

M. R. RAYNESFORD.
BENCH STOP.
APPLICATION FILED JULY 22, 1908.

939,088.

Patented Nov. 2, 1909.

Fig. 1

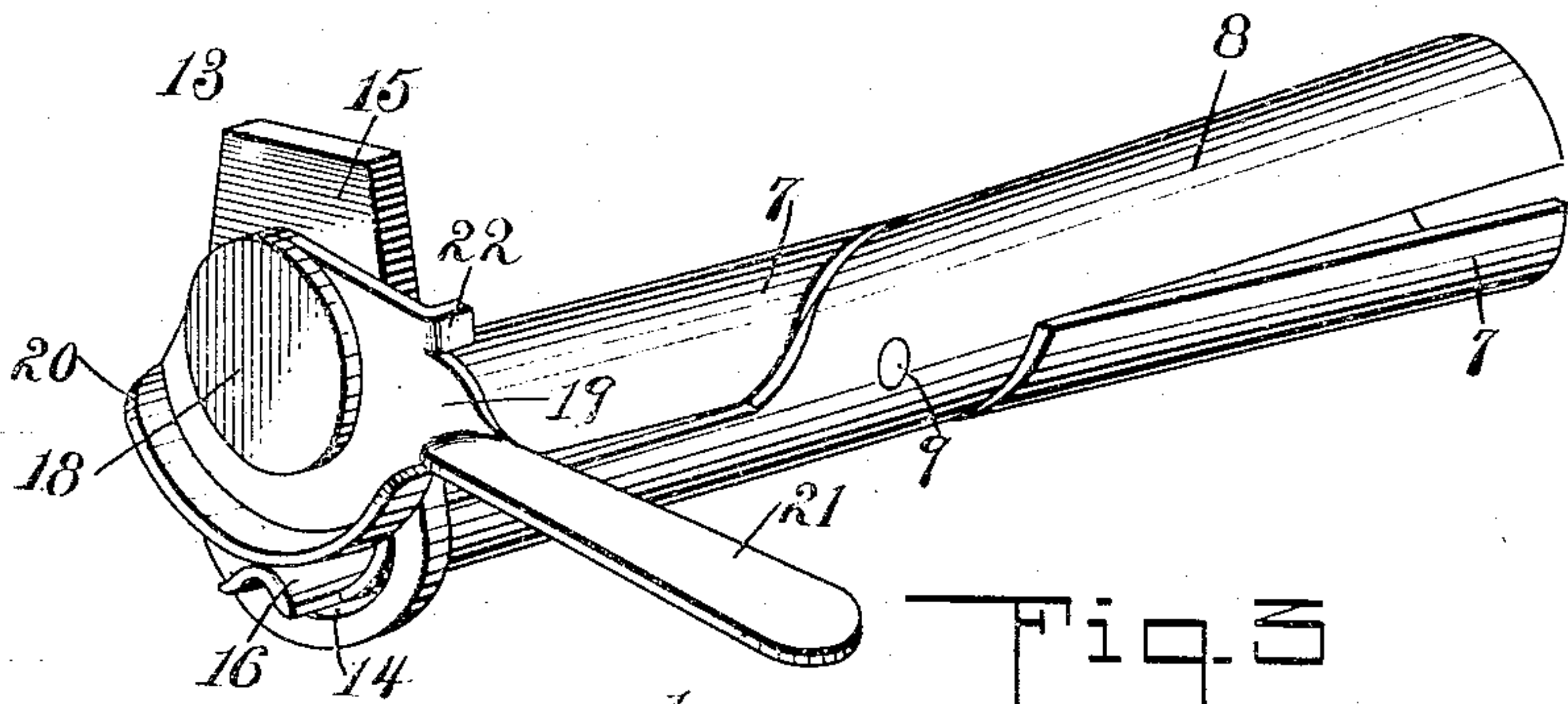
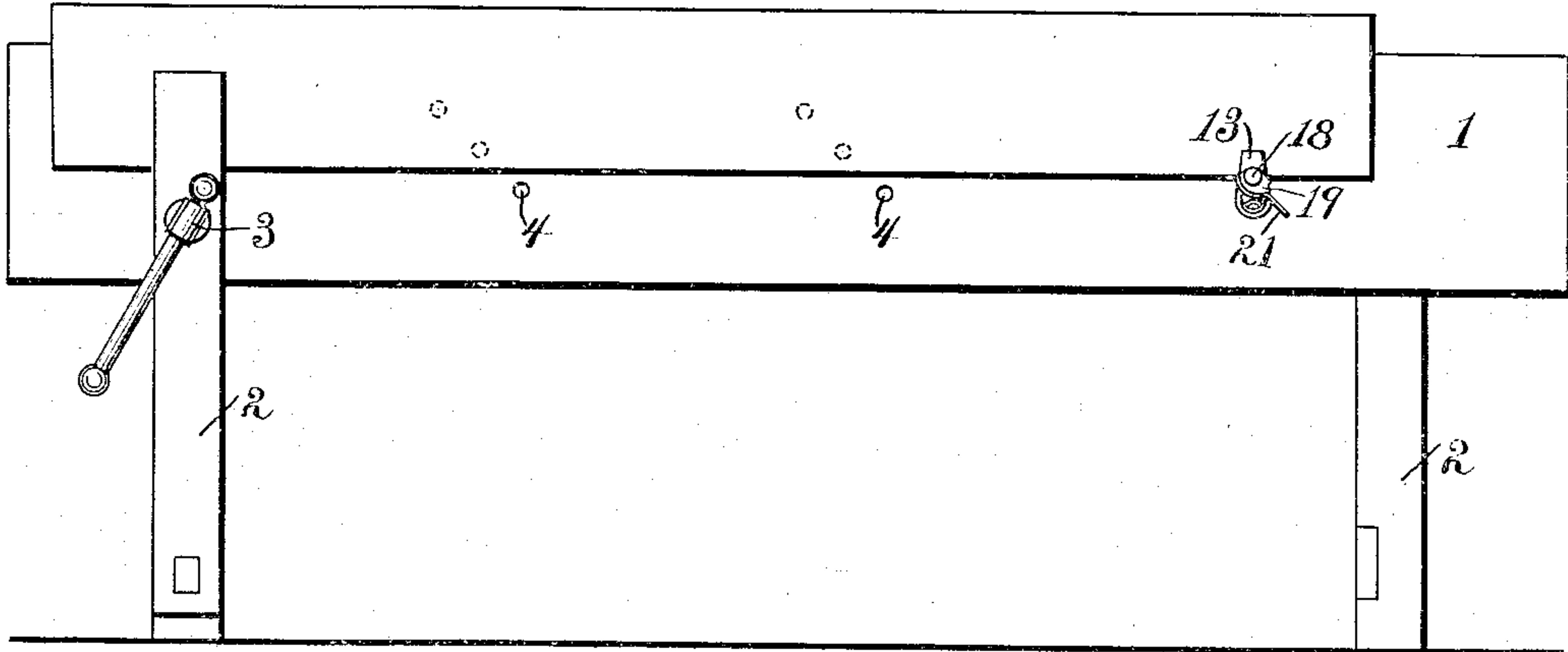


