No. 743,919. PATENTED NOV. 10, 1903.

J. W. PARMER.

COMBINED COTTON CHOPPER AND CULTIVATOR.

APPLICATION FILED FEB. 12, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

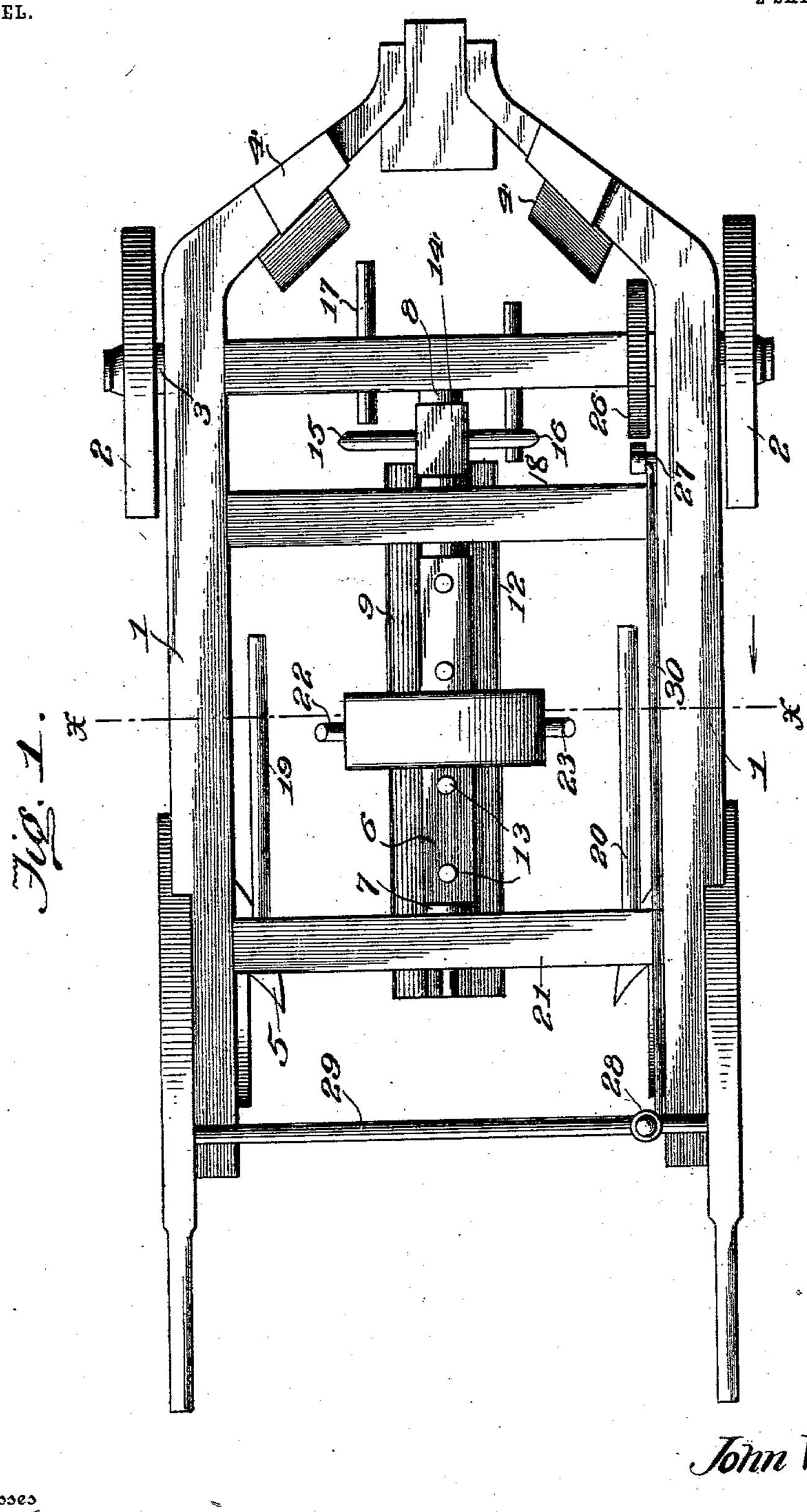

Fig. 1.

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NO MODEL. 2 SHEETS—SHEET 2.

