THE ANCIENT HOBBYIST
TREBUCHET

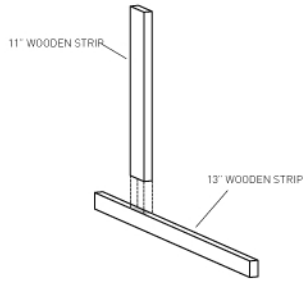
The trebuchet began appearing in Europe around the 12th Century. It was used to fling a range of objects ranging from simple rocks and stones, to flaming incendiary bombs and in some cases, dead animals such as cows and horses. They were used until the end of the 15th century, when gunpowder weapons such as the cannon took over. In 1422 at the siege of Karlštejn, human corpses and manure were fired over the enemy walls, apparently managing to spread infection among the defenders.

MATERIALS

- WOOD STRIPS – ABOUT 1" BY ½", HARD OR SOFT WOOD 1X 17" LONG / 2X 13" LONG / 2X 11" LONG / 5X 5" LONG
- 5" BY 5" PLYWOOD CUT INTO 2 TRIANGLES
- CORD OR STRING
- PIECE OF FABRIC ABOUT 1" BY 3"
- SCREW-EYES
- WEIGHTS
- GLUE
- PANELPINS

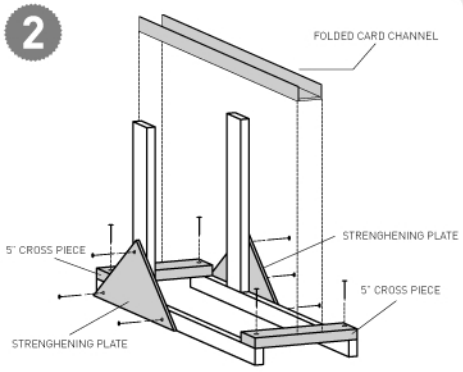
INSTRUCTIONS

1



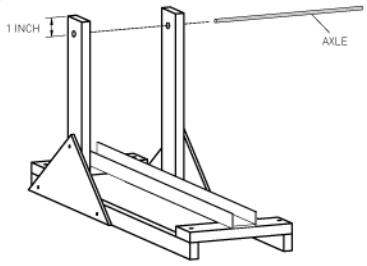
GLUE AND PIN 13 INCH AND 11 INCH PIECE TO FORM ONE SIDE OF FRAME.

2



REPEAT WITH OTHER TWO PIECES, THEN GLUE AND PIN STRENGTHENING PLATES (TRIANGLES) TO BOTH FRAMES. WHEN DRY, JOIN BOTH FRAMES TOGETHER BY GLUING/PINNING 5 INCH CROSS PIECES SCORE AND FOLD STIFF CARD TO MAKE A CHANNEL AND ATTACH A CENTRE LINE TO FRAME.

3



FIND A SUITABLE AXLE FOR THE THROWING ARM PIVOT. THIS NEEDS TO BE STEEL AND ABOUT 1/8-3/32 INCHES DIAMETER X ABOUT 6 INCHES LONG. COULD BE AN AXLE FROM CONSTRUCTION SET OR OLD TOY CAR OR SOURCED FROM MODEL SHOP. DRILL HOLES ABOUT 1 INCH FROM THE TOPS OF THE TWO VERTICALS SO THAT AXLE CAN PIVOT WITHOUT BINDING BUT IS NOT TOO LOOSE AND INSERT THROWING ARM.

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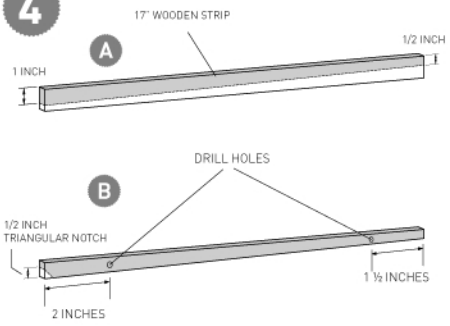

CUT 17 INCH STRIP SO THAT IT TAPERS FROM 1 INCH AT ONE END TO 1/2 INCH AT THE OTHER. CUT TRIANGULAR NOTCH OUT OF LARGER END APPROXIMATELY 1/2 INCH IN SIZE. DRILL HOLES ABOUT 2 INCHES FROM WIDER END (THIS WILL BE THE WEIGHT END) AND 1 ½ INCHES FROM THE THINNER END.

