No. 621,022. Patented Mar. 14, 1899.

S. BOAL.

STOVE DOOR AND JIG FOR FINISHING SAME.

(Application filed July 16, 1897.)

(No Model.)

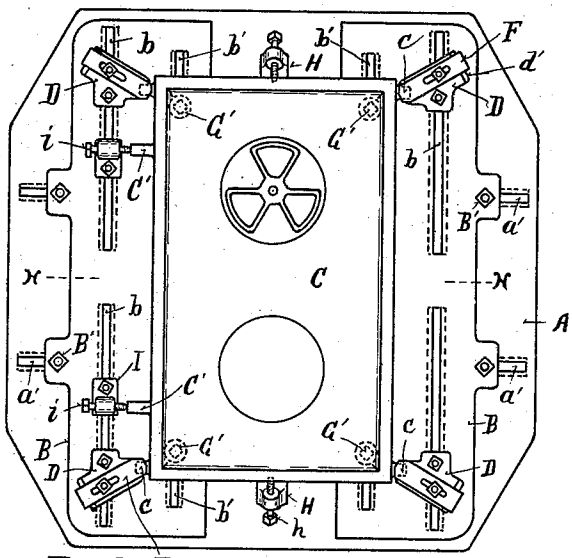


Fig. 1.

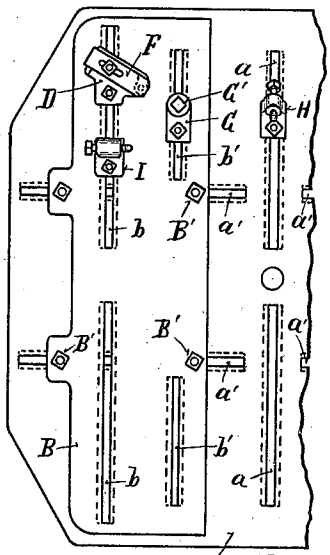


Fig. 2.

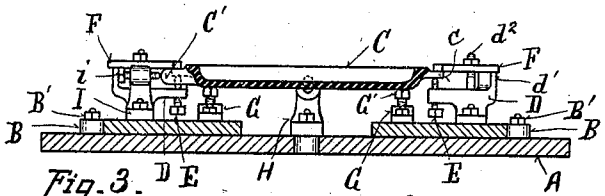


Fig. 3.

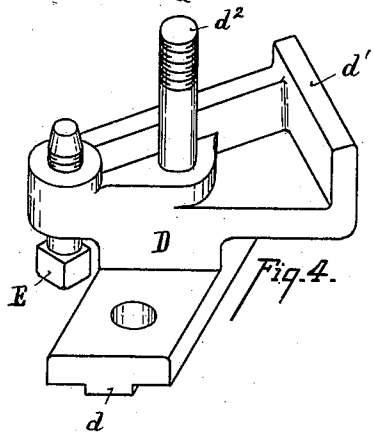


Fig. 4.

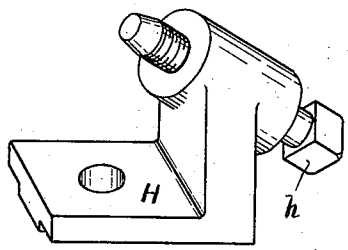


Fig. 5.

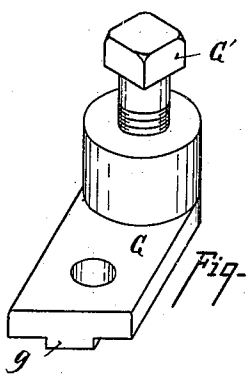


Fig. 6.

Witnesses
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UNITED STATES PATENT OFFICE.

STANHOPE BOAL, OF PIQUA, OHIO.

STOVE-DOOR AND JIG FOR FINISHING SAME.

SPECIFICATION forming part of Letters Patent No. 621,022, dated March 14, 1899.

Application filed July 16, 1897. Serial No. 644,819. (No model.)

