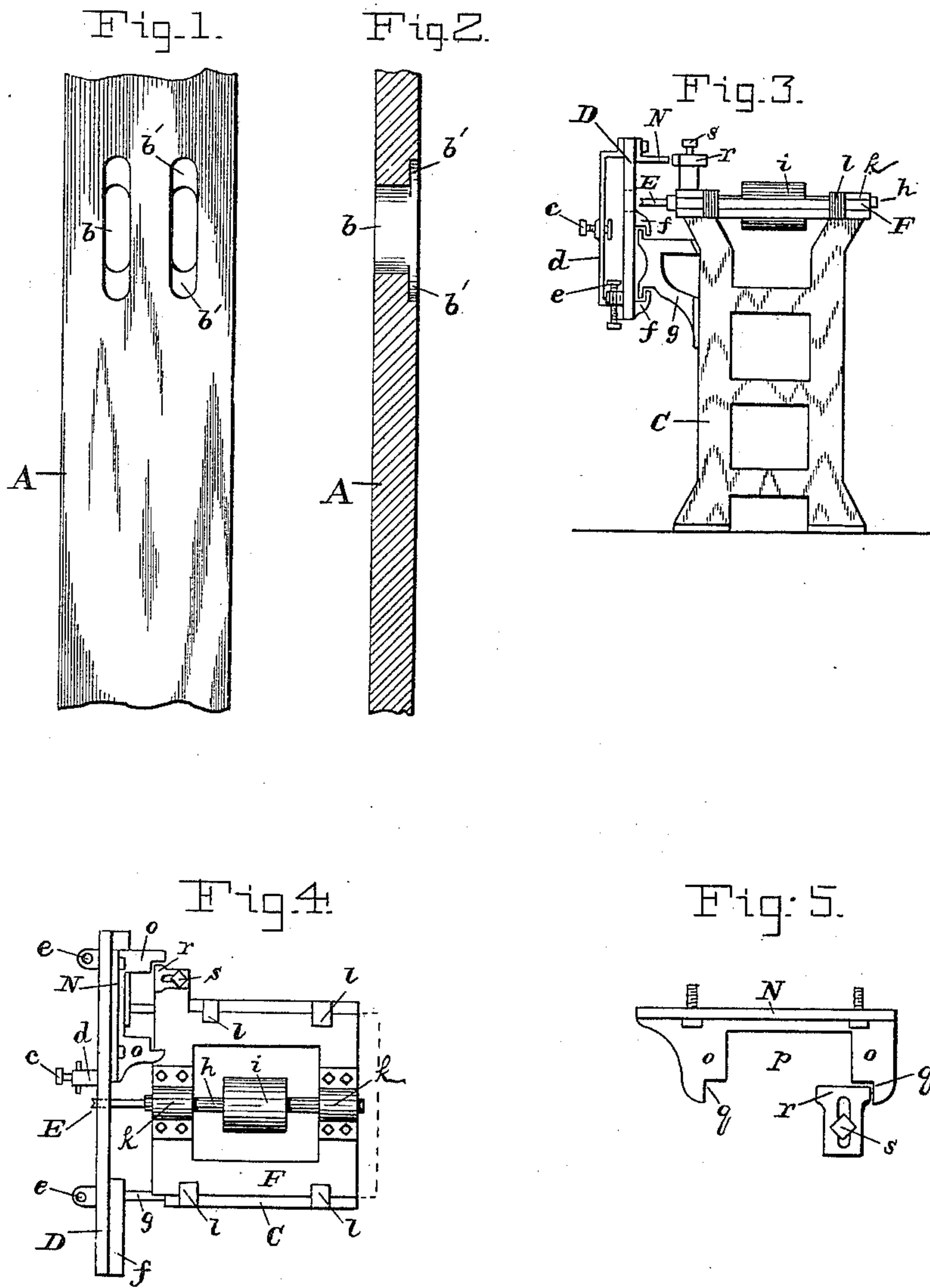


(No Model.)

A. J. HEISE.
MORTISING MACHINE.

No. 338,967.

Patented Mar. 30, 1886.



Witnesses:

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UNITED STATES PATENT OFFICE.

AUGUST J. HEISE, OF BALTIMORE, MARYLAND.

MORTISING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 338,967, dated March 30, 1886.

