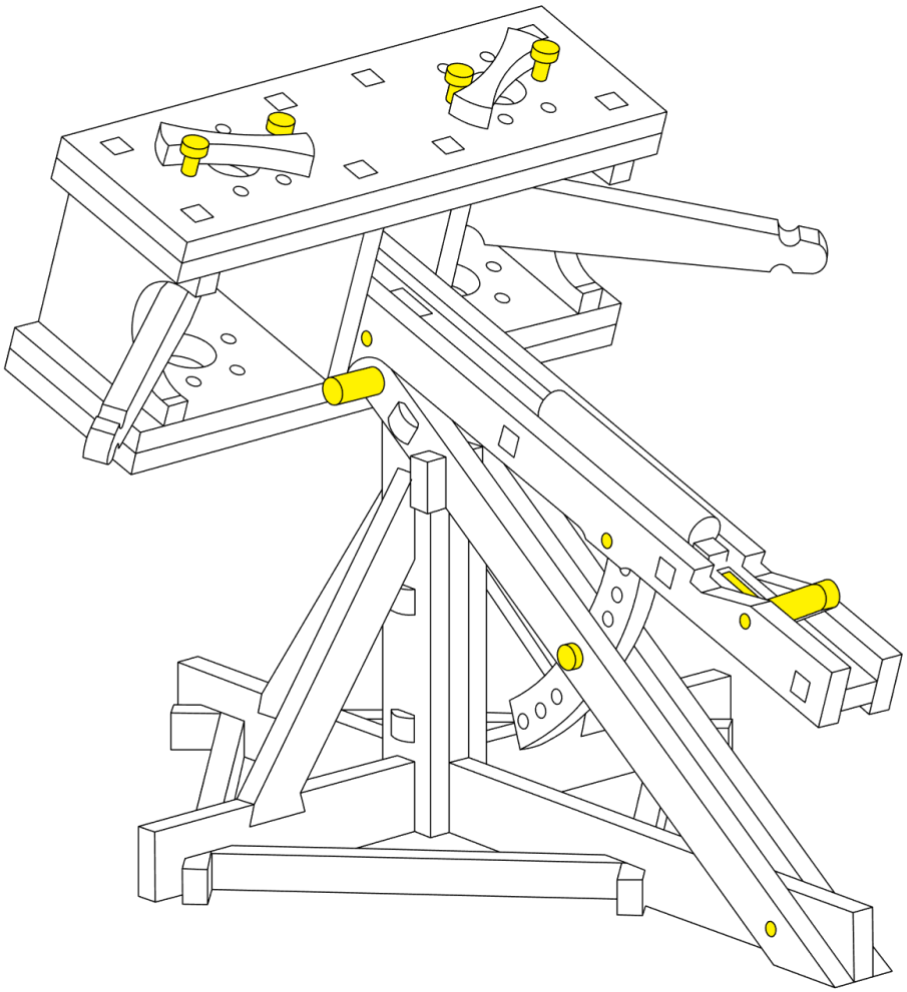
INSTRUCTION MANUAL

BASIC SERIES

BALLISTA KIT



Warning

This kit contains small pieces. Keep away from children.
Do not aim at other people, pets, or yourself. Do not use this kit to launch sharp objects or anything that harms you or anyone else.

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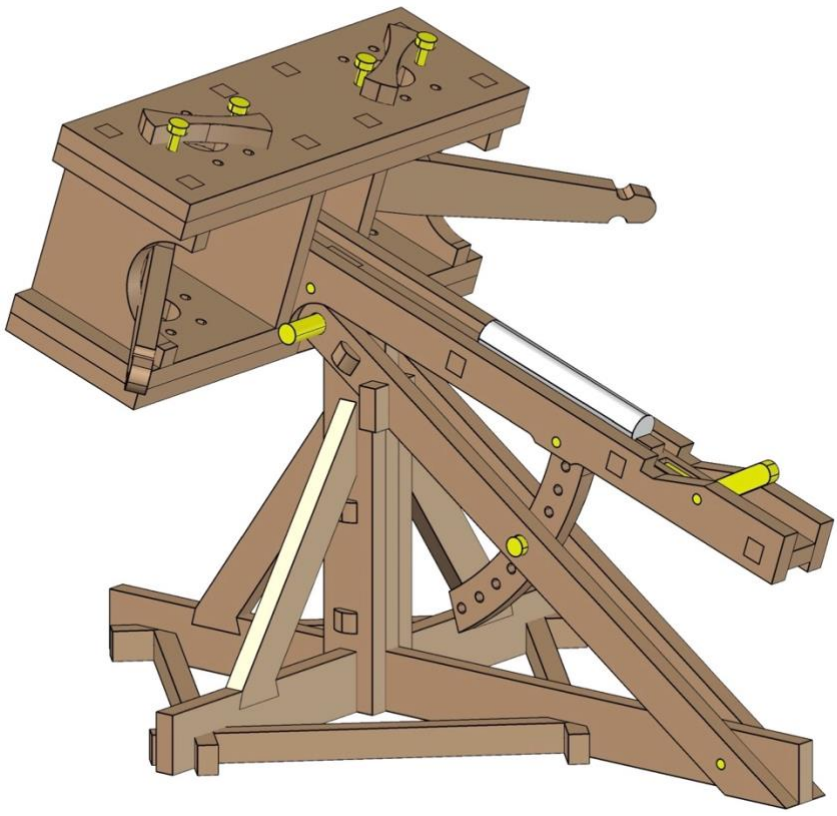
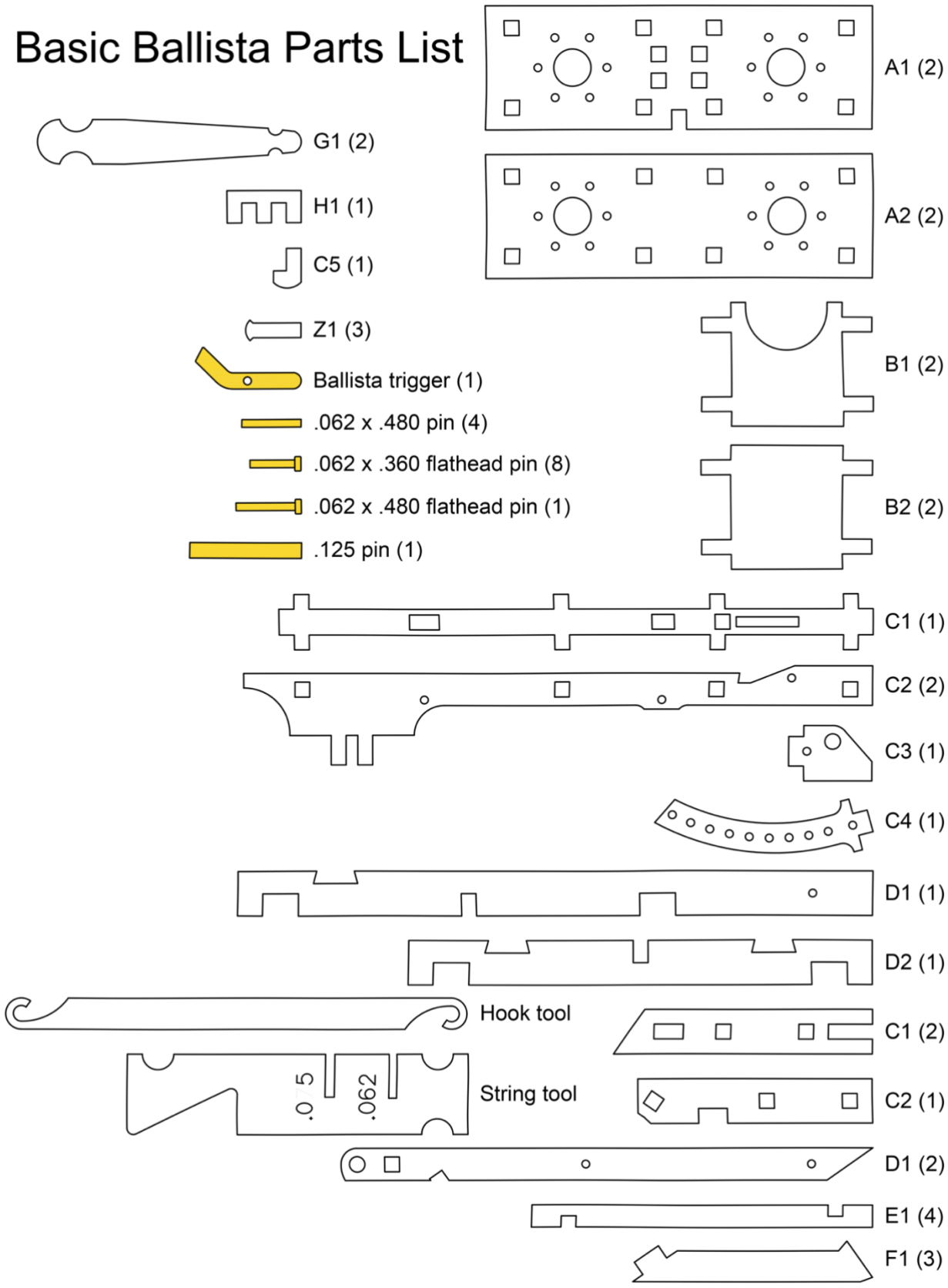


Basic Ballista Parts List



What's Needed:

- Hammer (for gently tapping brass pins into place)
- Scissors (to cut string)
- Superglue (to secure knots in the string)

Tips before you get started:

- Lay out all the wood parts on the inventory list.
- Build the kit on a workbench or cutting mat to prevent damage to your table.
- Use a spare piece of wood to set the pins in place (string tool works great) or lightly tap with a hammer.

Section 1 – Wood Parts

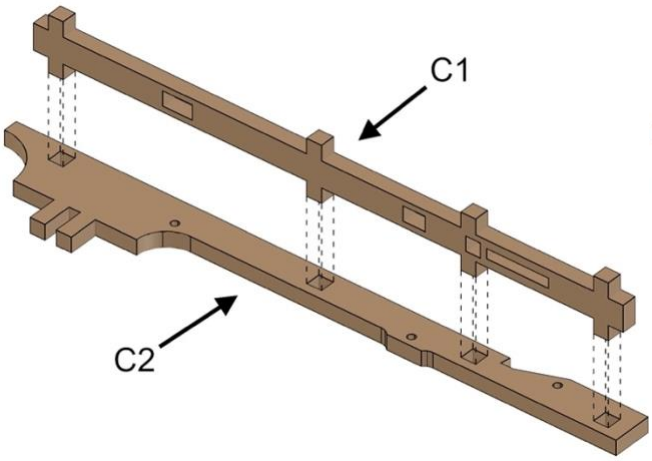


Fig. 1

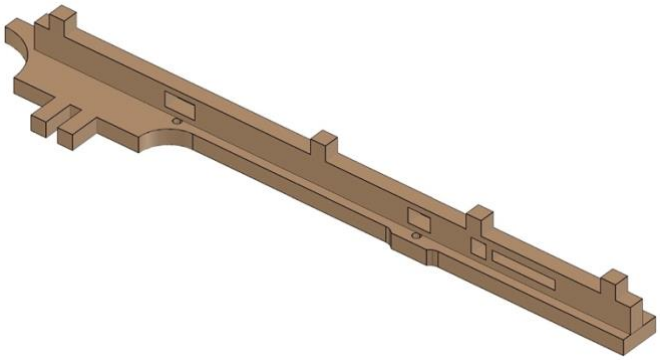


Fig. 2

- Align parts exactly as shown in *Fig. 1*.
- Connect the C1 and C2 parts together.
- *Fig. 2* shows the completed process.

