

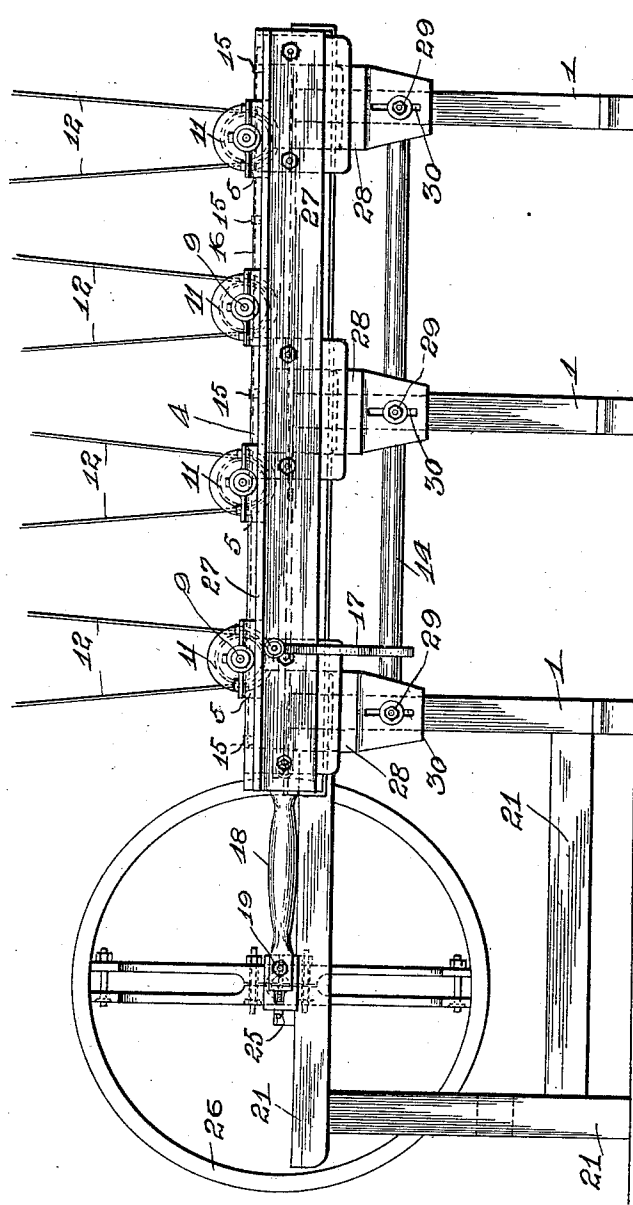
A. O. VICK.
MORTISING MACHINE.
APPLICATION FILED APR. 2, 1910.

1,009,201.

Patented Nov. 21, 1911.

