E. K. F. SEIDEL.

WOODWORKING CLAMP.

APPLICATION FILED MAY 13, 1913.

1,075,384.

Patented Oct. 14, 1913.

2 SHEETS—SHEET 1.

Fig. 1.

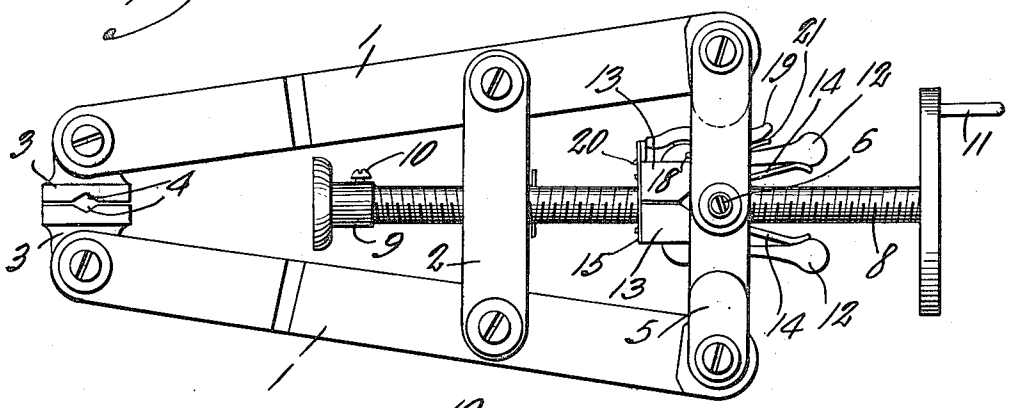


Fig. 2.

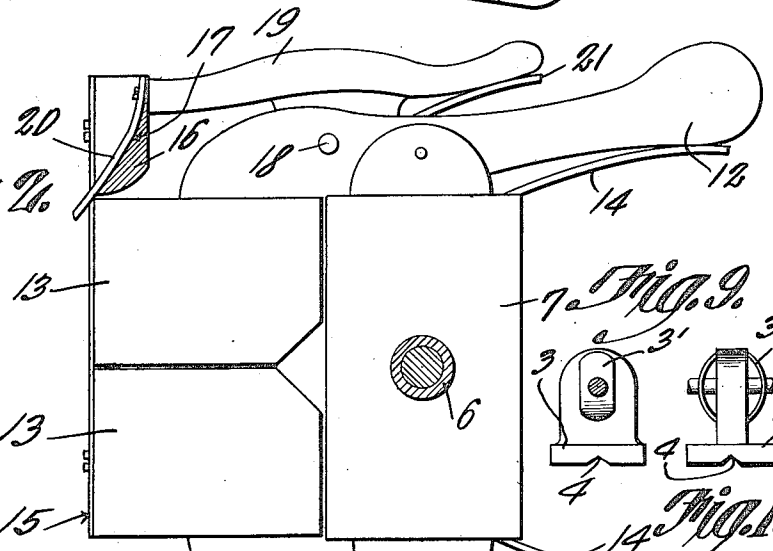


Fig. 9.

Fig. 10.

Fig. 8.

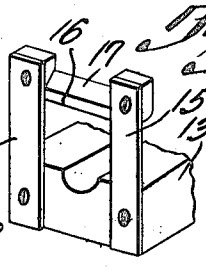


Fig. 7.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

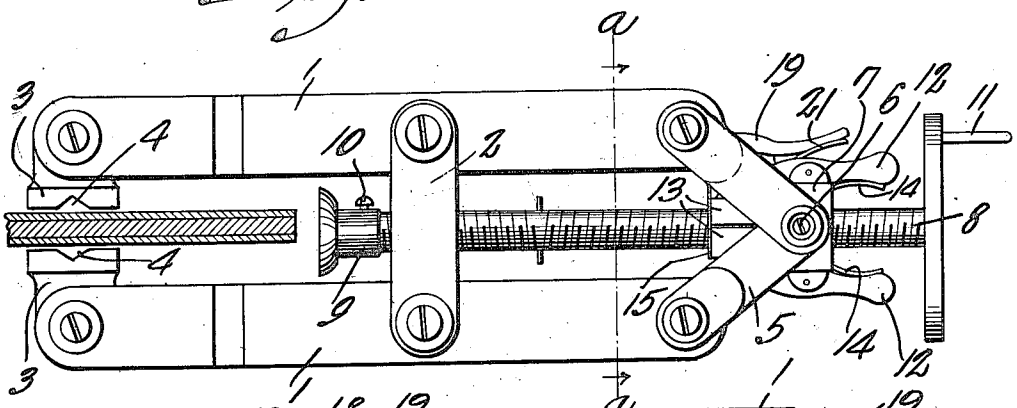


Fig. 6.

