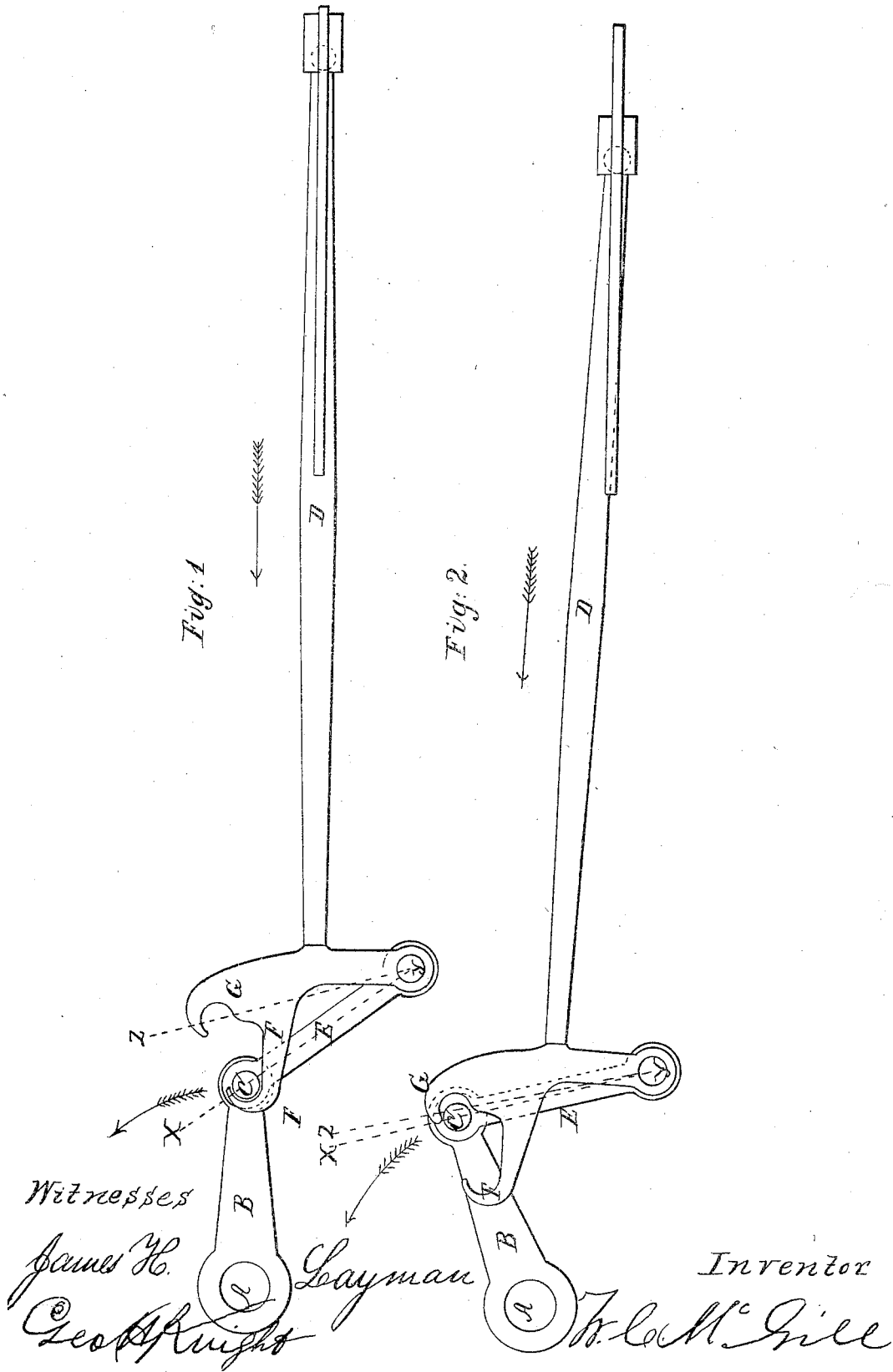


W. C. McGILL.
MECHANICAL MOVEMENT.

No. 49,905.

Patented Sept. 12, 1865.



UNITED STATES PATENT OFFICE.

WM. C. MCGILL, OF CINCINNATI, OHIO.

IMPROVEMENT IN MECHANICAL MOVEMENTS.

Specification forming part of Letters Patent No. 49,905, dated September 12, 1865.

To all whom it may concern:

Be it known that I, WILLIAM C. MCGILL, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Mechanical Movement or Device for Overcoming the Dead-Centers of Cranks; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a side elevation of a crank and pitman provided with my improvement. Fig. 2 represents the same parts at another part of the stroke.

A is the shaft, B the arm, and C the wrist, of an ordinary crank.

My pitman, D, instead of being joined directly to the crank-wrist in the usual manner, is connected thereto by means of a link, E, which link is, by means of a yoke, F G, projecting from the pitman, restrained to a vibratory movement represented by the angle xyz .

The operation is as follows: Let the pitman be supposed to have reached the exact inner extremity of its stroke and to be impelled by

the motive power to commence its outward throw, a condition from which, in the common form, no motion would ensue. At this juncture (see Fig. 1) the outer end of my pitman, being at liberty to initiate its return-stroke independently of the crank-wrist, causes the pin y to approach the crank-shaft A, so as to contract the angle xyz and to act to throw the crank-wrist in the direction indicated by the arrow until it impinges against the other extremity, G, of the yoke, upon which the pitman resumes its normal action. (See Fig. 2.)

The above motions are, of course, repeated in starting from a dead-point at the other extremity of the stroke.

I claim herein as new and of my invention, and desire to secure by Letters Patent—

Combining with an ordinary crank and pitman the link E and yoke F G, arranged and operating as set forth.

In testimony of which invention I hereunto set my hand.

W. C. MCGILL.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.