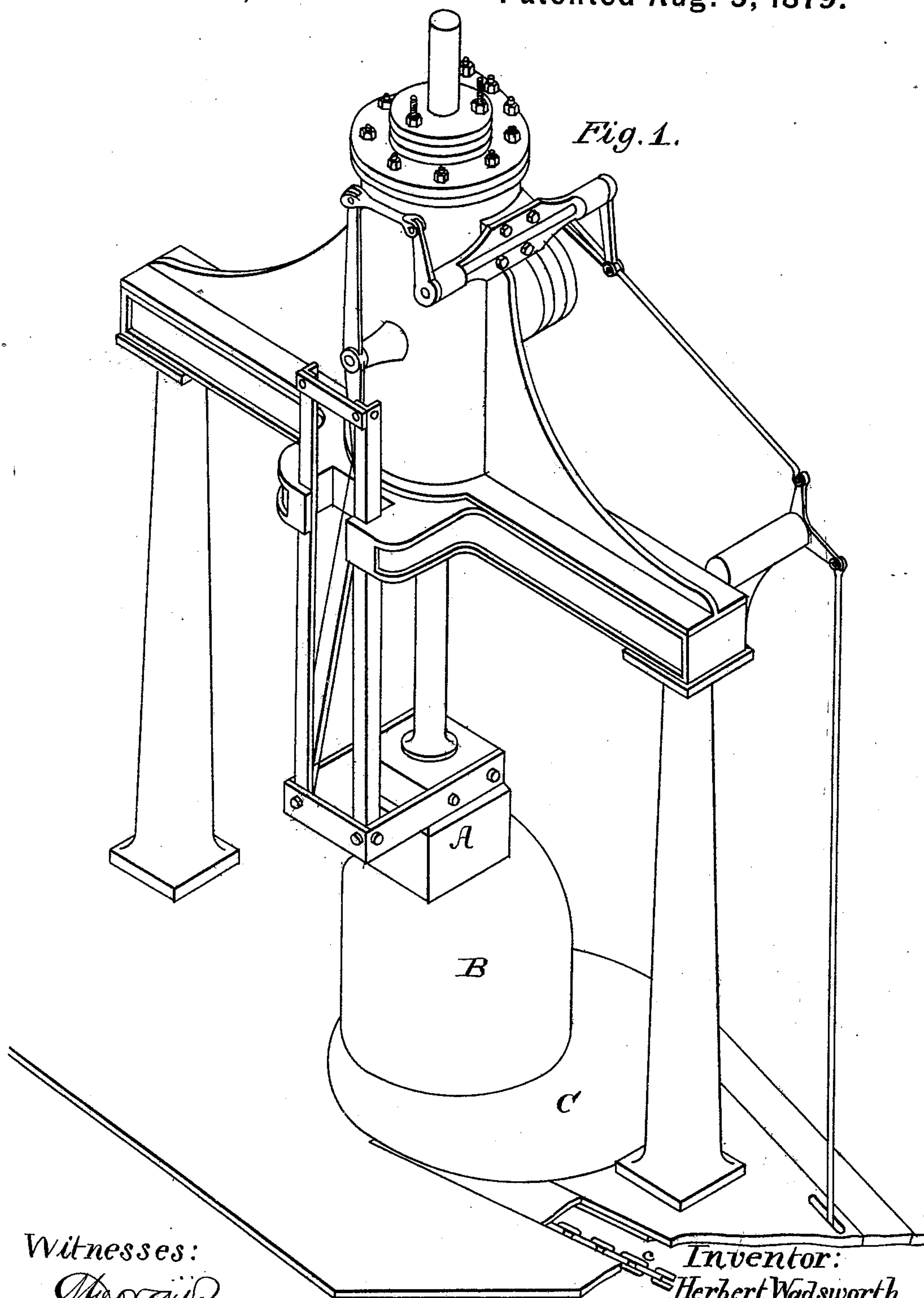


H. WADSWORTH.
Anvil.

No. 218,343.

Patented Aug. 5, 1879.



Witnesses:

George W. D. Fowl

Inventor:

Herbert Wadsworth.

