



US00D577752S

(12) **United States Design Patent**
McDaniel et al.

(10) **Patent No.:** **US D577,752 S**
(45) **Date of Patent:** **** Sep. 30, 2008**

(54) **JIG APPARATUS**

(75) Inventors: **Steven D. McDaniel**, Humboldt, TN (US); **Joseph C. King**, Jackson, TN (US); **Mark A. Etter**, Independence, MO (US); **Anthony Smith**, Jackson, TN (US)

2,299,602 A 10/1942 Teague
2,607,375 A 9/1952 Gillespie et al.
2,651,847 A 9/1953 Sacrey
2,660,803 A 12/1953 Sacrey
2,764,191 A 9/1956 Hartmann

(Continued)

(73) Assignee: **Black & Decker Inc.**, Newark, DE (US)

FOREIGN PATENT DOCUMENTS

(**) Term: **14 Years**

DE 879012 6/1953

(21) Appl. No.: **29/264,904**

(Continued)

(22) Filed: **Aug. 22, 2006**

OTHER PUBLICATIONS

(51) **LOC (8) Cl.** **15-09**

(52) **U.S. Cl.** **D15/140**

(58) **Field of Classification Search** D15/140;
83/467.1, 468.2, 469.6; 144/71, 82, 83, 84,
144/135.2, 136.1, 137, 144.1, 144.2, 144.51,
144/198, 200-201, 204.2, 363, 371, 372;
264/303, 315; 269/245-248, 277-284

Vermont American, Industrial Dovetail Jig, Model #23461, Manual No. 45LCN-72, Aug. 1999, USA.

(Continued)

See application file for complete search history.

Primary Examiner—Sandra Snapp
Assistant Examiner—Patricia Palasik
(74) *Attorney, Agent, or Firm*—Goodwin Procter LLP

(56) **References Cited**

(57) **CLAIM**

U.S. PATENT DOCUMENTS

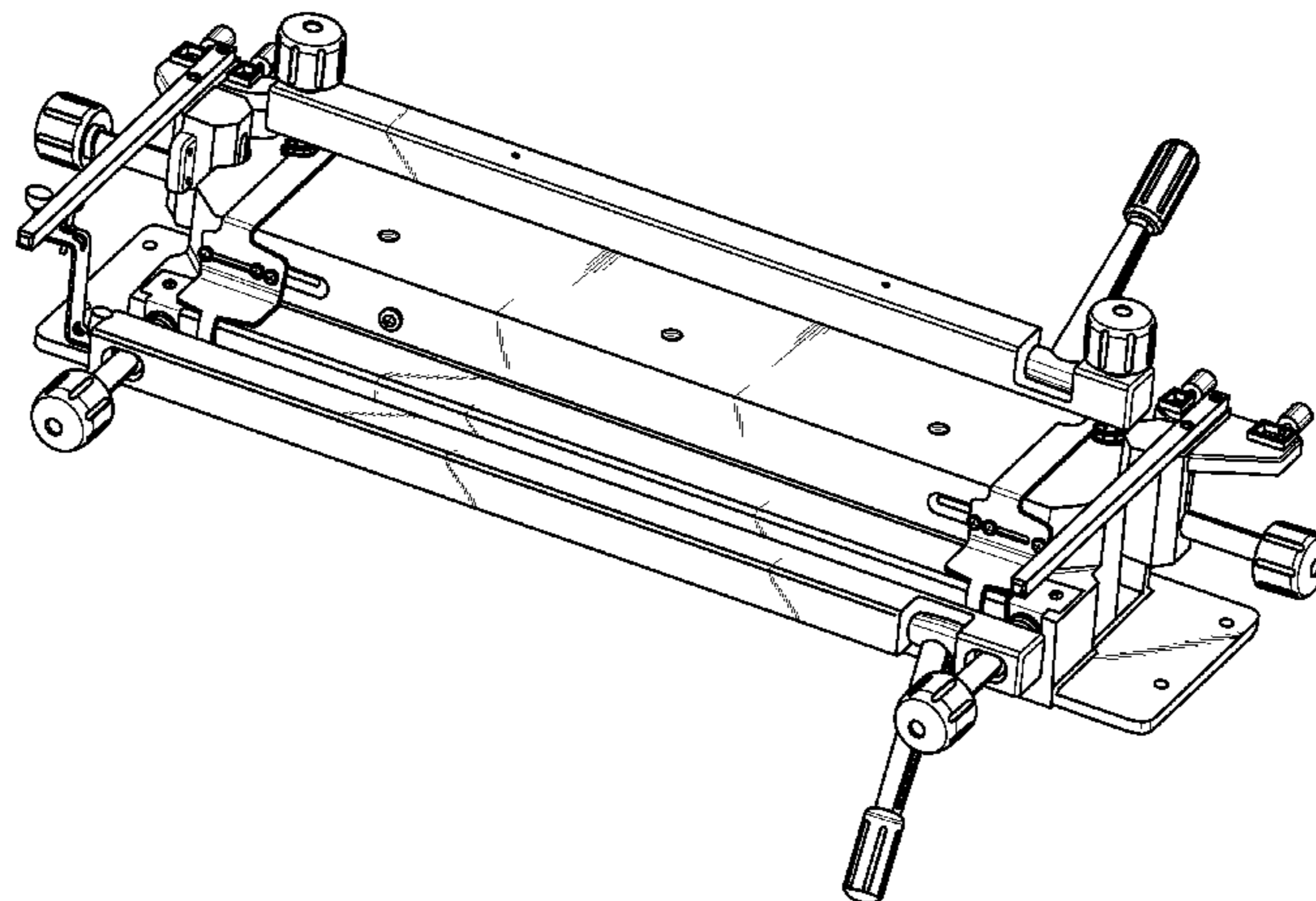
The ornamental design for a jig apparatus, as shown and described.

