Number of documents: 2

US5722811

Method for separating a predetermined number of sheets from a stack of sheets
LENNOX HEARTH PRODUCTS WIND HILL CONCEPTS

WO9944929

Separating sheets from a stack
ASOMM WIND HILL CONCEPTS

Method for separating a predetermined number of sheets from a stack of sheets
US5722811

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- **International Patent Classification**
  B65H-003/08 B65H-003/14 B65H-003/48 B65H-033/00

- **US Patent Classification**
  PCLO=414796000 PCLO=414796000 PCLX=271097000
  PCLX=414795500 PCLX=414801000

- **CPC Code**
  B65H-003/08; B65H-003/14; B65H-003/48; B65H-033/00; B65H
  -2301/422; B65H-2301/541; B65H-2511/30

- **Publication Information**
  US5722811 A 1998-03-03 [US5722811]

- **Priority Details**
  1994RU-0032558 1994-08-29
  1995US-08515466 1995-08-15
  1998US-09032859 1998-03-02

- **Fampat family**

US5722811	A	1998-03-03	[US5722811]
US5984622	A	1999-11-16	[US5984622]

- **Abstract:**
  (US5722811)
  A method of separation from a stack of sheets a block of predetermined number of sheets, the method including retaining the stack so that a portion of one edge of each consecutive foremost sheet is free to bend away from the stack, directing a plane of air flow sequentially on to the foremost surfaces of a predetermined number of foremost sheets to bend at least a portion of the free edge of each of the predetermined number of foremost sheets away from the stack, separating the bent predetermined number of foremost sheets into a block and removing the block from the remaining sheets in the stack. Preferably, the plane of the air flow intersects the plane of the sheets in the stack in the range of 5 DEG -10 DEG . The plane of the air flow can be directed to bend the free edge or just the corners of sheets in the block to be separated. In one example, the stack foremost end is inclined downward and the air flow is directed upward.
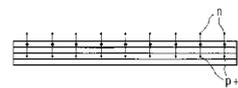
FIG. 1a
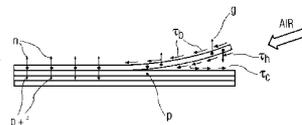
FIG. 1b

Separating sheets from a stack
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  ASOMM WIND HILL CONCEPTS

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- **International Patent Classification**
  B65H-003/08 B65H-003/14 B65H-003/48 B65H-033/00

- **CPC Code**
  B65H-003/08; B65H-003/14; B65H-003/48; B65H-033/00; B65H
  -2301/422; B65H-2301/541; B65H-2511/30

- **Publication Information**
  WO9944929 A1 1999-09-10 [WO9944929]

- **Priority Details**
  1998US-09032859 1998-03-02
  1999WO-US04647 1999-03-02

- **Fampat family**

WO9944929	A1	1999-09-10	[WO9944929]
CA2322433	A1	1999-09-10	[CA2322433]
AU2890799	A	1999-09-20	[AU9928907]
EP1121315	A1	2001-08-08	[EP1121315]
EP1121315	A4	2004-08-25	[EP1121315]

- **Abstract:**
(EP1121315)

A method of and apparatus for separation from a stack of sheets a block of a predetermined number of sheets, the method including moving the stack in a forward direction, directing an air stream across one corner of the forward portion of the stack to spread the corners apart, sensing and counting the number of spread sheet corners that pass a predetermined location, and separating the group of sheets from the remainder of the stack when the sensed and counted sheets reach a predetermined number. Further directing a thin plane of air toward the corner and center of the sheets at said location to cause a greater space between the sheets in the group and the next sheet in the stack. Also, vacuum nozzles are provided to remove unwanted air from above and below the stack and group. With the group so formed, separation includes imparting lateral force on the group edges. (From US5984622 A)