

34 Documents

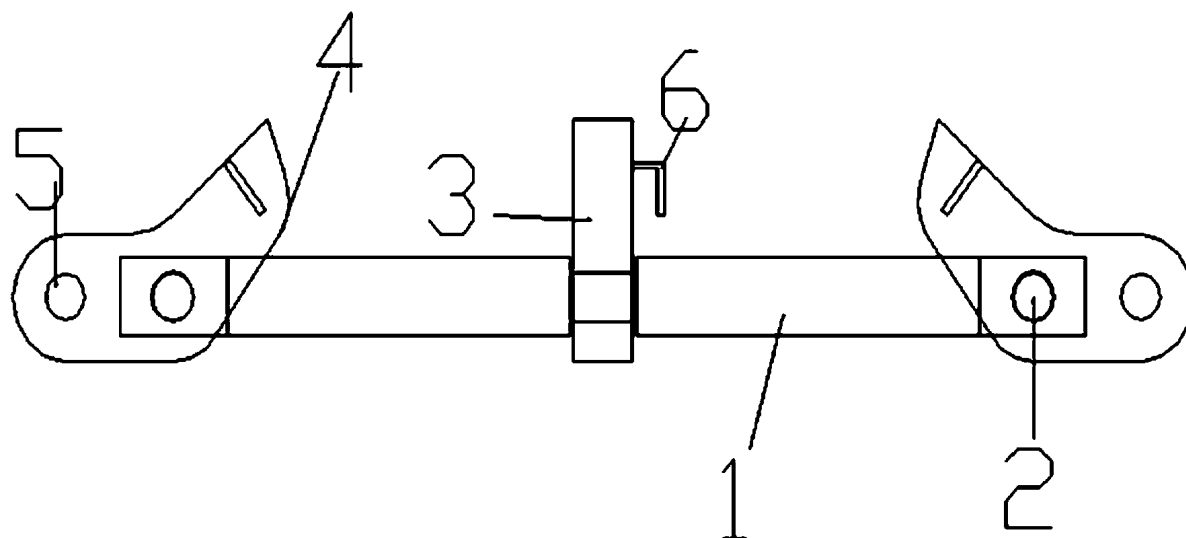
Publication numbers	Title	Current assignees
CN104803282 A	Clamp capable of being used for vertically hanging steel pipes	CNOOC - CHINA NATIONAL OFFSHORE OIL GROUP, ...
FR1174349 A	Attachment clamp for lifting apparatus	
EP-424601 A1	Clamp for the transport of sheet metal.	SIEGERT
GB-807366 A	Improvements in or relating to claws for hoisting apparatus	KNUD HENRI ERHARD THOMSEN
DE1074244 B		
NL--94644D C		
US3342521 A	Torque grip lifting clamp	RENFROE & SONS J C
US3414315 A	Lifting clamp	RENFROE & SONS J C
US3659890 A	Lifting clamp	RENFROE & SONS
US3336068 A	Lifting clamp	RENFROE & SONS J C
FR2759071 A1	Adjustable clamp for gripping and manipulating reel, e.g. of material for feeding into press	LEBRE CHARLES J P
US3356406 A	Lifting clamp	RENFROE & SONS J C
US4093042 A	Locking gripper	PRADON JACQUES
US3680907 A	Tiltable lifting tongs	BLAW KNOX
FR1438907 A	Lifting grip	RENFROE & SONS J C
GB-894010 A	Improvements in or relating to clamps	CHARLES JOSEPH RENFROE, ...
FR1242057 A	Improvements to lifting clamps	LIFTING GEAR PRODUCTS ENGINEER
GB-177275 A	Improved lifting clamps	WILLIAM MARKLE HENCH
GB-579950 A	Improved grab	GAVIN MEIKLE NORTH
US3913966 A	Tongs for suspending glass	TRIPLEX SAFETY GLASS
US4327944 A	Tongs designed to lift and handle metal sheets and similar materials	LANGLOY CHARLES
GB-741956 A	Improvements relating to lifting dogs	FERRANTI
CH-322410 A	Schraubzwinge	SULZER
GB1108528 A	Improvements in or relating to lifting clamps	DEEWELD
GB1071759 A	Improvements in or relating to lifting clamps	DEEWELD
US3076674 A	Tongs	HEPPENSTALL
CN109230999 A	Steel-bar lifting device for architectural engineering	WANG LIANG
WO201220881 A1	Multi-beam lifting device provided with clamping unit using gravity and multi-beam lifting system	UNIVERSITY YONSEI IACF
GB-759980 A		

Publication numbers	Title	Current assignees
	Load lifting clamp	RENFROE & SONS J C
DE3312457 A1	Carrying or lifting clamp	PFEIFER SEIL & HEBETECHNIK
CN108609488 A	Automatic lock catch	HENAN SENYUAN ELECTRIC
FR2373705 A2	Wire grips with taper surfaces between jaw portions - include elastic layers and rollers for pretensioning	PRADON JACQUES
CN106984689 A	Hoisting and cutting integrated device for sheet steel and method thereof	ZHANGZHOU LIYANG MACHINERY EQUIPMENT
GB1087341 A	Improvements in or relating to grapnels	ASSOCIATED ELECTRICAL INDUSTRIES

Family 1/34 - FAMPAT - ©Questel

Title

(CN104803282)

Clamp capable of being used for vertically hanging steel pipes**Images****Publication numbers with kind code & date**[CN104803282](#) A 2015-07-29 CN104803282**Abstract**

(CN104803282)

The invention relates to a **clamp** capable of being used for vertically hanging steel pipes. The **clamp** is provided with a plurality of arc plates, wherein the arc plates are connected into a sealed circular ring structure through a **press** tongue shaft arranged among the arc plates, a **press** tongue is pivoted on the **press** tongue shaft, the bottom force arm of the **press** tongue is a flat end, and a **press** tongue tooth extends from one end of the bottom force arm towards the upper edge. The **clamp** has the advantages that the self weight of the steel pipes can be used for enabling the **press** tongue of the **clamp** to freely and tightly **press** the steel pipes, and in addition, the vertical steel pipes can be hung up; after the steel pipes reach the proper position, when a slide rope is pulled by force, the self weight of the **clamp** can be used for releasing the **press** tongue, in addition, after the falling to the convenient-to-operate height along with the descending of a crane, a steel wire rope is hung in a hook, the **clamp** can be lifted, and release of a hanging machine is also realized. The problem that a hanging point needs to be welded and dismantled during the steel pipe hanging is solved; the materials are greatly saved, the hanging efficiency is improved, and the adverse influence caused on the steel pipes is avoided.

Inventors

YANG KAIWEN

JIA QIUXUAN

LU FEI

LI JING

ZHANG CHAOJUN

WANG ZHANGLIN

LI WENWU

HUANG ZHIHUI

REN KAI

WEI XUMIN

ZHAO WEN

ZHANG CHUANRONG

Latest standardized assignees - inventors removed

CNOOC - CHINA NATIONAL OFFSHORE OIL GROUP

OFFSHORE OIL ENGINEERING

Family 2/34 - FAMPAT - ©Questel

Title

(FR1174349)

Attachment **clamp** for lifting apparatus**Publication numbers with kind code & date****FR1174349** A 1959-03-10 FR1174349**Abstract**

(FR1174349)

807,366. Lifting dogs automatic locking. THOMSEN, K. H. E. April 17,1957 [April 25, 1956], No. 12493/57. Class 78 (4). [Also in Group XXV] A cylindrical friction lock 16, 18 (Fig. 3) locks a lifting dog after it has been caused to grip the load by the force applied to its suspension member 9. The dog illustrated is of the type in which a **clamp** 7 is turned about a pivot 8 to **press** the load against a shoe 5 by force transmitted from the suspension member 9 through a lever 11 and links 14. The lever 11 includes a boss 18 which fits loosely over a pin 12 from which it is separated by a resilient steel clamping ring 16 (Fig. 5) held against rotation by a key 20 projecting from the pin 12 into a recess in the ring 16. When the load is raised the upward movement of the lever 11 forces the split end 17 of the ring 16 over a wedge 19 on the pin 12 so that the ring 16 is forced into frictional engagement with the boss 18 thus locking the dog. The dog is released by a hammer blow on the part 21 of the lever 11. The split ends of the ring 16 and the wedge 19 are preferably hardened and the diametrically opposite portion 20 of the ring 16 is reduced to render the ring more flexible.

(From GB807366 A)

Inventors

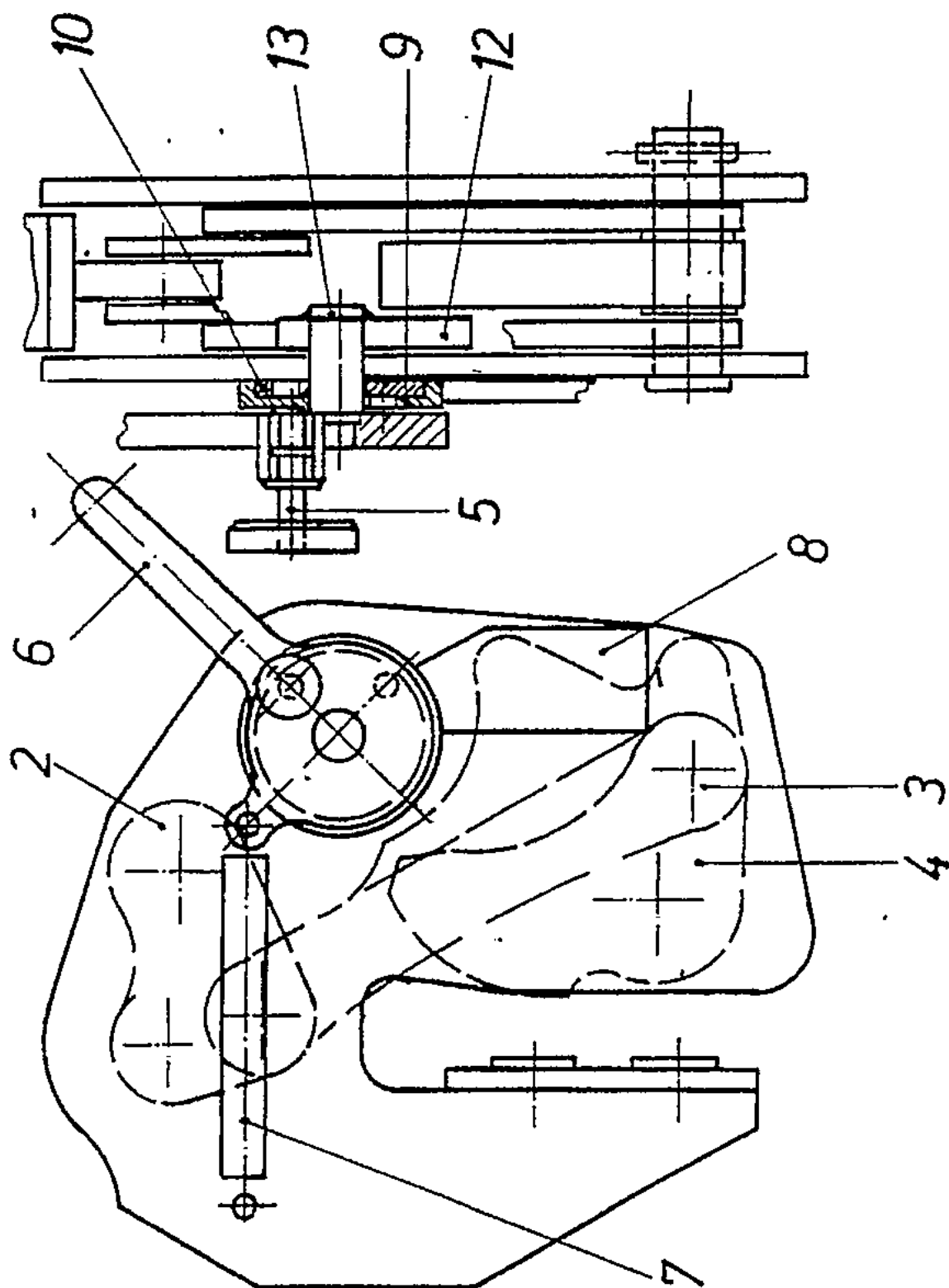
THOMSEN KNUD HENRI ERHARD

Family 3/34 - FAMPAT - ©Questel

Title

(EP-424601)

Clamp for the transport of sheet metal.**Images**

Figur 2**Publication numbers with kind code & date**

DE3935758	C2	1993-09-09	DE3935758
DE3935758	A1	1991-05-02	DE3935758
EP0424601	A1	1991-05-02	EP-424601

**Abstract**

(EP0424601)

Clamps for the transport of long material according to DIN 1502, Section 1.5, characterised by a stepping mechanism (6, 5, 7, 9, 10, 12, 13) which prevents inadvertent or unintentional opening of the **clamp** during transport. First pull: stepping

mechanism prepares opening mechanism. Second pull: **clamp** is opened. Sheet-pile clamps must be released from below after the sheet piles are orientated. This is done with a cable (14) which is pulled from below and sets the opening mechanism in motion.

Inventors

VOIGT WILHELM

Latest standardized assignees - inventors removed

SIEGERT

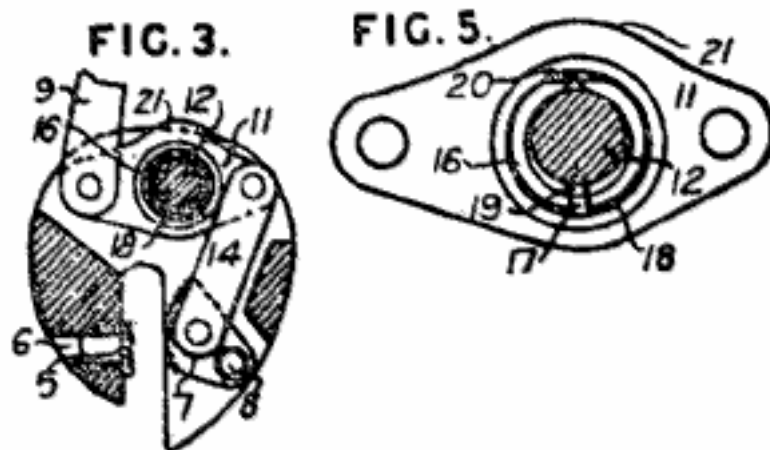
Family 4/34 - FAMPAT - ©Questel

Title

(GB-807366)

Improvements in or relating to claws for hoisting apparatus

Images



Publication numbers with kind code & date

[GB807366](#) A 1959-01-14 GB-807366



Abstract

(GB807366)

807,366. Lifting dogs automatic locking. THOMSEN, K. H. E. April 17, 1957 [April 25, 1956], No. 12493/57. Class 78 (4). [Also in Group XXV] A cylindrical friction lock 16, 18 (Fig. 3) locks a lifting dog after it has been caused to grip the load by the force applied to its suspension member 9. The dog illustrated is of the type in which a **clamp** 7 is turned about a pivot 8 to **press** the load against a shoe 5 by force transmitted from the suspension member 9 through a lever 11 and links 14. The lever 11 includes a boss 18 which fits loosely over a pin 12 from which it is separated by a resilient steel clamping ring 16 (Fig. 5) held against rotation by a key 20 projecting from the pin 12 into a recess in the ring 16. When the load is raised the upward movement of the lever 11 forces the split end 17 of the ring 16 over a wedge 19 on the pin 12 so that the ring 16 is forced into frictional engagement with the boss 18 thus locking the dog. The dog is released by a hammer blow on the part 21 of the lever 11. The split ends of the ring 16 and the wedge 19 are preferably hardened and the diametrically opposite portion 20 of the ring 16 is reduced to render the ring more flexible.

Latest standardized assignees - inventors removed

KNUD HENRI ERHARD THOMSEN

Family 5/34 - FAMPAT - ©Questel

Publication numbers with kind code & date

[DE1074244](#) B 0 DE1074244



Abstract

(DE1074244)

807,366. Lifting dogs automatic locking. THOMSEN, K. H. E. April 17, 1957 [April 25, 1956], No. 12493/57. Class 78 (4). [Also in Group XXV] A cylindrical friction lock 16, 18 (Fig. 3) locks a lifting dog after it has been caused to grip the load by

the force applied to its suspension member 9. The dog illustrated is of the type in which a **clamp** 7 is turned about a pivot 8 to **press** the load against a shoe 5 by force transmitted from the suspension member 9 through a lever 11 and links 14. The lever 11 includes a boss 18 which fits loosely over a pin 12 from which it is separated by a resilient steel clamping ring 16 (Fig. 5) held against rotation by a key 20 projecting from the pin 12 into a recess in the ring 16. When the load is raised the upward movement of the lever 11 forces the split end 17 of the ring 16 over a wedge 19 on the pin 12 so that the ring 16 is forced into frictional engagement with the boss 18 thus locking the dog. The dog is released by a hammer blow on the part 21 of the lever 11. The split ends of the ring 16 and the wedge 19 are preferably hardened and the diametrically opposite portion 20 of the ring 16 is reduced to render the ring more flexible.

