W. G. STROZIER.

WOOD CLAMP.

APPLICATION FILED AUG. 22, 1914.

1,141,365. Patented June 1, 1915.

Fig. 1.

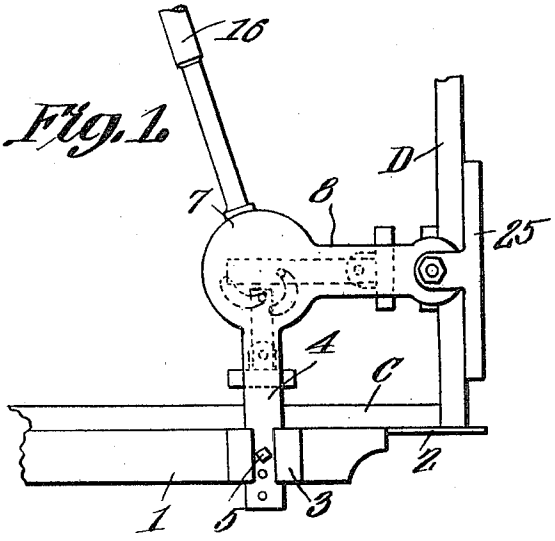


Fig. 4.

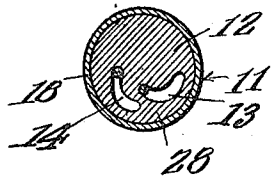


Fig. 2.

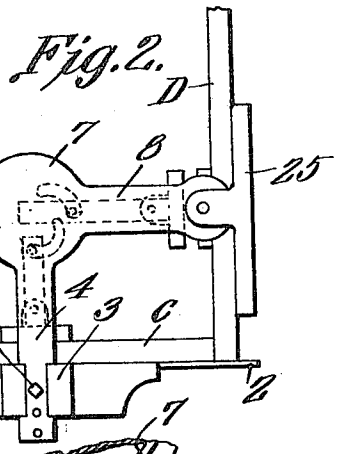


Fig. 3.

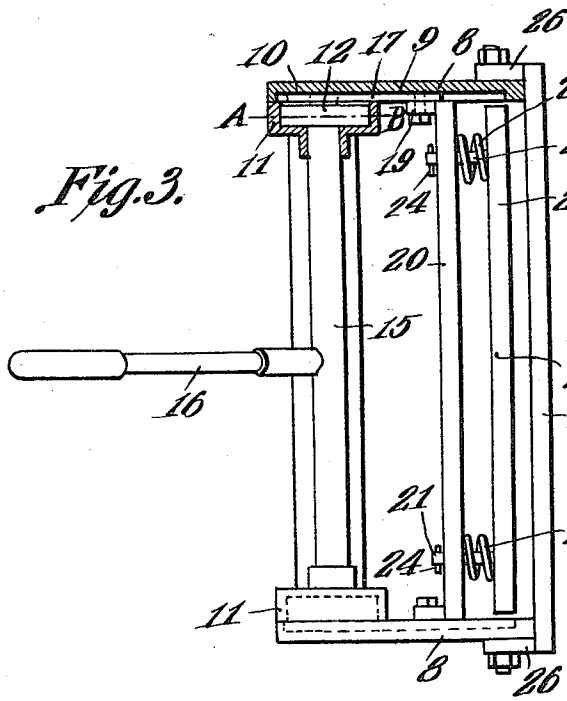
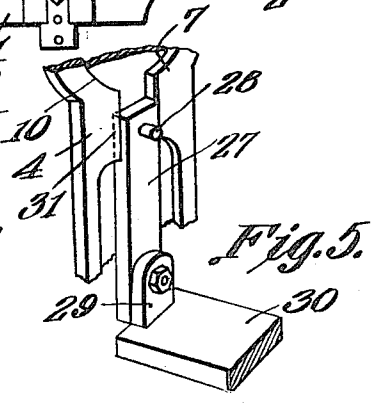


Fig. 5.



Witnesses

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WEBSTER G. STROZIER, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE STROZIER-SINCLAIR MFG. CO., INC., OF WASHINGTON, DISTRICT OF COLUMBIA.

WOOD-CLAMP.

1,141,365. Specification of Letters Patent. Patented June 1, 1915.

Application filed August 22, 1914. Serial No. 858,101.

To all whom it may concern:

Be it known that I, WEBSTER G. STROZIER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented a new and useful Wood-Clamp, of which the following is a specification.