Fig. 2

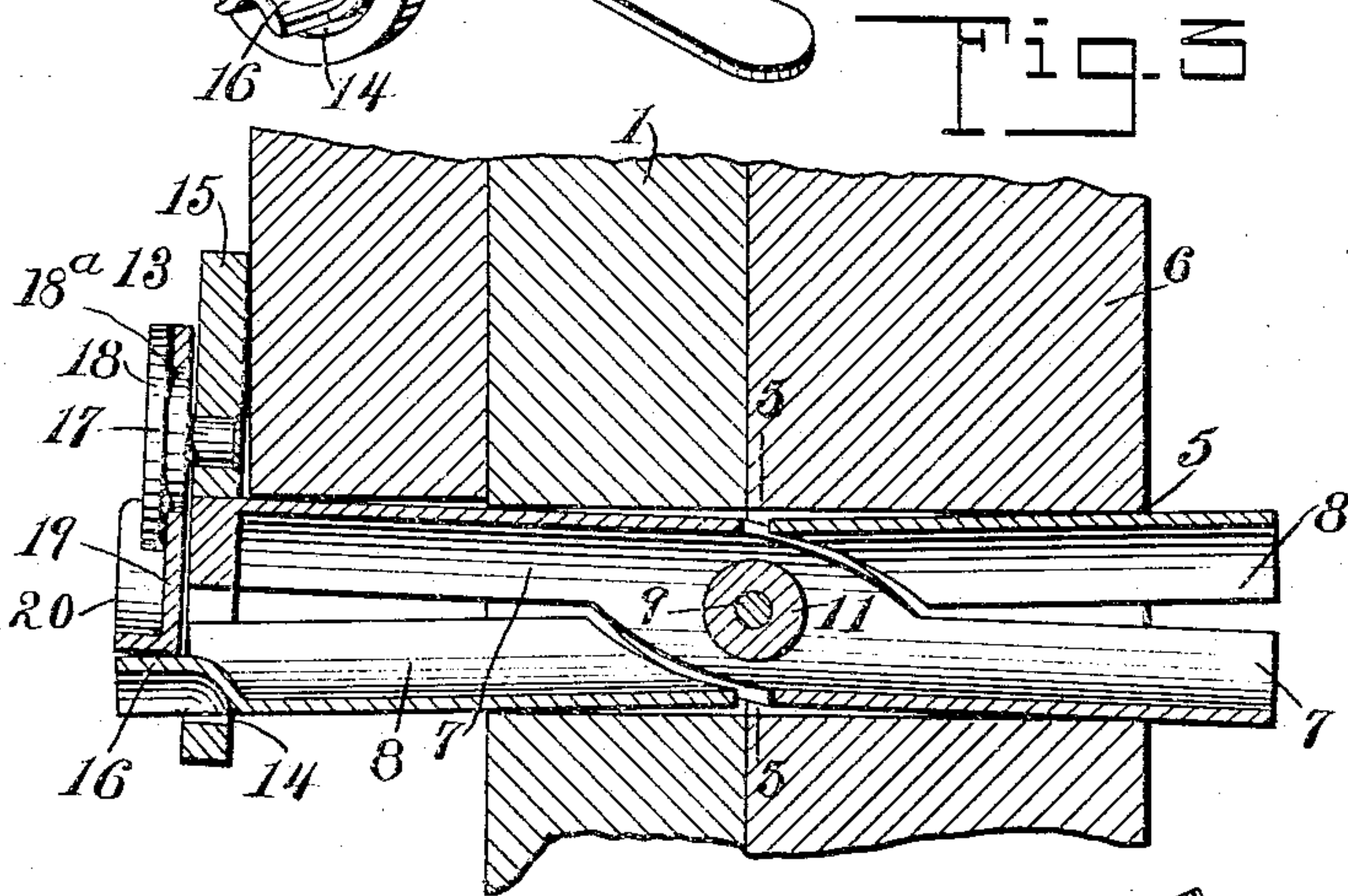


Fig. 3

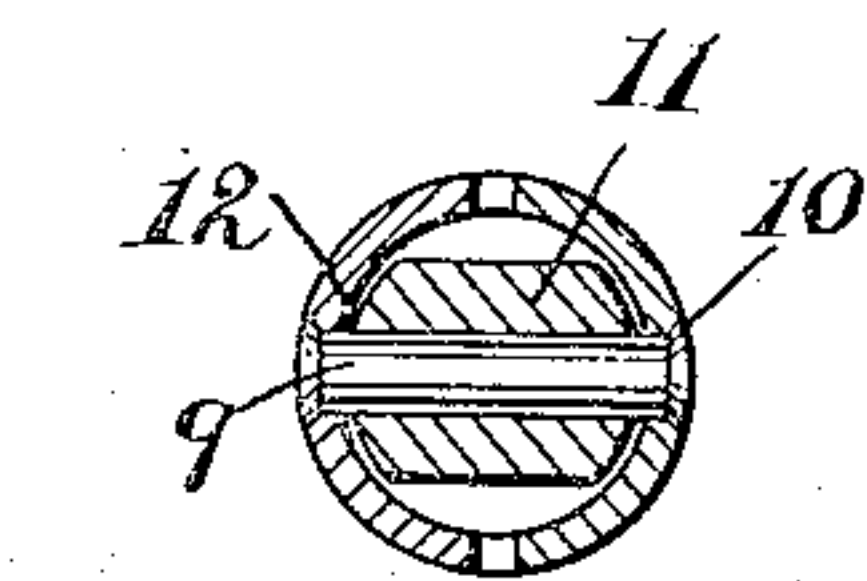


Fig. 4

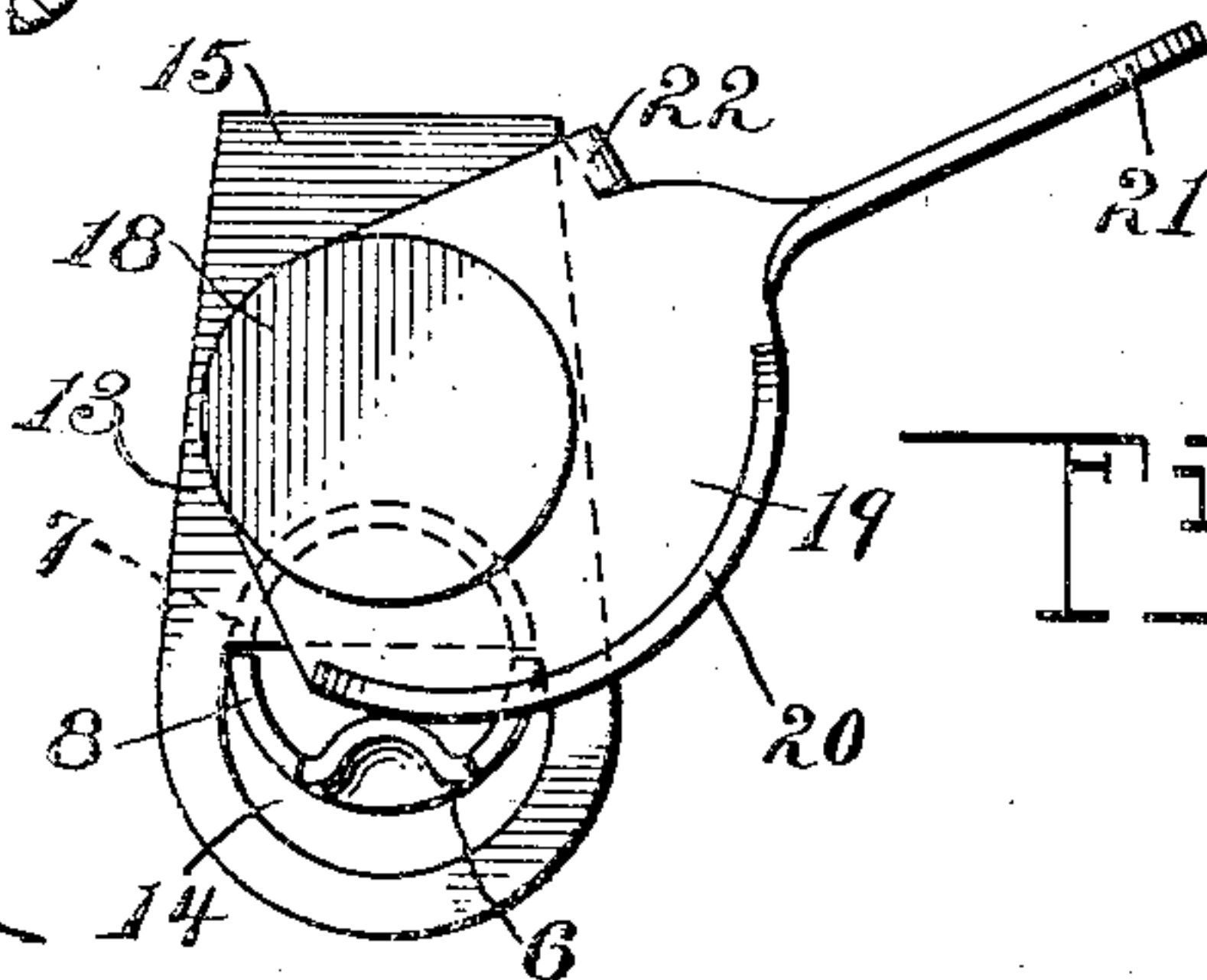


Fig. 5

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MERTON RANDOLPH RAYNESFORD, OF ELLIS, KANSAS.

BENCH-STOP.

939,088.

Specification of Letters Patent.

Patented Nov. 2, 1909.

Application filed July 22, 1908. Serial No. 444,760.

To all whom it may concern:

Be it known that I, MERTON RANDOLPH RAYNESFORD, a citizen of the United States, and a resident of Ellis, in the county of Ellis and State of Kansas, have invented a new and Improved Bench-Stop, of which the following is a full, clear, and exact description.

This invention relates to stops, and more particularly such as are adapted to be used on carpenters' benches for holding one end of a board firmly against the apron of a bench while the opposite end of the board is clamped in a vise.

It constitutes an improvement on the device shown and described in my United States Patent No. 862,656, dated August 6, 1907.