(From GB807366 A)

Family 6/34 - FAMPAT - ©Questel

Publication numbers with kind code & date

NL94644

C 0

NL--94644D



Abstract

(NL94644)

807,366. Lifting dogs automatic locking. THOMSEN, K. H. E. April 17, 1957 [April 25, 1956], No. 12493/57. Class 78 (4). [Also in Group XXV] A cylindrical friction lock 16, 18 (Fig. 3) locks a lifting dog after it has been caused to grip the load by the force applied to its suspension member 9. The dog illustrated is of the type in which a **clamp** 7 is turned about a pivot 8 to **press** the load against a shoe 5 by force transmitted from the suspension member 9 through a lever 11 and links 14. The lever 11 includes a boss 18 which fits loosely over a pin 12 from which it is separated by a resilient steel clamping ring 16 (Fig. 5) held against rotation by a key 20 projecting from the pin 12 into a recess in the ring 16. When the load is raised the upward movement of the lever 11 forces the split end 17 of the ring 16 over a wedge 19 on the pin 12 so that the ring 16 is forced into frictional engagement with the boss 18 thus locking the dog. The dog is released by a hammer blow on the part 21 of the lever 11. The split ends of the ring 16 and the wedge 19 are preferably hardened and the diametrically opposite portion 20 of the ring 16 is reduced to render the ring more flexible.

(From GB807366 A)

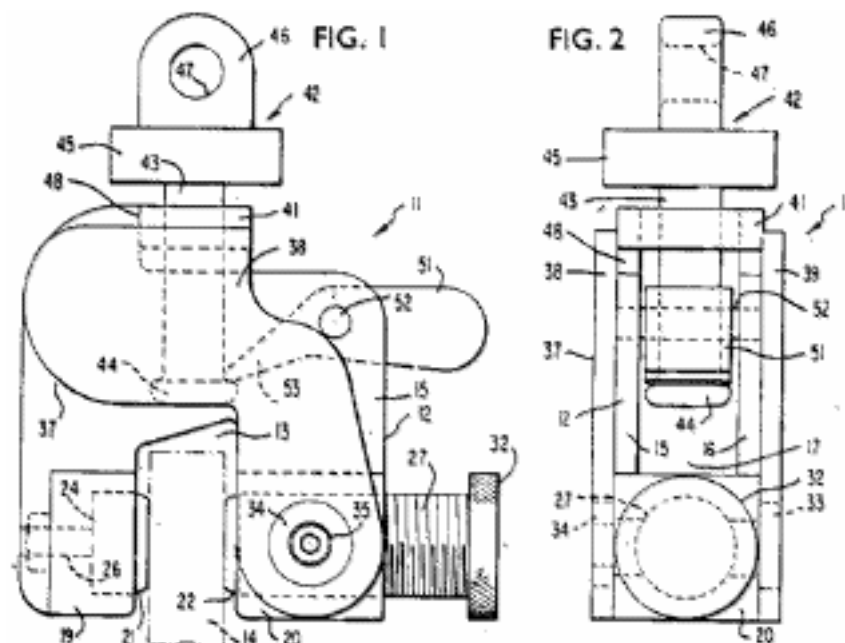
Family 7/34 - FAMPAT - ©Questel

Title

(US3342521)

Torque grip lifting **clamp**

Images



Publication numbers with kind code & date



DE1295151	B	1969-05-14	DE1295151
GB1145534	A	1969-03-19	GB1145534
US3342521	A	1967-09-19	US3342521
FR1486901	A	1967-06-30	FR1486901
NL6610062	A	1967-01-24	NL6610062
BE684354	A	1967-01-03	BE-684354



Abstract

(US3342521)

1,145,534. Lifting devices. J. C. RENFROE & SONS Inc. 20 June, 1966 [23 July, 1965], No.27452/66. Heading B8H. A lifting **clamp** comprises an inverted U- shaped body 12 providing a slot 13 to receive an article 14 to be lifted and a shackle member 37 pivotally connected to the body to apply a torque gripping action on the article (Fig. 5, not shown) when the shackle member is lifted by means not shown. The body 12 mounts a pair of opposed jaws 21, 22 on opposite sides of the slot 13, the jaw 22 is adjustable relative to the slot by way of a screw thread 27 and is fixed by a **clamp** 35 prior to lifting. The shackle member pivots in a vertical plane containing the axis of the jaws about an axis horizontally offset from the slot and on a level with the axis of the jaws. The jaws 21, 22 are rotatable in their mountings and one 22 is adjustable by means of screw 27 to grip the article prior to lifting. The shackle member mounts a lifting connection 42 slidable vertically and rotatable relative thereto in a bush 41, which bush abuts a stop 48 on the body 12 when the lifting connection is directly above the slot 13. The lower end of the lifting connection 42 has a head 44 engageable with a pivotable lever 51 whereby on setting down an article the head 44 slides past the lever 51 which then engages the shoulder behind the head to lock the lifting connection vertically above the slot 13 so that on raising the **clamp** no torque gripping action occurs between the jaws 21, 22 and the **clamp** may be removed from the article. When an article is to be lifted the lifting connection is lowered and the lever 51 manually withheld from engagement with the head 44 whilst the lifting connection is raised. In an alternative embodiment, Figs. 7, 8 (not shown), the pivot point of the shackle on the body is below the level of the axis of the jaws.

(From GB1145534 A)

Inventors

RENFROE RAYMOND L

Latest standardized assignees - inventors removed

RENFROE & SONS J C

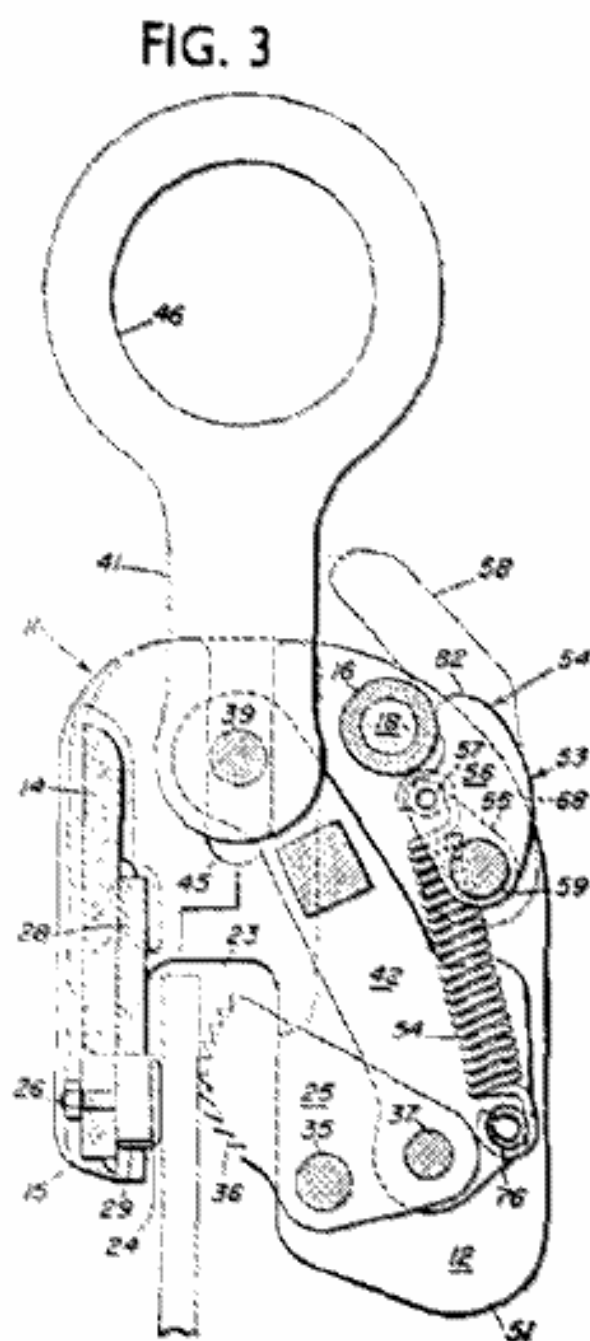
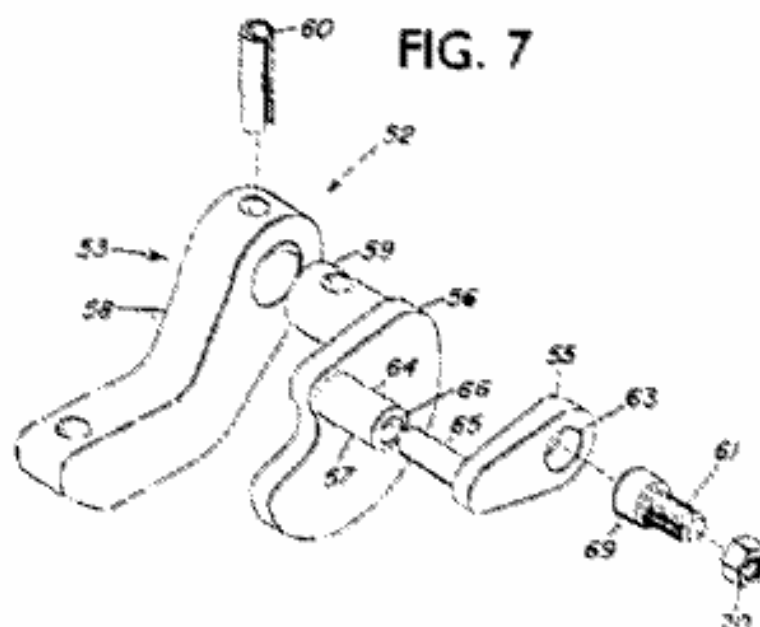
Family 8/34 - FAMPAT - ©Questel

Title

(US3414315)

Lifting **clamp**

Images



Publication numbers with kind code & date

DE1531248	A1	1969-12-04	DE1531248
GB1160778	A	1969-08-06	GB1160778
FR1550265	A	1968-12-20	FR1550265
US3414315	A	1968-12-03	US3414315
NL6712619	A	1968-04-22	NL6712619
BE704444	A	1968-02-01	BE-704444

**Abstract**

(US3414315)

1,160,778. Grippers for lifting sheets. J. C. RENFROE & SONS Inc. 24 July, 1967 [19 Oct., 1966], No. 33944/67. Heading B8A. A lifting **clamp** for sheet materials in which a movable jaw 25, Fig. 3, is rotated towards a fixed jaw 24 as the **clamp** is raised by a link 42 has a locking device 53 comprising two interlocking parts 55, 56, Fig. 7. The parts engage one another through telescopic portions 64, 65 in such a way that rotation imparted to the cam 56 by a handle 58 is transmitted to the member 55. The device is rotatably supported in the side plates of the **clamp** by a pin 59 and a bolt 61. A spring 54, Fig. 3, urges the jaw 25 into operative position as shown in Fig. 3, and the cam 56 holds the jaws open in the opposite position of the locking device, Fig. 4 (not shown). U.S.A. Specification 2,654,630 and Specifications 1,048,337 and 1,125,243 are referred to.

(From GB1160778 A)

Inventors

O'QUINN PAUL V

Latest standardized assignees - inventors removed

RENFROE & SONS J C

Family 9/34 - FAMPAT - ©Questel

Title

(US3659890)

Lifting **clamp****Images**

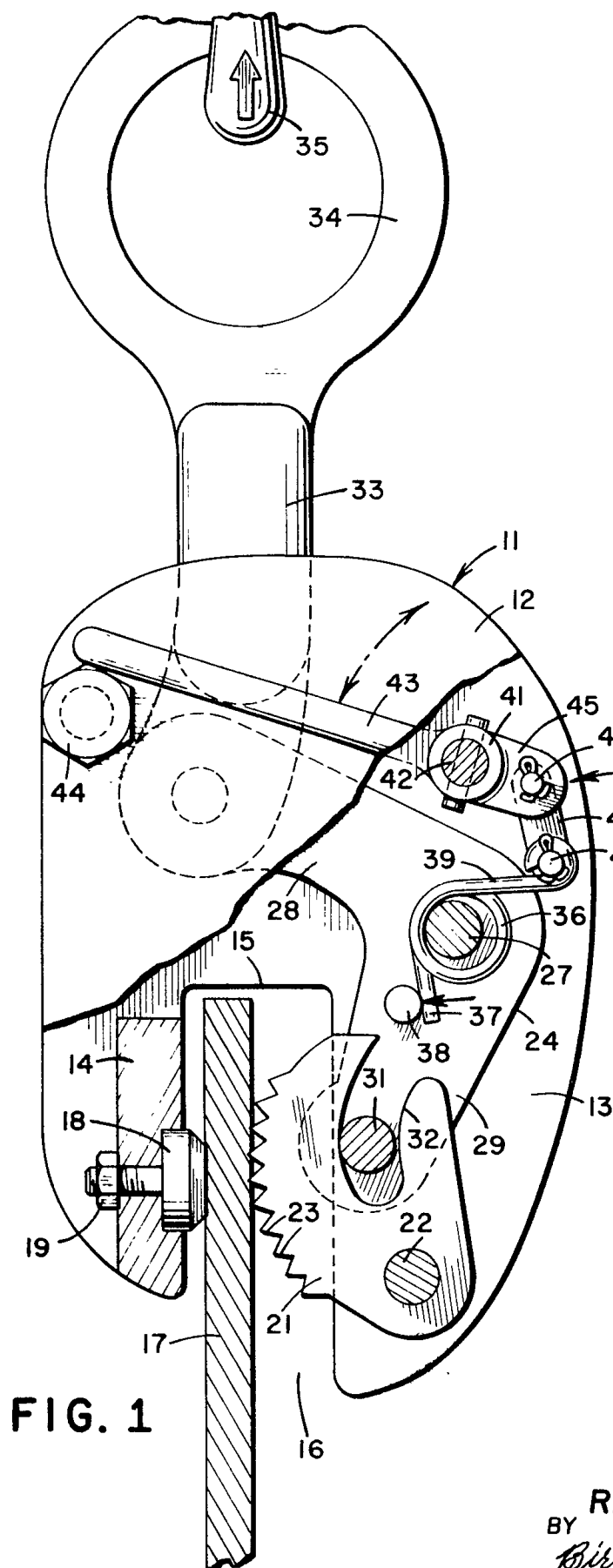


FIG. 1

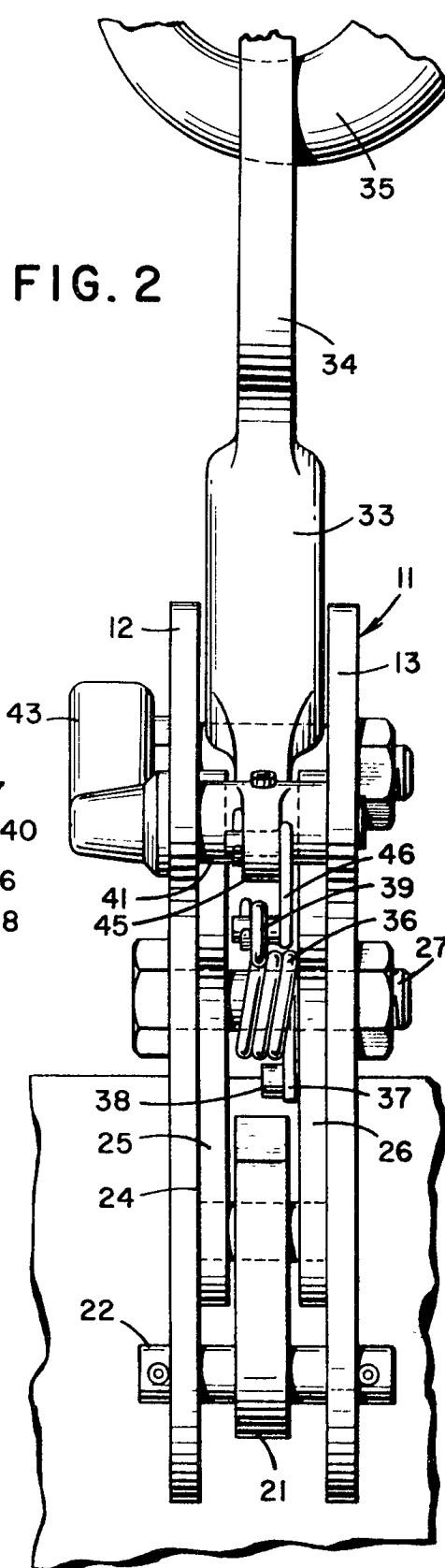


FIG. 2

INVENTOR
RAYMOND L. RENFROE
 BY *Birch, Swindler, McKie & Buckett*
 ATTORNEYS

Publication numbers with kind code & date

NL167928	C	1982-02-16	NL-167928
NL167928	B	1981-09-16	NL-167928



FR2101227	B1	1975-09-26	FR2101227
JPS5014010	B2	1975-05-24	JP75014010
DE2062988	C3	1974-10-17	DE2062988
DE2062988	B2	1974-03-07	DE2062988
CA921513	A	1973-02-20	CA-921513
GB1275190	A	1972-05-24	GB1275190
US3659890	A	1972-05-02	US3659890
FR2101227	A	1972-03-31	FR2101227
FR2101227	A1	1972-03-31	FR2101227
DE2062988	A1	1972-02-10	DE2062988
NL7101609	A	1972-02-08	NL7101609
BE761648	A	1971-06-16	BE-761648



Abstract

(US3659890)

A lifting **clamp** comprising a body having a slot to receive an article to be lifted, a pair of gripping jaws one of which is movable, a linkage connected to the movable jaw which includes a shackle and a bell crank lever pivotally mounted in the body, and a locking mechanism for resiliently retaining the jaws in a closed position, the lock being operated by a handle lever located outside of the **clamp** body and movable downwardly toward the slot to a locked position and upwardly and outwardly away from the slot to an unlocked position.