3 SHEETS—SHEET 1.

Fig. 1



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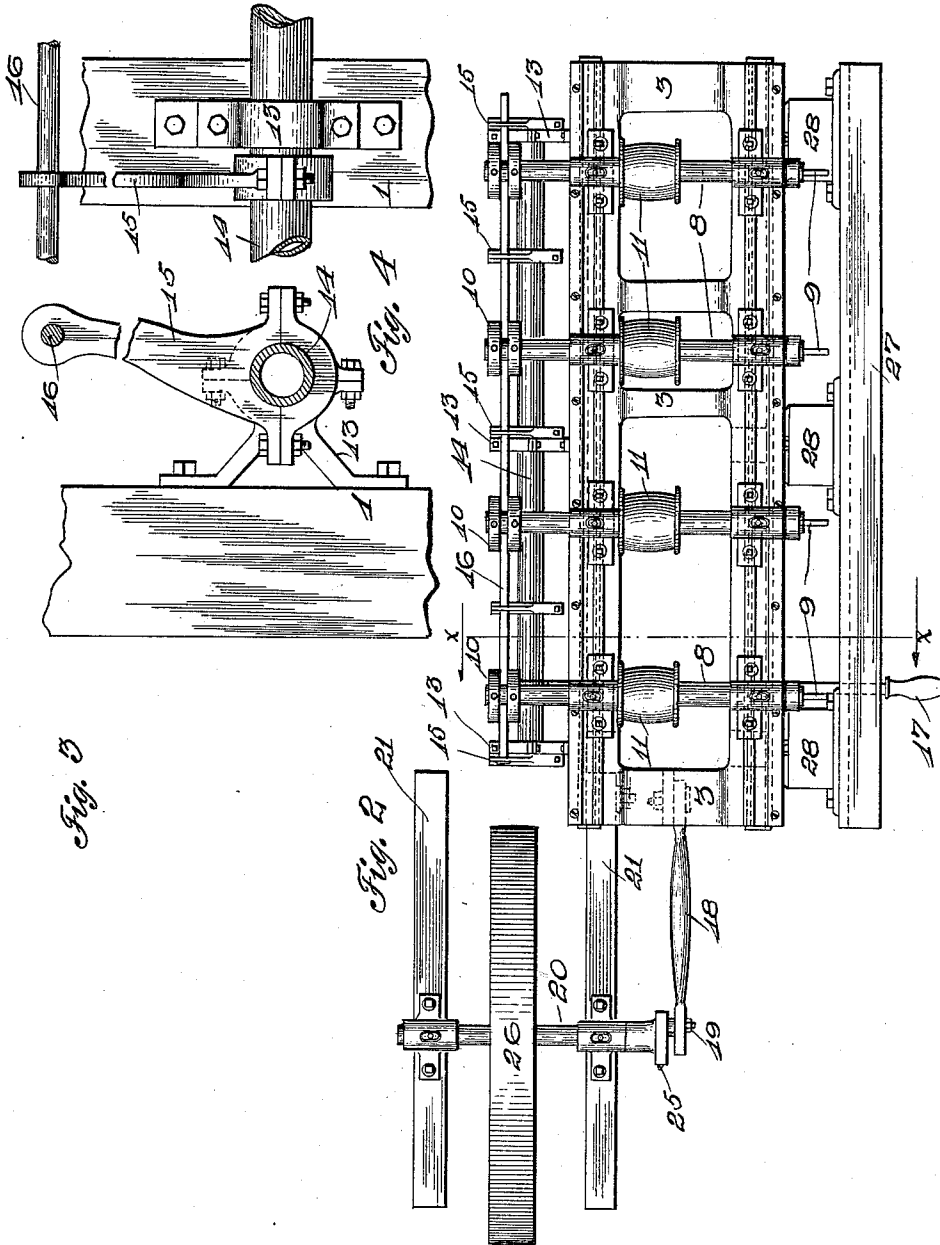
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3 SHEETS-SHEET 2.



