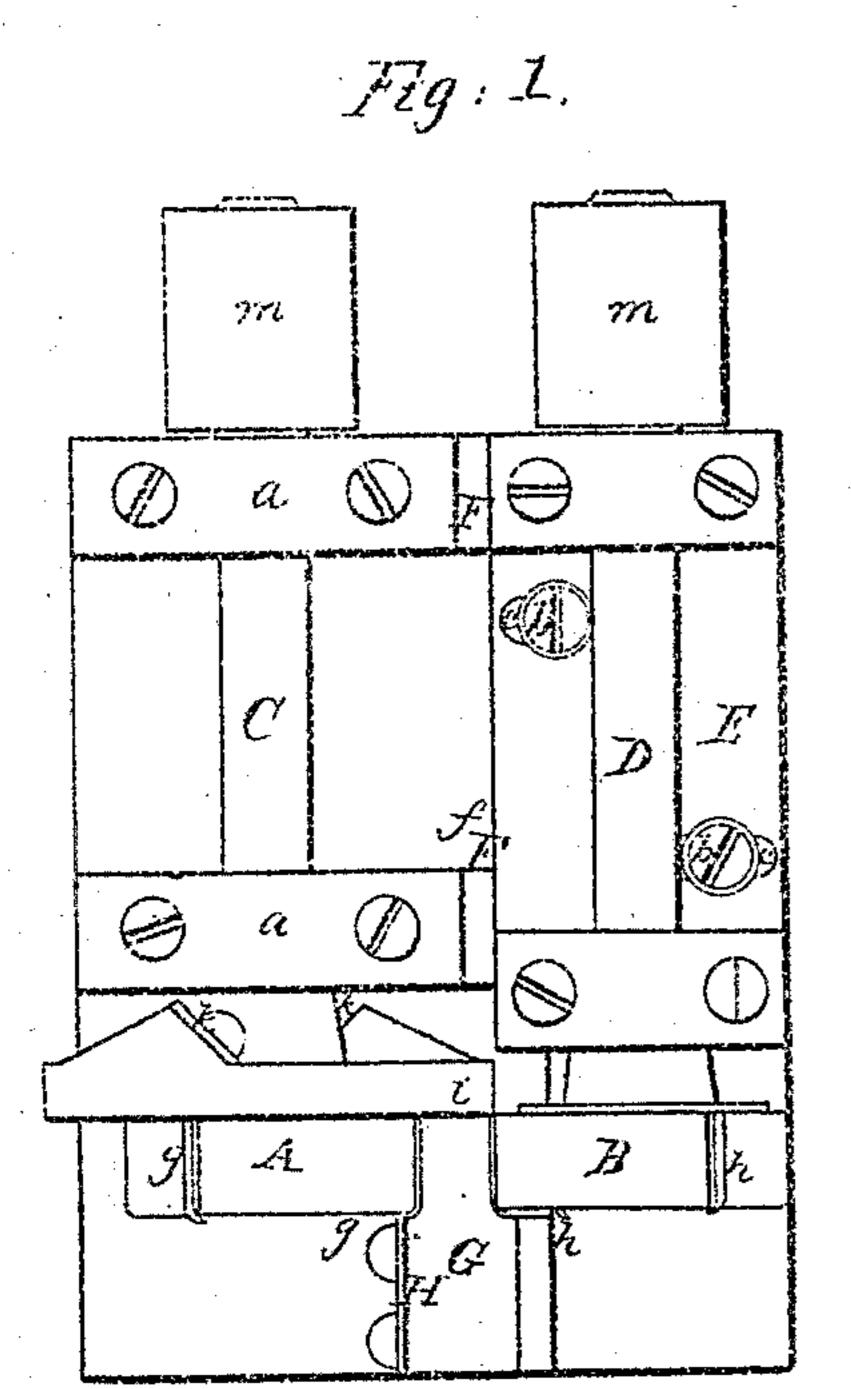


Mathine for Finishing Catal Handless 76.75082 Patented