

(No Model.)

L. M. CLEMENT, G. C. WATRISS & L. HEYNEMANN.  
TURN TABLE.

No. 427,970.

Patented May 13, 1890.

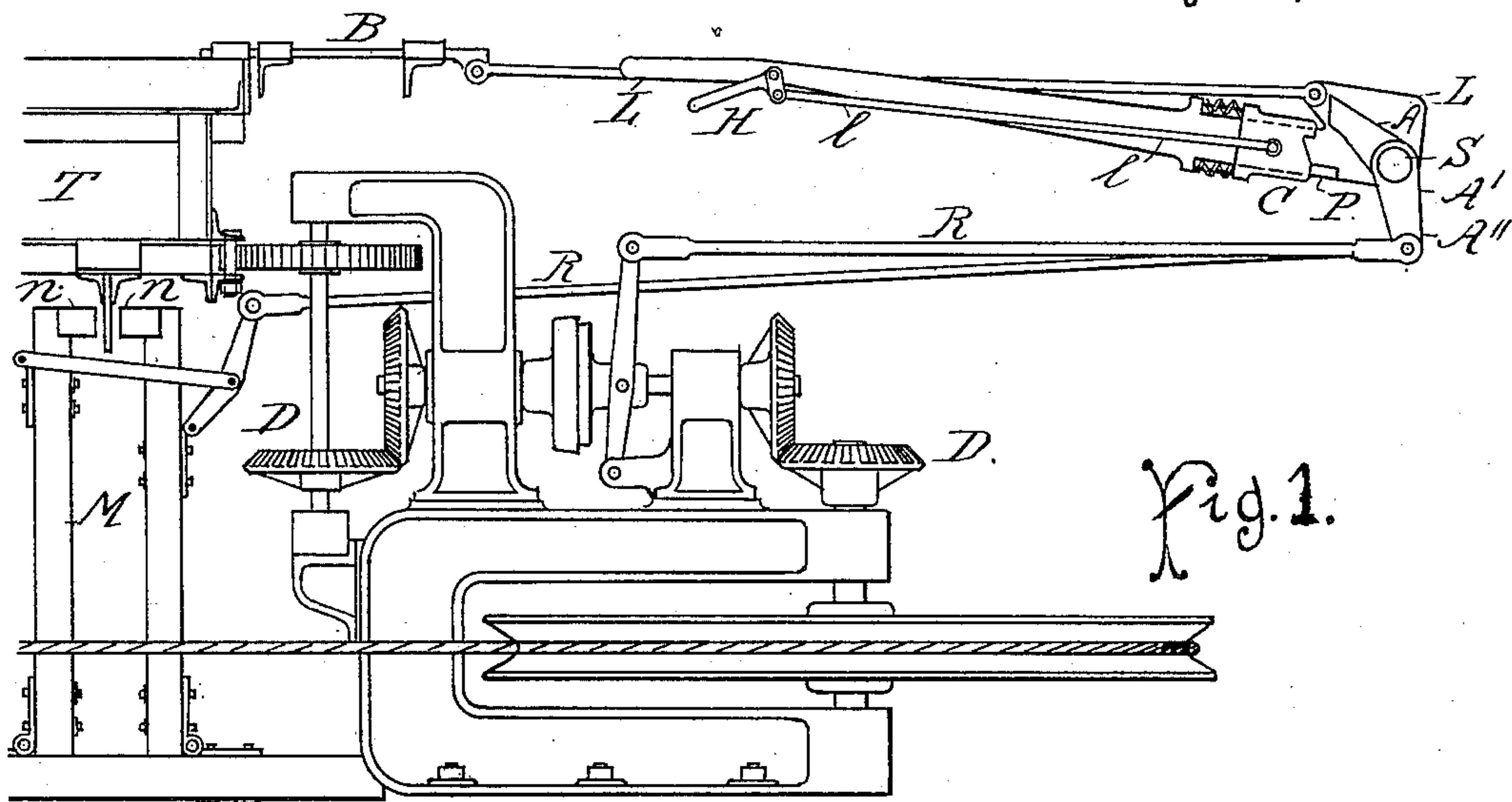


Fig. 1.