Inventors

RENFROE RAYMOND L

Latest standardized assignees - inventors removed

RENFROE & SONS

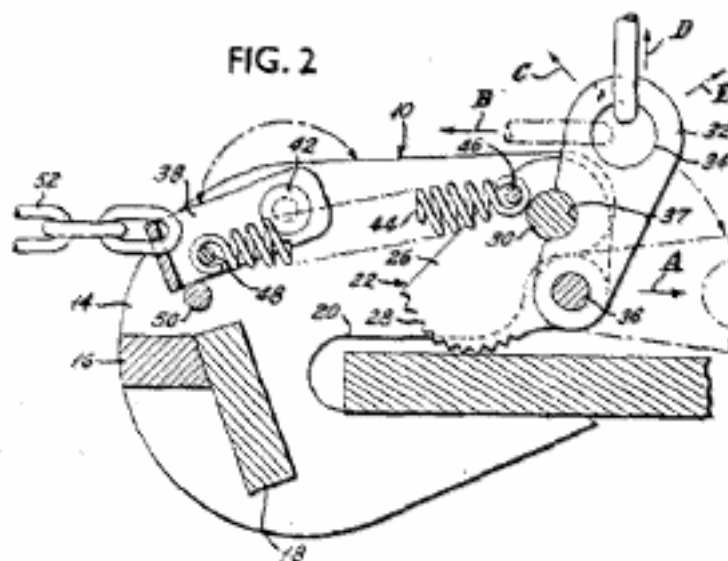
Family 10/34 - FAMPAT - ©Questel

Title

(US3336068)

Lifting **clamp**

Images



Publication numbers with kind code & date

GB1116247	A	1968-06-06	GB1116247
US3336068	A	1967-08-15	US3336068
FR1482696	A	1967-05-26	FR1482696
NL6608250	A	1966-12-16	NL6608250



BE682516

A 1966-11-14 BE-682516

Abstract

(US3336068)

1,116,247. Lifting clamps. J. C. RENFROE & SONS Inc. 1 June, 1966 [15 June, 1965], No. 24441/66. Heading B8H. A lifting force may be applied to a shackle 32 of a lifting **clamp** in any direction between those indicated by arrows A, B, e.g. C, D, E, to urge a gripping jaw 22 into engagement with a load in a slot 20. When the force is applied in directions B, C or D the shackle abuts the pivotpin 30 of the jaw 22 which acts as a fulcrum. A spring 44, which is tensioned by an overcentre lever 38, urges the jaw into the slot 20 when there is no tension on the shackle 32. Fig. 5 (not shown), illustrates a similar embodiment in which a shackle (84) moves a pivoted jaw into load-engaging position by abutting a portion (79) of the jaw itself in certain directions of pull on the shackle.

(From GB1116247 A)

Inventors

RENFROE RAYMOND L

Latest standardized assignees - inventors removed

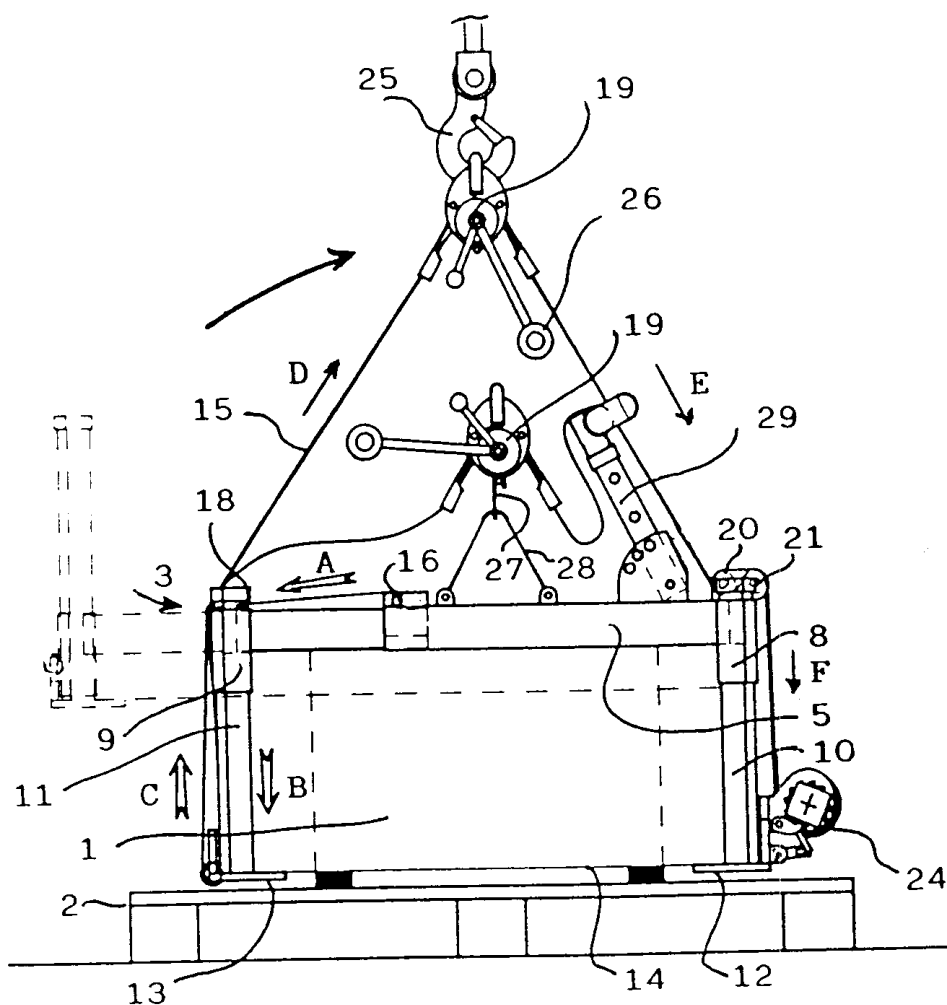
RENFROE & SONS J C

Family 11/34 - FAMPAT - ©Questel

Title

(FR2759071)

Adjustable **clamp** for gripping and manipulating reel, e.g. of material for feeding into **press****Images**



Publication numbers with kind code & date

FR2759071 B1 1999-03-19 FR2759071

FR2759071 A1 1998-08-07 FR2759071



Abstract

(FR2759071)

An adjustable **clamp**, designed to grip a reel of material and tilt it through 90 degrees, consists of a telescopic frame with locking elements for the reel, a strap and a suspension roller. The sliding frame has two telescopic horizontal cross members (4, 5) connected by a bar and joined to vertical end covers (8, 9) equipped with sliding supports. The strap is attached at one end to a fixed part of the cross members and is connected to the vertical end covers and supports. During operation the tension on the strap from the lifting gear locks the frame onto the reel and allows it to be manipulated.

Inventors

LEBRE CHRISTOPHE

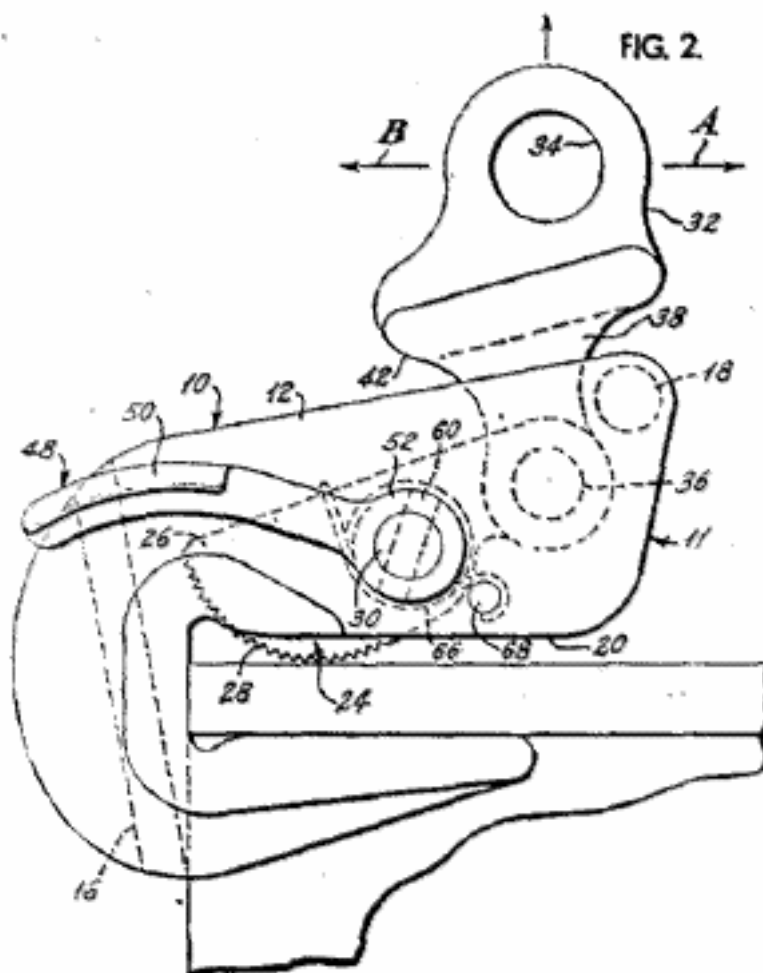
Family 12/34 - FAMPAT - ©Questel

Title

(US3356406)

Lifting **clamp**

Images



Publication numbers with kind code & date

NL144231	B	1974-12-16	NL-144231
JPS4841301	B2	1973-12-05	JP73041301
DE1481800	B1	1970-12-17	DE1481800
DE1481801	B1	1970-07-30	DE1481801
GB1116248	A	1968-06-06	GB1116248
US3356406	A	1967-12-05	US3356406
FR1482695	A	1967-05-26	FR1482695
NL6608056	A	1966-12-16	NL6608056
BE682517	A	1966-11-14	BE-682517



Abstract

(US3356406)

1,116,248. Lifting clamps. J. C. RENFROE & SONS Inc. 1 June, 1966 [15 June, 1965]. No. 24442/66. Heading B8H. A lifting force may be applied to a shackle 32 of a lifting **clamp** in any direction between those indicated by arrows A, B, to urge a gripping jaw 24 into engagement with a load in a slot 20. When the lifting force is applied in a direction having a component in the direction of the arrow A the shackle 32 abuts a pin 18 which forms a fulcrum. The jaw 24 is urged into the slot 20 by a spring 66 and may be withdrawn by raising a handle 48. Fig. 7 (not shown), illustrates an embodiment in which a fulcrum for a lifting shackle (132) is formed by a spacer bar (118) and the jaw (126) is urged into engagement with the load by a spring (145) tensioned by an over-centre lever (141).

(From GB1116248 A)

Inventors

RENFROE JOSH L

Latest standardized assignees - inventors removed

RENFROE & SONS J C

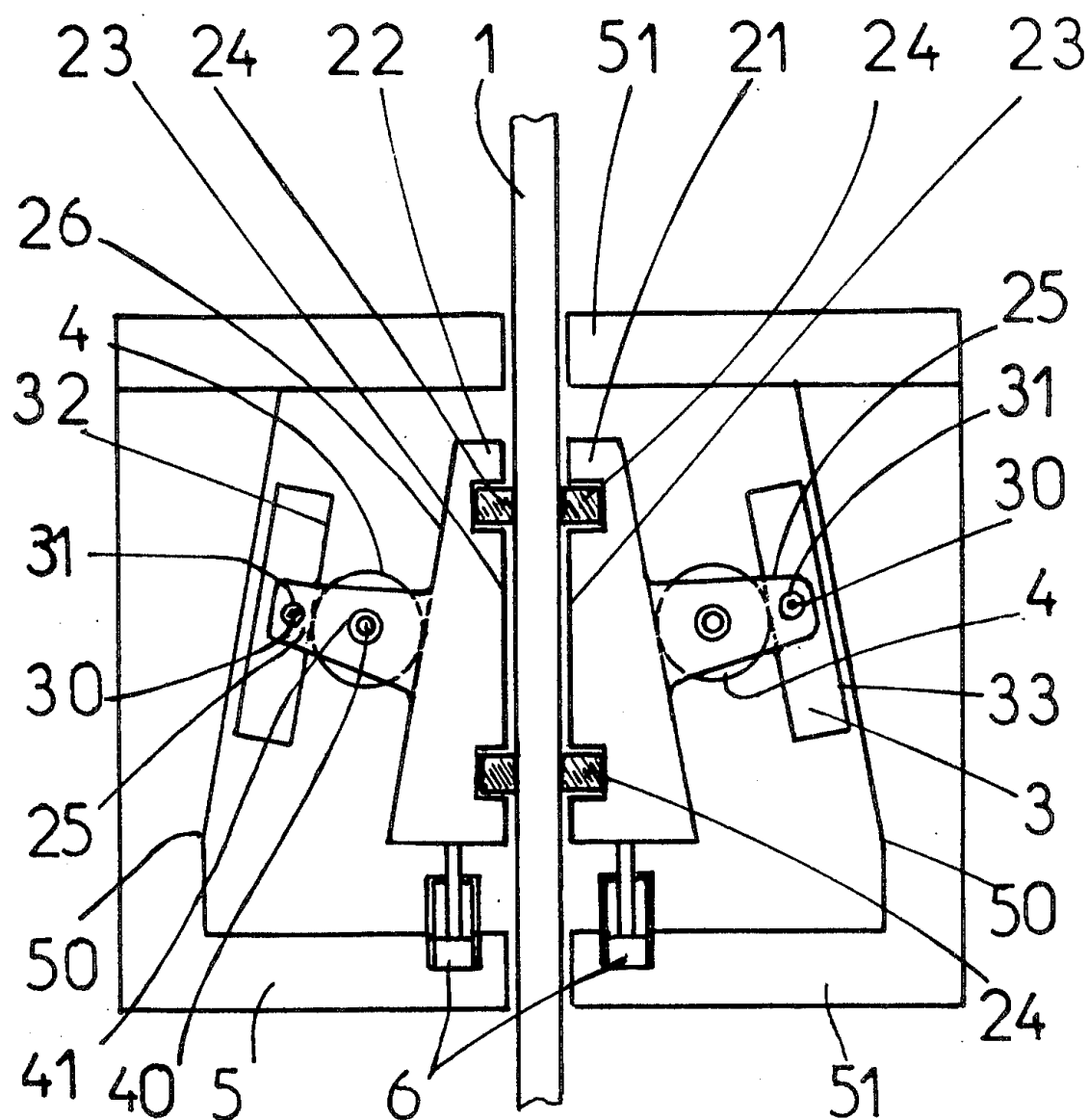
Family 13/34 - FAMPAT - ©Questel

Title

(US4093042)

Locking gripper

Images



Publication numbers with kind code & date

FR2346588	B1	1980-05-16	FR2346588
GB1561343	A	1980-02-20	GB1561343
JP984867	C	1980-01-29	JP-984867
JPS5421156	B2	1979-07-27	JP79021156
US4093042	A	1978-06-06	US4093042
CA1028478	A	1978-03-28	CA1028478
FR2346588	A1	1977-10-28	FR2346588
JPS5252795	A	1977-04-27	JP52052795
DE2647400	A1	1977-04-21	DE2647400



Abstract

(US4093042)

A gripper for locking against an elongated body such as a cable is subjected to relative displacement along the length of the body and is capable of locking at any place therealong, the gripper comprising a rigid member, at least two jaws

provided with surfaces for locking against the body and a system for locking the jaws transversely on the body by wedge effect. Each jaw is associated with two substantially parallel bearing surfaces inclined relative to the elongated body, one surface being on the associated jaw, the other on the rigid member. A rolling member is interposed between the bearing surfaces for transmission of the locking force of the associated jaw to the rigid body and at least one shoe is associated with each pair of bearing surfaces. The shoe is provided with a surface for application against one of the bearing surfaces and an elastic assembly connects each shoe to the second bearing surface to maintain the rolling member between the second bearing surface and a rolling surface provided on the shoe.

