, such as medical image source 30, and produces an inkjet print 32 of the received image. As the inkjet print 32 exits from the printer 10, there may be areas of the print which are still wet.

[0015] In order to prevent smearing of the print or sticking together of multiple prints, according to the present invention, printer 10 includes a dryer 40 mounted at the exit region 20 of printer 10. Dryer 40 includes a plurality of blowers 42 which blow air into inkjet print 32 as it exits from inkjet printer 10 into output tray 18. Dryer 40 preferably includes heater 44 for heating the air blown onto print 32. Heater 44, for example, can be an electrical grid through which air is blown to be heated.

[0016] Although inkjet printer 10 is preferably a medical image printer, the present invention can be used to dry prints produced by any well known inkjet printer. Medical image source 30 can be any well known medical image source, such as a diagnostic image modality (MRI, CT, PET, US), a computed radiography reader, a radiographic film digitizer, a medical image database, etc.

Claims

1. Printer apparatus comprising:
an inkjet printer for producing an inkjet print of a received image and a dryer associated with said inkjet printer for drying said print as it exits from said inkjet printer.
2. The printer apparatus of claim 1 wherein said inkjet printer produces an inkjet print of a received medical image.
3. The printer apparatus of claim 1 wherein said inkjet printer has an output tray for receiving said prints and wherein said dryer is mounted on said inkjet printer at the output to said output tray.
4. The printer apparatus of claim 1 wherein said dryer includes a blower for blowing air directly on said inkjet print as it exits from said inkjet printer.

5. The printer apparatus of claim 1 wherein said dryer includes a heater for heating said air blown on said inkjet print.

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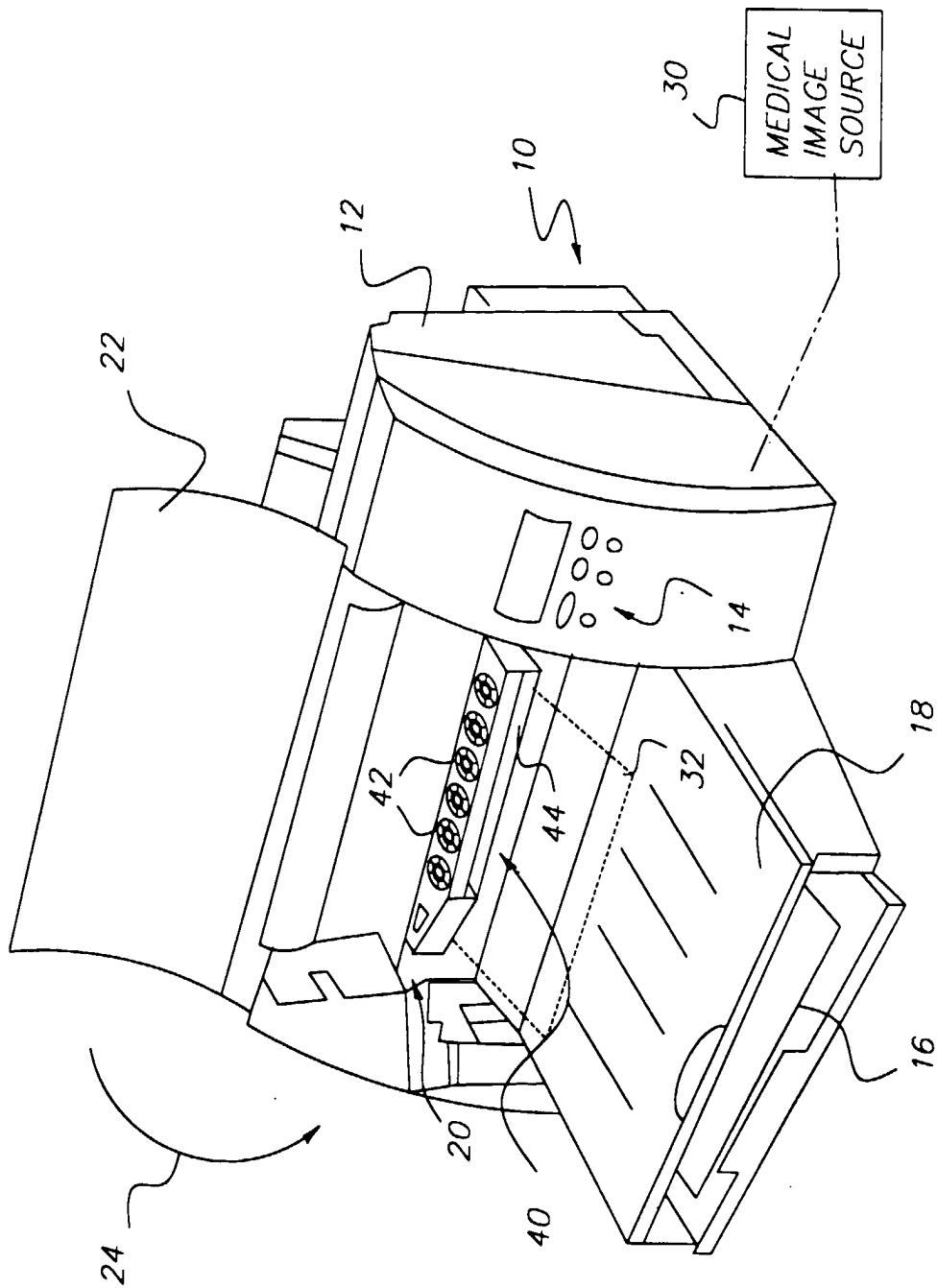
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EUROPEAN SEARCH REPORT

Application Number
EP 00 20 3903

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X	US 5 631 685 A (GOORAY ARTHUR M ET AL) 20 May 1997 (1997-05-20) * column 5, line 47 - column 6, line 48 * * column 11, line 49 - column 12, line 11; figures 1,13 * ---	1-5	B41J11/00
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The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B41J
Place of search		Date of completion of the search	Examiner
MUNICH		20 February 2001	Widmeier, W
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 00 20 3903

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