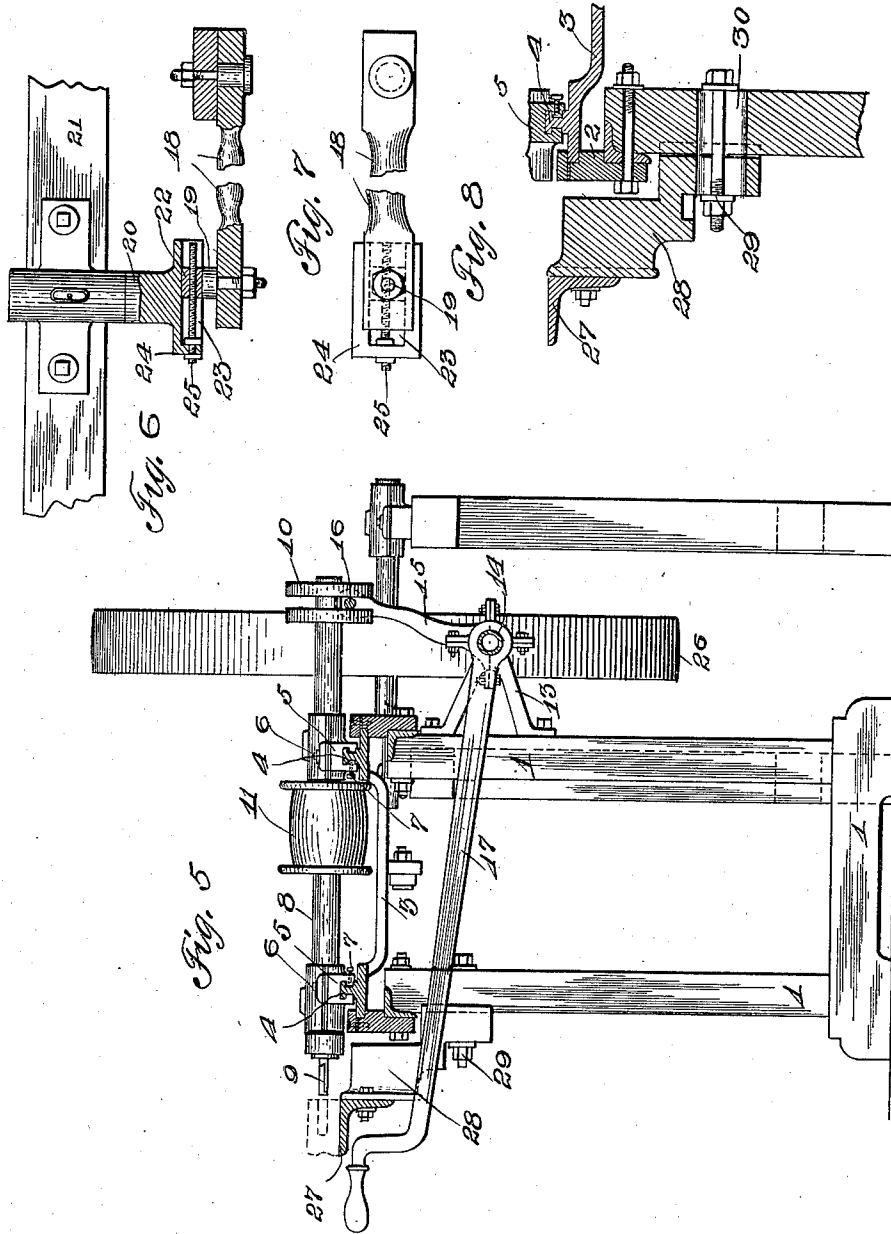
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

AUGUST O. VICK, OF CHICAGO, ILLINOIS.

MORTISING-MACHINE.

1,009,201.

Specification of Letters Patent.

Patented Nov. 21, 1911.

Application filed April 2, 1910. Serial No. 553,129.

To all whom it may concern:

Be it known that I, AUGUST O. VICK, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Mortising-Machines, of which the following is a specification.

My invention relates to improvements in mortising machines and has for its object the production of a mortising machine of improved construction and efficient in operation.

The invention consists in the combination and arrangement of parts hereinafter described and claimed.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification, and in which,

Figure 1 is a front elevation of a machine embodying my invention, Fig. 2, a top plan view of the same, Fig. 3, a sectional detail of the rock shaft employed in the machine, Fig. 4, an elevation corresponding to Fig. 3, Fig. 5, a section on line $x-x$ of Fig. 2, Fig. 6, a sectional detail of the adjustable crank pin employed in the machine, Fig. 7, an elevation corresponding to Fig. 6, and Fig. 8, a sectional detail illustrating the construction for mounting the adjustable work table of the machine.

