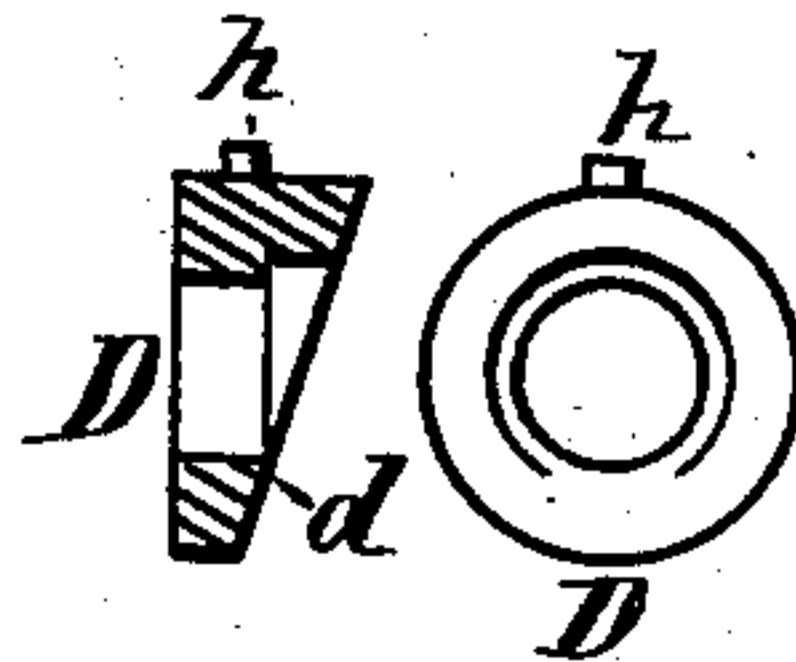
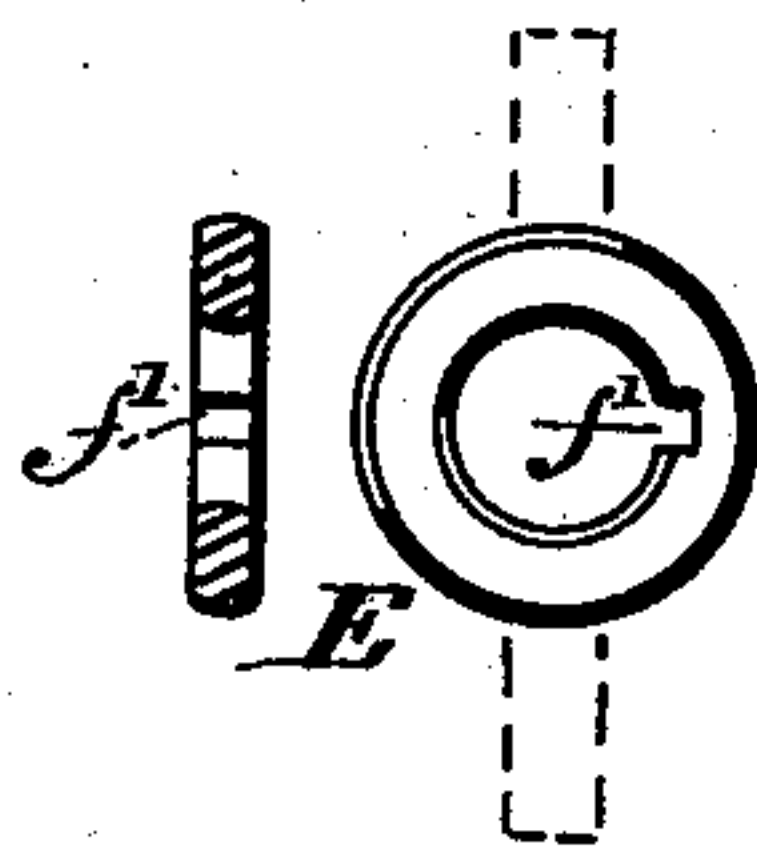