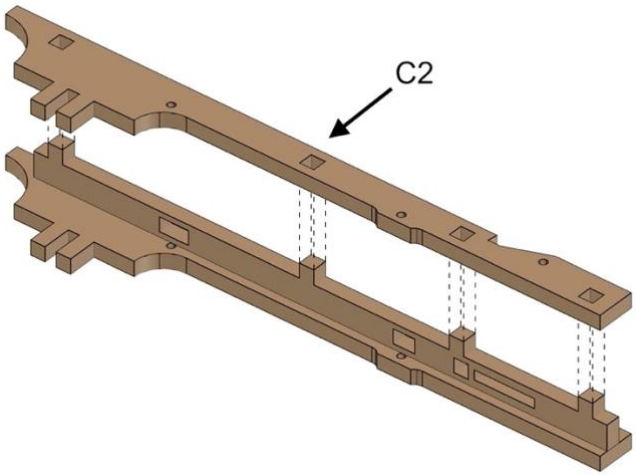


Fig. 3

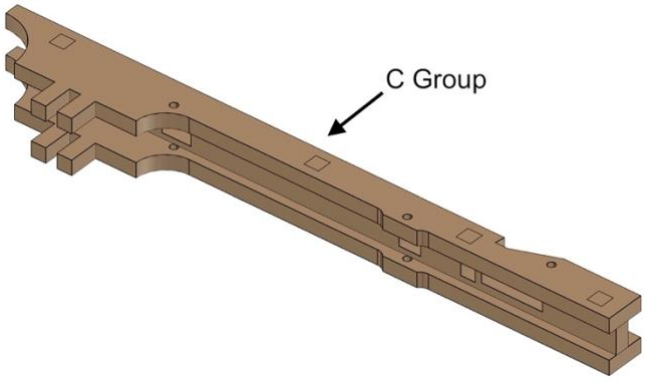


Fig. 4

- Align parts exactly as shown in *Fig. 3*.
- Attach the C2 piece.
- *Fig. 4* shows the completed process.

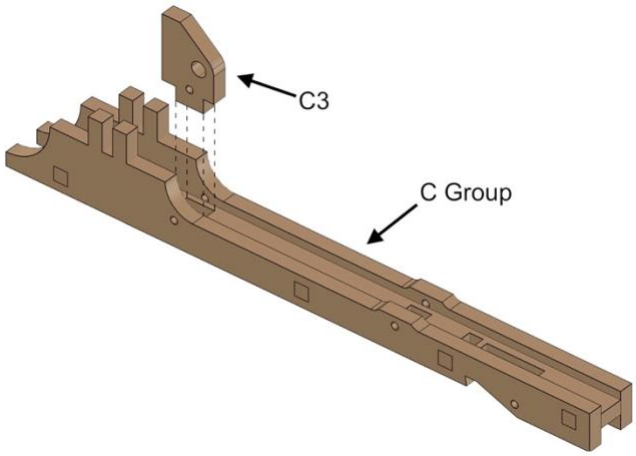


Fig. 5

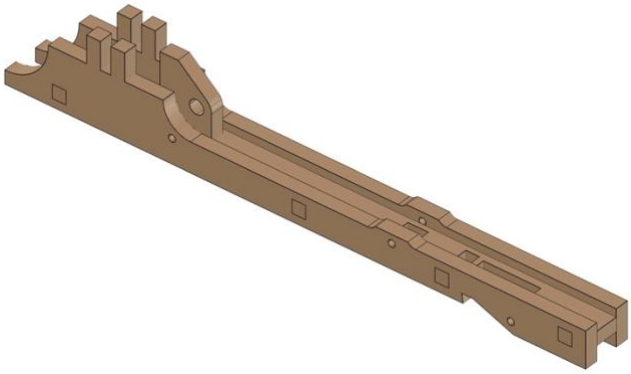


Fig. 6

- Align parts exactly as shown in *Fig. 5*.
- Attach C3 to the C Group.
- *Fig. 6* shows the completed process.

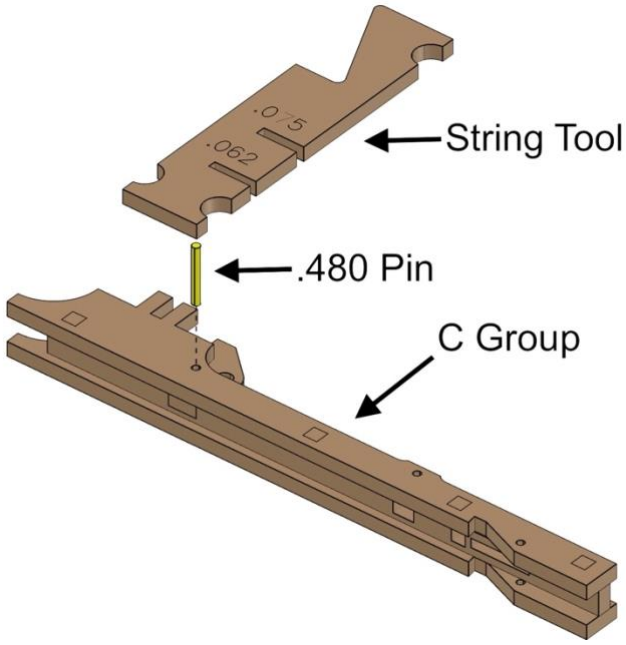


Fig. 7

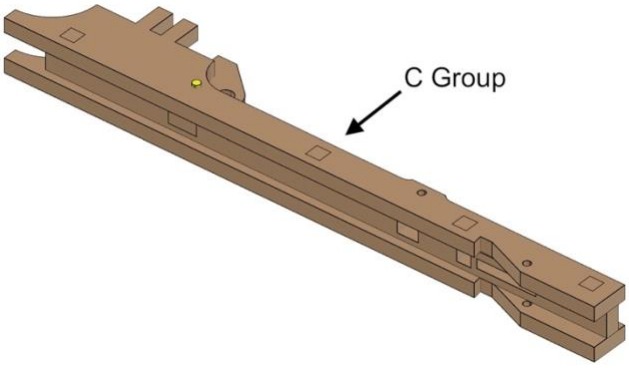


Fig. 8

- Align parts exactly as shown in *Fig. 7*.
- Insert a .480” pin into the C Group.
- Use the String tool or a hammer to push down on the pin.
- *Fig. 8* shows the completed process.

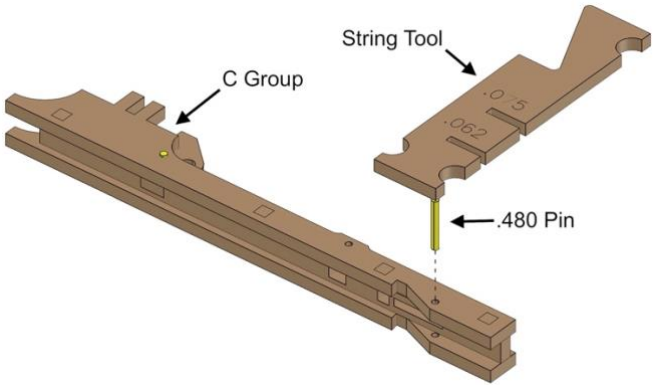


Fig. 9

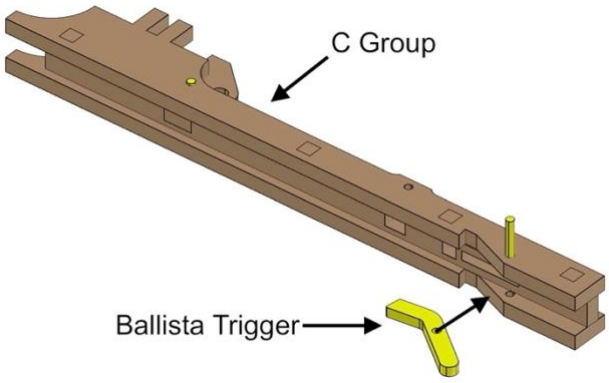


Fig. 10

- Align parts exactly as shown in *Fig. 9*.
- Insert a .480” pin into the C Group.
- Use the String tool or a hammer to push down on the pin.
- **Do not insert the pin all the way through.**
- Attach the Ballista trigger to the .480” pin. (*Fig. 10*)

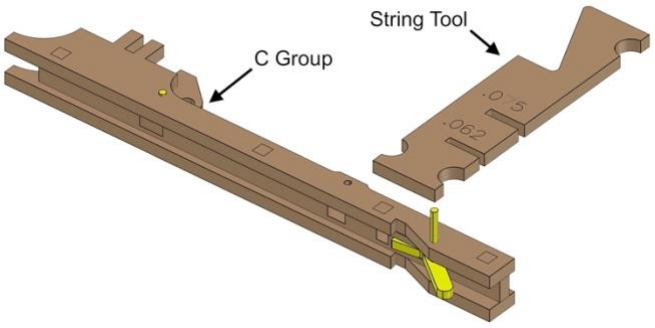


Fig. 11

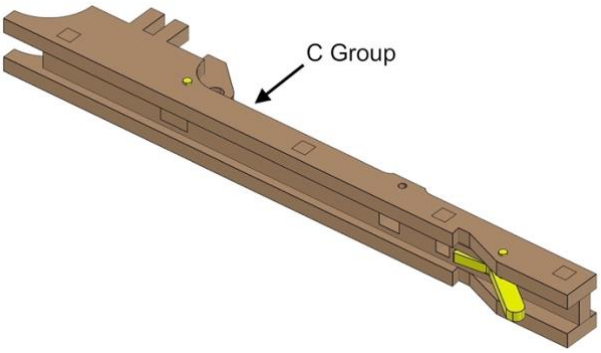


Fig. 12

- Align parts exactly as shown in *Fig. 11*.
- Use the String tool or a hammer to push down on the pin.
- *Fig. 12* shows the completed process.

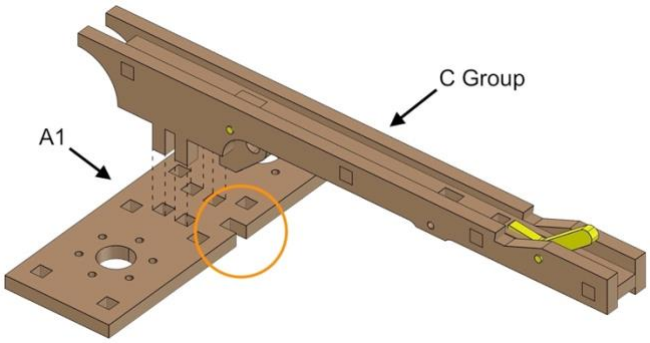


Fig. 13

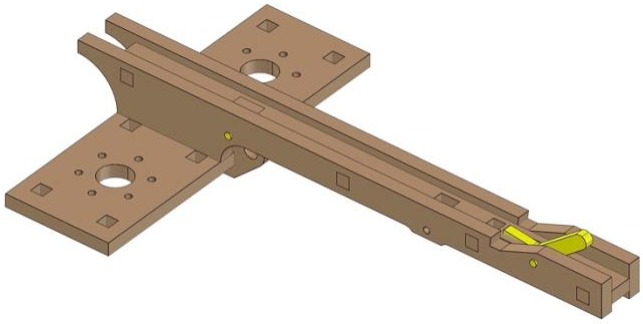


Fig. 14

- Align parts exactly as shown in *Fig. 13*.
- <u>The orange circle highlights the correct orientation.</u>
- Attach the A1 to the C Group.
- *Fig. 14* shows the completed process.

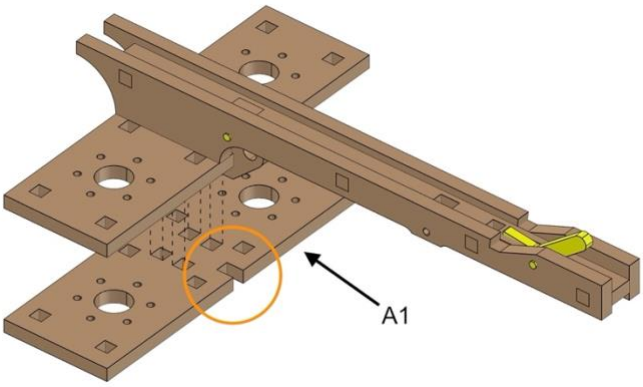


Fig. 15

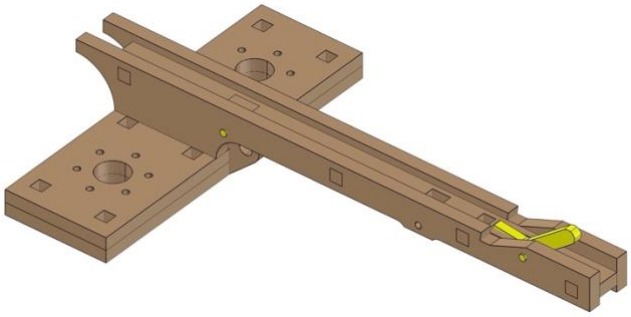


Fig. 16

- Align parts exactly as shown in *Fig. 15*.
- <u>The orange circle highlights the correct orientation.</u>
- Attach the A1 to the C Group.
- *Fig. 16* shows the completed process.