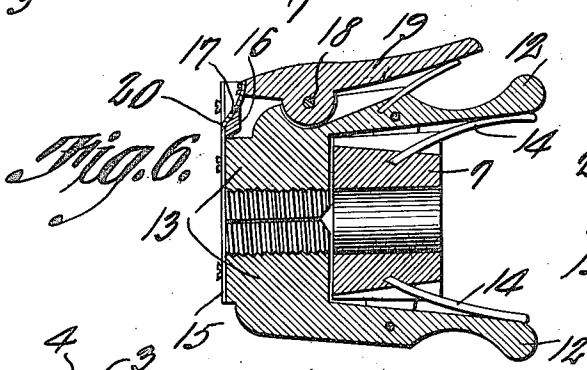
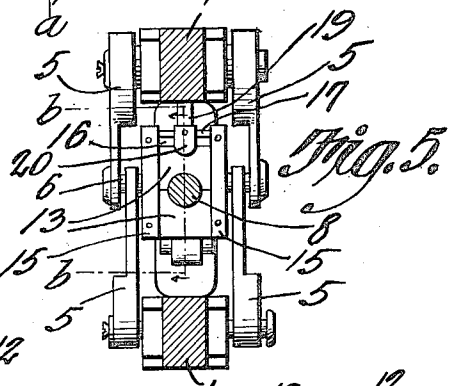


Fig. 5.



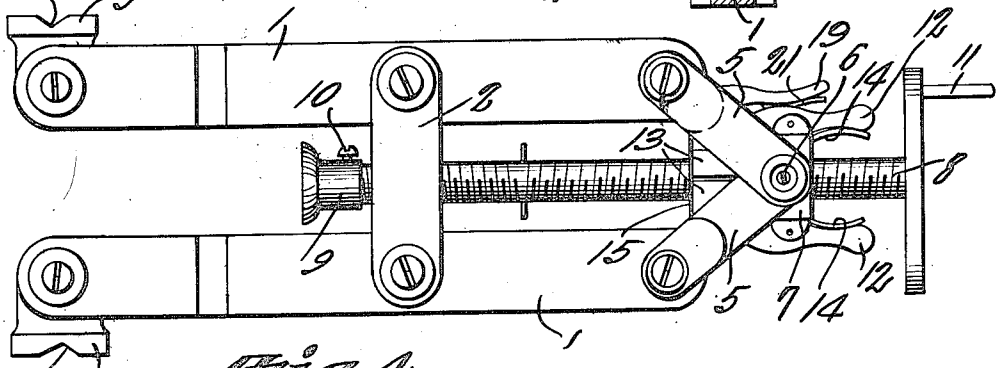


Fig. 4.

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WOODWORKING-CLAMP.

1,075,384. Specification of Letters Patent. Patented Oct. 14, 1913.

Application filed May 13, 1913. Serial No. 767,424.

To all whom it may concern:

Be it known that I, EMIL K. F. SEIDEL, a citizen of the United States, residing at El Paso, in the county of El Paso and State of Texas, have invented a new and useful Woodworking-Clamp, of which the following is a specification.

My invention relates to new and useful improvements in a clamp.

The object of the invention is the provision of a clamp which can be adjusted for use with various kinds and shapes of works.

A further object is the provision of means whereby the clamp can be quickly adjusted to and released from the work.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawing: Figure 1 is a side elevation of the clamp. Fig. 2 is a side elevation partly in section of the adjusting block. Figs. 3 and 4 are views in side elevation showing different positions of the clamp. Fig. 5 is a section on line *a*—*a* of Fig. 3. Fig. 6 is a section on line *b*—*b* of Fig. 5. Fig. 7 is a detail perspective view of the locking lever. Fig. 8 is a detail perspective view of the locking bar. Figs. 9 and 10 are details of the jaws.

In the drawings, the numeral 1 indicates two arms which are connected intermediate their ends by means of the link 2. Pivoted on one end of each of the arms are the jaws 3 each of which is provided with the recess 4. Spring plates 3′ are held on each side of the jaw shank as shown in Figs. 9 and 10 and engage the arms 1 for holding the jaws in adjusted position. The opposite ends of the arms are connected together by the links 5 which are pivoted together by means of the pin 6. This pin 6 also passes through and carries a block 7 which has a central bore through which the threaded shaft 8 passes. This central bore is of such a diameter as to allow the shaft to pass freely therethrough. It will be noted that the ends of this shaft are oppositely threaded, one end passing through the block 7 as above described and the other end passing through a threaded opening in the link 2. On one end of the threaded shaft is the swivel head 9 which is held in position by the screw 10 and on the opposite end is the handle 11 for rotating the shaft.

Pivotally connected to the block 7 are the levers 12 to one end of which are connected the blocks 13. These blocks are each provided with a semi-circular threaded bore so that when the faces of the blocks are brought together they will form a complete circular threaded bore. These blocks are adapted to engage the threaded shaft and are held against the shaft by means of the springs 14 which engage the ends of the levers 12. Secured to one of these blocks 13 are the metal spring arms 15 which are connected together by means of the cross bar 16. As clearly shown in Fig. 2 the upper surface of this cross bar 16 is beveled as shown at 17. Pivotally connected to one of the levers 12 by means of the pivot pin 18 is a lever 19 to one end of which is secured a metal plate 20 which is adapted to engage the cross bar 15 as shown clearly in Fig. 2. The lever 19 is held in position by means of the spring 21.

