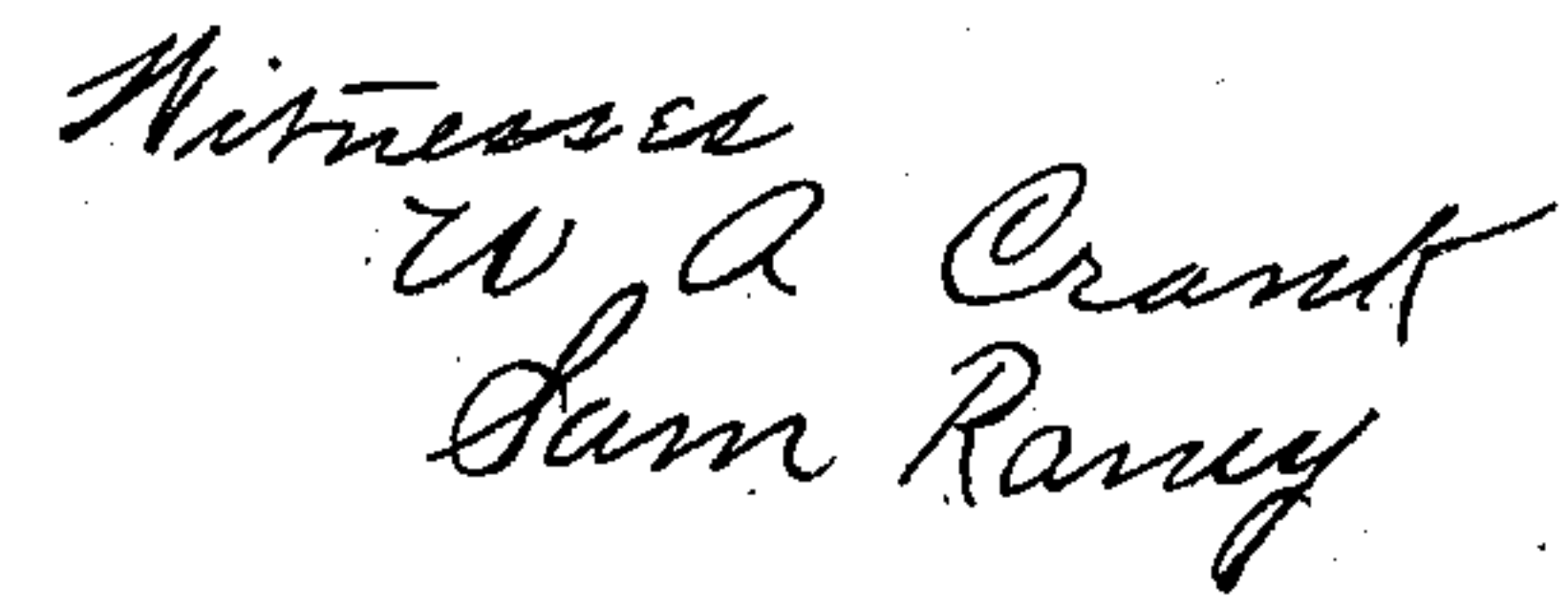


970,689.

