

J. KAROLLE & G. CSVERCSKO.  
 QUICK ACTION VISE.  
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1,229,753.

Patented June 12, 1917.

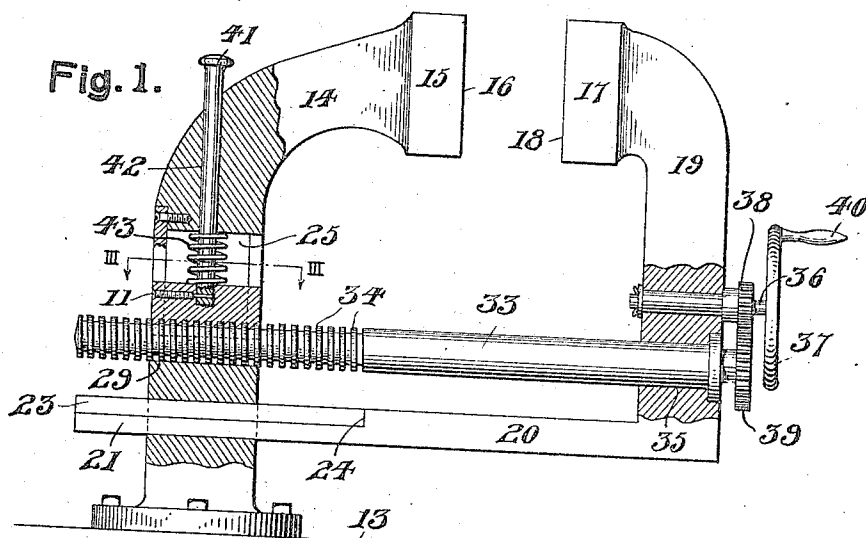


Fig. 2.

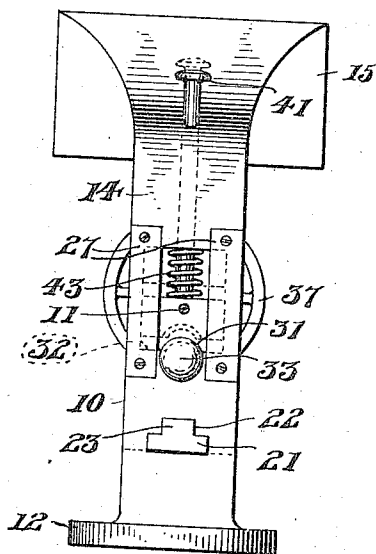
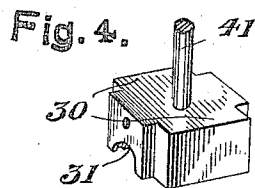
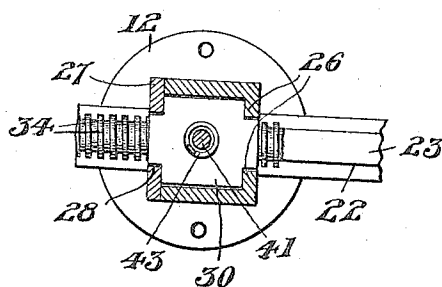


Fig. 3.



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JOHN KAROLLE AND GEORGE CSVERCSKO, OF FLINT, MICHIGAN.

## QUICK-ACTION VISE.

1,229,753.

Specification of Letters Patent. Patented June 12, 1917.

Application filed September 28, 1916. Serial No. 122,636.

*To all whom it may concern:*

Be it known that we, JOHN KAROLLE and GEORGE CSVERCSKO, subjects of the King of Hungary, residing at Flint, in the county of Genesee and State of Michigan, have invented certain new and useful Improvements in Quick-Action Vises, of which the following is a specification.

This invention relates to new and useful improvements in quick-action vise.

The primary object of the invention is to provide a vise in which the work to be operated upon may be quickly grasped and released at will, means being provided for tightening the jaws of the vise upon the work.

A further object of the device is the provision of a holding vise that possesses great strength and is easily manufactured, the same having a shifting means for a movable engaging portion of the device while a disconnecting means is provided therefor permitting a free shifting movement of the engaging member.

With these general objects in view and others that will appear as the nature of the invention is better understood, the same consists in the novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawing and then claimed.

In the drawing forming a part of this application and in which like designating characters refer to corresponding parts throughout the several views:—

Figure 1 is an elevational view of the device partially broken away.

Fig. 2 is an end view thereof.

Fig. 3 is a sectional view taken upon line III—III of Fig. 1, and

Fig. 4 is a perspective view of the releasing block with the operating rod thereof broken away.

