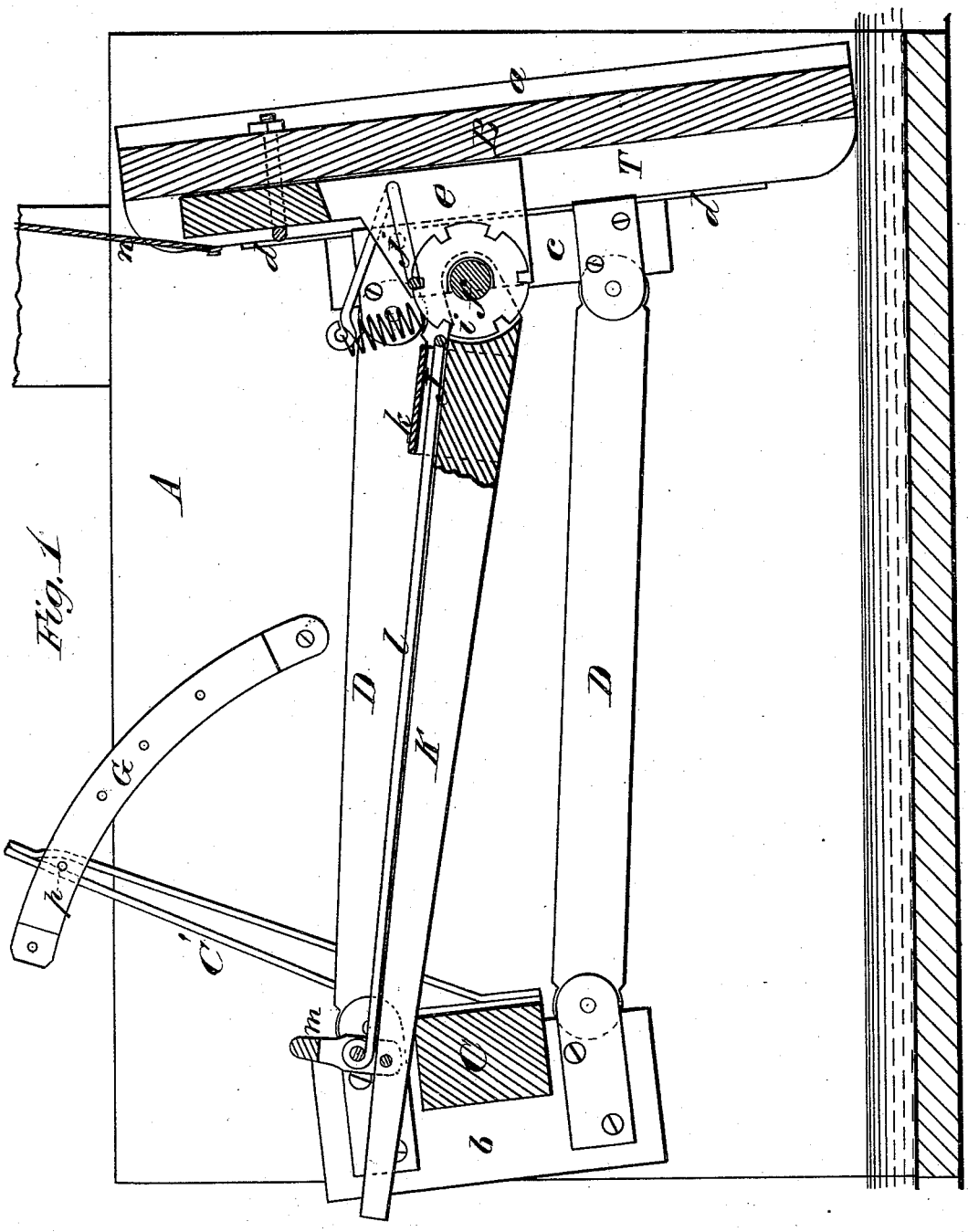
4 Sheets--Sheet 1.

