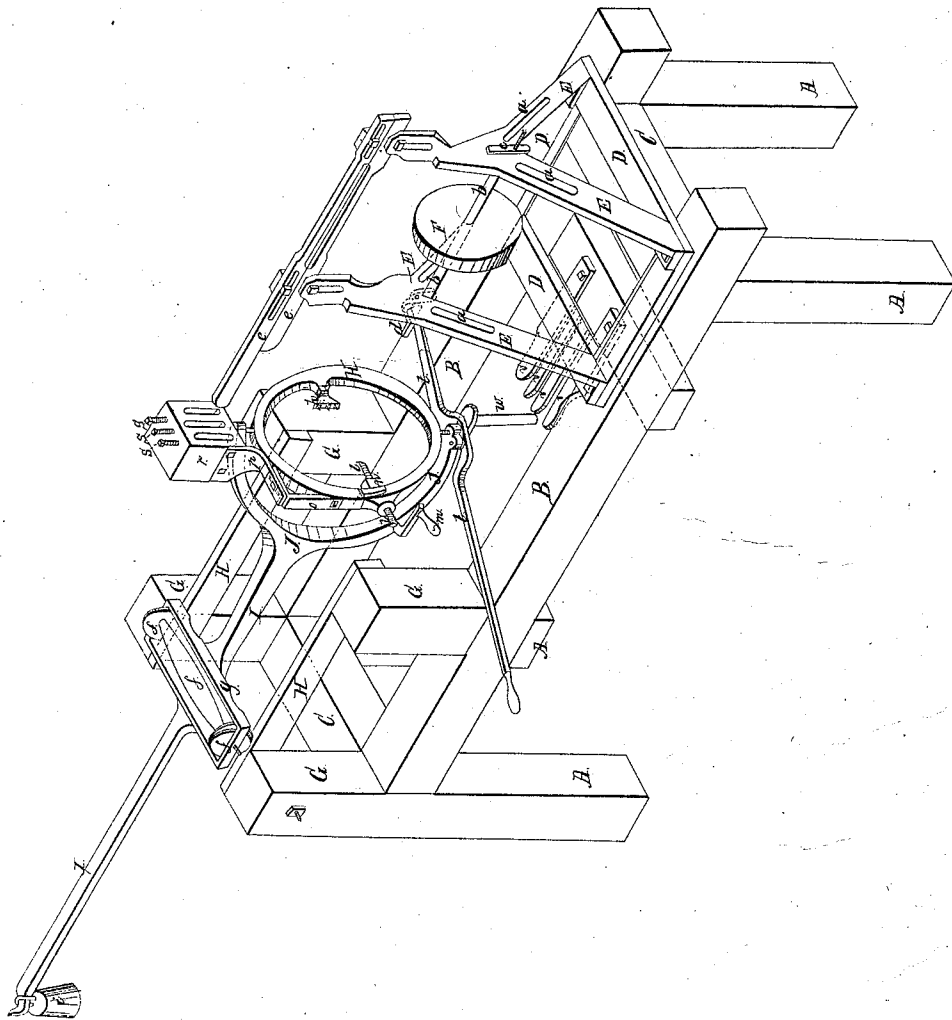


*T. Blanchard,
Boring Wood.*

Patented Aug. 10, 1836.



UNITED STATES PATENT OFFICE.

THOMAS BLANCHARD, OF NEW YORK, N. Y.

MACHINE FOR BORING HOLES AND CUTTING LANYARD-SCORES IN DEAD EYES.

Specification of Letters Patent No. 7, dated August 10, 1836.

To all whom it may concern:

Be it known that I, THOMAS BLANCHARD, late of Springfield, in the county of Hampden and State of Massachusetts, but now of the city, county, and State of New York, have made and invented and applied to use certain new and useful improvements in the method of boring holes and cutting the lanyard-scores in what are technically called "deadeyes," for use on board shipping, which said improvements, with the machinery by which the same are effected and the method of constructing and using the same, are fully described and set forth in the following specification and in the drawing hereunto annexed and making a part of this specification, wherein the principal figure represents an orthographical perspective of the said machine.

A, A, A, A, are four legs.