The present device broadly consists of an upright or post 10 rectangular in cross section having a circular mounting base 12 whereby the device is fixedly secured to a bench or support as indicated at 13. An upper curved end or elbow 14 is integrally provided on the post 10 flaring into a rectangular jaw 15 having a vertically arranged work-engaging face 16, the said jaw being hereinafter referred to as the fixed jaw. A further similar jaw 17 referred to as the movable jaw is arranged with its face 18 po-

sitioned opposite the jaw face 16 adapted for cooperating therewith in engaging the work.

An arm 19 serves as a mount for the jaw 17, a supporting bar 20 angularly projecting from the lower end of the arm 19 being provided with its free end 21 slidably positioned through a perforation 22 in the said post 10. The bar portion 21 has the opposite sides thereof cut away as at 23 while the perforation 22 is complementally formed with respect to the said bar end permitting the free sliding movement of the bar therethrough.

The post 10 is provided with a rectangular chamber 25 therein above the perforation 22, a slot 26 being formed in the inner face of the post communicating with the said chamber while cover plates 27 are arranged at the rear face of the post 10 providing a slot 28 therebetween of the same dimensions as the slot 26.

A somewhat circular groove 29, having a smooth wall is arranged in the bottom of the chamber 25 while an engaging block 30 is vertically shiftably positioned within the chamber 25 having a semi-circular screw-threaded groove 31 in its lower face normally arranged adjacent the bottom groove 29 forming a circular opening when the block is seated upon the bottom 32 of the chamber 25.

An operating shaft 33 for the movable jaw 17 is provided having a threaded portion 34 operatively arranged within the grooves 29 and 31, the opposite ends of the shaft being journaled through a perforation 35 in the arm 19. A stub shaft 36 is carried by the said arm having an operating wheel 37 mounted thereon while a pinion 38 upon the stub shaft 36 is in constant mesh with a gear 39 upon the shaft 33 whereby the said shaft is revolved in either direction desired by turning the wheel 37 through the agency of the handle 40 with which the said wheel is provided.

A release rod 41 for the block 30 is vertically arranged slidably through an opening 42 in the post 10 and has its lower end centrally secured to the block 30 by means of a screw 11, an expansion spring 43 being arranged within the chamber 25 surrounding the rod 41 for normally maintaining the block 30 seated upon the chamber bottom 32 with the teeth of the block groove 31 in mesh with the threaded portion 34 of the operating shaft 33.

With the device assembled as illustrated in Fig. 1 of the drawing, it will be understood that by turning the wheel 37 for revolving the shaft 33, the jaw 17 will be shifted toward or away from the fixed jaw 15, as may be found desirable, the bar 20 sliding through the post 10 as the threaded portion 34 moves through the post in either direction. When desired to quickly adjust the movable jaw 17, the rod 41 is grasped and forcibly elevated thereby releasing the threaded portion 31 of the block from the threaded portion 34 so that the arm 19 may be readily shifted in either direction. Upon releasing the rod 41 the spring 43 again seats the engaging block 30 upon the threaded portion 34 of the shaft for allowing the jaw 17 to be moved with considerable power by the wheel 33 through the agency of the pinion 38 and gear 39 which are of different diameters bearing suitable gear ratios with respect to each other. The device is arranged whereby the jaws may be engaged upon the work with great power while the distance between the jaws may be instantly changed by manipulating the releasing means described. When found necessary, a heavier spring may be employed to hold the block 30 positively seated on the screw 34 which construction might necessitate the use of a convenient pry to elevate the rod 41 and block against the tension of the spring readily to slide the shaft 33.

What we claim as new is:—

A vise of the type described including a fixed post having a fixed jaw-forming upper end, said post having a chamber with a smooth-faced groove in the bottom thereof, said post also having a transverse perforation therethrough below said chamber, a bar slidable in said perforation and having at one end an arm having a jaw-forming upper end positioned opposite the fixed jaw, a shaft carried by said arm having a threaded portion received by said smooth-faced groove, actuating means for said shaft controlled from said jaw-forming arm, a block of Maltese-cross-like formation having a lower thread-faced groove for engaging the threaded portion of said shaft, said block-member being positioned within said chamber, with its resultant reduced forward and rear end terminals received and guided in vertical slots in the corresponding portions or walls of said chamber, said shaft-engaging block having a releasing rod-member extending upwardly through said post and equipped with a resilient member delivering its pressure upon said shaft-engaging block for the forcible retention of the latter in engagement with said shaft.

In testimony whereof we affix our signatures.

JOHN KAROLLE,  
GEORGE CSVERCSKO.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."