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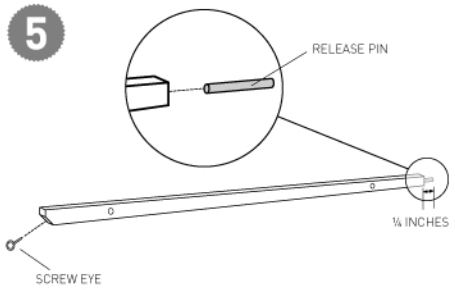

TAKE SMALL CORNER OF WEIGHT END AND INSERT A SCREW-EYE. THIS WILL HOLD THE WEIGHT SO NEEDS TO BE STRONG. USE GLUE IF IT'S NOT TOO SECURE. THE RELEASE PIN ON THE OTHER END OF THE ARM NEEDS TO BE ATTACHED NEXT. IT IS USEFUL TO BE ABLE TO BEND THIS TO 'TUNE' THE TREBUCHET, SO COPPER IS GOOD IF YOU CAN FIND IT, OTHERWISE A NAIL WILL DO. DRILL AND GLUE IT IN LEAVING ABOUT ¼ - 3/8 INCHES PROJECTING AND BENT SLIGHTLY UPWARDS.

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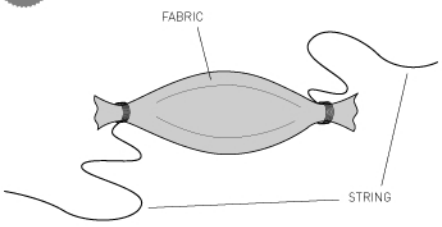

MAKE THE SLING FOR THE PROJECTILE WITH A PIECE OF FABRIC AND THIN CORD OR STRING. LEAVE ENDS ABOUT 18 INCHES LONG FOR NOW SHOULD BE POSSIBLE TO MAKE IT 'POUCH LIKE' BY FOLDING ENDS.

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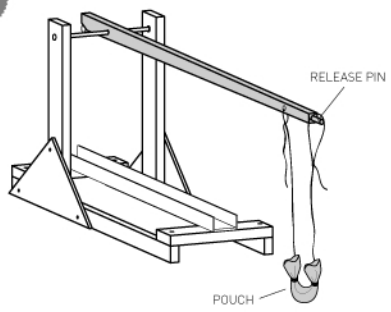

THEN TIE ONE END TO HOLE IN ARM AND MAKE 'LOOP' KNOT ON OTHER END TO HOOK ONTO RELEASE PIN. WHEN ARM IS LEVEL (HORIZONTAL) THE POUCH SHOULD BE HANGING SYMMETRICALLY.

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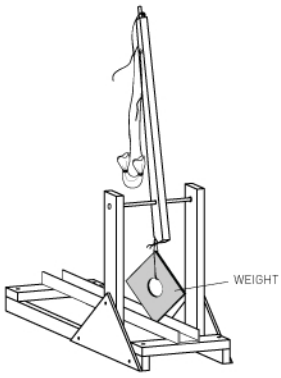

THE WEIGHT IS THE FINAL ELEMENT. THIS CAN BE UP TO THE SIZE OF A TENNIS BALL AND NEEDS TO BE REASONABLY HEAVY. FASTEN THE WEIGHT WITH A WIRE HOOK ON LOOP OF CARD SO IT CAN PIVOT FREELY ON THE SCREW EYE.

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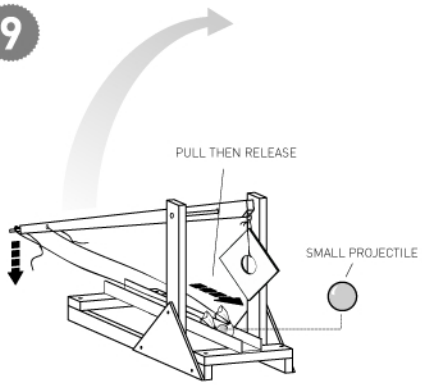

THE TREBUCHET IS NOW READY TO FIRE. FIT THE SLING TO THE 'RELEASE' PIN. LOAD SMALL PROJECTILE (ABOUT WALNUT SIZE, BIT OF PLASTICINE ETC) IN SLING AND SLIDE FORWARDS ON THE CHANNEL, PULLING DOWN THE ARM TO ITS LOWEST POSITION. SIMPLY RELEASE THE ARM AND THE PROJECTILE SHOULD FLY SOME DISTANCE. CHECK THE RELEASE POINT, IF IT RELEASES TOO SOON (GOES TOO HIGH) THE RELEASE PIN CAN BE BENT MORE AND/OR MAKE THE SLING CORDS A BIT LONGER. IF IT GOES TOO LOW (SEEMS TO BE THROWING INTO THE GROUND) STRAIGHTEN THE RELEASE PIN OR SHORTEN THE SLING CORDS.