18,838 A	12/1857	Babbs et al.
266,042 A	10/1882	Merz
475,544 A	5/1892	Dobbie
478,544 A	7/1892	Cordesman et al.
610,272 A	9/1898	Lindwall
1,262,743 A	4/1918	Bronson
1,432,121 A	10/1922	Prickett
1,466,312 A	8/1923	Morcom
1,483,966 A	2/1924	Collins
1,532,467 A	4/1925	Barnett
1,670,074 A	5/1928	Mathez
1,679,074 A	7/1928	Carter
1,751,816 A	3/1930	Hunter
1,841,043 A	1/1932	Moore
1,863,032 A	6/1932	Seelinger
2,036,348 A	4/1936	Miller
2,080,859 A	5/1937	Drapak et al.
2,260,784 A	10/1941	Morton

DESCRIPTION

FIG. 1 is a perspective view of the jig apparatus.
FIG. 2 is a front elevational view thereof.
FIG. 3 is a back elevational view thereof.
FIG. 4 is a top view thereof.
FIG. 5 is a bottom view thereof.
FIG. 6 is a right side elevational view thereof;
FIG. 7 is a left side elevational view thereof; and,
FIG. 8 is an enlarged view of the portion shown within circle 8 of FIG. 7.

1 Claim, 8 Drawing Sheets



US D577,752 S

U.S. PATENT DOCUMENTS			4,977,938 A	12/1990	Greeson
2,843,167 A	7/1958	Rushton	4,995,435 A	2/1991	Godfrey
2,890,730 A	6/1959	Gottlieb	5,016,691 A	5/1991	Bernier
3,057,383 A	10/1962	Waite	5,052,454 A	10/1991	Meinhardt
3,099,299 A	7/1963	Gilfry	5,056,966 A	10/1991	Lee
3,109,466 A	11/1963	Jones	5,067,537 A	11/1991	Offner
3,232,327 A	2/1966	Baranczyk	5,076,742 A	12/1991	Lee et al.
3,301,287 A	1/1967	Edwards	5,090,461 A	2/1992	Gakhar et al.
3,424,450 A	1/1969	Atkins	5,094,279 A	3/1992	Dickey et al.
3,442,309 A	5/1969	Jentsch	5,114,265 A	5/1992	Grisley
3,450,001 A	6/1969	Fortune	5,123,463 A	6/1992	Grisley
3,700,344 A	10/1972	Grumbach	5,139,062 A	8/1992	Keller
3,709,088 A	1/1973	Pitzer	5,143,132 A	9/1992	Keller
3,800,840 A	4/1974	McCord, Jr.	5,154,214 A	10/1992	Hagerman
3,834,435 A	9/1974	McCord, Jr.	5,156,508 A	10/1992	Grisley
3,841,368 A	10/1974	Ritter	5,174,693 A	12/1992	Lee et al.
3,878,875 A	4/1975	McCord, Jr.	5,199,477 A	4/1993	Keller
4,093,394 A *	6/1978	Adams 408/103	5,203,389 A	4/1993	Goodwin
4,095,633 A	6/1978	Kimball et al.	5,222,997 A *	6/1993	Montgomery 269/277
4,127,153 A	11/1978	Cipollone	D342,747 S *	12/1993	Garcia D15/140
4,163,465 A	8/1979	Strong	5,273,090 A	12/1993	Klemma
4,168,730 A	9/1979	Keller	5,284,331 A	2/1994	Lee et al.
4,281,694 A	8/1981	Gorman	5,285,831 A	2/1994	Woolgar
4,319,615 A	3/1982	Ditmanson	5,285,832 A	2/1994	Gibson
4,373,562 A	2/1983	Vernon	5,289,861 A	3/1994	Hedrick
4,382,728 A	5/1983	Anderson et al.	5,305,812 A	4/1994	Ferencsik
4,403,534 A	9/1983	Altendorf et al.	D348,195 S	6/1994	Higgins et al.
4,405,004 A	9/1983	Dicke	5,318,082 A	6/1994	Von Hollen
4,407,344 A	10/1983	Dicke	5,325,899 A	7/1994	Kochling
D272,038 S	1/1984	Dicke	5,337,641 A	8/1994	Duginske
4,428,408 A	1/1984	Grisley	5,345,983 A	9/1994	De Abreu
4,438,977 A	3/1984	Chapel	5,396,937 A	3/1995	Clausen
4,445,277 A	5/1984	Keefe	5,421,384 A	6/1995	Nuwordu
4,462,440 A	7/1984	Dolfi	5,423,357 A	6/1995	Szymanski
4,478,264 A	10/1984	Miller et al.	5,423,360 A	6/1995	Taylor et al.
4,479,523 A	10/1984	Peterson et al.	5,452,751 A	9/1995	Engler, III et al.
4,498,245 A	2/1985	Mayor	5,458,171 A	10/1995	Ward
4,542,776 A	9/1985	Kehoe	5,492,160 A	2/1996	McCracken
4,575,059 A	3/1986	Blaine	5,494,089 A	2/1996	Lubbe
4,593,735 A	6/1986	Wirth, Jr.	5,513,437 A	5/1996	Whyte
4,595,040 A	6/1986	Glisman	5,533,556 A	7/1996	Whitney
4,603,717 A	8/1986	Thomas	5,562,208 A	10/1996	Hasler et al.
4,607,434 A	8/1986	Francis	5,564,483 A	10/1996	Sacchi
4,607,673 A	8/1986	McCord, Jr.	5,584,328 A	12/1996	Grisley
4,630,656 A	12/1986	Collins	5,598,878 A	2/1997	Wirth, Jr. et al.
4,630,657 A	12/1986	Obradovich	5,617,909 A	4/1997	Duginske
4,644,985 A	2/1987	Weaver	5,630,455 A	5/1997	Julien
4,648,433 A	3/1987	Wolff	5,647,707 A	7/1997	Poulin
4,655,445 A	4/1987	Morse	5,692,861 A	12/1997	Stottmann
4,693,288 A	9/1987	Buechele et al.	5,694,992 A	12/1997	Kikuchi
4,735,531 A	4/1988	Boerckel et al.	5,694,994 A	12/1997	Engler, III et al.
4,750,536 A	6/1988	Grisley	5,697,415 A	12/1997	Kozyrski et al.
4,763,706 A	8/1988	Rice et al.	5,711,356 A	1/1998	Grisley
4,763,707 A	8/1988	Hounshell	5,738,470 A	4/1998	Sugita
4,776,374 A	10/1988	Charlebois	5,738,966 A	4/1998	Okuno et al.
4,787,430 A	11/1988	Miyamoto	5,779,407 A	7/1998	Tucker et al.
4,787,432 A	11/1988	Williams	5,807,033 A	9/1998	Benway
4,805,505 A	2/1989	Cantlin	5,809,631 A	9/1998	Poulin
4,809,755 A	3/1989	Pontikas	5,813,807 A	9/1998	Rogers
4,843,728 A	7/1989	Francis	5,816,300 A	10/1998	Rogers
4,850,763 A	7/1989	Jack et al.	5,823,239 A	10/1998	Smith
4,860,809 A	8/1989	Cotton et al.	5,832,977 A	11/1998	Hampton
4,863,151 A *	9/1989	Justesen 269/261	5,853,035 A	12/1998	Rose
4,875,510 A	10/1989	Muellers	5,862,848 A	1/1999	Beall
4,905,745 A	3/1990	Jaeger	5,868,183 A	2/1999	Kozyrski et al.
4,911,213 A	3/1990	Le Bleu	5,893,402 A	4/1999	Darling
4,930,221 A	6/1990	Taylor	5,908,061 A	6/1999	Blichmann
4,934,422 A	6/1990	Hempy et al.	5,918,652 A	7/1999	Tucker
4,942,912 A	7/1990	Gakhar et al.	5,931,208 A	8/1999	Gifkins
4,965,943 A	10/1990	Adams	6,012,497 A	1/2000	Stottmann
4,965,966 A	10/1990	Braasch	6,032,706 A	3/2000	Lear
4,966,507 A	10/1990	Hanks	6,039,095 A	3/2000	Newman
			6,041,837 A	3/2000	Hanson