Inventors

PRADON JACQUES

Latest standardized assignees - inventors removed

PRADON JACQUES

Family 14/34 - FAMPAT - ©Questel

Title

(US3680907)

Tiltable lifting tongs

Images

FIG.1

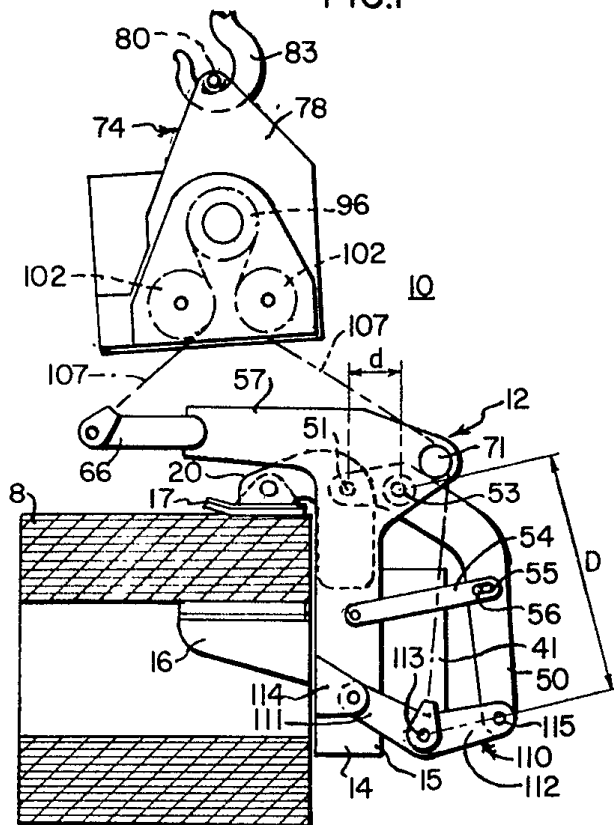


FIG.4

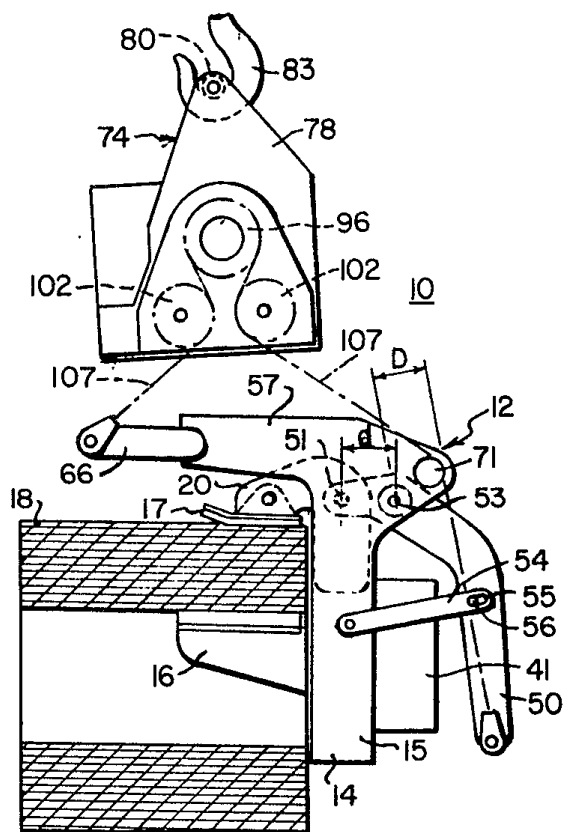


FIG.2

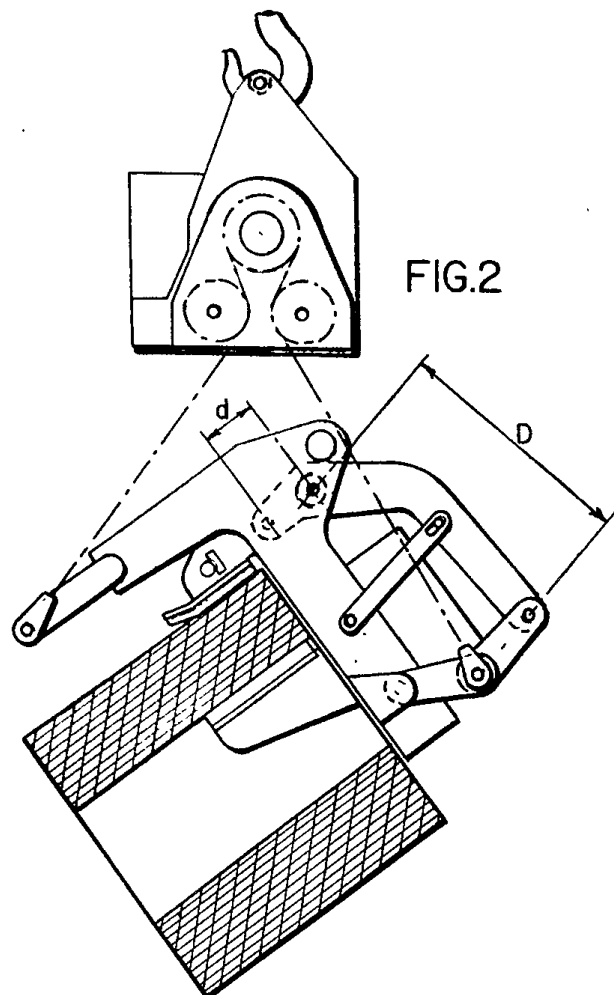
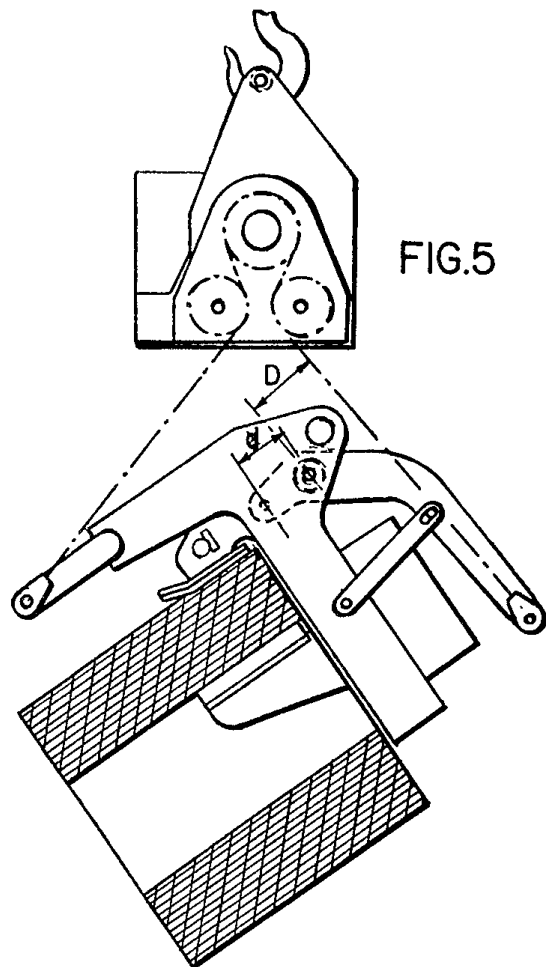


FIG.5



Publication numbers with kind code & date

DE2220639

C3 1979-02-08 DE2220639

FR2138716

B1 1976-08-06 FR2138716



GB1362760	A	1974-08-07	GB1362760				
DE2220639	B2	1974-06-20	DE2220639				
CA935472	A	1973-10-16	CA-935472				
IT952409	B	1973-07-20	IT-952409				
FR2138716	A	1973-01-05	FR2138716				
FR2138716	A1	1973-01-05	FR2138716				
DE2220639	A1	1972-11-30	DE2220639				
US3680907	A	1972-08-01	US3680907				

Abstract

(US3680907)

The specification discloses tiltable lifting tongs of the type having opposing grappling jaws for grasping and releasing a load, such as a coil of sheet steel, and having a power driven cable sling for tilting the tongs through an angle, such as 90 (degree) , to correspondingly change the orientation of the load between pick-up and set-down thereof. A toggle linkage is employed whereby the load reaction force acting in the cable sling is applied to one of the tong levers controlling the gripping pressure of the grappling jaws in such a manner as to provide an amplification of the forces exerted on the tong lever and also to maintain a substantially constant and near maximum lever arm ratio therefor throughout the entire angle of change in orientation.

Inventors

SIEGWART ROBERT V

Latest standardized assignees - inventors removed

BLAW KNOX

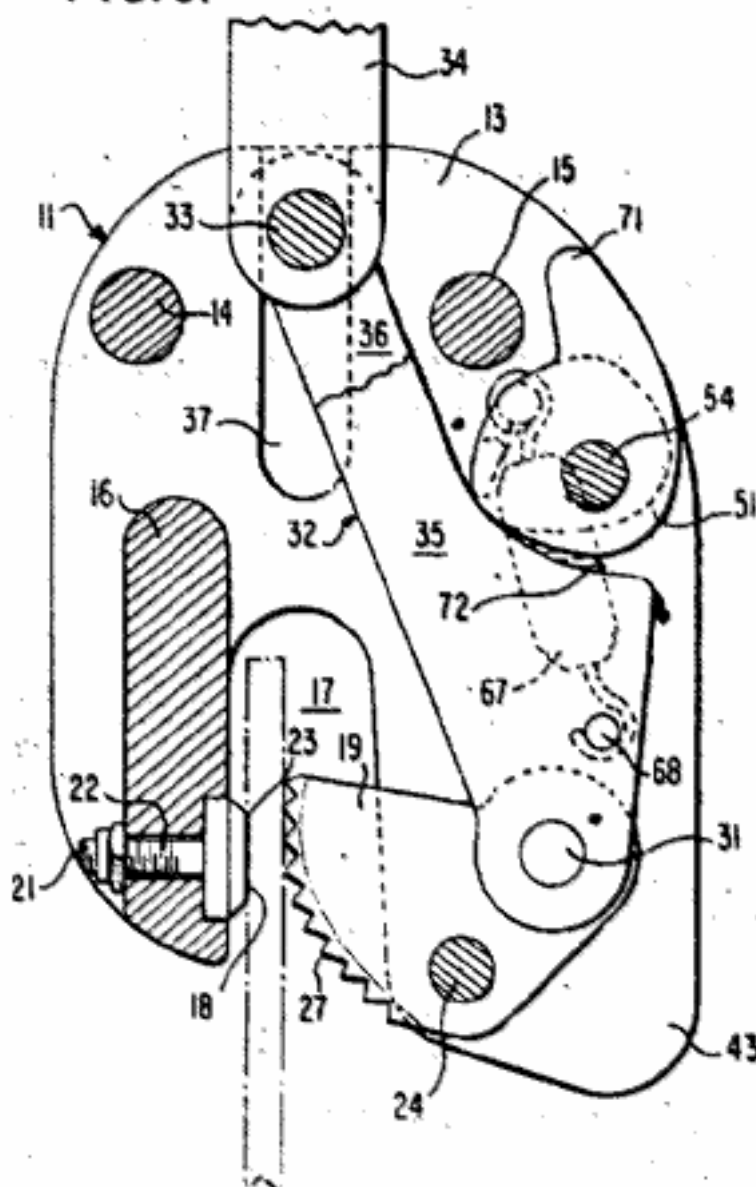
Family 15/34 - FAMPAT - ©Questel

Title

(FR1438907)

Lifting grip

Images

FIG. 6.**Publication numbers with kind code & date**

JPS494187	B2	1974-01-30	JP74004187
FI44461	B	1971-08-02	FI--44461
DE1291878	B	1969-04-03	DE1291878
GB1048337	A	1966-11-16	GB1048337
FR1438907	A	1966-05-13	FR1438907
NL6508695	A	1966-01-10	NL6508695
NL136100	B	0	NL-136100D

**Abstract**

(DE1291878)

1,048,337. Lifting dogs for sheet material. J. C. RENFROE & SONS Inc. June 29, 1965 [July 8, 1964], No. 27459/65. Heading B8H. A lifting-dog for sheet material has a fixed jaw 18, a moving jaw 19 operated by lines 32, and a locking device 51 which holds the moving jaw in contact with the load by bearing on the links 32. The upper ends of the links 32 are guided by slots 37. The loading device has an over-centre action and is held in its operative and inoperative positions by a spring 67 which is attached at its lower end to the links 32. A projection 71 bears against the links when the jaw 19 is in the open position. A handle is provided for rotating the locking device.

(From GB1048337 A)

Inventors

LEON RENFROE RAYMOND

Latest standardized assignees - inventors removed

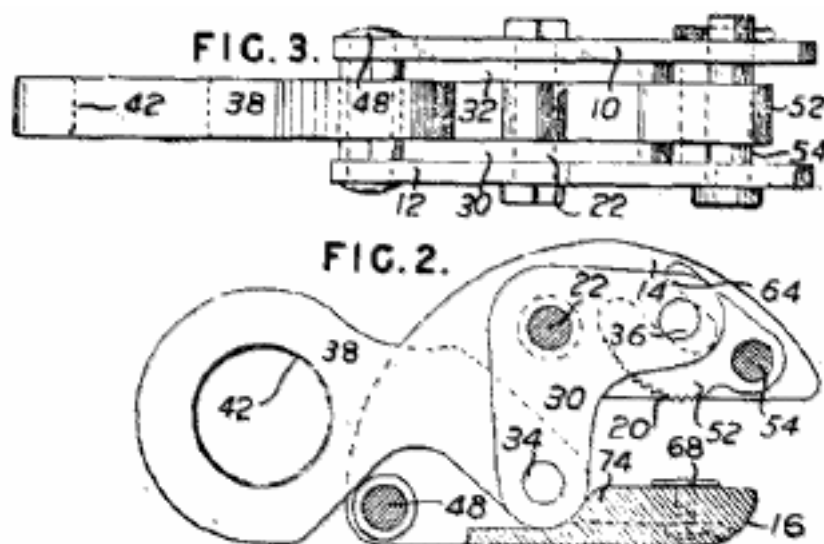
RENFROE & SONS J C

Family 16/34 - FAMPAT - ©Questel

Title

(GB-894010)

Improvements in or relating to clamps

Images**Publication numbers with kind code & date**

GB894010 A 1962-04-18 GB-894010

**Abstract**

(GB894010)

894,010. Clamps. RENFROE, C. J., and RENFROE, R. L. Dec. 11, 1958, No. 39931/58. Class 44. A **clamp** adapted to be attached to hoisting apparatus for lifting heavy plates, &c., comprises a housing 10 having two plate-like sides 12, 14 in which are aligned openings 20 for receiving the heavy plates, &c., a movable jaw 52 pivotally mounted between the sides 12, 14 on a pin 54, two lever members 30, 32 also pivotally mounted between the sides 12, 14 on a pivot member 22 and connected to each other at their ends by a pair of rivets 34, 36, the rivet 36 being slidably engaged in a slot 64 in the jaw 52, and a hook link 38 pivotally connected to the rivet 34 and provided with an aperture 42 for suspending the **clamp** from a hook (not shown) of the hoisting apparatus. The sides 12, 14 of the housing 10 are interconnected by an integral web 16 on which is mounted a stationary jaw 68, and when the **clamp** is suspended from the hook the movable jaw 52 is moved to co-operate with the jaw 68 for gripping the plate. Movement of the hook link 38 relative to the housing 10 is limited by a stop pin 48, the pivot member 22 and a shoulder 74 on the web 16.

Latest standardized assignees - inventors removed

CHARLES JOSEPH RENFROE

RAYMOND LEON RENFROE

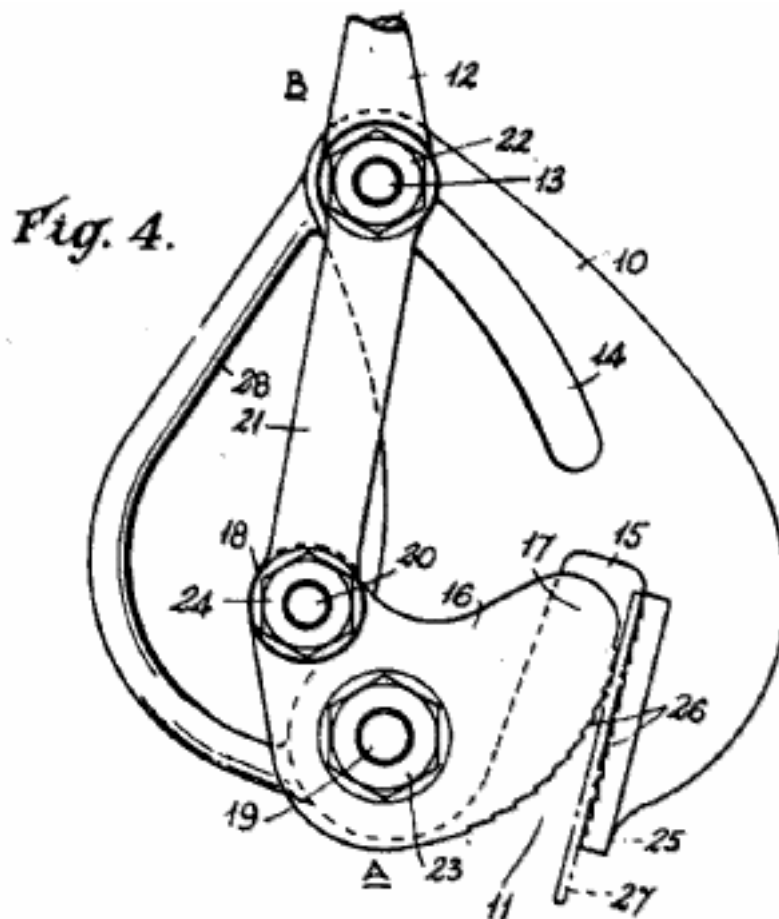
Family 17/34 - FAMPAT - ©Questel

Title

(FR1242057)

Improvements to lifting clamps

Images



Publication numbers with kind code & date

GB932790	A	1963-07-31	GB-932790
FR1242057	A	1960-09-23	FR1242057



Abstract

(FR1242057)

932,790. Clamps for lifting sheets. LIFTING GEAR PRODUCTS (ENGINEERING) Ltd. Nov. 25, 1959 [Dec. 1, 1958], No. 38741/58. Class 78 (4). In a **clamp** for lifting sheets, of the type in which a cam 17 is turned about its pivot 19 to grip the sheets 27 by a connection 21 to a shackle pin 13 from which the **clamp** is suspended, the shackle pin 13 is guided by an arcuate slot 14 so arranged that an effective grip is maintained when lifting a sheet from the horizontal to the vertical position or vice versa. The body of the **clamp** illustrated is formed by a plate 10 on either side of which are carried the cams 16 and the links 21. The body may, however, be formed of two plates with the cams 16 mounted between them.