T. PARKER.

Sluice-Gate.

No. 168,524. Patented Oct. 5, 1875.



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4 Sheets--Sheet 2.

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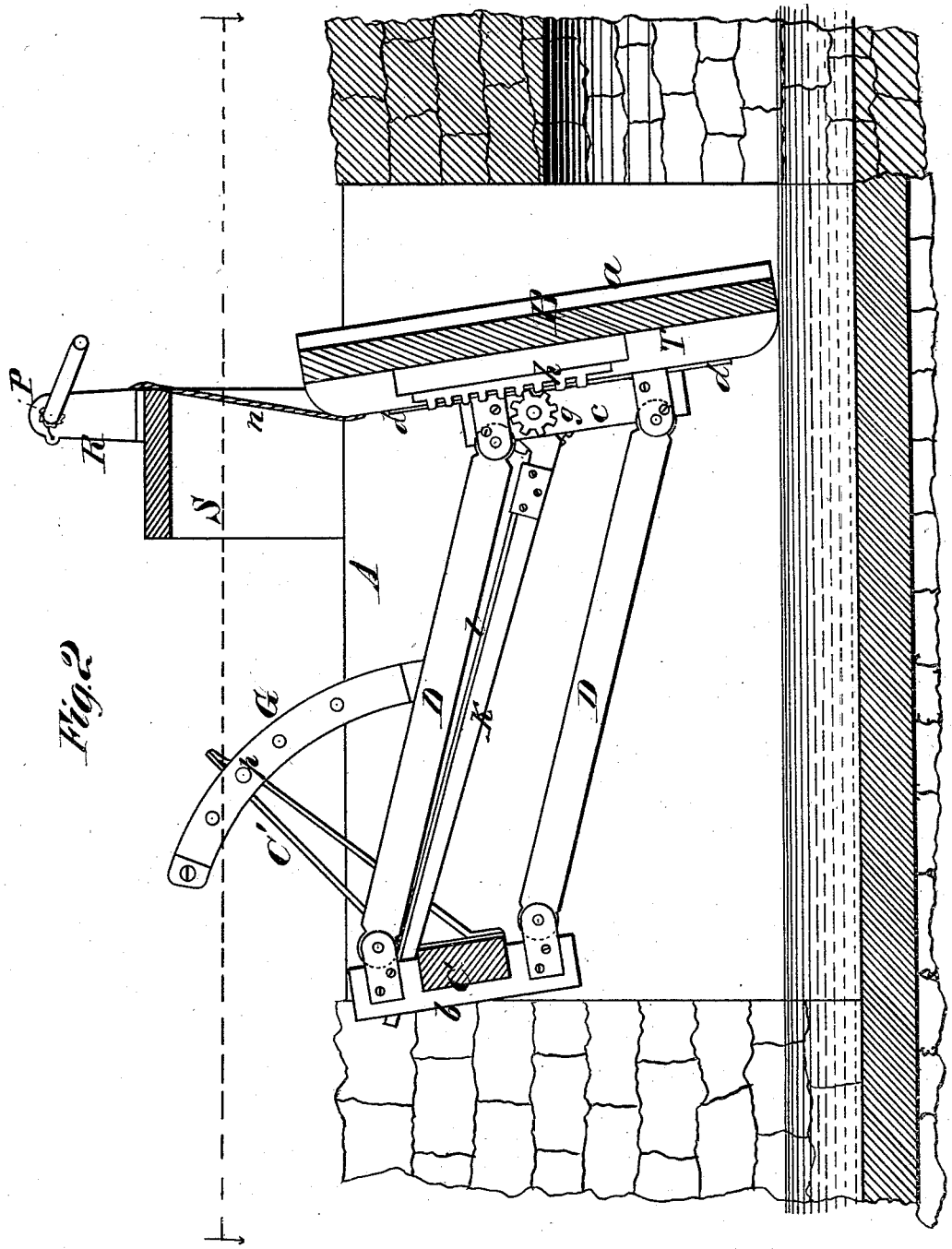