This invention relates to clamps especially designed for use in wood working, one of the objects of the invention being to provide a clamp designed to hold together parts of a frame, box or the like whereby the said parts will be held fixed relative to each other while being dressed or otherwise worked.

A further object is to provide a structure of this character which can be caused to grip two different frame members or the like at one operation.

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 accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a side elevation of the clamp constructed in accordance with the present invention, the same being shown in the position assumed thereby prior to engaging the frame members set up adjacent thereto. Fig. 2 is a view similar to Fig. 1 and showing the clamp in engagement with the frame members. Fig. 3 is a plan view of the clamp, one of the sides thereof being shown in section. Fig. 4 is a section on line A—B Fig. 3. Fig. 5 is a perspective view of one end of one of the clamping jaws and its links.

Referring to the figures by characters of reference 1 designates a table having suitable supporting means 2 extending to one end thereof and secured to each side of the table are guide plates 3 adjustably engaged by standards 4. These standards may be held in adjusted positions by means of bolts 5 each adapted to extend through one of a series of apertures formed in each standard 4.

Formed on or secured to the upper end of each standard 4 is an enlargement 7 having an arm 8 extending at right angles from the standard 4. This arm 8 is provided with a longitudinal channel 9 in its inner face communicating with a recess 10 formed in the inner face of the enlargement 7. A recessed cap 11 is adapted to be secured upon the inner side of each enlargement 7 and mounted for rotation within each cap is a disk 12 provided with eccentrically disposed arcuate slots 13 and 14. These disks 12 are secured to the ends of the shaft 15 and a lever 16 extends radially from an intermediate portion of the shaft and constitutes a handle whereby said shaft can be rotated readily.

Within each channel 9 is slidably mounted a link 17 and this link is provided at one end with a pin 18 projecting into one of the slots 14. The upper end of each link is bolted or otherwise secured to an ear 19 extending from a backing plate 20. Pins 21 are slidably mounted in this backing plate and extend rearwardly from a jaw 22, there being springs 23 interposed between the jaw and the backing plate and mounted on the pins 21. Withdrawal of the pins 21 from the backing plate may be prevented in any suitable manner, as by means of transverse retaining pins 24. A holding plate 25 extends across the ends of the arms 8 and is provided with ears 26 which lock and are secured to said arms. This holding plate is disposed substantially parallel with the standards 4 and at right angles to the arms 8.

Links 27 extend downwardly from the enlargement 7 and have pins 28 which project into the slots 13. The lower ends of the links 27 are attached to ears 29 extending upwardly from an elongated strip 30 constituting a jaw. Each of the links 27 is guided within a short channel 31 formed in the inner side of the adjacent standard 4, as shown particularly in Fig. 5.

It is to be understood that when the clamp herein described is to be used for the purpose of holding two frame members together at right angles to each other, the

standards 4 are adjusted upon the table 1 until they extend desired distances above the table. The two pieces C and D to be clamped are then placed in position, the piece D being placed on end upon the supporting extension 2 and against the plate 25 while the piece C is placed upon the top of the table and against the piece D. With the parts thus assembled the handle or lever 16 is swung to the left as shown in Fig. 2, thus causing the walls of the eccentric slots 13 and 14 to push the pins 18 and 28 outwardly. Thus the links 17 will be shifted longitudinally and cause the backing plate 20 to push against the springs 23, which, in turn, will clamp the jaw 22 against the piece D which will be held securely between said jaw 22 and the plate 25. At the same time the links 27 will be shifted downwardly so as to cause the jaw 30 to clamp the piece C upon the table. With the parts thus held they can be subjected to the action of any suitable cutting tools.

As soon as the handle 16 is swung back to its initial position, the clamping members will be withdrawn from engagement with the pieces C and D, and said pieces can then be removed readily.

What is claimed is:—

1. The combination with adjustable standards, arms extending therefrom, and a holding plate connecting the arms, of a shaft journaled upon the standards, means for rotating the shaft, jaws guided by the standards and arms respectively, and coöperating means upon the shaft and jaws for simultaneously shifting said jaws along diverging lines.

2. The combination with adjustable standards, arms extending therefrom, and a holding plate connecting the arms, of a shaft journaled upon the standards, means for rotating the shaft, jaws guided by the standards and arms respectively, and coöperating means upon the shaft and jaws for simultaneously shifting said jaws along diverging lines, and yielding means for backing one of the jaws.

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

WEBSTER G. STROZIER.

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