

Title (en)
TACTILEY-GUIDED, VOICE-OUTPUT READING APPARATUS

Title (de)
TAKTIL GELENKTER LESEAPPARAT MIT SPRACHAUSGABE

Title (fr)
DISPOSITIF DE LECTURE A SORTIE VOCALE ET GUIDAGE TACTILE

Publication
EP 0892964 A4 20000223 (EN)

Application
EP 97905884 A 19970211

Priority
• US 9702079 W 19970211
• US 1156196 P 19960213

Abstract (en)
[origin: WO9730415A1] An optical-input print reading device (1) for people with impaired or no vision in which the user passes a mouse assembly (2) containing a camera (25) over the text to be read. Images of this text are input to a computer (3), which decodes the images into their symbolic meanings through optical character recognition (31). By assembling words together from overlapping groups of text elements, whole words are created. Using also the recognized character position output of the optical character recognition (31), the computer (3) directs a linear tactile display (53) contained within the mouse (2) assembly to indicate to the user the presence and vertical alignment of recognized alphanumeric text under the unit. This feedback allows the user to locate and properly align and guide the mouse (2) assembly across the text to be read. Furthermore, through a speech synthesizer (61), the words are spoken audibly as they are passed over. As the device requires only one hand to operate, its uses include reading food packaging, pill bottles, currency, and price tags, as well as printed sheets. In a portable form, this device provides a means for low-vision and blind people to function more fully in their everyday lives.

IPC 1-7
G06K 9/00

IPC 8 full level
G06F 3/00 (2006.01); **G06F 3/01** (2006.01); **G06F 3/033** (2006.01); **G06F 3/042** (2006.01); **G06K 9/20** (2006.01); **G09B 21/00** (2006.01); **G06V 30/10** (2022.01)

CPC (source: EP US)
G06F 3/014 (2013.01 - EP US); **G06F 3/033** (2013.01 - EP); **G06V 30/1429** (2022.01 - EP US); **G06V 30/1444** (2022.01 - EP US); **G09B 21/001** (2013.01 - EP); **G09B 21/007** (2013.01 - EP); **G06F 2203/0331** (2013.01 - EP); **G06V 30/10** (2022.01 - EP US)

Citation (search report)
• [XY] FR 2453451 A1 19801031 - LOPEZ KRAHE JAIME, et al
• [Y] US 3820069 A 19740625 - KREWSON N, et al
• [Y] US 3964022 A 19760615 - MARTIN CHARLES E
• [A] FR 2701132 A1 19940805 - MONTANE IOAN [FR]
• [A] US 4687444 A 19870818 - GARNER H DOUGLAS [US]
• See references of WO 9730415A1

Designated contracting state (EPC)
AT BE CH DE DK ES FI FR GB GR IE IT LI NL PT SE

DOCDB simple family (publication)
WO 9730415 A1 19970821; AU 2266597 A 19970902; AU 709833 B2 19990909; CA 2245769 A1 19970821; EP 0892964 A1 19990127; EP 0892964 A4 20000223

DOCDB simple family (application)
US 9702079 W 19970211; AU 2266597 A 19970211; CA 2245769 A 19970211; EP 97905884 A 19970211