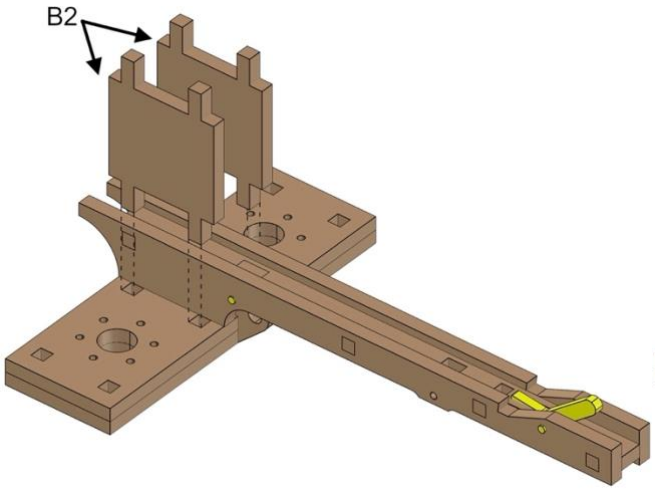


Fig. 17

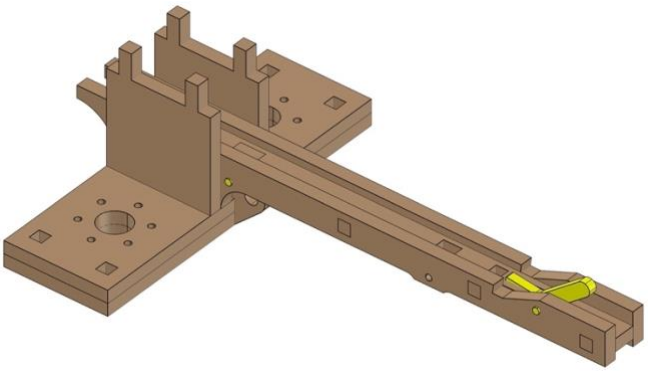


Fig. 18

- Align parts exactly as shown in *Fig. 17*.
- Attach two B2 pieces.
- *Fig. 18* shows the completed process.

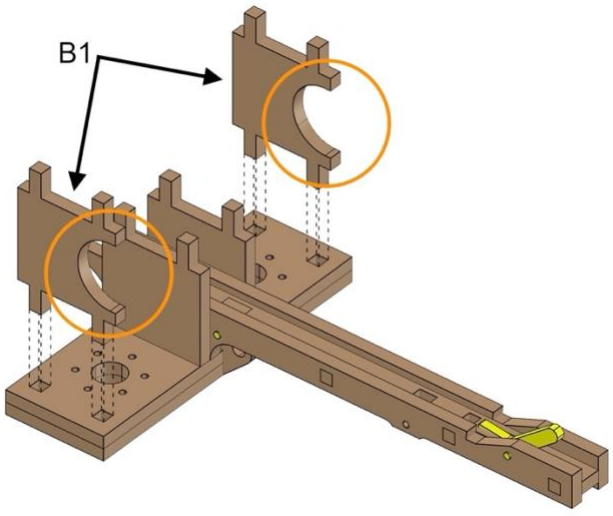


Fig. 19

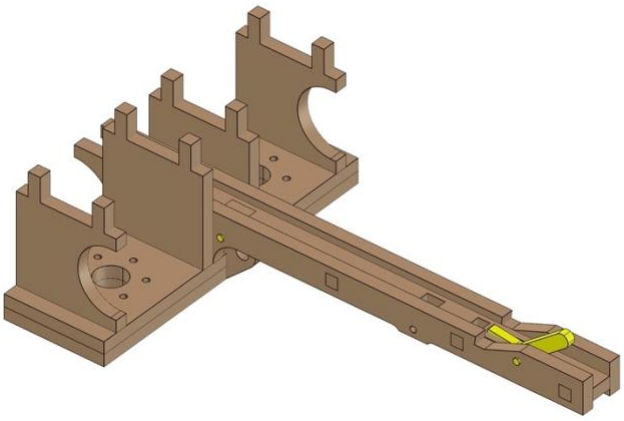


Fig. 20

- Align parts exactly as shown in *Fig. 19*.
- The orange circle highlights the correct orientation.
- Attach two B1 pieces.
- *Fig. 20* shows the completed process.

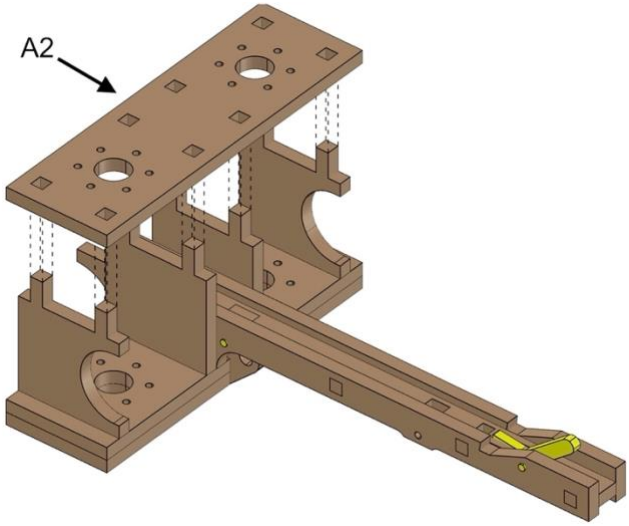


Fig. 21

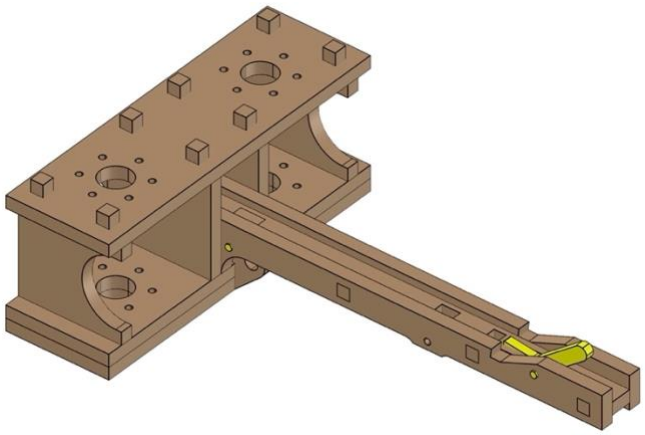


Fig. 22

- Align parts exactly as shown in *Fig. 21*.
- Attach the A2 piece.
- *Fig. 22* shows the completed process.

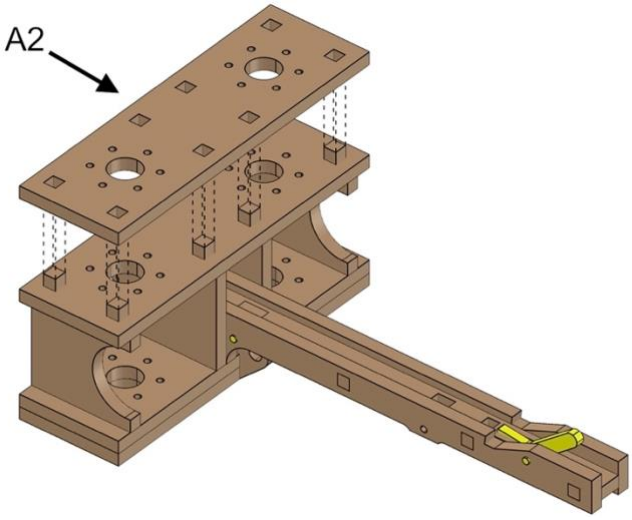


Fig. 23

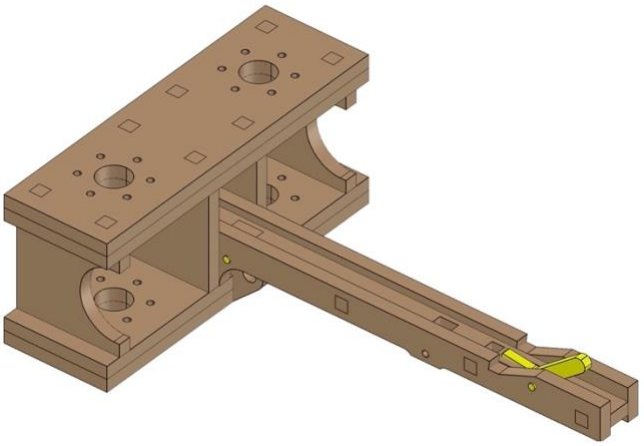


Fig. 24

- Align parts exactly as shown in *Fig. 23*.
- Attach the A2 piece.
- *Fig. 24* shows the completed process.

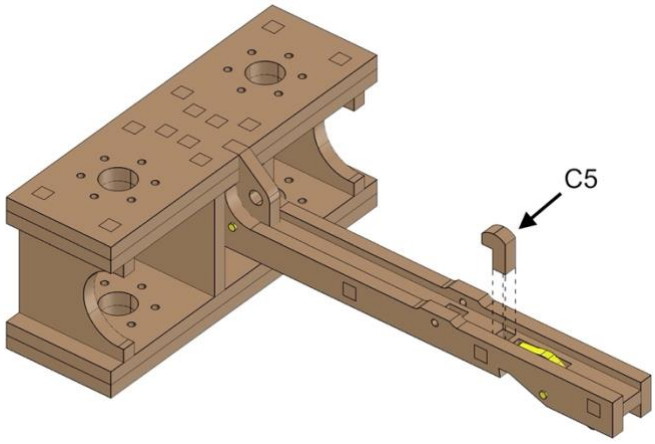


Fig. 25

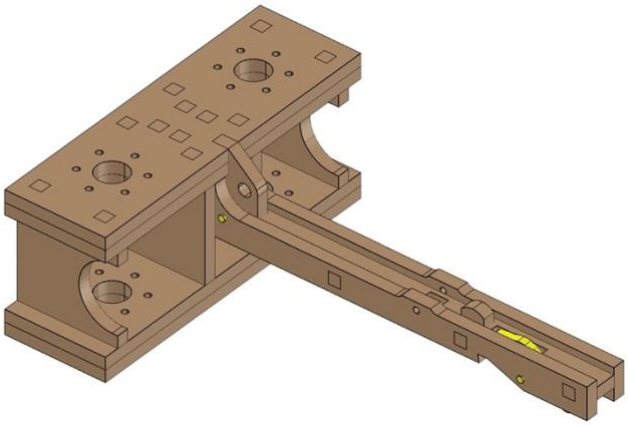


Fig. 26

- Align parts exactly as shown in *Fig. 25*.
- Attach the C5 piece.
- *Fig. 26* shows the completed process.

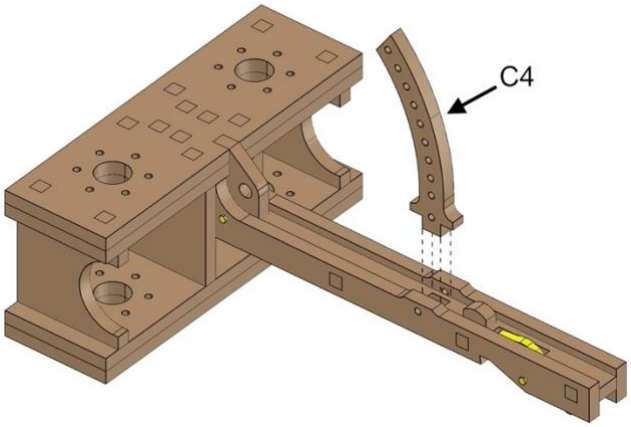


Fig. 27

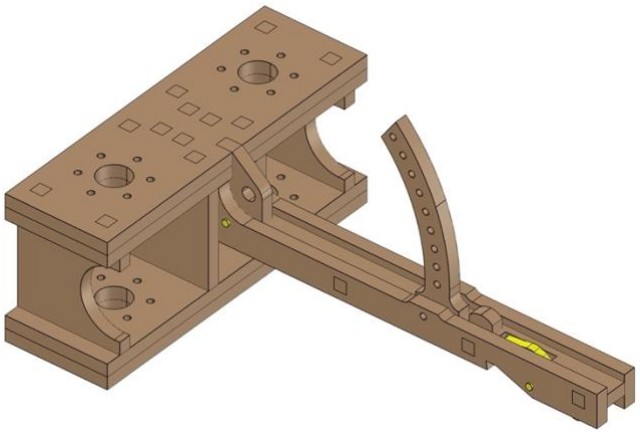


Fig. 28

- Align parts exactly as shown in *Fig. 27*.
- Attach the C4 piece.
- *Fig. 28* shows the completed process.