Fig. 2

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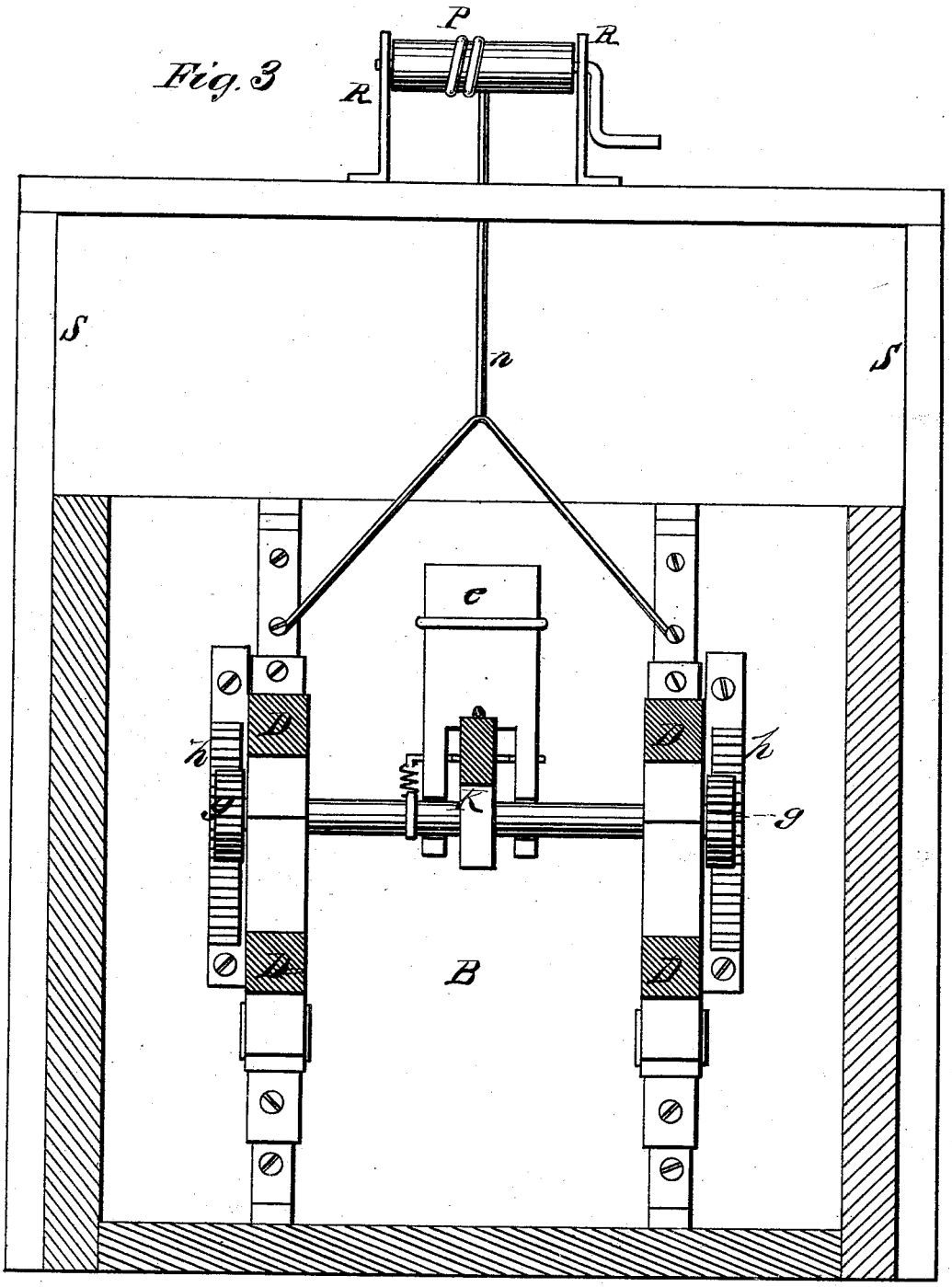
Fig. 3



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4 Sheets--Sheet 4.