Application filed January 30, 1886. Serial No. 190,272. (No model.)

To all whom it may concern:

Be it known that I, AUGUST J. HEISE, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Mortising-Machines, of which the following is a specification.

My invention relates to an attachment for sash-cord-pulley mortising-machines; and it consists of a special cutting-bit governor, as hereinafter described and claimed.

The invention is illustrated in the accompanying drawings, in which Figures 1 and 2 are views of part of a window-sash frame, showing the shape of the mortise desired to be cut by a single operation of one cutting-bit. Fig. 3 is a side elevation of a machine to which the cutting-bit governor is attached. Fig. 4 is a top view of the same. Fig. 5 is a view of the cutting-bit governor.

The letter A designates the window-sash frame, *b* the mortise for the sash-cord pulley, and *b'* the countersink at each end of the mortise for the end flanges of the said pulley.

It is the design of this invention to provide for cutting with one bit mortises having countersinks of this form.

The letter C designates the frame of the machine; D, a movable holder, to the front side of which the piece of window-frame A is to be secured by means of a clamp-screw, *c*, on a cross-bar, *d*. When thus secured, the piece of window-frame A rests on the vertically-adjustable screws *e*. The back of the movable holder has slides *f*, and brackets *g* on the machine-frame support the holder by these slides. Thereby the holder may be moved back and forth in a horizontal plane crosswise of the front of the machine. This movement of the holder may be effected by the hand of the workman; or any well-known mechanism heretofore used for similar purposes may be employed. The mortising-bit E is in the end of a shaft, *h*, having a pulley, *i*, to receive a belt (not shown) by which it may be driven. The bit-shaft *h* sets in bearings *k* on a slide-frame, F, which rests in guides *l* on top of the machine stand or frame C. This slide-frame, carrying the bit, may thus have the usual movement, whereby as the bit bores into the window-frame it will, by moving the slide-frame forward, be forced

into the window-frame, and then by moving the slide-frame back it may be retracted or withdrawn.

Any well-known mechanisms, such as have heretofore been employed in boring or mortising machines to effect similar ends—to wit, to slide the bit back and forth—may be used for this purpose, and, as such forms no part of my present invention, it is deemed unnecessary to show the same here, as any mechanic familiar with this class of machines will be able to supply the same. It will thus be seen that while the mortising-bit may have endwise movement, the piece of window-frame A to be operated on may be moved crosswise of the said bit or at right angles therewith.

I provide a governor to control the cut of the mortising-bit by governing the crosswise movement of the window-frame which is undergoing the action of the bit, and also governing the advance of the bit. This governor device consists of two parts: first, a plate, N, attached to the holder D, and having at one side two right-angled arms, *o*, one being at one end of the plate and one at the other, with a space, *p*, between the said two arms. Each of the two arms *o* has a right-angled notch, *q*, on their confronting edges and at their ends of equal size. The length of the space *p* between the two arms determines the length of the mortise *b* of the window-frame and the length and depth of the notches *q* determines the size of the countersinks *b'*. The second part is a stop, *r*, secured by a set-screw, *s*, to the slide-frame F. When the slide-frame and bit move forward, this stop *r* commences to bear on one of the notches *q* of the plate N, and thereby the action of the bit E in cutting the first countersink *b'* is regulated. The holder D continues to move crosswise, and the stop *r* advances into the space *p* between the two arms *o*. Thereupon the bit cuts the mortise *b*. The stop *r* now recedes and enters and bears on the second notch *q*. Thereby the bit is caused to cut the second countersink *b'*.

Having described my invention, I claim and desire to secure by Letters Patent of the United States—

In a mortising-machine, the combination of a mortising-bit which rotates on a slide-frame, a holder device for the wood to be mortised by the bit, and which has movement crosswise

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of or at right angles therewith, and the here-
in-described governor to control the cut of the
mortising-bit, consisting of the plate N, hav-
ing two right-angled arms, *o*, with a space, *p*,
5 between them, and both arms provided on
their confronting edges with a right-angled
notch, *q*, and a stop device, *r*, to act on the
said notches and the confronting edges of the

said arms, all arranged and co-operating sub-
stantially as set forth. 10

In testimony whereof I affix my signature in
presence of two witnesses.

AUGUST J. HEISE.

Witnesses:

JNO. T. MADDOX,
JOHN E. MORRIS.