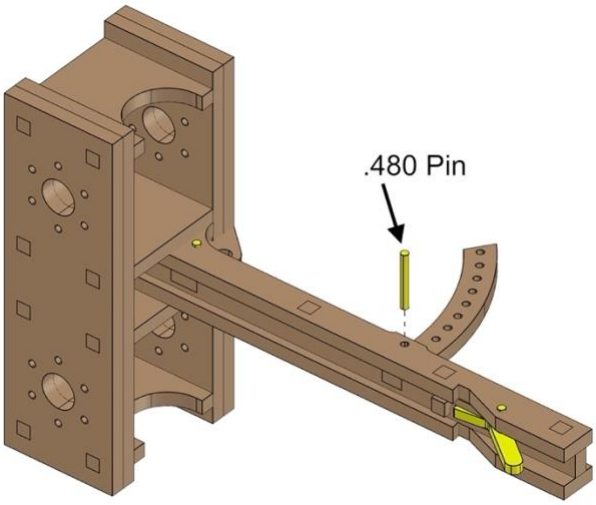


Fig. 29

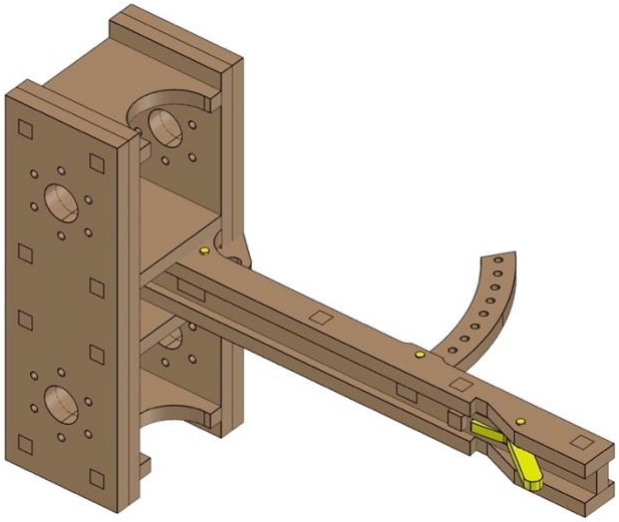


Fig. 30

- Align parts exactly as shown in *Fig. 29*.
- Insert one .480” pin.
- *Fig. 30* shows the completed process.

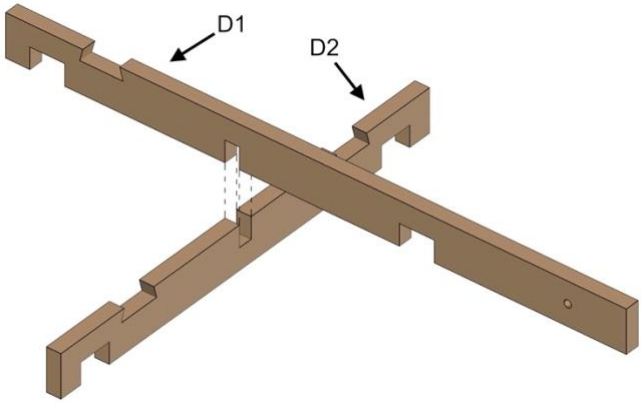


Fig. 31

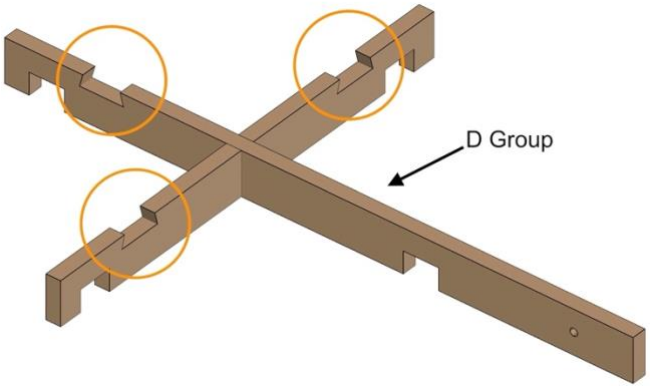


Fig. 32

- Align parts exactly as shown in *Fig. 31*.
- Connect the D1 and D2 parts together.
- *Fig. 32* shows the completed process.
- <u>The orange circles highlight the side that goes up.</u>

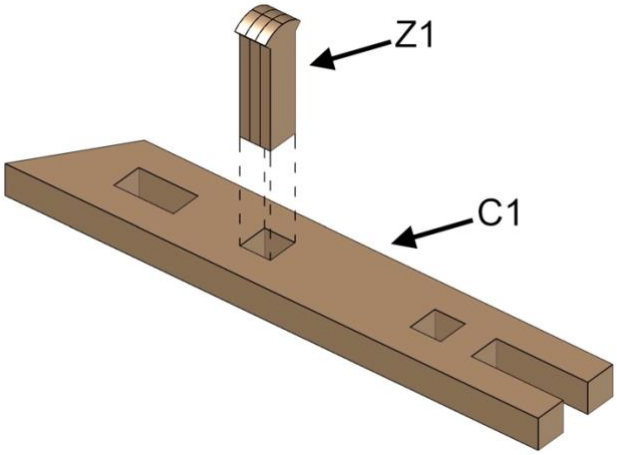


Fig. 33

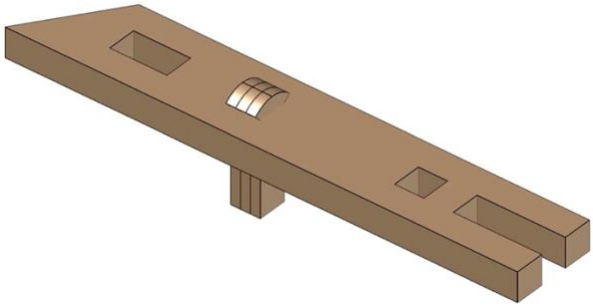


Fig. 34

- Align parts exactly as shown in *Fig. 33*.
- Insert the Z1 piece.
- *Fig. 34* shows the completed process.

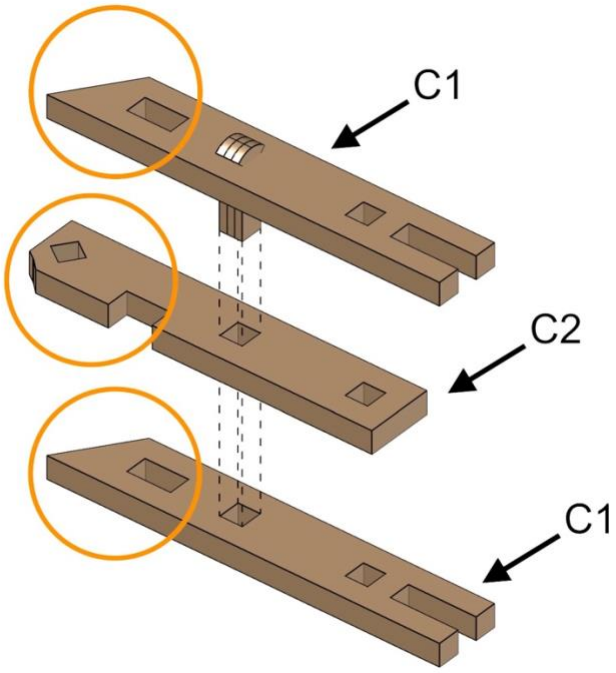


Fig. 35

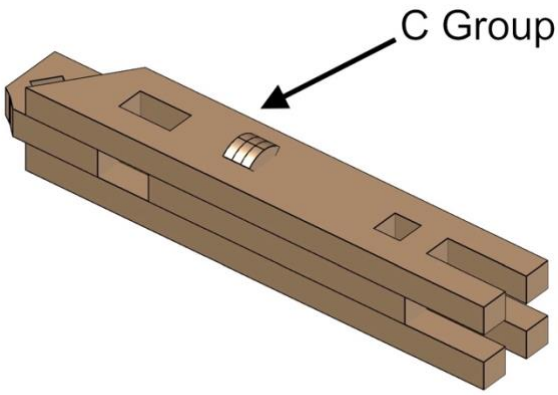


Fig. 36

- Align parts exactly as shown in *Fig. 35*.
- The orange circles highlight the correct orientation.
- Attach the C2 and C1 pieces.
- *Fig. 36* shows the completed process.

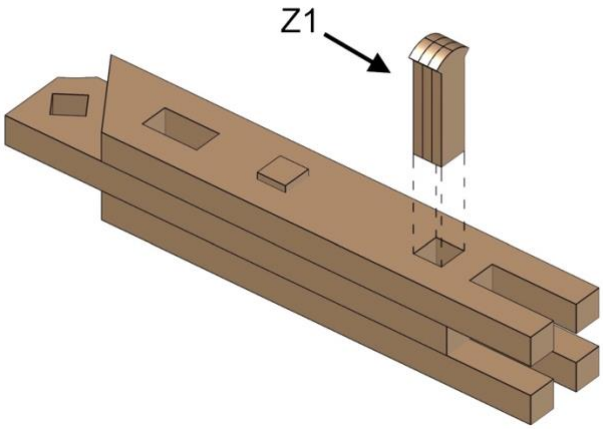


Fig. 37

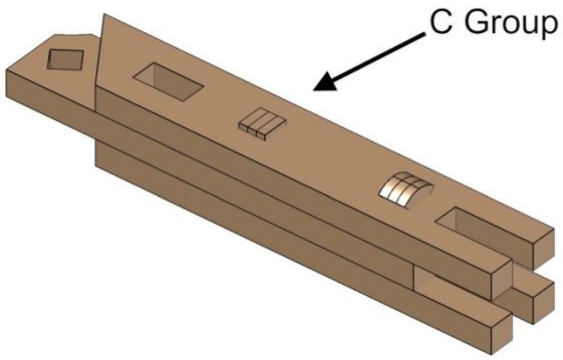


Fig. 38

- Align parts exactly as shown in *Fig. 37*.
- Insert the Z1 piece so it enters the opposite side of the other Z1 piece.
- *Fig. 38* shows the completed process.

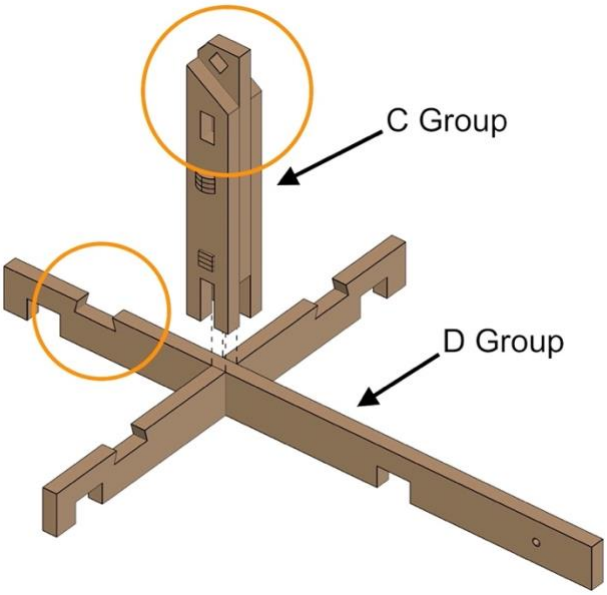


Fig. 39

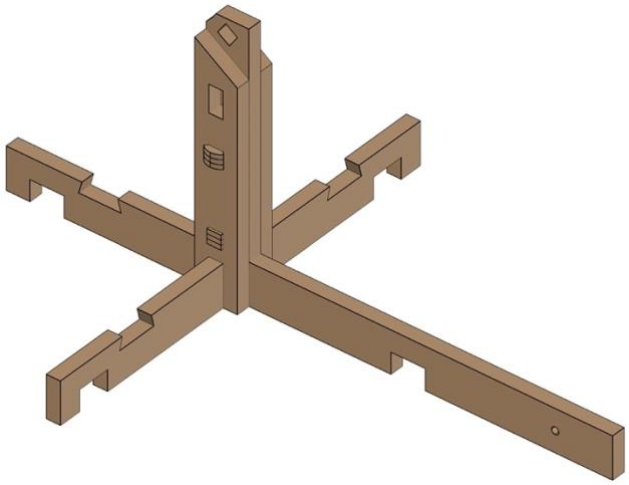


Fig. 40

- Align parts exactly as shown in *Fig. 39*.
- The orange circles highlight the correct orientation.
- Attach the C Group to the D Group.
- *Fig. 40* shows the completed process.

