APPENDIX 3
PTX 4

L Number	Hits	Search Text	DB	Time stamp
1	305	81/58	USPAT	2004/06/22 15:53
2	8	("1412688" | "2209988" | "2613566" | "2730000" | "3662867" | "3927582" | "4770070" | "5249487").PN.	USPAT	2004/06/22 15:42
3	1	2209988.URPN.	USPAT	2004/06/22 15:43
4	2	5535647.URPN.	USPAT	2004/06/22 15:44
5	0	587006.URPN.	USPAT	2004/06/22 15:50
6	0	587006.URPN.	USPAT	2004/06/22 15:51
7	1	440473.URPN.	USPAT	2004/06/22 15:52
8	124	81/90.1	USPAT	2004/06/22 17:00
9	11	("2574676" | "4499797" | "4706660" | "5050464" | "5129907" | "5284482" | "5531750" | "5536271" | "5575793" | "5658291" | "5702408").PN.	USPAT	2004/06/22 16:43
10	148	81/90.2	USPAT	2004/06/22 17:21
11	6	("3111157" | "3199334" | "3664213" | "4578982" | "4727742" | "5203197").PN.	USPAT	2004/06/22 17:03
12	6	3199334.URPN.	USPAT	2004/06/22 17:05
13	6	("3111157" | "3199334" | "3664213" | "4578982" | "4727742" | "5203197").PN.	USPAT	2004/06/22 17:10
14	6	3199334.URPN.	USPAT	2004/06/22 17:11
15	6	3199334.URPN.	USPAT	2004/06/22 17:13
16	72	81/90.3	USPAT	2004/06/22 17:29
17	54	81/90.5	USPAT	2004/06/22 17:36
18	62	81/91.1	USPAT	2004/06/22 17:49
19	413	81/126	USPAT	2004/06/22 18:26
20	24	("2007122" | "2325353" | "2563483" | "2851773" | "3136057" | "3240088" | "3545081" | "3672050" | "4318289" | "4531288" | "4769911" | "4831732" | "5033153" | "5099577" | "5206996" | "5475924" | "5515609" | "5581886" | "5836079" | "5943778" | "6202307" | "6237449" | "6336270" | "6357119" | "2003/0054738").PN.	USPAT	2004/06/22 18:25
21	414	81/128	USPAT	2004/06/22 18:47
22	2	("3682008" | "3286560").PN.	USPAT	2004/06/22 18:30
23	0	552343.URPN.	USPAT	2004/06/22 18:34
24	5	"599837"	USPAT	2004/06/22 19:01
25	7	("3189110" | "3254728" | "3708026" | "3708027" | "3763943" | "3827513" | "3856097").PN.	USPAT	2004/06/22 18:49
26	3	3968848.URPN.	USPAT	2004/06/22 18:49
27	0	harris-w-g.in.	USPAT	2004/06/22 18:50
28	0	harris-w.in.	USPAT	2004/06/22 18:50
30	3	("4742516" | "5181208" | "5239681").PN.	USPAT	2004/06/22 18:57
31	3	5848354.URPN.	USPAT	2004/06/22 18:57
32	3	("4028547" | "4631743" | "5003567").PN.	USPAT	2004/06/22 18:58
33	20	5123036.URPN.	USPAT	2004/06/22 18:58
34	18	("2027962" | "3086242" | "3087238" | "3239125" | "3305625" | "3316343" | "3396460" | "3396894" | "3451609" | "3730782" | "3957382" | "4090655" | "4137369" | "4207364" | "4228761" | "4304959" | "4344909" | "4505421").PN.	USPAT	2004/06/22 18:58
35	11	("0186016" | "0599837" | "0743681" | "0808992" | "0822769" | "0877773" | "1316862" | "1366647" | "2543683" | "2778260" | "3329396").PN.	USPAT	2004/06/22 18:59
36	13	"877773"	USPAT	2004/06/22 19:05
37	11	("0186016" | "0599837" | "0743681" | "0808992" | "0822769" | "0877773" | "1316862" | "1366647" | "2543683" | "2778260" | "3329396").PN.	USPAT	2004/06/22 19:01
38	10	877773.URPN.	USPAT	2004/06/22 19:02
39	11	("0186016" | "0599837" | "0743681" | "0808992" | "0822769" | "0877773" | "1316862" | "1366647" | "2543683" | "2778260" | "3329396").PN.	USPAT	2004/06/22 19:04
40	18	"912117"	USPAT	2004/06/22 20:11

41	24	("0346310" | "0581427" | "0877773" | "0912117" | "0915443" | "1000277" | "1074594" | "1243300" | "1274337" | "1291421" | "1357935" | "1410080" | "1450641" | "1844616" | "2580247" | "2860881" | "2979089" | "3377893" | "3664213" | "3724299" | "4524649" | "4722252" | "4813309" | "4932292").PN.	USPAT	2004/06/22 19:06
42	1	"1393267"	USPAT	2004/06/22 20:12
43	4	"2096016"	USPAT	2004/06/22 20:14
44	3	2096016.URPN.	USPAT	2004/06/22 20:13
45	6	"2292391"	USPAT	2004/06/22 20:16
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47	4	"2409549"	USPAT	2004/06/22 20:50
48	1	2409549.URPN.	USPAT	2004/06/22 20:17
49	4	"2547543"	USPAT	2004/06/22 20:51
50	20	"2580247"	USPAT	2004/06/22 20:52
51	4	"2714827"	USPAT	2004/06/22 21:12
52	3	2714827.URPN.	USPAT	2004/06/22 21:10
53	6	"2753742"	USPAT	2004/06/22 21:14
54	10	"2787925"	USPAT	2004/06/22 21:14
55	19	"2884826"	USPAT	2004/06/22 21:15
56	4	"3177695"	USPAT	2004/06/22 21:16
57	5	"3226968"	USPAT	2004/06/22 21:17
58	21	"3664213"	USPAT	2004/06/22 21:18
59	6	"3713322"	USPAT	2004/06/22 21:19
60	10	"3901107"	USPAT	2004/06/22 21:20
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63	1	"4333357"	USPAT	2004/06/22 21:22
64	22	"4724730"	USPAT	2004/06/22 21:23
65	4	"4793225"	USPAT	2004/06/22 21:24
66	4	"4813309"	USPAT	2004/06/22 21:24
67	7	"5067376"	USPAT	2004/06/22 21:25
68	20	"5076121"	USPAT	2004/06/22 21:26
69	11	"5090273"	USPAT	2004/06/22 21:26
70	7	"5207129"	USPAT	2004/06/22 21:27
71	10	"5235878"	USPAT	2004/06/22 21:28
72	6	"5249490"	USPAT	2004/06/22 21:28
73	7	"5261263"	USPAT	2004/06/22 21:29
74	4	"5305670"	USPAT	2004/06/22 21:30
75	4	"5377566"	USPAT	2004/06/22 21:31
76	8	"5448931"	USPAT	2004/06/22 21:32
77	16	"5531549"	USPAT	2004/06/22 21:33
78	6	"5819607"	USPAT	2004/06/22 21:34
79	2	"5893306"	USPAT	2004/06/22 21:35
80	2	"5957010"	USPAT	2004/06/22 21:36
81	3	"6073522"	USPAT	2004/06/22 21:37
82	1	"6164107"	USPAT	2004/06/22 21:38
83	1	"6227076"	USPAT	2004/06/22 21:40
84	1	"6530298"	USPAT	2004/06/22 21:41
85	0	niven-d.in.	USPAT	2004/06/22 21:41

PTO/SB/05 (09-04)
Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office. U.S. DEPARTMENT OF COMMERCE
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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	35985.00.0013
First Inventor	Daniel P. Brown
Title	ADJUSTABLE GRIPPING TOOL
Express Mail Label No.	EL 982267183 US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☑ **Fee Transmittal Form** (e.g., PTO/SB/17)
   (Submit an original and a duplicate for fee processing)
2. ☑ **Applicant claims small entity status.** See 37 CFR 1.27.
3. ☑ **Specification** [*Total Pages* 57]
   Both the claims and abstract must start on a new page
   (For information on the preferred arrangement, see MPEP 608.01(a))
4. ☑ **Drawing(s)** (*35 U.S.C. 113*) [*Total Sheets* 24]
5. **Oath or Declaration** [*Total Sheets* _____]
   a. ☐ Newly executed (original or copy)
   b. ☐ A copy from a prior application (37 CFR 1.63(d))
   (for continuation/divisional with Box 18 completed)
   i. ☐ DELETION OF INVENTOR(S)
   Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☐ **Application Data Sheet.** See 37 CFR 1.76
7. ☐ **CD-ROM or CD-R** in duplicate, large table or Computer Program *(Appendix)*
   ☐ Landscape Table on CD
8. **Nucleotide and/or Amino Acid Sequence Submission**
   (if applicable, items a. – c. are required)
   a. ☐ Computer Readable Form (CRF)
   b. Specification Sequence Listing on:
      i. ☐ CD-ROM or CD-R (2 copies); or
      ii. ☐ Paper
   c. ☐ Statements verifying identity of above copies

ADDRESS TO:

Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

ACCOMPANYING APPLICATION PARTS

9. ☐ **Assignment Papers** (cover sheet & document(s))
   Name of Assignee _____
10. ☐ **37 CFR 3.73(b) Statement** *(when there is an assignee)* ☐ **Power of Attorney**
11. ☐ **English Translation Document** *(if applicable)*
12. ☐ **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
    ☐ Copies of citations attached
13. ☐ **Preliminary Amendment**
14. ☑ **Return Receipt Postcard** (MPEP 503)
    (Should be specifically itemized)
15. ☐ **Certified Copy of Priority Document(s)**
    (if foreign priority is claimed)
16. ☐ **Nonpublication Request** under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent.
17. ☐ Other: _____

18. If a CONTINUING APPLICATION, *check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:*

☐ Continuation ☐ Divisional ☑ Continuation-in-part (CIP) of prior application No.: 10/763,489

Prior application information: *Examiner* Alvin J. Grant *Art Unit:* 3723

19. CORRESPONDENCE ADDRESS

☑ The address associated with Customer Number: 23418 *OR* ☐ Correspondence address below

Name	Michael J. Turgeon, Vedder, Price, Kaufman & Kammholz, P.C.				
Address	222 North LaSalle Street				
City	Chicago	State	IL	Zip Code	60601
Country		Telephone	(312) 609-7716	Fax	(312) 609-5005

Signature	Michael J Turgeon	Date	4/11/05
Name (Print/Type)	Michael J. Turgeon	Registration No. (Attorney/Agent)	39,404

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/17 (12-04v2)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2005

☑ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT	($)	1,625.00

Complete if Known	
Application Number	
Filing Date	
First Named Inventor	Daniel P. Brown
Examiner Name	
Art Unit	
Attorney Docket No.	35985.00.0013

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☑ Deposit Account Deposit Account Number: 220259 Deposit Account Name: Vedder Price

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☑ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**

☑ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☐ Credit any overpayments

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES Fee ($)	FILING FEES Small Entity Fee ($)	SEARCH FEES Fee ($)	SEARCH FEES Small Entity Fee ($)	EXAMINATION FEES Fee ($)	EXAMINATION FEES Small Entity Fee ($)	Fees Paid ($)
Utility	300	150	500	250	200	100	500.00
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee ($)	Small Entity Fee ($)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee ($)	Fee Paid ($)
65 - 20 or HP =	45	x 25	= 1,125.00

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee ($)	Fee Paid ($)
2 - 3 or HP =	0	x 0	= -0-

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims Fee ($)	Fee Paid ($)

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee ($)	Fee Paid ($)
81 - 100 =	0	/ 50 = _____ (round up to a whole number)	x _____	= -0-

4. OTHER FEE(S)

	Fees Paid ($)
Non-English Specification, $130 fee (no small entity discount)	-0-
Other (e.g., late filing surcharge): _____	

SUBMITTED BY

Signature	Michael J. Turgeon	Registration No. (Attorney/Agent) 39,404	Telephone (312) 609-7716
Name (Print/Type)	Michael J. Turgeon		Date 4/11/05

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PATENT
DOCKET NO.: 35985.00.0013

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Daniel P. Brown

For: **ADJUSTABLE GRIPPING TOOL**

Commissioner for Patents
P.O Box 1450
Alexandria, VA 22313-1450

EXPRESS MAIL CERTIFICATE

"Express Mail" label number: EV 982267183 US

Date of Deposit: April 11, 2005

I hereby state that the following *attached* papers or fees:

Utility Patent Application Transmittal Form (PTO/SB/05); Fee Transmittal for FY 2005 (PTO/SB/17); Patent specification, claims, Abstract (total 57 pages); 24 pages of drawings; and return receipt postcard.

are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10, on the date indicated above and is addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Michael J. Turgeon, Reg. No., 39,404

Signature of person mailing paper or fee

NOTE: The label number need not be placed on each page. It should, however, be placed on the first page of each separate document, such as, a new application, amendment, assignment, and transmittal letter for a fee, along with the certificate of mailing by "Express Mail" Although the label number may be on checks, such a practice is not required. In order not to deface formal drawings it is suggested that the label number be placed on the back of each formal drawing or the drawings be accompanied by a set of informal drawings on which the label number is placed.

PTO/SB/05 (09-04)
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U.S. Patent and Trademark Office. U.S. DEPARTMENT OF COMMERCE
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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	35985.00.0013
First Inventor	Daniel P. Brown
Title	ADJUSTABLE GRIPPING TOOL
Express Mail Label No.	EL 982267183 US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☑ **Fee Transmittal Form** (e.g., PTO/SB/17)
   (Submit an original and a duplicate for fee processing)
2. ☑ **Applicant claims small entity status.** See 37 CFR 1.27.
3. ☑ **Specification** [*Total Pages* 57]
   Both the claims and abstract must start on a new page
   (For information on the preferred arrangement, see MPEP 608.01(a))
4. ☑ **Drawing(s)** (*35 U.S.C. 113*) [*Total Sheets* 24]
5. **Oath or Declaration** [*Total Sheets* _____]
   a. ☐ Newly executed (original or copy)
   b. ☐ A copy from a prior application (37 CFR 1.63(d))
   (for continuation/divisional with Box 18 completed)
   i. ☐ DELETION OF INVENTOR(S)
   Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☐ **Application Data Sheet.** See 37 CFR 1.76
7. ☐ **CD-ROM or CD-R** in duplicate, large table or Computer Program *(Appendix)*
   ☐ Landscape Table on CD
8. **Nucleotide and/or Amino Acid Sequence Submission**
   (if applicable, items a. – c. are required)
   a. ☐ Computer Readable Form (CRF)
   b. Specification Sequence Listing on:
      i. ☐ CD-ROM or CD-R (2 copies); or
      ii. ☐ Paper
   c. ☐ Statements verifying identity of above copies

ADDRESS TO:

Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

ACCOMPANYING APPLICATION PARTS

9. ☐ **Assignment Papers** (cover sheet & document(s))
   Name of Assignee _____
10. ☐ **37 CFR 3.73(b) Statement** *(when there is an assignee)* ☐ **Power of Attorney**
11. ☐ **English Translation Document** *(if applicable)*
12. ☐ **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
    ☐ Copies of citations attached
13. ☐ **Preliminary Amendment**
14. ☑ **Return Receipt Postcard** (MPEP 503)
    (Should be specifically itemized)
15. ☐ **Certified Copy of Priority Document(s)**
    (if foreign priority is claimed)
16. ☐ **Nonpublication Request** under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent.
17. ☐ Other: _____

18. If a CONTINUING APPLICATION, *check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:*

☐ Continuation ☐ Divisional ☑ Continuation-in-part (CIP) of prior application No.: 10/763,489

Prior application information: *Examiner* Alvin J. Grant *Art Unit:* 3723

19. CORRESPONDENCE ADDRESS

☑ The address associated with Customer Number: 23418 *OR* ☐ Correspondence address below

Name	Michael J. Turgeon, Vedder, Price, Kaufman & Kammholz, P.C.				
Address	222 North LaSalle Street				
City	Chicago	State	IL	Zip Code	60601
Country		Telephone	(312) 609-7716	Fax	(312) 609-5005

Signature	Michael J Turgeon	Date	4/11/05
Name (Print/Type)	Michael J. Turgeon	Registration No. (Attorney/Agent)	39,404

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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22704 U.S. PTO
041105

Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2005

☑ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT	($)	1,625.00

Complete if Known	
Application Number	
Filing Date	
First Named Inventor	Daniel P. Brown
Examiner Name	
Art Unit	
Attorney Docket No.	35985.00.0013

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☑ Deposit Account Deposit Account Number: 220259 Deposit Account Name: Vedder Price

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☑ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**

☑ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☐ Credit any overpayments

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

	FILING FEES		SEARCH FEES		EXAMINATION FEES		
Application Type	Fee ($)	Small Entity Fee ($)	Fee ($)	Small Entity Fee ($)	Fee ($)	Small Entity Fee ($)	Fees Paid ($)
Utility	300	150	500	250	200	100	500.00
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee ($)	Small Entity Fee ($)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee ($)	Fee Paid ($)
65 - 20 or HP =	45	x 25	= 1,125.00

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee ($)	Fee Paid ($)
2 - 3 or HP =	0	x 0	= -0-

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims	
Fee ($)	Fee Paid ($)

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PATENT
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Daniel P. Brown

For: **ADJUSTABLE GRIPPING TOOL**

Commissioner for Patents
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ADJUSTABLE GRIPPING TOOL

Related Applications

[0001] This application is a continuation-in-part of and claims the benefit of and priority from U. S. Application Ser. No. 10/763,489, filed January 23, 2004.

Background

[0002] This disclosure pertains to a hand tool and more particularly, to an adjustable gripping tool which, as a result of manual operation, self-energizes, automatically configures to engage differently dimensioned and shaped work pieces and de-energizes upon release of actuating force.

[0003] Various types of adjustable gripping tools are known in the art. Specifically, several known adjustable gripping tools are embodied in the form of a "crescent" wrench, an adjustable socket wrench, pipe wrench, vice grips, crimpers, bolt and nut cutters, pipe and tube cutters, and various other "plier-type" gripping tools. A crescent wrench is an adjustable open end wrench that has stationary rotatable screw which engages a toothed rack formed on a first jaw element movable with respect to the second jaw element extending from the first element. The adjustable socket wrench includes a shell housing movable elements, such that movement of the first element with respect to the shell causes the elements to move with respect to the shell in order to engage the work piece. One cutting tool version has adjustable cutting jaws that when tightened and rotated around a tube score and cut the tube.

Another version of the cutting tool uses a blade cutting mechanism. The plier-type devices include a pair of first elements connected in such a manner so as to move at least two jaws toward one another in order to engage the work piece. The crimping tools provide various functions, such as specialty segmented dies that expand or contract via interaction of a tapered boy with a fixed diameter or a plier-type device crimper with jaws that have been modified as a special head to crimp the work piece.

[0004] Each of the prior art devices has disadvantages. The crescent wrench is not automatically resizable during use. The socket device is limited in its effective range of dimensional capability. In other words, a large number of sockets is needed to service a relatively standard range of work pieces, the work pieces must have a standard configuration and the work pieces must be engaged axially.

[0005] The plier-type devices fail to engage the work piece evenly around or within the circumference with proper offsetting forces and stability which aides in operation of the tool. The plier-type devices also concentrate the applied mechanical forces in a point-loading configuration creating pressure points and stress risers on the work piece surface.

[0006] The tube cutting devices cannot be used with one hand. Another disadvantage of tube cutting devices, in particular, knife blade cutters, is that the tubing is often distorted as a result of the asymmetrical cutting forces applied by the blade against the tube. Other tube cutting devices, such as screw-and-wheel-type tube cutters require continuous rotation of the

cutting wheel around the circumference of the tube while simultaneously increasing the force applied by the cutting wheel to the tube in order to increase the cutting depth.

[0007] Prior art crimping devices cannot create symmetrically balanced crimps with a simple hand tool. For example, crimping a metal sleeve on a hydraulic hose requires a press and a proper die for proper application. Also all of the previously available gripping tools either loosely hold the work piece or hold the work piece in a manner that concentrates and focuses the gripping forces in a point pressure-loading configuration. This concentration of gripping forces on certain points oftentimes deforms the work piece. Also the previously available tools for wrench applications could not be easily sized to the work piece.

[0008] Therefore, there exists a need in the art for an adjustable gripping tool which, as a result of manual operation, self-energizes the tool action, may be automatically sized and resized to engage a work piece, de-energizes upon release of actuation force, that has a broad range of dimensional capability, engages work pieces axially and radially and provides offsetting forces for stability in operation. Beyond the ability to resize the gripping range, the gripping tool of the present disclosure symmetrically translates the force applied to the gripping tool onto the work piece in a symmetrically balanced and mechanically advantaged and efficient way. Thus, an even distribution of gripping and rotational force about the work piece is achieved; whereby allowing for the most efficient distribution of mechanical

stress about the work piece. For any given force required to manipulate the work piece the present disclosure will accomplish the work with the minimal distortion of the work piece by distributing the work force over the largest area of the work piece. Other advantages of the adjustable gripping tool of the present disclosure include decreased costs, increased productivity and multi-access engagement of the work piece resulting in a mechanically advantaged, efficient, even and balanced distribution of working forces.

Brief Description of the Drawings

[0009] Certain embodiments are shown in the drawings. However, it is understood that the present disclosure is not limited to the arrangements and instrumentality shown in the attached drawings, wherein:

[0010] FIG. 1 is an exploded perspective view of an adjustable gripping tool in accordance with the principles of the present disclosure.

[0011] FIG. 2 is a top plan view of the adjustable gripping tool of FIG. 1 disposed in an open or first operative position.

[0012] FIG. 3 is a sectioned view of the adjustable gripping tool of FIG. 2 wherein one component of a first element has been removed.

[0013] FIG. 4 is a top plan view of the adjustable gripping tool of FIG. 1 disposed in a closed or second operative position.

[0014] FIG. 5 is a sectional view of the adjustable gripping tool of FIG. 4 taken along a line passing through a second element of the adjustable gripping tool.

[0015] FIG. 6 is a detailed broken-away section view of the adjustable gripping tool of FIG. 6 wherein one component of the first element has been removed.

[0016] FIG. 7 is a detailed broken-away section view of the adjustable gripping tool of FIG. 6 wherein the lock mechanism is disposed in a locked or second operative position.

[0017] FIG. 8 is a top plan view of another embodiment of an adjustable gripping tool in accordance with the principles of the present disclosure.

[0018] FIG. 9 is a top plan view of yet another embodiment of an adjustable gripping tool in accordance with the principles of the present disclosure.

[0019] FIG. 10 is a perspective view of another embodiment of an adjustable gripping tool in accordance with the principles of the present disclosure.

[0020] FIG. 11 is a top plan view of the adjustable gripping tool of FIG. 10, disposed in a closed or second operative position.

[0021] FIG. 12 is a sectional view of the adjustable gripping tool of FIG. 11 taken along a line passing through the second element of the adjustable gripping tool.

[0022] FIG. 13 is a perspective view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0023] FIG. 14 is a top plan view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0024] FIG. 15 is a sectional view of the adjustable gripping tool of FIG. 14 taken along a line passing between a first element and a second element.

[0025] FIG. 16 is a perspective view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0026] FIG. 17 is a perspective view of the adjustable gripping tool of FIG. 16.

[0027] FIG. 18 is an exploded view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0028] FIG. 19 is a top plan view of the adjustable gripping tool of FIG. 18.

[0029] FIG. 20 is a top plan view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0030] FIG. 21 is an exploded view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0031] FIG. 22 is an exploded view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0032] FIG. 23 is a top plan view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0033] FIG. 24 is a perspective view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0034] FIG. 25 is a perspective view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0035] FIG. 26 is a perspective view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0036] FIG. 27 is a perspective view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0037] FIG. 28 is a perspective view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0038] FIG. 29 is a perspective view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0039] FIG. 30 is a top plan view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0040] FIG. 31 is side elevation view of the adjustable gripping tool of FIG. 30.

[0041] FIG. 32 is a bottom plan view of the adjustable gripping tool of FIG. 30.

[0042] FIG. 33 is a partial top plan view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0043] FIG. 34 is a detailed view of a portion of the adjustable gripping tool of FIG. 33 as defined by line B.

[0044] FIG. 35 is a partial bottom plan view of the adjustable gripping tool of FIG. 33.

[0045] FIG. 36 is a detailed view of a portion of the adjustable gripping tool of FIG. 35 as defined by line A.

[0046] FIG. 37 is an exploded view of another embodiment of an adjustable gripping too in accordance with the principal aspects of the present invention.

[0047] FIG. 38 is a perspective view of the adjustable gripping tool of FIG. 37.

[0048] FIG. 39 is an exploded view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0049] FIG. 40 is a top plan view of the adjustable gripping tool of FIG. 39.

[0050] FIG. 41 is a top plan view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0051] FIG. 42 is another top plan view of the adjustable gripping tool of FIG. 41.

[0052] FIG. 43 is an exploded view of the adjustable gripping tool of FIGS. 41 and 42.

[0053] FIG. 44 is a top plan view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure.

[0054] FIG. 45 is another top plan view of the adjustable gripping tool of FIG. 44.

[0055] FIG. 46 is an exploded view of the adjustable gripping tool of FIGS. 44 and 45.

Detailed Description of a Preferred Embodiment of the Disclosure

[0056] For the purposes of promoting and understanding the principles disclosed herein, reference will now be made to the preferred embodiments illustrated in the drawings and specific language will be used to describe the same. It will nevertheless be understood that no limitation of the scope is thereby intended. Such alterations and further modifications in the illustrated device and such further applications are the principles disclosed as illustrated therein as being contemplated as would normally occur to one skilled in the art to which this disclosure relates.

[0057] One principal aspect of the present disclosure is directed to an adjustable gripping tool for engaging a work piece to impart work thereto. The gripping tool includes a first element and a second element connected for a relative movement to generate movement of at least one gripping element. The first element includes a gripping portion configured to engage the work piece including at least one guide and at least one gripping element. Each at least one gripping element may include a body portion adapted for engaging a work piece, an arm portion configured to engage one of the guides and/or a force transfer element contiguous with the arm portion. The second element includes an actuation portion generally aligned with the first element and having at least one slot. Each at least one slot has a section configured to engage one of the force transfer elements such that movement of the second element with respect to the first element actuates each at least one section to

contact and move each respective force transfer element thereby actuating each said at least one gripping element along respective at least one guide.

[0058] FIG. 1 illustrates in an exploded perspective view of the adjustable gripping tool 20 in accordance with principles of the present disclosure. The adjustable gripping tool 20 primarily includes a first element 22 and a second element 24 connected for relative movement. In one embodiment of the present disclosure, the first element 22 includes a pair of elements 23A, 23B disposed on opposing sides of the second element 24. It is within the teachings of the present disclosure that the first element 22 may be configured with a single element 23A or 23B, or as a pair of elements 23A, 23B as may be desired with respect to other design factors of importance to one of skill in the art. The first element 22 includes a first grasping portion 21 and the second element 24 includes a second grasping portion 25. The first and second grasping portions 21, 25 are formed substantially as and commonly referred to as a handle of a tool. The relative movement between the first element 22 and the second element 24 generates, in one embodiment, generally linear movement of the gripping elements 26.

[0059] The first element 22 further includes a gripping portion 28, formed substantially as and commonly referred to a head of a tool, disposed at one end of the first grasping portion 21 and configured to engage the work piece (not shown, see for example only and not by way of limitation FIGS. 10, 14, 15 and 20) including a first opening 30, a plurality of guides 32 extending radially from the first opening 30 and the gripping elements 26. It is within the

teachings of the present disclosure that the guides 32 may be formed in any suitable configuration. For example, the guides may be formed as groves, channels or any other suitable configuration. Not by way of limitation, but such structural configuration is often guided by manufacturing methods or capabilities. Additionally, the guides 32 may be curvilinear or linear. The gripping elements each include a body portion 34 adapted for engaging the work piece, an arm portion 36 configured to engage one of the guides 32 and a force transfer element 38 contiguous with or preferably connected to the arm portion 36. It is within the teachings of the present disclosure that the gripping elements may be integrally formed in any suitable manner. It will also be recognized that the gripping elements may be formed in any other suitable manner as desired to achieve any intended purpose or function. Examples of such other configurations or formations will be disclosed below, but shall not be considered limiting in any sense.

[0060] In one embodiment of the present disclosure, the arm portion 36 of the gripping elements 26 further includes a pair of arms 37A, 37B disposed at opposite ends of the body portion 34 such that the gripping elements 36 are substantially U-shaped. It will be recognized by those of skill in the art that the pair of arms 37A, 37B, when so provided engaged the respective guides 32 formed in the first element elements 23A, 23B, respectively. The pair of arms 37A, 37B each include an aperture 40 aligned such that one of the force transfer elements 38 is contiguous therewith for positioning and actuation of the gripping elements 26 as detailed below.

[0061] It is within the teachings of the present disclosure that the gripping elements may have a smooth or rough face with which to engage the work piece, as desired. For example, the rough face may have a grooved, serrated, checked or any other suitable finish. Furthermore, the force transfer elements 38 may be configured as pins or other suitable structure to provide the functions as described herein. Moreover, the first element and/or each of the elements thereof may often be referred to as a handle and the second element may often be referred to as a lever. It will be recognized by those of skill in the art that the terms used herein are not of a limiting sense. Rather, these terms are used to broadly describe the structure and function herein.

[0062] The second element 24 further includes an actuation portion 42, formed substantially as and commonly referred to as a head of a tool, disposed at one end of the second grasping portion 25 and having a second opening 44 preferably concentric with the first opening 30 and a plurality of slots 46 disposed adjacent the second opening 44. It will be recognized by those of skill in the art that the first and second openings need not be precisely concentric in order to operate as disclosed and provided the intended function. Rather, references to concentric alignment shall include any alignment of the first and second elements which permits operation as disclosed. In one embodiment, each of the slots 46 has a first section 48 configured to engage one of the force transfer elements or pins 38 such that movement of the second element 24 with respect to the first element 22 simultaneously actuates the first sections 48 to contact and move the force transfer elements 38 along a

path defined by the first section thereby actuating the gripping elements 26 along the guides 32. It will be recognized by those of skill in the art that in this embodiment the first sections 48 define a path which generally decreases in terms of radial measurement from a center of the second opening 44 from a first outer end 50 to an inner end 52. In another embodiment, the paths may generally increase in terms of radial measurement from the center of the second opening 44 such that relative movement between first and second elements generates an outward motion of the gripping elements. Alternatively, the guides, slots and force transfer element may be configured to interact in a number of different ways to move the actuation elements into movement with the gripping or work piece engaging elements. For example, a pair of slots may be formed in a pair of cooperative first and/or second elements where each slot defines an arcuate path that simultaneously act on the force transfer element to effect movement of the gripping element, as described in further detail herein.

[0063] In one embodiment, each of the slots 46 further includes a second section 54 extending from the first section 48. It will be recognized by those of skill in the art that the second section 54 defines a path which is generally consistent in terms of radial measurement from the center of the second opening 44 from the inner end 52 to a second outer end 56.

[0064] In one embodiment of the present disclosure, the first element 22 further includes a plurality of aligning elements 58 for engaging the second sections 54 and where the two elements 23A, 23B are used for

positioning and interconnecting the elements 23A, 23B of the first element 22. Each aligning element 58 is disposed between an adjacent pair of guides 32 and extends parallel to the force transfer element 38. Apertures 60 are formed in the first elements 23A, 23B to receive and engage the aligning elements 58. In operation, each one of the aligning elements 58 engages one of the second sections 54 so that during relative movement between the first element 22 and the second element 24, or first and second elements, respectively, the first and second openings 30, 44 remain generally aligned. It will be recognized by those of skill in the art that the second sections 54 engage the aligning elements 58 in response to the forces induced by the divergent path of the first sections 48 on the force transfer elements 38. As a result, not only do the first and second openings 30, 44 remain generally concentrically aligned, but the gripping elements 26 are actuated along the guides 32 with equal, likewise displacement. It is within the teachings of the present disclosure that the slots 46 may include a third section defined within the first section. The third section facilitates actuating a respective gripping element at a different rate. It will be recognized by those of ordinary skill in that art that such configuration will be advantageous when timing of engagement between the gripping elements and the work piece is desired. For example, a third section may be used in a crimping operation wherein at least one of the slots includes a first section and a third section and at least one of the slots includes a first section. All the gripping elements are initially actuated by the first section of each slot. However, those gripping elements associated with the third section will be

moved at a different rate as dictated by the third section. Such different rate may increase, decrease or maintain the timing of engagement with the work piece. Those gripping elements not associated with the third section continue to move as per the first section. Accordingly, the third section gripping elements hold the work piece while the first section gripping elements further act on the work piece by piercing or any other desired action.

[0065] A spacer 62 may be used to interconnect the elements 23A, 23B to define a pocket 64 such that a spring 66 disposed within the pocket contacts the second element 24 in order to dispose the second element in a normally open position (see FIGS. 2 and 3). The spacer may be connected to each of the elements 23A, 23B by press fit pins 66 engaging aligned apertures 68 or any other suitable device or in any other suitable manner.

[0066] A lock mechanism 70 is connected to the first element 22 such that operative movement of the lock mechanism 70 from a first operative position (see FIGS. 4 and 5) to a second operative position (see FIGS. 2 and 3) secures the first element 22 and second element 24 in any desired orientation. The lock mechanism 70 may be connected between the elements 23A, 23B by a press fit pin 72 engaging aligned apertures 74 or by any other suitable device or in any other suitable manner. The inner or operative end 76 of the lock mechanism 70 is configured as a cammed or eccentric surface. In one embodiment, this may be achieved by disposing aperture 74 offset from the longitudinal axis of the lock mechanism 70. Alternatively, an eccentric shaped

surface may be defined on the inner or operative end 76 or by any other suitable manner.