3 SHEETS—SHEET 1.



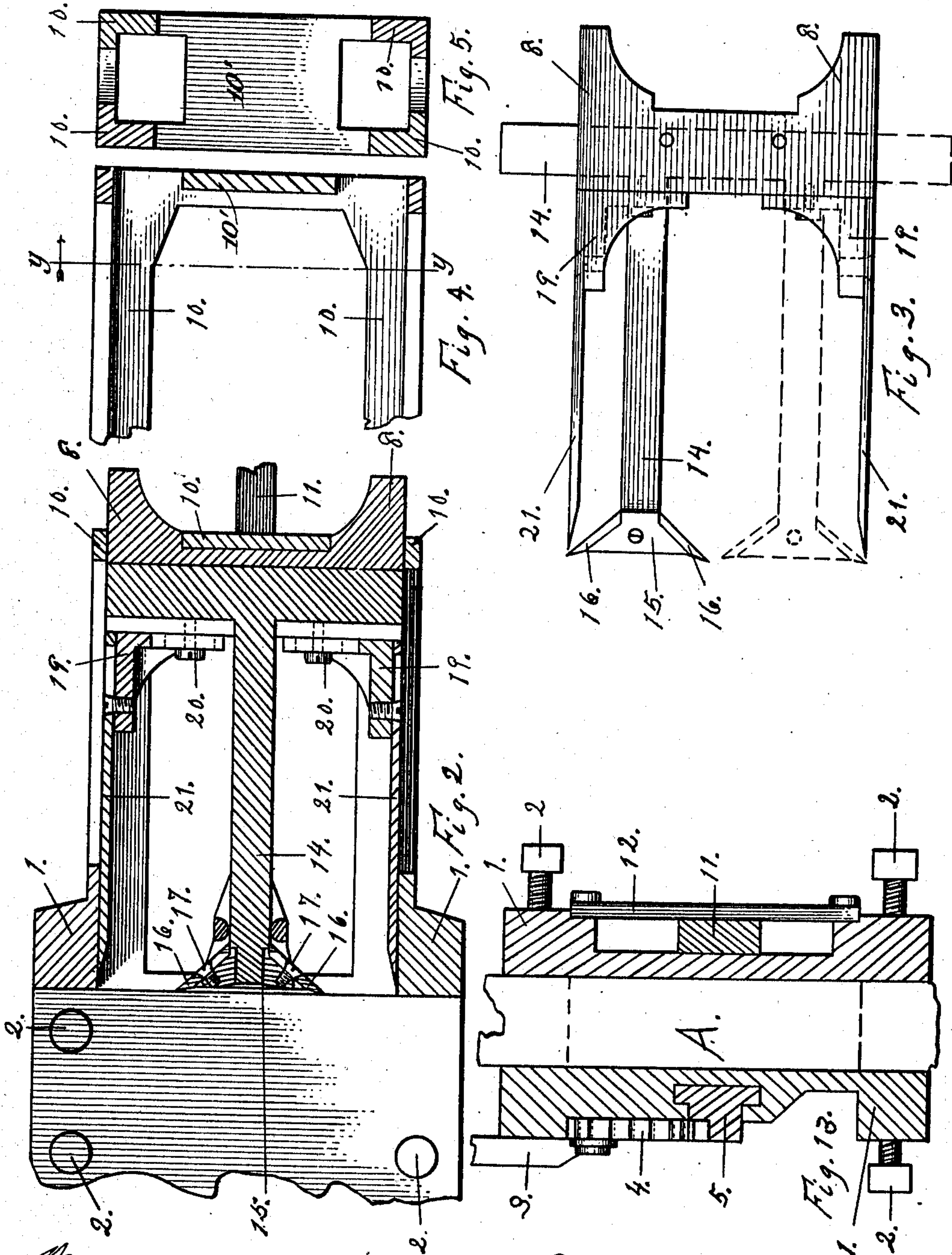
Orlando Crank
Inventor
by J M Thomas
Attorney

O. CRANK.
MORTISING MACHINE.
APPLICATION FILED FEB. 5, 1910.

970,689.

Patented Sept. 20, 1910.