6,061,921	A	5/2000	Adams et al.	
6,065,913	A	5/2000	Rogers	
6,068,036	A	5/2000	Cassidy	
6,076,575	A	6/2000	Harkness	
6,116,303	A	9/2000	Hampton	
6,116,826	A	9/2000	Benway	
6,138,372	A	10/2000	Newman	
6,148,879	A	11/2000	Liao	
6,158,487	A	12/2000	Licari	
6,182,371	B1	2/2001	Newman	
6,206,060	B1	3/2001	Blake	
6,289,956	B1	9/2001	Shriver	
6,315,017	B1	11/2001	Stottmann	
6,357,194	B1	3/2002	Jones, Jr.	
6,363,982	B1	4/2002	Nixon, Jr.	
6,374,878	B1	4/2002	Mastley et al.	
6,401,772	B1	6/2002	Beitl	
6,422,276	B1	7/2002	Kevan	
6,470,930	B1	10/2002	Stottmann	
6,499,224	B1	12/2002	Asick	
6,516,842	B1	2/2003	Chang	
6,588,468	B1	7/2003	Tucker et al.	
6,607,016	B2	8/2003	Jones	
D481,402	S *	10/2003	Jenkins et al. D15/140
6,675,849	B1	1/2004	Lackley	
6,679,659	B1	1/2004	Lasch et al.	
6,705,810	B1	3/2004	Sugita	
6,736,173	B1	5/2004	Grisley et al.	
RE38,612	E	10/2004	Tucker et al.	
6,799,615	B2	10/2004	Smith	
6,834,730	B2	12/2004	Gass et al.	
6,851,900	B2	2/2005	Tillemans et al.	
6,899,152	B2	5/2005	Godfrey	
6,926,477	B2	8/2005	Allemann et al.	
2001/0011564	A1	8/2001	Darling	
2002/0066497	A1	6/2002	Froggatt	
2003/0041709	A1	3/2003	Jones	
2003/0073395	A1	4/2003	Facine et al.	
2003/0145705	A1	8/2003	Miller	
2003/0159758	A1	8/2003	Smith	
2003/0172993	A1	9/2003	Godfrey	
2003/0196726	A1	10/2003	Tucker et al.	
2003/0230359	A1 *	12/2003	Schroeder 144/144.1
2004/0050451	A1	3/2004	Dahlhoff	
2004/0126197	A1	7/2004	Allemann et al.	
2004/0149112	A1	8/2004	Snell	
2004/0206865	A1	10/2004	Chang	
2004/0250880	A1	12/2004	Dement	
2005/0022899	A1	2/2005	Chang	
2005/0056344	A1	3/2005	Freidlund	
2005/0056345	A1	3/2005	Duginske	
2005/0115639	A1	6/2005	Bagnall	
2005/0161357	A1	7/2005	Allan et al.	
2005/0236069	A1	10/2005	O'Brien	
2006/0138722	A1 *	6/2006	Webster et al. 269/246
2006/0283524	A1 *	12/2006	McDaniel et al. 144/144.51

FOREIGN PATENT DOCUMENTS

DE	3430496	A1	2/1986
DE	3517146	A1	11/1986
DE	4016834	A1	11/1991
DE	4403534	A1	8/1995
DE	19715422	A1	10/1998
DE	19715424	A1	10/1998
EP	0320869	A2	12/1987
FR	2843167	A1	7/2003
GB	2238752	A	6/1991
WO	WO 02/057058	A2	7/2002

OTHER PUBLICATIONS

Vermont American, Dovetail Fixture Kit, Owner's Manual Model No. 23460, Feb. 1996, USA.

Fusso Machinery Corp., Easy-to-Operate Devetail Machine, <http://fusso.trustpass.alibaba.com/prduct/10770195/>

Easy_to_Operate_Dovetail_Machine.html, p. 2-3, (printed Nov. 17, 2005).

Akeda DC user Manual, © 2002-2005 Akeda Jigs Incorporated; Akeda Canada, P.O. Box 700, The Old Laughing Creek Steam Works, Brackendale BC, V0N 1H0, Canada; www.akeda.com; 26 pages.

Porter-Cable, Instruction Manual, Dovetail Jig, Models 4210 & 4212, May 27, 2005.

Porter-Cable Omnijig Dovetail Machines Instruction Manual, Model 7116; Part No. 888381-794; Porter-Cable Corporation, 4825 Highway 45 North, Jackson, TN 38305; <http://www.porter-cable.com>; 28pages), (NOTE: #6 and #23 are the same - the manual references both 5116 and 7116).

Porter-Cable, Omnijig DovetailMachine, Parts List for 5116 Type 1, © 2005.

One (1) image of Porter-Cable Model 517, Lock Face Templet; Porter-Cable Corporation 4825 Highway 45 North, Jackson TN 38305; Porter-Cable Catalog, PC-912, p. 137, 1995; 1 page.

One (1) image of Porter-Cable Model 517, Lock Face Templet; Porter-Cable Corporation 4825 Highway 45 North, Jackson TN 38305; http://media-ptg-online.com/20040310083334_517_72dpi_500.jpg; 1 page.

One (1) image of Porter-Cable Model 59381, Hinge Butt Templet Kit; Porter-Cable Corporation 4825 Highway 45 North, Jackson TN 38305; Porter-Cable Catalog, PC-912, p. 134, 1995; 1 page.