[0067] When oriented in the first operative position (See FIGS. 4 and 5), the inner end 76 of the lock mechanism 70 defines a clearance (82, see FIG. 6) with respect to the second element 24. Movement of the actuating end 78 of the lock mechanism 70 from the first operative position to the second operative position (See FIGS. 2 and 3) moves the inner end 76 about the aperture 74 such that the operative end 76 binds against the second element 24 thereby securing the first element and second element in a desired orientation. It is within the teachings of the present disclosure that the lock mechanism may be formed with any suitable structure for the desired functionality. For example, in one embodiment, the lock mechanism may include cooperative, complimentary saw-tooth, grooved or geared surfaces that facilitate an interference fit so that the tool may be used to impart work to the work piece with either a clockwise or a counter-clockwise orientation. Any other suitable structure which would facilitate an interference fit would be useful and/or desireable.

[0068] In one embodiment of the present disclosure, the gripping portion 28 includes six gripping elements 26. However, it would be recognized by those of skill in the art, that the gripping portion 28 need include only at least one gripping or engaging element 26 and that any other suitable number of gripping or work piece engaging elements may be provided. In the embodiment with six gripping elements, the adjustable gripping tool may be

advantageously used in connection with hex-shaped work pieces where the gripping elements face-load each of the flats of the work piece. Such a configuration is advantageous compared to conventional inventors that point-load a hex-shaped fastener at its corners.

[0069] FIG. 2 illustrates the adjustable gripping tool of FIG. 1 disposed in an open position. The second element 24 is biased from the first element 22 as described above to maintain such open position. The lock mechanism 70 is disposed in the second operative position securing the first element 22 and second element 24 a desired orientation. The adjustable gripping tool 20 of this embodiment is configured such that the gripping portion 28 and the actuation portion 42 are adapted to circumferentially engage the work piece. However, in FIG. 2, the gripping elements 26 are disposed such that the arms 36 engage the guides 32 in a manner which is characteristic of the open position of the adjustable gripping tool 20. The force transfer elements 38 and aligning elements 58 are shown as force transfer elements press fit to the gripping elements 26 and first element 22 respectively. Alternatively, the force transfer elements can be manufactured as a protrusion of the gripping or work piece engaging element.

[0070] FIG. 3 illustrates a section view of the adjustable gripping tool 20 of FIG. 2 wherein one element of the first element 22 has been removed. Element 23B is shown having spacer 62 connected thereto to define a pocket 64 such that the spring 66 disposed within the pocket 64 contacts the second element 24 to bias the second element 24 in the open position. As described

above, the lock mechanism 70 is engaged in the second operative position securing the first element 23B and second element 24 in the desired open position. Aligning elements 58 are disposed at the inner end 52 of the slot 46 which defines a point of separation between the first section 48 and the second section 54. The force transfer elements 38 are disposed at the outer end 50 of the first section 48 of the slot 46 as will be shown and described in more detail below.

[0071] FIG. 4 illustrates an adjustable gripping tool 20 disposed in a closed position wherein the first element 22 and second element 24 are disposed immediately adjacent. The lock mechanism 70 is disposed in the first operative position, unlocked. The gripping elements 26 have been moved from an open position, as shown in FIGS. 2 and 3, to a closed position such that the gripping elements are adapted for engaging the work piece.

[0072] FIG. 5 illustrates a section view of the adjustable gripping tool 20 of FIG. 4 taken through the second element where the adjustable gripping tool is disposed in the second operative or closed position. The first element is represented by element 23B which is disposed immediately adjacent the second element 24. The force transfer elements 38 have been moved as a result of contact with the first section 48 of the slots 46 from an outer end 50 to an inner end 52. The aligning elements 58 have been moved from an inner end from the second section 54 of the slot 56 to an outer end 56. It will be recognized by those of skill in art that the paths defined by the first and second sections 48, 54 of the slot 46 are divergent. The aligning elements 58 engage

the second portion 54 of the slot 46 in order to maintain proper orientation between the first element 22 and the second element 24. The force transfer elements 38 engage the first portion 48 of the slot 46 such that the generally decreasing diameter dimension of the path defined by the first portion 48 causes the force transfer elements to move closer to the center of the first and second openings 30, 44. Accordingly, the gripping elements 26 are likewise actuated along the guides 32 to engage the work piece. The lock mechanism 70 is disposed in a first operative position. It should also be noted that the slots can be reversed and the action reversed such that the actuation elements are radiating from the center during activation.

[0073] FIG. 6 illustrates a detailed broken away view of the adjustable gripping tool 20 of FIGS. 4 and 5. The lock mechanism 70 is disposed in a first operative or open position. The lock mechanism 70 is connected to the first element 22 by a pin 74 which is disposed offset from a longitudinal axis of the lock mechanism 70, such that in this first operative position, a clearance 82 is defined between the lock mechanism operative or inner end 76 and the second element 24.

[0074] FIG. 7 illustrates the adjustable gripping tool 20 of FIG. 6 wherein the lock mechanism 70 has been moved from the first operative position (shown in FIG. 6) to a second operative position. As a result of movement of the lock mechanism 70 the clearance is eliminated between the operative or inner end 76 and the second element 24. Accordingly, the lock mechanism 70 binds against the second element 24 such that the first element

and second element 24 cannot be moved relative to one another without first releasing the lock mechanism 70. It will be recognized by those of skill in the art that the pin 74 used to mount the lock mechanism 70 to the first element 22 is most often offset from the longitudinal axis of the lock mechanism 70. However, an eccentric surface at the inner or operative end 76 may also be formed to enable the same function.

[0075] FIG. 8 illustrates another embodiment of the present disclosure of the adjustable gripping tool 20 wherein only three gripping elements 26 are shown. It is within the teaching of the present disclosure that the gripping portion 28 only include at least one gripping element 26. Grips 84A, 84B may also be provided for the first element 22 and second element 24 to further facilitate effective ergonomic actuation of the adjustable gripping tool 20. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0076] FIG. 9 illustrates yet another embodiment of the present disclosure directed to an adjustable gripping tool 20. In this embodiment of the present disclosure, the gripping portion 28 and the actuation portion 42 are configured penannular. Such configuration enables the wrench 20 to engage the work piece laterally or in a radial direction. Further, four gripping elements 26 are illustrated in this embodiment. The remaining structural and functional elements and aspects of this embodiment of the present disclosure

may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0077] FIG. 10 illustrates another embodiment of the present disclosure wherein the adjustable gripping tool 20 is configured as a cutting or scoring device for engaging, for example, a tubular element. In this embodiment, the second element 24 is configured substantially U-shaped. Such configuration may be achieved by binding, folding or otherwise forming a unitary element as shown in FIG 10. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0078] The first and second elements 22, 24 are connected for relative movement in order to generate linear movement of the gripping elements. It is within the teachings of the present disclosure that the gripping elements may also be configured to score or cut a work piece. For example, in one embodiment, the gripping elements described above which are configured to engage the work piece as described above may be replaced with gripping elements configured to perform the scoring or cutting functions.

[0079] FIG. 11 illustrates a top plan view of the embodiment of the present disclosure in FIG. 10 disposed in a closed position. The first and second elements 22, 24 have been moved toward one another such that the gripping elements 26 extend into the first opening 30 to engage a work piece (not shown). As shown in FIG. 10, this embodiment is configured to engage a

tubular element, such as a pipe or other suitable work piece. For example, a polyvinyl chloride ("PVC") pipe may be cut or scored with the sharp-edged gripping elements of this embodiment and not distort the PVC pipe. As a result, in addition to a clean perpendicular cut-off, the PVC pipe is not deformed so that further coupling is problematic. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0080] FIG. 12 illustrates a sectional view of the adjustable gripping tool 20 of FIG. 10 taken through the first element 22, where the tool 20 is disposed in an open position. The gripping element 26 disposed within the guides 32 include all the structural elements as described above. However, rather than a U-shaped body, a force transfer element extends from each side of the body portion to engage the slots of the pair of elements 25a, 25b (25b in FIG. 11) which comprise the second element 24.

[0081] FIG. 13 illustrates a perspective view of another embodiment of an adjustable gripping tool in accordance with the principal aspects of the present disclosure. In this embodiment of the present disclosure, the adjustable gripping tool 20 includes gripping elements 26 which have extensions 100 that extend beyond the first element 22. The extensions 100 facilitate engaging work pieces disposed in a space-limited location, where access for the entire tool 20 may be difficult or problematic. The remaining structural and functional elements and aspects of this embodiment of the

present disclosure remain the same as detailed above. Alternatively, other structural elements may be formed on the extensions 100 to enable additional functions for the tool 20, such as crimping, cutting, or any other suitable function. Additionally, the extensions 100 may extend to either side or both and incorporate any of the embodiments set for the below or herein to facilitate any intended function. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0082] FIG. 14 illustrates a top plan view of another embodiment of an adjustable gripping tool 20 in accordance with the principal aspects of the present disclosure. In this embodiment, the adjustable gripping tool 20 includes gripping elements 26 which are each configured as a cutting wheel that movably engages the work piece 102 to facilitate severing of the work piece 102 by movement of the tool 20 about the work piece 102 after movement of the second element 24 with respect to the first element 22, as shown in FIG. 15. As with the other gripping elements described herein, the cutting wheels 26 include a body portion 34 adapted for engaging work piece 102, an arm portion 36 configured to engage one of the guides 32 and a force transfer element 38 contiguous with or preferably connected to the arm portion 36. As shown in FIG. 15, relative movement of the second element 24 with respect to the first element 22 actuates each gripping element or cutting wheel 26 along a respective guide 32 in order to facilitate engagement with the work piece 102.

It is within the teachings of the present disclosure that the gripping elements or cutting wheels 26, in this embodiment or any other herein, may be configured in any suitable manner or structure in order to achieve any identified or desired purpose and that only at least one gripping element or cutting wheel 26 is necessary and the number of gripping elements or cutting wheels 26 is not limited. Furthermore, the adjustable gripping tool 20 may be configured such that the cutting wheels 26 may be replaceable in the event they dull or break. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0083] FIGS. 16 and 17 are perspective views of another embodiment of an adjustable gripping tool 20 in accordance with the principal aspects of the present disclosure. In this embodiment, the adjustable gripping tool 20 includes extensions 100 that project from the gripping elements 26 to engage an interior of a work piece (not shown for clarity). The extensions 100 shown in this embodiment are substantially L-shaped and define a pocket 106 between the extension 100 and the gripping element 26 to receive the work piece. When configured as such, the extension 100 of this embodiment, is facilitates a crimping operation. Another feature of this embodiment, is a reverse or divergent operation of the gripping elements 26 upon relative movement of the first element 22 with respect to the second element 24. Such a configuration enables the gripping elements 26 to engage a first dimension

work piece with the first and second elements 22, 24 disposed in a first operative position (as shown in FIG. 16) and a second dimension work piece with the first and second elements 22, 24 disposed in the second operative position (as shown in FIG. 17), such that the first dimension work piece is smaller than the second dimension work piece (both of which are not shown for clarity). It is within the teachings of the present invention that the adjustable gripping tool 20 as shown in FIG. 16 may be used to engage a single work piece and upon relative movement of the first and second elements 22, 24 impart a crimping operation upon such work piece and complete such operation upon attaining the configuration as shown in FIG. 17. It is within the teachings of this disclosure that the extensions 100 may take any other suitable configuration or structure, one such example may be the tap shown in FIG. 25 or a structure wherein the extensions project to both sides of the adjustable gripping tool. and function in the same manner to achieve any desired purpose. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0084] FIG. 18 is an exploded view and FIG. 19 is a top plan view, both of another embodiment of an adjustable gripping tool 20 in accordance with the principal aspects of the present disclosure. In this embodiment, the adjustable gripping tool 20 includes gripping elements 26 which have a planar configuration. The gripping elements 26 have a thickness 108 that is generally equivalent to a thickness 110 of the respective first element 22 with which

such gripping element 26 is associated. Such a configuration of the gripping elements 26 in this embodiment facilitates flexibility of such gripping elements in operation of the gripping tool 20 to engage the work piece. Moreover, gripping elements 26 having a planer configuration are more simple to manufacture various shapes and lengths and to assemble within the adjustable gripping tool 20.

[0085] Another aspect of this embodiment of the present disclosure is that the gripping elements 26 are configured to have a V-shape 112 in the body portion of the gripping element such that the vertex 114 of the V-shape 112 is directed towards the force transfer element 38. Such configuration facilitates face-loading and corner loading for hex-shaped work pieces or those work pieces with defined corners, as described in more detail above and point loading for those work pieces that are generally cylindrical, tubular or have corners with angles between adjacent sides thereof that are larger than the angle of the sides of the V-shape. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0086] FIG. 20 is a top plan view and FIGS. 21 and 22 are exploded views, all of other embodiments of an adjustable gripping tool 20 in accordance with principal aspects of the present disclosure. Each of the embodiments shown in these figures has a common element, a cover plate 116, connected in any conventional manner to the first element 22 to reinforce and protect the

adjustable gripping tool 20. As shown in FIG. 20, the cover plate 116 has a penannular configuration and is attached to the gripping portion 28 of the first element 22. It will be recognized by those skill in art that the cover plate 116 of such configuration facilitates reinforcement of the adjustable gripping tool 20 having a open head or penannular configuration that facilitates radial engagement of a work piece 102. This embodiment also shows the V-shaped gripping elements of an above-described embodiment for face-or corner-loading the work piece 102. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0087] As shown in FIG. 21, this embodiment of the present disclosure includes a cover plate 116 that has an overall dimension and shape that is generally equivalent to an overall dimension and shape of the first element 22 and is attached over each first element 22. It will be recognized by those of skill of the art that substantial reinforcement of the entire length of the tool 20, i.e. gripping and grasping portions, is provided in this embodiment of the present disclosure and that such configuration also provides protection to the operating elements of the adjustable gripping tool. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0088] As shown in FIG. 22, the cover plate 116 is configured as a receptacle 118 defined by a pair of cover portions 120 offset by a margin portion 122 to engage outer surfaces of a pair of aligned first elements 22. In addition to the reinforcing and protection advantages discussed above, this embodiment of the present disclosure further provides an additional level of isolation and protection of the gripping and grasping portions and in particular, the gripping elements, from the effects of an operating environment that may be dusty, dirty or subject to harsh fluids. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0089] FIG. 23 is a top plan view of another embodiment of an adjustable gripping tool 20 is accordance with the principle aspects of the present disclosure. In this embodiment, the adjustable gripping tool 20 includes the gripping elements 26 configured to engage a non-standard work piece. As used in this disclosure, a non-standard work piece may be a security fastener, or any other type or kind of work piece that does not have a conventional cylindrical, tubular, hex, square or other standard dimension or shape. As discussed many times above, the adjustable gripping tool 20 may have the gripping elements 26 configured in any suitable manner to engage any desired work piece. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any

of the like structure and functional aspects of the other embodiments disclosed herein.

[0090] FIG. 24 and 25 are perspective views of other embodiments of an adjustable gripping tool 20 in accordance with the principle aspects of the present disclosure. In these embodiments, the gripping elements 26 include extensions 100 which are configured to cooperatively function to facilitate chasing threads. It will be recognized by those of skill in the art that the gripping elements 26 and extensions 100 may be configured to engage any desired type of thread, for example, pipe threads, standard coarse or fine threads, metric coarse or fine threads or any other conventional or proprietary type of thread configuration. The embodiment shown in FIG. 24 is configured to engage exterior threads formed on a work piece, while the embodiment disclosed in FIG. 25 is configured to engage the interior threads formed on a work piece, both in a manner described above. These embodiments are particularly advantageous over prior art thread chasing devices in that the present embodiments may chase all the threads of the work piece rather than starting at one end of the work piece and proceeding axially which may be difficult or problematic in the event that the initial starting threads are so damaged that the thread chasing device cannot properly engage the work piece threads. The present embodiment overcomes such disadvantage by engaging a substantial portion of the threads of the work piece past an initial engagement point for the threads, as would a conventional thread chaser. The remaining structural and functional elements and aspects of this embodiment of the

present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0091] FIG. 26 is a perspective view of another embodiment of an adjustable gripping tool 20 in accordance with the principle aspects of the present disclosure. In this embodiment, the first element 22 includes a pair of first elements 22 and a backbone 120 connecting a portion of common edges of the pair of first elements 22. The pair of first elements 22 and the backbone 20 are integrally formed from a unitary blank of material. This embodiment is advantageous in that manufacture of the first element is efficient, economical and has increased strength. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0092] FIGS. 27 and 28 are perspective and top plan views other embodiments of an adjustable gripping tool 20 in accordance with the principle aspects of the present disclosure. In these embodiments, each gripping element 26 includes an extension 100 that projects from the gripping element 26 to define a second body portion 122 adapted for engaging the work piece such that the body portion 34 facilitates a first range of gripping ability and the second body portion 122 facilitates a second range of gripping ability. It will be recognized those of skill in the art that the adjustable gripping tool 20 of these embodiments facilitates a wide range of gripping ability such that a single adjustable gripping tool 20 may replace a considerable number of similar tools.

The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0093] FIG. 29 is a top plan view of another embodiment of an adjustable gripping tool 20 in accordance with the principle aspects of the present disclosure. In this embodiment, the adjustable gripping tool 20 includes gripping elements 26 that have been configured such that the body portion 34 of each gripping element 26 facilitates crimping a wire/terminal connection or a rather suitable or like connection. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0094] FIG. 30 is a top plan view, FIG. 31 is a side elevation view and FIG. 32 is a bottom plan view, all of another embodiment of an adjustable gripping tool 20 in accordance with the principle aspects of the present disclosure. In this embodiment, the adjustable gripping tool 20 primarily includes a first element 22 and a second element 24 connected for a relative movement. The first element includes a first grasping portion 21 and the second element includes a second grasping portion 25. The first and second grasping portions 21, 25 are formed substantially as and commonly referred to as a handle of a tool. The relative movement between the first element 22 and the second element 24 generates, in one embodiment, generally linear movement of the gripping elements 26.

[0095] The first element 22 further includes a gripping portion 28, formed substantially as and commonly referred to as a head of a tool, disposed at one end of the first grasping portion 21, and configured to engage the work piece (not shown for clarity) including a plurality of guides 32 formed in the grasping portion 28 and the gripping elements 26. The gripping elements 26 each include a body portion 34, adapted for engaging the work piece, an arm portion 36, configured to engage one of the guides 32 and a force transfer element 38 contiguous with or preferably connected to the arm portion 36. In this embodiment, the guides 32 are formed as grooves in the gripping portion 28 that do not pass completely through the gripping portion, as best shown in FIG. 32. It is within the teachings of the present disclosure that the guides 32 may be formed as slots, grooves, channels or any other suitable configuration. As discussed in the many embodiments above, it is within the teachings of the present disclosure that the gripping elements may be formed in any suitable manner or configuration.

[0096] The second element 24 further includes an actuation portion 42, formed substantially as and commonly referred to as a head of a tool, disposed at one end of the second grasping portion 25 having an opening 44 and a plurality of slots 46 disposed adjacent the opening 44. In one embodiment, each of the slots 46 has a first section 48 configured to engage one of the force transfer elements or pins 38 such that movement of the second element 24 with respect to the first element 22 simultaneously actuates the first sections 48 to contact the force transfer elements 38 along a path defined

by the first section thereby actuating the gripping elements 26 along the guides 32. It will be recognized by those of skill in the art that the first sections 48 define a path which generally decreases in terms of radial measurement from a center of the opening 44 from an outer end to an inner end. In another embodiment, the paths may generally increase in terms of radial measurement from the center of the opening 44, such that relative movement between first and second elements generates an outward motion of the gripping elements originally disposed adjacent the center of the opening 44. Alternatively, the guides, slots and force transfer elements may be configured to interact in a number of different ways to move the actuation elements into movement with a gripping or work piece engaging elements.

[0097] In this embodiment, the body portions 34 include an extension 100 to facilitate increased area of the body portion for gripping the work piece. In one embodiment, the first element 22 may further include a plurality of aligning elements 58 for engaging the second sections 54. Each aligning element 58 is disposed between an adjacent pair of guides 32 and extends parallel to the force transfer element 38. In operation, each one of the aligning elements 58 engages one of the second sections 54 during relative movement between the first element and the second element the first and second elements 22, 24 remain generally aligned. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0098] FIG. 33 is a partial top plan view of another embodiment of an adjustable gripping tool in accordance with the principle aspects of the present disclosure. FIG. 34 is a detailed view of a portion of the adjustable gripping tool 20 of FIG. 33 defined by line B. FIG. 35 is a partial bottom plan view of the adjustable gripping tool 20 of FIG. 33. FIG. 36 is a detailed view of a portion of the adjustable gripping tool 20 of FIG. 35 as defined by line A. In this embodiment, the adjustable gripping tool 20 primarily includes a first element 22 and a second element 24 connected for relative movement. The first element 22 includes a gripping portion 28 including a plurality of guides 32 (as best shown in FIG. 34) formed in the grasping portion 28 extending radially from a first opening 30 and the gripping elements 26.

[0099] The second element 24 includes an actuation portion 42 having a plurality of slots 46 formed therein. It is within the teachings of the present invention that the slots 46 may be formed as slots, grooves, channels, any combination thereof or any other suitable configuration. In this embodiment, the slots 46 have a first section 48 that is configured as a groove or channel, while the second sections 54 of the slots 46 are formed completely through the actuation portion 42 as would a conventional slot. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0100] FIG. 37 is an exploded view and FIG. 38 is a top plan view, both of another embodiment of an adjustable gripping tool 20 in accordance

with the principle aspects of the present disclosure. In this embodiment, the adjustable gripping tool 20 primarily includes a first element 22 and a second element 24 connected for relative movement. The first element 22 further includes a gripping portion 28 formed substantially as and often referred to as a head of a tool, disposed at one end of the first grasping portion 21, and configured to engage the work piece (not shown for clarity) including a plurality of guides 32 formed in the grasping portion 28 and the gripping elements 26. The guides 32 are formed as grooves in the grasping portion 28 that do not extend entirely through the first element 22. A guide slot 31 is disposed within each guide 32 and extends entirely through reduced guide portion of the first element 22. It is within the teachings of the present disclosure that the guides 32 may be formed in the first element 22 in any suitable manner. The groove-like configuration of the guides 32 provides additional support for the gripping elements 26 in that the floor 33 of the guides, in which the guide slots 31 are formed provides an additional guide surface for the gripping elements 26 and facilitates resistance to twisting of the gripping elements 26.

[0101] The gripping elements 26 each include a body portion 34, adapted for engaging the work piece and arm portion 36, configured to engage one of the guides 32 and associated guide floor 33, and a force transfer element 38 contiguous with or preferably connected to the arm portion 36. It is within the teachings of the present disclosure that the gripping elements 26 may be formed in any suitable manner or configuration and that the force transfer element be configured in any suitable manner. For example, the force transfer

element may be a threaded fastener, rivet, pin, shaft, connector or any other suitable device to perform the intended function. The second element 24 further includes an actuation portion 42, formed substantially as and commonly referred to as a head of a tool, disposed at one end of the second grasping portion 25 having a plurality of slots 46 formed therein. In one embodiment, each of the slots 46 has a first section 48 configured to engage one of the force transfer elements 38 such that movement of the second element 24 with respect to the first element 22 simultaneously actuates the first sections 48 to contact the force transfer elements 38 along a path defined by the first section thereby actuating the gripping elements 26 along the guides 32 and guide slots 33.

[0102] It will be recognized by those of skill in the art that the first sections define a path which generally decreases in radially measurement from a center of an actuation portion 42 from a first outer end to a second inner end. In another embodiment, the paths may generally increase in terms of radially measurement from the center of the actuation portion 42, such that relative movement between first and second elements generates an outer motion of the gripping elements originally disposed adjacent center of the actuation portion or gripping portion. Alternatively, the guides, slots, and force transfer elements may be configured to interact in any number of different ways to move the gripping or work piece engaging element.

[0103] In this embodiment, the body portion 34 include an extension 100 to facilitate increased area of the body portion for gripping the work piece. In one embodiment, the first element 22 may further include a plurality of aligning elements 58 for engaging a second section of the slots. Each aligning element 58 is disposed between adjacent pair of guides 32 and extends parallel to the fourth transfer element 38 and may be configured as the force transfer elements to provide the intended function. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0104] FIG. 39 is an exploded view and FIG. 40 is a top plan view of another embodiment of an adjustable gripping tool 20 in accordance with the principal aspects of the present disclosure. In this embodiment, the second element 24 includes a pair of second elements. Each of these second elements 24 includes an actuation portion 42 including at least one slot 46 having a first section 48.

[0105] The second element 24 further includes a grasping portion 25 operatively coupled to the first element 22. In this embodiment, a rivet, fastener or other suitable or like device 200 engages the generally aligned apertures 202 of the first and second elements to operatively couple the grasping portion 25 to the first element 22. It is within the teachings of the

present invention that any other suitable device may be used to provide such operative coupling as will be recognized by one of skill in the art.

[0106] The grasping portion 25 is operatively associated with the actuation portion 42 in meshing engagement. In this embodiment, meshing engagement is defined by cooperative contact between at least one tooth 204 and at least one groove 206. It is within the teaching of the present invention that any number of cooperative tooth and groove combinations may be used. For example, in one embodiment one tooth or groove may be formed on the grasping portion 25 and a complimentary groove or tooth may be formed on the actuation portion 42. In another example, a plurality of teeth or grooves may be formed on the grasping portion 25 and a complimentary groove or teeth may be formed on the actuation portion 42. Furthermore, it is within the teachings of the present disclosure that gear multiplication/leverage or other mechanical advantage may be designed into such meshing engagement and that any suitable structure to provide the functionality of mechanical leverage for advantage may be used. For example, in one embodiment, different gear ratios may be used to facilitate the desired advantage. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0107] FIG. 41 is a top plan view of another embodiment of adjustable gripping tool 20 in accordance with the principal aspects of the

present disclosure. The adjustable gripping tool 20, as shown in FIG. 41, is disposed in a first operative position. FIG. 42 is another top plan view of the embodiment of the adjustable gripping tool 20 of FIG. 41 wherein the adjustable gripping tool 20 is disposed in a second operative position. FIG. 43 is an exploded view of the adjustable gripping tool 20 of FIG. 41 and 42. In this embodiment, the adjustable gripping tool 20 primarily includes a second element 24 that includes a pair of second elements. Each of the second elements 24 includes an actuation portion 42 including at least one slot 46 having a first section 48. Each at least one slot first section 48 formed in one of the pair of second elements 210 defines a one path 212 and each at least one slot for section 48 formed in another of the pair of second elements 214 defines another path 216. The one path 212 has a generally clockwise orientation, in that, as the path extends from an inner end to an outer end, such extension is generally in the direction of clockwise. The another path 216 has a generally counter-clockwise orientation, in that, as the path extends from an inner end to an outer end, such extension is generally in the direction of counter-clockwise. As best shown in FIGS. 41 and 42, the one path 212 and the another path 216 cooperatively engage the force transfer element of one said at least one gripping element 26 to actuate each said at least one gripping element 26 along respective said at least one guide 32. It is within the teachings of the present invention that the orientation of the paths defined above is not limiting in any sense, rather such description is a useful for explaining the functional aspects of this embodiment. Essentially, the paths

extending in different directions yet cooperatively acting on the force transfer element facilitate increased mechanical advantage against the force transfer element and hence the gripping elements. Accordingly, a more secure grip can be achieved thereby. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0108] FIG. 44 is a top plan view of another embodiment of an adjustable gripping tool 20 in accordance with the principal aspects of the present disclosure. The adjustable gripping tool, as shown in FIG. 44, is disposed in a first operative position. FIG. 45 is another top plan view of the embodiment of the adjustable gripping tool 20 of FIG. 44 shown disposed in a second operative position. FIG. 46 is an exploded view of the adjustable gripping tool 20 of FIG. 44 and 45. In this embodiment, the adjustable gripping 20 includes a one second element 24A and an another second element 24B connected for relative movement which generates movement of at least one gripping element 26. Each at least one gripping element 26 includes a body portion 34 and a force transfer element 38 contiguous with the body portion 34. The one second element 24A and the another second element 24B each include an actuation portion 42 including at least one slot 46 having a first section 48. Each at least one slot first section 48 formed in the one second element 24A defines a one path 212 and each at least one slot first section 48 formed in another second element 24B defines another path 216. The one path

212 and the another path 216 cooperatively engage the force transfer element 38 of one said at least one gripping element 26 to actuate each said at least one gripping element 26 into engagement with the work piece. In this embodiment, the one path has a generally clockwise orientation and the another path 216 has a generally counter-clockwise orientation. It would be recognized by those of ordinary skill in the art that the orientation of either of the paths may be reversed to facilitate any desired function. The remaining structural and functional elements and aspects of this embodiment of the present disclosure may be configured as any of the like structure and functional aspects of the other embodiments disclosed herein.

[0109] This disclosure is not limited to the details of the apparatus depicted and other modification and applications may be contemplated. For example, the force transfer elements and aligning elements may be changed as desired for other like bearing elements. The gripping elements themselves may be varied in size, shape, surface finish, body configuration, arm configuration or quantity. And the gripping elements may have a cutter, roller or blade attached to perform cutting or scoring operations. Also, the size, shape and position of the openings may be altered as desired to suit particular applications. Further, the first and second elements, gripping elements and other components of the various embodiments of the gripping tool described above may be formed from any suitable material, including without limitation, metal, plastic, composite, natural, synthetic or any other material. Certain other changes may be made in the above-described apparatus without

departing from true spirit and scope of the disclosure here involved. It is intended, therefor that the subject matter of the above depiction shall be interpreted as illustrated and not in a limiting sense. The actual scope of the disclosure is intended to be defined in the following claims when viewed in their proper perspective based on the related art.

CLAIMS

WHAT IS CLAIMED IS:

1. An adjustable gripping tool for engaging a work piece to impart work thereto, the tool comprising:

a first element and a second element connected for relative movement which generates movement of at least one gripping element;

the first element including a gripping portion configured to engage the work piece including at least one guide defined in the gripping portion and said at least one gripping element;

each at least one gripping element including a body portion adapted for engaging the work piece, an arm portion configured to engage one said at least one guide and a force transfer element contiguous with the arm portion;

the second element including an actuation portion having at least one slot therein, each said at least one slot having a first section configured to engage the force transfer element of one said at least one gripping element, such that movement of the second element with respect to the first element actuates each at least one first section to contact and move each respective force transfer element thereby actuating each said at least one gripping element along respective said at least one guide.

2. The gripping tool as recited in claim 1, wherein the first element includes a pair of elements disposed on opposing sides of the second element.

3. The gripping tool as recited in claim 1, wherein the arm portion of the gripping elements further includes a pair of arms disposed at opposite ends of the body portion such that the gripping elements are substantially U-shaped.

4. The gripping tool as recited in claim 1, wherein the first element further includes at least one stud such that each said at least one stud is disposed between an adjacent pair of guides and extends parallel to the force transfer elements.

5. The gripping tool as recited in claim 4, wherein at least one of the slots further includes a second section extending from the first section, such that one said at least one stud engages one of the second sections so that during relative movement between the first element and the second element the first and second elements remain generally aligned.

6. The gripping tool as recited in claim 5, wherein the first and second sections are divergent.

7. The gripping tool as recited in claim 1, wherein the gripping elements which perform one function may be replaced with gripping elements that perform a different function.

8. The gripping tool as recited in claim 1, wherein the gripping elements score and cut.

9. The gripping tool as recited in claim 1, wherein movement of said at least one gripping element is linear.

10. The gripping tool as recited in claim 1, wherein movement of said at least one gripping element is curvilinear.

11. The gripping tool as recited in claim 1, wherein each said at least one guide extends radially.

12. The gripping tool as recited in claim 1, wherein each said at least one guide extends along a curvilinear path.

13. The gripping tool as recited in claim 1, wherein each at least one gripping element is configured as a cutting wheel that movably engages the work piece to facilitate severing of the work piece by movement of the tool about the work piece after movement of the second element with respect to the first element.

14. The gripping tool as recited in claim 1, wherein each at least one gripping element includes an extension that projects from the gripping element to engage an interior of the work piece.

15. The gripping tool as recited in claim 14, wherein said at least one gripping element is configured to engage a first dimensioned work

piece with the first and second elements disposed in a first operative position and a second dimensioned work piece with the first and second elements disposed in a second operative position, such that the first dimensioned work piece is smaller than the second dimensioned work piece.

16. The gripping tool as recited in claim 14, wherein said extension is configured to facilitate a crimping operation.

17. The gripping tool as recited in claim 14, wherein said extension defines a pocket between the extension and the gripping element to receive the work piece.

18. The gripping tool as recited in claim 14, wherein said extension is configured to facilitate chasing threads.

19. The gripping tool as recited in claim 1, wherein each at least one gripping element has a planar configuration.

20. The gripping tool as recited in claim 19, wherein each at least one gripping element has a thickness equivalent to a thickness of the respective associated first element.

21. The gripping tool as recited in claim 1, wherein each at least one gripping element body portion is configured to have a "V" shape where a vertex of the "V" shape is directed toward the force transfer element.

22. The gripping tool as recited in claim 1, wherein a cover plate is connected to the first element to reinforce the tool.

23. The gripping tools as recited in claim 22, wherein the cover plate has a penannular configuration and is attached to the gripping portion.

24. The gripping tools as recited in claim 22, wherein the cover plate has a dimension that is generally equivalent to a first element dimension and is attached over the first element.

25. The gripping tools as recited in claim 22, wherein the cover plate is configured as a receptacle defined by a pair of cover portions offset by a margin portion to engage a pair of first elements.

26. The gripping tool as recited in claim 1, wherein said at least one gripping element is configured to engage a non-standard work piece.

27. The gripping tool as recited in claim 26, wherein the non-standard work piece is a security fastener.

28. The gripping tool as recited in claim 1, wherein said at least one gripping element is configured to cooperatively function to facilitate chasing threads.

29. The gripping tool as recited in claim 1, wherein the first element includes a pair of first elements and a backbone connecting a portion of

common edges of the pair of first elements, the pair of first elements and the backbone integrally formed from a unitary blank.

30. The gripping tool as recited in claim 1, wherein the body portion of each at least one gripping element includes an extension that projects from the gripping element to define a second body portion adapted for engaging the work piece such that the body portion facilitates a first range of gripping ability and the second body portion facilitates a second range of gripping ability.

31. The gripping tool as recited in claim 1, wherein the first element and the second element have a penannular configuration.

32. The gripping tool as recited in claim 1, wherein said at least one slot extends partly through the second element.

33. The gripping tool as recited in claim 1, wherein said at least one guide extends partly through the first element.

34. The gripping tool as recited in claim 1, wherein the first element includes a first opening formed in the gripping portion from which the guides extend.

