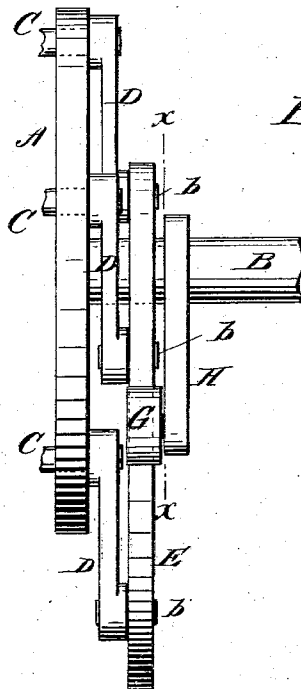
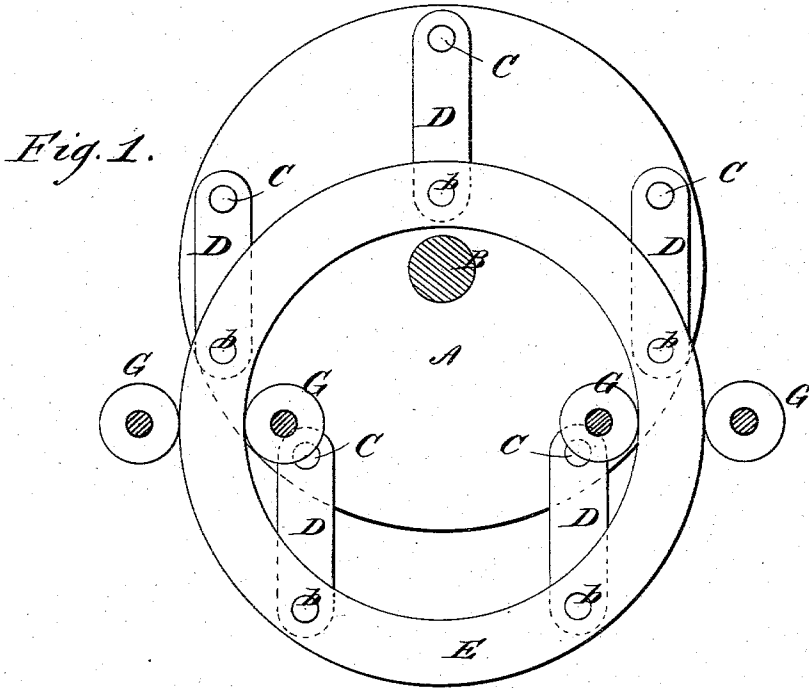


(No Model.)

M. B. TRUE.  
MECHANICAL MOVEMENT.

No. 327,741.

Patented Oct. 6, 1885.



WITNESSES:  
*Sam Twitchell*  
*Co Sedgwick*

INVENTOR:  
*M. B. True*  
BY *Merrill Co*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

MARK B. TRUE, OF NEWBURYPORT, MASSACHUSETTS, ASSIGNOR TO HIMSELF  
AND JAMES S. MURPHY, OF SAME PLACE.

## MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 327,741, dated October 6, 1885.

Application filed March 23, 1885. Serial No. 159,782. (No model.)

*To all whom it may concern:*

Be it known that I, MARK B. TRUE, of Newburyport, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Mechanical Movements, of which the following is a full, clear, and exact description.

This invention consists in a peculiar mechanical movement for giving a parallel and straight motion from a revolving disk or device to any number of paddles, shelves, or other attachments, all of which are connected by a circular rod or ring, substantially as hereinafter shown and claimed.

The invention is especially applicable, though not restricted, to the propulsion, by means of paddles, of steamboats on rivers or other waters at high rates of speed, in a reduced space or circle as regards the motions of the paddles, and so that they will enter and leave the water in the most efficient directions. It is also suitable to revolving shelves, printers' cases, sign-carriers, tool-boxes, and many other articles or purposes.

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

Figure 1 represents a sectional face view, on the line *xx* in Fig. 2, of a mechanism embodying my invention; and Fig. 2 is a side or edge view of the same.

A is the disk, plate, or wheel, mounted upon a main rotating shaft, B, which may either be horizontal, vertical, or occupy any other suitable position, according to the purpose the invention is applied to.

C C are spindles or axles, arranged at a proper distance apart, and at equal distances

apart, and at equal distances from the center of the main shaft B. These spindles are fitted to turn within or through the disk A, and may be extended any distance beyond it to carry the paddles or floats, shelves, signs, &c., which it is desired to rotate in common with the disk A, and at the same time to preserve a parallel relation with each other. To this end the spindles or axles C C are connected by cranks D D through pivots or bearings *b b* with a circular rod or ring, E, arranged to occupy an eccentric position relatively to the disk A, and which is restrained from lateral motion or held in its proper place by any suitable number of inner and outer rollers, G G, which may be carried by a plate, H, or be otherwise suitably supported. Any suitable power or means may be used to drive or rotate the disk A.

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

1. The combination, with the rotatable disk, plate, or wheel A and the spindles or axles C C, carried by it, of the circular rod or ring E, arranged to occupy an eccentric position in relation with the disk A, and the cranks D D, connecting said ring and disk, substantially as and for the purpose or purposes herein set forth.

2. The combination of the rollers G G with the eccentrically-arranged ring E, the cranks D D, the spindles or axles C C, and the rotatable disk A, essentially as and for the purposes herein described.

MARK B. TRUE.

Witnesses:

DENIS F. MURPHY,  
ARTHUR F. SIMPSON.