

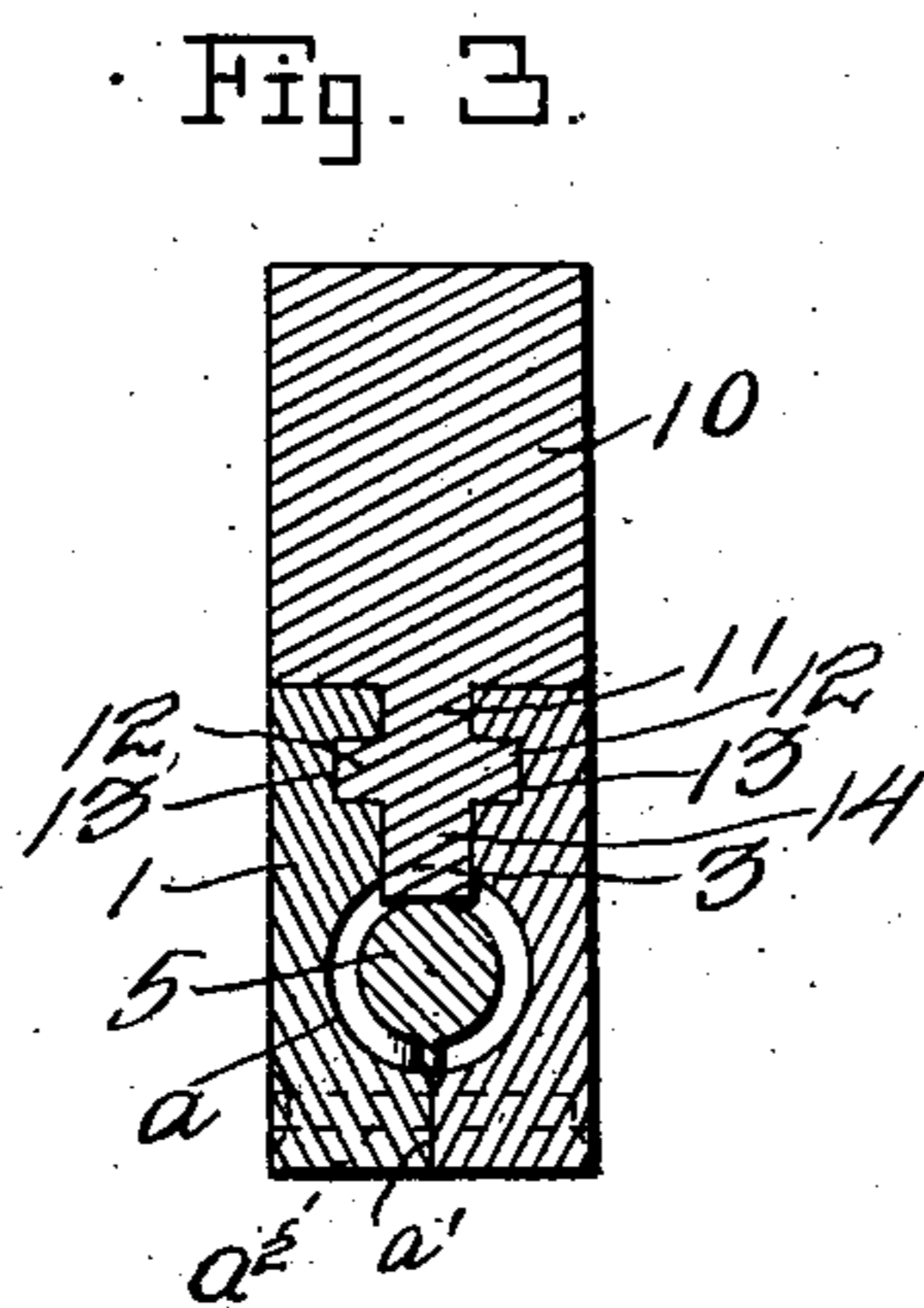
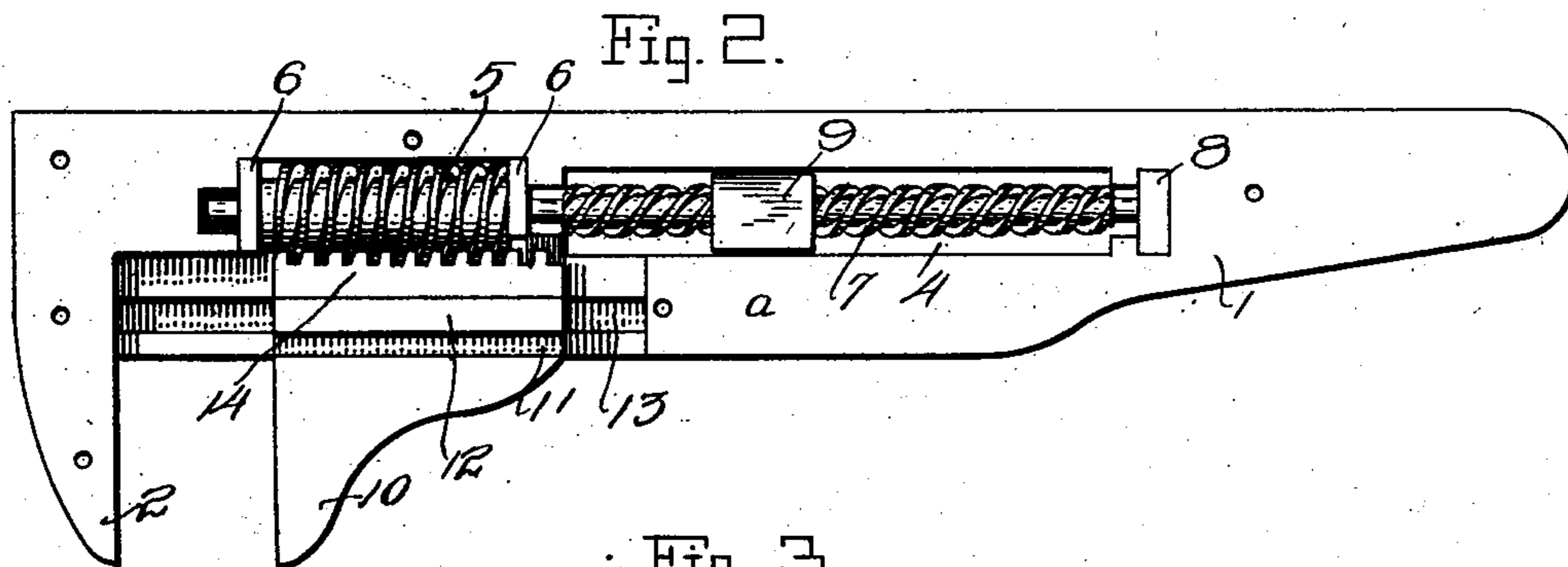
