(No Model.)

J. MENGE.

SWINGING FRAME FOR DREDGING MACHINES.

No. 269,949. Patented Jan. 2, 1883.

Fig. 1.

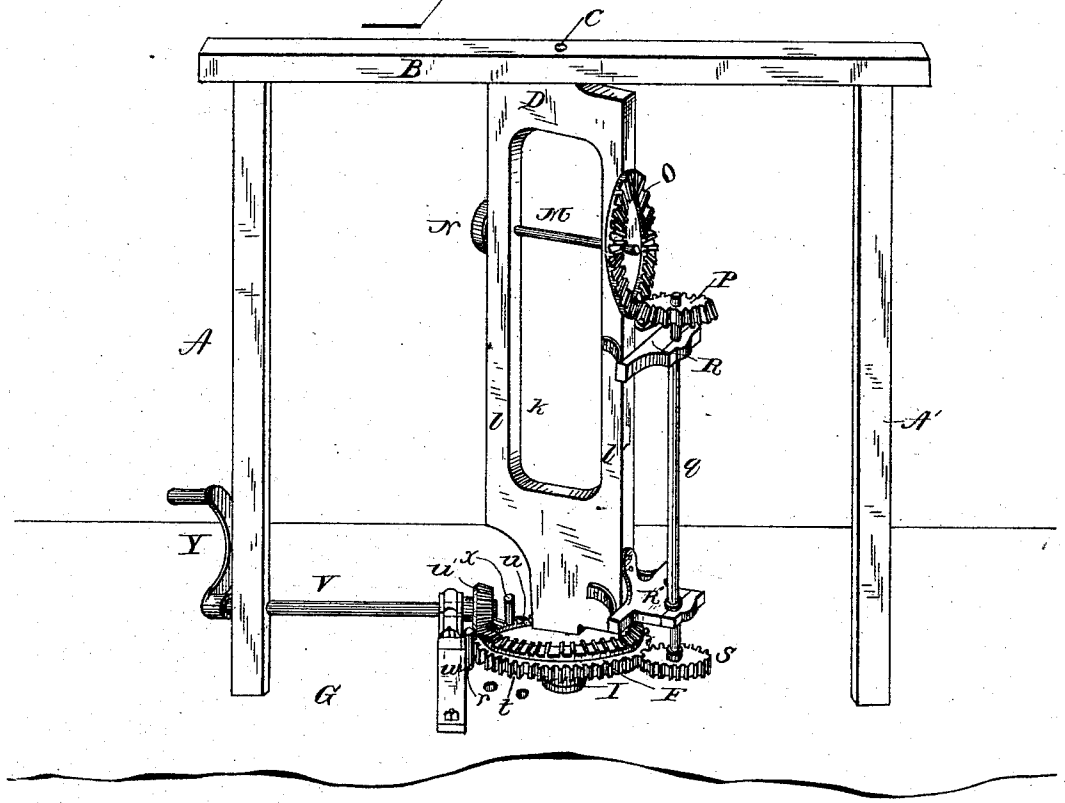
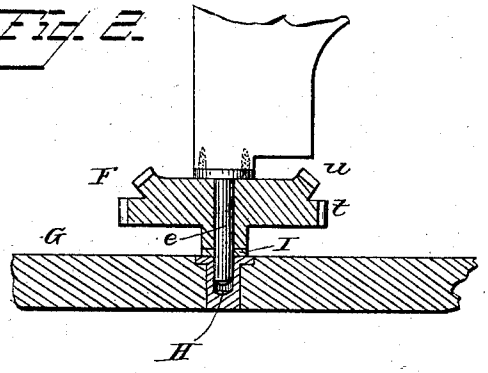


Fig. 2.



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SWINGING FRAME FOR DREDGING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 269,949, dated January 2, 1883.

Application filed August 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH MENGE, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Swinging Frames for Dredging-Machines; and I do hereby 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.

This invention relates to an operating mechanism for dredging-machines, cranes, and other purposes wherein it is necessary to change from time to time the line of the driven shafts from that of the driving-shafts.

In the accompanying drawings, Figure 1 represents a perspective view of my invention, and Fig. 2 a vertical section of a portion of the lower part thereof.

A A′ are the uprights of a frame, the upper ends of which are connected by a horizontal piece, B, in which is constructed a bearing, *c*, for the reception of a journal that is formed on the upper end of a frame, D. The lower end of the latter is furnished with a journal, *e*, which passes through a wheel, F, and washer I, so as to operate in a step, H, constructed in the sill G, as shown. The center of the frame D is made open, as at *k*, leaving vertical pieces *l l′* at each side thereof. In these pieces are bearings, in which is journaled a horizontal shaft, M, the ends of which project beyond the frame, so as to have secured on one end a pulley, N, and upon the other end a beveled gear, O, the latter geared in a pinion, P, that is keyed to the upper end of a vertical shaft, *q*, having its bearings in boxes that are secured to one edge of the frame D, as shown at R R′. The shaft *q* extends a sufficient distance below the lower box to have secured thereto a pinion, *s*, the teeth of which mesh into the cog-wheel *t* of the double wheel F. The upper part of the latter forms a bevel-wheel, *u*, that gears into a bevel-pinion, *u′*, which is keyed or otherwise secured to the inner end of a shaft, V, the latter journaled in one of the vertical pieces, A, and in a pillow-block, *w*. On that side of the pillow-block which is next the gearing, and on opposite sides of the shaft V, are secured pegs or lugs *x* for preventing the frame from swinging around beyond a given point.

Y is a crank through which motion is imparted to the whole machinery.

The wheel F, composing a gear-wheel and a bevel-gear united, is loosely fitted over the journal *e*, in order that it may turn with or around the same whenever the work to be accomplished may so require. Thus the frame may be turned in any desired direction by means of the aforesaid crank Y, and the bevel-gearing *u u′*, the balance of the gearing in the meantime being permitted to revolve, or prevented from so doing by applying chocks between the teeth of the wheel *t* and pinion *s* on that side in which it has a tendency to turn; or the whole gearing may be put in operation, the frame in the meantime held in a stationary position by the weight of the crane or other apparatus connected therewith, or by the pegs *x* being placed so as to resist the pressure of the lower box after the latter has been brought against the same.

It is obvious, in view of the foregoing, that the pegs *x* can be adjusted so as to regulate the distance that the frame D is to traverse, and at the same time the pegs will act as stops to prevent and further movement.

The power is transmitted from the driving-shaft to the machine to be operated through the pulley N or through a drum, which for the purpose may be secured to the shaft M between the pieces *l l′*.

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

1. The frame D, furnished with upper and lower journals, the latter provided with a loosely-fitted washer, I, and a double wheel, F, the said wheel F operated by a driving-pinion, *u′*, and transmitting motion to connecting mechanism through a pinion, *s*, shaft *q*, gear-wheels P O, and shaft M, as described, and for the purpose specified.

2. The combination, with the frame D and journal-box R′, the pegs or lugs *x*, the latter arranged to prevent the former from turning beyond a given point, as described, and for the purpose specified.

3. A swinging or moving frame, D, having journal-bearings above and below, with actuating mechanism attached thereto and moving with the frame.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH MENGE.

Witnesses:

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