(From GB932790 A)

Inventors

HUTCHINSON AMBROSE

Latest standardized assignees - inventors removed

LIFTING GEAR PRODUCTS ENGINEER

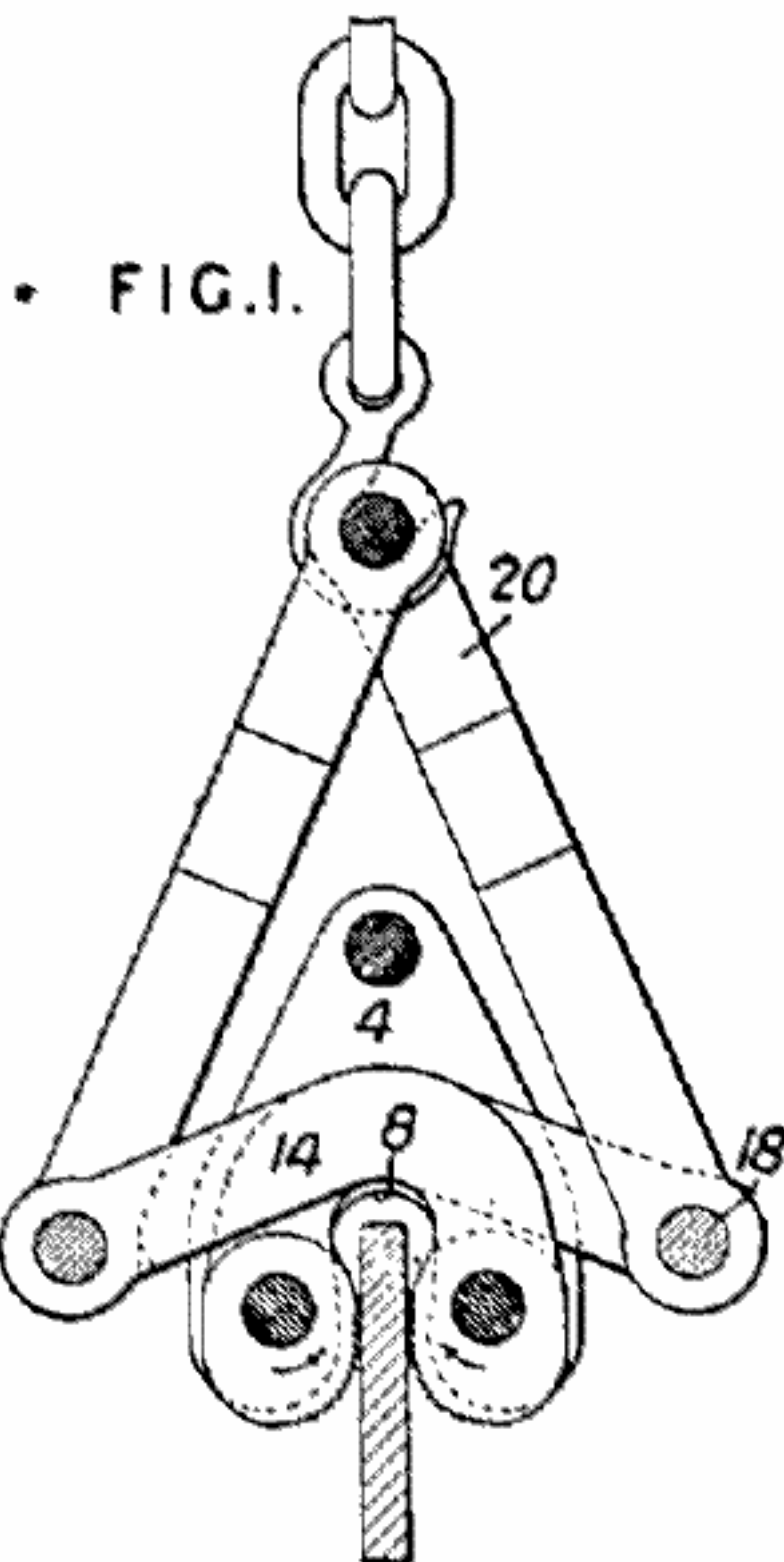
Family 18/34 - FAMPAT - ©Questel

Title

(GB-177275)

Improved lifting clamps

Images



Publication numbers with kind code & date

GB177275

A 1922-03-30 GB-177275



Abstract

(GB177275)

177,275. Hench, W. M. Dec. 30, 1920. Lifting - dogs. - Double - grip lifting- dcgs, for raising flat articles such as metal plates, are constructed so that the gripping jaws exert an inward and upward pressure on the plate being lifted. Two links 20 suspended from a hook or the like are pivoted to curved gripping - levers 14 which are pivoted in turn to a pair of parallel plates 4 at the lower end of a central load-receiving notch 8 in the plates. When the **clamp** is free, the weight of the unsupported plates 4 depresses the inner end of the gripping-levers and so rotates them about the axes 18 to close the jaws. On being lowered into contact with a plate the closed jaws rest on the edge of the plate until the continued lowering of

the links 20 rotates the levers 14 to open the jaws sufficiently to allow the plate to pass into the notch. Tension applied to the members 20 then closes the gripping-levers again so that the jaws engage the plate with an upward bite.

Latest standardized assignees - inventors removed

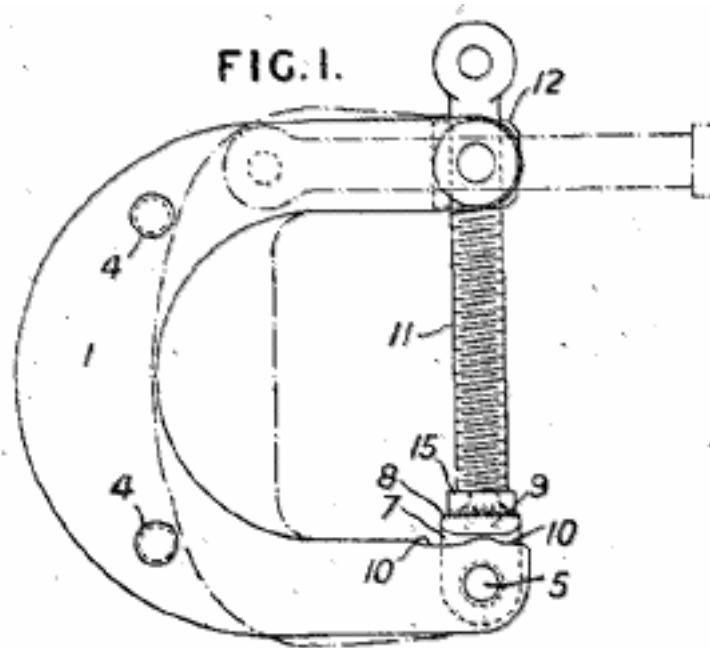
WILLIAM MARKLE HENCH

Family 19/34 - FAMPAT - ©Questel

Title

(GB-579950)

Improved grab

Images**Publication numbers with kind code & date**

[GB579950](#) A 1946-08-21 GB-579950

**Abstract**

(GB579950)

579,950. Clamps. NORTH, G. M. June 10, 1944, No. 11158. [Class 61 (ii)] The body of a **clamp** consists of two cheeks 1 spaced apart and secured by distance pieces 4 and 5 and the upper jaw 15 is carried on an eye-bolt 11 working in a pivotally mounted nut 12 enabling the eye bolt to be housed between the body cheeks for protection against damage or to allow the **clamp** to pass over obstruction without being unscrewed. The distance piece 5 acts also as a support-for the pivotally mounted jaw 7 which has a serrated upper surface 8 projecting sideways at 9. so as to overhang and co-act with the stops 10 on the cheeks 1 in order to limit the movement of the jaw.

Latest standardized assignees - inventors removed

GAVIN MEIKLE NORTH

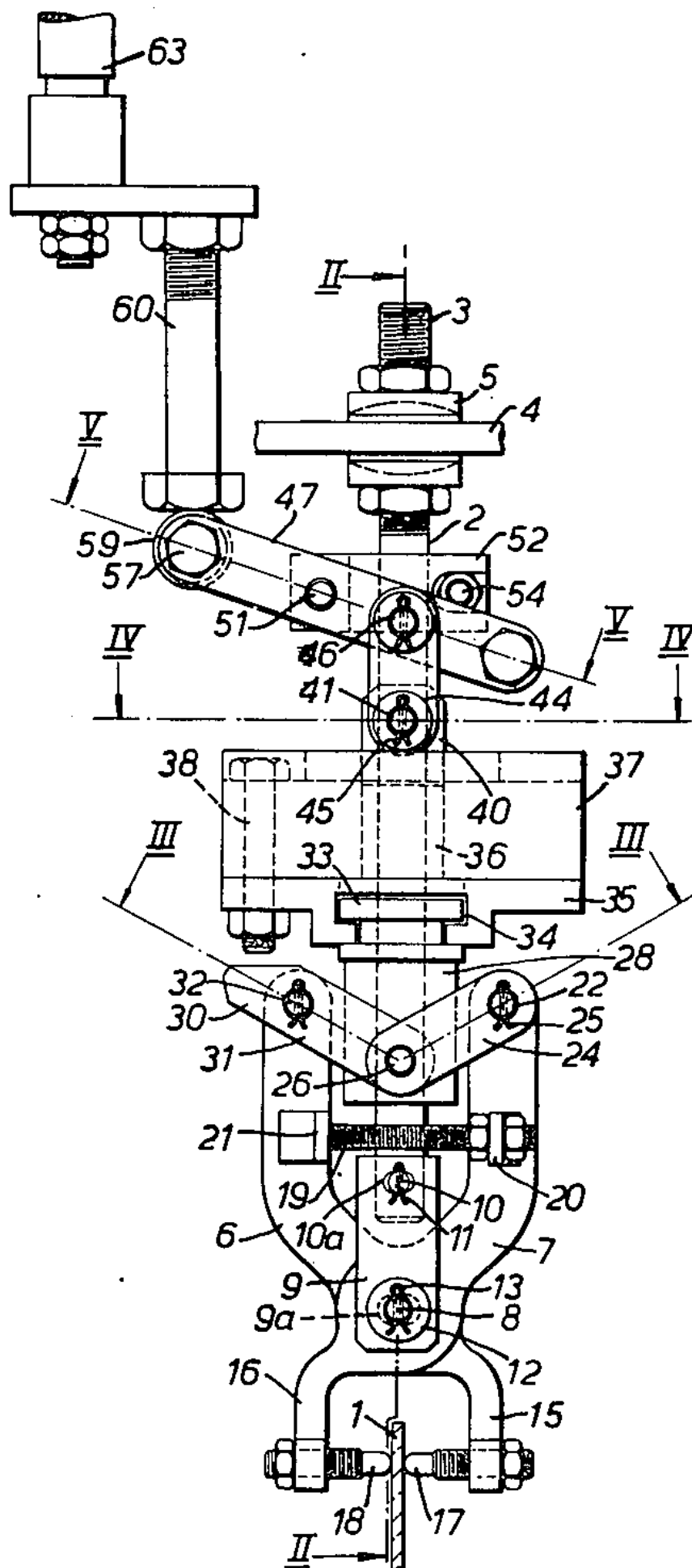
Family 20/34 - FAMPAT - ©Questel

Title

(US3913966)

Tongs for suspending glass

Images



Publication numbers with kind code & date

JP1143219	C	1983-04-13	JP1143219
JPS5735130	B2	1982-07-27	JP82035130
DE2434613	C2	1982-05-06	DE2434613
MY8100090	A	1981-12-31	MY8100090
FR2237829	B1	1978-11-24	FR2237829
SE404689	B	1978-10-23	SE-404689
GB1442315	A	1976-07-14	GB1442315
US3913966	A	1975-10-21	US3913966
JPS5049314	A	1975-05-02	JP50049314
FR2237829	A1	1975-02-14	FR2237829
DE2434613	A1	1975-02-06	DE2434613
SE7409446	A	1975-01-21	SE7409446

**Abstract**

(US3913966)

Tongs for suspending glass comprise an elongate suspension member the upper end of which is for fixing relative to a tong bar. A pair of tong arms are pivoted about a pivot on the suspension member which pivot is at a fixed distance from the upper end of the suspension member. The tong arms extend beyond the pivot as tong jaws and tong links connected to the tong arms are also connected to a biased member which is effective through the links to close the tong jaws in the rest position of the biased member. A number of such tongs are fixed to a tong bar, being spaced apart along the bar and lifting means connected to the biased member is operated by actuating means at one or the other end of the tong bar when the tong jaws are to be opened.

Inventors

RICHARDS PETER HENRY

Latest standardized assignees - inventors removed

TRIPLEX SAFETY GLASS

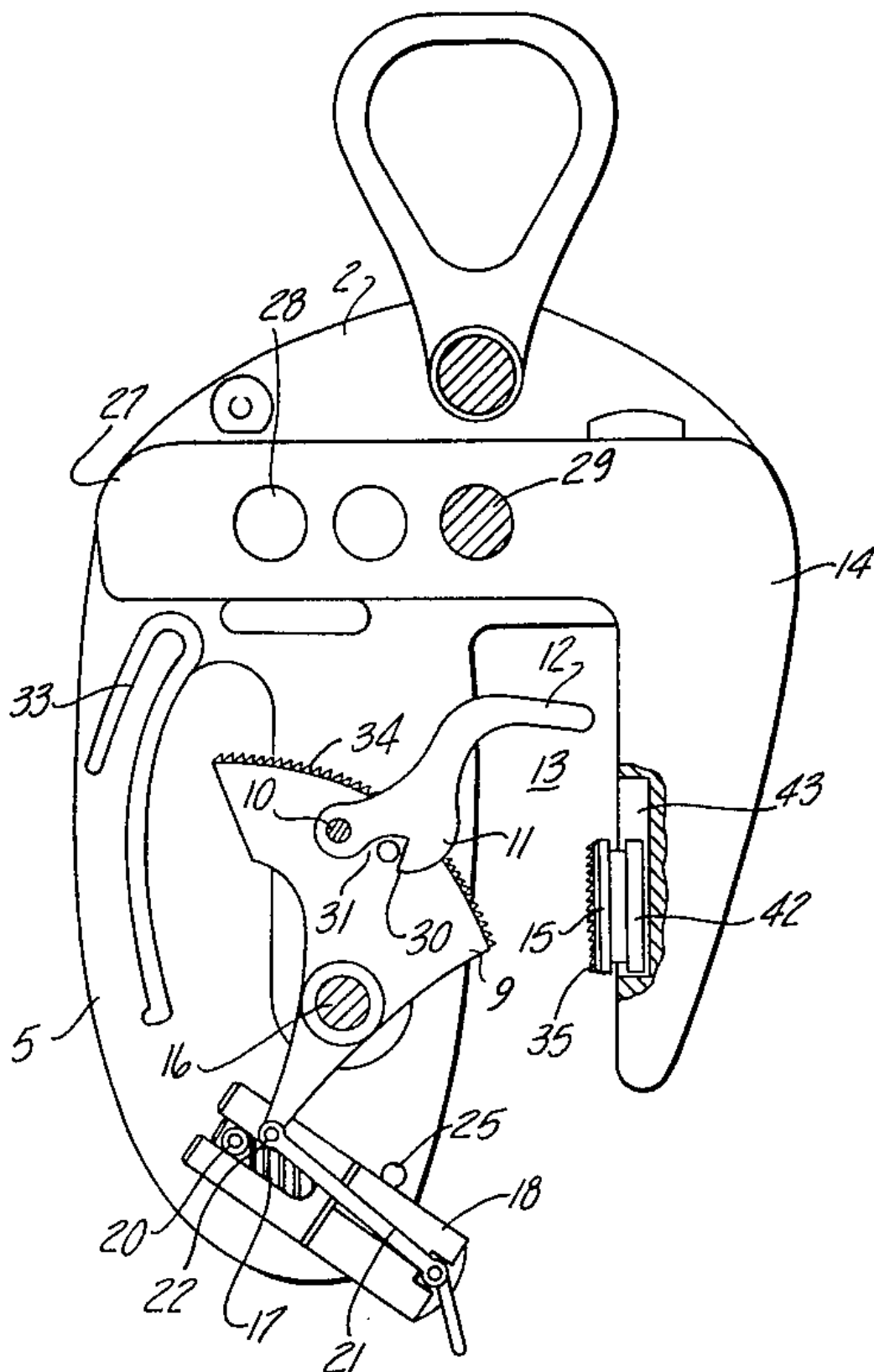
Family 21/34 - FAMPAT - ©Questel

Title

(US4327944)

Tongs designed to lift and handle metal sheets and similar materials

Images



Publication numbers with kind code & date

US4327944	A	1982-05-04	US4327944
DE2949271	A1	1980-06-26	DE2949271



Abstract

(US4327944)

A clamping device for handling and lifting metal sheets is disclosed. The device has a body member with a first flanged portion and a second flanged portion mounted adjacent to the first flanged portion. The first and second flanged portions define an opening therebetween for receiving metal sheets therebetween. A cam member includes an adjustable grip

portion and an opposite leg portion. The cam member is attached to the first flanged portion so as to permit the adjustable grip portion to rotate in the opening from a first open position to a second closed position. The cam member is biased to a closed position by a helical spring member acting on the opposite leg portion. The spring member is supported on the other end by the body member and coiled about a pivot pin. The cam member is automatically locked in an open position by a lever engaging a pin on the cam member adjacent the adjustable gap portion. One leg of the lever arm extends through the opening between the two flanged portions. When the upper edge of the sheet metal engages the leg, the lever releases the pin on the cam member and the adjustable gap portion rotates to **clamp** the metal sheet.