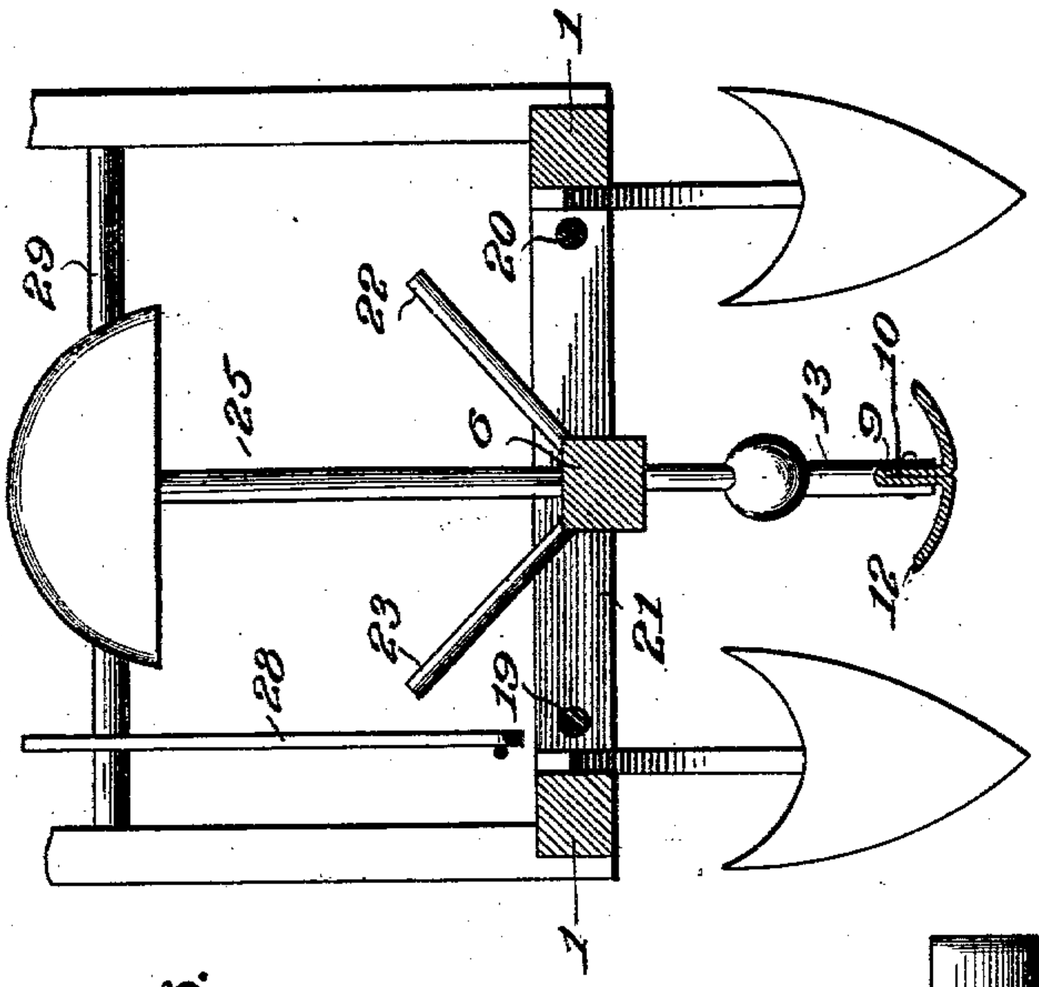

Fig. 3.

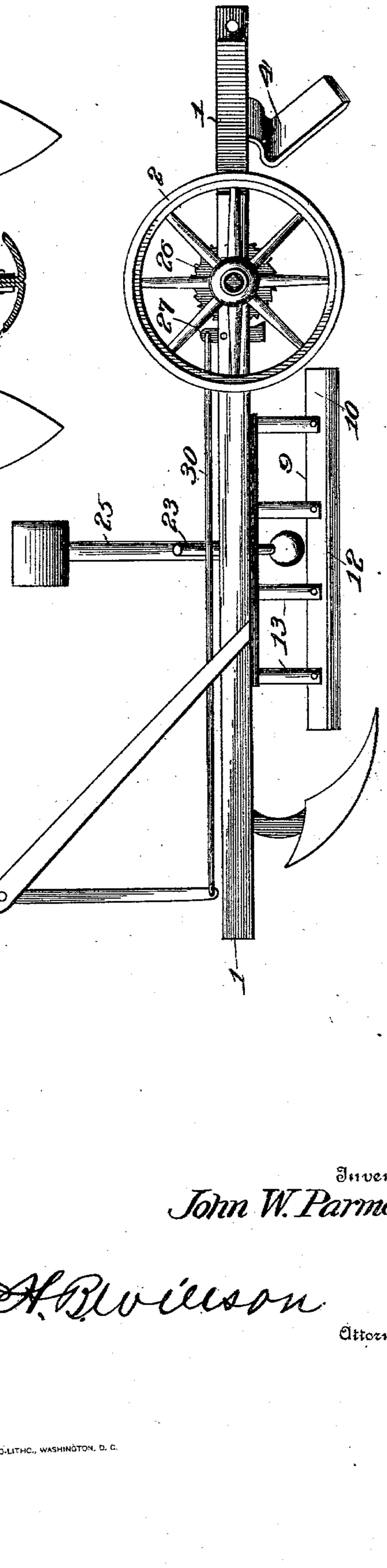

Fig. 2.

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No. 743,919. Patented November 10, 1903.

UNITED STATES PATENT OFFICE.

JOHN WILLIAM PARMER, OF EDWIN, ALABAMA.

COMBINED COTTON CHOPPER AND CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 743,919, dated November 10, 1903.

Application filed February 12, 1903. Serial No. 143,106. (No model.)

To all whom it may concern:

Be it known that I, JOHN WILLIAM PARMER, a citizen of the United States, residing at Edwin, in the county of Henry and State of Alabama, have invented certain new and useful Improvements in a Combined Cotton Chopper and Cultivator; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to a combined cotton chopper and cultivator.

