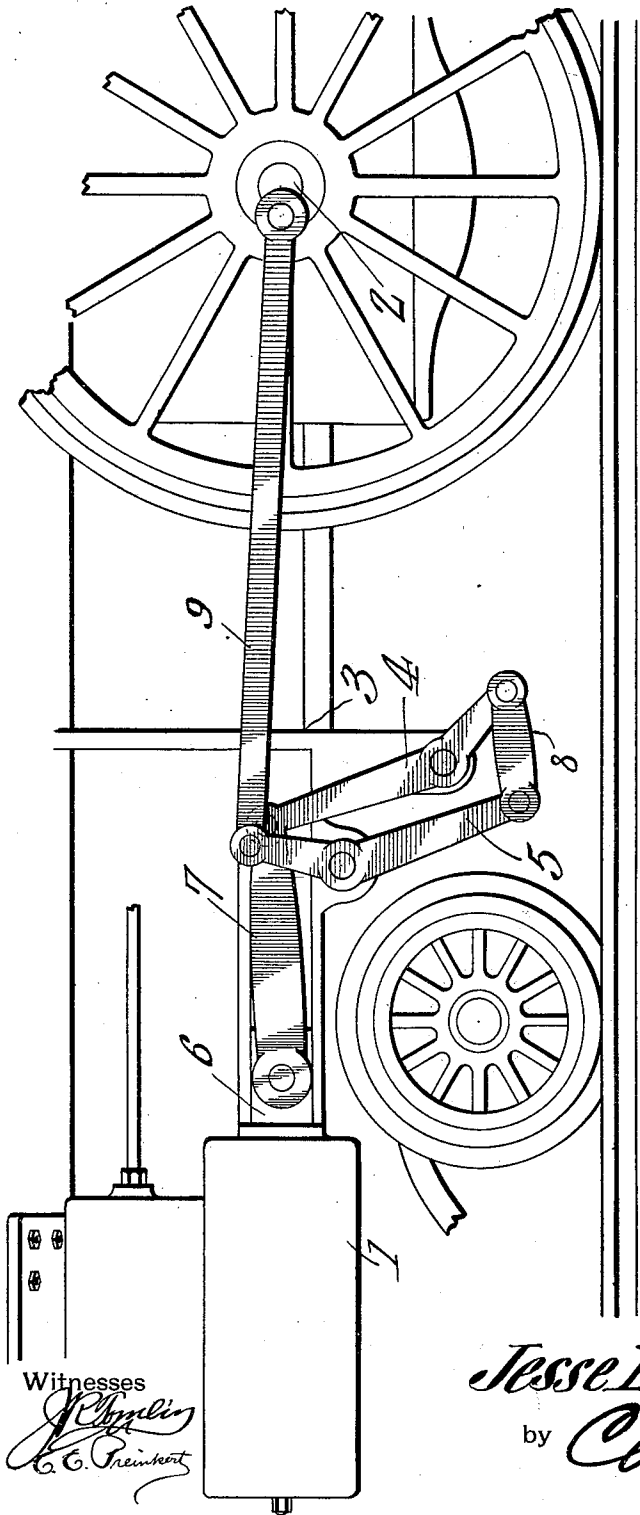


J. L. JACKSON.
MECHANICAL MOVEMENT.
APPLICATION FILED MAY 12, 1910.

1,007,108.

Patented Oct. 31, 1911.



UNITED STATES PATENT OFFICE.

JESSE L. JACKSON, OF LUCK TOWNSHIP, POLK COUNTY, WISCONSIN.

MECHANICAL MOVEMENT.

1,007,108.

Specification of Letters Patent. Patented Oct. 31, 1911.

Application filed May 12, 1910. Serial No. 560,962.

To all whom it may concern:

Be it known that I, JESSE L. JACKSON, a citizen of the United States, residing at Luck township, in the county of Polk and State of Wisconsin, have invented a new and useful Mechanical Movement, of which the following is a specification.

This invention relates to machine elements and more particularly to a novel arrangement of cranks and levers whereby the power transmitted from a driving element to a driven element is enabled to overcome an increased resistance without the necessity of utilizing an objectionable number of parts tending to complicate the structure to an undesirable extent.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawing which is a side elevation of the structure, the preferred form of the invention has been shown.

As illustrated in the accompanying drawing, reference numeral 1 indicates a pressure cylinder and 2 indicates a crank shaft. The cylinder 1 and crank shaft 2 are connected together by a frame 3 in any suitable manner. Levers 4 and 5 are fulcrumed upon the frame 3 and the said levers are of the bell crank type having power ends longer than their working ends. The power end of the lever 4 is operatively connected with the piston rod 6 of the cylinder 1 by means of a link 7. The working end of the lever 4 is operatively connected with the power end of the lever 5 by means of a link 8. A connecting rod 9 operatively connects the working end of the lever 5 with the crank of the shaft 2. By this arrangement when fluid pressure is applied to the cylinder 1 and the piston rod 6 is reciprocated in the usual manner the power is transmitted through the link 7 to the longer or power end of the lever 4 and from the shorter or working end of the said lever the power is transmitted by the connecting link 8 to the power end of the lever 5. From the

lever 5 transmission is made through the shorter or working end and the connecting rod 9 to the crank of the shaft 2. This will result in economizing the fluid pressure inasmuch as its expansion is utilized to a maximum extent in actuating the parts of the power transmission.

It will be noted, by referring to the drawing, that the links 7 and 9 are substantially in alinement and constantly lap, the two links being movable together in the same direction but at different speeds. The mechanism employed can be readily applied to an ordinary locomotive without the necessity of changing the position of the cylinder relative to the driver. It will be noted that the thrust of the two links is along substantially the same line and, as the upper arms of the two levers always move in the same direction, it is possible to arrange said levers close together, thus forming a very compact structure.

Having described the invention, what I claim as new and desire to secure by Letters Patent is:—

The combination with a reciprocatory power device and a revoluble driven element having a wrist pin, of a link pivotally connected to the power device, a link pivotally mounted on the wrist pin, said links constantly lapping and being disposed substantially in alinement, oppositely disposed similar levers mounted on relatively fixed pivot devices, each lever having a long arm and a short arm, the long arm of one of the levers being extended upwardly and pivotally connected to the link on the power device and the short arm of the other lever being extended upwardly and pivotally connected to the link on the wrist pin, and a link connection between the downwardly extended long arm of the last mentioned lever and the downwardly extended short arm of the other lever, the two levers being mounted to work in parallel planes, the upwardly extending arms of said levers constantly lapping.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JESSE L. JACKSON.

Witnesses:

HARRY K. PALMER,
CARLTON E. LOWE.