Inventors

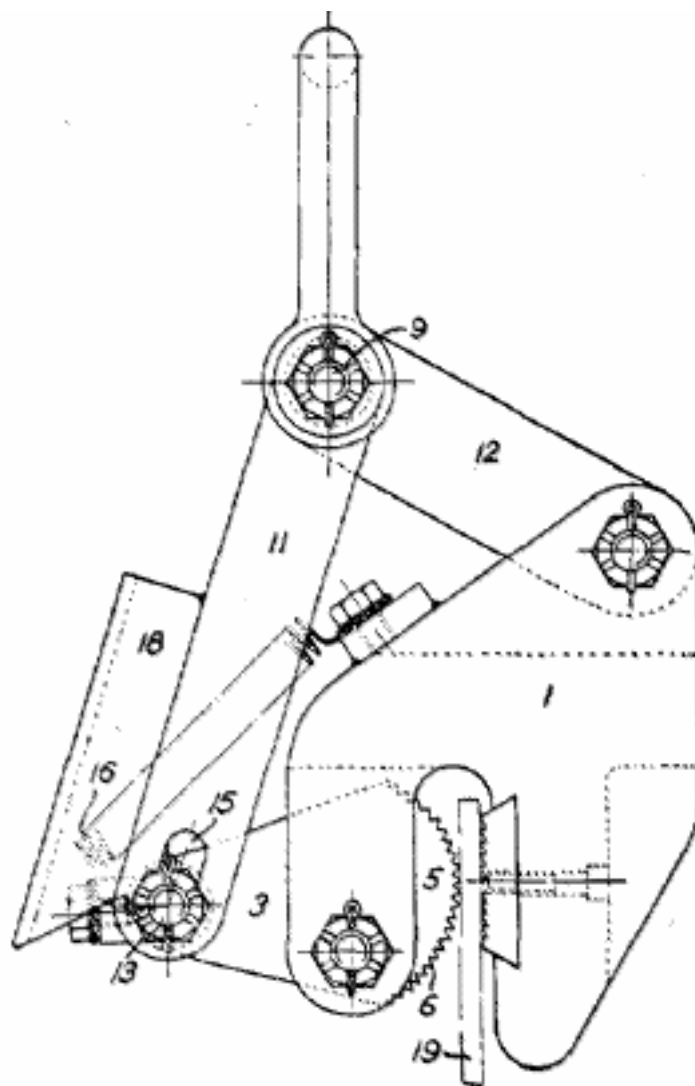
LANGLOY CHARLES

Family 22/34 - FAMPAT - ©Questel

Title

(GB-741956)

Improvements relating to lifting dogs

Images**Publication numbers with kind code & date**[GB741956](#)

A 1955-12-14 GB-741956

**Abstract**

(GB741956)

741,956. Lifting dogs. FERRANTI, Ltd. May 7, 1954 [May 8, 1953], No. 12830/53. Class 78 (4). To prevent jerking from causing the load 19 to slip from the lifting dog shown, lost motion is provided between the cam 3 by which the load is secured and the spindle 9 by which the dog is suspended, and an elastic bias urges the cam 3 to its gripping position. The lost motion may be provided by a slot 15 in which a pin 13 of the cam 3 may engage or by a slot in the link 11 to receive the

pin 9 or by a slot in the cam 3 to receive a pin in the link 11. The bias may be provided by a tension spring 16 connected between the frame 1 and the cam 3 as illustrated or by a compression spring acting between the frame 1 and the end 5 of the cam. A guard 18 protects the spring 16. Either or each link 11, 12 may be replaced by two or more parallel links and the cam surface 6 may be provided on a separate component secured to the cam lever 3. The lost motion and bias are such that the dog can be opened by lowering it to rest on the ground.

Inventors

RATCLIFFE THOMAS

Latest standardized assignees - inventors removed

FERRANTI

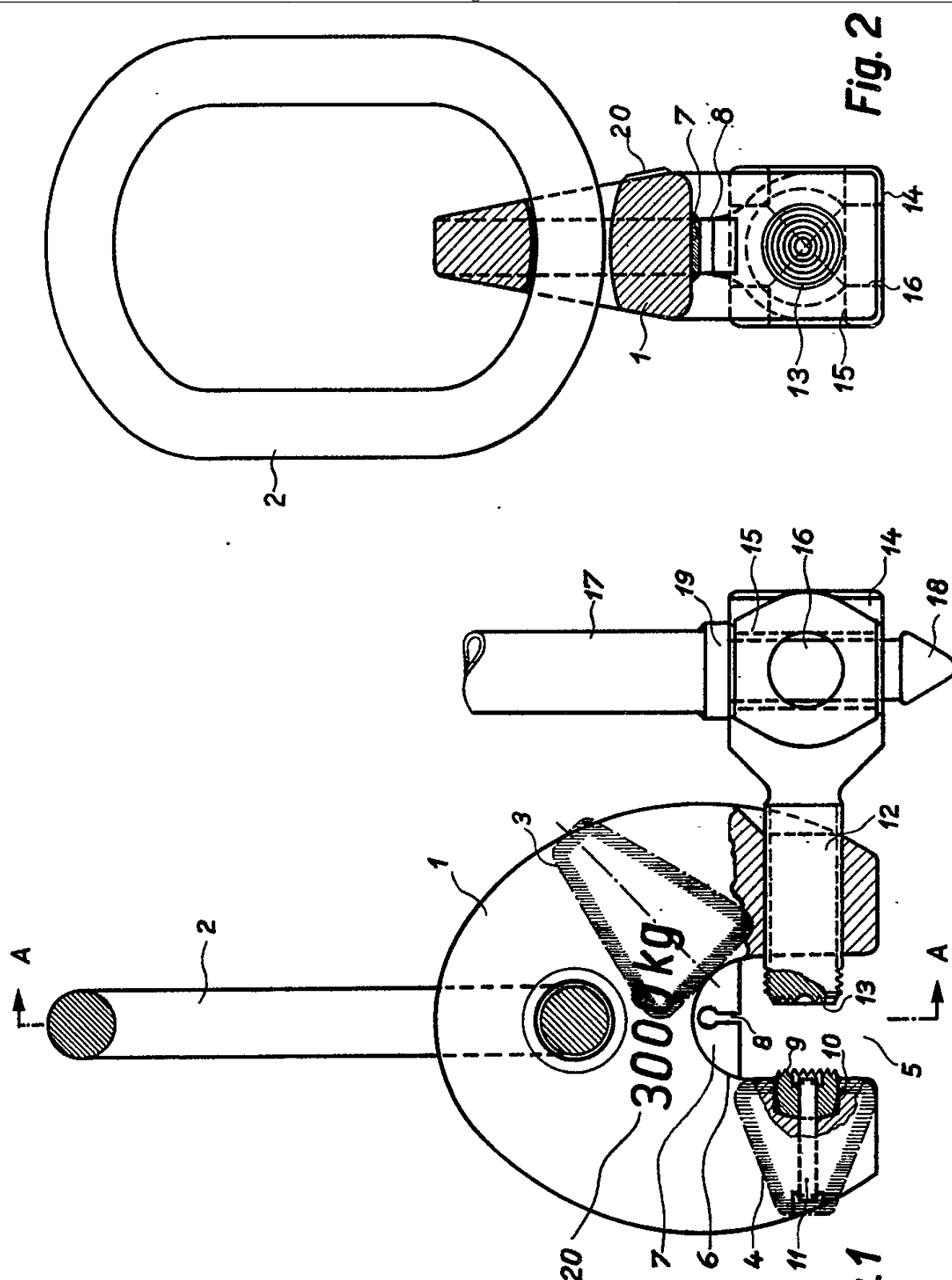
Family 23/34 - FAMPAT - ©Questel

Title

(CH-322410)

Schraubzwinge

Images



Publication numbers with kind code & date

CH322410

A 1957-06-15 CH-322410

Inventors

HANS MEISTER

Latest standardized assignees - inventors removed

SULZER

Family 24/34 - FAMPAT - ©Questel

Title

(GB1108528)

Improvements in or relating to lifting clamps

Images

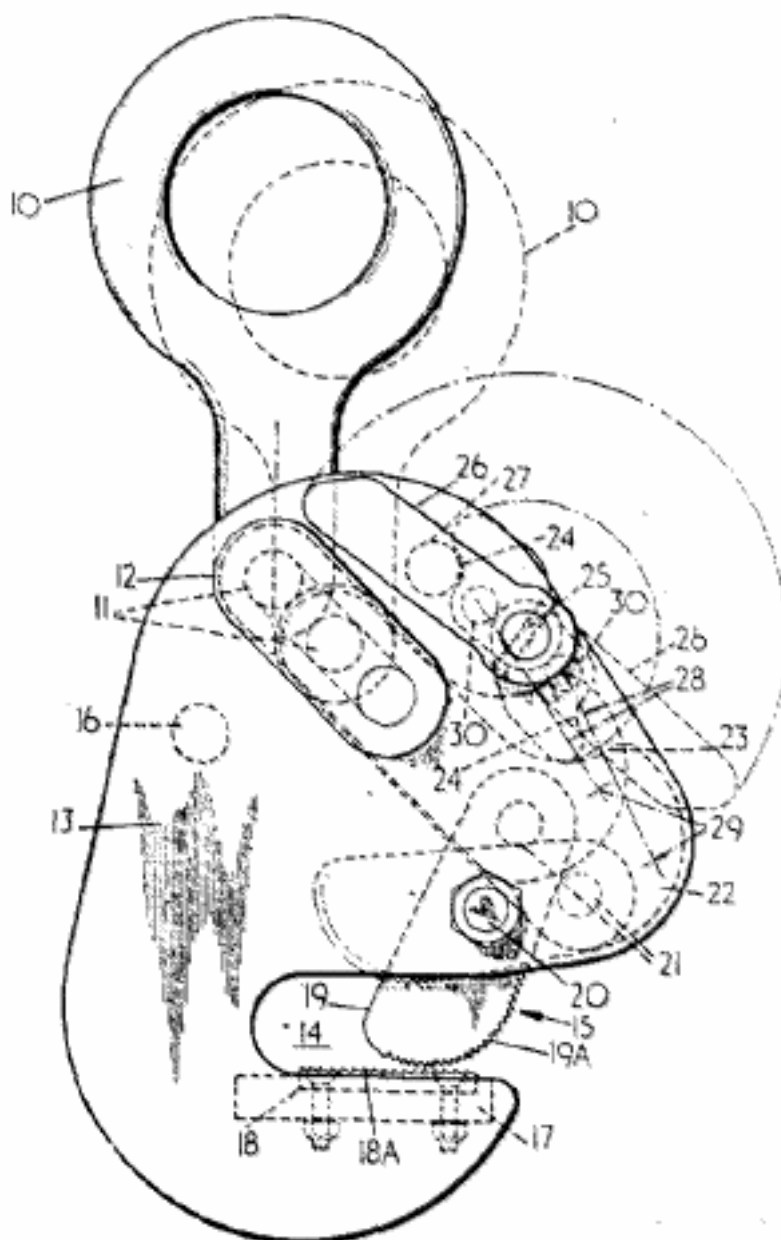


FIG. 1.

Publication numbers with kind code & date

GB1108528

A

1968-04-03

GB1108528



Abstract

(GB1108528)

1,108,528. Lifting-dogs. DEEWELD Ltd. 8 Feb., 1967 [11 March, 1966], No. 10731/66. Addition to 1,071,759. Heading B8H. A lifting-dog has a movable jaw 19 which in addition to being pulled into engagement with a load inserted in a horizontal slot 14 by a lifting ring 10 and a link 22 is urged into engagement with the load by a spring 28 attached to the link at 29. A cam 24, pivoted at 25 between plates 13, and rotated by a handle 26 holds the jaw 19 in the open position by holding the link 22 down against the spring 28. The link 22 is attached to the lifting ring 10 by a pin 11 which slides in inclined slots 12 in the plates 13. The lever 26 may be remotely operated.

Inventors

BURNS LAWRENCE

Latest standardized assignees - inventors removed

DEEWELD

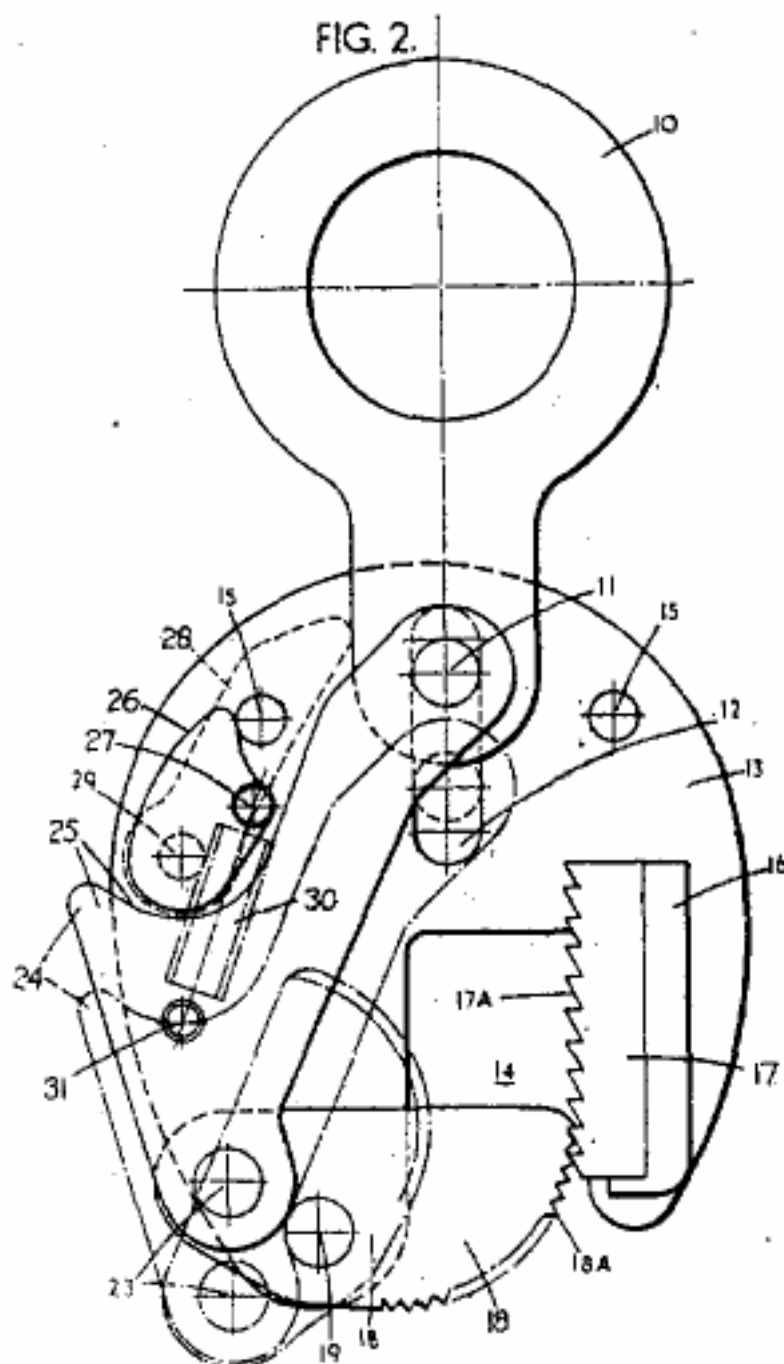
Family 25/34 - FAMPAT - ©Questel

Title

(GB1071759)

Improvements in or relating to lifting clamps

Images



Publication numbers with kind code & date

BE692963	A	1967-07-03	BE-692963
GB1071759	A	1967-06-14	GB1071759

GB1071759 A 1967-06-14 GB1071759



Abstract

(GB1071759)

1,071,759. Lifting-dogs for metal plates. DEEWELD Ltd. Aug. 4, 1965, No. 33307/65. Heading B8H. In a lifting-dog for metal plates which has fixed and movable jaws 17, 18, the movable jaw 18 is urged into engagement with the plate by a spring 30 extending between a point 31 on an operating link 24 and a pivot axis 27 of a cam 26. The latter, which is rotated by a lever 28, locks the movable jaw in an open position by bearing on a cam surface 25 on the link 24. The lever 28 may

be remotely operated by a cable.