Two (2) images of Porter-Cable Model 59381, Hinge Butt Templet; Porter-Cable Corporation, 4825 Highway 45 North, Jackson, TN 38305; 2 pages.

Five (5) images of Porter-Cable Model 59370, Door Hinge Templet; Porter-Cable Corporation, 4825 Highway 45 North, Jackson, TN 38305; 5 pages.

Four (4) images of Rockwell Model 521, Stair Templet Without Clamping Devices; Power Tool Division/Rockwell International, Pittsburgh, PA 15208; 4 pages.

Three (3) images of Modern Woodworking by Willis H. Wagner; Illustrating use of Rockwell Model 521, Stair Templet With Clamp Devices; © 1980 The Goodheart-Willcox Co., Inc., pp. 252-253; 3 pages.

Trend MT Jig Review, http://benchmark.20m.com/reviews/TrendMortiseJig/TrendMT_JigReview.html; Nov. 09, 2005; 5 pages.

Leigh Versus Akeda Dovetail Jig. <http://benchmark.20m.com/articles/LeighVersusAkeda.html>; Nov. 09, 2005; 8 pages.

Katie Jig System brochure; Hampton House Inc., P.O. Box 7103, Greenwood, IN 46142-6421; <http://www.katijig.com/KJ8PG.pdf>; U.S. Patent Nos. 5,832,977 and 6,116,303; Nov. 09, 2005; 8 pages.

The Katie Jig Manual, © 1997-2000 Hampton House, Inc. Hampton House Inc., P.O.Box 7103, Greenwood, IN 46142-6421; [Http://www.katijig.com](http://www.katijig.com); U.S. Patent No. 5,832,977; Nov. 09, 2005; 34 pages.

Porter-Cable Dovetail Machine, Parts List; Model 4112; Parts List No. 900488-0011; © 2000 Porter-Cable Corporation, 4825 Highway 45 North, Jackson, TN 38305; 1 pages.

Porter-Cable Dovetail Fixture/Jig Instruction Manual, Model 4112; Part No. 900487-09-12-03; © 2003 Porter-Cable Corporation, 4825 Highway 45 North, Jackson, TN 38305; 15 pages.

Porter-Cable Omnijig Dovetail Machine Parts List; Model 7116; Parts List No. 876389-002; © 2000 Porter-Cable Corporation, 4825 Highway 45 North, Jackson, TN 38305; 3 pages.

Porter-Cable Omnijig Dovetail Machines Instruction Manual, Model 7116; Part No. 888381-794; Porter-Cable Corporation, 4825 Highway 45 North, Jackson, TN 38305; <http://www.porter-cable.com>; 28 pages).

