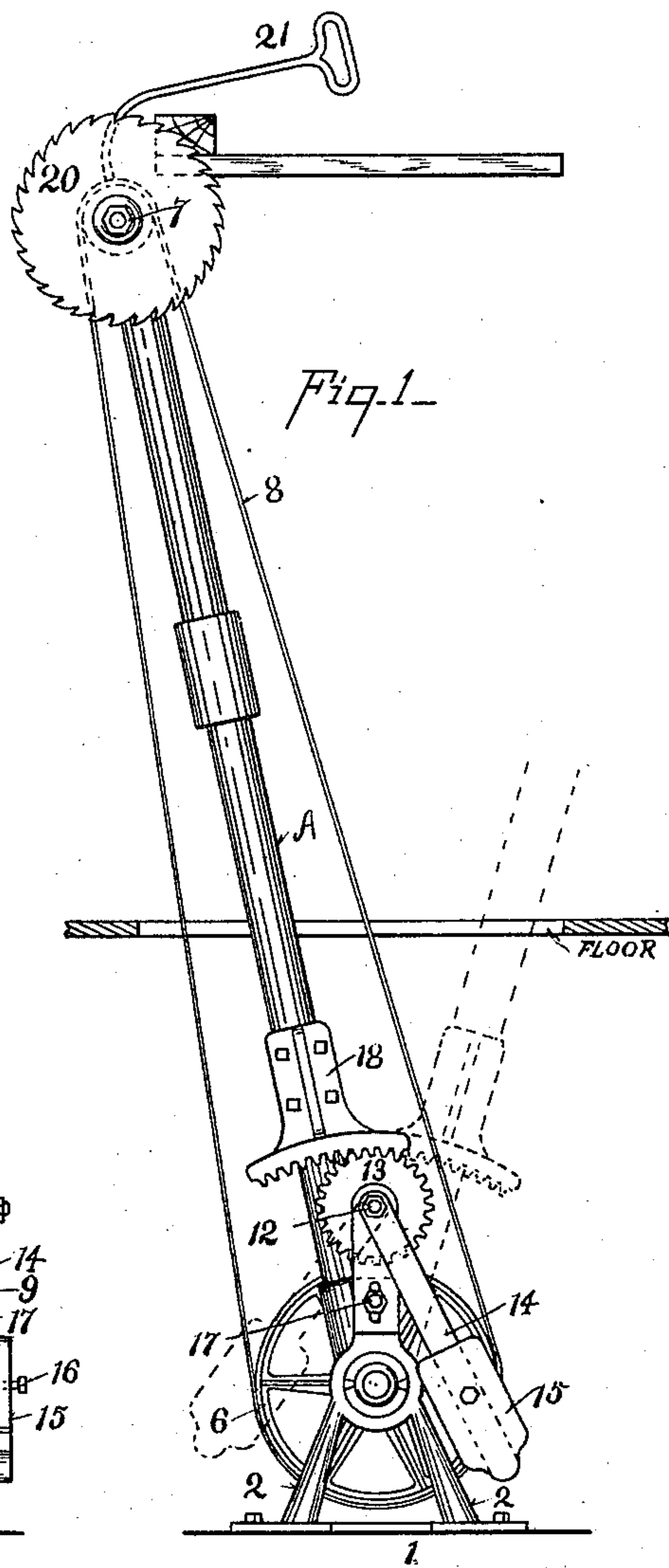