Inventors

BURNS LAWRENCE

Latest standardized assignees - inventors removed

DEEWELD

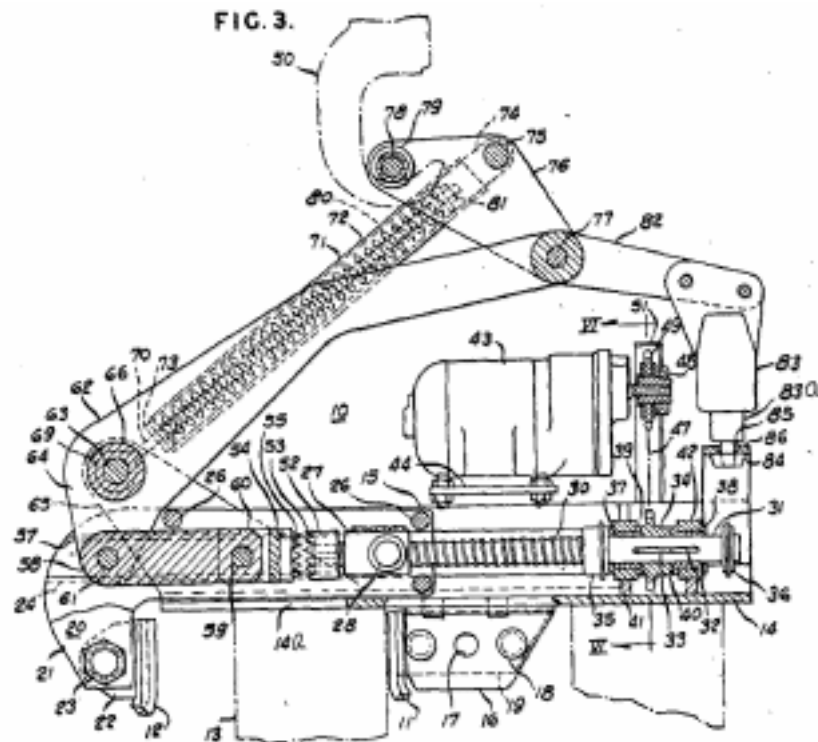
Family 26/34 - FAMPAT - ©Questel

Title

(US3076674)

Tongs

Images



Publication numbers with kind code & date

DE1207579	B	1965-12-23	DE1207579
GB935232	A	1963-08-28	GB-935232
US3076674	A	1963-02-05	US3076674
FR1295742	A	1962-06-08	FR1295742



Abstract

(US3076674)

935,232. Lifting tongs. HEPPENSTALL CO. June 23, 1961 [July 21, 1960], No. 22807/61. Class 78 (4). The jaws 11, 12 of lifting tongs are movable together in two stages, namely an initial load - engaging movement effected by a rotary drive prior to lifting and a further movement effective to grip the load firmly during actual lifting. The illustrated embodiment has one jaw 11 rigidly attached to a horizontal base member 14 and the other jaw 12 carried by a bracket 20 which is slidable along the base member. To engage the jaws with a load such as the coil 13, the electric motor 43 is driven to rotate the screw-threaded rod 30 in such sense that it tends to move to the left. This movement to the left is arrested by the abutment of end collar 36 on the rod with the fixed surface 38 and thereafter a nut 27 on the rod is pulled to the right and takes the bracket 20 with it to move jaw 12 towards the load. When contact is made, a torque-limiting device in the motor drive prevents excessive pressure on the coil before lifting. When crane hook 50 is raised to lift the load, lever 76 swings clockwise about its pivot 77, which it subsequently raises to move the lower end 58 of lever 62 to the right and at the same time cause lever 82 to turn and lift a T-headed bolt 84 from a retaining recess 86, the bolt and recess forming a latch which, except during lifting, maintains the lever mechanism in the position shown. The right-ward movement of lever end 58 engages clutch.

members 53, 55 to prevent further rotation of rod 30 in either direction and at the same time move it axially so that jaw 12 moves further in to grip the coil. When the coil is subsequently deposited, the clutch automatically releases and the latch re-engages and further rotation of the motor this time in the opposite sense, returns the apparatus to its original condition. In one modified form the motor is replaced by a hand wheel and the toothed clutch by a conical friction clutch. In another motor-driven form (Fig. 4, not shown), the lever 62 is duplicated to form two elements of a "lazy-tongs" type linkage, the means for engaging the clutch, releasing the latch and applying the load-lifting gripping pressure all being carried by the elements of the linkage. Specification 897,639 is referred to.

(From GB935232 A)

Inventors

ANDERSON JOHN R

Latest standardized assignees - inventors removed

HEPPENSTALL

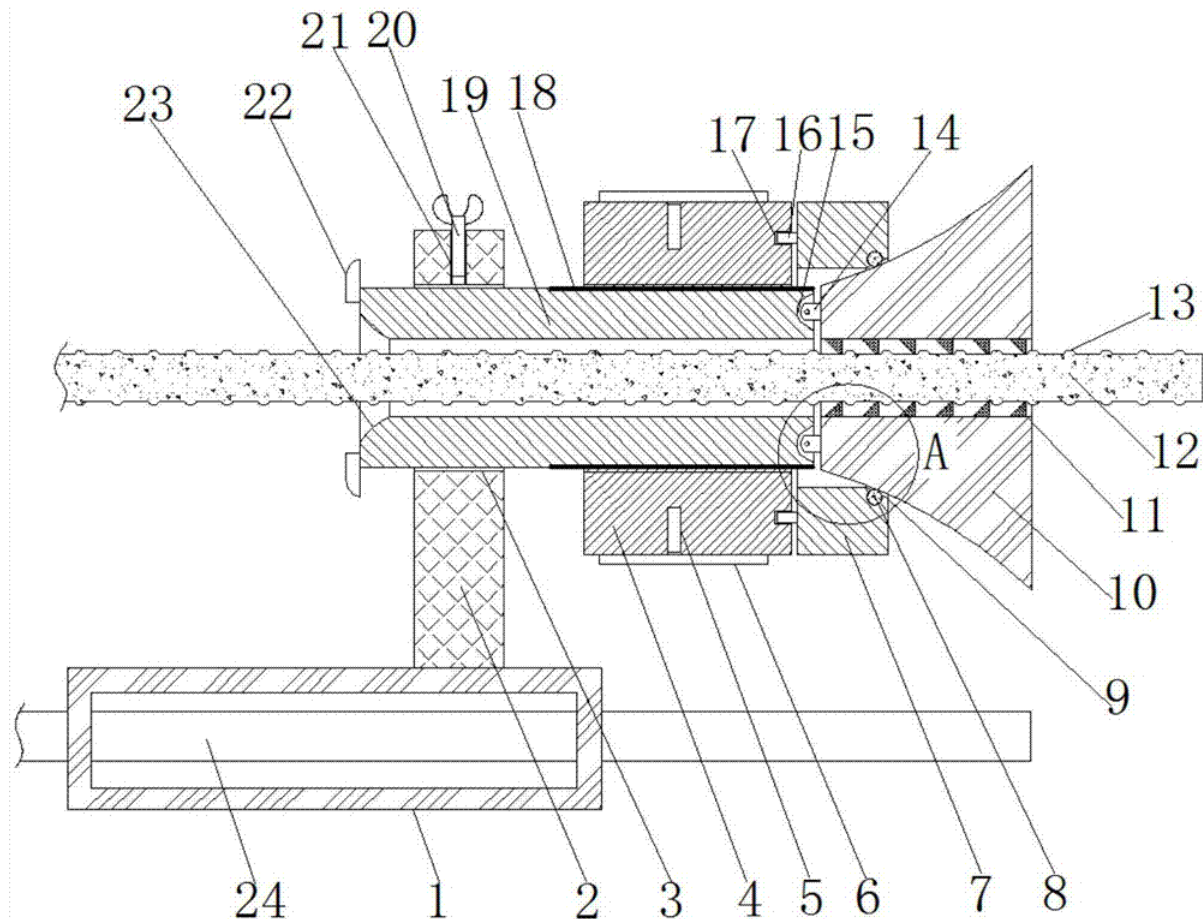
Family 27/34 - FAMPAT - ©Questel

Title

(CN109230999)

Steel-bar lifting device for architectural engineering

Images



Publication numbers with kind code & date

[CN109230999](#)

A 2019-01-18 CN109230999



Abstract

(CN109230999)

The invention belongs to the technical field of steel-bar lifting, and particularly relates to a steel-bar lifting device for architectural engineering, aiming at the problem that steel bars are still easy to fall in spite of repeated bundling in the conventional lifting process. The steel-bar lifting device comprises steel bar bodies, a middle beam and two beam tubes; equidistantly-distributed fixed snap rings are welded with the upper surface of each beam tube, and a round hole is reserved in the middle of each fixed snap ring; clamping devices are inserted into the round holes, and comprise round

tubes, inner threaded tubes and tightening rings; the inner threaded tubes and the tightening rings are screwed to the circumferential outer walls of the round tubes; a self-locking thread is reserved at one end, away from the middle beam, of the circumferential outer wall of each round tube. The steel-bar lifting device has the advantages that two arc-shaped film flaps can tightly **clamp** the steel bar bodies in the middle when gathering towards the middle, and can cooperate with stop teeth to **press** against ribs on the outer walls of the steel bar bodies, and accordingly, the steel bar bodies are prevented from horizontal movement after being stressed.

Inventors

WANG LIANG

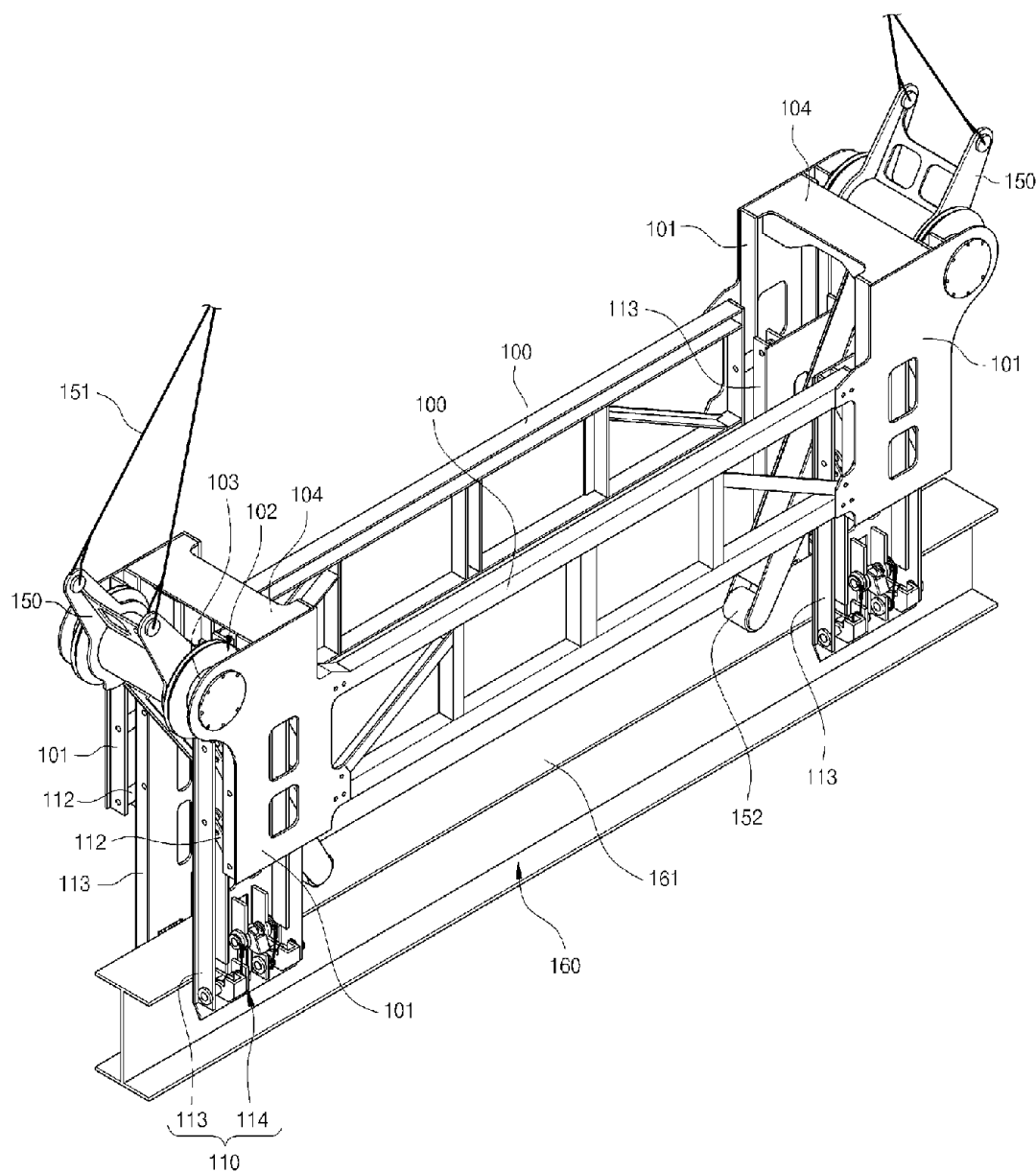
Family 28/34 - FAMPAT - ©Questel

Title

(WO201220881)

Multi-beam lifting device provided with clamping unit using gravity and multi-beam lifting system

Images



Publication numbers with kind code & date

WO2012/020881	A8	2013-10-10	WO201220881
KR101243572	B1	2013-03-20	KR101243572
KR20120014810	A	2012-02-20	KR20120014810



[WO2012/020881](#)

A1 2012-02-16 WO201220881

Abstract

(WO2012/020881)

A multi-beam lifting device provided with clamping units using gravity, comprises: a pair of base frames disposed to be spaced apart from each other and connected to each other; a plurality of clamping units connected to both side end areas of the pair of base frames for supporting an object to be lifted; and at least two hinge rotary bars provided at the pair of base frames which allows for a hinge movement so that the hinge rotary bars control the mutual distance of the clamping units among the plurality of clamping units, which face each other and are apart from each other.

Inventors

LEE GHANG

LEE KANG

PARK SU YEUL

CHO JOON BEOM

HAM SUNG IL

LEE TAE KWAN

Latest standardized assignees - inventors removed

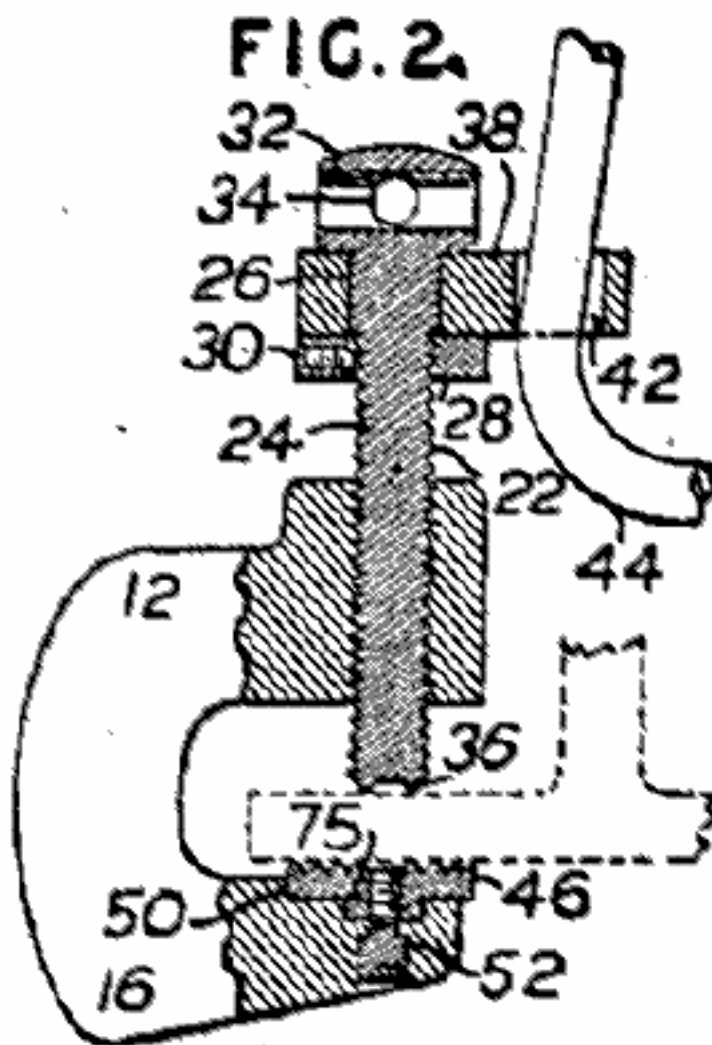
UNIVERSITY YONSEI IACF

Family 29/34 - FAMPAT - ©Questel

Title

(GB-759980)

Load lifting **clamp****Images**



Publication numbers with kind code & date

GB759980

A 1956-10-24 GB-759980



Abstract

(GB759980)

759,980. Screw clamps for lifting articles. REFROE & SONS, Inc., J.C. Sept. 9, 1954 [April 20, 1954], No. 26102/54. Class 78(4). A screw **clamp** for lifting beams and plates is secured to the hoisting hook by means of a swivel 38. As illustrated, the swivel 38 is carried on a plain portion 26 of the screw 24 and is located between a head 32 formed with holes 34 for the reception of a tommybar and a nut 28 provided with a locking screw 30. A shackle 44 for attachment to the lifting hook passes through a hole 42 in the swivel 38. The fixed jaw 46 is rectangular in shape and takes into a corresponding recess 50 in the **clamp** body 12, 16, being further located by a circular projection 75 taking into a corresponding recess. When a screw 52 securing the fixed jaw 46 has been loosened, the jaw may be lifted and turned through a right angle to alter the direction of load-engaging ribs with which it is formed. The screw jaw 22 is formed with a circular loadengaging surface 36.