T. PARKER.

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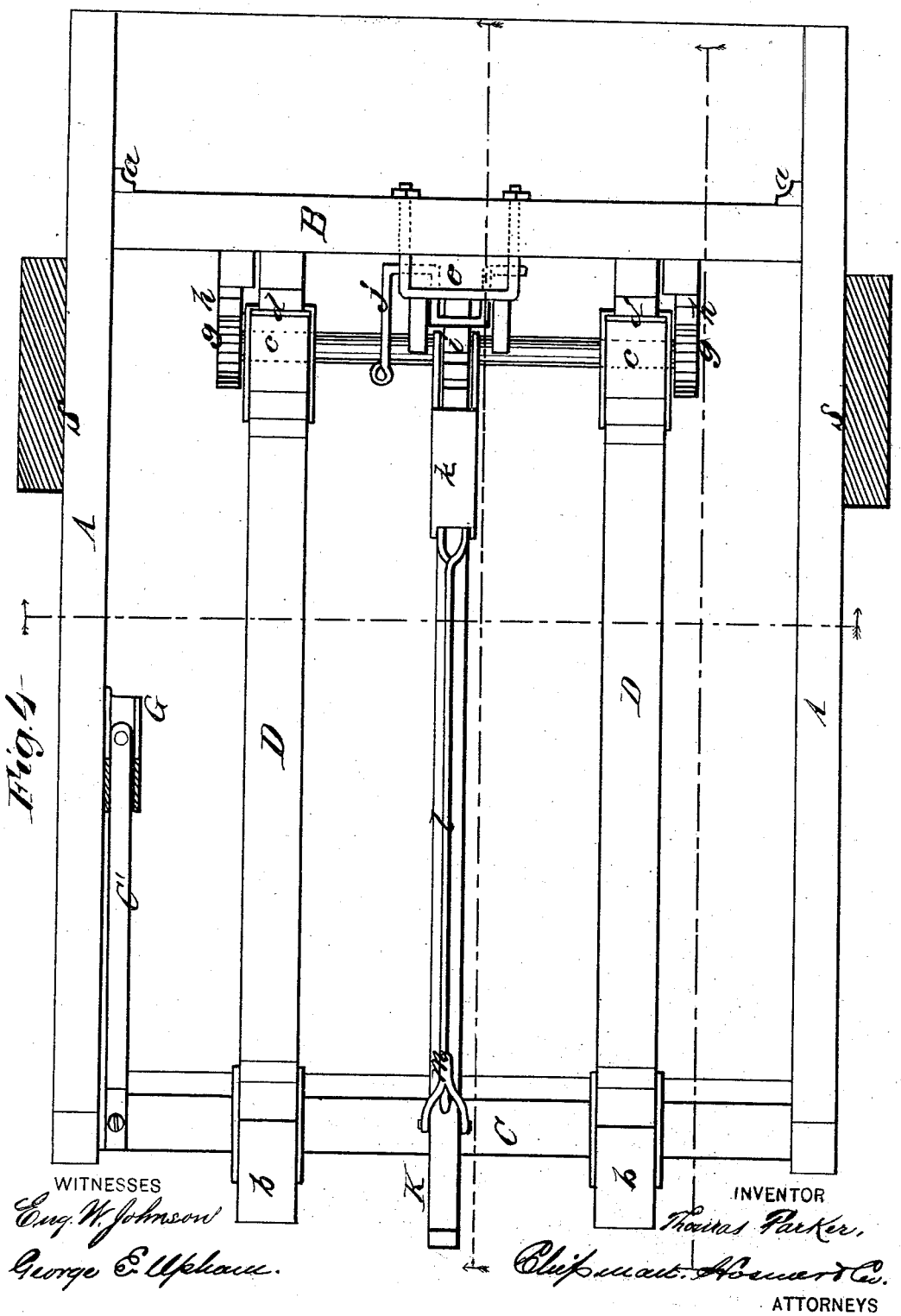

UNITED STATES PATENT OFFICE.