March 3.1868



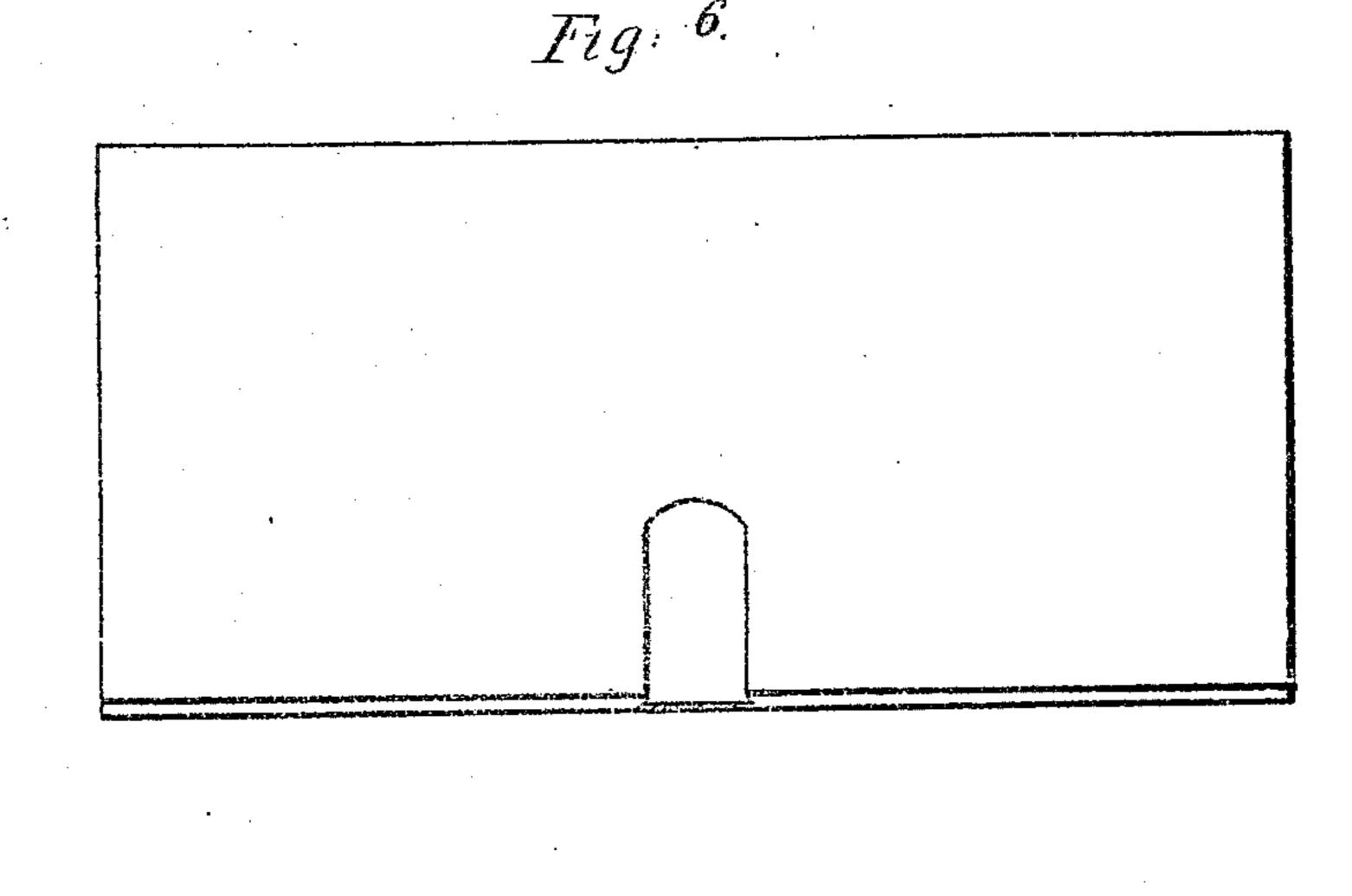
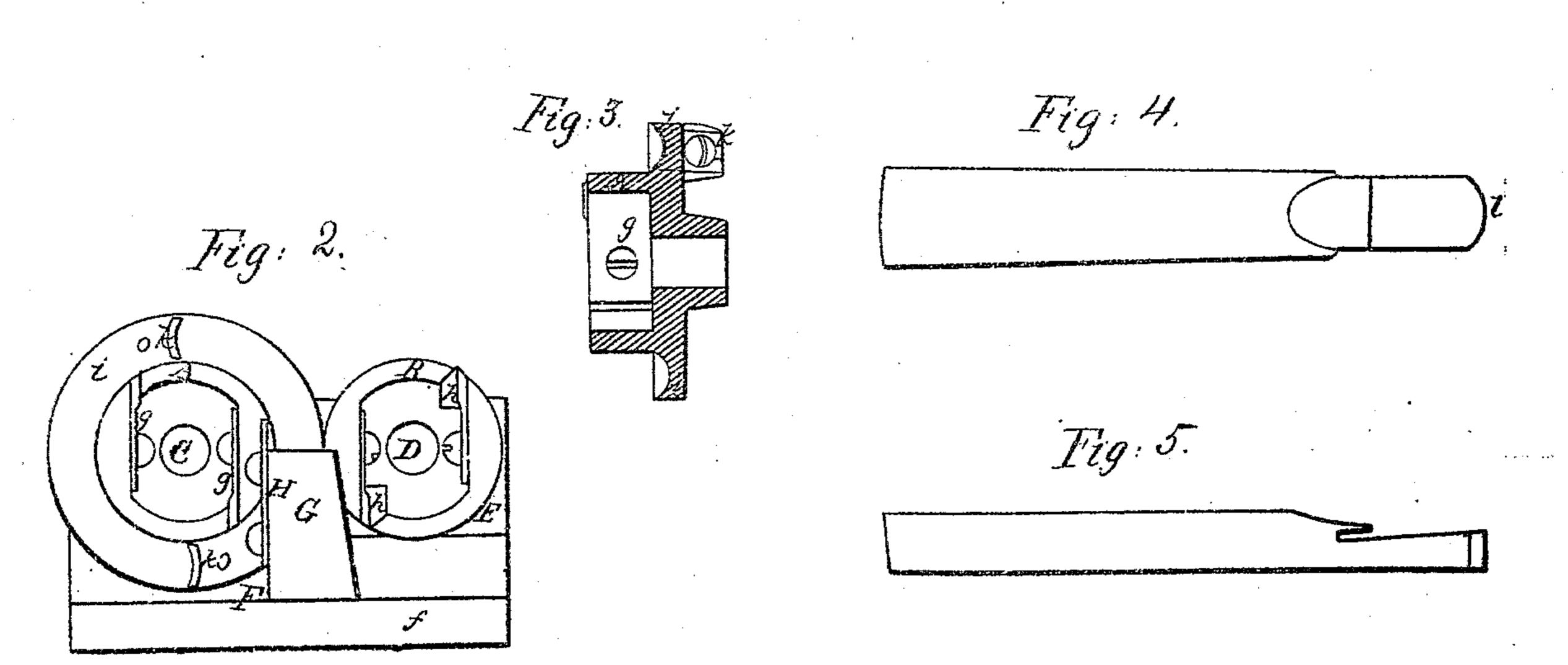