35. The gripping tool as recited in claim 1, wherein the second element includes a second opening formed in the actuation portion such that

each said at least one slot is disposed adjacent the second opening external thereto.

36. The gripping tool as recited in claim 1, wherein the first element includes a first opening formed in the gripping portion and the second element includes a second opening formed in the actuation portion such that the first and second openings are generally aligned.

37. The gripping tool as recited in claim 1, wherein the second element further includes a grasping portion operatively coupled to the first element and operatively associated with the actuation portion in meshing engagement.

38. The gripping tool as recited in claim 37, wherein the meshing engagement is defined by cooperative contact between at least one tooth and at least one groove.

39. The gripping tool as recited in claim 1, wherein the second element includes a pair of second elements, each with an actuation portion including at least one slot having a first section, and wherein each at least one slot first section formed in one of the pair of second elements defines a one path and each at least one slot first section formed in another of the pair of second elements defines an another path.

40. The gripping tool as recited in claim 39, wherein the one path has a generally clockwise orientation and the another path has a generally counter-clockwise orientation.

41. The gripping tool as recited in claim 39, wherein the one path and the another path cooperatively engage the force transfer element of one said at least one gripping element to actuate each said at least one gripping element along respective said at least one guide.

42. The gripping tool as recited in claim 1, wherein at least one of said at least one slot includes a third section defined within the first section, such that each gripping element associated with the third section of said at least one of said at least one slot is actuated along respective said at least one guide at a different rate.

43. An adjustable gripping tool for engaging a work piece to impart work thereto, the tool comprising:

a one second element and an another second element connected for relative movement which generates movement of at least one gripping element;

each at least one gripping element including a body portion adapted for engaging the work piece and a force transfer element contiguous with the body portion;

the one second element and the another second element including an actuation portion including at least one slot having a first section, such that each at least one slot first section formed in the one second element defines a one path and each at least one slot first section formed in another second element defines an another path, so that the one path and the another path cooperatively engage the force transfer element of one said at least one gripping element to actuate each said at least one gripping element into engagement with the work piece.

44. The gripping tool as recited in claim 43, wherein the one path has a generally clockwise orientation and the another path has a generally counter-clockwise orientation.

45. The gripping tool as recited in claim 43, wherein the gripping elements which perform one function may be replaced with gripping elements that perform a different function.

46. The gripping tool as recited in claim 43, wherein movement of said at least one gripping element is linear.

47. The gripping tool as recited in claim 43, wherein movement of said at least one gripping element is curvilinear.

48. The gripping tool as recited in claim 43, wherein each at least one gripping element includes an extension that projects from the gripping element to engage an interior of the work piece.

49. The gripping tool as recited in claim 48, wherein said at least one gripping element is configured to engage a first dimensioned work piece with the first and second elements disposed in a first operative position and a second dimensioned work piece with the first and second elements disposed in a second operative position, such that the first dimensioned work piece is smaller than the second dimensioned work piece.

50. The gripping tool as recited in claim 48, wherein said extension is configured to facilitate a crimping operation.

51. The gripping tool as recited in claim 48, wherein said extension defines a pocket between the extension and the gripping element to receive the work piece.

52. The gripping tool as recited in claim 48, wherein said extension is configured to facilitate chasing threads.

53. The gripping tool as recited in claim 43, wherein each at least one gripping element has a planar configuration.

54. The gripping tool as recited in claim 43, wherein each at least one gripping element body portion is configured to have a "V" shape where a vertex of the "V" shape is directed toward the force transfer element.

55. The gripping tool as recited in claim 43, wherein a cover plate is connected to at least one of the one second element and the another second element to reinforce the tool.

56. The gripping tools as recited in claim 55, wherein the cover plate has a penannular configuration and is attached to the actuation portion.

57. The gripping tools as recited in claim 55, wherein the cover plate has a dimension that is generally equivalent to a second element dimension.

58. The gripping tools as recited in claim 55, wherein the cover plate is configured as a receptacle defined by a pair of cover portions offset by a margin portion to engage the pair of second elements.

59. The gripping tool as recited in claim 43, wherein said at least one gripping element is configured to engage a non-standard work piece.

60. The gripping tool as recited in claim 59, wherein the non-standard work piece is a security fastener.

61. The gripping tool as recited in claim 43, wherein said at least one gripping element is configured to cooperatively function to facilitate chasing threads.

62. The gripping tool as recited in claim 43, wherein the one second element and the another second element further include a backbone connecting a portion of common edges of the pair of second elements, such that the pair of first elements and the backbone integrally formed from a unitary blank.

63. The gripping tool as recited in claim 43, wherein each at least one gripping element includes an extension that projects from the gripping element to define a second body portion adapted for engaging the work piece such that the body portion facilitates a first range of gripping ability and the second body portion facilitates a second range of gripping ability.

64. The gripping tool as recited in claim 43, wherein the one second element and the another second element have a penannular configuration.

65. The gripping tool as recited in claim 1, wherein said at least one slot extends partly through the one second element and the another second element.

ABSTRACT

A self-energizing and de-energizing adjustable gripping tool for engaging a work piece to impart work thereto includes a first element and second element connected for relative movement. The second element includes an actuation portion having a plurality of slots. The first element includes gripping elements which are each associated with a force transfer element which engages one of the slots such that movement of the second element relative to the first element actuates the gripping elements to engage the work piece.

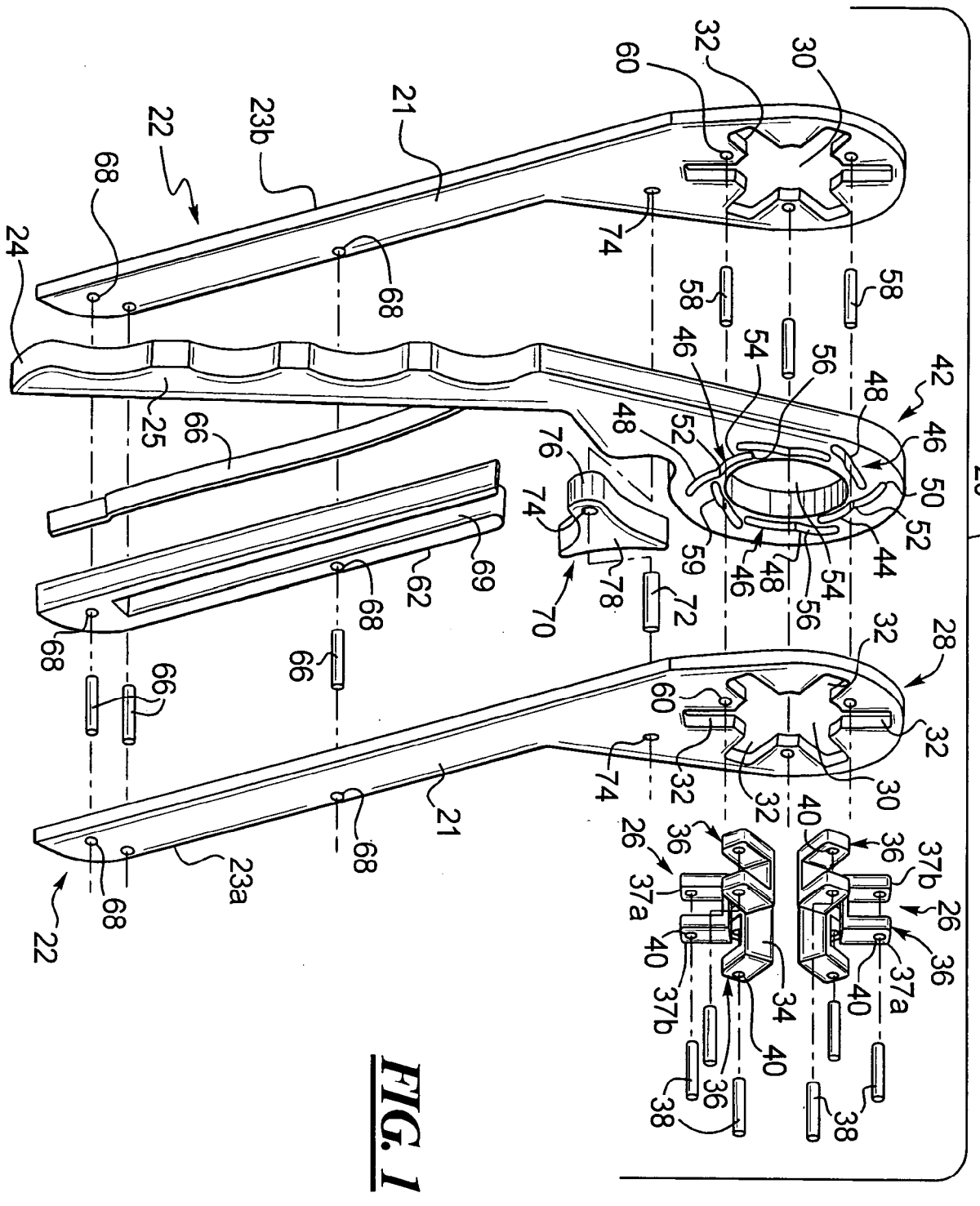
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FIG. 1

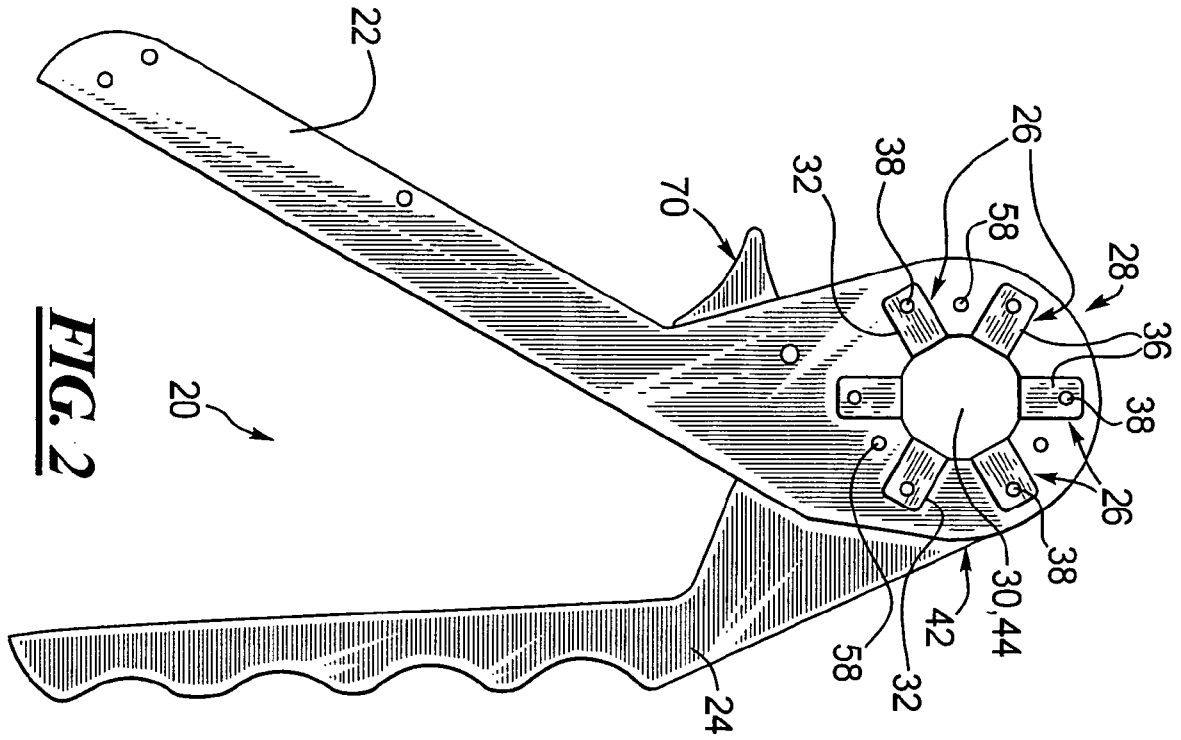
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FIG. 2

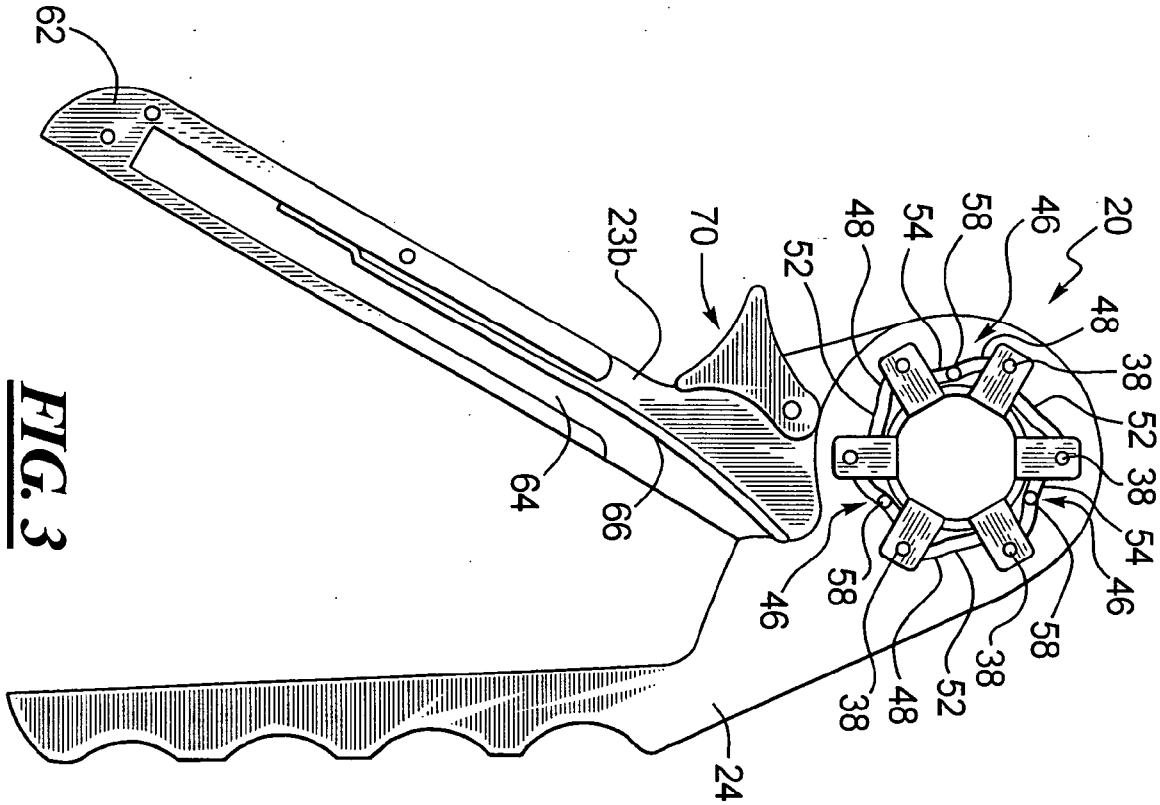
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FIG. 3