* cited by examiner

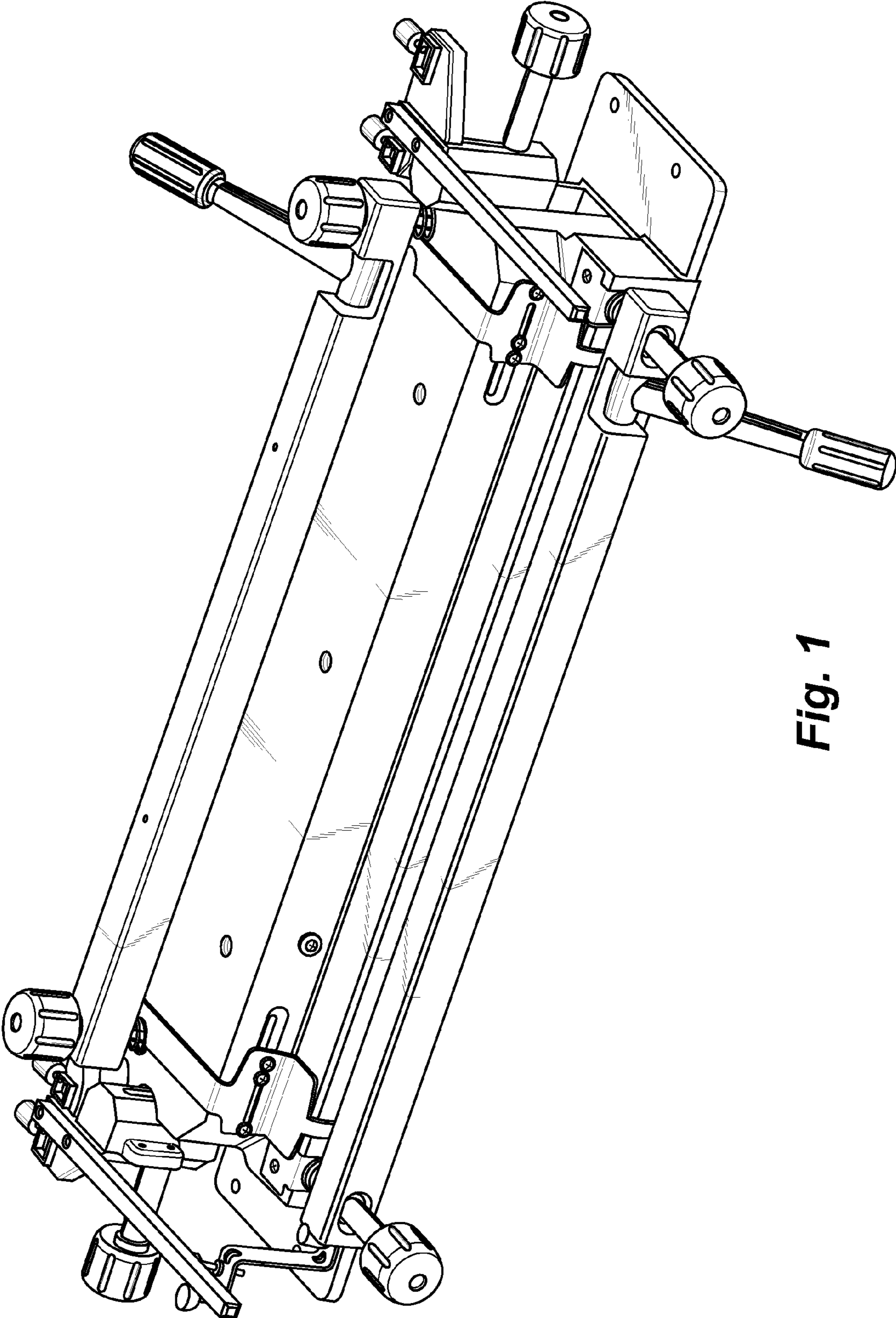


Fig. 1

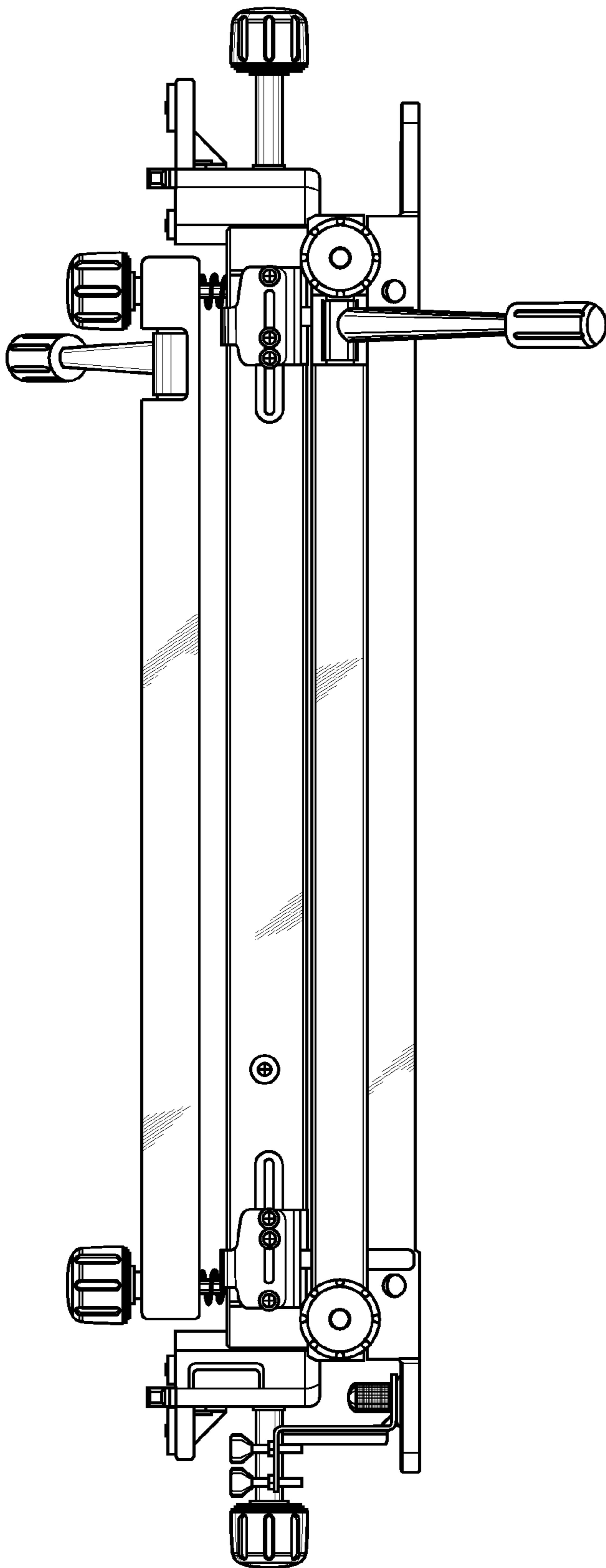