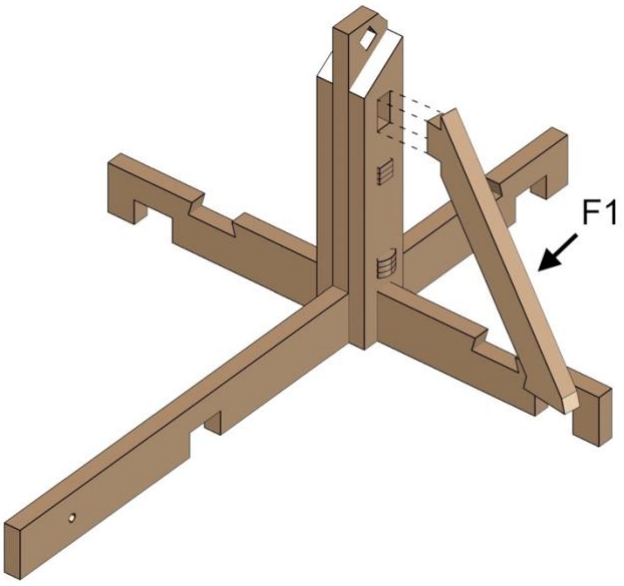


Fig. 41

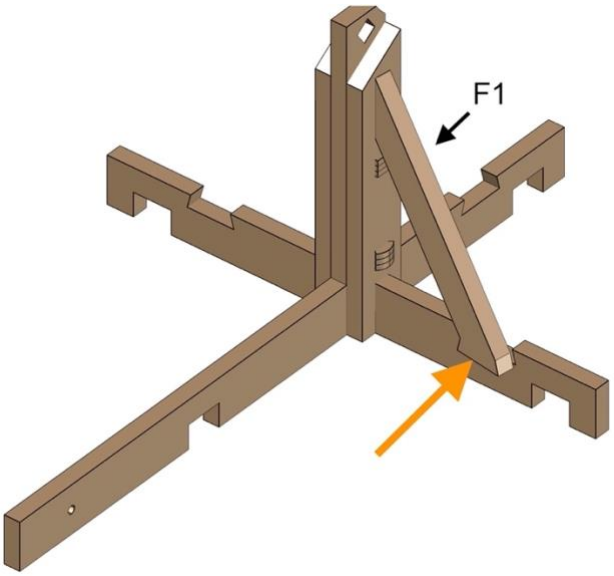


Fig. 42

- Align parts exactly as shown in *Fig. 41*.
- Insert the F1 piece.
- Push the bottom of the F1 piece into place (*Fig. 42*).

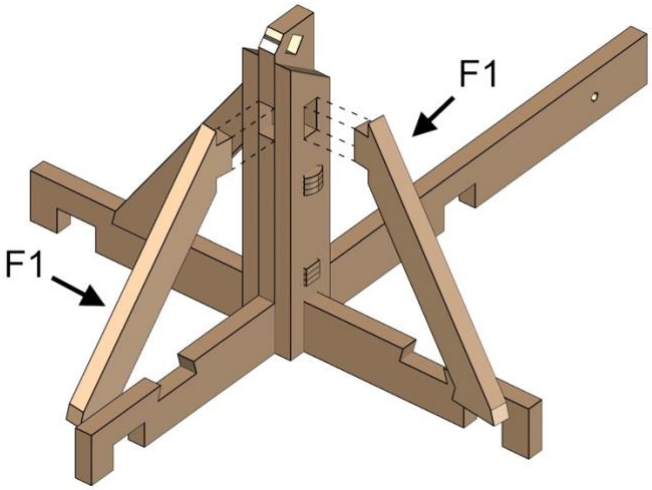


Fig. 43

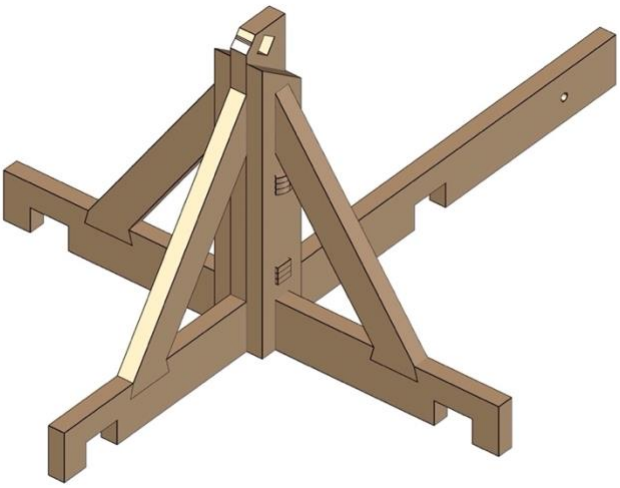


Fig. 44

- Align parts exactly as shown in *Fig. 43*.
- Attach the F1 pieces as shown in previous steps.
- *Fig. 44* shows the completed process.

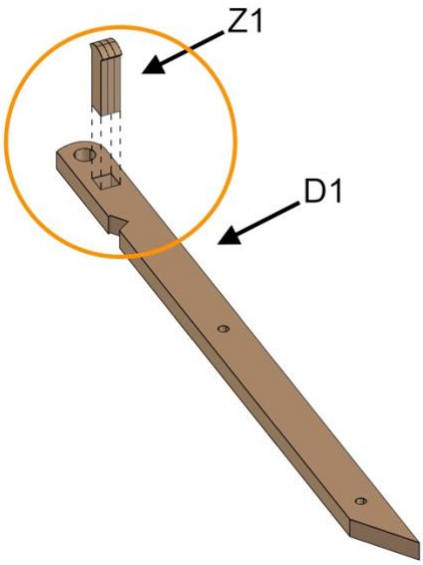


Fig. 45

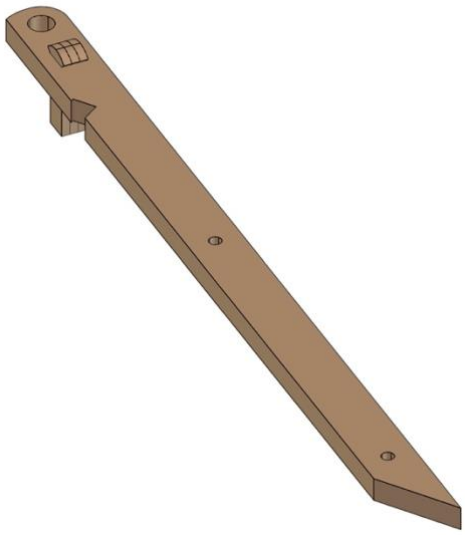


Fig. 46

- Align parts exactly as shown in *Fig. 45*.
- <u>The orange circles highlight the correct orientation.</u>
- Insert the Z1 piece.
- *Fig. 46* shows the completed process.

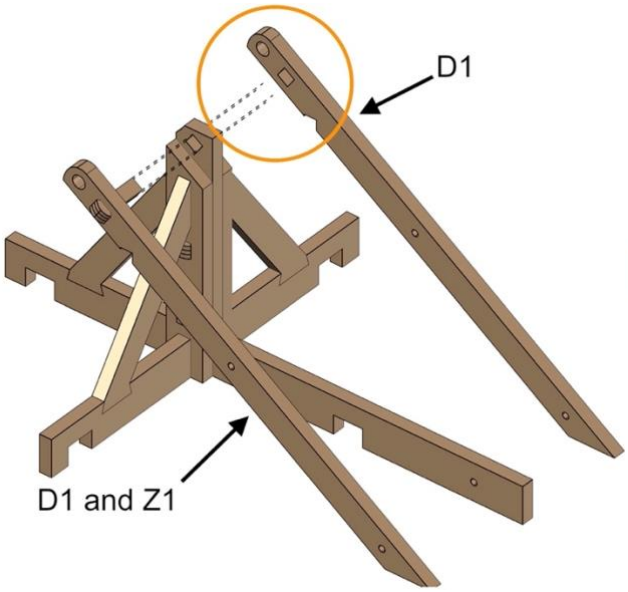


Fig. 47

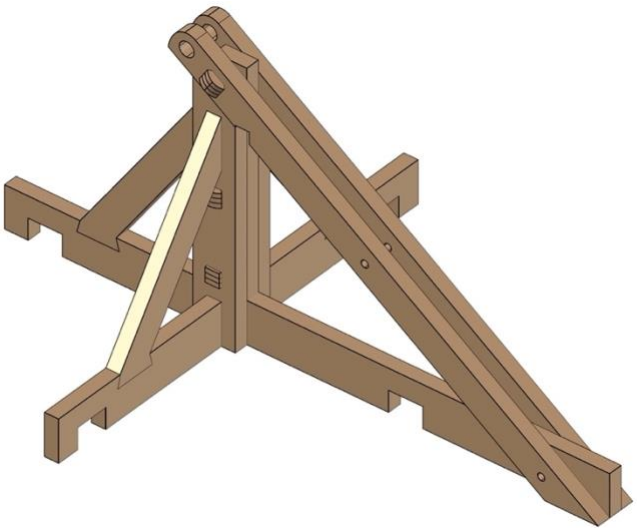


Fig. 48

- Align parts exactly as shown in *Fig. 47*.
- Attach the D1 pieces.
- *Fig. 48* shows the completed process.

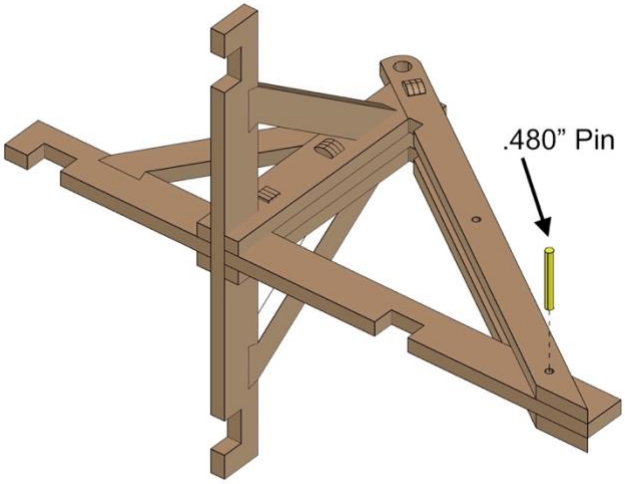


Fig. 49

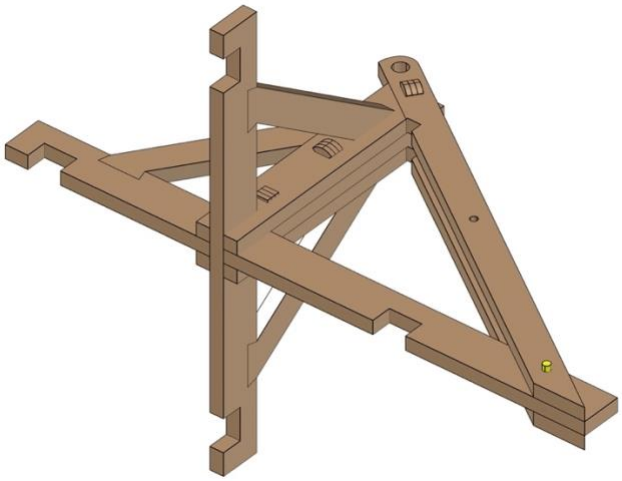


Fig. 50

- Align parts exactly as shown in *Fig. 49*.
- Insert one .480” pin.
- *Fig. 50* shows the completed process.