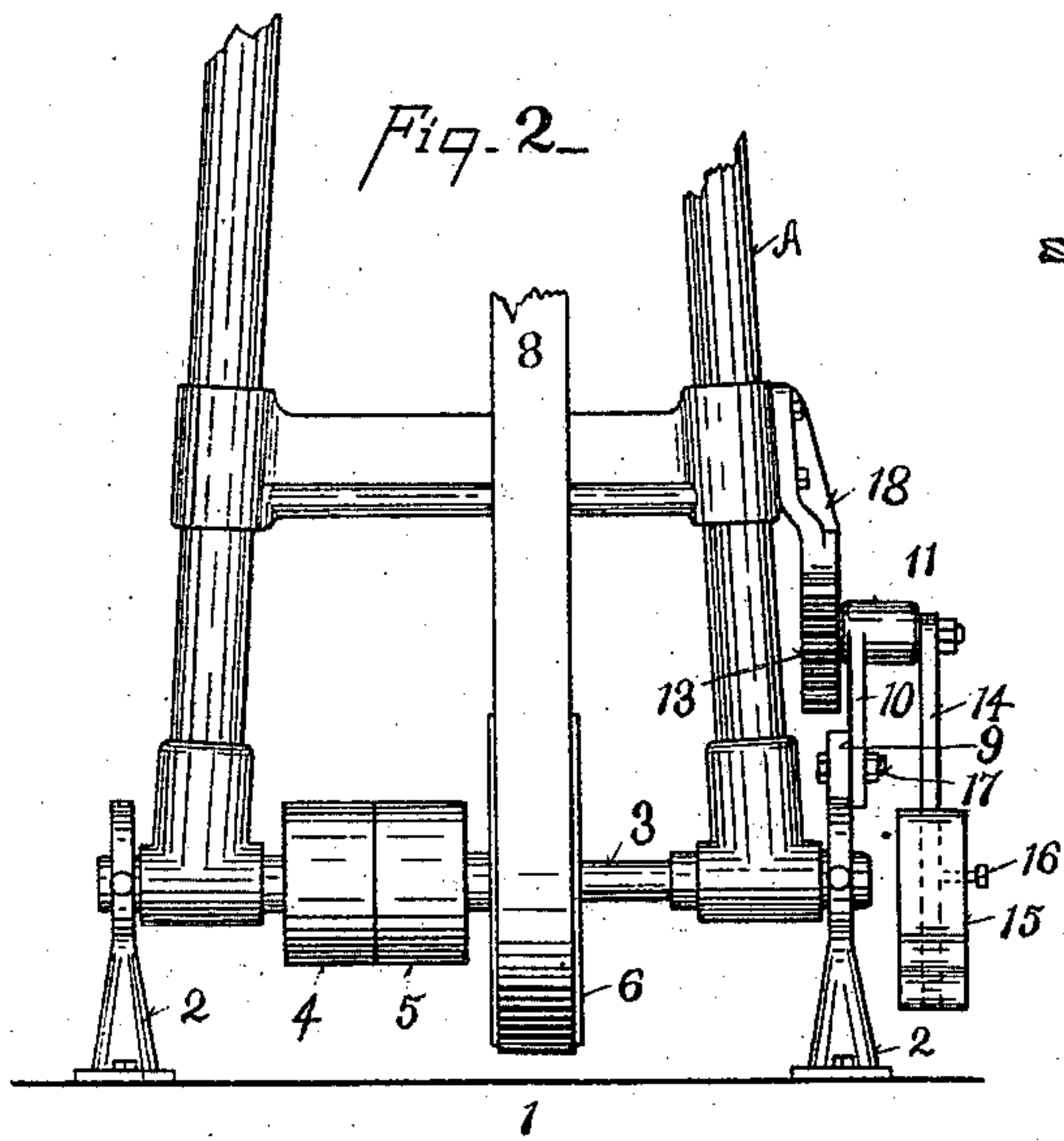
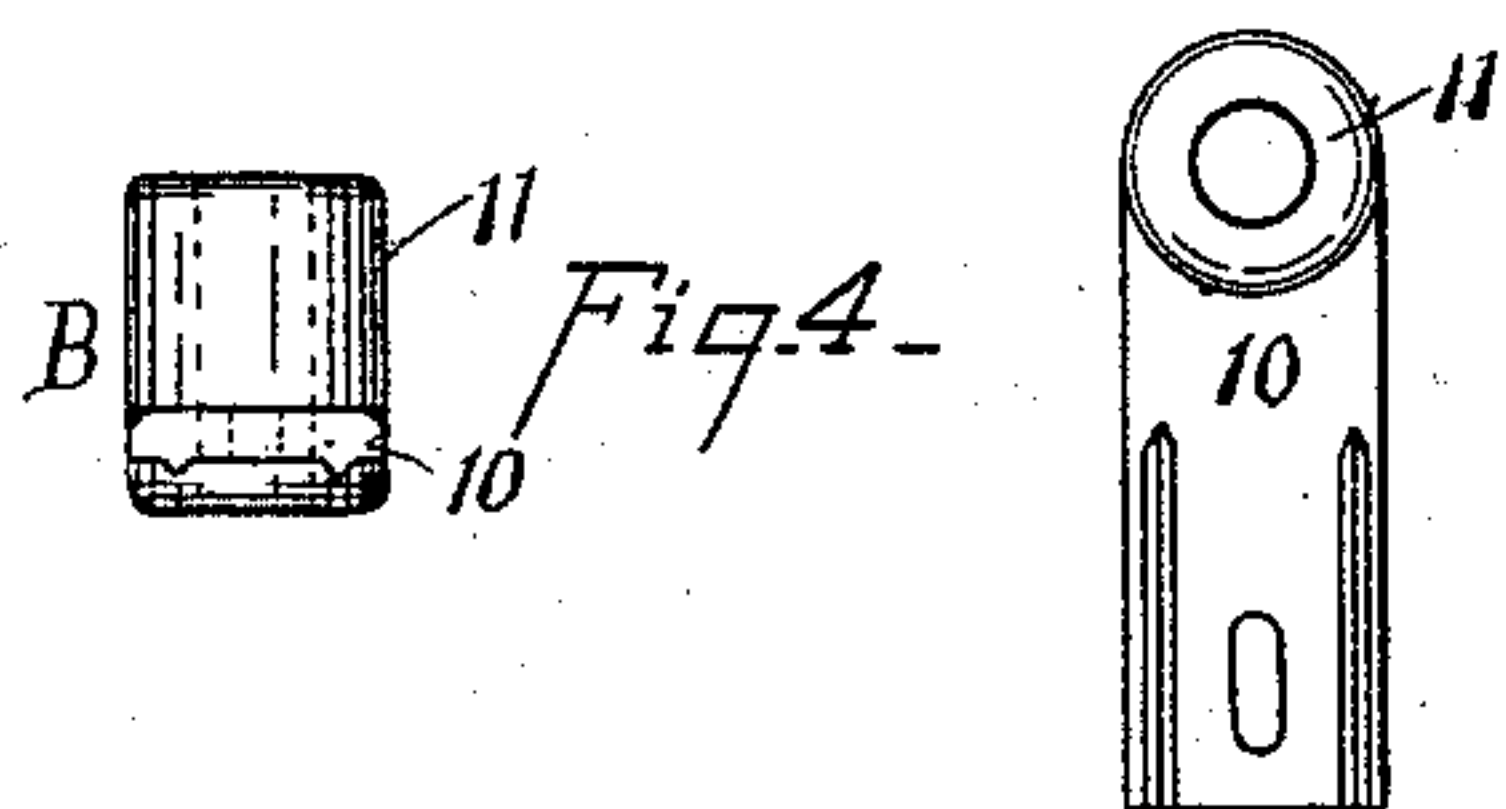