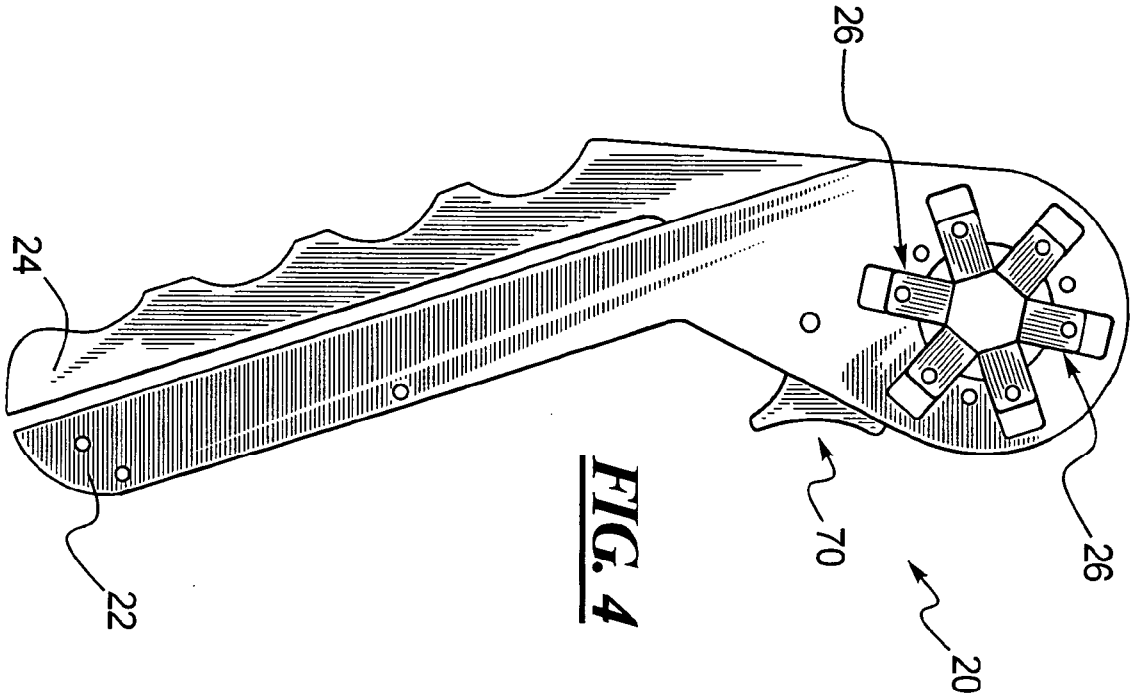


FIG. 4

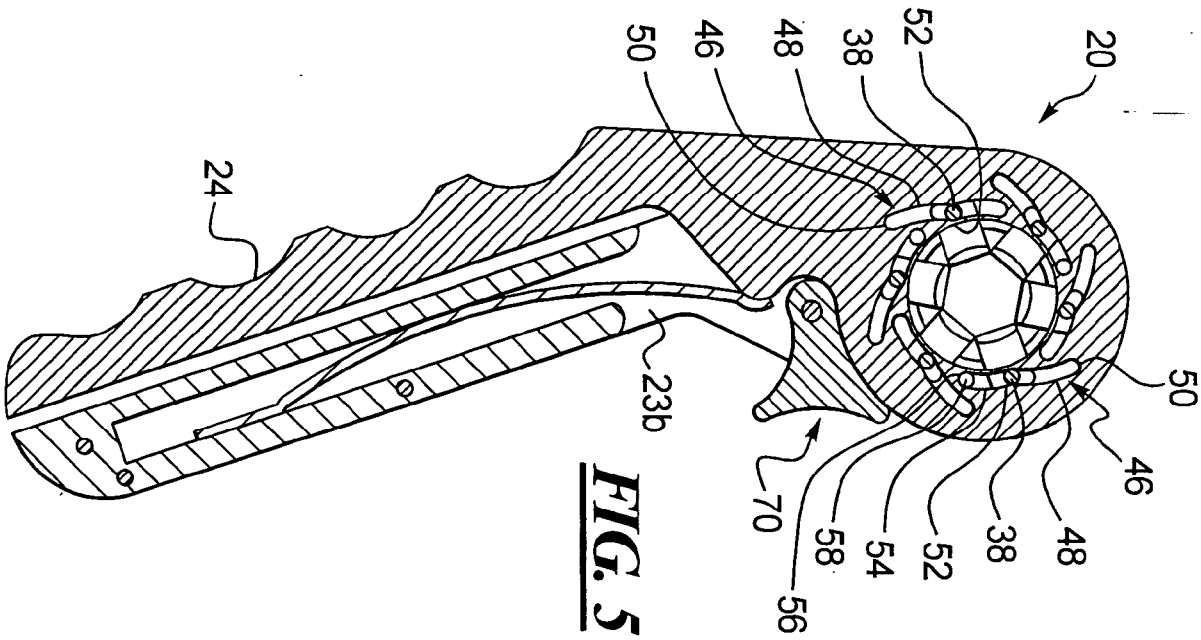


FIG. 5

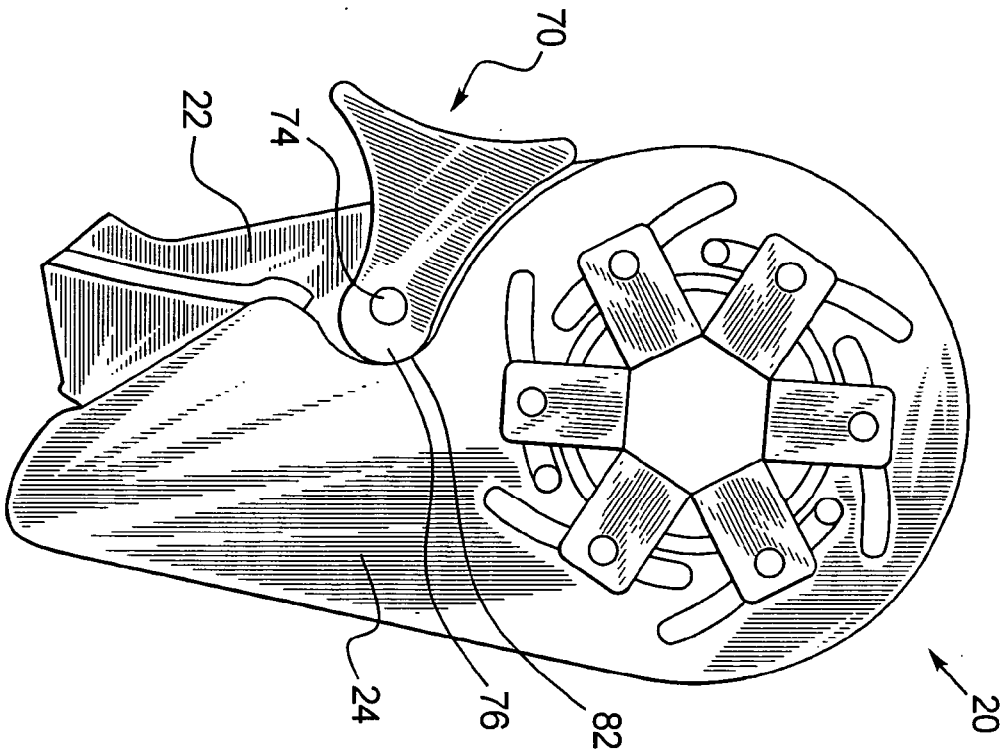


FIG. 6

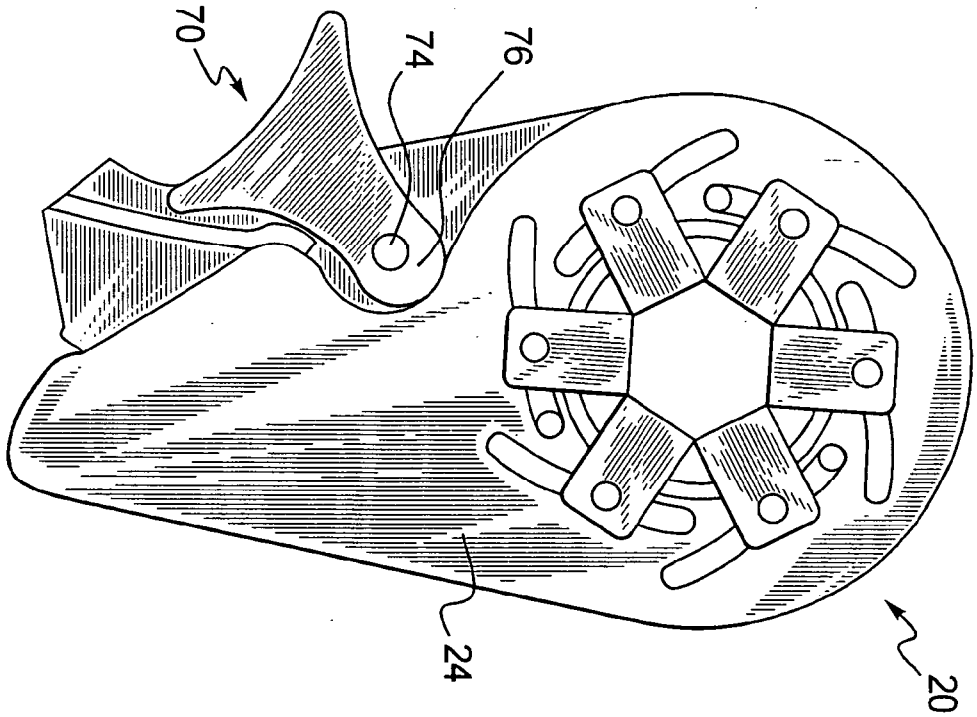


FIG. 7

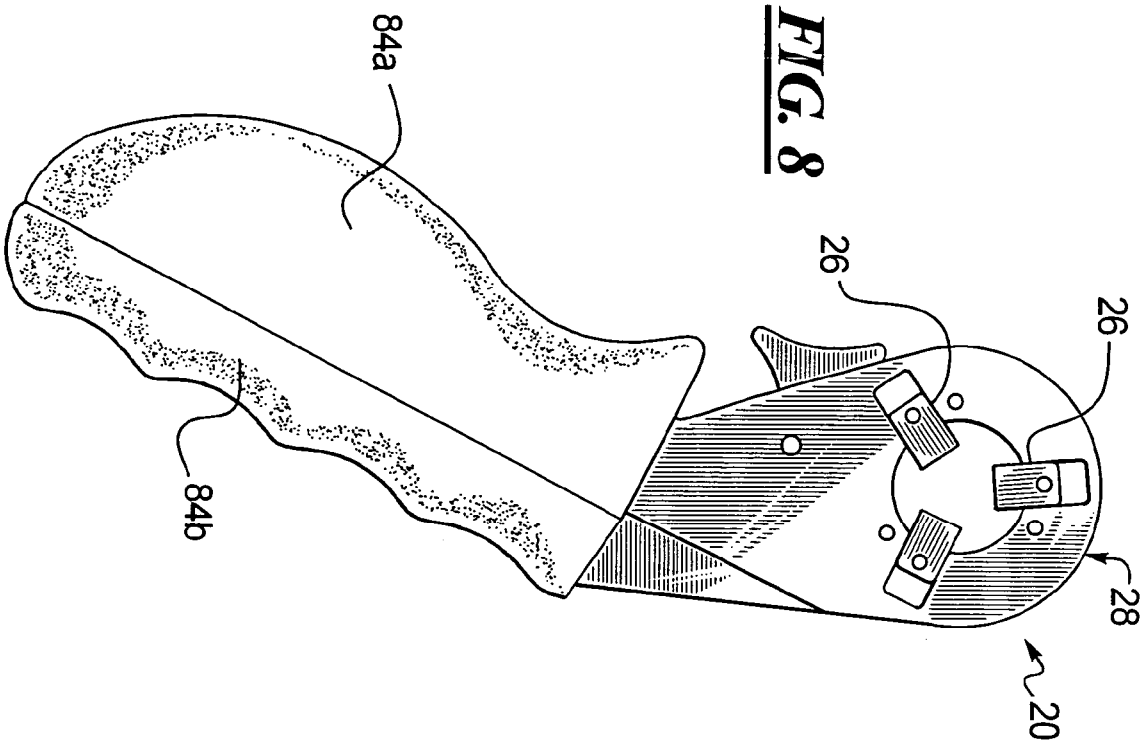


FIG. 8

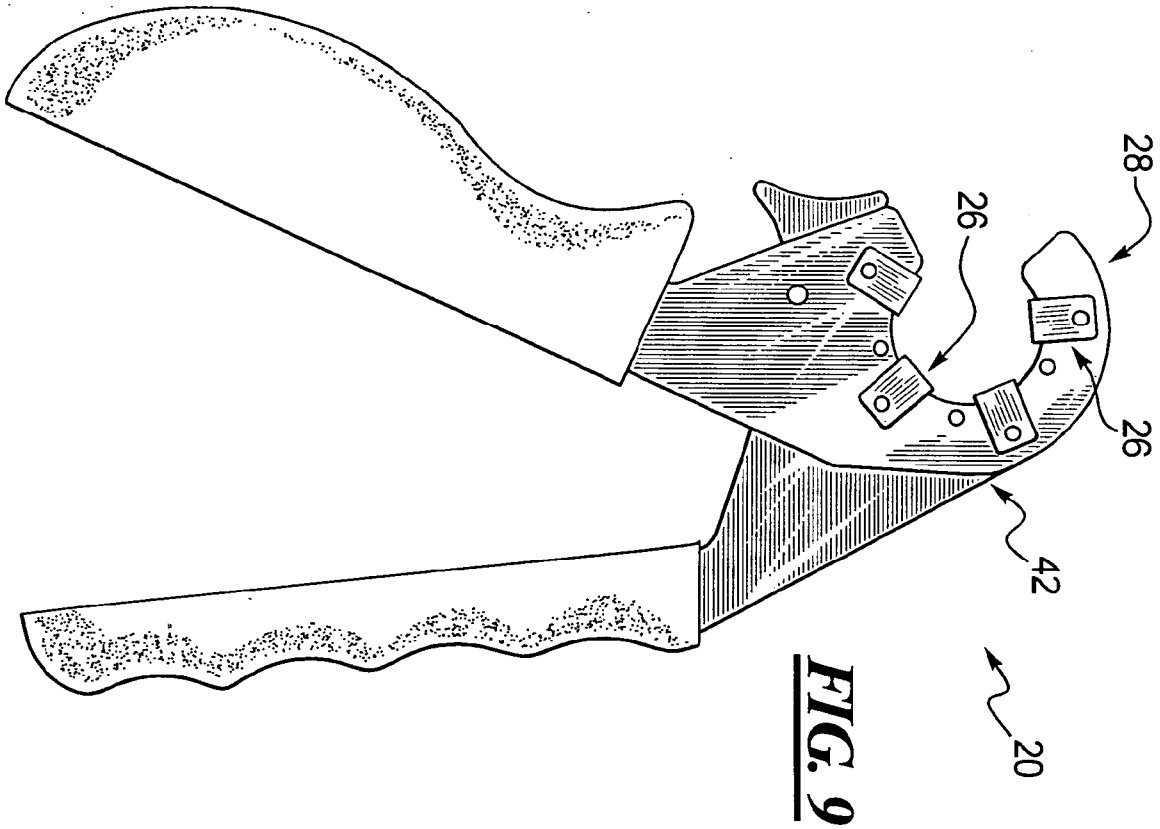


FIG. 9

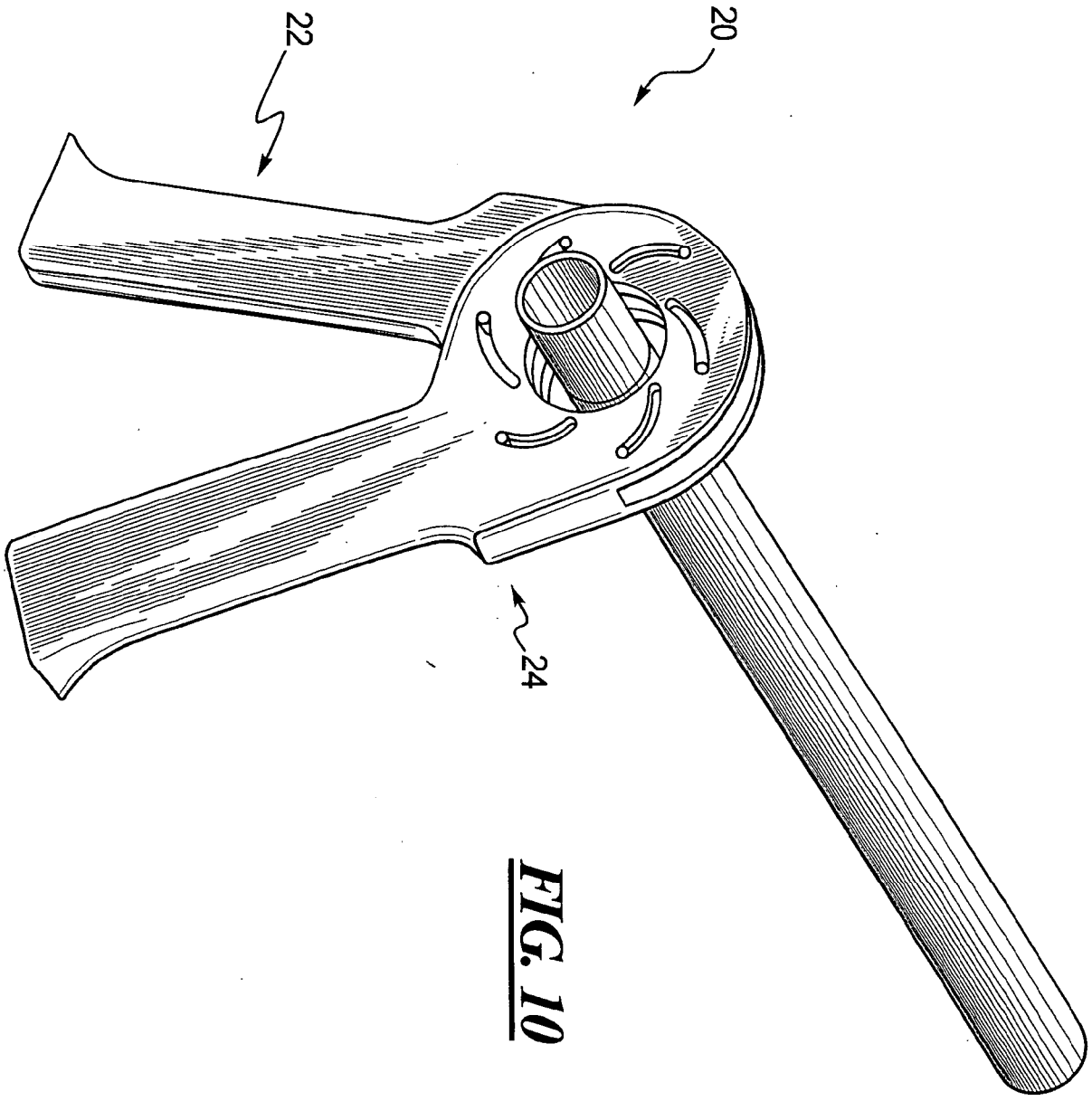


FIG. 10

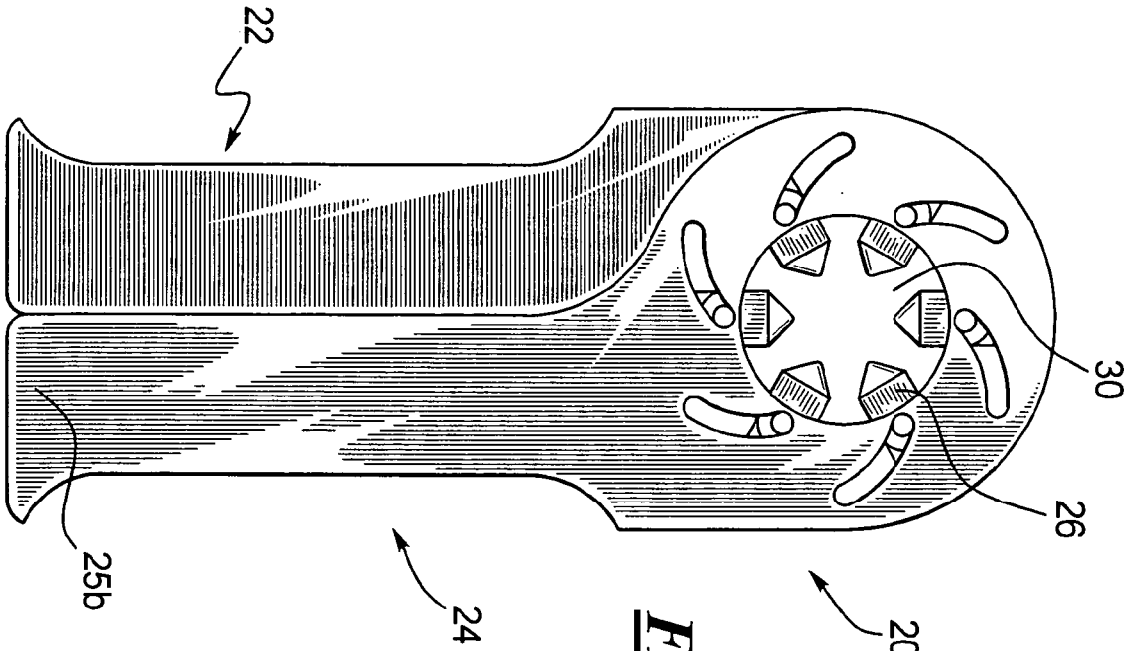


FIG. 11

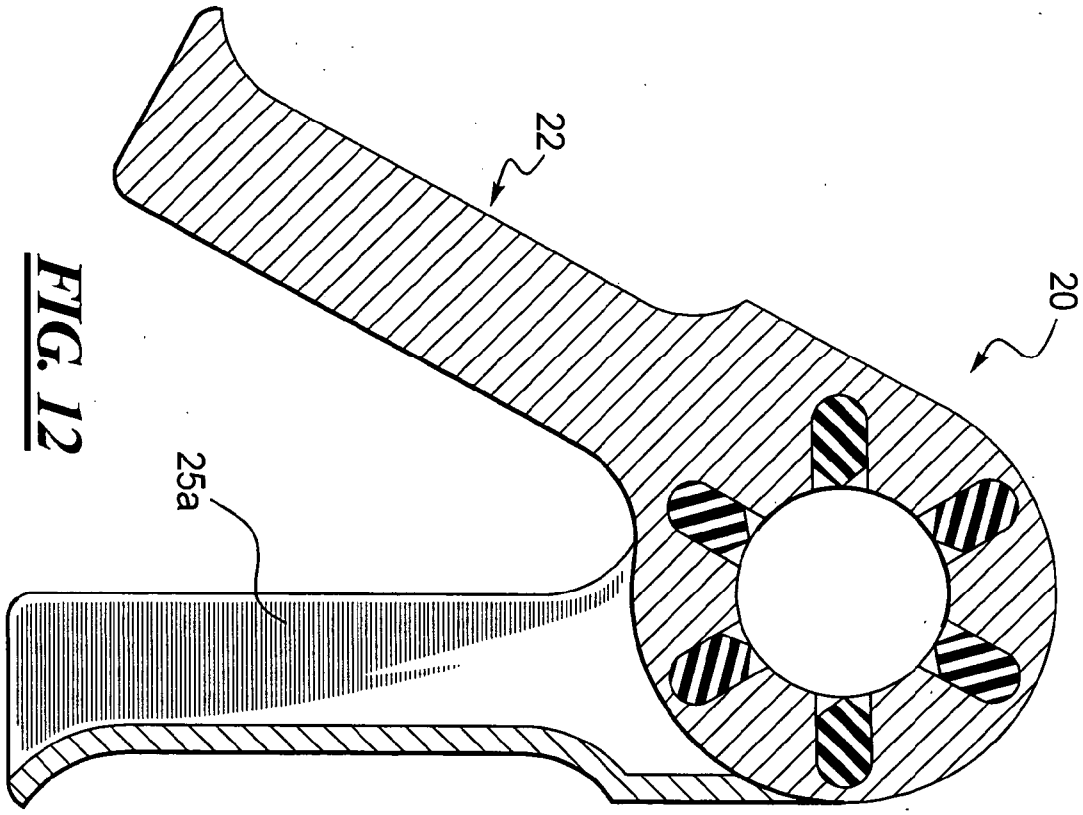


FIG. 12

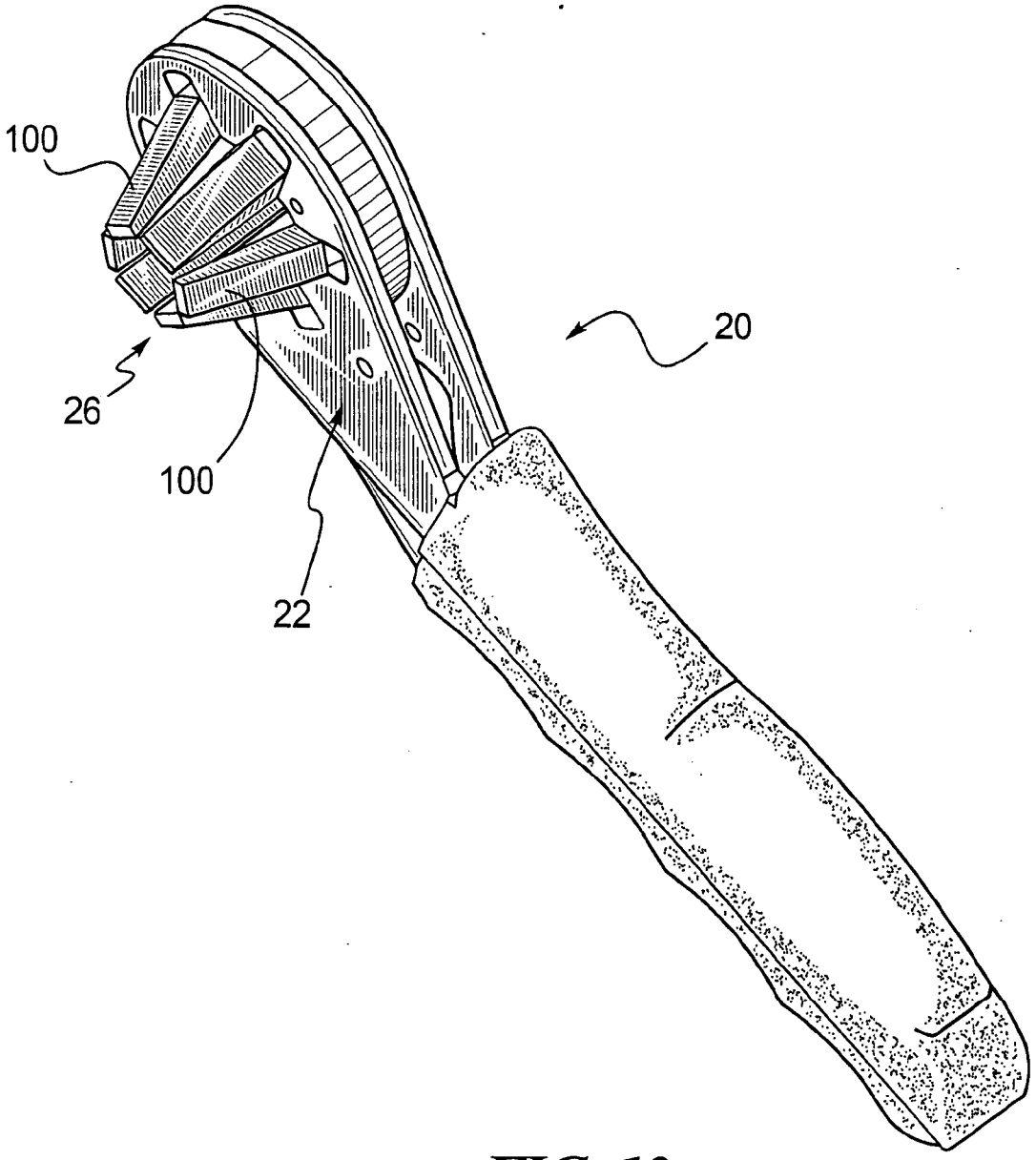


FIG. 13

FIG 14

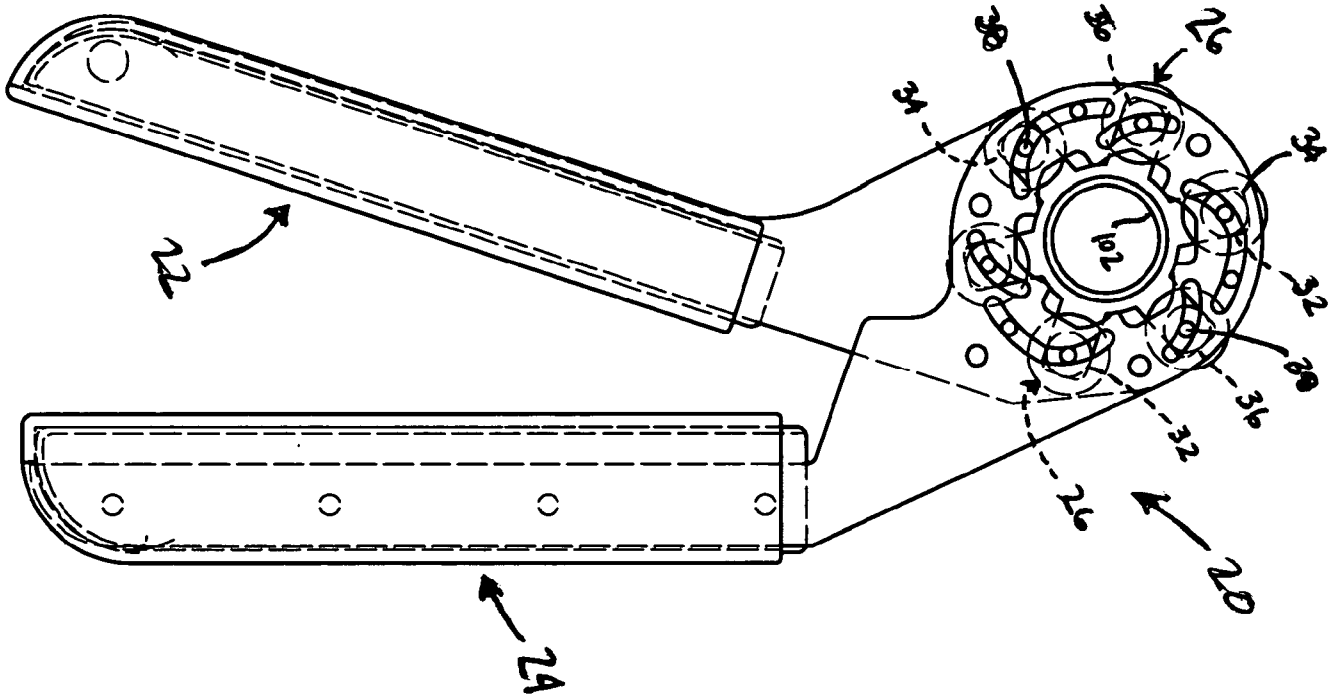


FIG 15

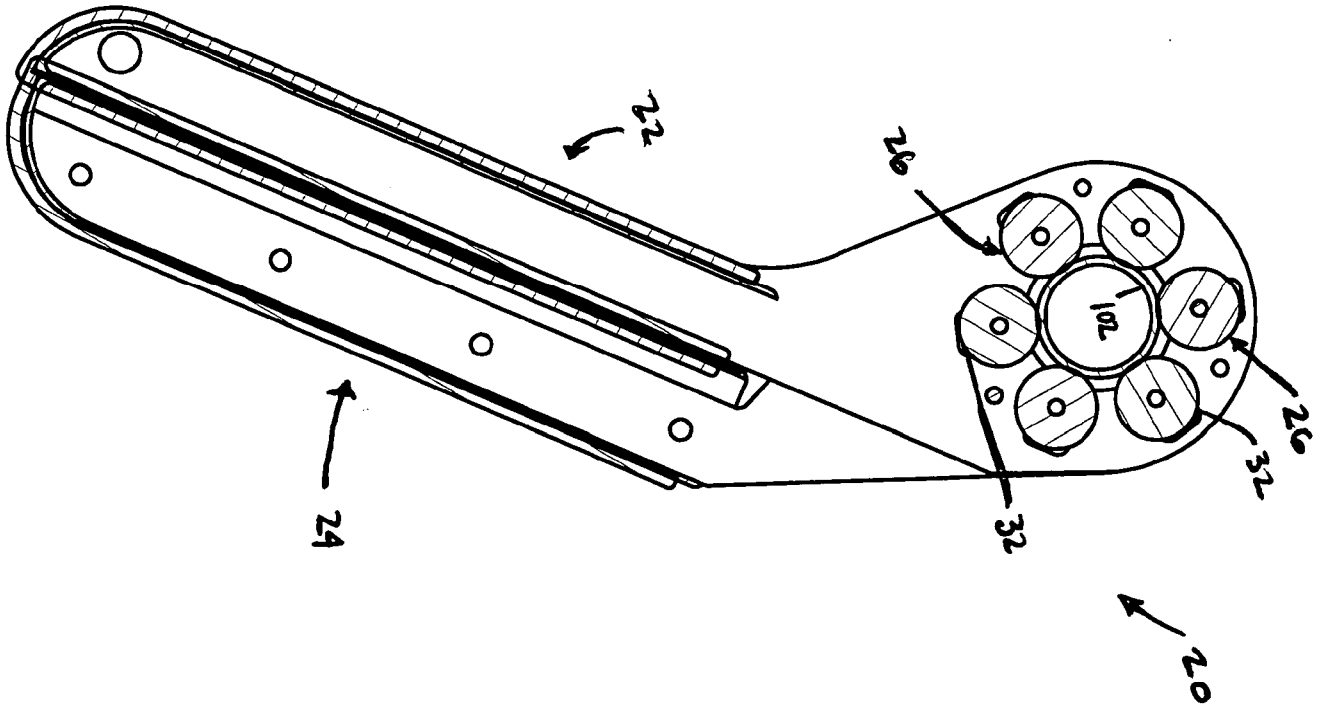


FIG 16

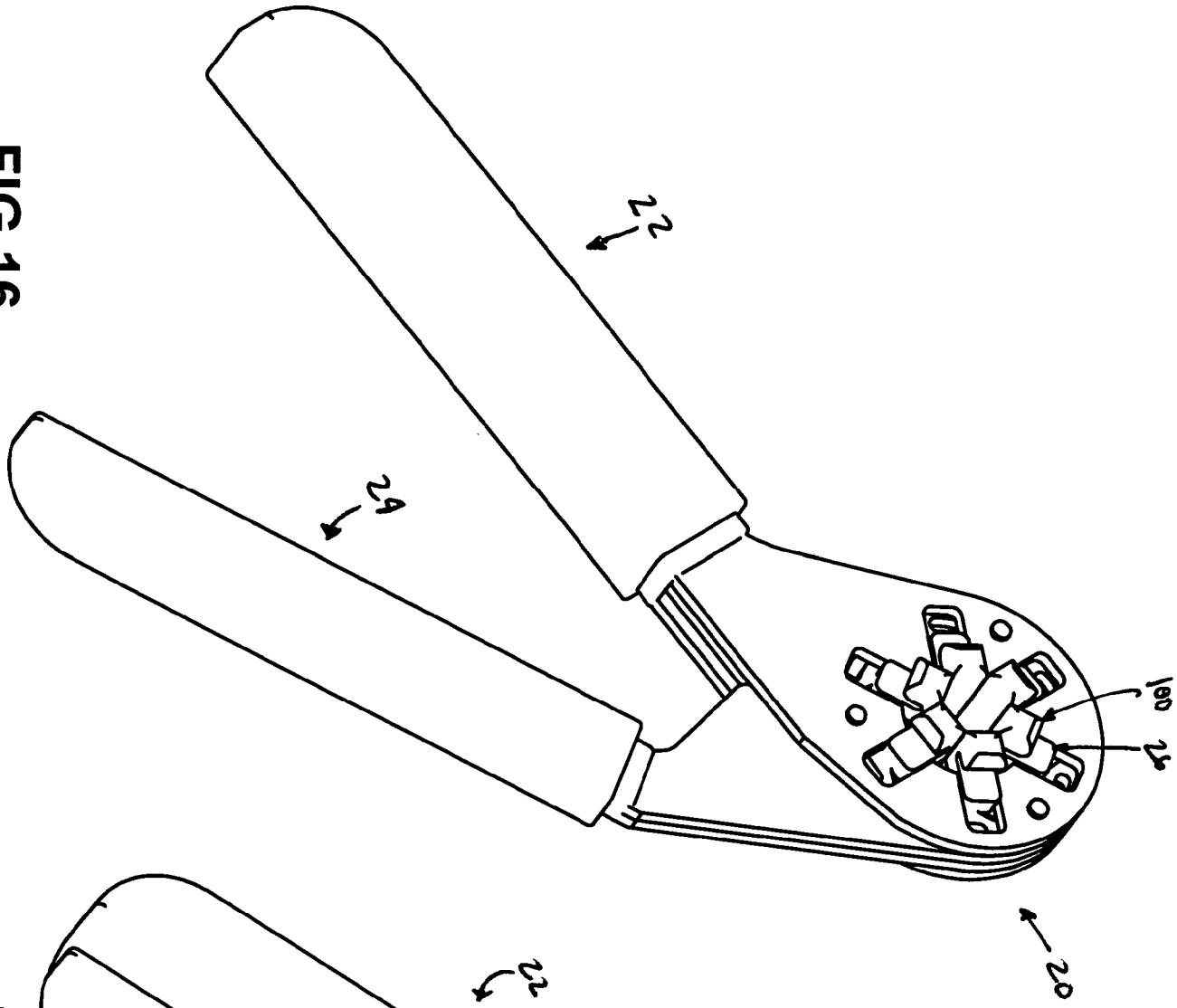
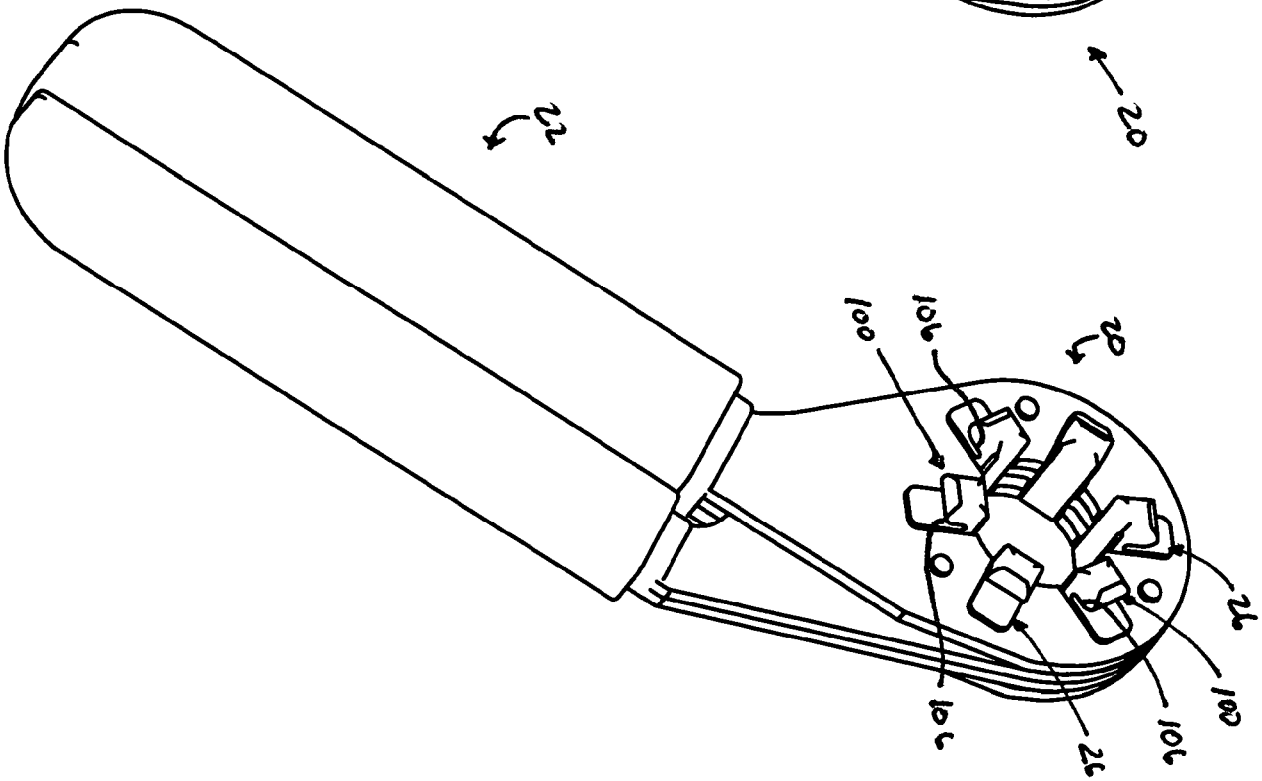