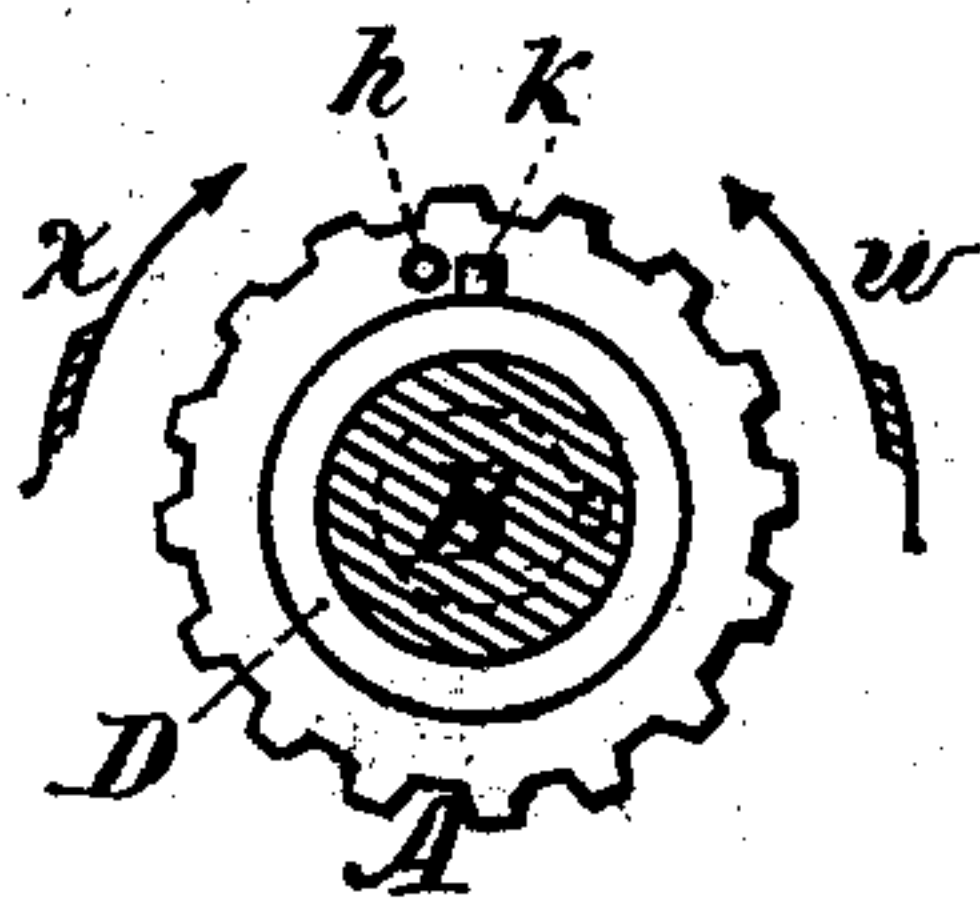
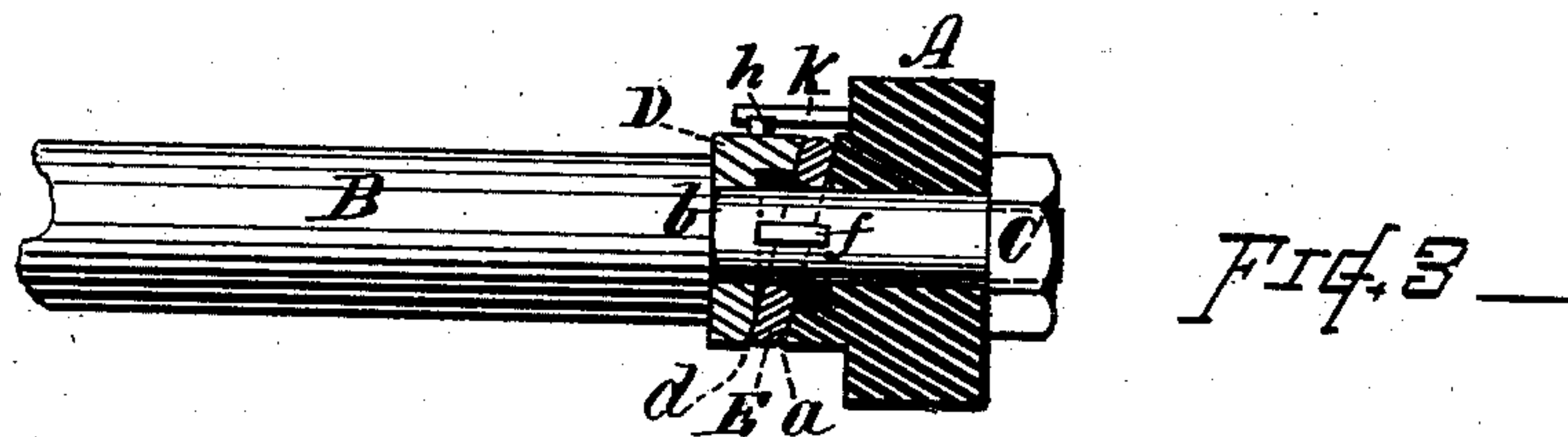