3 SHEETS—SHEET 2.



Witnesses
W. A. Crank
Sam Raney

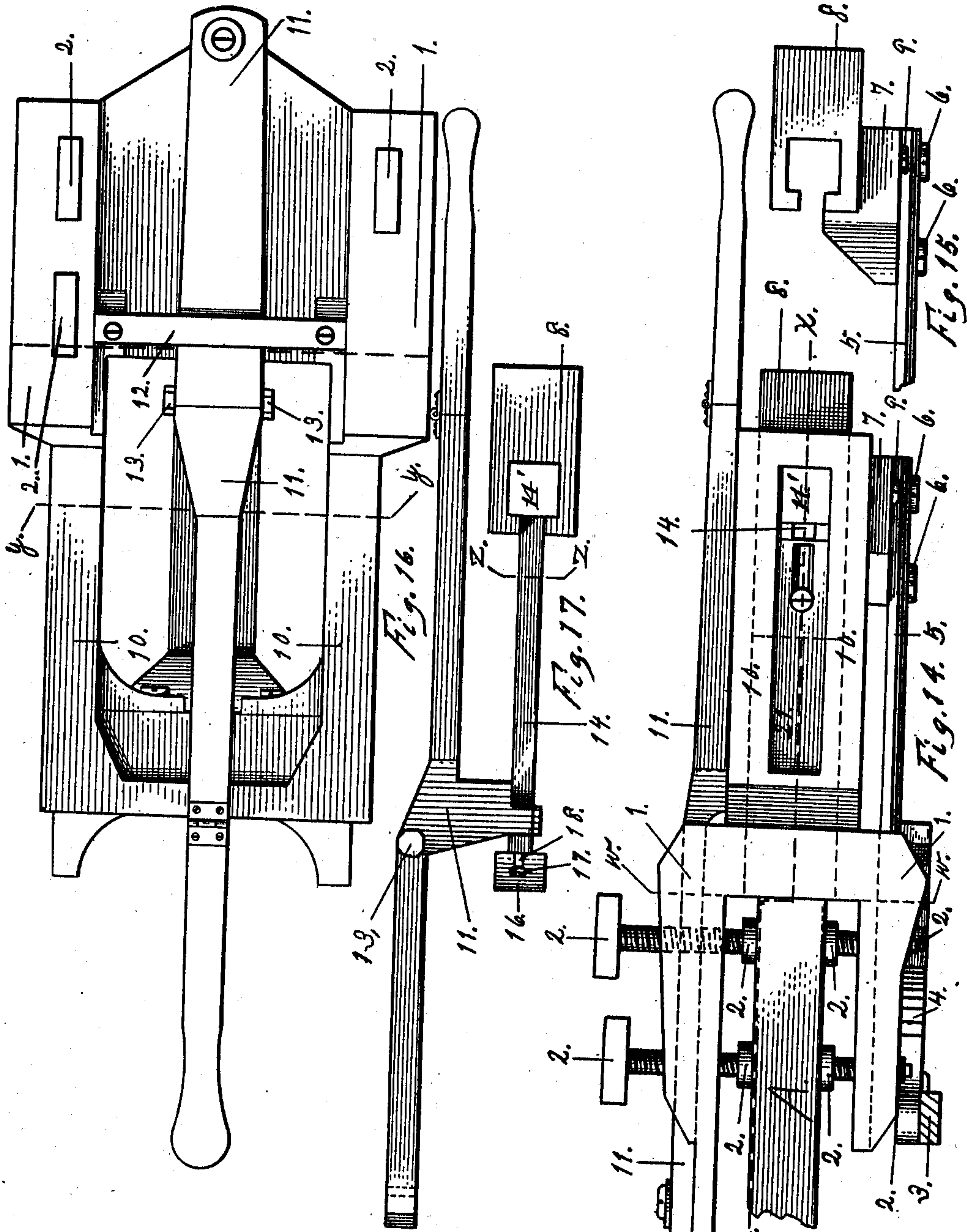
O. Crank
Inventor
by J. M. Thomas
Attorney

O. CRANK.
MORTISING MACHINE.
APPLICATION FILED FEB. 5, 1910.

970,689.

Patented Sept. 20, 1910.

3 SHEETS—SHEET 3.



Witnesses
W. A. Crank
Sam Roney

Orlando Crank
Inventor
by J. M. Thomas
Attorney

UNITED STATES PATENT OFFICE.

ORLANDO CRANK, OF SALT LAKE CITY, UTAH.

MORTISING-MACHINE.

970,689.

Specification of Letters Patent. Patented Sept. 20, 1910.

Application filed February 5, 1910. Serial No. 542,327.

To all whom it may concern:

Be it known that I, ORLANDO CRANK, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Mortising-Machines, of which the following is a specification.

My invention relates to mortising machines, and particularly to provide a machine to cut the mortise in a door within which the lock is set. This I accomplish by the machine illustrated in the accompanying drawings in which similar letters of reference indicate like parts throughout the several figures.

Figure 1 is an elevation of the left side of my machine, and a portion of the door to be cut. Fig. 2 is a sectional elevation on line $x x$ Fig. 14. Fig. 3 is an elevation of the knives and chisels and guide therefor. Fig. 4 is a part of a sectional elevation of the guide-track on line $x x$ Fig. 14. Fig. 5 is a transverse sectional elevation of said track on line $y y$ of Fig. 16. Fig. 6 is a perspective of one of the chisels. Fig. 7 is an end elevation of one of the chisel brackets. Fig. 8 is an elevation of the face of the knives and knife holder with the knife arm mortise dotted in. Fig. 9 is a perspective of one of the knives. Fig. 10 is a side elevation of the knife holder. Fig. 11 is an elevation of the knife arm on line $z z$ Fig. 17. Fig. 12 is an end elevation of the chisel brackets and guide with the knife arm removed. Fig. 13 is a vertical section on line $w w$ of Fig. 14. Fig. 14 is a plan, with feed lever in section, on lines $v v$ of Fig. 1. Fig. 15 is a plan of the guide and a portion of the rack. Fig. 16 is an elevation of the right side of the machine, with an empty track. Fig. 17 is a plan of the knife lever, knife arm and guide.