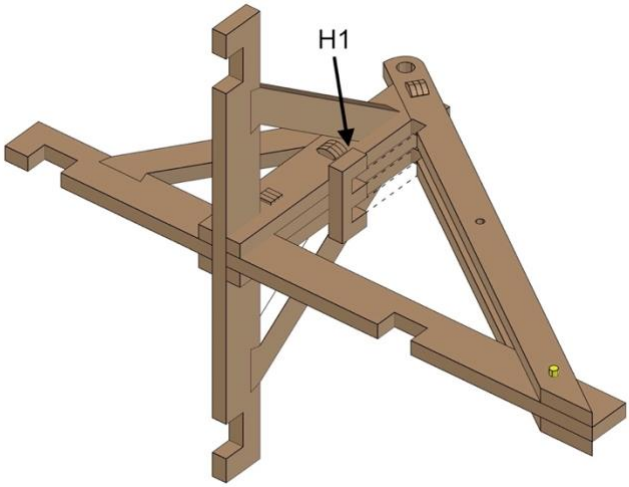


Fig. 51

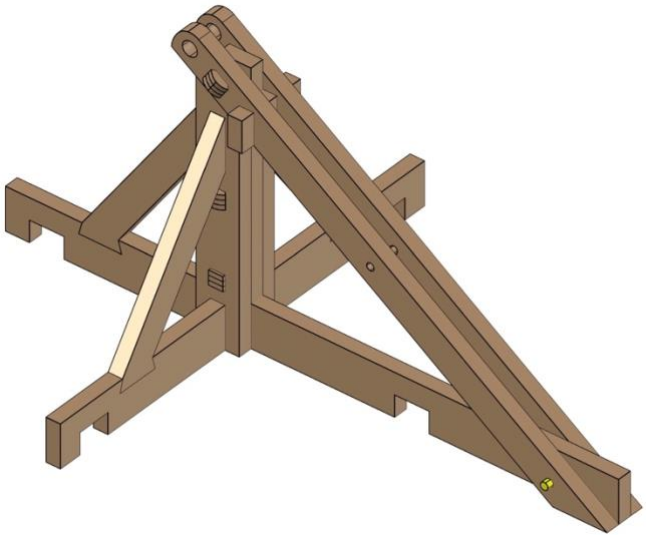


Fig. 52

- Align parts exactly as shown in *Fig. 51*.
- Attach the H1 piece.
- *Fig. 52* shows the completed process.

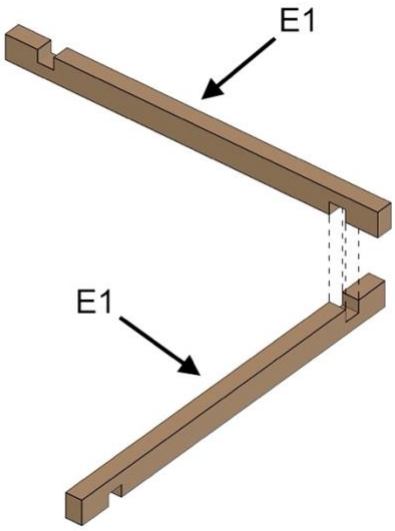


Fig. 53

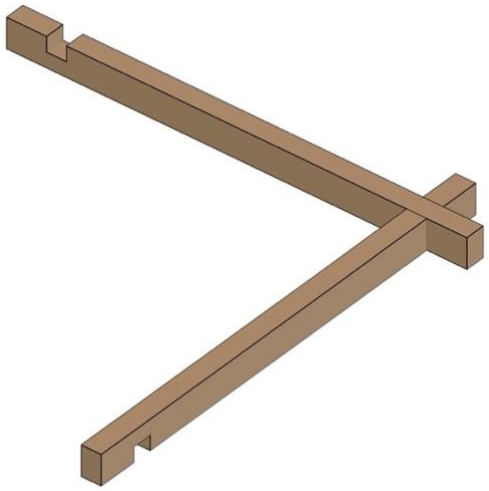


Fig. 54

- Align parts exactly as shown in *Fig. 53*.
- Connect the E1 pieces together.
- *Fig. 54* shows the completed process.

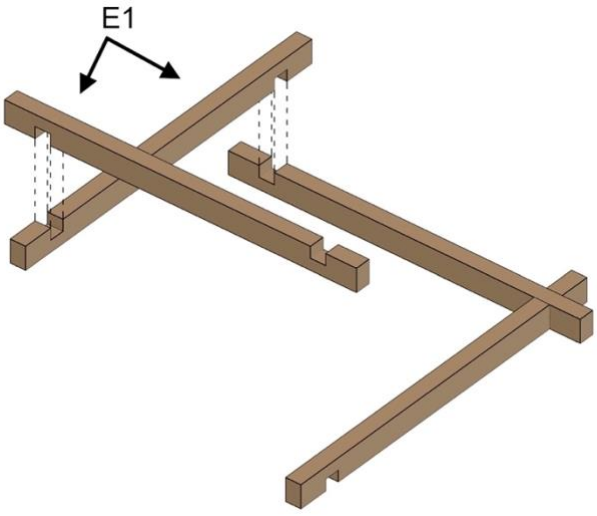


Fig. 55

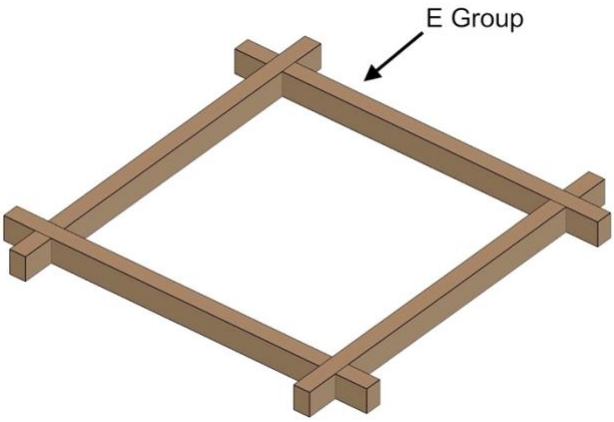


Fig. 56

- Align parts exactly as shown in *Fig. 55*.
- Connect the E1 pieces together.
- *Fig. 56* shows the completed process.

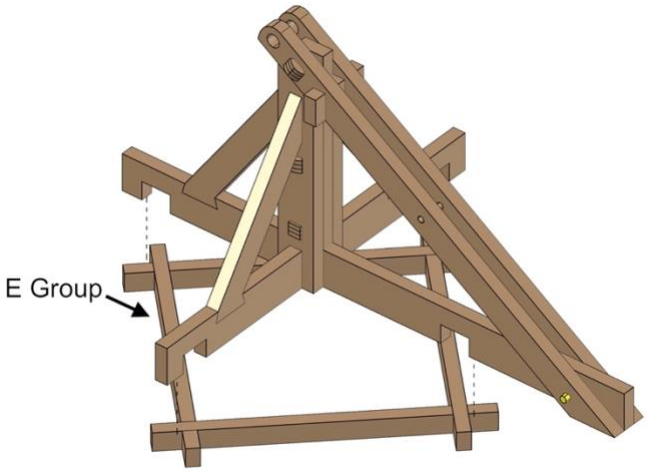


Fig. 57

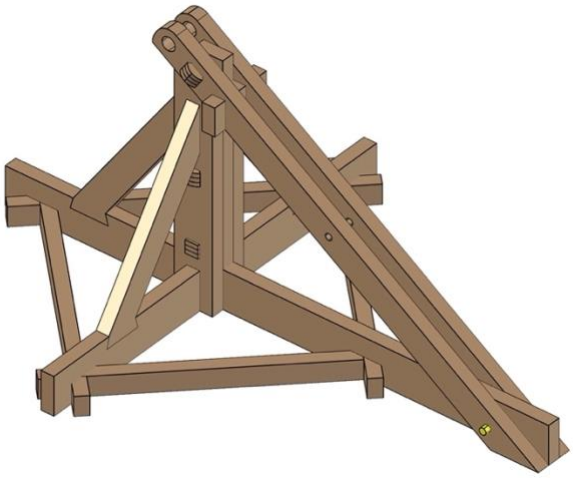


Fig. 58

- Align parts exactly as shown in *Fig. 57*.
- Attach the E Group.
- *Fig. 58* shows the completed process.

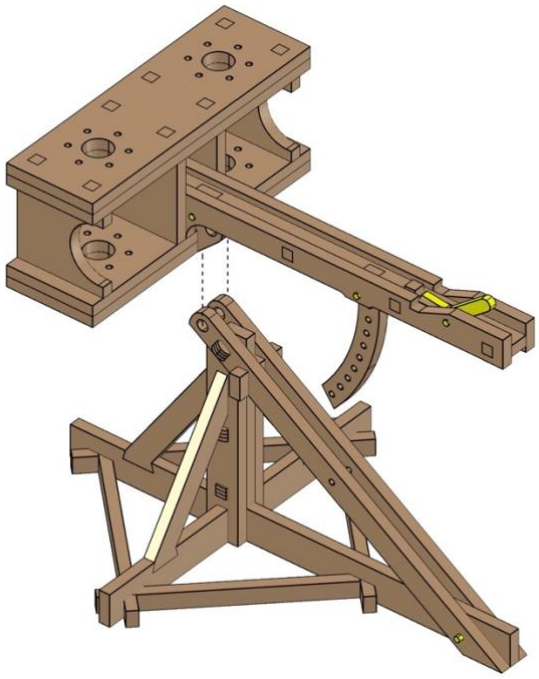


Fig. 59

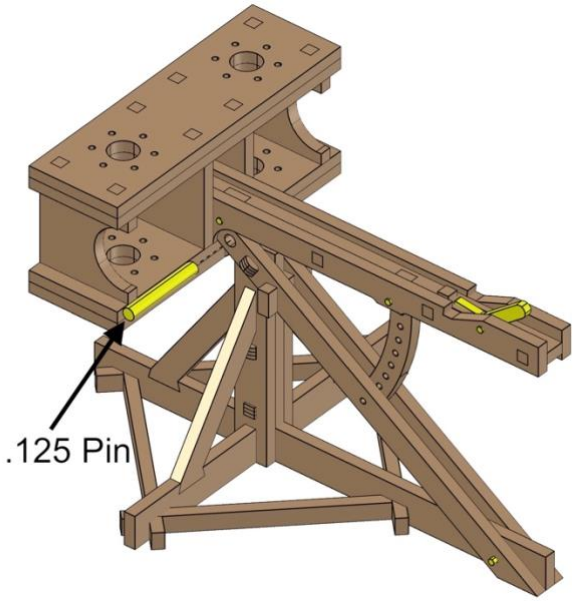


Fig. 60

- Align parts exactly as shown in *Fig. 59*.
- Attach the parts together.
- Insert the .125” pin (*Fig. 60*).

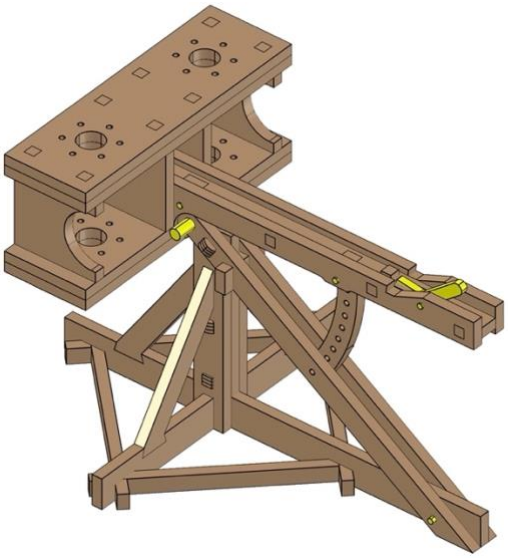


Fig. 61

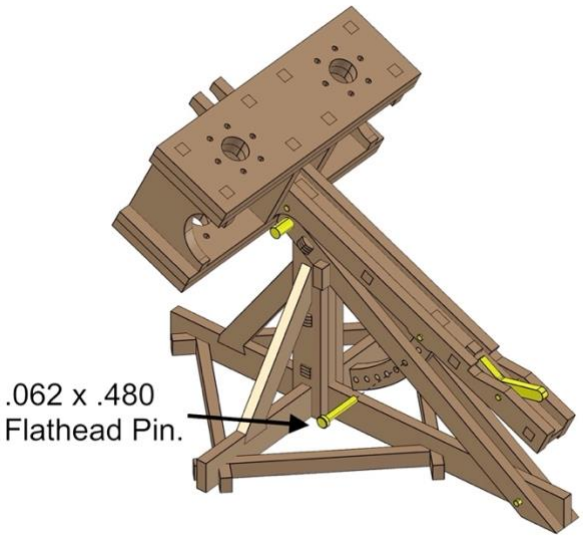


Fig. 62

- The Ballista should now be attached to the base.
- A .062 x .480 Flathead pin can be used to lock the Ballista in place (*Fig. 62)*.