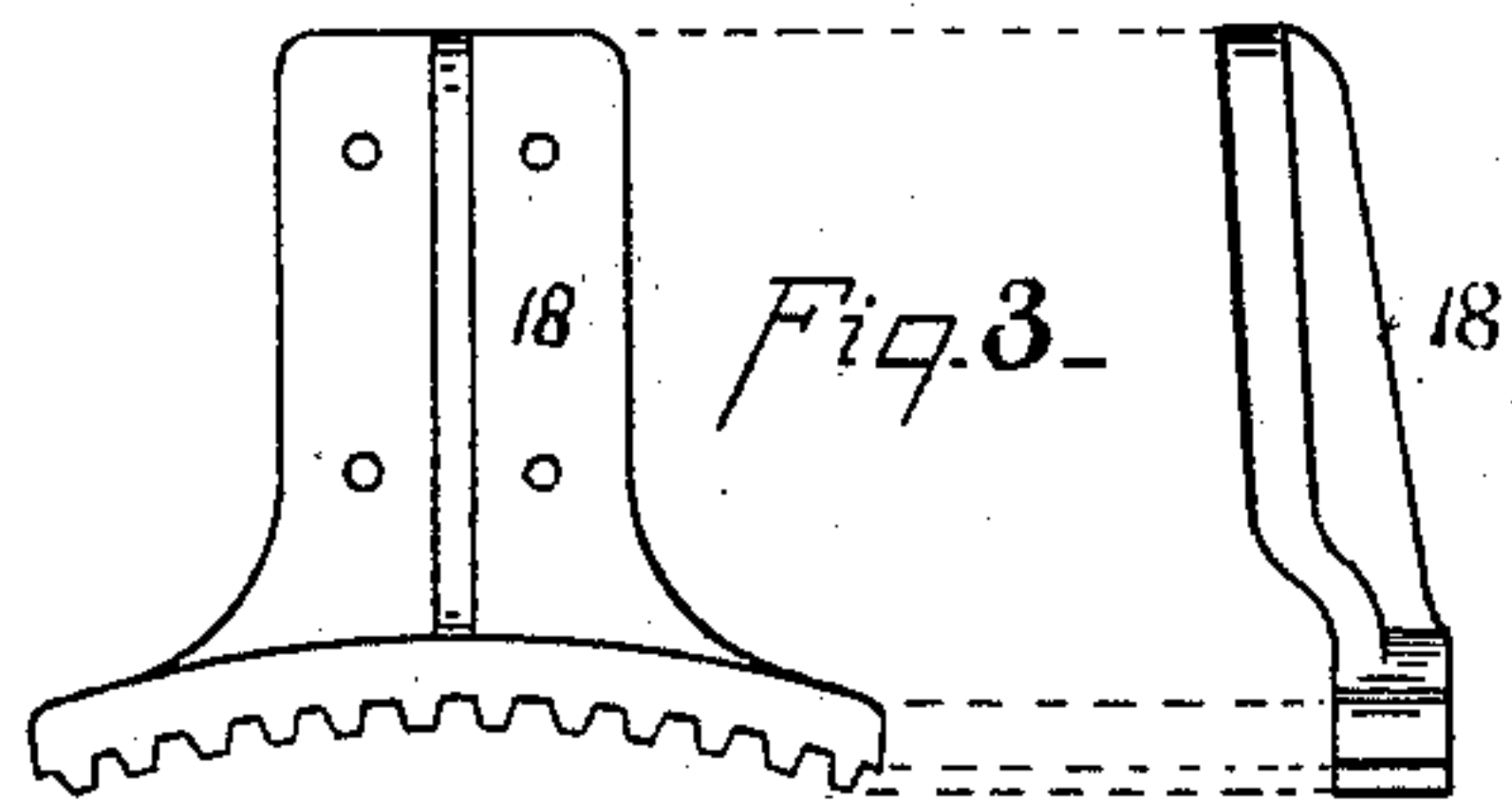