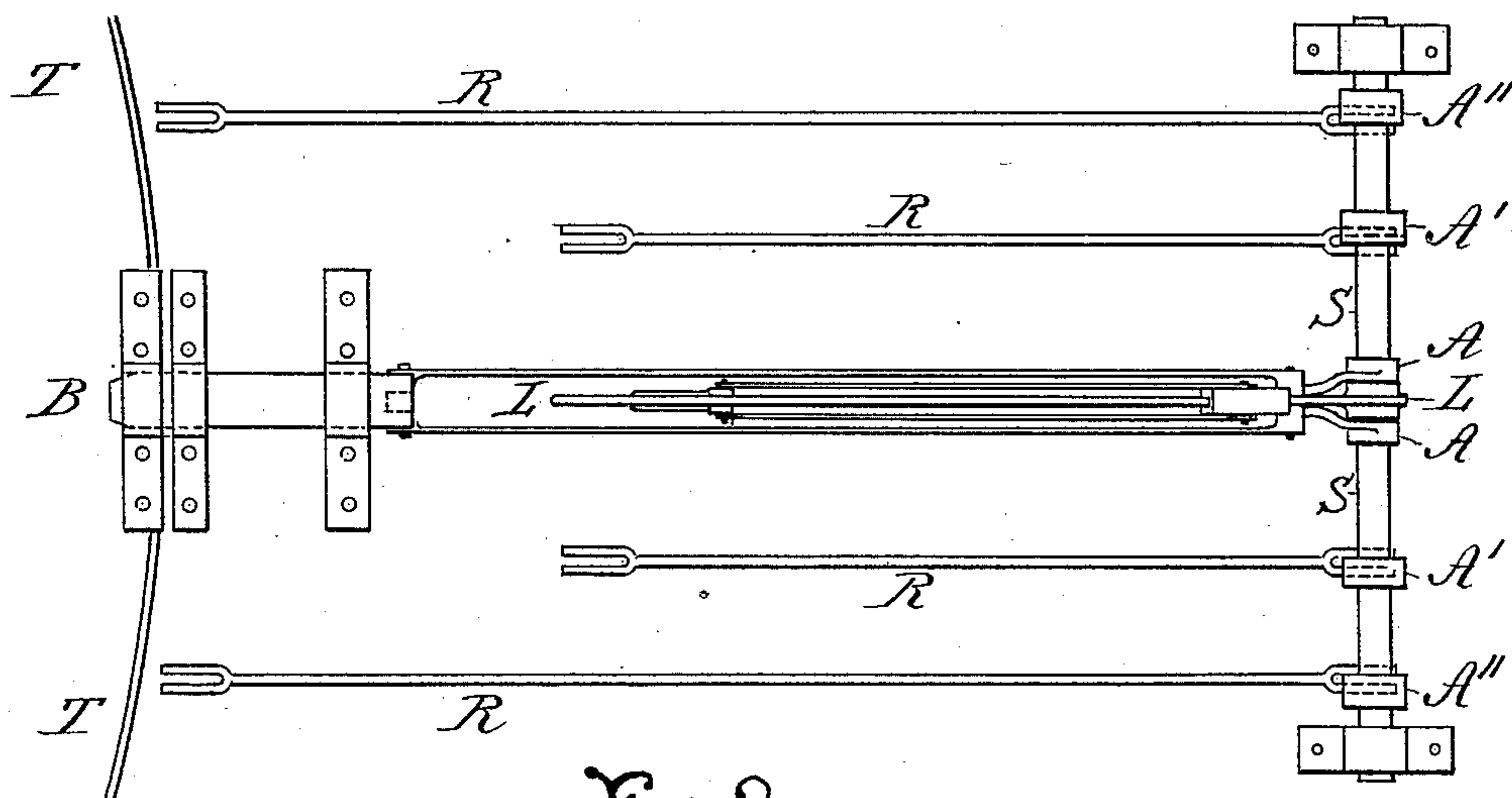


Fig. 2.

Witnesses:

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# UNITED STATES PATENT OFFICE.

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## TURN-TABLE.

SPECIFICATION forming part of Letters Patent No. 427,970, dated May 13, 1890.

Application filed March 3, 1890. Serial No. 342,395. (No model.)

*To all whom it may concern:*

Be it known that we, LEWIS M. CLEMENT, a resident of the city of Oakland, Alameda county, and GEORGE C. WATRISS and LIONEL HEYNEMANN, both of the city and county of San Francisco, and all of the State of California, have jointly invented certain Improvements in the Operating Mechanism of Turn-Tables, of which the following is a specification.

Our invention relates to the means employed for operating the driving, retarding, and stopping gear of the table, and to an improvement in the retarding mechanism itself. Two levers and often three have been used for this purpose. When two were employed, one operated the driving-gear of the table and the other the brake, while the latch for stopping and locking the table was generally designed to fall automatically into place when the table had arrived at the stopping-point. When three levers were used, each was separately connected to the driving-gear, brake, and latch, respectively. Both the two-lever and three-lever plans necessitated complicated connections below the street. When these connections were arranged radially to the table, it followed that they were angular to each other, and when placed parallel to each other their direction had to be altered to apply radially to the table. To drop one lever and pick up another is inconvenient in the two-lever plan, and the bolt or latch that falls automatically into place may strain and twist the table by arresting its motion too suddenly. Three levers sometimes require two men to operate them. The brake in common use consists of a shoe shoved against the table. The pressure thus brought to bear against the shoe exerted itself with equal force against the supports of the table, increasing the friction and the wear at these points and tending to throw the table out of its normal position.

