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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 30

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte THOMAS McCARTNEY

Appeal No. 95-1188
Application No. 08/046,127[1]

HEARD: May 5, 1998

Before HAIRSTON, TORCZON and CARMICHAEL, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 through 24.

The disclosed invention relates to an external DC power supply for supplying DC power to a supported device that has an AC input connector adapted for connecting the supported device to

[1] Application for patent filed April 12, 1993. According to the appellant, the application is a continuation of Application No. 07/578,952, filed September 7, 1990, now abandoned.

an AC voltage source. The supported device includes an internal voltage rectifier that is connected to the AC input connector.

Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. An external DC (direct current) power supply for supplying DC power to a supported device having an AC input connector adapted for connecting the supported device to an AC voltage source and the supported device including an internal voltage rectifier connected to the AC input connector, comprising:

an AC (alternating current) voltage source;

voltage rectifier means coupled to said AC voltage source for rectifying said AC voltage source;

energy storage means coupled in parallel with an output of said voltage rectifier means for providing a predetermined DC voltage threshold level;

connector means for applying a DC power output of said parallel combination of said rectifier means and said energy storage means to the voltage rectifier of the supported device, said connector means being connected to the AC input connector of the supported device;

said energy storage means supplying current only when said voltage rectifying means provides a rectified voltage level below said predetermined DC voltage threshold level thereby providing backup DC power to the supported device; and

said AC input connector of the supported device being connected only to said external DC power supply.

The references relied on by the examiner are:

Wright	3,745,453	July 10, 1973
Hosaka	3,784,841	Jan. 8, 1974
Burgin	4,327,298	Apr. 27, 1982
Miyazawa	4,340,823	July 20, 1982

Petkovsek	4,401,895	Aug. 30, 1983
Heavey et al. (Heavey)	4,468,571	Aug. 28, 1984
Schneider	4,560,887	Dec. 24, 1985
Donze	4,837,672	June 6, 1989
Jackson et al. (Jackson)	4,884,013	Nov. 28, 1989

Claims 1, 2, 9, 14 through 18 and 20 through 24 stand rejected under 35 U.S.C. § 103 as being unpatentable over Petkovsek in view of Heavey, the alleged prior art on page 5 of the specification, and Jackson. Burgin is added to the combination of references for claims 3 and 5, Miyazawa is added to the combination of references for claim 6, Schneider is added to the combination of references for claims 4, 10, 11 and 19, Schneider and Hosaka are added to the combination of references for claims 12 and 13, and Donze and Wright are added to the combination of references for claims 7 and 8.

Reference is made to the briefs, the answers, and the Office Action (paper number 16) for the positions of the appellant and the examiner.

OPINION

We have carefully considered the entire record before us, and we will reverse the obviousness rejection of claims 1 through 24.

Petkovsek discloses (Figure 1) a system for applying uninterruptible DC power to a load at output terminals 10c and

10d. An input 60 Hz AC line voltage at input terminals 10a and 10b is rectified to produce a high DC voltage of 300 volts. In a parallel circuit connected across the output from the rectifier is a DC to DC down converter 16, a backup battery 18, and a DC to DC up converter 20. The down converter reduces the 300 volt output from the rectifier down to a level sufficient to recharge the battery to 24 volts, and the output from the battery is converted by the up converter to a high voltage of 240 volts. If the output from the rectifier 12 remains at a value higher than the 240 volts output from the up converter 20, then diode D1 at the output of the up converter 20 will not become forward biased. If the output voltage from the rectifier falls below the output voltage value from the up converter, then the diode D1 will become forward biased. Thus, the power switch 14 will always have a voltage input. The power switch 14 is a DC to DC converter that converts the high voltage input to a voltage low enough for the load.

The alleged prior art on page 5 of the specification makes clear that a bridge rectifier 36 (Figure 2) is typically included in the supported device 20.

Figure 1B of Heavey discloses a standby power system housing 12 that has an AC input plug 16, and several grounded sockets 18.

