

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
2 December 2004 (02.12.2004)

PCT

(10) International Publication Number
WO 2004/103648 A3

(51) International Patent Classification⁷: **B25C 5/02**, 5/16

(21) International Application Number:

PCT/GB2004/002199

(22) International Filing Date: 21 May 2004 (21.05.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

10/443,854 23 May 2003 (23.05.2003) US

(71) Applicant (for all designated States except US):
WORKTOOLS, INC. [US/US]; 20755 Plummer Street,
Chatsworth, CA 91311 (US).

(71) Applicant (for MN only): **HALEY, Stephen** [GB/GB];
Gill Jennings & Every, Broadgate House, 7 Eldon Street,
London EC2M 7LH (GB).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **MARKS, Joel**
[US/US]; 20755 Plummer Street, Chatsworth, CA 91311
(US).

(74) Agent: **GILL JENNING & EVERY**; Broadgate House,
7 Eldon Street, London EC2M 7LH (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

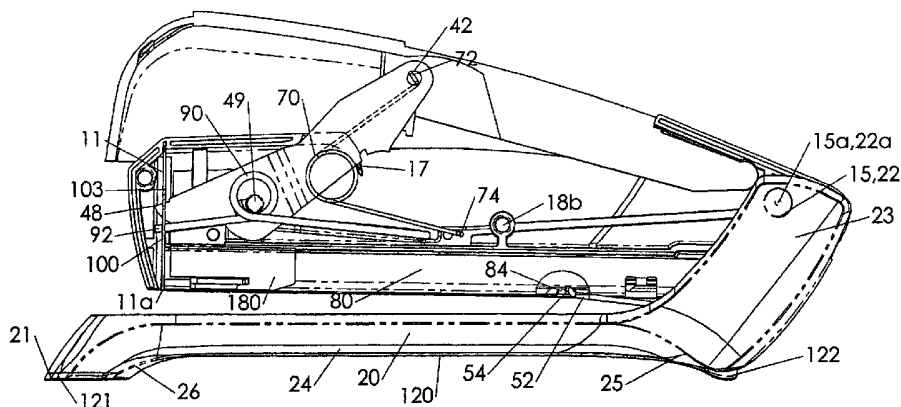
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: SPRING ENERGIZED DESKTOP STAPLER



(57) Abstract: A desktop stapler uses a spring (90) to store energy to install staples by impact blow. The force required to fasten papers together is reduced. A very compact mechanism is used, including a dual coil power spring (90) with a nested lever (40). A multi function base (20) provides a sloped front all the way to down to a desk top surface to guide paper sheets atop the base, easy access for lifting the stapler off a desk, horizontal or vertical resting positions, and integrated soft grip under-surface. The base surrounds the rear of the stapler body (10) to provide a smooth exterior so that the device is natural to use both horizontally and vertically. A simple re-set spring (70) provides a smooth re-set action as the handle (30) is raised. A staple track includes enlargement features to fit a larger staple pusher spring (300).



(88) Date of publication of the international search report:

17 March 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Interr: Application No
PCT/GB2004/002199

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B25C5/02 B25C5/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B25C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2 726 391 A (PILBLAD ERIC J) 13 December 1955 (1955-12-13) column 2, line 72 - column 7, line 2; figures 1,10 -----	1-5
Y	US 6 152 347 A (MCKEOWN TIMOTHY E ET AL) 28 November 2000 (2000-11-28) column 2, line 57 - column 3, line 21; figures 1,5-10 -----	1-5
Y	US 2 915 753 A (HENRY RUSKIN) 8 December 1959 (1959-12-08) column 3, line 47 - line 66; figure 10 -----	2,4
A	WO 02/00397 A (ACKERET PETER ; CTECH AG (CH)) 3 January 2002 (2002-01-03) page 2, line 23 - page 8, line 13; figures 3-5,7,8 ----- -/--	1

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
"&" document member of the same patent family

Date of the actual completion of the international search

7 September 2004

Date of mailing of the international search report

19. 01. 2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Rilliard, A

INTERNATIONAL SEARCH REPORT

Intern Application No
PCT/GB2004/002199

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 981 245 A (SATO HISAO) 1 January 1991 (1991-01-01) column 5, line 11 - column 13, line 64; figures 1,2,26 -----	1
A	US 2 240 911 A (FRIDOLIN POLZER ET AL) 6 May 1941 (1941-05-06) figure 2 -----	1,3
A	EP 1 304 192 A (BALMA CAPODURI & C SPA) 23 April 2003 (2003-04-23) paragraph [0011] - paragraph [0026]; figures 1-5 -----	1
A	US 6 209 772 B1 (WANG DENG-FUW) 3 April 2001 (2001-04-03) column 2, line 13 - column 4, line 61; figures 1,3,4,7 -----	1

INTERNATIONAL SEARCH REPORT

Internat Application No
PCT/GB2004/002199

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2726391	A	13-12-1955	NONE	
US 6152347	A	28-11-2000	WO 9938654 A1	05-08-1999
US 2915753	A	08-12-1959	NONE	
WO 0200397	A	03-01-2002	DE 10031313 A1 CA 2412516 A1 WO 0200397 A1 EP 1294541 A1 JP 2004501783 T US 2004040999 A1	17-01-2002 17-12-2002 03-01-2002 26-03-2003 22-01-2004 04-03-2004
US 4981245	A	01-01-1991	JP 1150206 U JP 1156876 U JP 5040941 Y2 JP 2043189 U JP 5040943 Y2	17-10-1989 27-10-1989 18-10-1993 26-03-1990 18-10-1993
US 2240911	A	06-05-1941	NONE	
EP 1304192	A	23-04-2003	IT MI20010549 U1 EP 1304192 A1 US 2003085251 A1	16-04-2003 23-04-2003 08-05-2003
US 6209772	B1	03-04-2001	DE 29914730 U1 FR 2799148 A3	18-11-1999 06-04-2001

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2004/002199

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-5

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5

Desktop stapler with an elongated base and a pivotably attached body, where the base includes a front and a rear foot sections, while its central portion includes a convex sectional shape.

2. claims: 6-8

Desktop stapler with an elongated base and a pivotably attached body, where the base includes a cover plate, and where a spacer spring is cut out from said cover plate.

3. claims: 9-15

Desktop stapler with an elongated base and a pivotably attached body, where the body can pivot to an upside down position and thus expose the rear end of the stapler.

4. claims: 16-17

Desktop stapler with an elongated base and a pivotably attached body, where the pivot is a post with an end tapered to a small diameter and fitted into an hinge connection recess.

5. claims: 18-27

Stapling device with a body and a pivotably attached handle, where a power mechanism is used to store energy and suddenly release a striker.

6. claims: 28-30

Stapling device with a body and a pivotably attached handle, where a pusher used to push the staples includes a protruding arcuate hump.

7. claims: 31-32

Stapling device with a body and a pivotably attached handle, where the body includes two assembled halves.
