

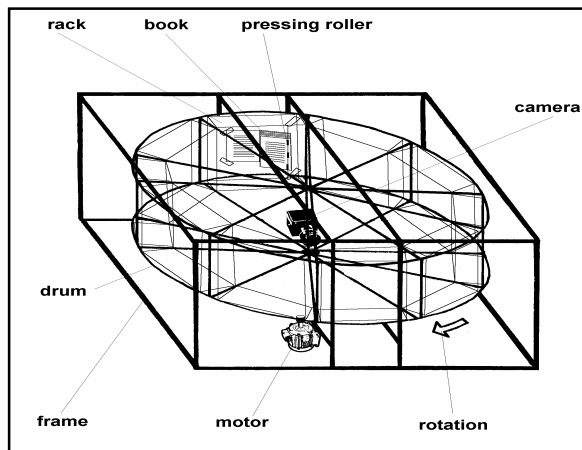
ALICE-INNOVATION

HIGH SPEED AND LARGE CAPACITY BOOK SCANNER

NADAR*

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PRELIMINARY



A patented design

The patented design features a revolving drum in which books are laid in vertical racks in an open position and facing a line scan camera.

The device is able to scan ten books at a time at a theoretical rate of 120 millions of pixels per second, i.e. 50,000 A4 pages per hour at 300 dpi (grey scale).

In order to solve the page turning problem, the images of the pages are digitally processed to control the movement of pressing rollers within the margins. The rotating movement of the rollers initiates the separation of the topmost page which is then driven by the air stream within the drum to the opposite side of the book.

The centrifugal force contributes to flatten the pages and the distortions along the book bindings are reduced.

A revolutionary new concept to scan books and bound volumes.

High labor costs prevent until today scanning of large files of books or other bound documents (Patents, magazines, registers...).

A brand new device, primarily designed to scan the 10 millions of pages of the french patent applications since the origin, is now under development at AI.

Specifications

Description: High-performance system for mass scanning of books or bound volumes.

Mechanical design: frame and drum made of rigid aluminium sections; very high precision bearings.

Size of originals: footprint of the open book 334X500 mm.

Scan head: 4096 elements CCD line sensor.

Max. resolution: 300 dpi; 256 grey levels

Scanning speed: 11.5 pages/s

Output format: TIFF G4

Operation and system control: dedicated PC-based system; bi-processor PENTIUM II 450 Mhz motherboard; high performance data acquisition and processing boards; 4.1 GB buffering hard disk; 21" color monitor.

Scanner interface: Ethernet board.

Light source: mercury vapor lamps with linear condensing lens.

Size: 2000X2000X1000 mm frame; 550x400X100 mm book racks

Weight: 100 kg frame; 5 kg book racks

Power supply: 230 V 50 Hz 2,5 KW

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