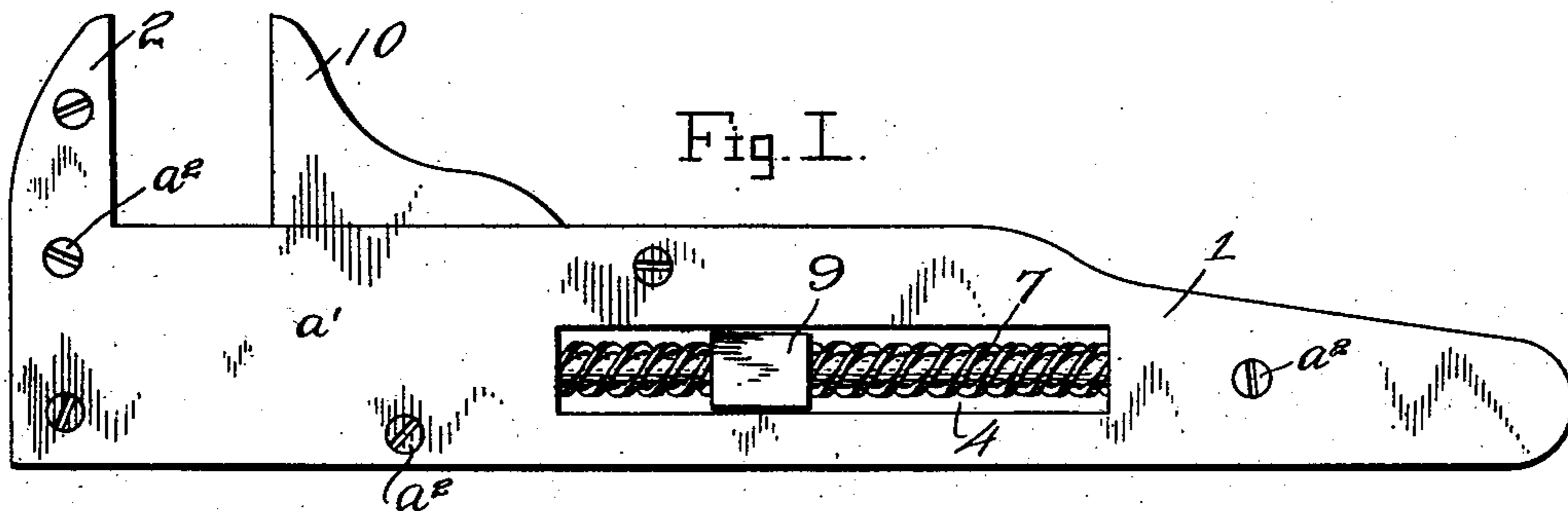
No. 747,385.