Fig. 2

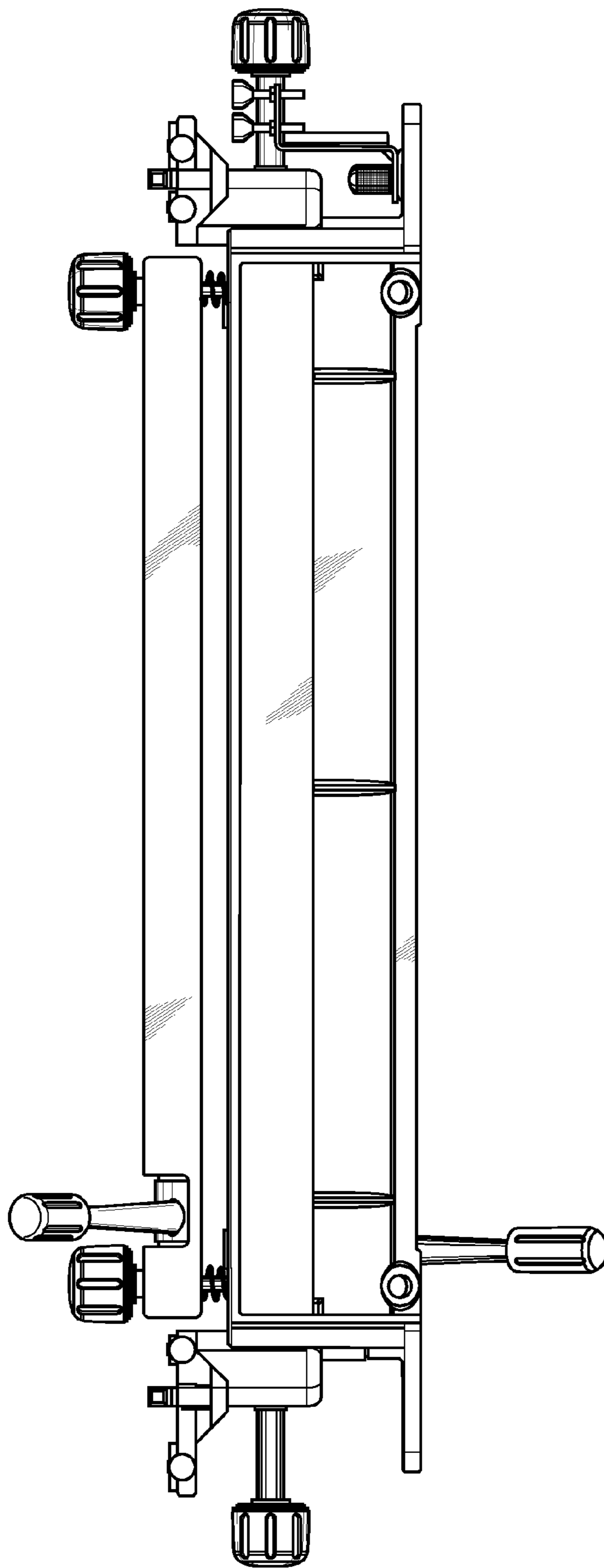


Fig. 3

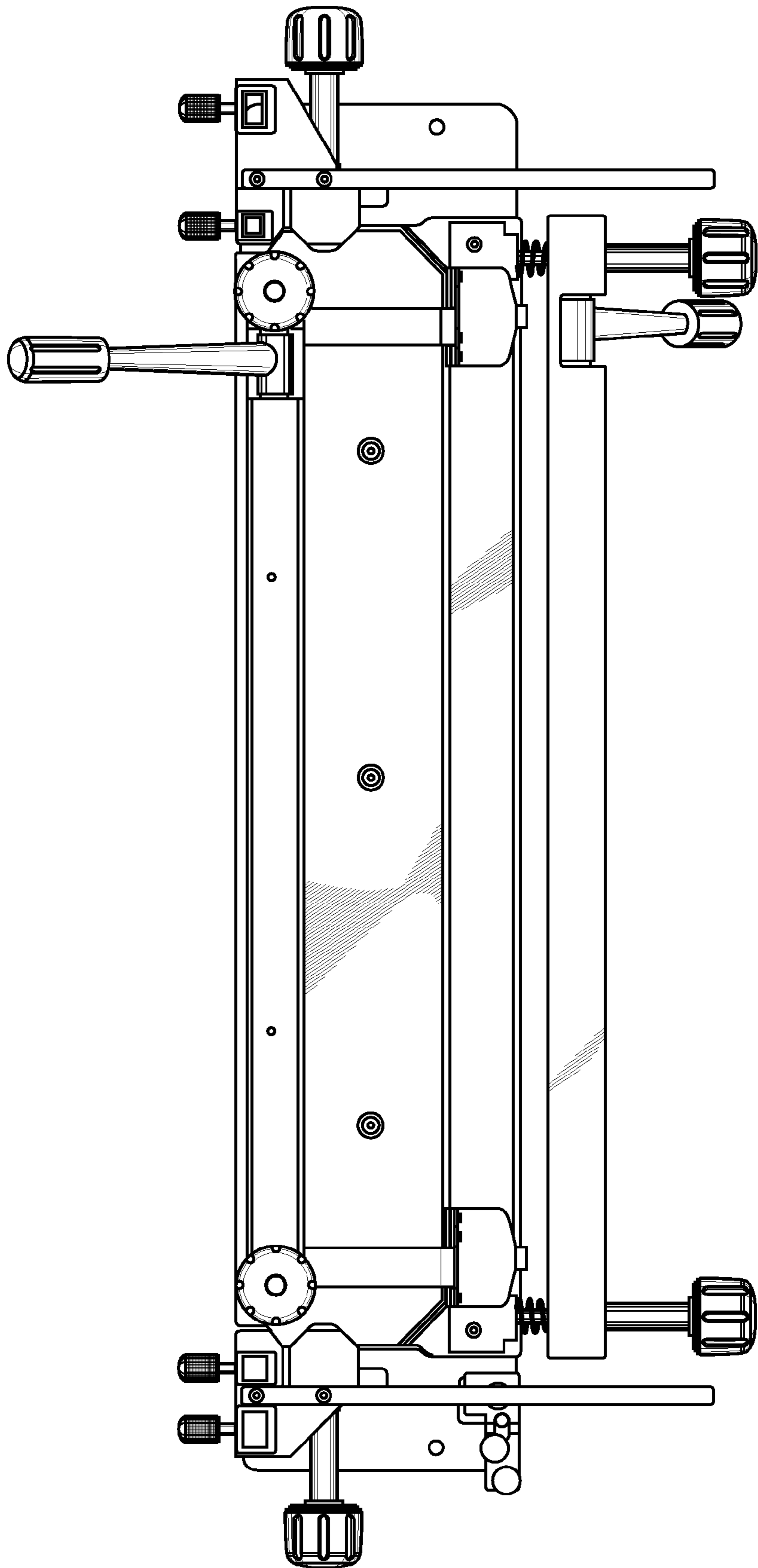