B, B, are two longitudinal, and C, C, are two cross pieces shown as of wood, but may be made of iron.

D, is a frame, or bed of iron bolted down to the frame, and supporting the two diverging standards, E, E, E, E, having slots *a, a, a, a*, in the arms, and having the arbor *b*, and pulley F, mounted on two hanging brackets C, C. The end of the arbor being fitted to receive the spoon bit *d*, made with a shifting lip, or cutter in the upper, or head part of each of the diverging standards E, E, is a slot to secure the lower one of the guide bars *e, e*, the upper one being made to slide on the lower one by slots with bolts to secure it at any required distance. At the other end of the frame are four short posts G, G, G, G, rising out of the main frame, and supporting the two metal railway bars H, H, on which the roller *f*, with a wheel at each end traverses the roller *f*, supporting the carriage *g*, to which is attached the lower I, one end of which is elongated to receive the counterbalance weight *i*. The other end terminates in a fork J, having counter screws to support, and maintain in place the swing frame K, at one side of which is the spur piece *h*, fitted with points to hold the dead eyes, and this spur is secured at any required distance by means of a set screw going through the swing frame K. At the opposite side of the swing frame K, and central with the spur stock *h*, is fitted a screw *l*, having a center point at one end, and a crank handle *m*, at the other end, and resting in the nut *n*. Above this,

and on the upper part of the swing frame is fitted the bracket *o*, on which the movable bracket *p*, and form block *r*, is mounted which is made with three mortises corresponding with the three lanyard holes in the dead eye to be bored, on the upper part of the form block *r*, are the three set screws S, S, S, which by going through into the mortises regulate the vertical position of the holes to be bored. The lower end of the mortises in the form block are cut on each side in a curve similar to the curve required for the lanyard scoring in the dead eye. Attached by a bolt to the underside of the fork J, is the lever *t*, which works at one end in a universal socket joint shown dotted behind the standard, the opposite end being elongated to form a lever for the workman to guide the work. Attached to bottom of the fork J, is the steady bar *w*, fitted in a right line with the center of the fork, and made to work in the slots between the lower guide plates V, V, V, V, which are made with slots to adjust them at any required distance. When it is desired to bore dead eyes, the machine is first adjusted by measure to the proper distances between all parts, and rapid rotary motion being given to the bit *d*, by a belt on the pulley F, from any first mover. The workman puts a block of wood, previously prepared for the purpose, between the spur block *h*, and the center screw C, and securing it there by turning the center point into it, he then grasps the end of the lever *t*, and advances the whole of the work on the railway toward the boring bit *d*, he causes the upper one of the guide bars *e*, to enter whichever mortise in the form block *r*, he pleases, and the lower steady bar *w*, to pass between the corresponding guide plates V, V, thus steadying the whole effectually and continuing the motion until the bit bores a straight hole in the dead eye, and the lower guide piece is within the form block *r*. He then withdraws, and raises the fork, and machinery attached to it, bringing the rounded end of the lower guide bar *e*, in contact with that part in the mortise of the form block, which is rounded, and moving it upward, and downward. The compound curve formed by moving the form block in contact with the lower guide bar *e*, causes the bit to cut the lanyard score, to one hole, on that side of the dead eye, the other two holes are then bored in succession. The swinging frame is then turned

around carrying the guide block, and dead eye with it, and the opposite side of the dead eye is presented by the workman to undergo a similar operation with the bit.

3 When the size of the dead eye admits it, three bits can be used at once, and consequently all three holes bored at one operation by putting in two additional augers, or bits, secured by brackets bolted in the
10 slots *a, a, a, a*, and by adjusting them to proper distances, the guide bar *e*, only enters the center mortise in the form block, and the operation in other respects is performed as before described.

15 And I, the said THOMAS BLANCHARD, do hereby declare that I do not claim as my in-

vention any of the separate parts of the above described machine, but I do claim as my invention—

The combination of the several parts of 20 said machine as herein described, and used by me, and applied to the purpose of boring the holes, and cutting the lanyard scores in what are technically termed dead eyes with one, or more boring bits, substantially 25 in the manner above described, and set forth.

THOS. BLANCHARD.

Witnesses:

S. P. STAPLES,
C. S. SHERMAN.