PATENTED DEC. 22, 1903.

J. C. DAVISON.
WRENCH.

APPLICATION FILED MAR. 16, 1903.

NO MODEL.



Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

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MARYLAND.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 747,385, dated December 22, 1903.

Application filed March 16, 1903. Serial No. 148,048. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. DAVISON, a citizen of the United States, residing at Friendsville, in the county of Garrett and State of Maryland, have invented certain new and useful Improvements in Wrenches; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to wrenches of the sliding-jaw type.

The object of the invention is to provide a wrench of this character which shall be simple of construction, durable in use, comparatively inexpensive of production, and efficient in action.

With this and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a side elevation of the wrench. Fig. 2 is a similar view with one of the side pieces removed; and Fig. 3 is a cross-sectional view through the sliding jaw, handle-bar, worm-rack, and worm.

Referring to the drawings, 1 denotes the handle of the wrench, and 2 the fixed jaw. These parts are preferably formed of two pieces $a a'$, divided longitudinally and united by screws, bolts, or rivets a^2 . The handle is provided on its under side with a longitudinal slot 3 and is further provided with a transverse slot 4.

5 denotes a worm journaled in bearings 6, and 7 denotes a screw journaled at one end in a bearing 8 and fixed at its opposite end to said worm.

9 denotes a nut mounted to slide in the transverse slot to rotate said screw, and consequently the worm.

10 denotes the sliding jaw, provided with a longitudinal rib 11, having side flanges 12, which are adapted to fit and slide in grooves 13, formed in the walls of the slot 3. Secured to the upper end of said rib is a worm-rack 14, which is adapted to engage the worm 5.

In operation by reciprocating the nut the screw and worm will be rotated, and this will cause a reciprocation of the rack and the sliding jaw, thereby enabling the jaw to be adjusted to fit nuts of different sizes.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of the invention will be readily understood without requiring an extended explanation.

Various changes in the form, proportion, and details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A wrench consisting of a handle-bar and a fixed jaw provided with a grooved longitudinal slot and a transverse slot, a tongued movable jaw mounted to slide in said longitudinal slot toward and away from the fixed jaw and provided with a worm-rack, a suitably-journaled screw, a nut for rotating said screw and a worm connected to said screw and engaging said rack.

2. A wrench consisting of a handle and fixed jaw formed of longitudinally-divided sections provided with a grooved longitudinal slot and a transverse slot, a tongued movable jaw sliding in said grooved slot and provided with a worm-rack, worm mounted in the transverse slot and engaging said rack, a screw journaled in the transverse slot and connected to the worm, and a nut for rotating said screw, substantially as described.

3. A wrench consisting of a handle-bar having a fixed jaw, a longitudinal grooved guideway in one side contiguous to the jaw, and a transverse slot above said guideway, parallel therewith and projecting rearwardly beyond the same, a sliding jaw provided with a tongue engaging the grooves in the guideway and having rack-teeth, a worm journaled in the transverse slot above said longitudinal slot and engaging said rack-teeth, a screw journaled in the transverse slot at a point adjacent to the inner end of the guideway and at

the rear end of the slot and connected at the former point to the worm, and a nut in the rear portion of the transverse slot and adapted to be reciprocated to impart motion to the
5 screw and thence to the worm, substantially as described.

In testimony whereof I have hereunto set

my hand in presence of two subscribing witnesses.

JOHN C. DAVISON.

Witnesses:

J. W. MOORE,
JOS. VANSICKLE.