(No Model.)

G. W. BUGBEE.
OSCILLATING SAW FRAME.

No. 417,537.

Patented Dec. 17, 1889.



Witnesses
C. W. Miles
T. Simmons

Inventor
George W. Bugbee
By his Attorneys Fredt Boyd

UNITED STATES PATENT OFFICE.

GEORGE W. BUGBEE, OF CINCINNATI, OHIO, ASSIGNOR TO THE EGAN COMPANY, OF SAME PLACE.

OSCILLATING SAW-FRAME.

SPECIFICATION forming part of Letters Patent No. 417,537, dated December 17, 1889.

Application filed October 22, 1889. Serial No. 327,796. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. BUGBEE, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Oscillating Saw-Frames, of which the following is a specification.

My invention relates to an improvement in gravity or oscillating saw-frames.

One of the objects of my invention is to provide a counterpoise-weight so connected with the swinging frame that it shall be always on the opposite side of the vertical axial center of the oscillating frame, so as to counterpoise its weight, and it is so connected that lost motion at the change of stroke is practically avoided, all of which is fully set forth in the description of the accompanying drawings, making a part of this specification, in which—

Figure 1 is an end elevation of my improvement in position for use. Fig. 2 is a sectional side elevation showing the working parts of the frame. Figs. 3 and 4 are detail views of the parts.

1 represents the floor on which the machine stands.

2 represents journal-brackets for supporting the axial shaft 3.

4 represents a tight pulley, and 5 a loose pulley, for transmitting power to the axial shaft 3.

6 represents a pulley for transmitting power from the axial shaft 3 to the saw-shaft 7.

8 represents the belt or transmitter.

9 represents a projection from one of the brackets 2.

10 represents an arm carrying the sleeve journal-box 11, which is rigidly connected to the arm 9. Within this journal-box 11 shaft 12 journals, on one end of which is a gear-wheel 13, and on the opposite end is keyed or rigidly connected thereto a pendent arm 14, carrying the counterpoise-weight 15.

16 represents a set-screw for adjusting the counterpoise-weight up or down to increase or lessen its efficiency.

17 represents the fastening-stud for holding the arms 9 and 10 in engagement.

18 represents a rack rigidly attached to the oscillating arm A, the teeth of said rack engaging with the pinion 13.

20 represents a circular saw, which is the preferred tool to use in the said oscillating frame, but it is obvious that other tools may be employed.

21 represents a handle attached to the saw-arm or to the upper end of the swinging frame for oscillating the same.

Fig. 4 shows a front view of the arm 10, and B of said figure shows an end view of the same. Fig. 3 shows an end and side view of the rack 18.

Mode of operation: The saw-frame is represented in the drawings as of the gravity form, in which the swinging arm is located below the point of work, sometimes called the "gravity-frame." The operator seizes the handle 21 and pulls it toward him, thus moving the counterpoise-weight from the position shown in full lines, Fig. 1, to the position shown in dotted lines. By means of the rack and pinion lost motion is avoided and shakes and jars in stopping or starting the operation of the saw are avoided. It will be obvious that the position of the saw-frame and journal-support can be reversed.

Having described my invention, what I claim is—

1. The combination of the swinging frame A, carrying the rack 18, meshing with the pinion 13 and operating the counterpoise-weight 15, substantially as and for the purposes specified.

2. In an oscillating saw-frame, the combination of the frame A, journaled upon the axis 3 and carrying the segmental rack 18, with the counterpoise-weight 15, connected thereto by means of the arm 14, shaft 12, and gear 13, whereby the position of the weight and frame are reversed by the oscillation of said frame, substantially as specified.

In testimony whereof I have hereunto set my hand.

GEORGE W. BUGBEE.

Witnesses:

C. W. MILES,
T. SIMMONS.