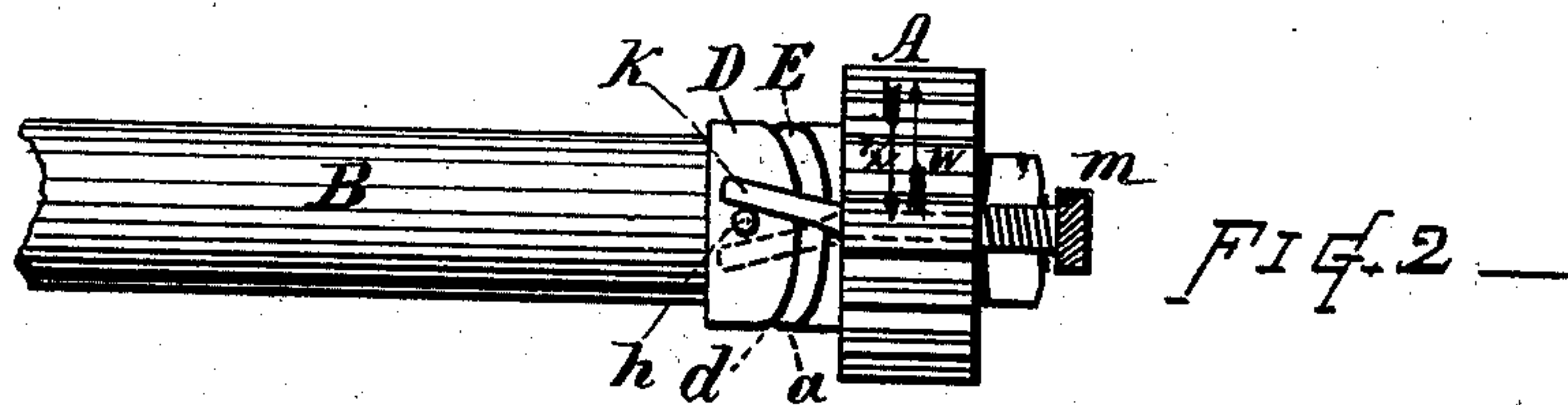
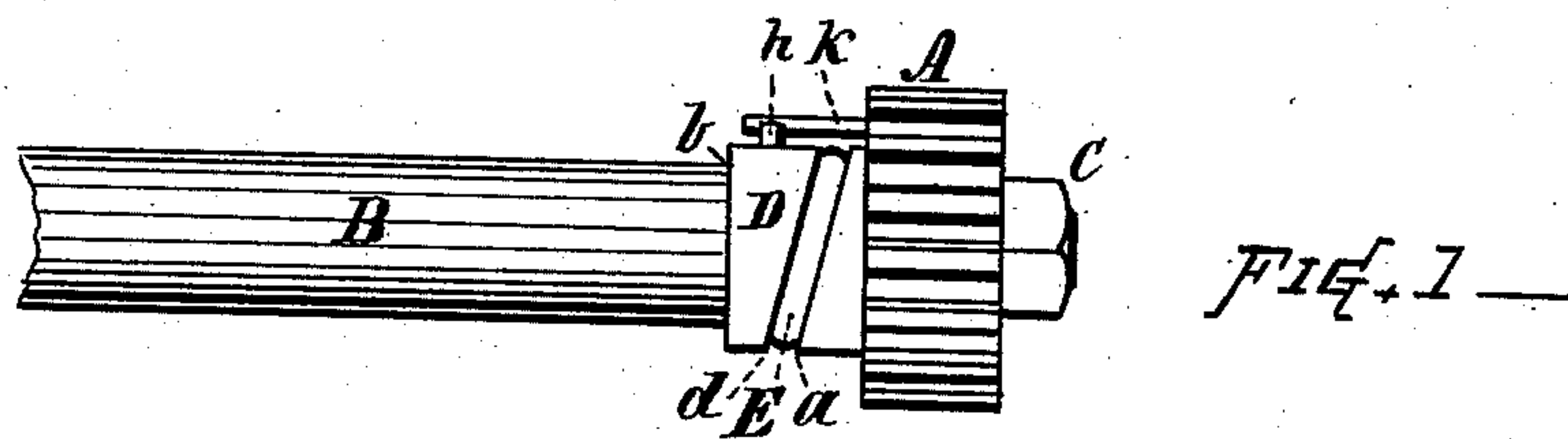


