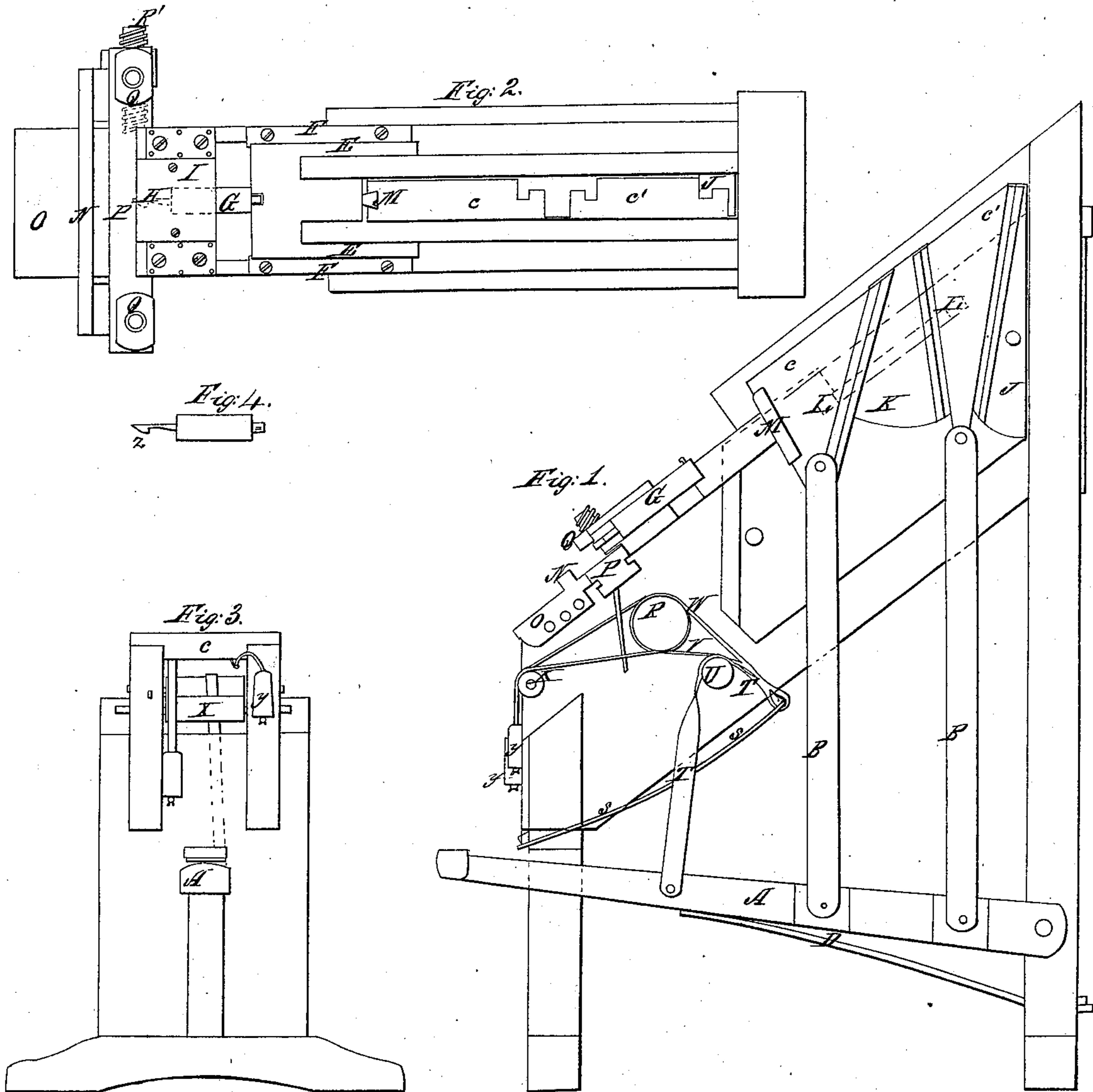


T. H. Hoskings,
Mortising Machine,

No 247,

Patented June 30, 1837.



UNITED STATES PATENT OFFICE.

THOMAS H. HOSKINGS, OF SPRINGFIELD, OHIO.

MACHINE FOR MORTISING TIMBER.

Specification of Letters Patent No. 247, dated June 30, 1837.