Having fully described in detail the several parts of my invention it is thought that the construction, operation and use will be clearly understood. This clamp may be used for clamping work of different characters by simply adjusting the jaws 3 and as illustrating the different positions of the jaws I have shown different illustrations or different positions of the jaws in Figs. 1, 3 and 4. In some kinds of work it will be necessary to engage the work in the recesses 4 formed in the jaws 3. The swivel heads 9 may also be brought into engagement with the work.

When it is desired to use the clamp the same can be easily adjusted by opening the blocks 13 so as to release them from the

threaded shaft 8 and by sliding the block 7 on the shaft the link 5 may either be straightened as shown in Fig. 1 or broken as shown in Figs. 3 and 4 to bring the jaws in proper position. After the jaws are brought in proper position the blocks are allowed to engage the threads and the two sections will be securely held together by means of the cross bar 16 secured to the springs 15. A more firm clamp can then be secured on the work by rotating the shaft 8 by means of the handle 11. By having the ends of the shaft oppositely threaded the shaft will not only operate the link but will also feed the swivel head toward the work.

The plate 20 carried by the lever 19 will prevent the accidental displacement of the bar 16 and as will be seen it is necessary to release the plate 20 by pressing on the lever 19 before the sections can be separated. The bevel 17 on the upper surface of the bar 16 allows the plate 20 to engage the same as soon as the levers are released. It will be seen that by pressing down on the lever 12 to which the lever 19 is pivoted with the thumb and engaging the end of the lever 19 by the end of the thumb the levers can be simultaneously released. The other lever 12 is engaged by the finger in order that the sections can be drawn apart.

Having fully described the invention what I claim as new and desire to secure by Letters Patent is:—

1. A clamp comprising two arms, a link connecting said arms intermediate their ends, jaws on one end of the arms, a pair of links connecting the opposite ends of the arms, a threaded shaft operating through the intermediate connecting link, an internally threaded block operating on the shaft and connected to the pair of links, means for releasing the block from the shaft, and means for rotating the shaft.

2. A clamp comprising two arms, a link connecting said arms intermediate their ends, jaws on one end of the arms, a pair of links connecting the opposite ends of the arms, a threaded shaft operating through the intermediate connecting link, a block slidably mounted on the shaft, levers pivoted to the block, and threaded blocks secured to the levers for engaging the shaft.

3. A clamp comprising two arms, a link connecting said arms intermediate their ends, jaws on one end of the arms, a pair of links connecting the opposite ends of the arms, a threaded shaft operating through the intermediate connecting link, a block slidably mounted on the shaft, levers pivoted to the block, threaded blocks secured to the levers and engaging the shaft, and means for locking the threaded blocks together.

4. A clamp comprising two arms, a link connecting said arms intermediate their ends, jaws on one end of the arms, a pair of links connecting the opposite ends of the arms, a threaded shaft operating through the intermediate connecting link, a block slidably mounted on the shaft, levers pivoted to the block, threaded blocks secured to the levers and engaging the shaft, and a spring catch carried by one of the threaded blocks and engaging the other of the threaded blocks.

5. A clamp comprising two arms, a link connecting said arms intermediate their ends, jaws on one end of the arms, a pair of links connecting the opposite ends of the arms, a threaded shaft operating through the intermediate connecting links, a block slidably mounted on the shaft, levers pivoted to the block, threaded blocks secured to the levers and engaging the shaft, a spring catch carried by one of the threaded blocks and engaging the other threaded block, and a pivoted lever engaging the free end of the catch.

6. A clamp comprising two arms, a link connecting the arms intermediate their ends, a pair of links connecting the arms at one end, a threaded shaft operating through the intermediate link, a sectional block secured to the pair of links, and engaging the shaft, and means for opening the sections for releasing the block.

7. A clamp comprising two arms, a link connecting the arms intermediate their ends, a pair of links connecting the arms at one end, a threaded shaft operating through the intermediate link, a sectional block secured to the pair of links and engaging the shaft, a catch for holding the sections together, and means for simultaneously releasing the catch and opening the sections.

8. A clamp comprising two arms, a link connecting the arms intermediate their ends, a pair of links connecting the arms at one end, a threaded shaft operating through the intermediate link, a sectional block secured to the pair of links and engaging the shaft, a spring catch carried by one section and engaging the other, a lock for said catch, and means for simultaneously releasing the lock and opening the sections.

9. A clamp comprising two arms, a link connecting the arms intermediate their ends, a pair of links connecting the arms at one end, a threaded shaft operating through the intermediate link, a sectional block secured to the pair of links and engaging the shaft, a spring catch carried by one section and engaging the other, a pivoted lever engaging the catch, and means for opening the sections.

10. A clamp comprising two arms, a link connecting the arms intermediate their ends, a pair of links connecting the arms at one

end, a threaded shaft operating through the intermediate link, a sectional block secured to the pair of links and engaging the shaft, a spring catch carried by one section and engaging the other, the free end of the catch being beveled, and a pivoted lever engaging the bevel of the catch.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

EMIL K. F. SEIDEL.

Witnesses:
WM. MOELLER,
R. R. GIBSON.