Latest standardized assignees - inventors removed

RENFROE & SONS J C

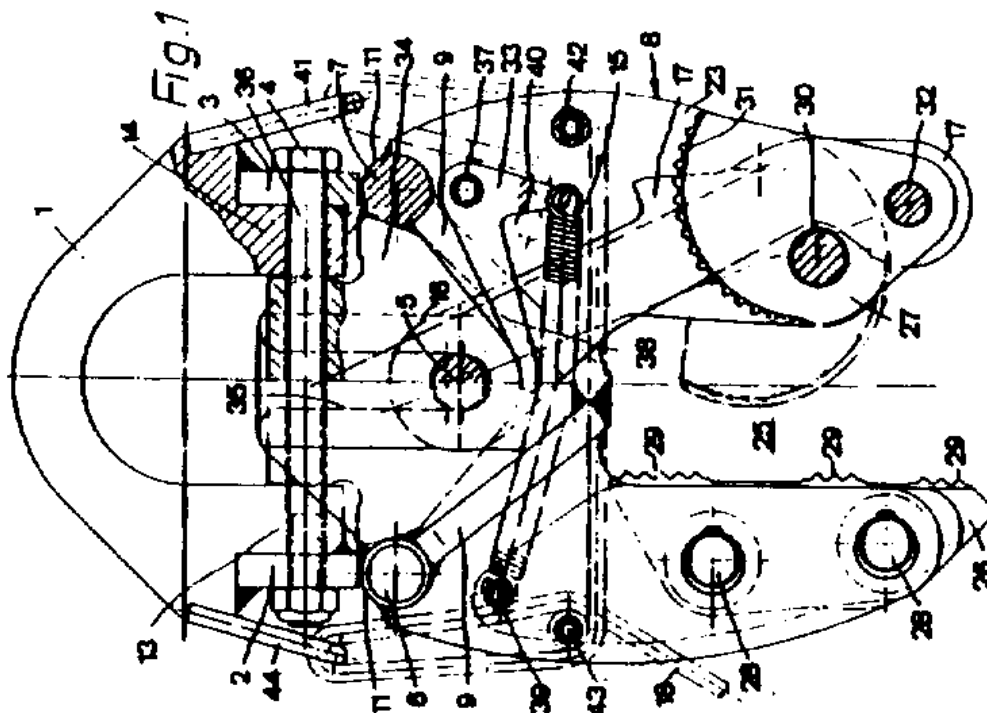
Family 30/34 - FAMPAT - ©Questel

Title

(DE3312457)

Carrying or lifting **clamp**

Images

**Publication numbers with kind code & date**[DE3312457](#)

A1 1984-10-11 DE3312457

**Abstract**

(DE3312457)

The lifting **clamp** has a pulling eye (1) which is cardanically movable by means of articulations (4) and (5) and the intermediate piece (34). In order also to obtain a safe closing force in any inclined elevators, elongated rockers (2) and (3) are provided on the pulling eye (1). The elongated rockers (2) and (3) act on corresponding supporting bodies (6) and (7) on the housing (8).

Inventors

BRAUN HANS DIPL ING

STAUSKE DIETER ING GRAD

Latest standardized assignees - inventors removed

PFEIFER SEIL & HEBETECHNIK

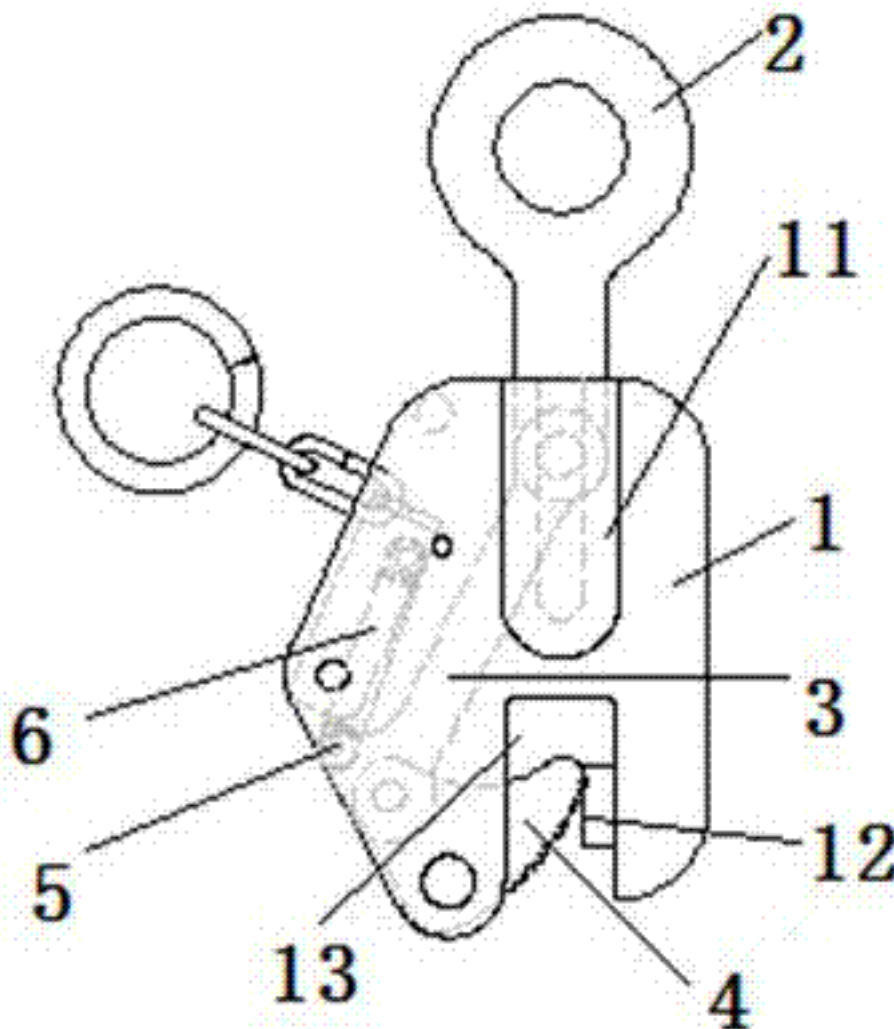
Family 31/34 - FAMPAT - ©Questel

Title

(CN108609488)

Automatic lock catch

Images

**Publication numbers with kind code & date**

CN108609488

A 2018-10-02 CN108609488

**Abstract**

(CN108609488)

The invention relates to an automatic lock catch. The automatic lock catch comprises a base body, wherein a clamping surface which is attached to a lifting plate surface of a to-be-lifted object is arranged on the base body; a clamping crank arm is further hinged to the base body, the clamping crank arm is provided with a clamping part which moves towards the clamping surface in the swinging process so as to **press** the to-be-lifted object on the clamping surface, and the clamping crank arm further comprises a driving part used for enabling the clamping crank arm to rotate relative to the base body under the action of external force; a lifting part is arranged on the base body in a guiding and moving mode, the lifting part is in transmission fit with the driving part so as to drive the clamping crank arm to rotate relative to the base body when the lifting part is lifted and moves relative to the base body, and clamping fit with the clamping surface is realized; and the base body moves relative to the back lifting part due to the dead weight, when the lifting part moves relative to the base body, the clamping crank arm can be driven to rotate relative to the base body, and clamping and matching are realized. According to the automatic lock catch, the clamping surface and the clamping part can stably lift the to-be-lifted object of a plate-shaped structure, the structure of the to-be-lifted object does not need to be damaged, operation is simple, and the automatic lock catch is stable and reliable.

Inventors

SUN MENGLIANG

TIAN LONGKUI

ZHANG HUANPENG

Latest standardized assignees - inventors removed

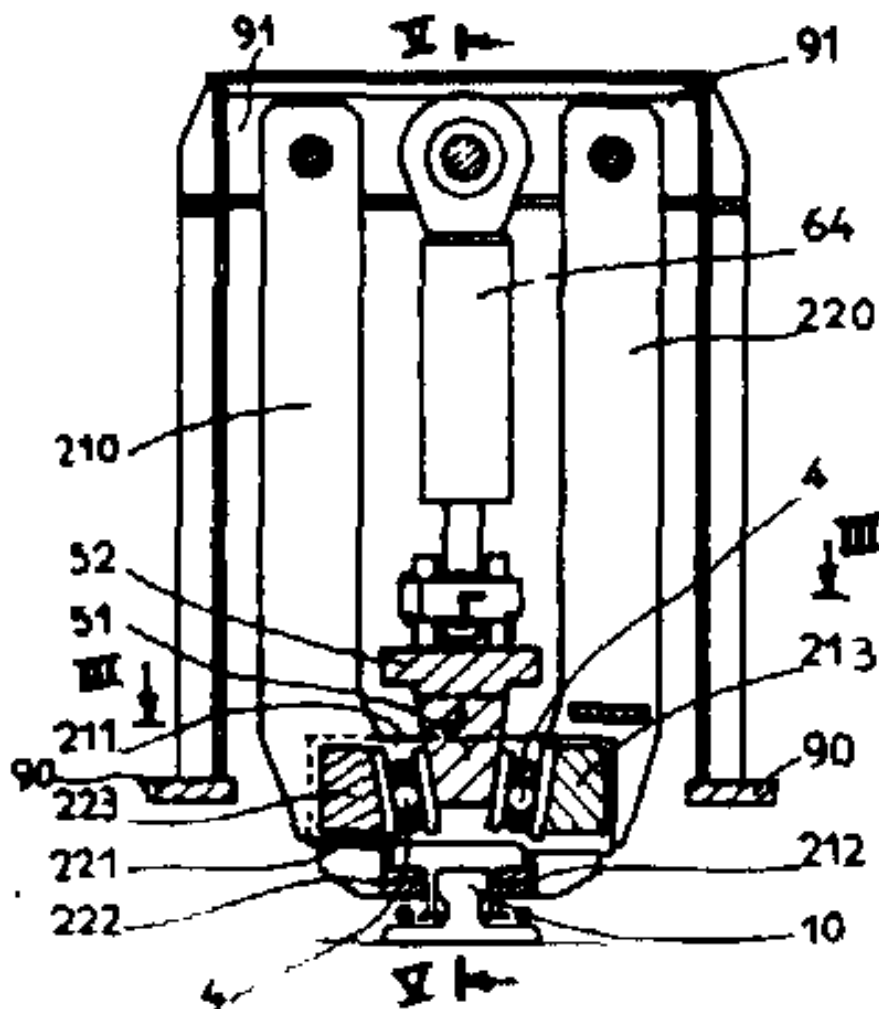
HENAN SENYUAN ELECTRIC

Family 32/34 - FAMPAT - ©Questel

Title

(FR2373705)

Wire grips with taper surfaces between jaw portions - include elastic layers and rollers for pretensioning

Images**Publication numbers with kind code & date**

FR2373705 B2 1980-11-28 FR2373705

FR2373705 A2 1978-07-07 FR2373705

**Abstract**

(FR2373705)

The wire grips of the main patent have two jaws (21) which hold the through wire (1). The jaws are surrounded by a rigid exterior body (5) which has inclined internal surfaces (50). These surfaces are parallel to the surfaces (26) on the outer sides of the jaws. Two plates (260) and (320) made from elastic material are placed between the surfaces (26) and (50) and rollers (4) are located between their parallel faces. The rollers are kept apart by shaped sections (351). Each of the jaws is fitted with an adjusting screw (61) at the outer end, so that the outer body may be moved longitudinally.

Latest standardized assignees - inventors removed

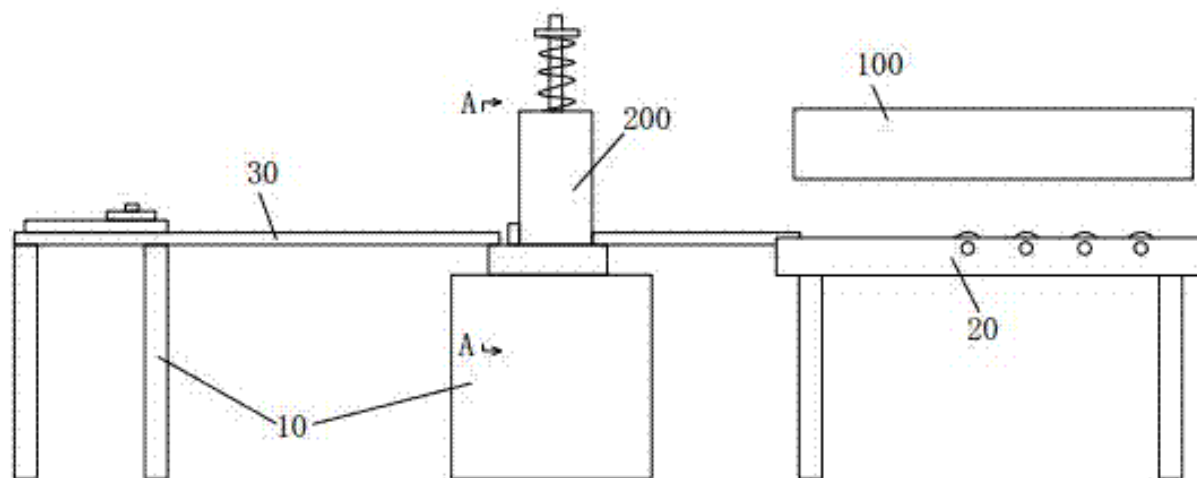
PRADON JACQUES

Family 33/34 - FAMPAT - ©Questel

Title

(CN106984689)

Hoisting and cutting integrated device for sheet steel and method thereof

Images**Publication numbers with kind code & date**

CN106984689	B	2019-01-04	CN106984689B
CN106984689	A	2017-07-28	CN106984689

**Abstract**

(CN106984689)

The invention relates to a hoisting and cutting integrated device for sheet steel and a method thereof. The hoisting and cutting integrated device comprises a rack, wherein a sheet steel feeding mechanism is arranged on the rear side of the rack; a hoisting mechanism for hoisting the sheet steel onto the feeding mechanism is arranged on the side of the feeding mechanism; a positioning mechanism for cutting and measuring the sheet steel is arranged on the front side of the rack; and a cutting mechanism for cutting the sheet steel off is arranged in the middle of the rack. The hoisting and cutting integrated device for the sheet steel has a compact structure, and is conveniently used for realizing charging and cutting integration of the sheet steel; meanwhile, the method is simple and convenient.

Inventors

WANG QIHANG

WU GAOSHENG

Latest standardized assignees - inventors removed

ZHANGZHOU LIYANG MACHINERY EQUIPMENT

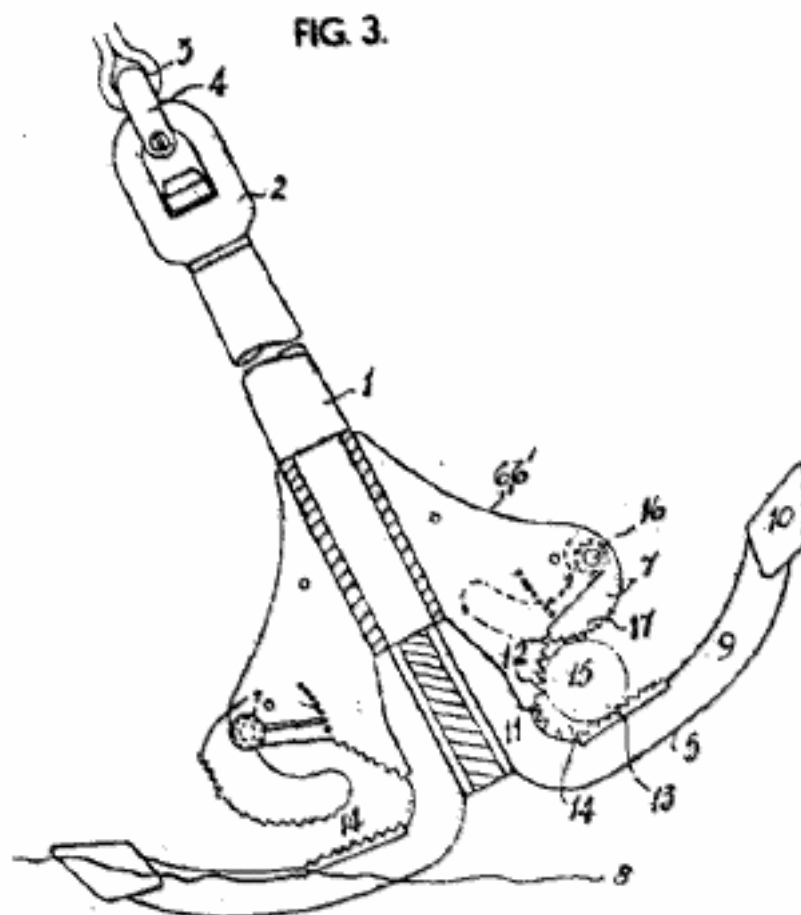
Family 34/34 - FAMPAT - ©Questel

Title

(GB1087341)

Improvements in or relating to grapnels

Images

**Publication numbers with kind code & date**[GB1087341](#)

A 1967-10-18 GB1087341

**Abstract**

(GB1087341)

1,087,341. Grapnels. ASSOCIATED ELECCAL INDUSTRIES Ltd. Jan. 12, 1965 [Feb. 20, 1964], No. 7125/64. Heading B8H. [Also in Division B7] A submarine cable 15 is clamped against a fixed jaw 13 by a pivoted segment 7 which is biased towards the fixed jaw by gravity and, if required, a spring. Any tendency of the cable to move out of engagement with the jaws causes the grip to increase. More than two sets of jaws may be provided.

Inventors

HOWICK-BAKER EDWARD JOHN

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ASSOCIATED ELECTRICAL INDUSTRIES