The preferred form of construction as illustrated in the drawings comprises a suitable frame 1 having longitudinal guide members 2 secured to the upper end thereof. A table 3 is mounted to reciprocate longitudinally in guide members 2 and is provided with longitudinal adjusting rails 4 at either side thereof. Bearing blocks 5 having caps secured thereto by means of bolts 6 are slidably mounted on rails 4 and may be secured in adjusted position by means of bolts 7. Spindles 8 are rotatably mounted in aligning pairs of bearing blocks 5 so as to be capable of longitudinal reciprocation therein. At their forward ends spindles 8 carry cutting bits or tools 9 and at their rearward ends are provided with grooved collars 10, as shown. Between bearing blocks 5 each of the spindles 8 is provided with a driving pulley 11, driven by means of upwardly extending belts 12 connecting with over-head pulleys (not shown). A rock shaft 14 is mounted in suitable brackets 13 secured to the rear of frame 1. Rock shaft 14 is provided with upwardly extending rocker arms

15 carrying a longitudinal rod 16 slidably engaging the grooves in collars 10. A forwardly extending lever 17 serves as a means for rocking shaft 14 to cause longitudinal reciprocation of spindles 8. At one end table 3 is connected by means of a link 18 with an adjustable crank pin 19 carried by a shaft 20 rotatably mounted in a frame extension 21. Crank pin 19 is carried by a block 22 slidable in a slot 23 in a block 24 on the end of shaft 20. A shaft 25 swiveled in block 24 and threaded in block 22 serves as a means for adjusting the crank pin 19 radially with respect to the axis of shaft 20. Shaft 20 is driven by means of a pulley 26 fixed thereto. It will be observed that upon rotation of shaft 20 the table 3 and consequently bits 9 will be caused to reciprocate longitudinally of frame 1 and that by manipulation of lever 17, the bits 9 may be caused to reciprocate transversely of said frame. By adjusting the eccentricity of crank pin 19 the length of the longitudinal reciprocation of bits 9 may be adjusted. A work table 27 is carried by brackets 28 which are adjustably secured to frame 1 by means of bolts 29 taking through slots 30.

In use, the work to be mortised is clamped or otherwise secured to table 27 in operative relation with bits 9 and said bits are caused to enter the work by means of lever 17. The bits are constantly reciprocating so that when they enter the work they cut a longitudinal recess or mortise therein, as indicated in dotted lines in Fig. 5. By adjustments of table 27 and spindles 8 the locations of these mortises may be varied as desired and the sizes of the mortises may be varied by using different sizes of bits and by adjusting crank pin 19.

While I have illustrated and described the preferred form of construction for carrying my invention into effect this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the exact details set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. The combination with a frame of a table mounted to reciprocate therein; a series of longitudinally reciprocable spindles

- mounted transversely on said table; means for adjusting said spindles laterally on said table; bits at the front ends of said spindles; grooved collars at the rear ends of said bits
5 set with their grooves in alinement; a rock shaft mounted at the rear of said frame under said collars; rocker arms on said rock shaft; a rod carried by said rocker arms and engaging the grooves in said collars; a forwardly extending operative lever secured to
10 said rock shaft; means for rotating said spindles; and means for holding work in operative relation to said bits, substantially as described.
- 15 2. In a mortising machine the combination with a suitable frame, of a table mounted to reciprocate therein, said table being provided with longitudinal T-rails at each side thereof; a series of sets of bearing
20 blocks adjustably mounted on said rail; set screws in said blocks contacting with said rails; longitudinally reciprocable spindles mounted in said blocks; bits on the forward ends of said spindles; grooved collars on the rearward end of said spindles set with
25 their grooves in alinement; an adjustable table arranged to hold work in operative relation to said bits; a rock shaft mounted at the rear of said frame under said collars; rocker arms on said rock shaft; a cylindrical
30 rod carried by said rocker arms and slidably engaging the grooves in said spindle collars; a forwardly extending lever for operating said rock shaft; pulleys on said spindles; and upwardly extending operating belts for
35 said pulleys, substantially as described.
- In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.
- AUGUST O. VICK.
- Witnesses:
HELEN F. LILLIS,
JOSHUA R. H. POTTS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."