Fig. 63

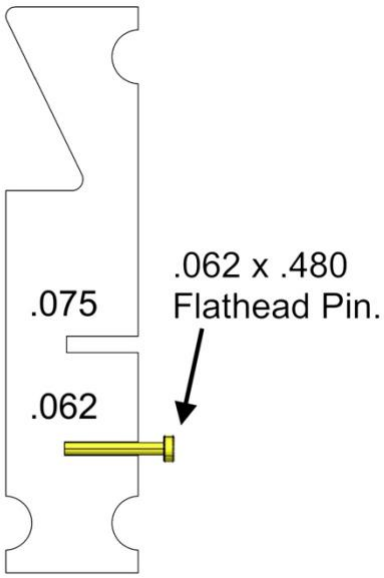
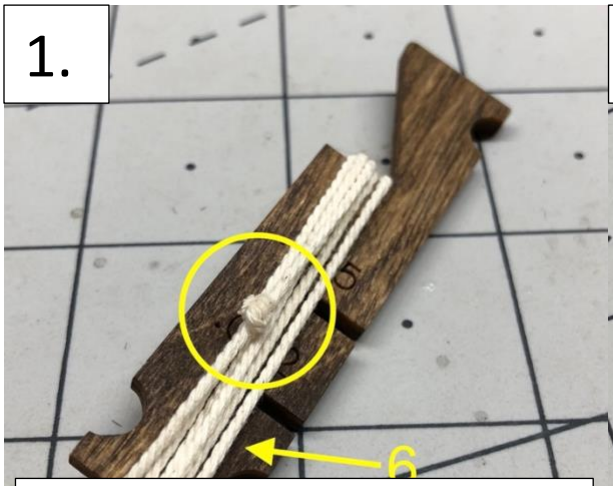


Fig. 64

- *Fig. 63* shows a ballista that is locked in position.
- *Fig. 64* shows how to use the string tool to measure the pins.

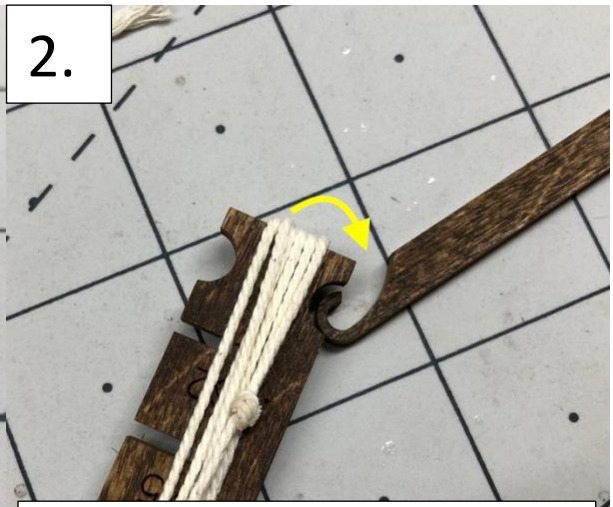
Section 2 – String

1.



Wrap string around the small portion of the String tool 6 times. Secure the knot with superglue.

2.

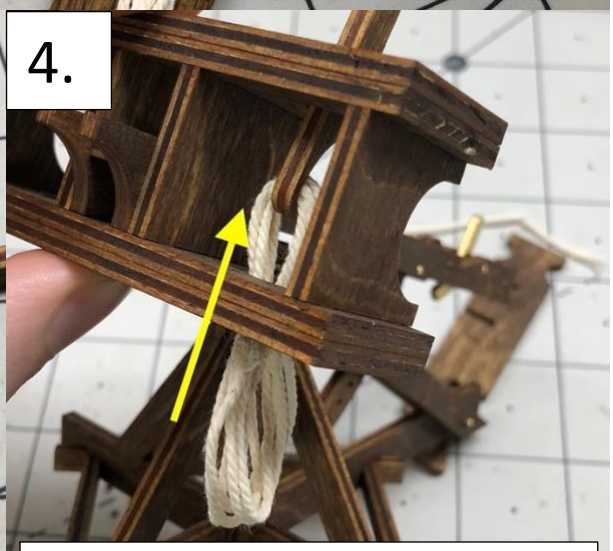


Place the Hook tool here and push the string off.

3.

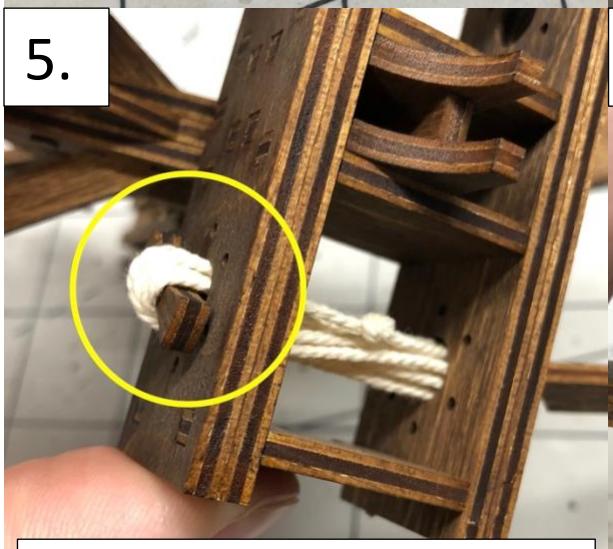
Using the Hook tool, remove the string.

4.



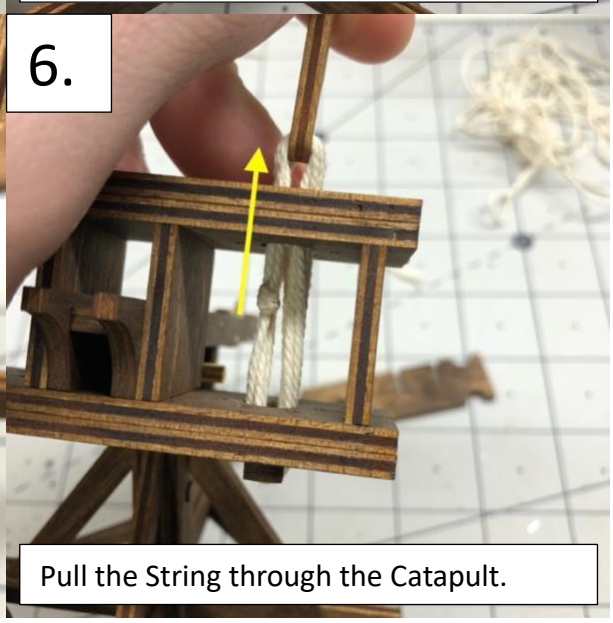
Thread the string through the Ballista.

5.



Place a L1 piece here.

6.

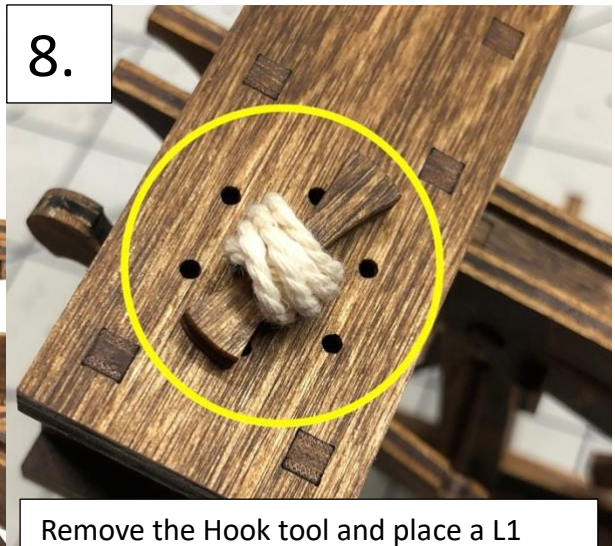


Pull the String through the Catapult.

7.

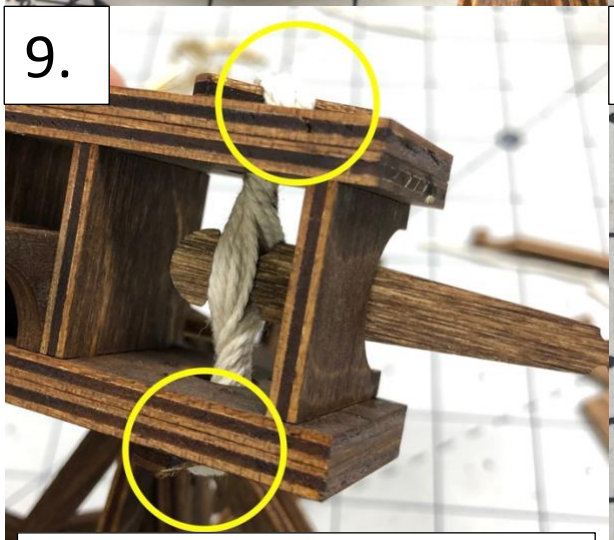
Place the G1 piece here.

8.



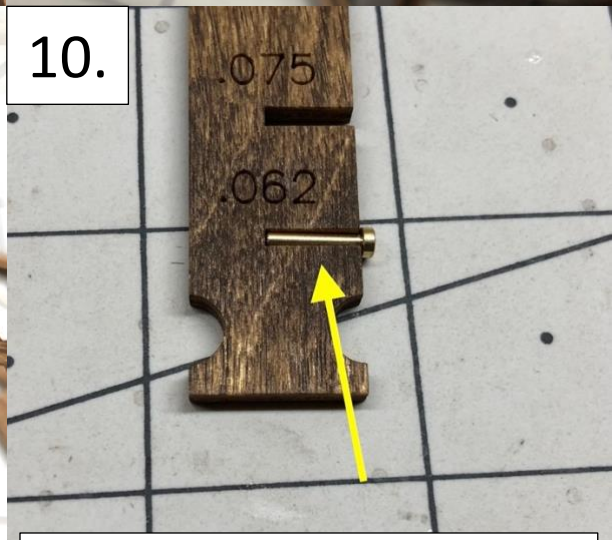
Remove the Hook tool and place a L1 piece here.

9.



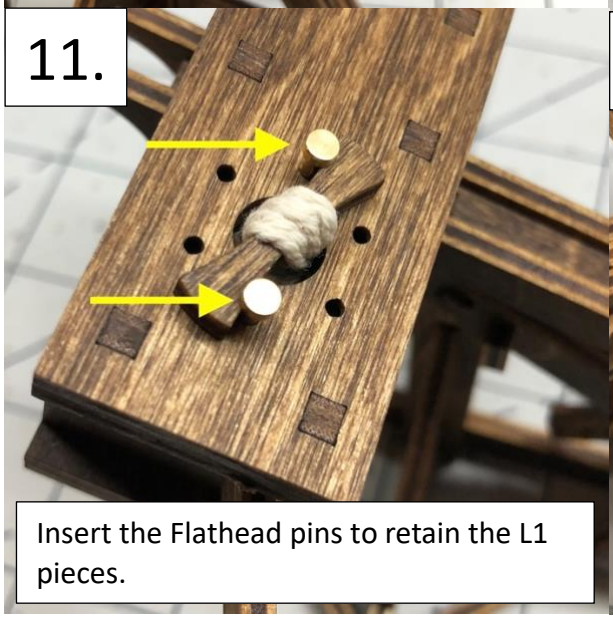
Rotate both L1 pieces at the same time.

10.



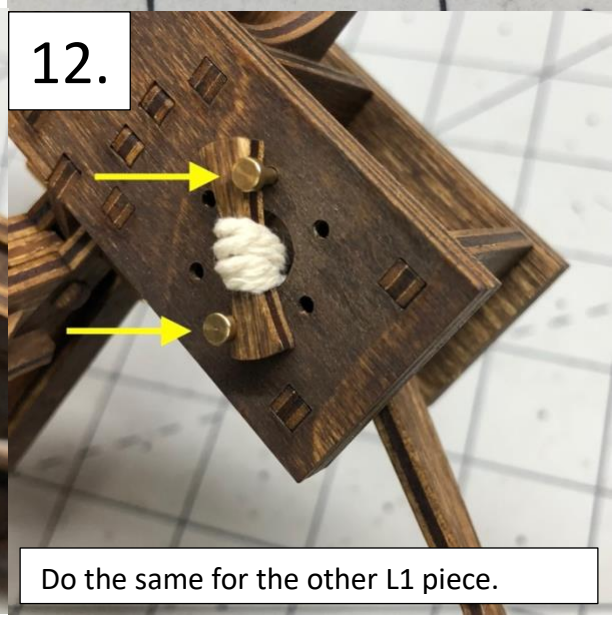
This shows a .062 x .480” flathead pin.