To all whom it may concern:

Be it known that I, THOMAS H. HOSKINGS, of Springfield, in Clark county, in the State of Ohio, have invented a Machine for Mortising Timber for Cabinet-Makers' or Joiners' Work or for other Purposes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

This machine is operated by means of a treadle, from which rise two pitmen, attached to wedge-shaped pieces of wood, or other material; the drawing down of which wedge-shaped pieces, by the depression of the treadle, advances the chisel, and forces it into the stuff to be mortised.

The upper side of my machine, in which the chisel and the various sliding parts work, is an inclined plane, forming an angle of about forty five degrees with the horizon, as is shown in Figure 1, which represents a vertical section of the machine, from front to back, through its center. Fig. 2, is a view of the inclined surface of the top; and Fig. 3, the front end extending up to the commencement of the inclined plane; and in all these figures the same letters of reference are used wherever the same parts are represented.

A, is the treadle, and B, B, the pitmen, which are attached, by joint pins, at their upper ends, to the wedge-shaped pieces C, C'. Under the treadle there is a spring D, by which it is raised. When the treadle is forced down by placing the foot on its fore end, the wedged-shaped pieces C, C', will descend, and will force the slide E, E, forward, which slide is guided by the tongued pieces F, F. The stock G, which carries the chisel H, is fitted into, and works through, the socket piece I. The slide E, is attached to G, by a pin, allowing it, with the chisel, to be turned around when requisite. J, is a stationary wedge-shaped piece being firmly fixed in its place.

K, is a wedge-shaped piece which is capable of motion in the direction of the plane, having tongues on each side of it which slide in slots in the cheeks, or side pieces, represented by the dotted lines L, L. On the front end of the wedge piece C, there is a dovetailed groove, extending its whole length, which groove receives a dovetailed tongue M, firmly affixed to the slide E, E. It will now be easy to perceive how by the

action of the treadle upon the wedges, the chisel is worked backward and forward. The wedges are kept in contact with each other by being grooved together in the manner shown in the top view of them Fig. 2, or in any other way which will produce a like effect.

The stuff to be mortised, is laid against the ledge N, the distance of which from the chisel may be regulated according to the width of the stuff. This may be done in various ways; one which I have adopted is the boring of several holes through the piece, O, upon which the ledge, N, is fixed, and also a hole through the cheeks of the machine, when by means of a pin, or bolt, the distance may be regulated with sufficient exactness.

P, is a traversing bar upon which the piece to be mortised is fastened down; Q, Q, being screw nuts; working upon screws rising vertically from it, which nuts are made to bear upon the stuff. The traversing of this bar endwise is effected by the motion of the treadle, and the direction in which it moves may be instantaneously changed by means of the following apparatus.

R, Fig. 1, is a horizontal shaft capable of revolving, and having a screw R', Fig. 2, cut on its projecting end; which screw works through a nut extending below the lower side of the bar P; the screw will, necessarily, move the bar to the right, or left, as it is turned in one or the other direction. S, is a spring affixed at one end to the front of the machine, and raised at the other end by means of the strap, T, affixed to it, and to the treadle, and passing over a roller U; from the end of this spring, two straps, one of which is seen at V, and the other at W, proceed, and are coiled, in reversed directions around the shaft R, extending thence over a roller, X, in front of the machine, and having weights Y Y, suspended by them. By tracing the result of this arrangement, it will be evident that by causing one or the other of these weights to act by means of its strap upon the shaft R, the bar P, will traverse in either direction.

The chisel which I use is peculiar in its form, and is shown separately at Z, in Fig. 4. It has a cutting edge, and two lateral edges, or side cutting lips, like many others which have been used in mortising machines, its peculiarity consisting in the curvature which is given to the lateral cutting edges,

or lips; the edge of each commencing at the cutting edge of the main, or straight, part of the chisel, and so curved as to form an ogee, in proceeding thence to its upper part.

- 5 To adapt the chisel to the gage mark upon the stuff, the socket piece I, may be raised, or lowered, by means of the set screws *i, i, i, i.*

10 Having thus fully described the construction of my machine, and indicated the manner in which it operates, I claim, as my invention—

The general arrangement and combination of the operating parts thereof, as peculiar

in their character; that is to say, I claim the arrangement of the wedge-formed pieces, 15 by which, and their connection with the treadle, the mortise chisel is made to traverse backward and forward on an inclined plane, as herein set forth; together with the arrangement of the straps, weights and screws, 20 for moving the traverse bar.

T. H. HOSKINGS.

Witnesses:

THOS. P. JONES,

CHARLES GOODYEAR.