FIG 17



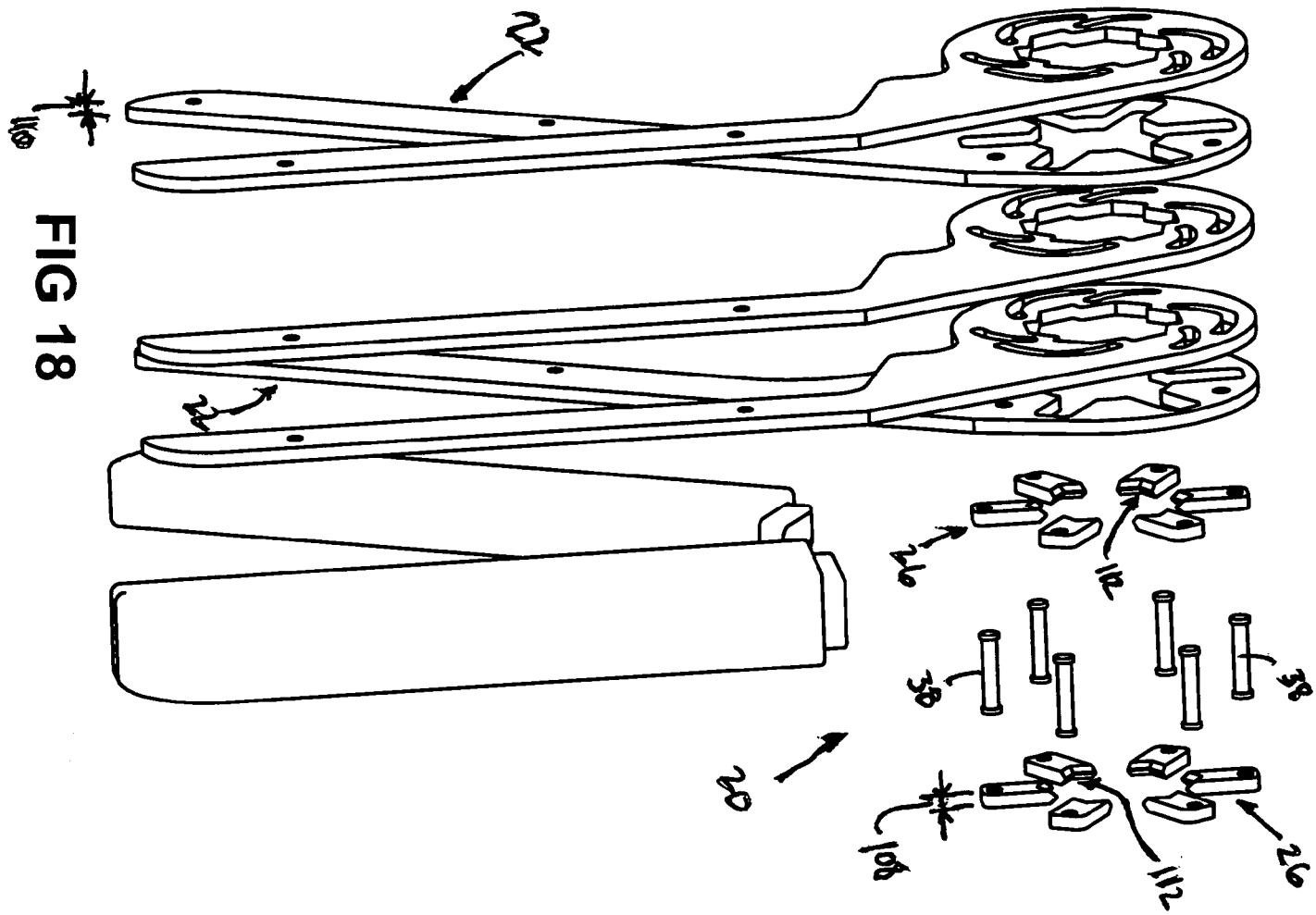


FIG 18

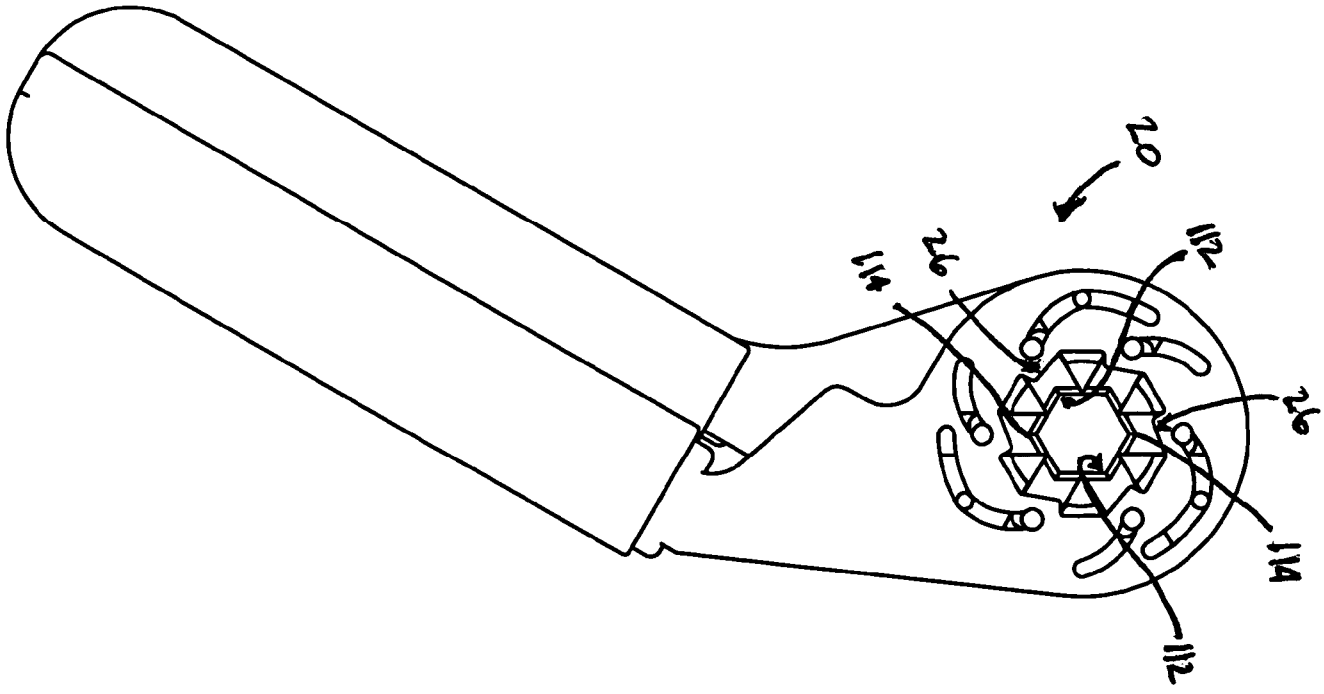


FIG 19

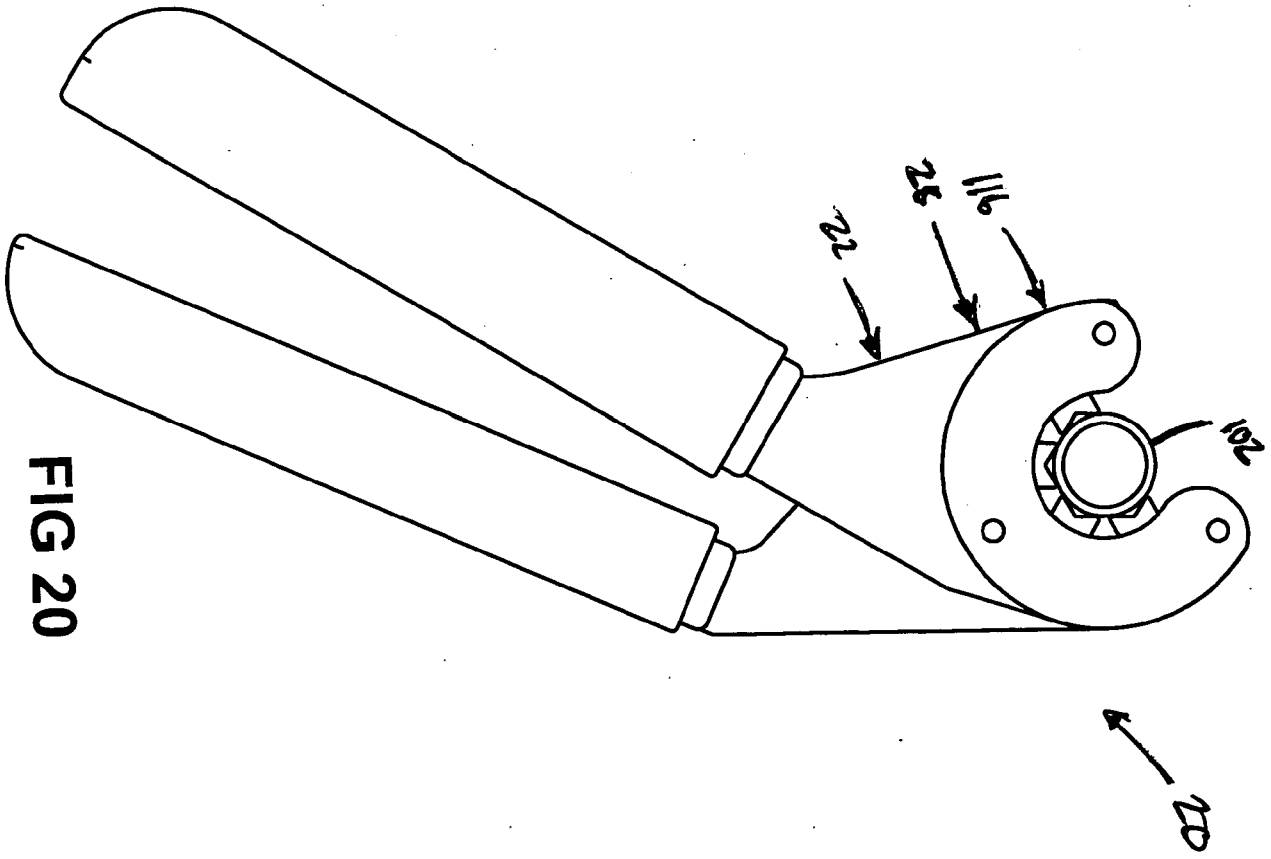


FIG 20

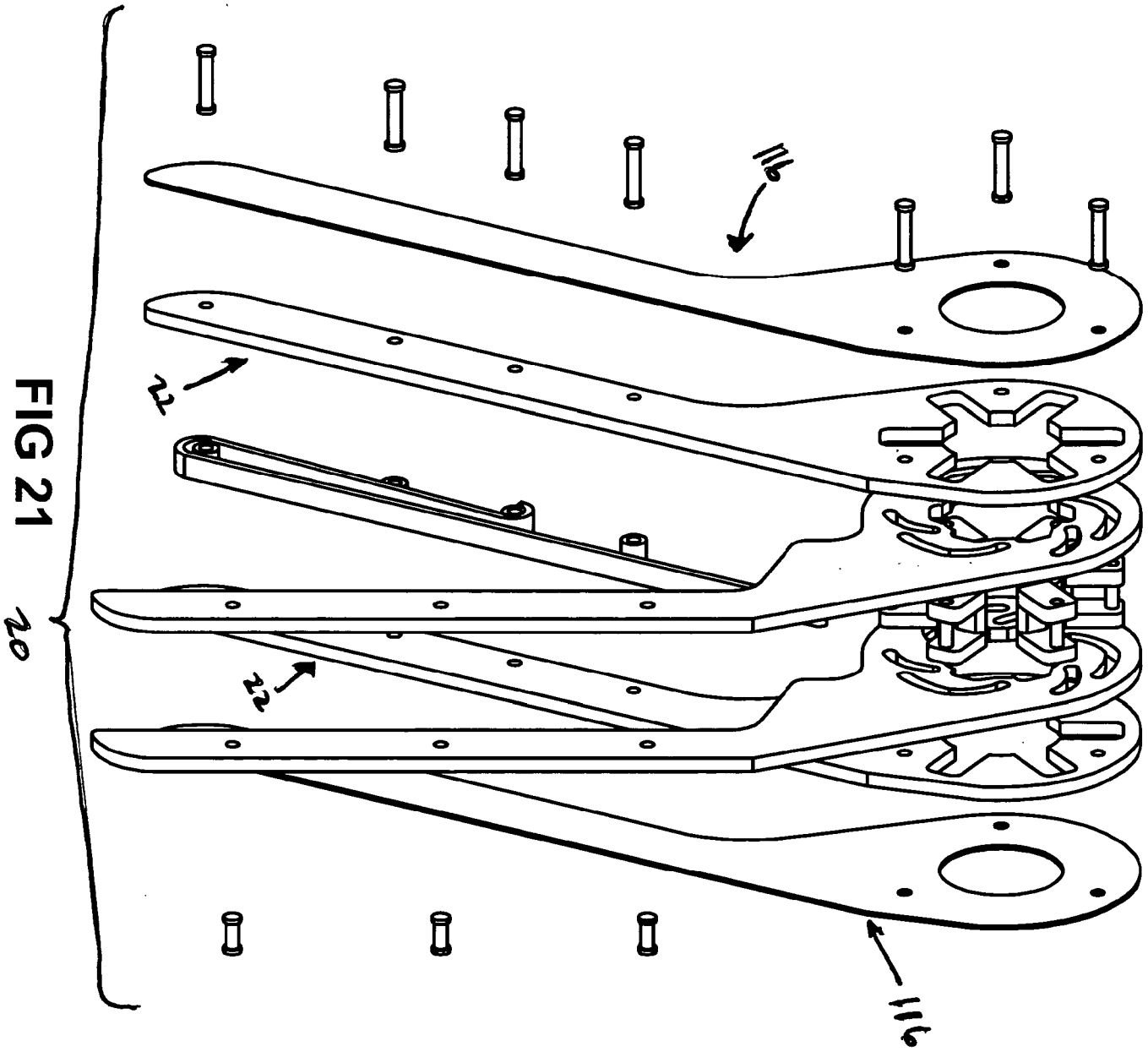


FIG 21

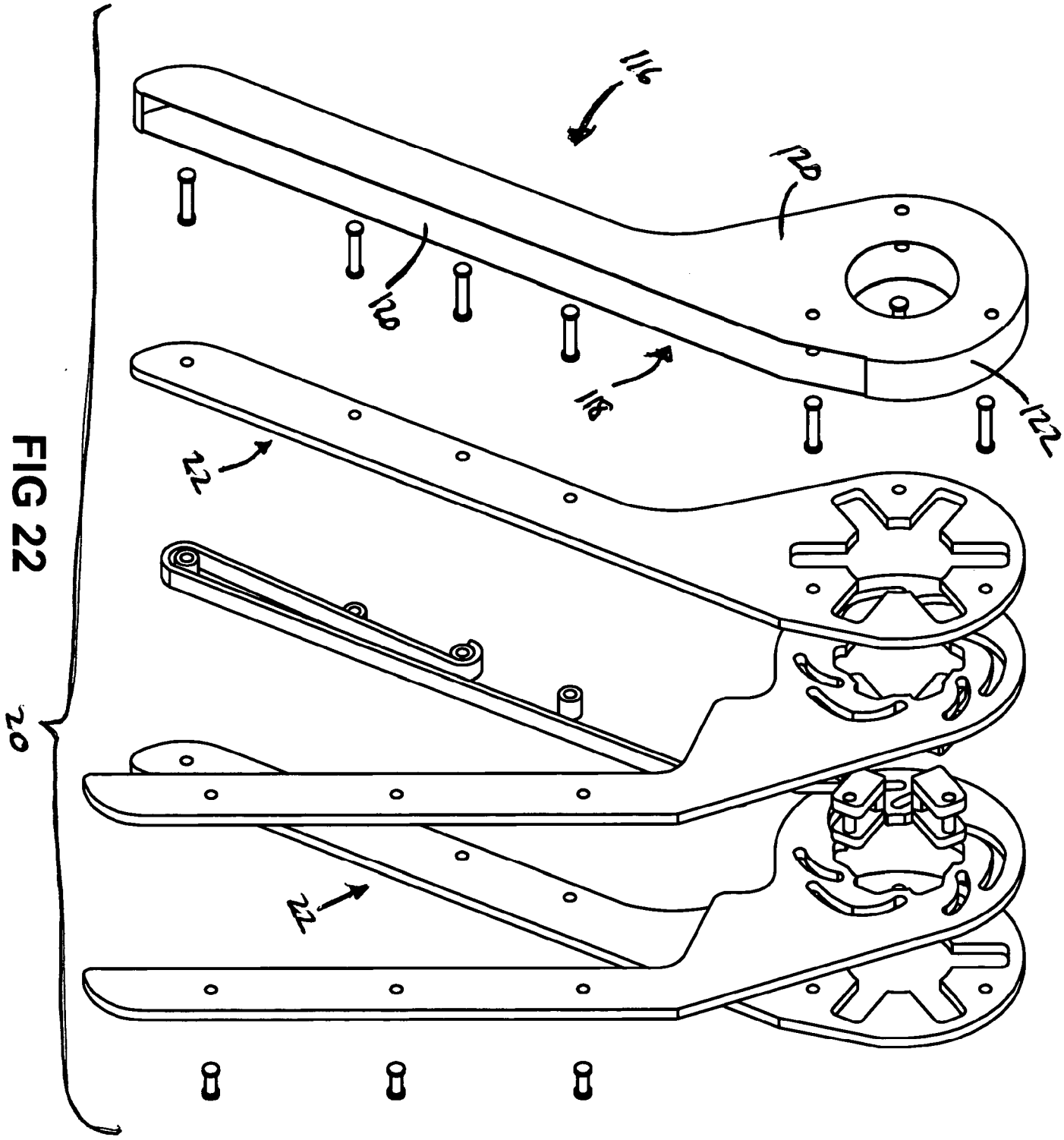


FIG 22

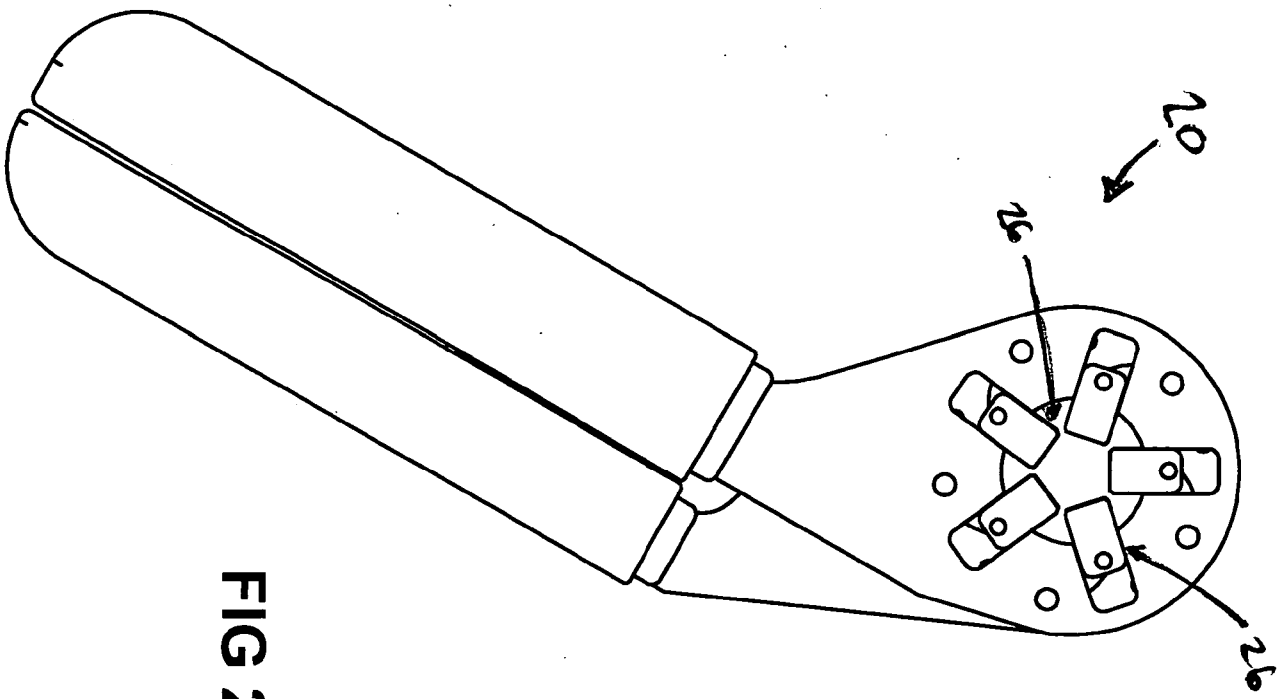


FIG 23

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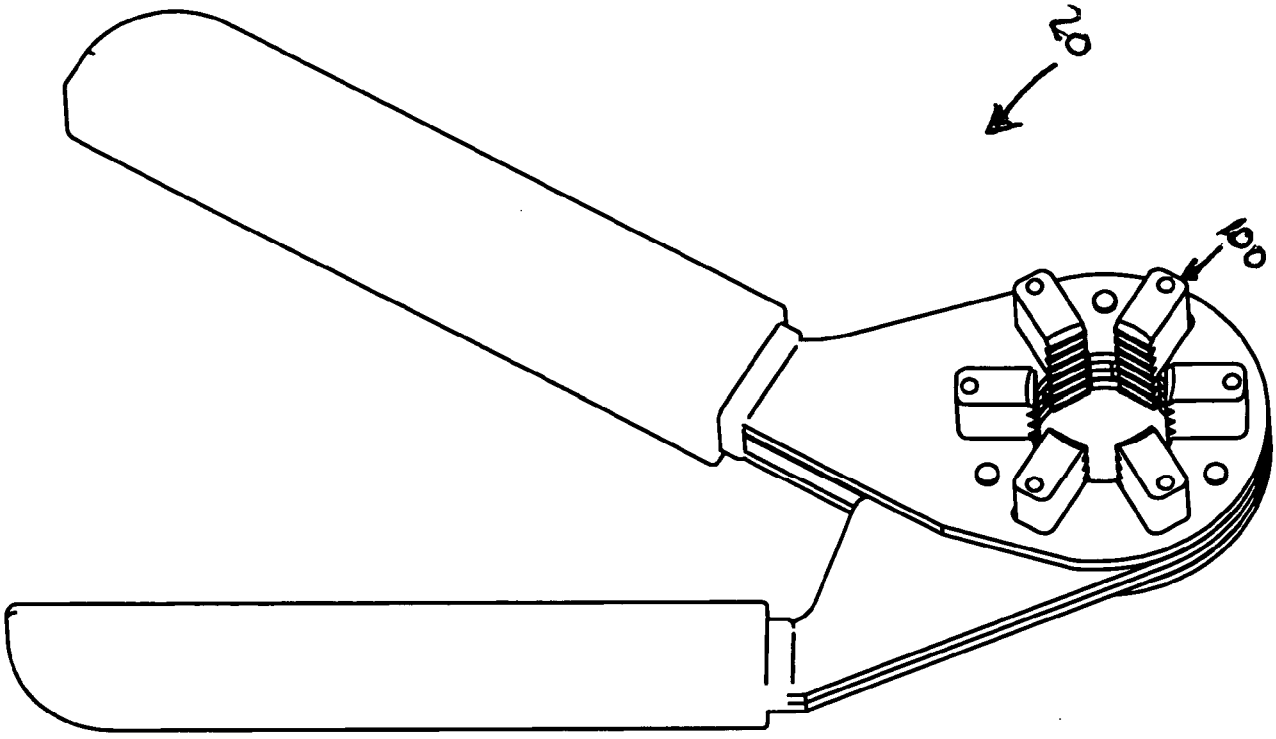
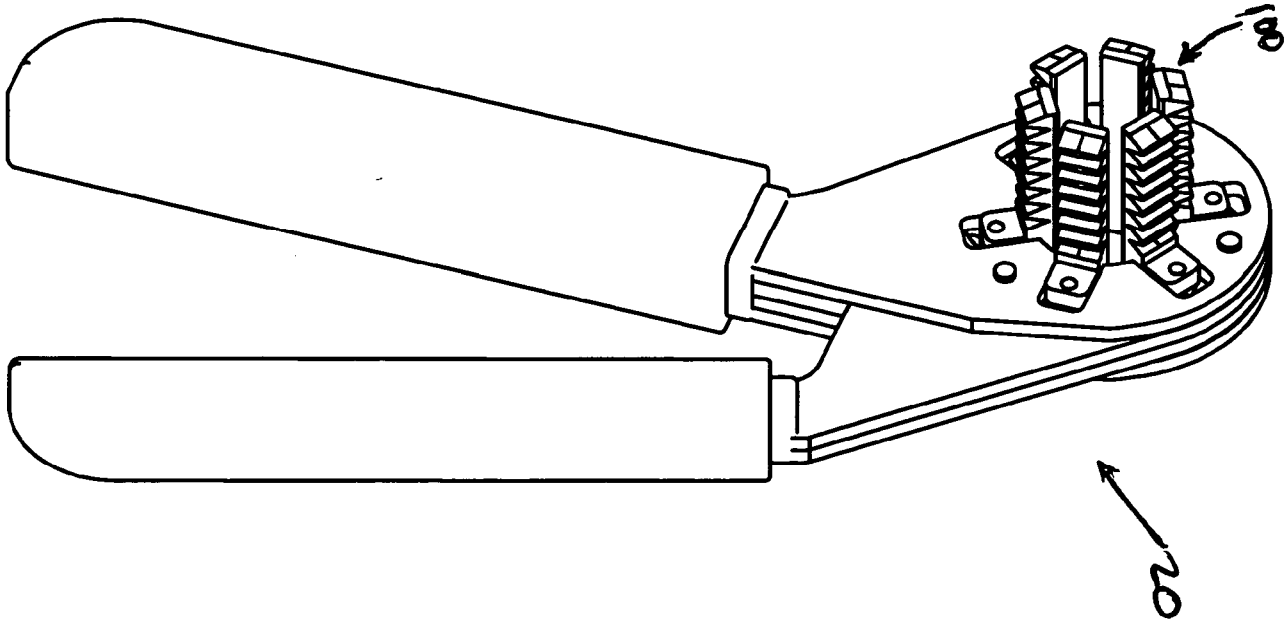


FIG 25



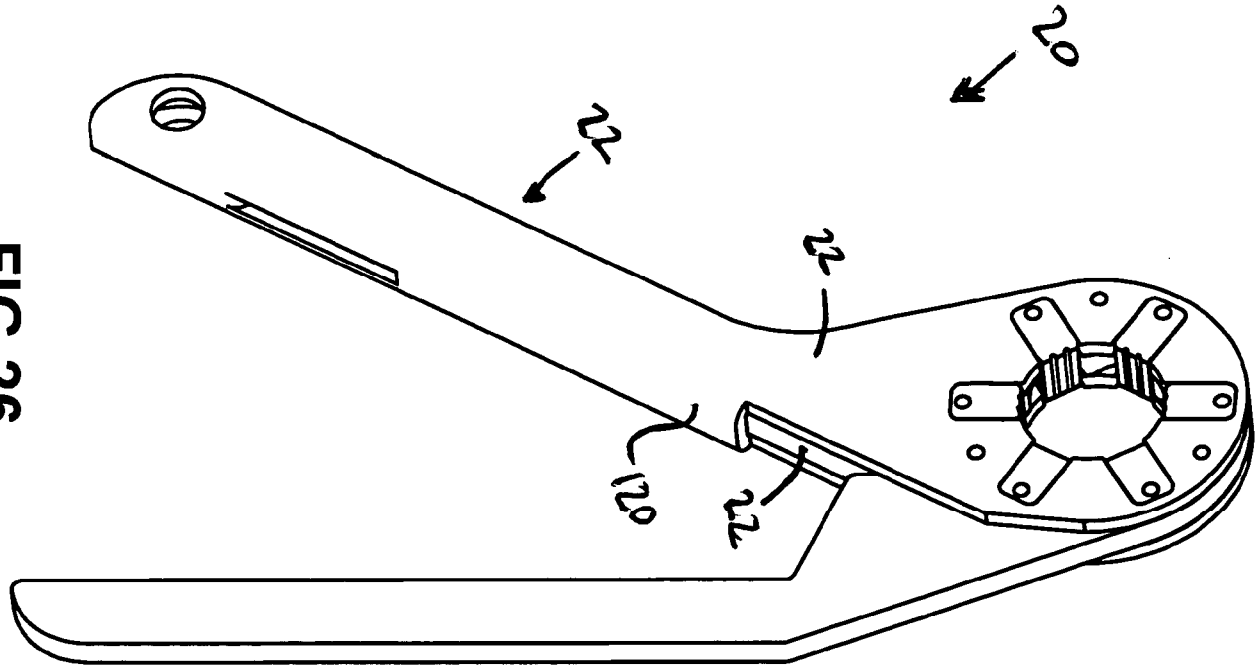
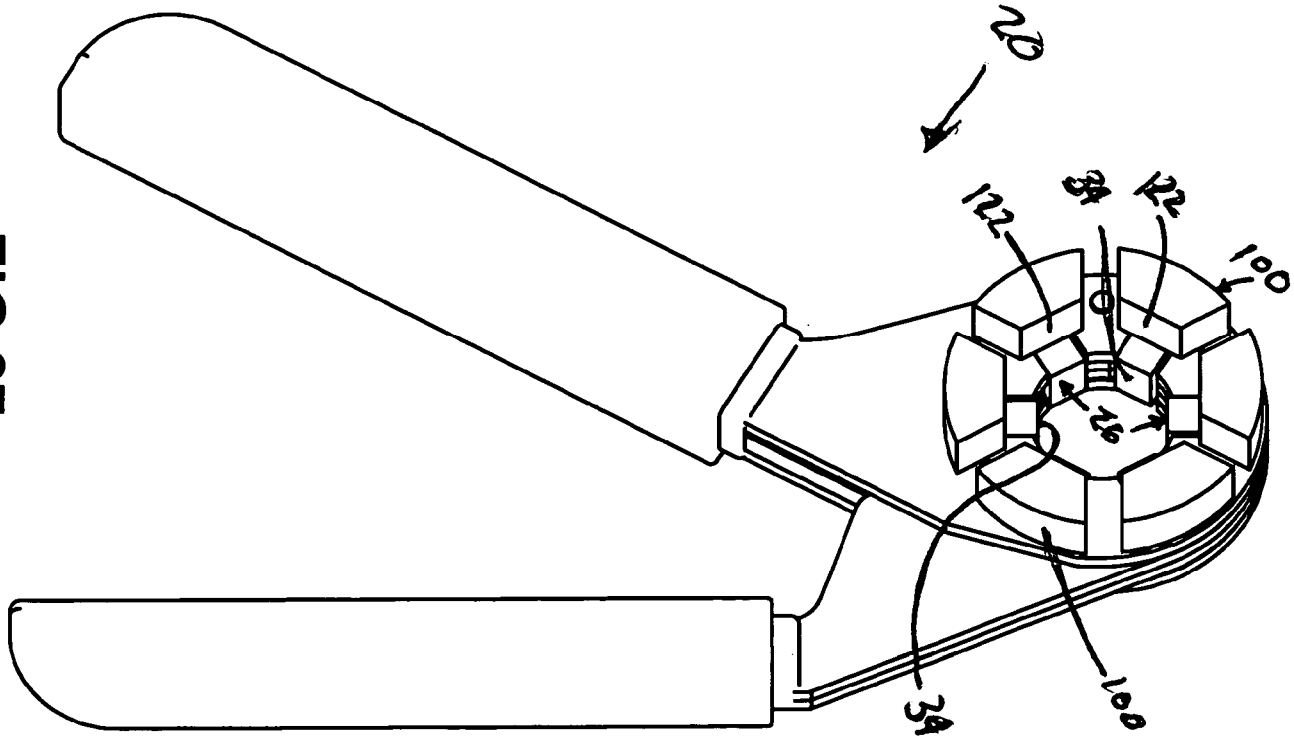


FIG 26



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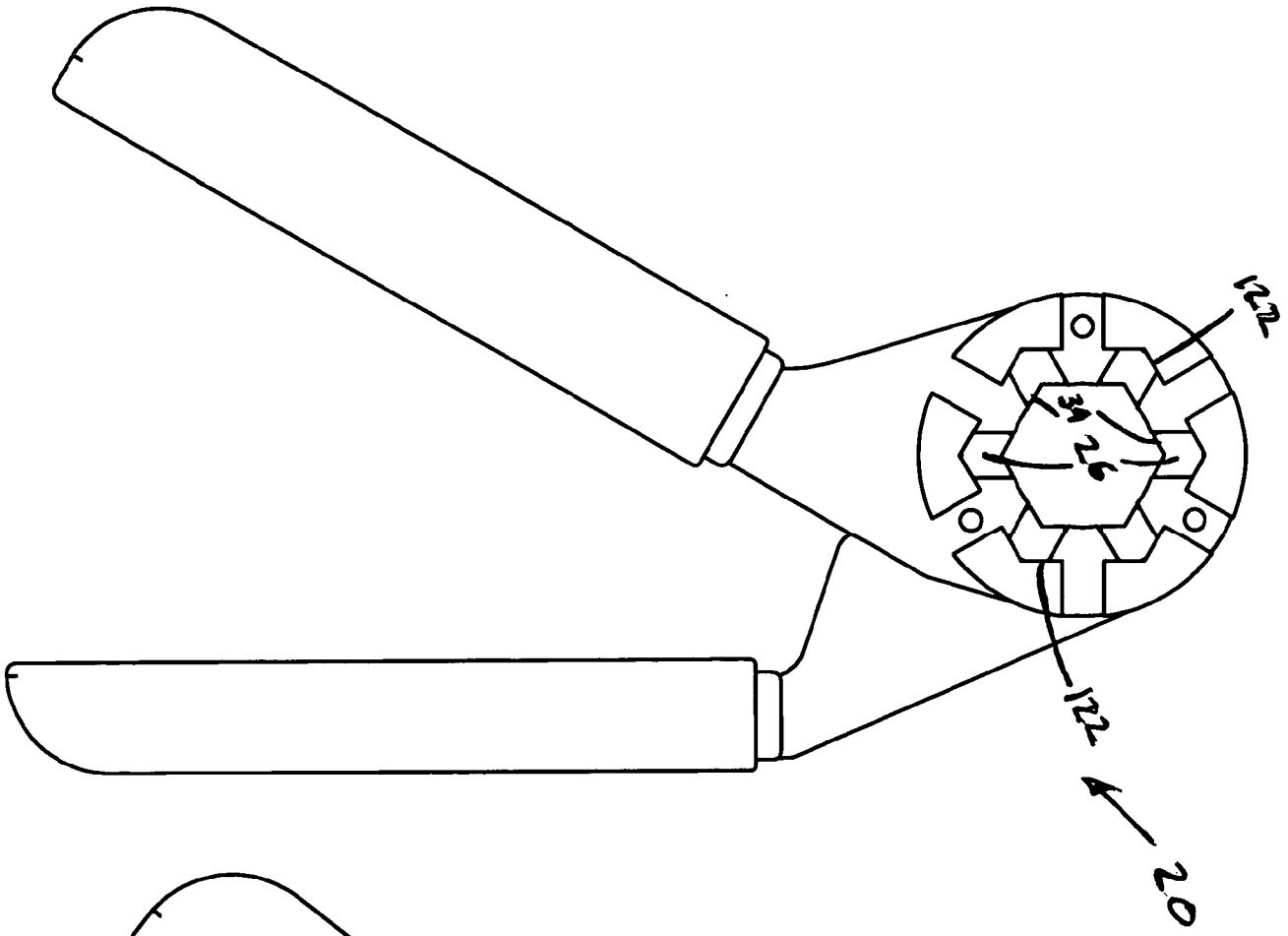


FIG 29

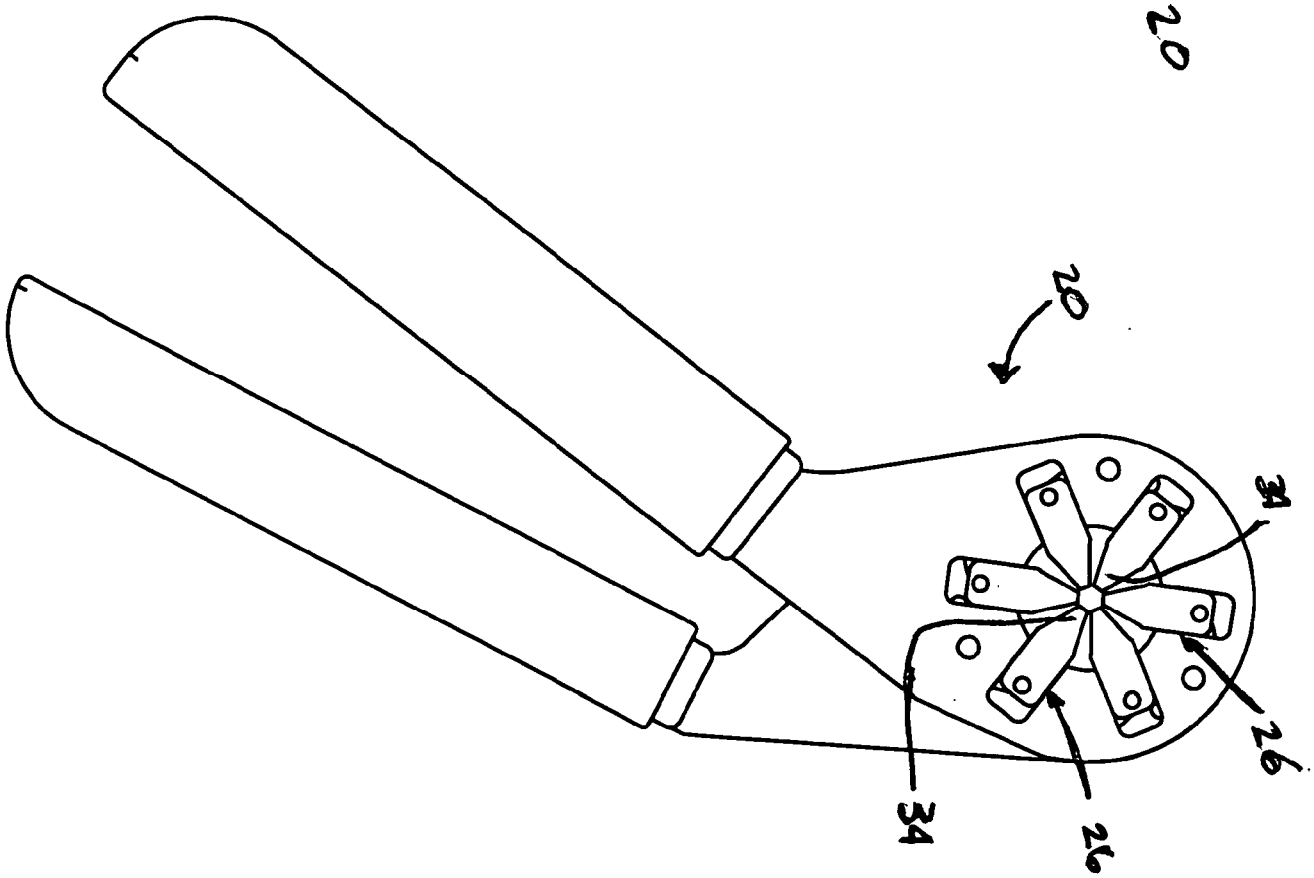


FIG 32

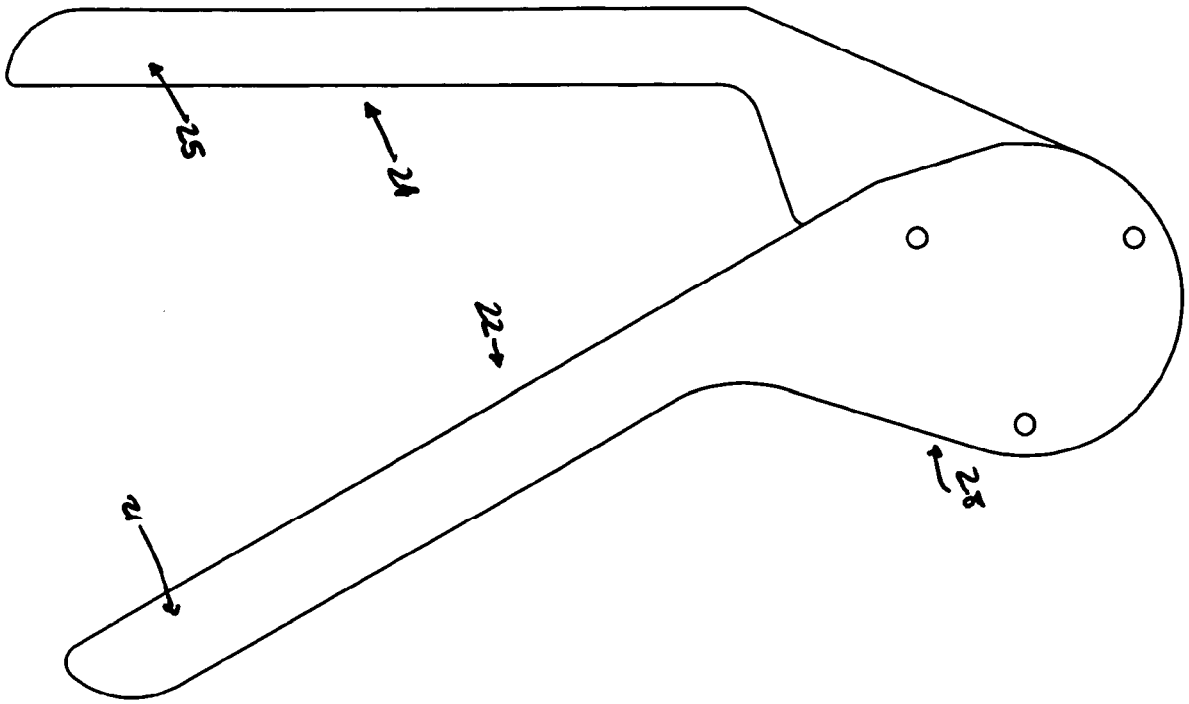


FIG 31

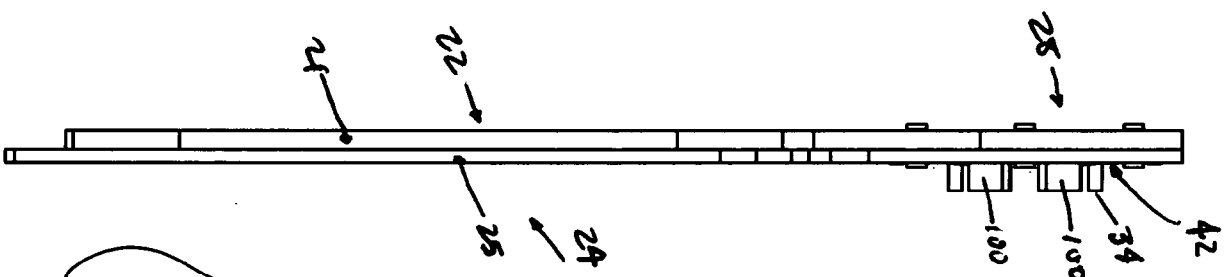
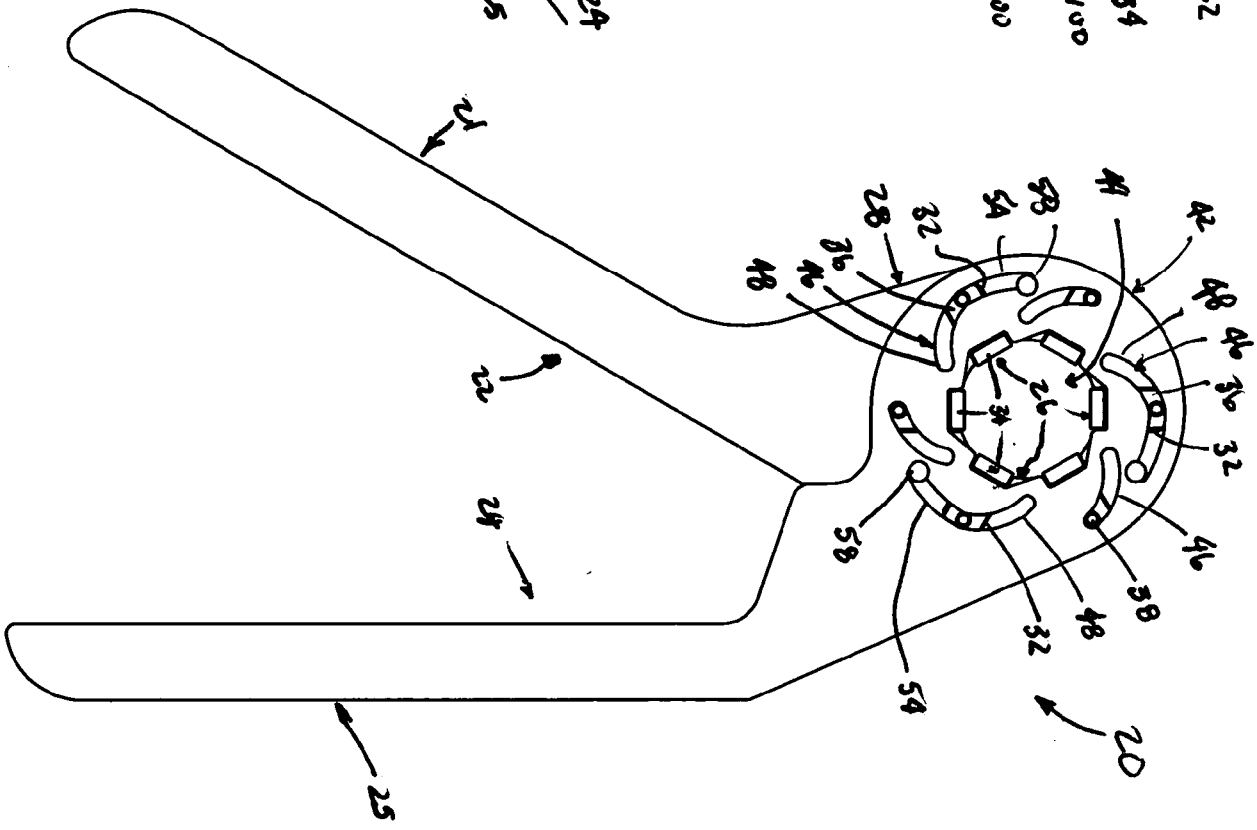
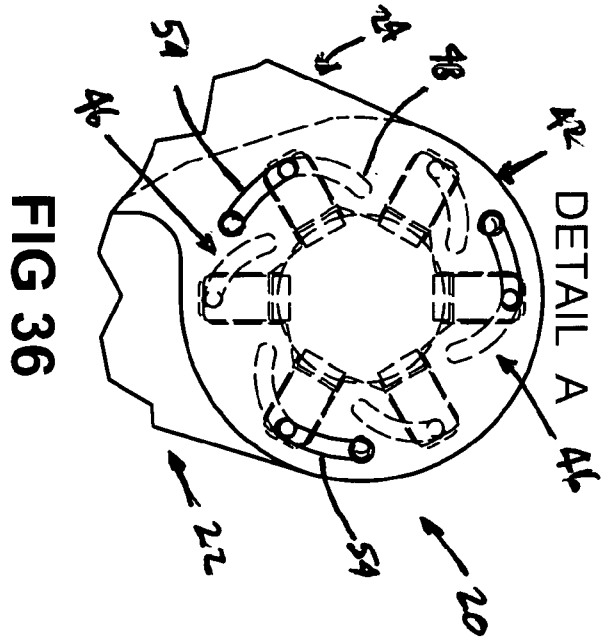