Fig. 4

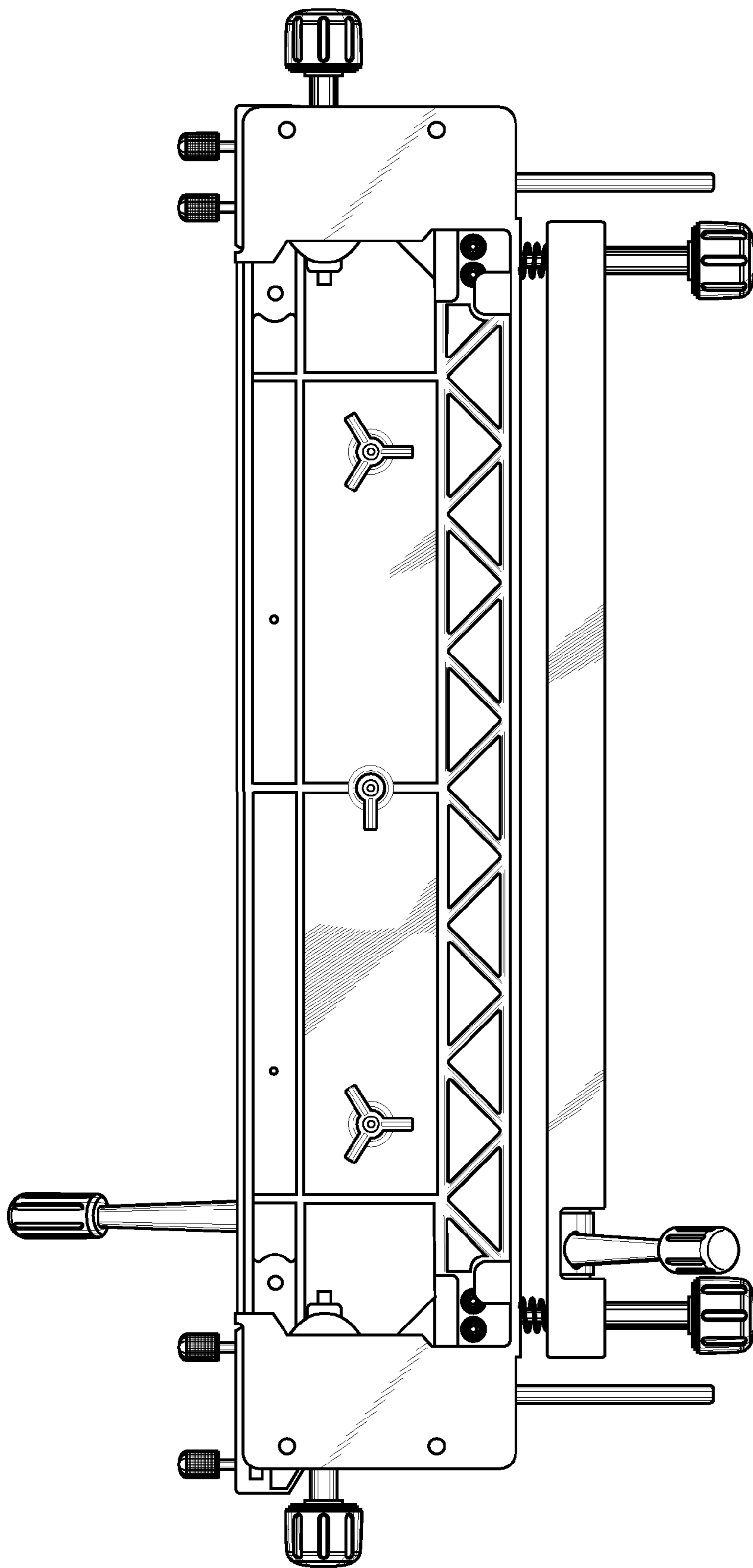


Fig. 5

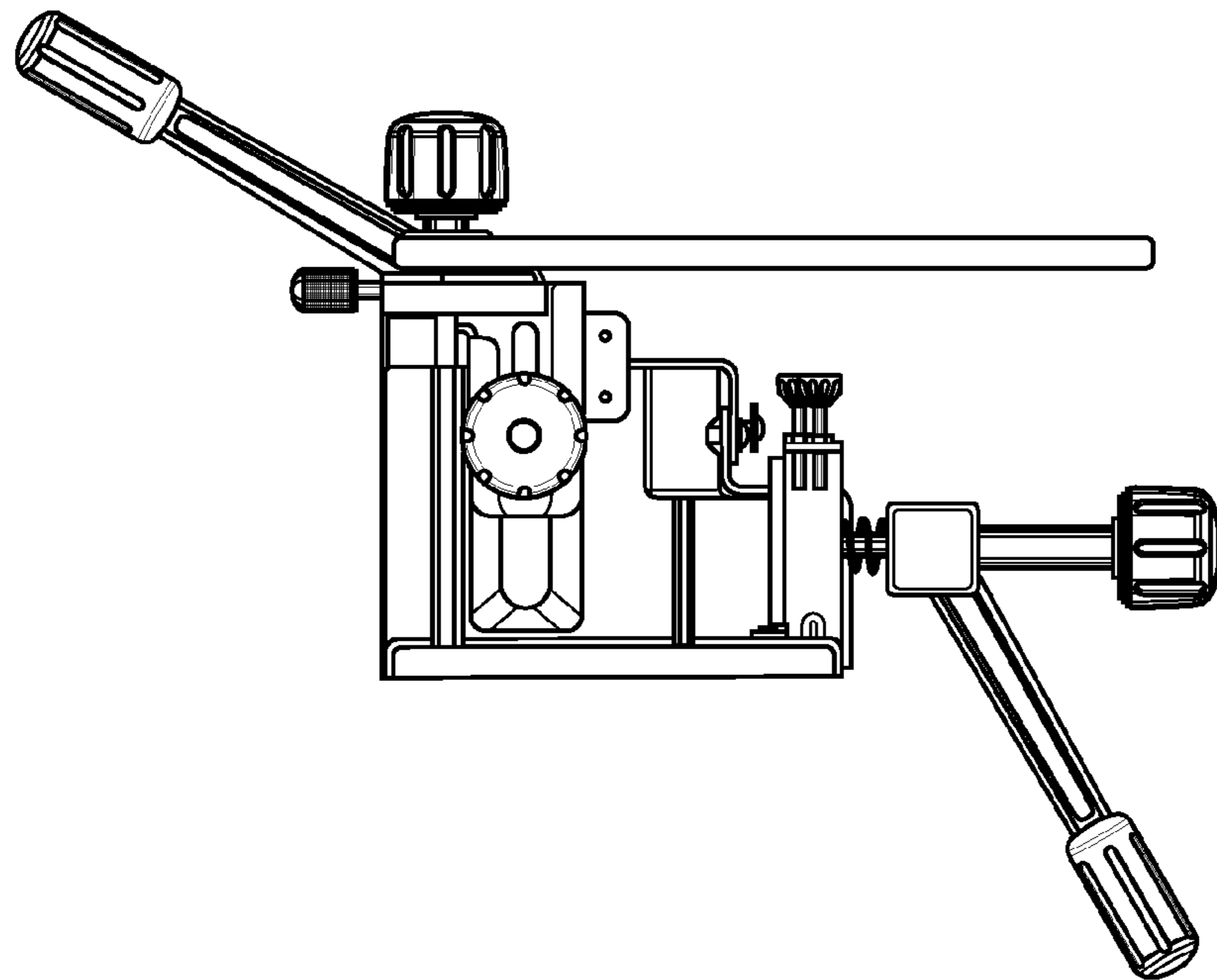