11.



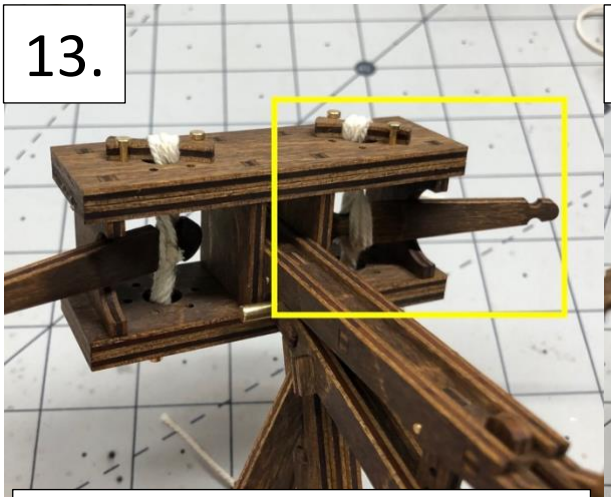
Insert the Flathead pins to retain the L1 pieces.

12.



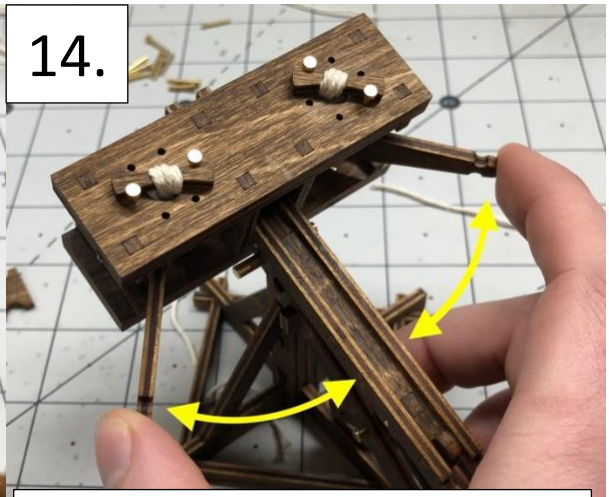
Do the same for the other L1 piece.

13.



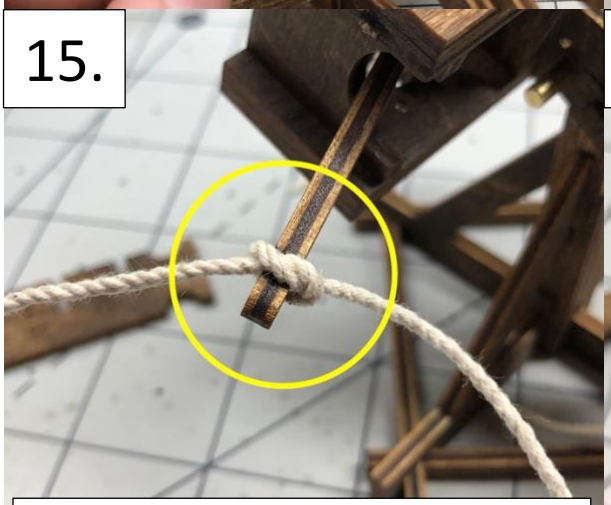
Repeat the last 12 steps for the right side.

14.



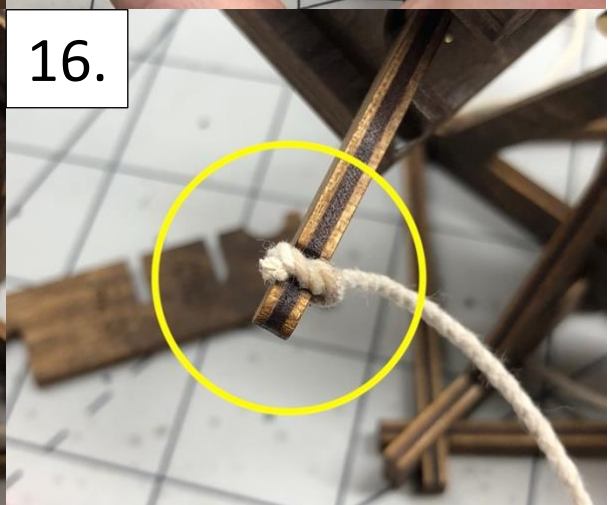
Adjust so that both arms have the same tension.

15.



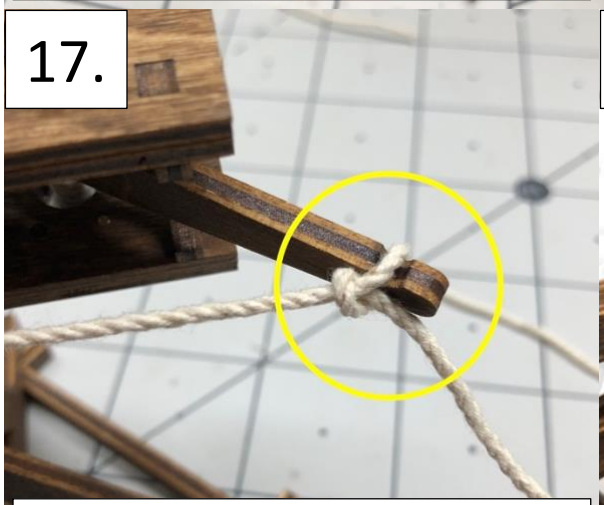
Using the Thick string, Tie a knot on one of the arms (G1 piece).

16.



Secure the knot with superglue. Trim.

17.

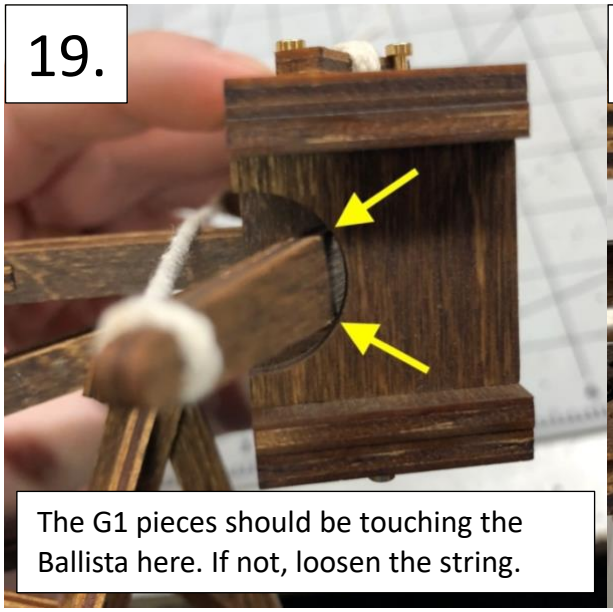


Tie the other end of the string around the second arm (G1 piece).

18.

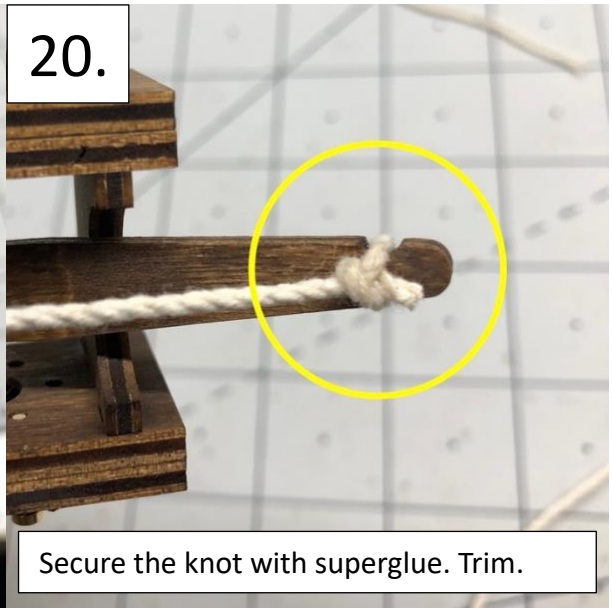
Tighten the string until it is not loose, but not too tight.

19.



The G1 pieces should be touching the Ballista here. If not, loosen the string.

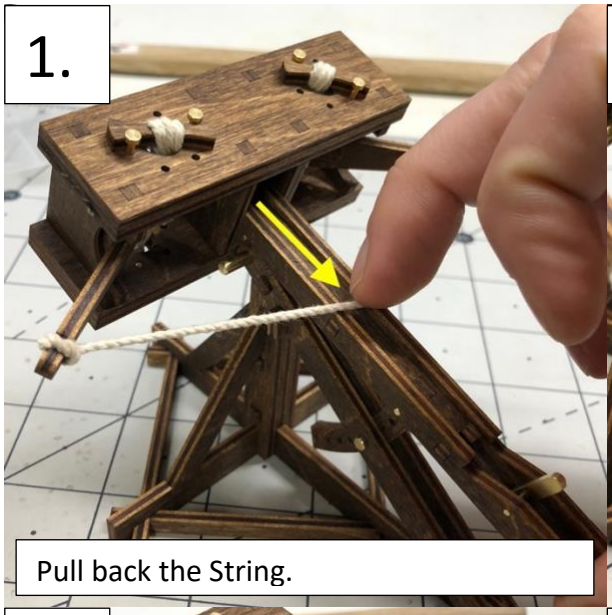
20.



Secure the knot with superglue. Trim.

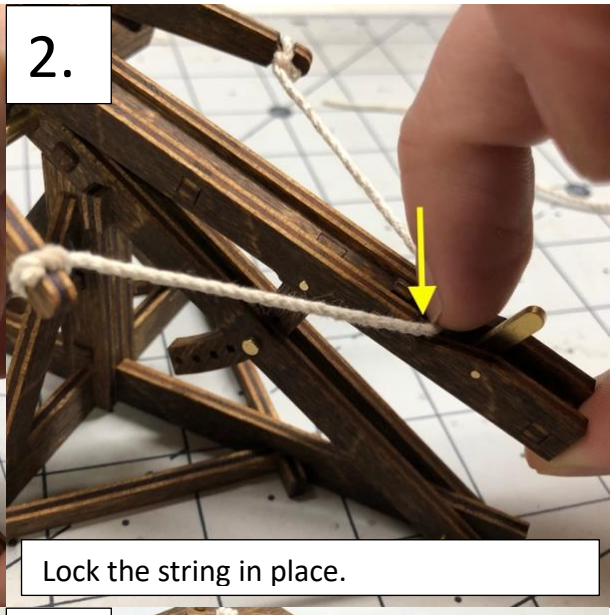
Section 3 – Operation

1.



Pull back the String.

2.

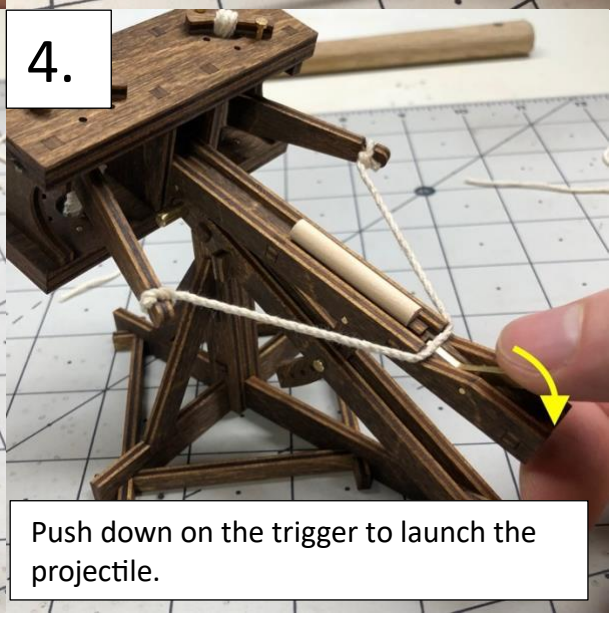


Lock the string in place.

3.

Place a projectile here.

4.



Push down on the trigger to launch the projectile.