FIG 30





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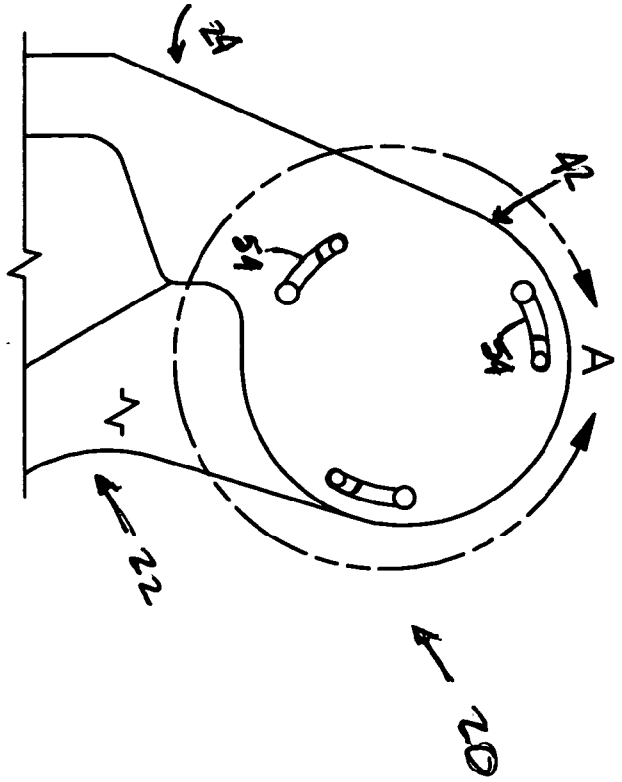

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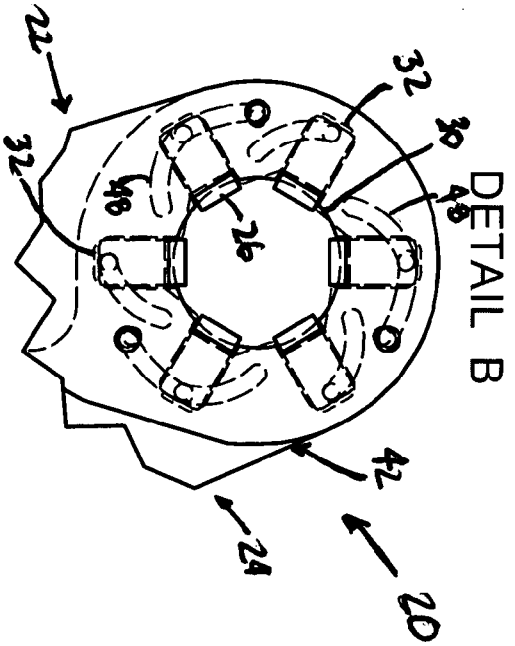

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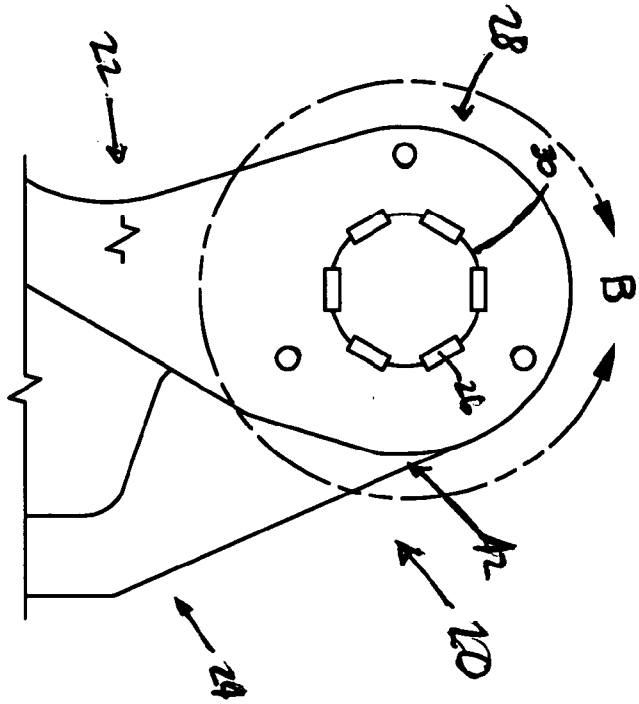

FIG 33

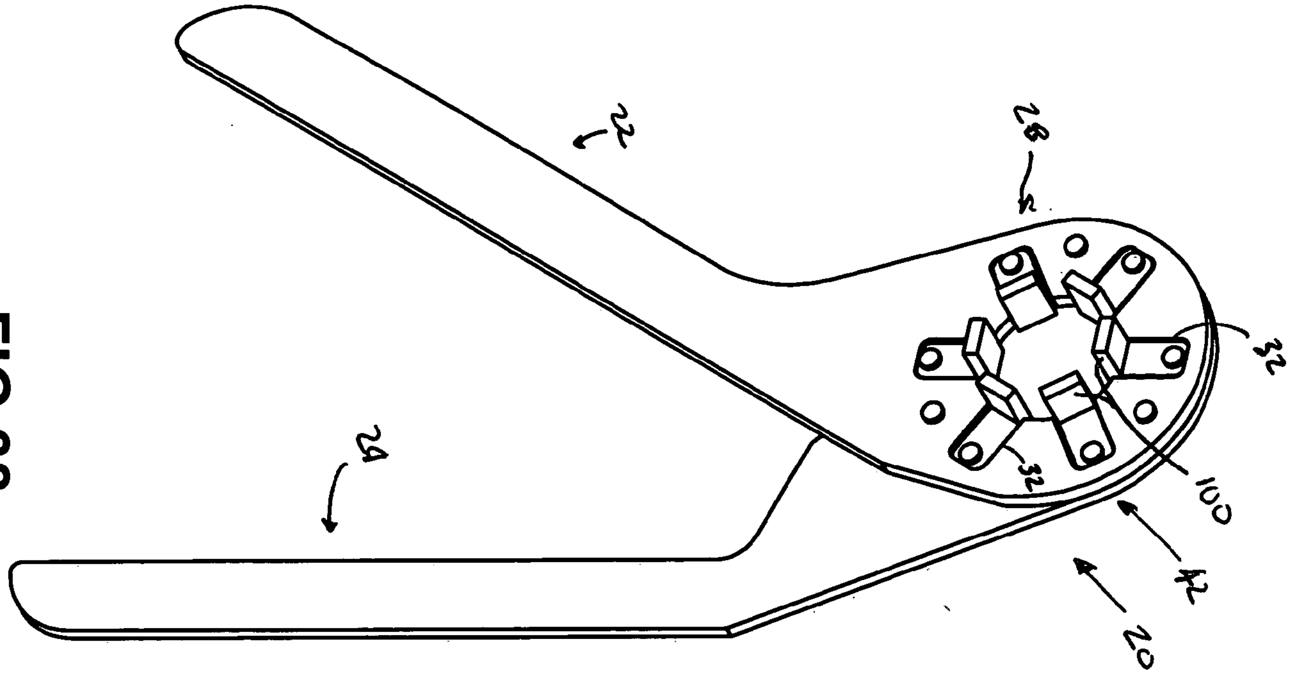

FIG 38

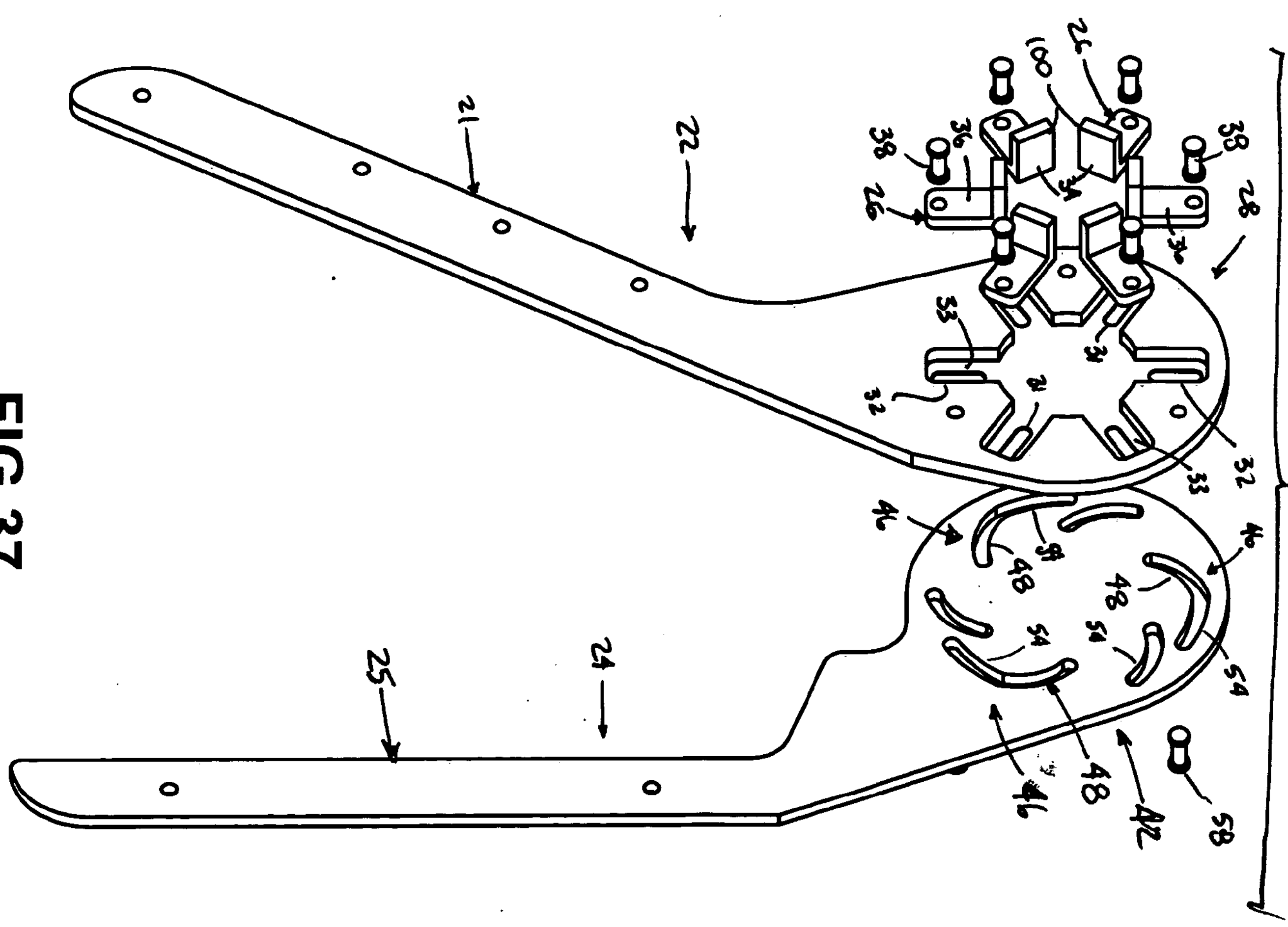

FIG 37

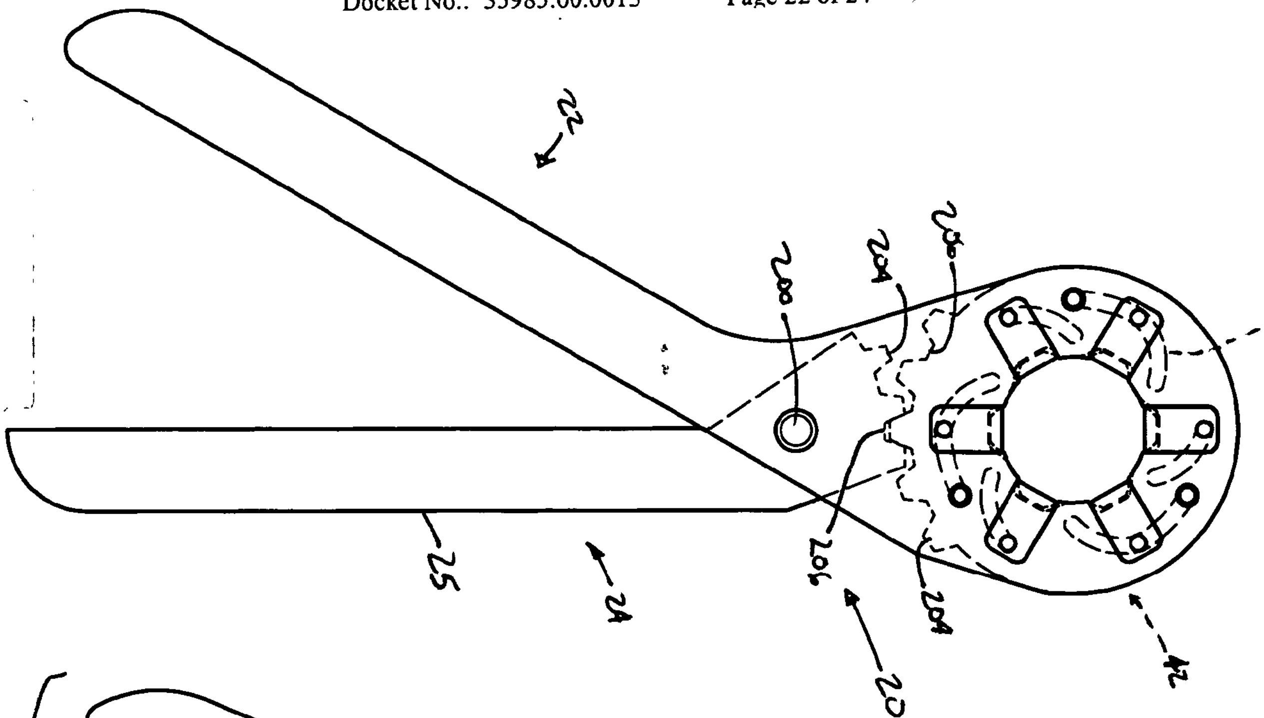
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FIG. 40

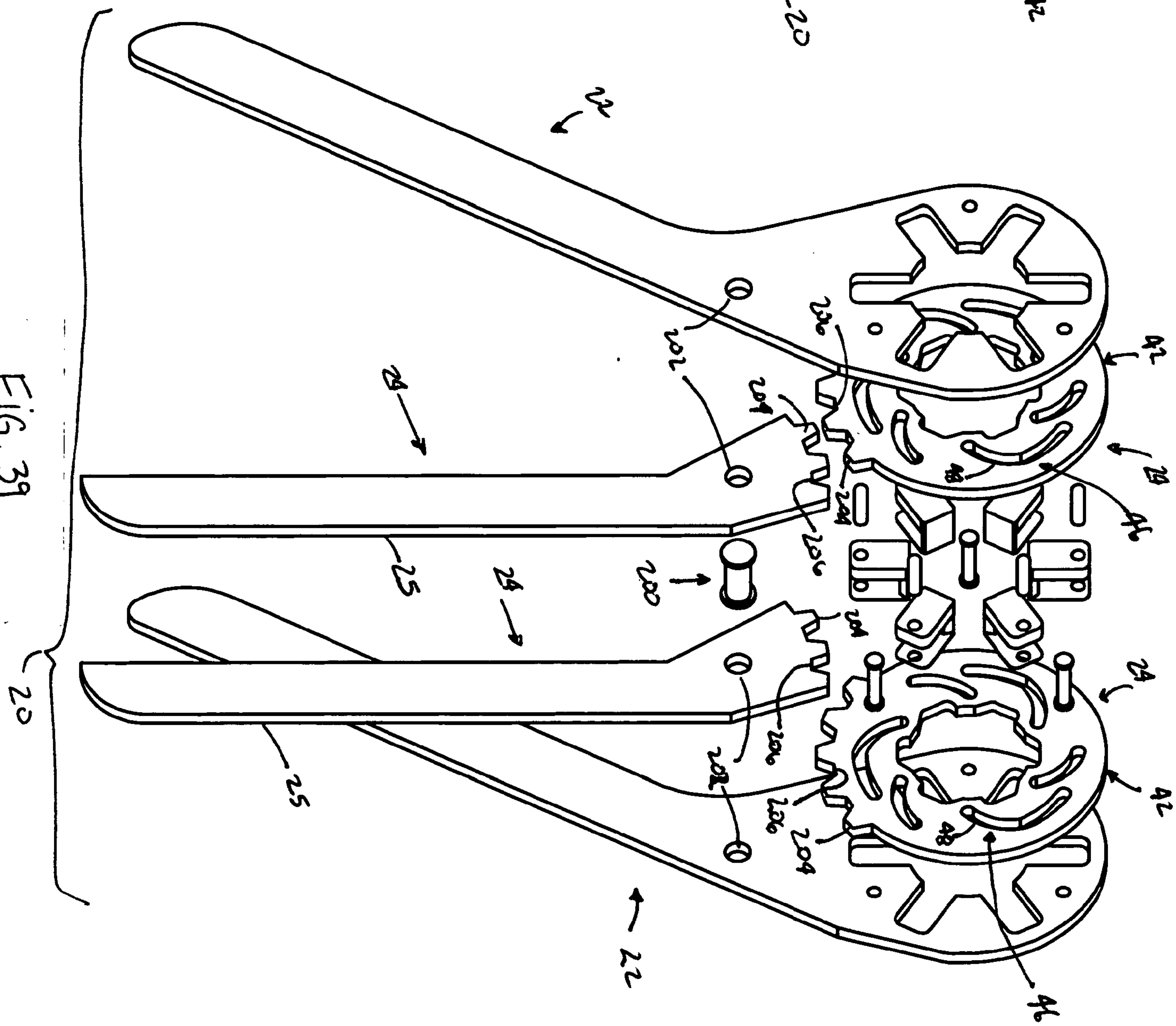
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FIG. 39

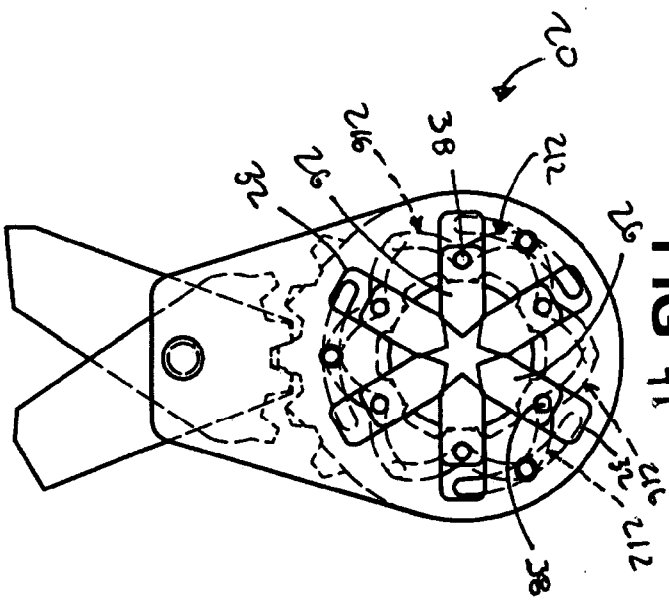

FIG. 42

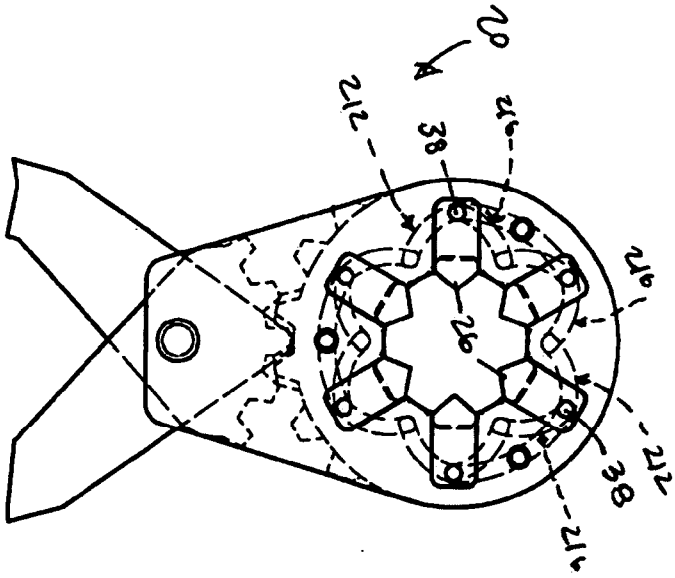

FIG. 41

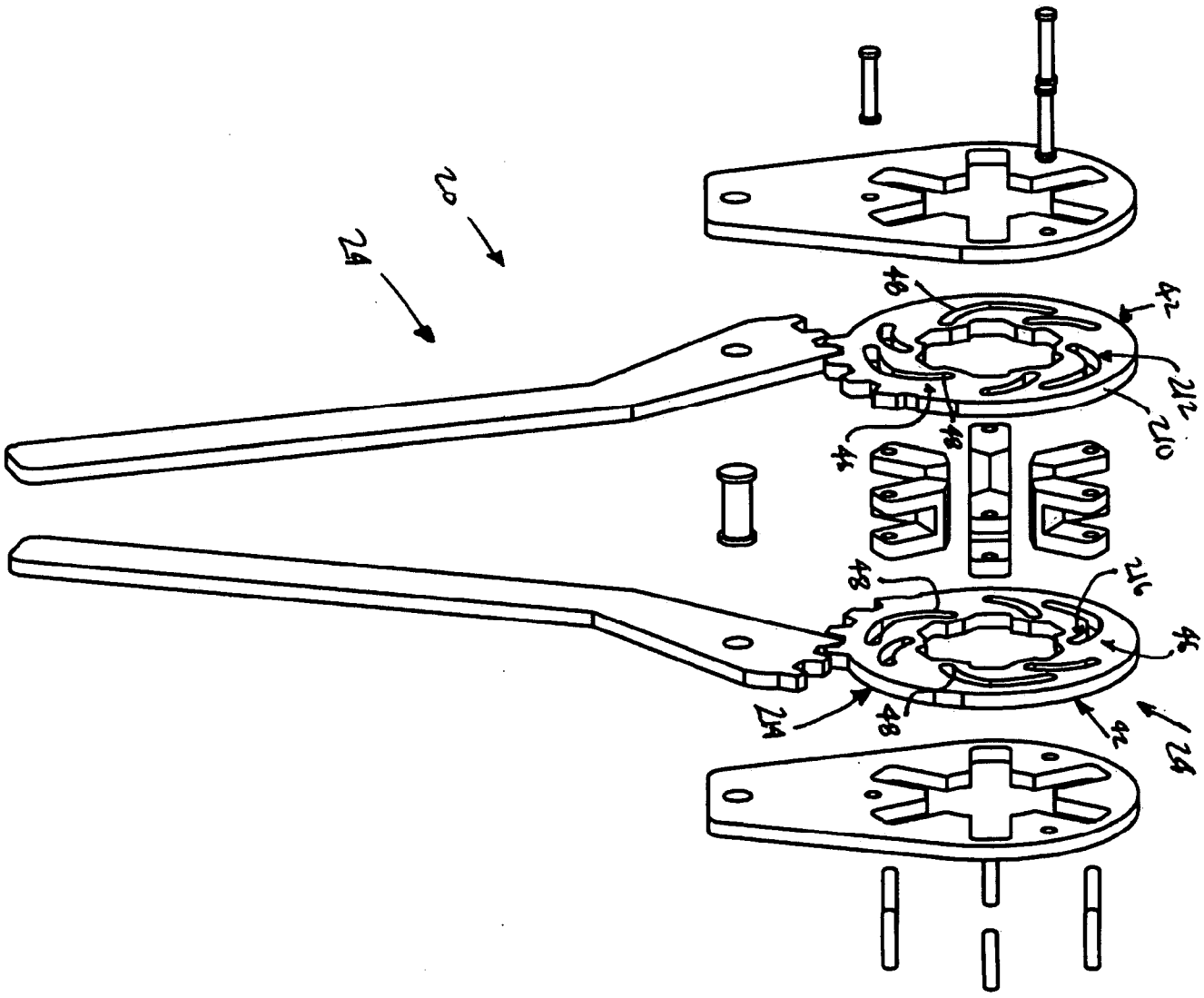

FIG. 43

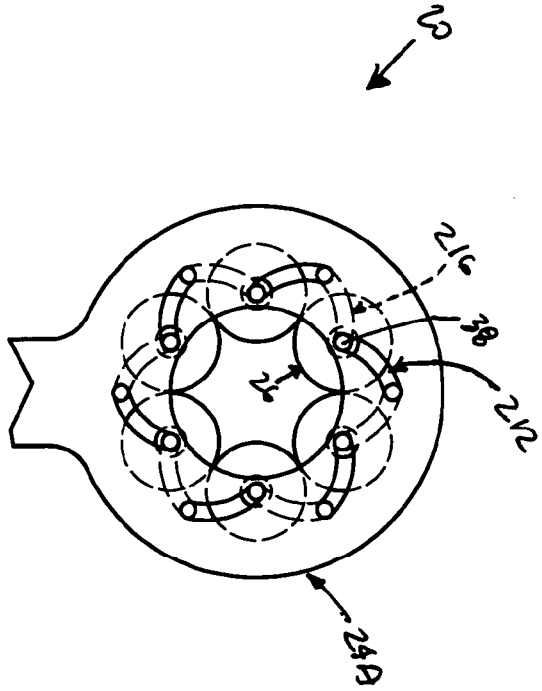

Fig. 45

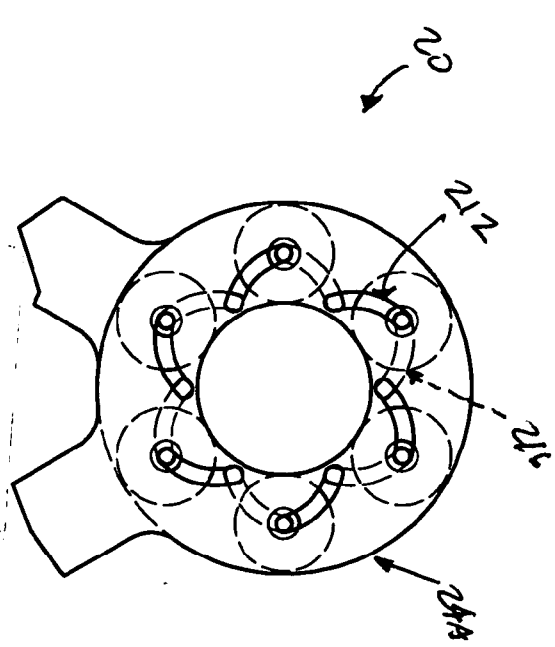

Fig. 44

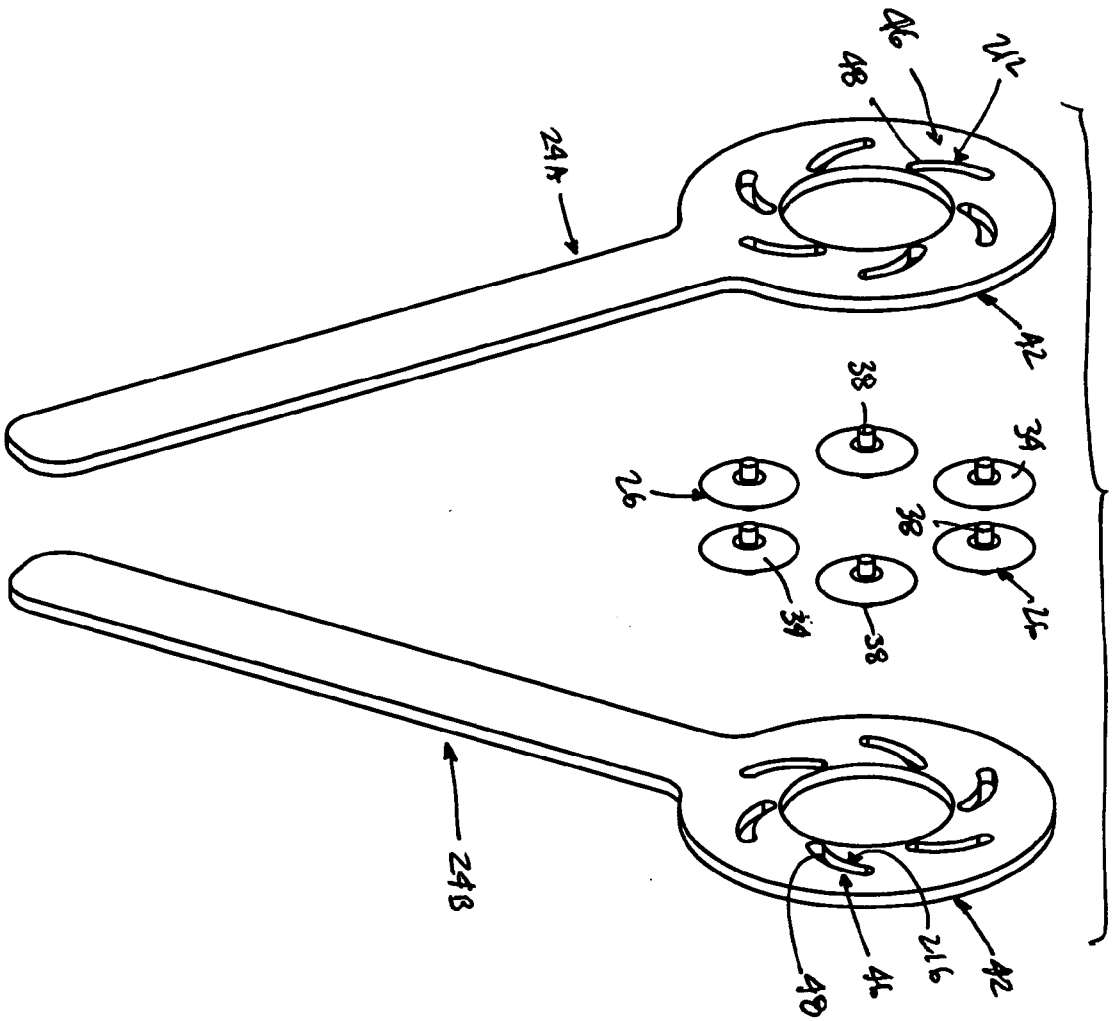

Fig. 46

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/102,966	04/11/2005	Daniel P. Brown	35985.00.0013	7625

23418 7590 12/20/2006
VEDDER PRICE KAUFMAN & KAMMHOLZ
222 N. LASALLE STREET
CHICAGO, IL 60601

EXAMINER	
GRANT, ALVIN J	
ART UNIT	PAPER NUMBER
3723	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
31 DAYS	12/20/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	11/102,966	BROWN, DANIEL P.	
	Examiner	Art Unit	
	Alvin J. Grant	3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 65 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) 1-65 are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. **Claim 1** appears generic to the following disclosed patentably distinct species:

A. Fig. 9

B. Figs. 10-12.

C. Fig. 13.

D. Figs. 14 and 15.

E. Figs. 16 and 17.

F. Figs. 18 and 19.

G. Fig. 20.

H. Fig. 21.

I. Fig. 22.

J. Fig. 23.

K. Fig. 24.

L. Fig. 25.

M. Fig. 26.

N. Fig. 27.

O. Fig. 28.

P. Fig. 29.

Q. Figs. 30-32.

R. Fig. 33-36.

S. Figs. 37 and 38.

T. Figs. 39 and 40.

U. Figs. 41-43.

V. Figs. 44-46

2. . The species are independent or distinct because the inventions are related as mutually exclusive species in an intermediate-final product. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product, and the species are patentably distinct. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

3.Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin J. Grant whose telephone number is (571) 272-4484. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alvin J Grant
Patent Examiner
Art Unit 3723

ajg

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:	Daniel P. Brown	
Serial No.:	11/102,966	Examiner: Alvin J. Grant
Filed:	04/11/2005	Group Art Unit: 3723
Title:	Adjustable Gripping Tool	

AMENDMENT AND RESPONSE TO OFFICE ACTION

This responds to the Official Action of December 20, 2006, in which a restriction/election requirement was issued.

Election of Invention begins on page 2 of this paper.

Amendment to the Specification begin on page 3 of this paper.

Amendment to the Claims begin on page 4 of this paper.

Remarks begin on page 16 of this paper.

Election Of Invention

Applicant hereby elects: Species G, FIG. 20.

Amendment to the Specification:

1. Please replace paragraph [0001] with the following amended paragraph:

[0001] This application is a continuation-in-part of and claims the benefit of and priority from U.S. Application Serial No. 10/763,489, filed January 23, 2004, now issued as U.S. Patent No. 6,889,579.

Listing of the Claims:

The listing of claims will replace all prior versions and listings of claims in this application:

1. (Original) An adjustable gripping tool for engaging a work piece to impart work thereto, the tool comprising:

(a) a first element and a second element connected for relative movement which generates movement of at least one gripping element;

(b) the first element including a gripping portion configured to engage the work piece including at least one guide defined in the gripping portion and said at least one gripping element;

(c) each at least one gripping element including a body portion adapted for engaging the work piece, an arm portion configured to engage one said at least one guide and a force transfer element contiguous with the arm portion;

(d) the second element including an actuation portion having at least one slot therein, each said at least one slot having a first section configured to engage the force transfer element of one said at least one gripping element, such that movement of the second element with respect to the first element actuates each at least one first section to contact and move each respective force transfer element thereby actuating each said at least one gripping element along respective said at least one guide.