To all whom it may concern:

Be it known that I, STANHOPE BOAL, residing at Piqua, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in Stove-Doors and Jigs for Finishing the Same, of which the following is a specification.

The object of my invention is to provide a method of finishing stove-doors and appropriate mechanism for accomplishing that result. Owing to the exceeding thinness of stove-castings and the consequent difficulty of supporting them properly in order to subject them to the action of machinery the work had hitherto to be done by hand, which was a laborious and expensive proceeding. By my method of first providing suitable points of attachment integral with the castings and then supporting them thereby in a peculiar-shaped holding-jack, which is capable of also holding different sizes of castings, I am enabled to finish all the parts with an exactness and less degree of labor and time than was ever before accomplished.

The features of my invention are more fully set forth in the description of the accompanying drawings, making a part of this specification, in which—

Figure 1 is a top plan view of an improved jack adapted to be mounted on the bed of a planer or milling-machine to hold the castings. Fig. 2 is a similar view with the casting removed from the jack. Fig. 3 is a section on line x x, Fig. 1. Fig. 4 is a detailed view of one of the clamping-blocks. Fig. 5 is a perspective view of one of the thrust-blocks. Fig. 6 is a perspective view of one of the supporting-blocks.

A represents the bed-plate of the jack, adapted to be swiveled to the bed of a planer or a milling-machine and provided with suitable slots a a', supporting clamping mechanism.

B represents plates adjustably secured upon the bed-plate A and also provided with slots b b', by means of which the clamping and supporting blocks are adjusted in position.

C represents a stove-door casting, upon the outer edges of which are cast lugs c, adapted to be engaged by suitable clamping mechanism to hold the casting in place. This clamping mechanism consists of clamping-blocks D, provided with a tongue d, entering the slot b in the grooves of the sliding plates B.

E represents bolts tapping bosses on the blocks D and engaging the under side of the lugs c.

F represents a slotted plate, the outer end of which rests upon the lug d', while its inner end grasps the upper face of the lug c.

d^2 represents a stud-bolt by means of which the plate F is clamped in position.

The stove-casting is supported against vertical pressure by means of the supporting-blocks G, provided with suitable tongue g, adapted to enter the slot b', the bolts G' being adjusted to engage the under face of the casting to form a vertical support. The casting is also supported at opposite ends against end thrusts by means of the thrust-blocks H, mounted in grooves a of the bed-plate and provided with bolts h to engage the ends of the casting.

I represents thrust-blocks mounted in grooves b and provided with bolts i to engage the hinge-lugs C' of the casting.

B' represents clamp-bolts for holding the plates B in their adjusted position.

By means of the system of clamping employed of the tongues traveling in grooves I am enabled to use the same devices for a large range of different-sized castings. It will be readily seen that I thus clamp the castings firmly to the bed-plate in such manner as to present the edges of the casting to the tools, that having once adjusted the parts to a particular-sized casting I am enabled to quickly and readily remove and replace the castings, and that by swiveling the bed-plate I am enabled to dress both end and side edges.

It would readily follow that with my method of machining the castings instead of the old method I obtain the greatest uniformity and accuracy at a considerable economy of time, labor, and expense.

Having described my invention, I claim—

1. A stove-door provided with a plurality of lugs, projecting laterally upon the two opposite sides of the door, said lugs adapted to be engaged by clamping means to hold the door in place on the bed-plate of a planing-machine, as and for the purposes specified.

2. A holding-jack for finishing stove-doors

composed of a swiveled bed-plate provided with grooves, side plates B adjustably supported in said grooves, clamping-blocks D and the adjustable supporting-nut E, substantially as specified.

3. A holding-jack for finishing stove-doors composed of a swiveled bed-plate provided with grooves, side plates B supported in said grooves, clamping-blocks D, and the adjustable supporting-nut E, and a series of adjustable blocks G and their adjustable supporting-bolts, substantially as specified.

In testimony whereof I have hereunto set my hand.

STANHOPE BOAL.

Witnesses:
W. B. MITCHELL,
SETH MCCALLOCH.