The object of our invention is to simplify and improve these methods, which we accomplish by the employment of a single lever to perform all these operations and of a brake with two shoes that act against each other and not against the supports of the table.

Our arrangement is illustrated in the accompanying drawings, in which—

Figure 1 shows an elevation, and Fig. 2 a plan.

Similar letters in both views indicate similar parts.

The drawings show the single lever and brake as applied in the case of a table driven by gearing D D, deriving power from a traveling cable, though their application is not restricted to that particular method of driving.

T shows a part of a turn-table.

L is the single lever. It is loose on the shaft S S. The raising of the lever draws the latch or bolt B out of the table without turning the shaft. To turn the same, a temporary connection of the shaft and lever is made. This temporary connection we designate the "releasing-gear." It consists of the handle H, the links l l, the sliding collar C, the stop P, and the arms A A. The sliding collar C shows a notch when the lever is raised to a certain position. This notch fitting the arms A A engages with them on either side of the lever, in this way connecting the lever with the shaft. The stop P forged onto the lever assists the sliding collar C in forming an abutment for the arms A A. Any further movement of the lever now operates the shaft S S, and with it the arms A' A' A'' A'', keyed to the same. The arms A' A' are shown connected to the driving-gear D D, and the arms A'' A'' to the brake M.

The brake is shown in the form of a vise, with two jaws acting against each other. A rim projects downward from the table and is nipped on each side by the brake blocks or shoes n n, acting toward or opposite each other, and thus retarding the table without increasing the friction on its center support or its supporting-wheels. When the lever is at its farthest position the power is on and the brake is off, a return movement of the lever having an opposite effect of releasing the power and operating the brake.

The method of operation is as follows: The lever L is raised at once to its farthest position. This movement draws the bolt B out of the table, engages the arms A A, turns the shaft, and puts on the power D D. To retard the table, the lever is moved in the return direction. This takes the power off and puts



on the brake M. To lock the table after it has come to rest, the handle H is pressed to the lever, which raises the sliding block C against its springs and disengages the arms A A, the shaft S S, and with it the brake M, and permits the further movement of the lever to its original position and the movement of the bolt B into the table.

It is not essential that the arrangement should conform to this plan. The latch or bolt may be disconnected from the lever, the lever in that case only operating the power and the brake. The single lever is preferable to two levers for this purpose, as it permits of a more delicate adjustment between the moving and retarding of the table, a slight movement of the lever gaging the motion with nicety and bringing the table under complete control, as proved by our table recently constructed on this plan.

It is not essential either that the releasing-gear should be detailed, as shown. Any other arrangement to temporarily connect the lever and shaft may be used. Where the lever operates only the power and the brake without the latch, the releasing-gear may in some cases be dispensed with, and the lever so connected that at one extreme position it operates the power and at the other position the brake.

The essential part of our invention is the employment of but a single lever, with its connections, to perform all the functions necessary for operating a turn-table, and a brake with two shoes acting in opposite directions to each other.

We do not claim a single lever to operate the power and the bolt, as such has been used before in connection with another separate lever to work the brake; but

What we do claim, and desire to secure by Letters Patent, is as follows:

1. In combination with a turn-table T, the single lever L, suitably connected to the driving-gear D, the brake M, and the latch B of the table, for the purpose described.

2. The lever L, arranged with releasing-gear and suitably connected to the driving and retarding gear of the table T, for the purpose described.

3. In combination with a turn-table T, the lever L and its releasing-gear and connections to the driving, retarding, and locking mechanism of the table, for the purpose described.

4. In combination with a turn-table T, the brake M, with two shoes *n n*, acting in opposite directions to each other, for the purpose described.

5. The combination, with a turn-table T, of the lever L and suitable connections and brake M, having two shoes *n n* opposite each other, for the purpose described.

6. In combination with a turn-table, the lever L, with its releasing-gear, consisting of the handle H, the links *l l*, the sliding part C, with its springs, and the arms A A, for the purpose described.

7. In combination with a turn-table T, the single lever L, with its releasing-gear, its connections to the bolt B, the shaft S S, with its arms A' A' A'' A'', and their connections to the driving-gear D D and to the brake M, substantially as set forth, and for the purposes described.

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