The object of the invention is to provide a machine of this character which shall be simple of construction, durable in use, comparatively inexpensive of production, and efficient in operation.

With this and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a top plan view of my improved cotton-chopper. Fig. 2 is a side elevation of the same, and Fig. 3 is a cross-sectional view on line *x x* of Fig. 1.

In the drawings, 1 denotes the frame of a cotton-chopper, which is supported on wheels 2 to a shaft or axle 3, journaled at the forward end of the frame.

4 denotes scrapers, secured to the forward end of the machine and adapted to trim off the side of the row of cotton, and 5 denotes plows or cultivators, secured to the rear end of the frame. Any suitable means may be employed for adjusting the scrapers and cultivators both vertically and laterally; but as such means form no part of the present invention it is not deemed necessary to illustrate or describe the same.

6 denotes the hoe-shaft, journaled in bearings 7 and 8 and extending longitudinally the length of the machine, and 9 denotes the hoe, which consists of a plate extending longitudinally the length of the machine and comprising, preferably, a strap or metal doubled upon itself to form a vertically-projecting flange 10 and having its ends bent laterally to form chopping edges 12. This hoe is attached to the shaft by standards or arms 13 and is adapted to be rocked from side to side during the forward movement of the machine.

14 denotes a tappet device comprising pins 15 and 16, projecting laterally from diametrically opposite points and secured to the forward end of the hoe-shaft 6, and pins 17 and 18, which project from the opposite sides of the shaft or axle 3. The pin 17 is adapted to engage the pin 15, and the pin 18 to engage the pin 16, which takes place in alternation, so as to rock the shaft 6 in opposite directions, and thus swing with a powerful sweeping or thrusting movement the hoe from side to side of the machine in the act of chopping off the cotton. As the shaft 6 is rocked back and forth, it is evident that some means should be provided for limiting the swinging movement of the hoe, and to this end I provide a yielding buffer, which will relieve strain and at the same time always hold the shaft, with its pins 15 and 16, in proper position to be engaged by the pins 17 and 18. These means comprise, preferably, two spring-rods 19 and 20, which project forwardly from the cross-bar 21 of the main frame and are arranged within the path of movement of two diagonally-extending arms 22 and 23.

Assuming the arm 22 to be resting upon the spring-rod 19 and the machine to be in operation, the pin 17 will strike the pin 15, rock the shaft, and sweep the hoe across a row of cotton. In the rocking movement of the shaft the arm 23 will be swung violently into contact with the spring-rod 20, which will yield under the shock or blow and then spring back to its normal position and support the arm 23, so that the pin 16 will be held in proper position to be engaged by the pin 18, whereby upon the further rotation of the shaft 3 said pin 18 will engage the pin 16 and swing the chopping-hoe to the other side of the machine. This operation is repeated as the machine is drawn along. When one of the arms 22 or 23 strikes one of the spring-rods 19 or 20 and the said spring-rod is forced downward, due to the shock, the spring-rod in righting itself before returning to its normal position might tend to rock the shaft 6 beyond that position where its pins 15 and 16 will be within the path of movement of the

pins 17 and 18, and to prevent this I provide a weighted lever 25, which to a certain extent resists the action of the spring and prevents it, when returning to its normal position, rocking the shaft 6 to that position where the pins 15 and 16 will not be engaged with the pins 17 and 18. This weight also augments the thrust of the hoe, for in swinging from one side of the machine to the other after passing a vertical line its power will be used to assist in forcing the hoe through the standing cotton.

26 denotes a ratchet-wheel, and 27 denotes a pawl. The ratchet-wheel is fixed to the shaft or axle and the pawl is pivoted to the frame.

28 denotes a lever pivoted to the rung 29, connecting the handles of the machine, and pivoted to the lower end of this lever and to the upper end of the pawl is a link 30. The pawl is adapted to be thrown into the teeth of the ratchet-wheel, and thus brake and stop the machine.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of the invention will be readily understood without requiring an extended explanation.

Various changes in the form, proportion, and details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a cotton-chopper, the combination with a wheel-supported frame having a rotary shaft or axle provided with oppositely-projecting pins, of a rock-shaft journaled in said frame, a chopping-hoe secured to the rock-shaft, pins projecting from the rock-shaft within the path of movement of the pins of the rotary shaft or axle, arms secured to the rock-shaft, spring-rods carried by the frame and adapted to be successively engaged by the arms and act as buffers, substantially as set forth.

2. In a cotton-chopper, the combination with a wheel-supported frame having a rotary shaft or axle provided with oppositely-projecting pins, of a rock-shaft journaled in said frame, a chopping-hoe secured to the rock-shaft, pins projecting from the rock-shaft within the path of movement of the pins of the rotary shaft or axle, arms secured to the rock-shaft, spring-rods carried by the frame and adapted to be successively engaged by the arms and act as buffers, and a weighted lever, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN WILLIAM PARMER.

Witnesses:
S. E. ADAMS,
T. M. ADAMS.