Figure 2-1 of Jackson discloses a rectifier 72 for rectifying the AC input voltage to a motor unit for a fluid pump. The motor unit operates under the control of microcomputer 64 (column 3, lines 33 though 35). The rectified output from rectifier 72 is used to charge battery 74 (column 3, lines 49 through 53).

The examiner is of the opinion that it would have been obvious to one of ordinary skill in the art to house the system disclosed by Petkovsek in a housing such as the one disclosed by Heavey (paper number 16, pages 4 and 5). The examiner recognizes (paper number 16, pages 5 and 6) that "neither Petkovsek nor Heavey et al disclose specifically what is included by the supported electrical device which is suggested to be a mpu or computer, namely that it now include a voltage rectifier means." The examiner concludes (paper number 16, page 6) that:

> Nonetheless, it would have been obvious to one having ordinary skill in the art at the time the invention was made to recognize that voltage rectifier means are commonly coupled at the AC input connector of a supported device as acknowledged by applicant on page 5 lines 5-10 as "typically" the supported device includes a rectifier as the conventional AC line voltage source is rectified, although various different arrangements can be used with the supported device. Thus applicant admits that typical supported devices such as those of Petkovsek and Heavey et al include rectifiers in addition to other different arrangements. It would have been further obvious in view of the teachings of Jackson et al that the supported device connected to

> the output terminals 10c, 10d of the Petkovsek device [be] modified by Heavey et al to include AC output receptacle means as such output terminals include an internal voltage rectifier coupled to its input AC connector.

The alleged prior art on page 5 of appellant's specification is merely a statement that the supported device 20 (Figure 2) typically includes a rectifier. Appellant's statement does not mention "typical supported devices such as those of Petkovsek and Heavey." Thus, appellant has not admitted that typical supported devices include rectifiers.

We agree with the examiner (paper number 16, page 5) that it would have been obvious to one of ordinary skill in the art to place the Petkovsek system in a housing as taught by Heavey "to reduce the electrical shock hazard created by exposed circuitry." We do not, however, agree with the examiner's conclusion (paper number 16, page 6) that it would have been obvious to one of ordinary skill in the art to modify the output terminals 10c and 10d of Petkovsek in keeping with the teachings of Heavey to provide an AC output from terminals 10c and 10d. The examiner has failed to present a convincing line of reasoning as to why the skilled artisan would have wanted to change the DC output on terminals 10c and 10d of Petkovsek to an AC output so that the AC output could be rectified to produce a DC voltage which already

existed at the output terminals. Such an unnecessary modification would only have been made to reach the limitations of appellant's claimed invention, and not for any other reason. Appellant correctly argues (Reply Brief, page 5) that "the Examiner can only be relying on Applicant's teaching to achieve the claimed subject matter of the invention."

In view of the foregoing, the 35 U.S.C. § 103 rejection of claims 1, 2, 9, 14 through 18 and 20 through 24 is reversed. The 35 U.S.C. § 103 rejection of claims 3 through 8, 10 through 13 and 19 is likewise reversed because the teachings of Burgin, Miyazawa, Schneider, Hosaka, Donze and Wright do not cure the shortcomings in the teachings of Petkovsek, Heavey and Jackson.

DECISION

The decision of the examiner rejecting claims 1 through 24 under 35 U.S.C. § 103 is reversed.

REVERSED

KENNETH W. HAIRSTON Administrative Patent Judge	)
RICHARD TORCZON Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
JAMES T. CARMICHAEL Administrative Patent Judge	)

Appeal No. 95-1188
Application No. 08/046,127

Joan Pennington
Mason, Kolehmainen, Rathburn & Wyss
Suite 2400
300 South Wacker Drive
Chicago, IL 60606

KWH/jrg

APPEAL NO. 95-1188 - JUDGE HAIRSTON
APPLICATION NO. 08/046,127

APJ HAIRSTON

APJ TORCZON

APJ CARMICHAEL

DECISION: REVERSED

Typed By: Jenine Gillis

DRAFT TYPED: 11 May 98

FINAL TYPED:

3 Member Conf. Yes No