THOMAS PARKER, OF MENOMONEE, WISCONSIN.

IMPROVEMENT IN SLUICE-GATES.

Specification forming part of Letters Patent No. **168,524**, dated October 5, 1875; application filed August 28, 1875.

To all whom it may concern:

Be it known that I, THOMAS PARKER, of Menomonee, in the county of Dunn and State of Wisconsin, have invented a new and valuable Improvement in Angle-Pressure Angle-Gates; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figures 1 and 2 of the drawings are representations of longitudinal vertical sections of my gate, and Fig. 3 is a transverse vertical sectional view of the same. Fig. 4 is a plan view, part sectional, thereof.

This invention has relation to angle-pressure hoisting-gates for flooding and sluicing; and the nature of my invention consists in certain novel devices, hereinafter described, in combination with a gate arranged in a sluiceway, whereby a single person can conveniently raise or depress the gate or adjust it at any desired angle, as will be hereinafter explained.

In the annexed drawings, A A designate the walls of a sluiceway, and B the sluice-gate, to the ends of which angular strips *a* are hinged, so that when there is a pressure of water against them their free edges will impinge closely against the vertical walls of the sluiceway and prevent leakage.

At a suitable distance from the gate, and at a proper distance from the bottom of the sluiceway, is a horizontal rock shaft, C, having its end bearings in the walls A. To this shaft C cross-heads *b b* are rigidly secured, to the upper and lower ends of which rods D are pivoted. The opposite ends of these rods D are pivoted to heads *c c*, which are vertically movable on plates *d d*, which are secured to battens on the back of the gate B. The rods D are at all times parallel to each other, and they allow the gate to be raised or depressed, and to be adjusted at any desired angle. On one end of the shaft C an arm, C′, is secured, which passes up through a segment, G, and can be held at any desired point by means of a pin, *p*. By vibrating this arm C′ the gate can be adjusted at any desired angle, and after the adjustment is made the gate can be fixed by inserting the pin *p* through said arm and segment. The two heads *c c*, and also a bracket, *e*, which is adjustable on the gate B, afford bearings for a horizontal shaft, *f*, carrying pinions *g g* on its ends, which engage with racks *h h* fixed to the gate B. At the middle of the length of the shaft *f*, and between the two cheeks of the bracket *e*, a notched wheel, *i*, is keyed, with which a spring-check, *j*, and also a pawl, J, are designed to engage. When the check *j* is engaged with wheel *i* the shaft *f* cannot be rotated. The pawl J passes freely through a sheath, *k*, on a hand-lever, K, which is allowed to articulate about the shaft *f*, and this pawl is attached to a rod, *l*, which is attached to a short lever, *m*, pivoted to the lever K near its upper extremity. It is by these means that the gate can be moved up or down for the purpose of adjusting the points of resistance higher or lower, according to the height of the water or the force brought against the gate.

For the purpose of raising the gate and holding it at any desired height for sluicing logs, and for other purposes, I attach ropes or chains to the battens, which ropes or chains are fastened to a single chain, *n*, that is wound upon a crank-shaft, P. This shaft P is mounted in standards R R, which are secured to a frame, S, rising from the walls A A. By turning the crank-shaft or windlass P the gate can be raised to any desired height.

What I claim as new, and desire to secure by Letters Patent, is—

1. The sluice-gate B connected to a rock-shaft, C, by means of jointed rods D in combination with the arm C′, segment G, and pin *p*, substantially in the manner and for the purposes set forth.

2. The pivoted connecting-rods D combined with heads *c*, vertically adjustable on the back of the gate B, substantially as and for the purposes described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

THOMAS PARKER.

Witnesses:
JAMES BRACKLIN,
W. D. YOUNG.