The object of this invention is to provide a device of the class described, simple in construction and inexpensive to manufacture, which includes hollow, segmental arms pivotally connected, an end plate carried by one of the arms and adapted to hold one end of a board firmly against the apron of a bench, and a manually operable cam carried by the end plate, the periphery of the cam engaging a lug on the other arm, so that the ends of the arms may be separated one from another, the cam having a stop adapted to engage the end plate to limit its movement.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of an embodiment of the device, showing the same applied to a carpenter's bench, and supporting a board in position; Fig. 2 is an enlarged perspective view of the invention; Fig. 3 is an enlarged longitudinal section of the device, showing the same applied to a carpenter's bench; Fig. 4 is an enlarged end view of the device; and Fig. 5 is an enlarged cross section on the line 5—5 of Fig. 3.

In the specific form shown in the drawings, 1 represents the apron of a carpenter's bench, having supporting legs 2, and a vise 3 secured to one of the latter. The apron 1 is provided with a plurality of recesses 4 which register with similar recesses 5 in the furring strips 6 which are attached to the back of the apron.

I provide a stop which includes two simi-

lar hollow, segmental arms 7 and 8 of any suitable material, such as iron, steel, brass or the like. Each of them comprises opposite offset parts having flat, longitudinal edges adapted to be arranged adjacent to corresponding edges of the other arm. The arms are pivoted together at a point intermediate the offset parts, by means of a pin 9, located in counter-sunk registering openings 10 located in the helical parts of the arms which connect the offset parts. A block 11, having its ends suitably curved so that they rest against the inner faces of the arms, has an opening 12 therein through which the pivot pin 9 extends. This block serves properly to space the two segmental arms. Located at one of the ends of the two arms is an end plate 13, which has an opening 14 constituting a yoke, to the upper part of which the segmental arm 7 is rigidly attached.

As shown most clearly in the drawings, the end plate has a portion 15 extending beyond the arm 7 and serves to engage the board that is to be held in position on the apron of the bench. The lower portion of the yoke serves as a stop to limit the downward movement of the arm 8. The latter is provided with a lug 16 which extends through the opening 14 of the end plate, and which has its edges preferably downwardly bent, so that a rounded top surface is formed. The end plate is provided with a stud 17 having a flat, enlarged head 18, the latter forming a shoulder 18^a on its inner side, which carries a cam 19. The latter has a lateral flange 20 which forms its periphery, and which serves to engage the lug 16 to spread the ends of the arms. The cam has a portion suitably formed to constitute a lever 21 by which it can be manually operated. The cam further has a rearwardly extending projection 22 which serves as a stop to engage the upper portion of the end plate to limit the upward movement of the cam, as shown most clearly in Fig. 4.

When the device is to be used to hold a board in position on a carpenter's bench, it is inserted in one of the openings 4 until the upper portion 15 of the end plate rests against the board. The cam is then moved by means of the lever 21, the flanged periphery of the former engaging the lug 16 of the free arm 8. This action forces the ends of the segmental arms apart and causes them to bind tightly against the inside of

the opening 4 to lock the device, and the board which it carries, tightly in position. To release the device, it is simply necessary to raise the cam lever, when the arms resume
5 their normal position.

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

1. A bench stop having a plurality of
10 segmental arms pivoted together, an outwardly disposed end plate secured to one of said arms and constituting a clamping jaw, said end plate having a gap, the other of said arms extending outwardly through
15 said gap, and means for spreading the ends of said arms, said means having a limited movement.

2. A bench stop comprising segmental arms pivoted intermediate their ends and
20 adapted to be arranged in an opening in a bench, an end plate secured to one of said arms and constituting a clamping jaw, and means for separating the ends of said arms whereby said arms will bind in the opening
25 of the bench to secure the stop in position,

said end plate having an opening for movably receiving the other of said arms.

3. A bench stop comprising segmental arms adapted to be positioned in an opening in a bench, said arms being pivoted intermediate their ends, an end plate arranged on one of said arms and having an opening which serves to limit the movement of the other of said arms, said last mentioned arm having a lug extending through said opening, and a cam pivotally secured on said
35 end plate and adapted to engage the lug of said arm whereby the ends of said arms can be separated one from another to lock the device securely in the opening of said bench,
40 said cam having a stop adapted to engage said end plate whereby the movement of said cam is limited.

In testimony whereof I have signed my name to this specification in the presence of
45 two subscribing witnesses.

MERTON RANDOLPH RAYNESFORD.

Witnesses:

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H. K. McLEOD.