Nov. 13, 1923. 1,473,790

H. E. KWAPIL

TATTING SHUTTLE

Filed Dec. 23, 1922

Fig. 1.

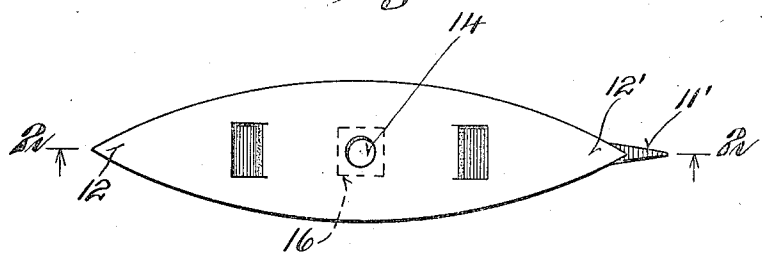


Fig. 2.

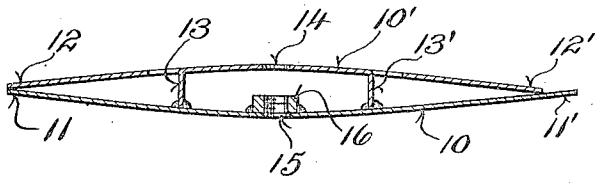
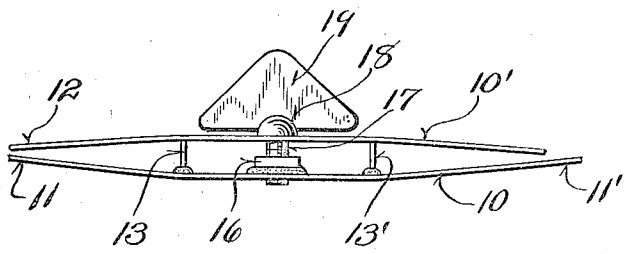


Fig. 3.



Witness
T. P. Britt

Inventor
Hallet E. Kwapil

By
Attorneys

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UNITED STATES PATENT OFFICE.

HALLET E. KWAPIL, OF RACINE, WISCONSIN.

TATTING SHUTTLE.

Application filed December 23, 1922. Serial No. 608,641.

To all whom it may concern:

Be it known that I, HALLET E. KWAPIL, a citizen of the United States, and resident of Racine, in the county of Racine and State of Wisconsin, have invented certain new and useful Improvements in Tatting Shuttles; and I do hereby declare that the following is a full, clear, and exact description thereof.

This invention comprises a pair of arcuate plates, a pair of spacers extending from one plate to the other, and secured thereto, and a key adapted to extend thru an opening in one of the plates, and threaded in a nut on the other plate for bowing the plates between the spacers, thus separating the plates at both ends.

Hitherto, difficulty has been experienced in charging shuttles by reason of the contact of the two plates of the shuttle at both ends. The invention obviates this difficulty by the provision of a pair of spacers extending from one plate to the other and secured to the other. A key is provided extending thru an opening in one plate and threaded in a nut rigid in the other plate. By rotation of the key, the plates are caused to approach between the spacers. This separates the plates of the shuttle at both ends to provide room for the thread to enter in between the plates.

An object of the invention is the provision of a means adapted to be conveniently gripped by the fingers, whereby a convenient hold is had on the shuttle so that the charging thereof is rendered easy.

A further object of the invention is the provision of means whereby one of the arcuate plates is secured to the other in a simple manner.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the herein disclosed invention may be made as come within the scope of the claims.

In the accompanying drawing is illustrated one complete example of the physical embodiment of the present invention constructed according to the best mode so far devised for the practical application of the principles thereof.

In the drawings:

Figure 1 is a plan of the shuttle with the key removed.

Figure 2 is a section on the line 2—2 of Figure 1.

Figure 3 is a side elevation with the key in position and the shuttle open at the ends.

The shuttle comprises arcuate plates 10 and 10′. Plate 10 is elongated and terminates in points 11 and 11′, and plate 10′ is similar in shape and terminates in points 12 and 12′. In the tatting operation, points 11 and 12 are in contact as are also points 11′ and 12′. Plate 10′ is cut away to form a pair of tongues, which are downwardly directed forming spacers 13 and 13′, secured to plate 10 in any desired manner, as by welding. Plate 10′ has a central aperture therethru. Plate 10 has an aligned aperture 15. On the inner surface of plate 10 is a nut 16, secured in any desired manner, as by a solder. The opening in the nut registers with aperture 15.

When it is desired to charge the shuttle, a threaded key 17 is inserted thru aperture 14 and screwed into nut 16 until the head 18, contacts with the exterior surface of plate 10′. Further rotation of the key causes the plates to approach between spacers 13 and 13′. When the central portion of plate 10′ is brought closer to the central portion of plate 10, point 12 diverges from point 11 and point 12′ separates from point 11′. Space is then provided for the reception of the thread, which is wound on the spacers 13 and 13′. Spacers 13 and 13′ operate, therefore, as a carrier for the thread and also as means for securing plates together. A flat grip 19, is provided for the key rigid with head 18. The grip is of such dimensions as to be conveniently held between the fingers, so that a convenient hold on the shuttle is had during the charging thereof. After the shuttle has been charged, the key may be removed by reverse rotation thereof, and the shuttle is ready for usage.

I claim:

1. The combination of a pair of shuttle plates, a pair of spacers, extending from one plate to the other, one of said plates having an aperture therethru between said spacers, a key adapted to be inserted thru said aperture and means on the other of said plates co-operating with said key on the rotation thereof, to cause said plates to approach

each other between said spacers and the ends of one plate to separate from the ends of the other plate.

2. The combination of a pair of shuttle plates, a pair of spacers, extending from one plate to the other, one of said plates having an aperture therethru between said spacers, a key adapted to be inserted thru said aperture, a nut on the other of said plates adapted to co-operate with said key, on the rotation of said key to cause said plates to approach each other between said spacers.

3. A shuttle comprising a plate having a pair of spaced tongues cut out therefrom and angularly directed therefrom forming spacers, a second plate, said spacers being secured to said second plate, said spacers co-operating to form a carrier for thread.

In testimony that I claim the foregoing I have hereunto set my hand at Racine, in the county of Racine, and State of Wisconsin.

HALLET E. KWAPIL.