My machine is rigidly secured on the door A, at the place where the mortise is to be cut, by placing the jaws of the U shaped clamp 1 on opposite sides of the door, and securely holding it by means of the set screws 2 which are threadably mounted therein. These enable me to hold and mortise doors of different thicknesses. Pivoted on the left side of said clamp 1 is a feed lever 3, which has teeth 4 cut on the lower portion thereof. Said teeth 4 mesh with the teeth of a feed rack 5, which rack is slidably mounted in the left jaw of said clamp 1, and detachably secured by screws 6 to block 7. Said block

7 is in turn detachably secured to a guide member 8 by screws 9. Said U shaped clamp 1 has one end extended to form a track 10. On the right side of said clamp 1 is pivoted one end of a knife or cutting lever 11, which lever is guided by the strap 12. The stroke of said lever is regulated by the bumpers 13, which are adjustably and threadably secured in said lever 11. Carried by said lever 11 is the knife arm 14. Said arm is formed T shaped and on the bottom thereof is secured the knife holder 15. On which knife holder is adjustably mounted two knives 16, the adjustment being made by the set screws 17 within a slot 18 provided in said knives. The horizontal portion of said T shaped arm 14 is made to reciprocate within said guide 8. Within said track 10 is made to operate said guide 8. On the face of said guide is adjustably secured the chisel brackets 19 by means of the set screws 20. The back of said guide 8 opposite the face where the chisel brackets are secured is extended as guide lugs. On each of said brackets 19 is rigidly secured a chisel 21. The vertical portion of the T shaped arm 14 as it is placed in my machine allows said arm to move laterally on said portion, while the horizontal portion of said arm allows said arm to reciprocate as guided by said guide 8.

In operation my machine is firmly secured on the door, and the knives and chisels to be used are of a width sufficient to cut the mortise the desired width. The operator works the cutting lever 11 with his right hand, and the feed lever with his left hand. With an upward and downward stroke of said cutting lever 11 the knives will be moved upward and downward, similar to a rabbet plane, on the edge of the door. One knife cuts with the upward and the other with the downward stroke, while the depth of the cut of each stroke will be regulated by the feed lever as operated with the left hand while pulling said lever toward him. This motion of the feed lever will keep the knives in contact with the edge of the door to be cut, and also force the chisels into the door and cause them to cut or trim out the edges of the cut as made by the knives.

Having thus described my invention what I desire to secure by Letters Patent is:

1. In a machine of the class described, the combination of a clamp, a feed lever pivoted thereto, teeth formed on portion of said le-

ver, a rack slidably mounted on said clamp, teeth on said rack to mesh with the teeth of said lever, a guide secured to said rack, chisels and knives mounted on said guide, a cutting lever also pivoted to said clamp, an arm slidably carried on said lever for said knives, with means for adjusting the throw of said cutting lever.

2. In a mortising machine of the class described, the combination of a clamp, a feed lever pivoted thereto, teeth formed on a portion thereof, a rack slidably mounted on said clamp, teeth thereon which mesh with the teeth of said lever, a guide mounted in a portion of said clamp and secured to said rack, chisel brackets secured to said guide, a knife arm mounted in said guides, knives adjustably fitted thereon, and a cutting lever also pivoted to said clamp, which carries slidably thereon said knife arm.

3. A mortising machine consisting of a clamp, a track formed by a portion of said clamp, a feed lever pivoted to said clamp on one side, a cutting lever pivoted on the other

side, a guide slidably mounted in said track, chisel brackets adjustably secured thereto, a knife arm slidably mounted in said guides, knives adjustably mounted on said arm, and means for moving said guide by said feed lever, as and for the purposes described.

4. A mortising machine consisting of a clamp, a portion of which forms a track, a feed lever pivoted to said clamp, teeth on the lower portion thereof, a rack slidably mounted in said clamp, having teeth which mesh with the teeth of said lever, a guide member slidably mounted in said track, means for securing knives and chisels on said guide member, and a lever also pivoted to said clamp adapted to move said knives with means for adjusting the throw of said lever, as and for the purposes described.

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

ORLANDO CRANK.

Witnesses:

W. A. CRANK,
SAM RANEY.