2. (Original) The gripping tool as recited in claim 1, wherein the first element includes a pair of elements disposed on opposing sides of the second element.

3. (Withdrawn) The gripping tool as recited in claim 1, wherein the arm portion of the gripping elements further includes a pair of arms disposed at opposite ends of the body portion such that the gripping elements are substantially U-shaped.

4. (Original) The gripping tool as recited in claim 1, wherein the first element further includes at least one stud such that each said at least one stud is disposed between an adjacent pair of guides and extends parallel to the force transfer elements.

5. (Original) The gripping tool as recited in claim 4, wherein at least one of the slots further includes a second section extending from the first section, such that one said at least one stud engages one of the second sections so that during relative movement between the first element and the second element the first and second elements remain generally aligned.

6. (Original) The gripping tool as recited in claim 5, wherein the first and second sections are divergent.

7. (Original) The gripping tool as recited in claim 1, wherein the gripping elements which perform one function may be replaced with gripping elements that perform a different function.

8. (Withdrawn) The gripping tool as recited in claim 1, wherein the gripping elements score and cut.

9. (Original) The gripping tool as recited in claim 1, wherein movement of said at least one gripping element is linear.

10. (Withdrawn) The gripping tool as recited in claim 1, wherein movement of said at least one gripping element is curvilinear.

11. (Original) The gripping tool as recited in claim 1, wherein each said at least one guide extends radially.

12. (Withdrawn) The gripping tool as recited in claim 1, wherein each said at least one guide extends along a curvilinear path.

13. (Withdrawn) The gripping tool as recited in claim 1, wherein each at least one gripping element is configured as a cutting wheel that movably engages the work piece to facilitate severing of the work piece by movement of the tool about the work piece after movement of the second element with respect to the first element.

14. (Withdrawn) The gripping tool as recited in claim 1, wherein each at least one gripping element includes an extension that projects from the gripping element to engage an interior of the work piece.

15. (Withdrawn) The gripping tool as recited in claim 14, wherein said at least one gripping element is configured to engage a first dimensioned work

piece with the first and second elements disposed in a first operative position and a second dimensioned work piece with the first and second elements disposed in a second operative position, such that the first dimensioned work piece is smaller than the second dimensioned work piece.

16. (Withdrawn) The gripping tool as recited in claim 14, wherein said extension is configured to facilitate a crimping operation.

17. (Withdrawn) The gripping tool as recited in claim 14, wherein said extension defines a pocket between the extension and the gripping element to receive the work piece.

18. (Withdrawn) The gripping tool as recited in claim 14, wherein said extension is configured to facilitate chasing threads.

19. (Original) The gripping tool as recited in claim 1, wherein each at least one gripping element has a planar configuration.

20. (Original) The gripping tool as recited in claim 19, wherein each at least one gripping element has a thickness equivalent to a thickness of the respective associated first element.

21. (Original) The gripping tool as recited in claim 1, wherein each at least one gripping element body portion is configured to have a "V" shape where a vertex of the "V" shape is directed toward the force transfer element.

22. (Original) The gripping tool as recited in claim 1, wherein a cover plate is connected to the first element to reinforce the tool.

23. (Currently Amended) The gripping tool[s] as recited in claim 22, wherein the cover plate has a penannular configuration and is attached to the gripping portion.

24. (Withdrawn) The gripping tools as recited in claim 22, wherein the cover plate has a dimension that is generally equivalent to a first element dimension and is attached over the first element.

25. (Withdrawn) The gripping tools as recited in claim 22, wherein the cover plate is configured as a receptacle defined by a pair of cover portions offset by a margin portion to engage a pair of first elements.

26. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one gripping element is configured to engage a non-standard work piece.

27. (Withdrawn) The gripping tool as recited in claim 26, wherein the non-standard work piece is a security fastener.

28. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one gripping element is configured to cooperatively function to facilitate chasing threads.

29. (Withdrawn) The gripping tool as recited in claim 1, wherein the first element includes a pair of first elements and a backbone connecting a

portion of common edges of the pair of first elements, the pair of first elements and the backbone integrally formed from a unitary blank.

30. (Withdrawn) The gripping tool as recited in claim 1, wherein the body portion of each at least one gripping element includes an extension that projects from the gripping element to define a second body portion adapted for engaging the work piece such that the body portion facilitates a first range of gripping ability and the second body portion facilitates a second range of gripping ability.

31. (Original) The gripping tool as recited in claim 1, wherein the first element and the second element have a penannular configuration.

32. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one slot extends partly through the second element.

33. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one guide extends partly through the first element.

34. (Original) The gripping tool as recited in claim 1, wherein the first element includes a first opening formed in the gripping portion from which the guides extend.

35. (Original) The gripping tool as recited in claim 1, wherein the second element includes a second opening formed in the actuation portion

such that each said at least one slot is disposed adjacent the second opening external thereto.

36. (Original) The gripping tool as recited in claim 1, wherein the first element includes a first opening formed in the gripping portion and the second element includes a second opening formed in the actuation portion such that the first and second openings are generally aligned.

37. (Withdrawn) The gripping tool as recited in claim 1, wherein the second element further includes a grasping portion operatively coupled to the first element and operatively associated with the actuation portion in meshing engagement.

38. (Withdrawn) The gripping tool as recited in claim 37, wherein the meshing engagement is defined by cooperative contact between at least one tooth and at least one groove.

39. (Withdrawn) The gripping tool as recited in claim 1, wherein the second element includes a pair of second elements, each with an actuation portion including at least one slot having a first section, and wherein each at least one slot first section formed in one of the pair of second elements defines a one path and each at least one slot first section formed in another of the pair of second elements defines an another path.

40. (Withdrawn) The gripping tool as recited in claim 39, wherein the one path has a generally clockwise orientation and the another path has a generally counter-clockwise orientation.

41. (Withdrawn) The gripping tool as recited in claim 39, wherein the one path and the another path cooperatively engage the force transfer element of one said at least one gripping element to actuate each said at least one gripping element along respective said at least one guide.

42. (Withdrawn) The gripping tool as recited in claim 1, wherein at least one of said at least one slot includes a third section defined within the first section, such that each gripping element associated with the third section of said at least one of said at least one slot is actuated along respective said at least one guide at a different rate.

43. (Withdrawn) An adjustable gripping tool for engaging a work piece to impart work thereto, the tool comprising:

(a) a one second element and an another second element connected for relative movement which generates movement of at least one gripping element;

(b) each at least one gripping element including a body portion adapted for engaging the work piece and a force transfer element contiguous with the body portion;

(c) the one second element and the another second element including an actuation portion including at least one slot having a first section, such that each at least one slot first section formed in the one second element defines a one path and each at least one slot first section formed in another second element defines an another path, so that the one path and the another path cooperatively engage the force transfer element of one said at least one gripping element to actuate each said at least one gripping element into engagement with the work piece.

44. (Withdrawn) The gripping tool as recited in claim 43, wherein the one path has a generally clockwise orientation and the another path has a generally counter-clockwise orientation.

45. (Withdrawn) The gripping tool as recited in claim 43, wherein the gripping elements which perform one function may be replaced with gripping elements that perform a different function.

46. (Withdrawn) The gripping tool as recited in claim 43, wherein movement of said at least one gripping element is linear.

47. (Withdrawn) The gripping tool as recited in claim 43, wherein movement of said at least one gripping element is curvilinear.

48. (Withdrawn) The gripping tool as recited in claim 43, wherein each at least one gripping element includes an extension that projects from the gripping element to engage an interior of the work piece.

49. (Withdrawn) The gripping tool as recited in claim 48, wherein said at least one gripping element is configured to engage a first dimensioned work piece with the first and second elements disposed in a first operative position and a second dimensioned work piece with the first and second elements disposed in a second operative position, such that the first dimensioned work piece is smaller than the second dimensioned work piece.

50. (Withdrawn) The gripping tool as recited in claim 48, wherein said extension is configured to facilitate a crimping operation.

51. (Withdrawn) The gripping tool as recited in claim 48, wherein said extension defines a pocket between the extension and the gripping element to receive the work piece.

52. (Withdrawn) The gripping tool as recited in claim 48, wherein said extension is configured to facilitate chasing threads.

53. (Withdrawn) The gripping tool as recited in claim 43, wherein each at least one gripping element has a planar configuration.

54. (Withdrawn) The gripping tool as recited in claim 43, wherein each at least one gripping element body portion is configured to have a "V" shape where a vertex of the "V" shape is directed toward the force transfer element.

55. (Withdrawn) The gripping tool as recited in claim 43, wherein a cover plate is connected to at least one of the one second element and the another second element to reinforce the tool.

56. (Withdrawn) The gripping tools as recited in claim 55, wherein the cover plate has a penannular configuration and is attached to the actuation portion.

57. (Withdrawn) The gripping tools as recited in claim 55, wherein the cover plate has a dimension that is generally equivalent to a second element dimension.

58. (Withdrawn) The gripping tools as recited in claim 55, wherein the cover plate is configured as a receptacle defined by a pair of cover portions offset by a margin portion to engage the pair of second elements.

59. (Withdrawn) The gripping tool as recited in claim 43, wherein said at least one gripping element is configured to engage a non-standard work piece.

60. (Withdrawn) The gripping tool as recited in claim 59, wherein the non-standard work piece is a security fastener.

61. (Withdrawn) The gripping tool as recited in claim 43, wherein said at least one gripping element is configured to cooperatively function to facilitate chasing threads.

62. (Withdrawn) The gripping tool as recited in claim 43, wherein the one second element and the another second element further include a backbone connecting a portion of common edges of the pair of second elements, such that the pair of first elements and the backbone integrally formed from a unitary blank.

63. (Withdrawn) The gripping tool as recited in claim 43, wherein each at least one gripping element includes an extension that projects from the gripping element to define a second body portion adapted for engaging the work piece such that the body portion facilitates a first range of gripping ability and the second body portion facilitates a second range of gripping ability.

64. (Withdrawn) The gripping tool as recited in claim 43, wherein the one second element and the another second element have a penannular configuration.

65. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one slot extends partly through the one second element and the another second element.

REMARKS

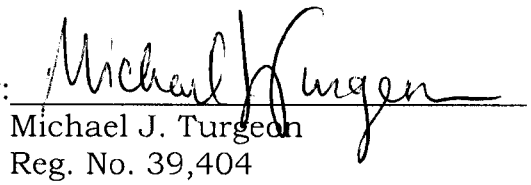
This paper is responsive to the Office Action mailed December 20, 2006, relating to the above-identified application. Claims 1, 2, 4-7, 9, 11, 19-23, 31 and 34-36 remain pending. No new matter has been added.

The Examiner is invited to call the undersigned if such action might expedite the prosecution of this application.

An early and favorable examination is respectfully solicited.

Respectfully submitted,

Dated: January 10, 2007

By: 
Michael J. Turgeon
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/102,966	04/11/2005	Daniel P. Brown	35985.00.0013	7625

23418 7590 07/25/2007
VEDDER PRICE KAUFMAN & KAMMHOLZ
222 N. LASALLE STREET
CHICAGO, IL 60601

EXAMINER	
GRANT, ALVIN J	
ART UNIT	PAPER NUMBER
3723	

MAIL DATE	DELIVERY MODE
07/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	11/102,966	BROWN, DANIEL P.	
	Examiner	Art Unit	
	Alvin J. Grant	3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 May 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-7,9,11,19-23,31,34 and 35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-7,9,11,19-23,31,34 and 35* is/are rejected.

7)☒ Claim(s) *22, 23, 34 and 35* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer filed on 5/11/07 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U. S. Patent No. 6,889,579 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1, 2, 4-7, 9, 11, 19-21 and 31** are rejected under 35 U.S.C. 102(b) as being anticipated by Kennel 5,249,490.

Referring to claims 1 and 2, Kennel discloses an adjustable gripping tool for engaging a workpiece to impart work thereto, the tool comprising: (a) a first element and a second element; (b) the first element including a gripping portion; (c) each at least one gripping element including a body portion; (d) the second element including an actuation portion having a second opening generally concentric with the first opening, wherein movement of the second element with respect to the first element actuates each at least one gripping element for engagement of the workpiece; and (e) the second element further includes a living hinge defined between the actuation portion and a grasping portion to

link the first and second elements when engaging the workpiece; the first element includes a pair of elements disposed on opposing sides of the second element; (see Figs. 1-5).

Regarding claims 4-7, 9, 11, 19-21 and 31 (see col. 2, lines 12-68).

Allowable Subject Matter

4. **Claims 22, 23, 34 and 35** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

The withdrawn claims have not been rejoined because of the rejection based on the U. S. Patent No. 5,249,490 disclosure.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin J. Grant whose telephone number is (571) 272-4484. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alvin J Grant
Patent Examiner
Art Unit 3723

ajg

PATENT
DOCKET NO.: 35985.00.0013

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:	Daniel P. Brown	
Serial No.:	11/102,966	Examiner: Alvin J. Grant
Filed:	04/11/2005	Group Art Unit: 3723
Title:	Adjustable Gripping Tool	

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF ELECTRONIC TRANSMISSION

I hereby certify that this paper is being transmitted electronically to the Electronic Business Center at the USPTO at the address and on the date shown below:

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Laura Aguilar — Date: 10/25/07

AMENDMENT AND RESPONSE TO OFFICE ACTION

This paper is responsive to the Official Action of July 25, 2007.

Amendment to the Claims begin on page 2 of this paper.

Remarks begin on page 10 of this paper.

Listing of the Claims:

The listing of claims will replace all prior versions and listings of claims in this application:

1. (Original) An adjustable gripping tool for engaging a work piece to impart work thereto, the tool comprising:

(a) a first element and a second element connected for relative movement which generates movement of at least one gripping element;

(b) the first element including a gripping portion configured to engage the work piece including at least one guide defined in the gripping portion and said at least one gripping element;

(c) each at least one gripping element including a body portion adapted for engaging the work piece, an arm portion configured to engage one said at least one guide and a force transfer element contiguous with the arm portion;

(d) the second element including an actuation portion having at least one slot therein, each said at least one slot having a first section configured to engage the force transfer element of one said at least one gripping element, such that movement of the second element with respect to the first element actuates each at least one first section to contact and move each respective force transfer element thereby actuating each said at least one gripping element along respective said at least one guide.

2. (Original) The gripping tool as recited in claim 1, wherein the first element includes a pair of elements disposed on opposing sides of the second element.

3. (Withdrawn) The gripping tool as recited in claim 1, wherein the arm portion of the gripping elements further includes a pair of arms disposed at opposite ends of the body portion such that the gripping elements are substantially U-shaped.

4. (Original) The gripping tool as recited in claim 1, wherein the first element further includes at least one stud such that each said at least one stud is disposed between an adjacent pair of guides and extends parallel to the force transfer elements.

5. (Original) The gripping tool as recited in claim 4, wherein at least one of the slots further includes a second section extending from the first section, such that one said at least one stud engages one of the second sections so that during relative movement between the first element and the second element the first and second elements remain generally aligned.

6. (Original) The gripping tool as recited in claim 5, wherein the first and second sections are divergent.

7. (Original) The gripping tool as recited in claim 1, wherein the gripping elements which perform one function may be replaced with gripping elements that perform a different function.

8. (Withdrawn) The gripping tool as recited in claim 1, wherein the gripping elements score and cut.

9. (Original) The gripping tool as recited in claim 1, wherein movement of said at least one gripping element is linear.

10. (Withdrawn) The gripping tool as recited in claim 1, wherein movement of said at least one gripping element is curvilinear.

11. (Original) The gripping tool as recited in claim 1, wherein each said at least one guide extends radially.

12. (Withdrawn) The gripping tool as recited in claim 1, wherein each said at least one guide extends along a curvilinear path.

13. (Withdrawn) The gripping tool as recited in claim 1, wherein each at least one gripping element is configured as a cutting wheel that movably engages the work piece to facilitate severing of the work piece by movement of the tool about the work piece after movement of the second element with respect to the first element.

14. (Withdrawn) The gripping tool as recited in claim 1, wherein each at least one gripping element includes an extension that projects from the gripping element to engage an interior of the work piece.

15. (Withdrawn) The gripping tool as recited in claim 14, wherein said at least one gripping element is configured to engage a first dimensioned work

piece with the first and second elements disposed in a first operative position and a second dimensioned work piece with the first and second elements disposed in a second operative position, such that the first dimensioned work piece is smaller than the second dimensioned work piece.

16. (Withdrawn) The gripping tool as recited in claim 14, wherein said extension is configured to facilitate a crimping operation.

17. (Withdrawn) The gripping tool as recited in claim 14, wherein said extension defines a pocket between the extension and the gripping element to receive the work piece.

18. (Withdrawn) The gripping tool as recited in claim 14, wherein said extension is configured to facilitate chasing threads.

19. (Original) The gripping tool as recited in claim 1, wherein each at least one gripping element has a planar configuration.

20. (Original) The gripping tool as recited in claim 19, wherein each at least one gripping element has a thickness equivalent to a thickness of the respective associated first element.

21. (Original) The gripping tool as recited in claim 1, wherein each at least one gripping element body portion is configured to have a "V" shape where a vertex of the "V" shape is directed toward the force transfer element.

22. (Original) The gripping tool as recited in claim 1, wherein a cover plate is connected to the first element to reinforce the tool.

23. (Previously Presented) The gripping tool as recited in claim 22, wherein the cover plate has a penannular configuration and is attached to the gripping portion.

24. (Withdrawn) The gripping tools as recited in claim 22, wherein the cover plate has a dimension that is generally equivalent to a first element dimension and is attached over the first element.

25. (Withdrawn) The gripping tools as recited in claim 22, wherein the cover plate is configured as a receptacle defined by a pair of cover portions offset by a margin portion to engage a pair of first elements.

26. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one gripping element is configured to engage a non-standard work piece.

27. (Withdrawn) The gripping tool as recited in claim 26, wherein the non-standard work piece is a security fastener.

28. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one gripping element is configured to cooperatively function to facilitate chasing threads.

29. (Withdrawn) The gripping tool as recited in claim 1, wherein the first element includes a pair of first elements and a backbone connecting a

portion of common edges of the pair of first elements, the pair of first elements and the backbone integrally formed from a unitary blank.

30. (Withdrawn) The gripping tool as recited in claim 1, wherein the body portion of each at least one gripping element includes an extension that projects from the gripping element to define a second body portion adapted for engaging the work piece such that the body portion facilitates a first range of gripping ability and the second body portion facilitates a second range of gripping ability.

31. (Original) The gripping tool as recited in claim 1, wherein the first element and the second element have a penannular configuration.

32. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one slot extends partly through the second element.

33. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one guide extends partly through the first element.

34. (Original) The gripping tool as recited in claim 1, wherein the first element includes a first opening formed in the gripping portion from which the guides extend.

35. (Original) The gripping tool as recited in claim 1, wherein the second element includes a second opening formed in the actuation portion

such that each said at least one slot is disposed adjacent the second opening external thereto.

36. (Original) The gripping tool as recited in claim 1, wherein the first element includes a first opening formed in the gripping portion and the second element includes a second opening formed in the actuation portion such that the first and second openings are generally aligned.

37. (Withdrawn) The gripping tool as recited in claim 1, wherein the second element further includes a grasping portion operatively coupled to the first element and operatively associated with the actuation portion in meshing engagement.

38. (Withdrawn) The gripping tool as recited in claim 37, wherein the meshing engagement is defined by cooperative contact between at least one tooth and at least one groove.

39. (Withdrawn) The gripping tool as recited in claim 1, wherein the second element includes a pair of second elements, each with an actuation portion including at least one slot having a first section, and wherein each at least one slot first section formed in one of the pair of second elements defines a one path and each at least one slot first section formed in another of the pair of second elements defines an another path.

40. (Withdrawn) The gripping tool as recited in claim 39, wherein the one path has a generally clockwise orientation and the another path has a generally counter-clockwise orientation.

41. (Withdrawn) The gripping tool as recited in claim 39, wherein the one path and the another path cooperatively engage the force transfer element of one said at least one gripping element to actuate each said at least one gripping element along respective said at least one guide.

42. (Withdrawn) The gripping tool as recited in claim 1, wherein at least one of said at least one slot includes a third section defined within the first section, such that each gripping element associated with the third section of said at least one of said at least one slot is actuated along respective said at least one guide at a different rate.

43. – 65. Cancelled.

REMARKS

This paper is responsive to the Office Action mailed July 25, 2007, relating to the above-identified application.

Claims 1, 2, 4-7, 9, 11, 19-23, 31 and 34-36 are currently pending.

Claims 3, 8, 10, 12-18, 24-30, 32, 33 and 37-42 are withdrawn.

Claims 43-65 have been cancelled.

No new matter has been added by way of this response.

Applicant respectfully traverses each and every of the Examiner's rejections in their entirety.

Reexamination and reconsideration are respectfully requested.

I. **Summary of Office Action**.

Claims 1, 2, 4-7, 9, 11, 19-21 and 31 stand rejected under 35 USC §102(b) as being anticipated by US Patent No. 5,249,490 (Kennel).

Claims 22, 23, 34 and 35 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

II. **Response to 102(b) Rejection**.

Anticipation can only be established by a single prior art reference that discloses each and every element of the claimed invention. *Structural Rubber Products Co., v. Park Rubber Co.*, 749 F.2d 7070; 233 U.S.P.Q. 1264 (C.A.F.C. 1984). The test for anticipation requires that all of the claimed elements must be found in exactly the same situation and united in the same way to perform the same function in a single unit of the prior art. *Studiengesellschaft Kohle,*

G.m.b.H. v. Dart Industries, Inc., 762 F.2d 724, 726 220 U.S.P.Q. 841 at 842 (C.A.F.C. 1984) (emphasis added).

Kennel does not show the elements united in the same way as disclosed in Applicant's claims. The rejection under 102(b) is improper, and claims 1, 2, 4-7, 9, 11, 19-21 and 31 are allowable.

Moreover, the Examiner's rejection fails provide the requisite notice of how the Examiner interprets Kennel such that the Applicant's claims are not patentable. "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970). Generally, Examiners try to associate each and every claim element and limitation of the invention with the prior art. The level of specificity varies from Examiner to Examiner but must at minimum allow Applicants to understand the gist of the Examiner's contentions. The review conducted by the Examiner here diverges from any reasonable requirement under *In re Wilson*. The Examiner failed to engage in any meaningful analysis and merely attempted to parrot the Applicant's claims (i.e, claims 1 and 2 only), except for the highlighted language which includes elements not present in Applicant's claims, to wit:

Referring to claims 1 and 2, Kennel discloses an adjustable gripping tool for engaging a workpiece to impart work thereto, the tool comprising: (a) a first element and a second element; (b) the first element including a gripping portion; (c) each at least one gripping element including a body portion; (d) the second element including an actuation portion **having a second opening**

generally concentric with the first opening, wherein movement of the second element with respect to the first element actuates each at least one gripping element for engagement of the workpiece; and (e) **the second element further includes a living hinge defined between the actuation portion and a grasping portion to link the first and second elements when engaging the workpiece**; the first element includes a pair of elements disposed on opposing sides of the second element; (see Figs. 1-5).

Regarding claims 4-7, 9,11,19-21 and 31 (see col. 2, lines 12-68).

The Examiner's action must be complete as to all matters. 37 C.F.R. § 1.104(b). The Office Action is improper in several meaningful and material ways. Applicant does not believe that attempting to parrot the Applicant's claim language without more, satisfies the requirements of *In re Wilson* and 37 C.F.R. § 1.104(b). Moreover, Applicant believes the analysis here does not rise to the level of a good faith argument. In particular with respect to claims 4-7, 9,11,19-21 and 31, the Examiner's rejection is entirely devoid of analysis and merely points to a section of Kennel without any description of what parts of Kennel disclose the claimed elements united in the same manner as required in Applicant's claims. Applicant is unable to respond and is greatly prejudiced by the Examiner's lack of analysis as required under *In re Wilson*.

Please note that only claims rejected can be considered unpatentable. 37 C.F.R. § 1.104(c)(1). The Examiner did not reject claim 36 in the July 25, 2007, Office Action. Therefore, claim 36 cannot be rejected and must be allowed.

Nonetheless, Applicant will attempt to respond to the Examiner's rejection as best understood by Applicant, without prejudice to further respond in the event the Examiner provides analysis sufficient under *In re Wilson* for the Applicant to respond to a reasonably detailed rejection.

Kennel fails to disclose, *inter alia*, the elements of claim 1. Further, when Applicant attempts to formulate a reply, Applicant is faced with his own claim language parroted back to him without any indication where the purported parts are present in Kennel. In other words, the Examiner has failed to analyze Kennel to the prejudice of Applicant, who is left to assume as to the basis for the Examiner's rejection. Moreover, the Examiner has cited claim elements as present in Kennel that are not required in Applicant's claims (see the highlighted text above). Applicant is at a loss as how to respond to the Examiner's position with respect to such additional elements and will not do so in this response, but reserves the right to do so in the event the Examiner clarifies his position in a subsequent non-final Office Action.

Kennel describes a wrench 10 including a pair of pivoted handle members 1, 2 that are squeezed together to directly actuate a pair of lateral jaw members 12, 14 and indirectly actuate upper and lower jaw members 23, 27. Each handle member 1, 2 terminates in an actuating arm portion 6, 7 which are moved toward each other as the handle members 1, 2 are squeezed and rotated about the pivot 4. Each actuating arm portion 6, 7 is connected to lateral jaw members 12, 14 by actuating pins 8, 9. Each lateral jaw member 12, 14 includes a pair of spaced jaw elements 12*a*, 12*b* and 14*a*, 14*b* joined

together by a pair of drive pins 16, 17 and 21, 22. The lateral jaw members 12, 14 cooperate to conform to four (4) faces of a hexagonal bolt or nut as they are driven toward a central position. Between the paired, spaced lateral jaw members 12, 14, upper and lower jaw members 23, 27 are installed and arranged to move toward a central position. The upper and lower jaw members 23, 27 are each provided with a pair of angled slots 24, 25 and 28, 29 through which the drive pins 16, 17 and 21, 22 joining the paired, spaced lateral jaw members 12, 14 extend. The upper and lower jaw members 23, 27 are each shaped to provide a surface for contacting one face of a hexagonal bolt or nut.

Since the Examiner failed to provide any analysis, Applicant will illustrate how Kennel fails to disclose all the elements of Applicant's claim 1 united in the same manner as required in Applicant's claims. Quite simply, Kennel fails to disclose, *inter alia*, "each ... gripping element including a body portion adapted for engaging the work piece, an arm portion configured to engage one said at least one guide and a force transfer element contiguous with the arm portion" Moreover, Kennel fails to disclose, *inter alia*, "the second element including an actuation portion having at least one slot therein, each said at least one slot having a first section configured to engage the force transfer element of one said at least one gripping element, such that movement of the second element with respect to the first element actuates each at least one first section to contact and move each respective force transfer element thereby actuating each said at least one gripping element along respective said at least one guide."

Therefore, for at least the reasons set forth in the foregoing, Applicant respectfully submits that claim 1 is in condition for allowance, and such action is earnestly solicited. Claims 2, 4-7, 9, 11, 19-23, 31 and 34-36 depend from claim 1, either directly or indirectly, and, thus, for at least the reasons set forth with respect to the allowability of claim 1, among others, such dependent claims are also in condition for allowance, and such action is earnestly solicited.

III. **Rejoinder**.

Claim 1 is a generic or linking claim under MPEP §809 as a genus claim linking species claims. As per MPEP §809:

> The most common types of linking claims which, if allowable, act to prevent restriction between inventions that can otherwise be shown to be divisible, are (A) genus claims linking species claims; and(B) subcombination claims linking plural combinations.

The Examiner's only rejection of claims 1, 2, 4-7, 9, 11, 19-23, 31 and 34-36 has been overcome above and such claims are in condition for allowance. As per MPEP §809:

> When all claims directed to the elected invention are allowable, should any linking claim be allowable, the restriction requirement between the linked inventions must be withdrawn. Any claim(s) directed to the nonelected invention(s), previously withdrawn from consideration, which depends from or requires all the limitations of the allowable linking claim must be rejoined and will be fully examined for patentability.

Applicant respectfully requests that the restriction requirement applicable to claims 3, 8, 10, 12-18, 24-30, 32, 33 and 37-42 be withdrawn.

Applicant further respectfully requests that claims 3, 8, 10, 12-18, 24-30, 32, 33 and 37-42 be rejoined because they each depend directly or indirectly from allowable claim 1. As per MPEP §821.04:

> In order to be eligible for rejoinder, a claim to a nonelected invention must depend from or otherwise require all the limitations of an allowable claim.
>
> The requirement for restriction between the rejoined inventions must be withdrawn.

Applicant respectfully submits that claims 3, 8, 10, 12-18, 24-30, 32, 33 and 37-42 are properly rejoined.

IV. **Conclusion.**

Based on the above amendments and remarks, Applicant submits that claims 1-42 of this application are now in proper condition for allowance, and such action is earnestly solicited. The Commissioner is hereby authorized to charge any underpayment or credit any overpayment to Deposit Account No. 22-0259 or any payment in connection with this communication, including any fees for extension of time, which may be required. The Examiner is also invited to call the undersigned if such action might expedite the prosecution of this application. An early and favorable examination is respectfully solicited.

Respectfully submitted,

Dated: October 25, 2007

By: _____
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/102,966	04/11/2005	Daniel P. Brown	35985.00.0013	7625

23418 7590 04/16/2008
VEDDER PRICE KAUFMAN & KAMMHOLZ
222 N. LASALLE STREET
CHICAGO, IL 60601

EXAMINER	
GRANT, ALVIN J	
ART UNIT	PAPER NUMBER
3723	
MAIL DATE	DELIVERY MODE
04/16/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	11/102,966	BROWN, DANIEL P.	
	Examiner	Art Unit	
	ALVIN J. GRANT	3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-32* is/are pending in the application.

4a) Of the above claim(s) *3,10,12-18,24-30,32,33 and 37-42* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-9,11,19-21,31 and 34-36* is/are rejected.

7)☒ Claim(s) *22 and 23* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/27/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer filed on 5/11/07 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U. S. Patent No. 6,889,579 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 4-7, 9, 11, 19, 34-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Buchanan et al. 2,787,925.

Referring to claims 1and 4, Buchanan et al. discloses a tool comprising:

(a) a first element (16) and a second element (12) connected for relative movement which generates movement of at least one gripping element (25);

(b) the first element including a gripping portion (13) configured to engage the work piece including at least one guide (19) defined in the gripping portion and the at least one gripping element;

(c) each at least one gripping element including a body portion (24) adapted for engaging the work piece, an arm portion configured to engage one at least one guide and a force transfer element (26) configured with the arm portion;
(d) the second element including an actuation portion (10) having at least one slot (21) therein, each at least one slot having a first section configured to engage the force transfer element of one at least one gripping element, such that movement of the second element with respect to the first element actuates each at least one first section to contact and move each respective force transfer element thereby actuating each at least one gripping element along respective at least one guide; and the first element further includes at least one stud (35) such that each at least one stud disposed between an adjacent pair of guides and extends parallel to the force transfer elements.

Referring to claims 2, 5-7, 9, 11, 19 and 34-36, see Figs. 1-4.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 20, 21 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchanan et al.

Buchanan et al. is described above. Buchanan et al. does not specifically disclose the thickness or orientation of the elements. The thickness and shape of an element is a

matter of engineering expedient since the size is dependent on the task to be performed. It would have been an obvious matter of design choice to make the different portions of the elements of whatever form or shape was desired or expedient. A change in form or shape is generally recognized as being within the level of ordinary skill in the art, absent any showing of unexpected results. *In re Dailey et al.*, 149 USPQ 47.

Allowable Subject Matter

6. Claims 22 and 23 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments, see pages 10-17, filed 10/25/07, with respect to 1, 2, 4-7, 9, 11, 19-23, 31, 34 and 35 have been fully considered and are persuasive. The Non-Final Rejection of 7/25/07 has been withdrawn.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALVIN J. GRANT whose telephone number is (571)272-4484. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alvin J Grant/

Examiner, Art Unit 3723

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:	Daniel P. Brown	)	
Serial No.:	11/102,966	)	Examiner: Alvin J. Grant
Filed:	04/11/2005	)	Group Art Unit: 3723
Title:	Adjustable Gripping Tool	)	

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF ELECTRONIC TRANSMISSION

I hereby certify that this paper is being transmitted electronically to the Electronic Business Center at the USPTO at the address and on the date shown below:

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Laura Aguilar — Date: 7/16/08

AMENDMENT AND RESPONSE TO OFFICE ACTION

This paper is responsive to the Official Action of April 16, 2008.

Listing of the Claims begins on page 2 of this paper.

Remarks begin on page 10 of this paper.

Listing of the Claims:

The listing of claims will replace all prior versions and listings of claims in this application:

1. (Original) An adjustable gripping tool for engaging a work piece to impart work thereto, the tool comprising:

(a) a first element and a second element connected for relative movement which generates movement of at least one gripping element;

(b) the first element including a gripping portion configured to engage the work piece including at least one guide defined in the gripping portion and said at least one gripping element;

(c) each at least one gripping element including a body portion adapted for engaging the work piece, an arm portion configured to engage one said at least one guide and a force transfer element contiguous with the arm portion;

(d) the second element including an actuation portion having at least one slot therein, each said at least one slot having a first section configured to engage the force transfer element of one said at least one gripping element, such that movement of the second element with respect to the first element actuates each at least one first section to contact and move each respective force transfer element thereby actuating each said at least one gripping element along respective said at least one guide.

2. (Original) The gripping tool as recited in claim 1, wherein the first element includes a pair of elements disposed on opposing sides of the second element.

3. (Withdrawn) The gripping tool as recited in claim 1, wherein the arm portion of the gripping elements further includes a pair of arms disposed at opposite ends of the body portion such that the gripping elements are substantially U-shaped.

4. (Original) The gripping tool as recited in claim 1, wherein the first element further includes at least one stud such that each said at least one stud is disposed between an adjacent pair of guides and extends parallel to the force transfer elements.