Fig: 7.



Daniel Nitnesses:

January St. Shir-

Inventor:
Increase & Waite

by his attorney.

C. Heddy

Anited States Patent Pffice.

INCREASE S. WAITE, OF HUBBARDSTON, MASSACHUSETTS.

Letters Patent No. 75,082, dated March 3, 1868.

IMPROVEMENT IN MACHINES FOR FINISHING CARD-HANDLES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL PERSONS TO WHOM THESE PRESENTS MAY COME:

Be it known that I, Increase S. Waite, of Hubbardston, in the county of Worcester, and State of Massachusetts, have invented a new and useful Machine for Tenoning Card-Board Handles; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view, and

Figure 2 a front elevation of such machine.

Figure 3 is a transverse section of its larger cutter-stock.

The purpose of such machine is to form upon a card-board handle a dove-tailed tenon having a curved end.

Figure 4 is a top view, and

Figure-5 a side elevation of such a card-handle and tenon.

Figure 6 is a top view, and

Figure 7 an edge elevation of the card-board mortise destined to receive such tenon.

In the first-named three figures, A and B denote two cutter-heads mounted on the ends of two horizontal and parallel shafts, CD. The shaft C has stationary bearings aa, but the shaft D is sustained by an adjustable carriage, E, held in place to the frame F, by which the boxes a a are upheld. Set-screws b b pass through slots cc in the carriage E, and screw into a bed-plate, f, of the frame F, the same being to enable the lesser cutterhead to be moved either toward or away from the larger one, and fixed in position with respect thereto as occasion may require. Each cutter-head is a recessed cylinder, provided with two cutters, g g or h h, arranged in throats opening through the periphery of the head. Furthermore, the larger cutter-head has a flange, i, projecting from it circumferentially, as shown in the drawings. 'On its front face the flange is hollowed or grooved entirely around it, and concentrically with the cutter-head. One or more knives or cutters, k, extend through the flange, each being arranged and fixed in a throat formed therein. The groove of the flange has a semicircular or semi-elliptical section, and the edge of the cutter k is hollowed to correspond therewith, so as to cause each cutter k to cut off the end of the card-board handle in a curved form, as represented at l in fig. 4. Between the two cutter-heads is a rest, G, provided with a lip or guide, II, which projects up from one side of it, the whole being as represented in the drawings. The upper edge of the said rest is in, or about in, a plane passing through the two axes of the cutter-heads. Each cutter-head shaft is provided with a pulley, m, by which it may be revolved by a belt running around such pulley.

By placing a card-board handle on the rest while the cutter-heads are in rapid revolution, and forcing it between them and against the curved face of the flange, such handle will not only be turned or cut with bevelled edges, but on its end will be rounded as required, it being held against the guide or rest while being so cut or

In a machine for tenoning card-board handles, I claim the rotary cutter-head A with the curved concave flange i, provided with the cutters g and k, the cutter-head B, with the cutters h, the rest G, and guide H, constructed and operating substantially as described.

INCREASE S. WAITE,

Witnesses:

R. H. Eddy,

GEO. H. ANDREWS.