Fig. 6

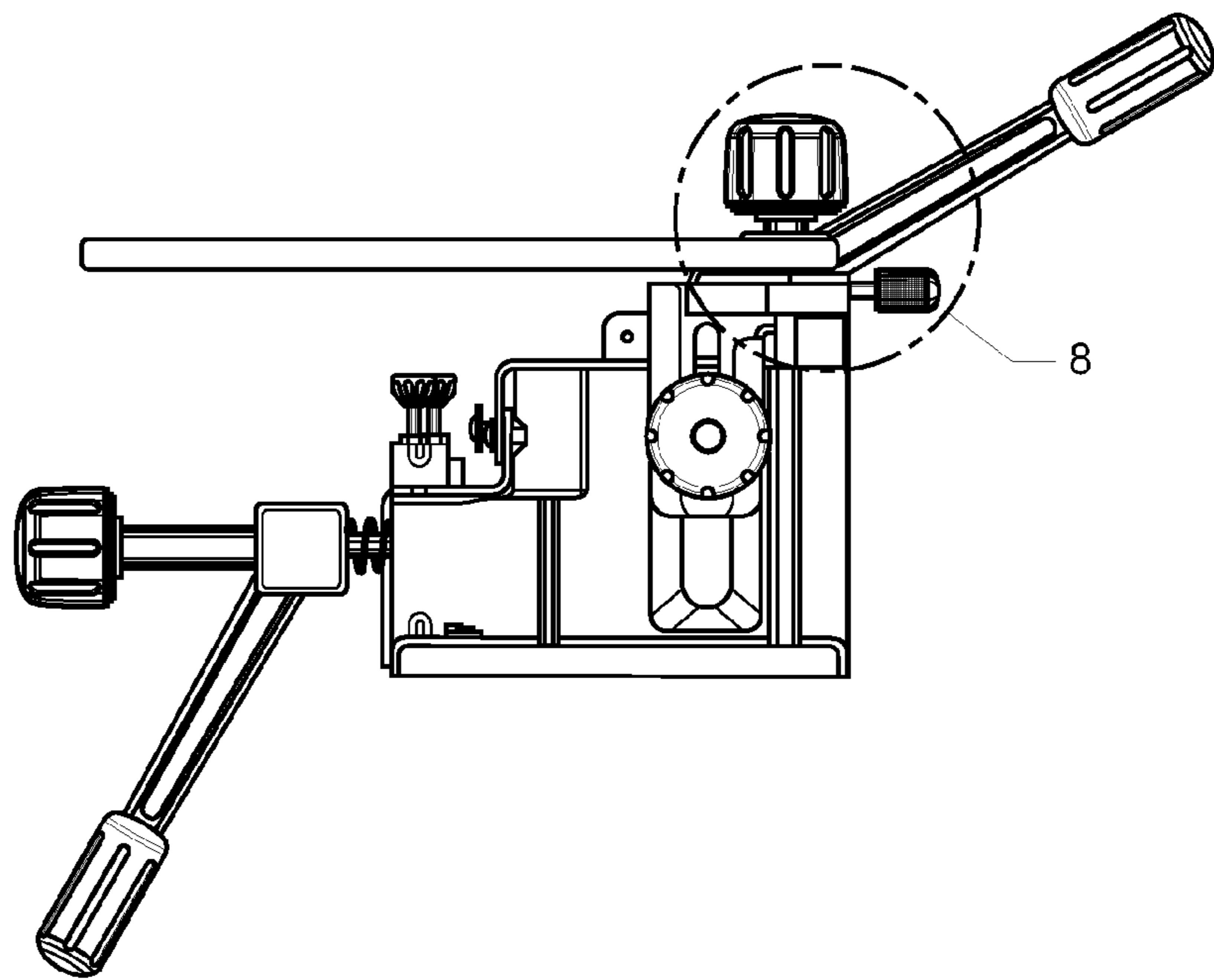


Fig. 7

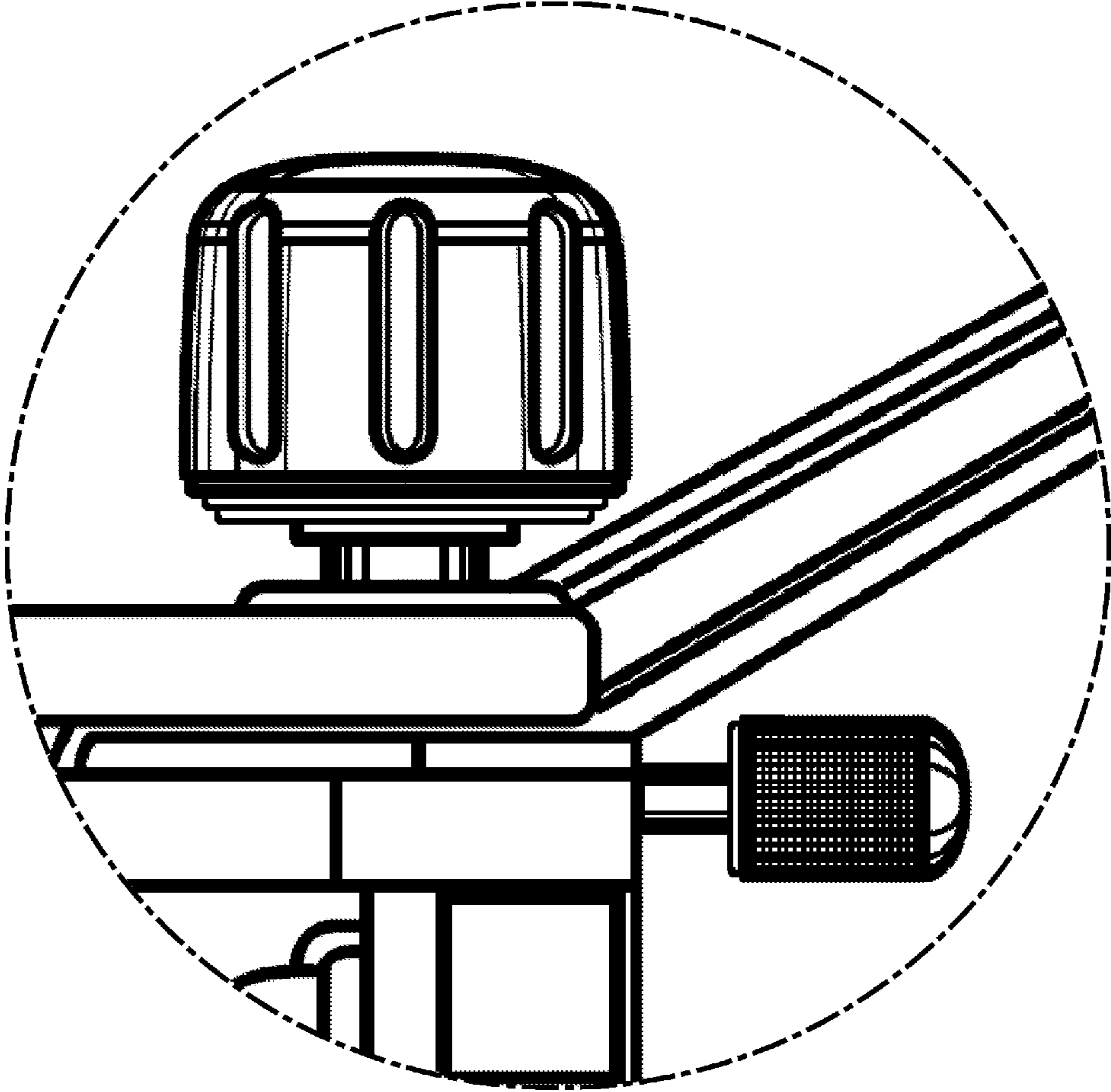


Fig. 8