J. D. WRIGHT.  
Mechanical-Movement.

No. 225,262.

Patented Mar. 9, 1880.



Witnesses

*S. R. Burton*  
*G. A. Willard*

Inventor

*Jacob D. Wright*  
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Attorney.

# UNITED STATES PATENT OFFICE.

JACOB D. WRIGHT, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO  
EDWARD WRIGHT AND J. WALTER SMITH, OF SAME PLACE.

## MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 225,262, dated March 9, 1880.

Application filed January 24, 1880.

*To all whom it may concern:*

Be it known that I, JACOB D. WRIGHT, of Worcester, in the county of Worcester and State of Massachusetts, have invented certain  
5 new and useful Improvements in Mechanical Movements; and I declare the following to be a description of my said invention sufficiently full, clear, and exact to enable others skilled in the art to which it appertains to make and  
10 use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 represents a side view of mechanism embracing the features of my invention.  
15 Fig. 2 is a similar view from above, and showing a reversible carrier-finger in lieu of a rigid finger. Fig. 3 is a longitudinal sectional view. Fig. 4 is a transverse sectional view. Fig. 5 shows the detail of construction of intermediate  
20 ring; and Fig. 6 shows the detail of construction of the inclined collar.

My invention relates to improvements in mechanical movements adapted for transmitting power or resisting action from a driving  
25 wheel, head, or crank to a driven shaft, sleeve, or stud, or vice versa, in one direction, while releasing or permitting free action thereof in an opposite direction; and my invention consists in the mechanical device having parts  
30 combined for operation as hereinafter described. This mechanical movement is suited for use as a ratchet device on lawn-mowers, watch-keys, bit-braces, ratchet wrenches and drills, counter-shafts, sewing-machine pulleys,  
35 metal-planer feed-screws, and similar uses, and also as a brake device for hoisting apparatus, crabs, cranes, &c., and for converting oscillating to rotary movement.

In the drawings, A indicates the driving  
40 part, which may be a belt-wheel, gear, crank-hub, friction-head, or rocking piece, as desired. B indicates the driven part, which may be the shaft, spindle, or sleeve in any machine, the stem of a watch-key, or the stock of a bit  
45 brace or drill. The shaft B is provided with a collar or shoulder at *b*, and with a nut or equivalent guard, C, limiting the space within which the wheel A and connecting devices are retained.

50 The hub of wheel A is made with an inclined

end at *a*, and a collar, D, having a corresponding inclined end, *d*, is arranged on the shaft B, resting against the shoulder *b*, while immediately between the inclined surfaces is placed a disk or ring, E, having parallel sides. 55  
The central opening of the ring E is of such size that said ring can wobble on the shaft B, while it is held from revolving independent of said shaft by means of a pin or spline, *f*, fixed in the shaft and fitting a recess, *f'*, at 60  
one side of the ring. (A groove in the shaft and projection on the ring may be used, if preferred, or other equivalent connection.) Thus, while the ring E moves around or remains  
65 quiet with the shaft B, it freely adapts itself in angular position to correspond with the inclination of the surfaces *a d* on the ends of the wheel-hub and collar D.

Collar D is provided with a pin or lug, *h*, and wheel A is furnished with a finger or carrier, *k*, for engaging with said lug *h* and moving the collar D with the wheel A when the  
70 latter is revolved in one direction.

The finger *k* may be rigid, or may be made adjustable, so that it can be changed to either  
75 side of the lug *h*, and the device thus be caused to act either with right or left hand movement, as desired. One method of such adjustment is illustrated in Fig. 2, which is effected by  
80 pressing in the head *m* and revolving the finger over the lug to the position indicated in dotted lines.

The operation is as follows: The wheel A, being operated in the direction indicated at *x*, causes the finger *k* to engage the lug *h* and  
85 carry forward the collar D, the parts revolving freely about the shaft without operating it, the inclined surfaces being retained parallel, so that the disk or ring E can pass freely between them. The wheel A being operated in the di- 90  
rection indicated at *w*, the finger *k* moves away from the lug or pin *h*, the collar D becomes retarded, so that the disk or ring E is firmly clamped between the inclined ends *a d*, and the shaft B is thus caused to revolve with the 95  
wheel A.

The device operates with but slight noise, is quick and sure in its action, and will take hold or clamp the ring E at any position in the circle. The size, form, and proportions of 100



the parts may be varied to conform to the requirements of the machine whereon the movement is employed, and connection may be made in either direction—*i. e.*, so that the  
 5 wheel A will operate the shaft B, or so that the shaft B will operate the wheel A, the construction permitting either to be used as the driver with equal facility.

The collar D and wheel A may, if preferred,  
 10 be arranged on a spool or sleeve passed over a shaft, instead of directly on a reduced portion of the shaft, and the disk or ring E could be held by projecting arms on its exterior, in lieu of the pin and recess *f'*, without depart-  
 15 ure from the nature of my invention.

What I claim as of my invention, and desire to secure by Letters Patent, is—

1. The within-described mechanical movement or device, consisting of the supporting  
 20 shaft or sleeve, the head or wheel with inclined

end and carrier-finger, the collar with inclined end and engaging-lug, and the intermediate disk or ring retained to revolve with said shaft, the parts being combined to operate substantially in the manner hereinbefore set forth. 25

2. The combination, with the wheel or head A and collar D, provided with inclined surfaces for acting upon the disk or ring E, substantially as hereinbefore set forth, of an adjustable finger for engaging the lug or pin or  
 30 said collar at either side, whereby the parts are adapted to act upon the disk or ring with either right or left hand movement, as described.

Witness my hand this 16th day of January, 35  
 A. D. 1880.

JACOB D. WRIGHT.

Witnesses:

CHAS. H. BURLEIGH,  
 S. R. BARTON.