5. (Original) The gripping tool as recited in claim 4, wherein at least one of the slots further includes a second section extending from the first section, such that one said at least one stud engages one of the second sections so that during relative movement between the first element and the second element the first and second elements remain generally aligned.

6. (Original) The gripping tool as recited in claim 5, wherein the first and second sections are divergent.

7. (Original) The gripping tool as recited in claim 1, wherein the gripping elements which perform one function may be replaced with gripping elements that perform a different function.

8. (Withdrawn) The gripping tool as recited in claim 1, wherein the gripping elements score and cut.

9. (Original) The gripping tool as recited in claim 1, wherein movement of said at least one gripping element is linear.

10. (Withdrawn) The gripping tool as recited in claim 1, wherein movement of said at least one gripping element is curvilinear.

11. (Original) The gripping tool as recited in claim 1, wherein each said at least one guide extends radially.

12. (Withdrawn) The gripping tool as recited in claim 1, wherein each said at least one guide extends along a curvilinear path.

13. (Withdrawn) The gripping tool as recited in claim 1, wherein each at least one gripping element is configured as a cutting wheel that movably engages the work piece to facilitate severing of the work piece by movement of the tool about the work piece after movement of the second element with respect to the first element.

14. (Withdrawn) The gripping tool as recited in claim 1, wherein each at least one gripping element includes an extension that projects from the gripping element to engage an interior of the work piece.

15. (Withdrawn) The gripping tool as recited in claim 14, wherein said at least one gripping element is configured to engage a first dimensioned work

piece with the first and second elements disposed in a first operative position and a second dimensioned work piece with the first and second elements disposed in a second operative position, such that the first dimensioned work piece is smaller than the second dimensioned work piece.

16. (Withdrawn) The gripping tool as recited in claim 14, wherein said extension is configured to facilitate a crimping operation.

17. (Withdrawn) The gripping tool as recited in claim 14, wherein said extension defines a pocket between the extension and the gripping element to receive the work piece.

18. (Withdrawn) The gripping tool as recited in claim 14, wherein said extension is configured to facilitate chasing threads.

19. (Original) The gripping tool as recited in claim 1, wherein each at least one gripping element has a planar configuration.

20. (Original) The gripping tool as recited in claim 19, wherein each at least one gripping element has a thickness equivalent to a thickness of the respective associated first element.

21. (Original) The gripping tool as recited in claim 1, wherein each at least one gripping element body portion is configured to have a "V" shape where a vertex of the "V" shape is directed toward the force transfer element.

22. (Original) The gripping tool as recited in claim 1, wherein a cover plate is connected to the first element to reinforce the tool.

23. (Previously Presented) The gripping tool as recited in claim 22, wherein the cover plate has a penannular configuration and is attached to the gripping portion.

24. (Withdrawn) The gripping tools as recited in claim 22, wherein the cover plate has a dimension that is generally equivalent to a first element dimension and is attached over the first element.

25. (Withdrawn) The gripping tools as recited in claim 22, wherein the cover plate is configured as a receptacle defined by a pair of cover portions offset by a margin portion to engage a pair of first elements.

26. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one gripping element is configured to engage a non-standard work piece.

27. (Withdrawn) The gripping tool as recited in claim 26, wherein the non-standard work piece is a security fastener.

28. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one gripping element is configured to cooperatively function to facilitate chasing threads.

29. (Withdrawn) The gripping tool as recited in claim 1, wherein the first element includes a pair of first elements and a backbone connecting a

portion of common edges of the pair of first elements, the pair of first elements and the backbone integrally formed from a unitary blank.

30. (Withdrawn) The gripping tool as recited in claim 1, wherein the body portion of each at least one gripping element includes an extension that projects from the gripping element to define a second body portion adapted for engaging the work piece such that the body portion facilitates a first range of gripping ability and the second body portion facilitates a second range of gripping ability.

31. (Original) The gripping tool as recited in claim 1, wherein the first element and the second element have a penannular configuration.

32. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one slot extends partly through the second element.

33. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one guide extends partly through the first element.

34. (Original) The gripping tool as recited in claim 1, wherein the first element includes a first opening formed in the gripping portion from which the guides extend.

35. (Original) The gripping tool as recited in claim 1, wherein the second element includes a second opening formed in the actuation portion such that each said at least one slot is disposed adjacent the second opening external thereto.

36. (Original) The gripping tool as recited in claim 1, wherein the first element includes a first opening formed in the gripping portion and the second element includes a second opening formed in the actuation portion such that the first and second openings are generally aligned.

37. (Withdrawn) The gripping tool as recited in claim 1, wherein the second element further includes a grasping portion operatively coupled to the first element and operatively associated with the actuation portion in meshing engagement.

38. (Withdrawn) The gripping tool as recited in claim 37, wherein the meshing engagement is defined by cooperative contact between at least one tooth and at least one groove.

39. (Withdrawn) The gripping tool as recited in claim 1, wherein the second element includes a pair of second elements, each with an actuation portion including at least one slot having a first section, and wherein each at least one slot first section formed in one of the pair of second elements defines a one path and each at least one slot first section formed in another of the pair of second elements defines an another path.

40. (Withdrawn) The gripping tool as recited in claim 39, wherein the one path has a generally clockwise orientation and the another path has a generally counter-clockwise orientation.

41. (Withdrawn) The gripping tool as recited in claim 39, wherein the one path and the another path cooperatively engage the force transfer element of one said at least one gripping element to actuate each said at least one gripping element along respective said at least one guide.

42. (Withdrawn) The gripping tool as recited in claim 1, wherein at least one of said at least one slot includes a third section defined within the first section, such that each gripping element associated with the third section of said at least one of said at least one slot is actuated along respective said at least one guide at a different rate.

43. – 65. Cancelled.

REMARKS

This paper is responsive to the Office Action mailed April 16, 2008, relating to the above-identified application.

Claims 1, 2, 4-7, 9, 11, 19-23, 31, and 34-36 are currently pending.

Claims 3, 8, 10, 12-18, 24-30, 32, 33, and 37-42 are withdrawn.

Claims 43-65 have been cancelled.

No new matter has been added by way of this response.

Applicant respectfully traverses each and every of the Examiner's rejections in their entirety.

Reexamination and reconsideration are respectfully requested.

I. **Summary of Office Action**.

Claims 1, 2, 4-7, 9, 11, 19, and 34-36 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,787,925 ("Buchanan").

Claims 20, 21, and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Buchanan.

Claims 22 and 23 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

II. **Response to 102(b) Rejection**.

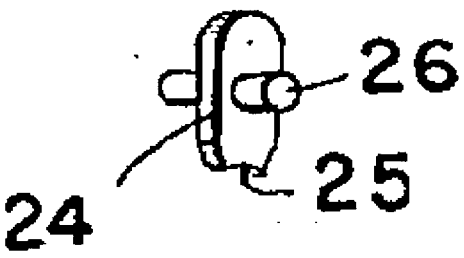
Anticipation can only be established by a single prior art reference that discloses each and every element of the claimed invention. *Structural Rubber Products Co., v. Park Rubber Co.*, 749 F.2d 7070; 233 U.S.P.Q. 1264 (C.A.F.C. 1984). The test for anticipation requires that all of the claimed elements must be found in exactly the same situation and united in the same way to perform

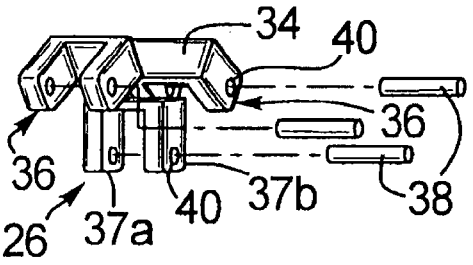
the same function in a single unit of the prior art. *Studiengesellschaft Kohle, G.m.b.H. v. Dart Industries, Inc.*, 762 F.2d 724, 726 220 U.S.P.Q. 841 at 842 (C.A.F.C. 1984) (emphasis added).

Buchanan does not show the elements united in the same way as disclosed in Applicant's claims. The rejection under 102(b) is therefore improper, and claims 1, 2, 4-7, 9, 11, 19, and 34-36 are allowable.

Buchanan is generally directed towards a multifunctional tool adapted for use with insulated wire. (Col. 1, ll. 15-17.) As described in columns 1 and 2, the tool requires, among other things, inner handle 10, an outer handle 14, and two auxiliary cam plates 27, 28. In operation, when the handles are moved toward each other, bolts within slots 21 within inner handle 10 carry auxiliary cam plates 27 and 28 with the parallel plates 15 of the outer handle 14. This causes plungers 24 to move within radial slots 19 of the cam within the inner handle 10.

It is alleged, among other things, that Buchanan discloses (1) at least one gripping member including an arm portion and (2) that the second element includes an actuation portion having at least one slot. Applicant respectfully submits that neither is the case, and as such the claims are in condition for allowance because, for example, claim 1 requires both elements.





Buchanan's Plunger

Applicant's Gripping Element

A portion of FIG. 4 from Buchanan is reproduced above alongside a portion of FIG. 1 of the instant application. As shown, Buchanan's plunger 24 includes a pin 26 (and a crimping portion 25). The Office Action alleges that Buchanan discloses "each at least one gripping element including a body portion (24) adapted for engaging the work piece, an arm portion configured to engage one at least one guide and a force transfer element (26) configured with the arm portion." As noted, however, the Examiner does not specify where Buchanan teaches an arm portion, as claimed.

Applicant respectfully submits that Buchanan's gripping element does not contain an arm portion. Instead, the force transfer element (i.e., pin 26) of Buchanan is directly attached to the body portion. In contrast, as shown in the partial reproduction of Applicant's FIG. 1 above, the claimed subject matter requires, among other things, a gripping element 26 that includes a body portion 34, a force transfer element 38, and an arm portion 36. Furthermore, the claim 1, for example, requires that the "force transfer element [is] contiguous with the arm portion." The force transfer element 26 of Buchanan, as best understood, however, is contiguous with the body, not an arm portion

because Buchanan does not teach or suggest an arm portion. For this reason alone, the claims are in condition for allowance.

Furthermore, however, Applicant also respectfully notes that Buchanan does not describe that the second element includes an actuation portion having at least one slot, as required, for example, in claim 1. The Examiner has stated that Buchanan includes a first element 16 and a second element 12. The Office Action continues describing that Buchanan teaches "the second element including an actuation portion (10) having at least one slot (21) therein." Applicant notes, however, that the alleged actuation portion (really "inner handle 10," as per Buchanan) and slot 21 are on the element that the Office Action has defined as the first element 16, not the second element 12. Thus, it is clear that Buchanan does not teach the same structure as claimed, and as such, the claims are in condition for allowance.

The dependent claims add novel and nonobvious subject matter and are therefore in condition for allowance for at least the relevant reasons stated above with respect to claim 1.

III. **Response to 103(a) Rejection**.

Claims 20, 21, and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Buchanan. These claims ultimately depend on claim 1 and add novel and nonobvious subject matter. Therefore, these claims are also in condition for allowance for at least the relevant reasons stated above with respect to claim 1.

IV. **Response to Claim Objections**.

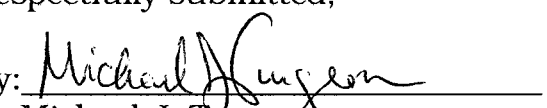
Claims 22 and 23 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. As noted above, Applicant respectfully submits that base claim 1 is in condition for allowance. However, Applicant thanks the Examiner for a thorough examination and an indication of allowability.

V. **Conclusion.**

Based on the above amendments and remarks, Applicant submits that all the currently pending claims (1, 2, 4-7, 9, 11, 19-23, 31, and 34-36) of this application are now in proper condition for allowance, and such action is earnestly solicited. The Commissioner is hereby authorized to charge any underpayment or credit any overpayment to Deposit Account No. 22-0259 or any payment in connection with this communication, including any fees for extension of time, which may be required. The Examiner is also invited to call the undersigned if such action might expedite the prosecution of this application. An early and favorable examination is respectfully solicited.

Respectfully submitted,

Dated: July 16, 2008

By: 
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/102,966	04/11/2005	Daniel P. Brown	35985.00.0013	7625

23418 7590 10/13/2010

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222 N. LASALLE STREET
CHICAGO, IL 60601

EXAMINER	
GRANT, ALVIN J	
ART UNIT	PAPER NUMBER
3723	

MAIL DATE	DELIVERY MODE
10/13/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	11/102,966	BROWN, DANIEL P.	
	Examiner	Art Unit	
	ALVIN J. GRANT	3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 August 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) *3,8,10,12-18,24-30,33 and 37-42* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,7,9,11,19-23,31,32 and 34-36* is/are rejected.

7)☐ Claim(s) *5 and 6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1, 2, 7, 9, 11, 19-23, 31 and 34-36** are rejected under 35 U.S.C. 102(b) as being anticipated by Buchanan et al. 2,787,925.

Buchanan et al. discloses an adjustable an adjustable gripping tool for engaging a work piece to impart work thereto, the tool comprising:

(a) a first element **(10)** and a second element **(11)** connected for relative movement which generates movement of at least one gripping element **(26)**;

(b) the first element **(10)** including a gripping portion **(28)** configured to engage the work piece including at least one guide **(19)** defined in the gripping portion and the at least one gripping element;

(c) each at least one gripping element **(26)** including a body portion **(24)** adapted for engaging the work piece, an arm portion **(adj. 25)** configured to engage one the at least one guide **(19)** and a force transfer element **(26)** contiguous with the arm portion;

(d) the second element **(11)** including an actuation portion **(26,27)** having at least one slot **(31)** therein, each the at least one slot **(31)** having a first section configured to engage the force transfer element **(26)** of one the at least one gripping element, such that movement of the second element with respect to the first element actuates each at

least one first section to contact and move each respective force transfer element thereby actuating each the at least one gripping element **(24)** along respective the at least one guide, wherein the first element **(10)** further includes at least one aligning element **(35)** such that each the at least one aligning element is disposed between an adjacent pair **(19)** of guides and extends parallel to the force transfer elements.

Allowable Subject Matter

3. **Claims 5 and 6** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALVIN J. GRANT whose telephone number is (571)272-4484. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alvin J Grant/
Examiner, Art Unit 3723

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:	Daniel P. Brown	
Serial No.:	11/102,966	Examiner: Alvin J. Grant
Filed:	April 11, 2005	Group Art Unit: 3723
Title:	ADJUSTABLE GRIPPING TOOL	Conf. No. 7625

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF ELECTRONIC TRANSMISSION

I hereby certify that this paper is being transmitted electronically to the Electronic Business Center at the USPTO at the address and on the date shown below:

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Eileen R. Sosnicki — February 14, 2011
Eileen R. Sosnicki — Date

RESPONSE TO OFFICE ACTION

This paper is responsive to the Office Action mailed October 13, 2010. Applicant requests for an extension of one month and a Request for Continued Examination in addition to the remarks included herein.

Amendments to the Claims begin on page 2 of this paper.

Remarks begin on page 10 of this paper.

Amendments to the Claims:

The listing of claims will replace all prior versions and listings of claims in this application:

1. (Previously presented) An adjustable gripping tool for engaging a work piece to impart work thereto, the tool comprising:

(a) a first element and a second element connected for relative movement which generates movement of at least one gripping element;

(b) the first element including a gripping portion configured to engage the work piece including at least one guide defined in the gripping portion and said at least one gripping element;

(c) each at least one gripping element including a body portion adapted for engaging the work piece, an arm portion configured to engage one said at least one guide and a force transfer element contiguous with the arm portion;

(d) the second element including an actuation portion having at least one slot therein, each said at least one slot having a first section configured to engage the force transfer element of one said at least one gripping element, such that movement of the second element with respect to the first element actuates each at least one first section to contact and move each respective force transfer element thereby actuating each said at least one gripping element along respective said at least one guide, wherein the first element further includes at least one aligning element such that each said at

least one aligning element is disposed between an adjacent pair of guides and extends parallel to the force transfer elements.

2. (Original) The gripping tool as recited in claim 1, wherein the first element includes a pair of elements disposed on opposing sides of the second element.

3. (Withdrawn) The gripping tool as recited in claim 1, wherein the arm portion of the gripping elements further includes a pair of arms disposed at opposite ends of the body portion such that the gripping elements are substantially U-shaped.

4. Canceled.

5. (Previously presented) The gripping tool as recited in claim 1, wherein at least one of the slots further includes a second section extending from the first section, such that one said at least one aligning element engages one of the second sections so that during relative movement between the first element and the second element the first and second elements remain generally aligned.

6. (Original) The gripping tool as recited in claim 5, wherein the first and second sections are divergent.

7. (Original) The gripping tool as recited in claim 1, wherein the gripping elements which perform one function may be replaced with gripping elements that perform a different function.

8. (Withdrawn) The gripping tool as recited in claim 1, wherein the gripping elements score and cut.

9. (Original) The gripping tool as recited in claim 1, wherein movement of said at least one gripping element is linear.

10. (Withdrawn) The gripping tool as recited in claim 1, wherein movement of said at least one gripping element is curvilinear.

11. (Original) The gripping tool as recited in claim 1, wherein each said at least one guide extends radially.

12. (Withdrawn) The gripping tool as recited in claim 1, wherein each said at least one guide extends along a curvilinear path.

13. (Withdrawn) The gripping tool as recited in claim 1, wherein each at least one gripping element is configured as a cutting wheel that movably engages the work piece to facilitate severing of the work piece by movement of the tool about the work piece after movement of the second element with respect to the first element.

14. (Withdrawn) The gripping tool as recited in claim 1, wherein each at least one gripping element includes an extension that projects from the gripping element to engage an interior of the work piece.

15. (Withdrawn) The gripping tool as recited in claim 14, wherein said at least one gripping element is configured to engage a first dimensioned work piece with the first and second elements disposed in a first operative position and a second dimensioned work piece with the first and second elements disposed in a second operative position, such that the first dimensioned work piece is smaller than the second dimensioned work piece.

16. (Withdrawn) The gripping tool as recited in claim 14, wherein said extension is configured to facilitate a crimping operation.

17. (Withdrawn) The gripping tool as recited in claim 14, wherein said extension defines a pocket between the extension and the gripping element to receive the work piece.

18. (Withdrawn) The gripping tool as recited in claim 14, wherein said extension is configured to facilitate chasing threads.

19. (Original) The gripping tool as recited in claim 1, wherein each at least one gripping element has a planar configuration.

20. (Original) The gripping tool as recited in claim 19, wherein each at least one gripping element has a thickness equivalent to a thickness of the respective associated first element.

21. (Original) The gripping tool as recited in claim 1, wherein each at least one gripping element body portion is configured to have a "V" shape where a vertex of the "V" shape is directed toward the force transfer element.

22. (Original) The gripping tool as recited in claim 1, wherein a cover plate is connected to the first element to reinforce the tool.

23. (Previously Presented) The gripping tool as recited in claim 22, wherein the cover plate has a penannular configuration and is attached to the gripping portion.

24. (Withdrawn) The gripping tools as recited in claim 22, wherein the cover plate has a dimension that is generally equivalent to a first element dimension and is attached over the first element.

25. (Withdrawn) The gripping tools as recited in claim 22, wherein the cover plate is configured as a receptacle defined by a pair of cover portions offset by a margin portion to engage a pair of first elements.

26. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one gripping element is configured to engage a non-standard work piece.

27. (Withdrawn) The gripping tool as recited in claim 26, wherein the non-standard work piece is a security fastener.

28. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one gripping element is configured to cooperatively function to facilitate chasing threads.

29. (Withdrawn) The gripping tool as recited in claim 1, wherein the first element includes a pair of first elements and a backbone connecting a portion of common edges of the pair of first elements, the pair of first elements and the backbone integrally formed from a unitary blank.

30. (Withdrawn) The gripping tool as recited in claim 1, wherein the body portion of each at least one gripping element includes an extension that projects from the gripping element to define a second body portion adapted for engaging the work piece such that the body portion facilitates a first range of gripping ability and the second body portion facilitates a second range of gripping ability.

31. (Original) The gripping tool as recited in claim 1, wherein the first element and the second element have a penannular configuration.

32. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one slot extends partly through the second element.

33. (Withdrawn) The gripping tool as recited in claim 1, wherein said at least one guide extends partly through the first element.

34. (Original) The gripping tool as recited in claim 1, wherein the first element includes a first opening formed in the gripping portion from which the guides extend.

35. (Original) The gripping tool as recited in claim 1, wherein the second element includes a second opening formed in the actuation portion such that each said at least one slot is disposed adjacent the second opening external thereto.

36. (Original) The gripping tool as recited in claim 1, wherein the first element includes a first opening formed in the gripping portion and the second element includes a second opening formed in the actuation portion such that the first and second openings are generally aligned.

37. (Withdrawn) The gripping tool as recited in claim 1, wherein the second element further includes a grasping portion operatively coupled to the first element and operatively associated with the actuation portion in meshing engagement.

38. (Withdrawn) The gripping tool as recited in claim 37, wherein the meshing engagement is defined by cooperative contact between at least one tooth and at least one groove.

39. (Withdrawn) The gripping tool as recited in claim 1, wherein the second element includes a pair of second elements, each with an actuation portion including at least one slot having a first section, and wherein each at least one slot first section formed in one of the pair of second elements defines a one path and each at least one slot first section formed in another of the pair of second elements defines an another path.

40. (Withdrawn) The gripping tool as recited in claim 39, wherein the one path has a generally clockwise orientation and the another path has a generally counter-clockwise orientation.

41. (Withdrawn) The gripping tool as recited in claim 39, wherein the one path and the another path cooperatively engage the force transfer element of one said at least one gripping element to actuate each said at least one gripping element along respective said at least one guide.

42. (Withdrawn) The gripping tool as recited in claim 1, wherein at least one of said at least one slot includes a third section defined within the first section, such that each gripping element associated with the third section of said at least one of said at least one slot is actuated along respective said at least one guide at a different rate.

43–65. (Cancelled)

REMARKS

This paper is responsive to the Office Action mailed October 13, 2010, relating to the above-identified application. Applicant respectfully traverses the Examiner's rejections in their entirety.

Non-Final Office Action

First, the summary page of the Office Actions shows the status as non-final by checking box 2b of form PTOL-326. Second, the single rejection in the Office Action does not carefully review all the outstanding rejections as required by MPEP § 706.07. Specifically, the status of claim 4 is not reviewed despite amendment in Applicant's response mailed April 26, 2010. Finally, the Office Action has not considered or addressed Applicant's rejoinder arguments presented in the response of April 26, 2010. With these deficiencies in the pending Office Action, Applicant is unable to "readily judge the advisability of an appeal" as required by MPEP § 706.07 and a final rejection would be inappropriate at this time.

Applicant notes that the Office Action states on page 3 that the action is made final. Applicant believes that this was an oversight and is treating the Office Action as a non-final Office Action for the reasons stated below. If the Examiner intended to make the Office Action final, then Applicant requests reconsideration of the finality of the Office Action and respectfully requests its withdrawal for the following reasons. Notwithstanding the foregoing, in order to avoid further prejudice to Applicant, a Request for Continued Examination is concurrently filed herewith.

Response to pending 35 U.S.C. § 102(b) Rejection

The Office Action has rejected claims 1, 2, 7, 9, 11, 19-23, 31 and 34-36 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,787,925 to Buchanan et al. ("Buchanan"). Applicant respectfully traverses the rejection.

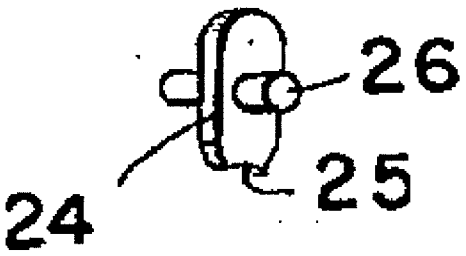
Applicant first notes that Buchanan has been cited previously in the prosecution of the pending Application and was used as the basis for a rejection in the non-final Office Action mailed on April 16, 2008. Applicant was able to overcome the rejection without amendment of the claims and the non-final Office Action mailed November 3, 2008 stated that Applicant's arguments "have been fully considered and are persuasive." See Office Action of Nov. 3, 2008, pg. 4. Despite the similarity of the rejection in the present Office Action, Applicant offers the following remarks in addition to the remarks of the Amendment and Response filed July 16, 2008, which are incorporated fully herein by reference.

Anticipation can only be established by a single prior art reference that discloses each and every element of the claimed invention. *Structural Rubber Products Co., v. Park Rubber Co.*, 749 F.2d 7070; 233 U.S.P.Q. 1264 (C.A.F.C. 1984). The test for anticipation requires that all of the claimed elements must be found in exactly the same situation and united in the same way to perform the same function in a single unit of the prior art. *Studiengesellschaft Kohle, G.m.b.H. v. Dart Industries, Inc.*, 762 F.2d 724, 726 220 U.S.P.Q. 841 at 842 (C.A.F.C. 1984).

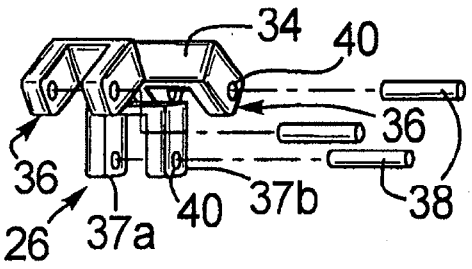
Buchanan does not show all the elements united in the same way as disclosed in Applicant's claims. The rejection under 102(b) is therefore improper, and claims 1, 2, 4-7, 9, 11, 19, and 34-36 are allowable.

Buchanan is generally directed towards a multifunctional tool adapted for use with insulated wire. (Col. 1, ll. 15-17.) As described in columns 1 and 2, the tool requires, among other things, inner handle 10, an outer handle 14, and two auxiliary cam plates 27, 28. In operation, when the handles are moved toward each other, bolts within slots 21 within inner handle 10 carry auxiliary cam plates 27 and 28 with the parallel plates 15 of the outer handle 14. This causes plungers 24 to move within radial slots 19 of the cam within the inner handle 10.

It is alleged, among other things, that Buchanan discloses (1) at least one gripping member including an arm portion. Applicant respectfully submits that this is not the case, and as such the claims are in condition for allowance.



Buchanan's Plunger



Applicant's Gripping Element

A portion of FIG. 4 from Buchanan is reproduced above alongside a portion of FIG. 1 of the instant application. As shown, Buchanan's plunger 24 includes a pin 26 (and a crimping portion 25). The Office Action alleges that Buchanan discloses "each at least one gripping element including a body

portion (24) adapted for engaging the work piece, an arm portion configured to engage one at least one guide and a force transfer element (26) configured with the arm portion." The Examiner suggests that the arm portion is shown at "(adj. 25)." No structure is adjacent to the crimping portion 25 of Buchanan except for the pin 26.

Applicant respectfully submits that Buchanan's gripping element does not contain an arm portion. Instead, the force transfer element (i.e., pin 26) of Buchanan is directly attached to the body portion. In contrast, as shown in the partial reproduction of Applicant's FIG. 1 above, the claimed subject matter requires, among other things, a gripping element 26 that includes a body portion 34, a force transfer element 38, and an arm portion 36. Furthermore, claim 1, for example, requires that the "force transfer element [is] contiguous with the arm portion." The force transfer element 26 of Buchanan, as best understood, however, is contiguous with the body, not an arm portion because Buchanan does not teach or suggest an arm portion.

Further, claim 1 of the pending application recites that the arm portion is "configured to engage one said at least one guide". As can be appreciated by one of ordinary skill in the art, the guide (19) engages the body portion (24) of the gripping element (26) and no other structure. This further demonstrates that the gripping element of Buchanan does not disclose the same structure as claim 1, namely, a body portion, an arm portion, and a force transfer element. For this reason, claim 1 stands in condition for allowance and withdrawal of the rejection is requested.

The dependent claims add novel and nonobvious subject matter and are therefore in condition for allowance for at least the relevant reasons stated above with respect to claim 1.

Claim 1

The previous Office Action stated that claim 4 was allowable if set forth in independent form, which is what Applicant did in the response of April 26, 2010. This further shows that claim 1 is in condition for allowance. Such action is earnestly solicited.

Rejoinder

The Restriction Requirement mailed on April 11, 2005 correctly identified Claim 1 as a generic or linking claim under MPEP §809 as a genus claim linking species claims. As per MPEP §809:

> The most common types of linking claims which, if allowable, act to prevent restriction between inventions that can otherwise be shown to be divisible, are (A) genus claims linking species claims; and(B) subcombination claims linking plural combinations.

The rejection of claims 1, 2, 7, 9, 11, 19-23, 31 and 34-36 is overcome in view of the above remarks and such claims are in condition for allowance. As per MPEP §809:

> When all claims directed to the elected invention are allowable, should any linking claim be allowable, the restriction requirement between the linked inventions must be withdrawn. Any claim(s) directed to the nonelected invention(s), previously withdrawn from consideration, which depends from or requires all the limitations of the allowable linking claim must be rejoined and will be fully examined for patentability.

Applicant respectfully requests that the restriction requirement applicable to claims 3, 8, 10, 12-18, 24-30, 32, 33, and 37-42 be withdrawn.

Applicant further respectfully requests that claims 3, 8, 10, 12-18, 24-30, 32, 33, and 37-42 be rejoined because they each depend directly or indirectly from allowable claim 1. As per MPEP §821.04:

> In order to be eligible for rejoinder, a claim to a nonelected invention must depend from or otherwise require all the limitations of an allowable claim.

The requirement for restriction between the rejoined inventions must be withdrawn. Applicant respectfully submits that claims 3, 8, 10, 12-18, 24-30, 32, 33, and 37-42 are properly rejoined.

Conclusion

Based on the above remarks, Applicant submits that all pending claims of this application are now in proper condition for allowance, and such action is earnestly solicited.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. Also, no amendment made was for the purpose of narrowing the scope of any claim, unless Applicants have argued herein that such amendment was made to distinguish over a particular reference or combination of references.

It is submitted that the claims clearly define the invention, are supported by the specification and drawings, and are in a condition for allowance. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

The Commissioner is hereby authorized to charge any underpayment or credit any overpayment to Deposit Account No. 22-0259 or any payment in connection with this communication, including any fees for extension of time, which may be required. The Examiner is also invited to call the undersigned if such action might expedite the prosecution of this application. An early and favorable examination is respectfully solicited.

Respectfully submitted,

Dated: February 14, 2011

By: 
Michael J. Turgeon
Reg. No. 39,404

Vedder Price P.C.
222 N. LaSalle St., Suite 2600
Chicago, Illinois 60601-1003
phone: (312) 609-7716
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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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NOTICE OF ALLOWANCE AND FEE(S) DUE

23418 7590 04/25/2011

VEDDER PRICE P.C.
222 N. LASALLE STREET
CHICAGO, IL 60601

EXAMINER	
THOMAS, DAVID B	
ART UNIT	PAPER NUMBER
3723	

DATE MAILED: 04/25/2011

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/102,966	04/11/2005	Daniel P. Brown	35985.00.0013	7625

TITLE OF INVENTION: ADJUSTABLE GRIPPING TOOL

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$755	$300	$0	$1055	07/25/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

23418 7590 04/25/2011
VEDDER PRICE P.C.
222 N. LASALLE STREET
CHICAGO, IL 60601

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/102,966	04/11/2005	Daniel P. Brown	35985.00.0013	7625

TITLE OF INVENTION: ADJUSTABLE GRIPPING TOOL

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	$755	$300	$0	$1055	07/25/2011

EXAMINER	ART UNIT	CLASS-SUBCLASS
THOMAS, DAVID B	3723	081-090200

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. The following fee(s) are submitted:

❑ Issue Fee

❑ Publication Fee (No small entity discount permitted)

❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**

❑ A check is enclosed.

❑ Payment by credit card. Form PTO-2038 is attached.

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

❑ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

❑ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/102,966	04/11/2005	Daniel P. Brown	35985.00.0013	7625

23418 7590 04/25/2011

VEDDER PRICE P.C.
222 N. LASALLE STREET
CHICAGO, IL 60601

EXAMINER	
THOMAS, DAVID B	

ART UNIT	PAPER NUMBER
3723	

DATE MAILED: 04/25/2011

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 39 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 39 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No.	Applicant(s)	
	11/102,966	BROWN, DANIEL P.	
	Examiner	Art Unit	
	David B. Thomas	3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the R.C.E. filed 14 February 2011*.

2. ☒ The allowed claim(s) is/are *1-3 and 5-42*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 11/11/10
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/David B. Thomas/
Primary Examiner, Art Unit 3723

NOTICE OF ALLOWANCE

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 14 February 2011 has been entered.

Election/Restrictions

2. Claims 1, 2, 7, 9, 11, 19-23, 31, and 34-36 are allowable. The restriction requirement between species, as set forth in the Office action mailed on 20 December 2006, has been reconsidered in view of the allowability of claims to the elected invention pursuant to MPEP § 821.04(a). **The restriction requirement is hereby withdrawn as to any claim that requires all the limitations of an allowable claim.** Claims 3, 8, 10, 12-18, 24-30, 32, 33, and 37-42, directed to an adjustable gripping tool are no longer withdrawn from consideration because the claim(s) requires all the limitations of an allowable claim.

In view of the above noted withdrawal of the restriction requirement, applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Once a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Allowable Subject Matter

3. Applicant's arguments, filed 14 February 2011, with respect to the rejection of claims 1, 2, 7, 9, 11, 19-23, 31, and 34-36 under 35 U.S.C. 102(b) as being anticipated by Buchanan et al. (2,787,925) have been fully considered and are persuasive. The rejection of the claims has been withdrawn.

4. Claims 1-3 and 5-42 are allowed.

5. The following is an examiner's statement of reasons for allowance: The art of record considered as a whole, alone, or in part, fails to provide, *inter alia*, at least one gripping element including ***a body portion***..., ***an arm portion*** configured to engage on said at least one guide ***and a force transfer element*** contiguous with the arm portion; and, ...wherein the first element further includes ***at least one aligning element*** such that each said at least one aligning element is ***disposed between an adjacent pair of guides and extends parallel to the force transfer elements***, together in combination with the rest of the limitations of the independent claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to David B. Thomas whose telephone number is (571) 272-4497. The examiner's e-mail address is: dave.thomas@uspto.gov. The examiner can normally be reached on Mon-Fri 10am-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David B. Thomas/
Primary Examiner, Art Unit 3723

/DBT/