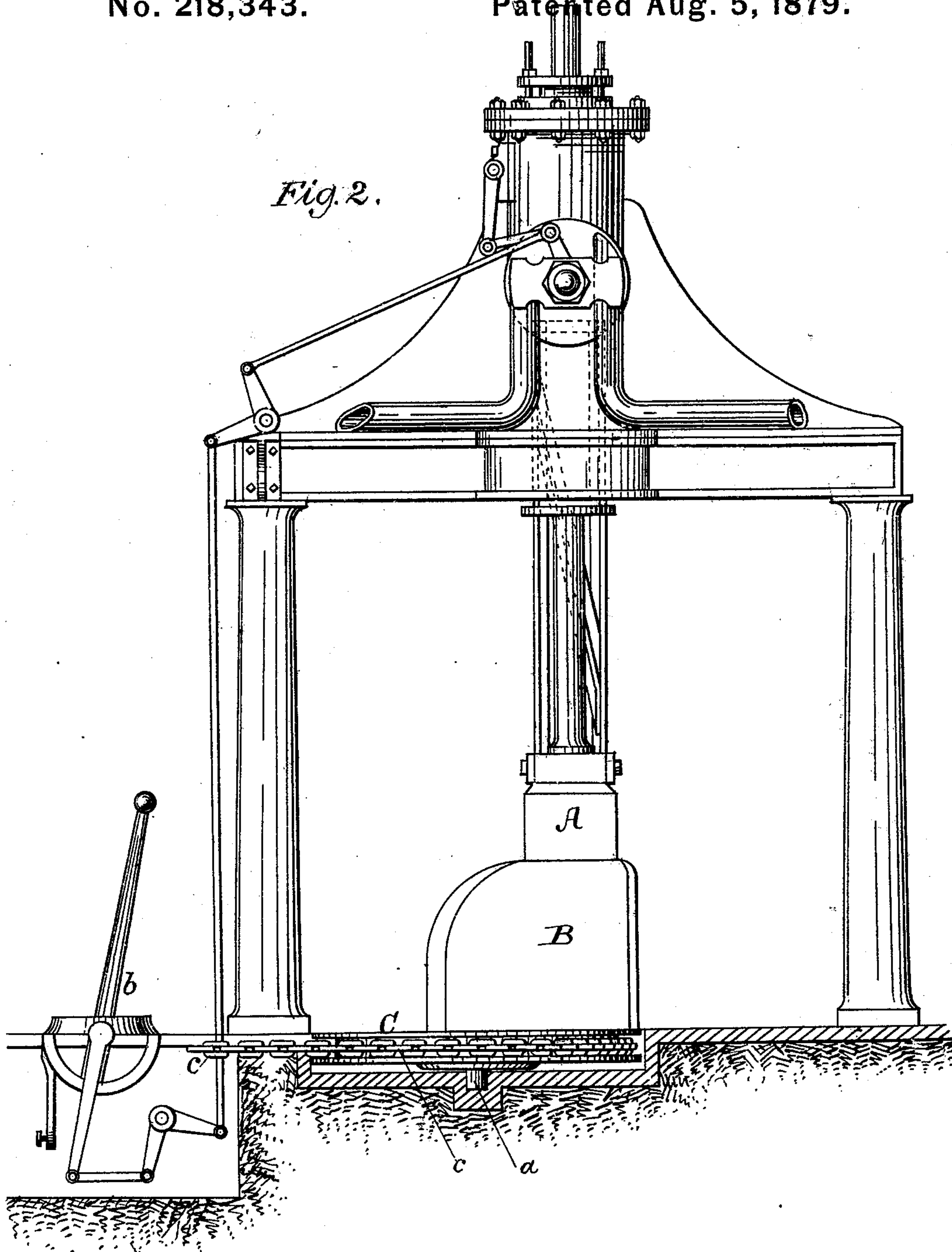
by *M. Bailey*
his Attorney.

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Fig. 2.



Witnesses:

George W. D. A. E. W.

Inventor:

Herbert Wadsworth.

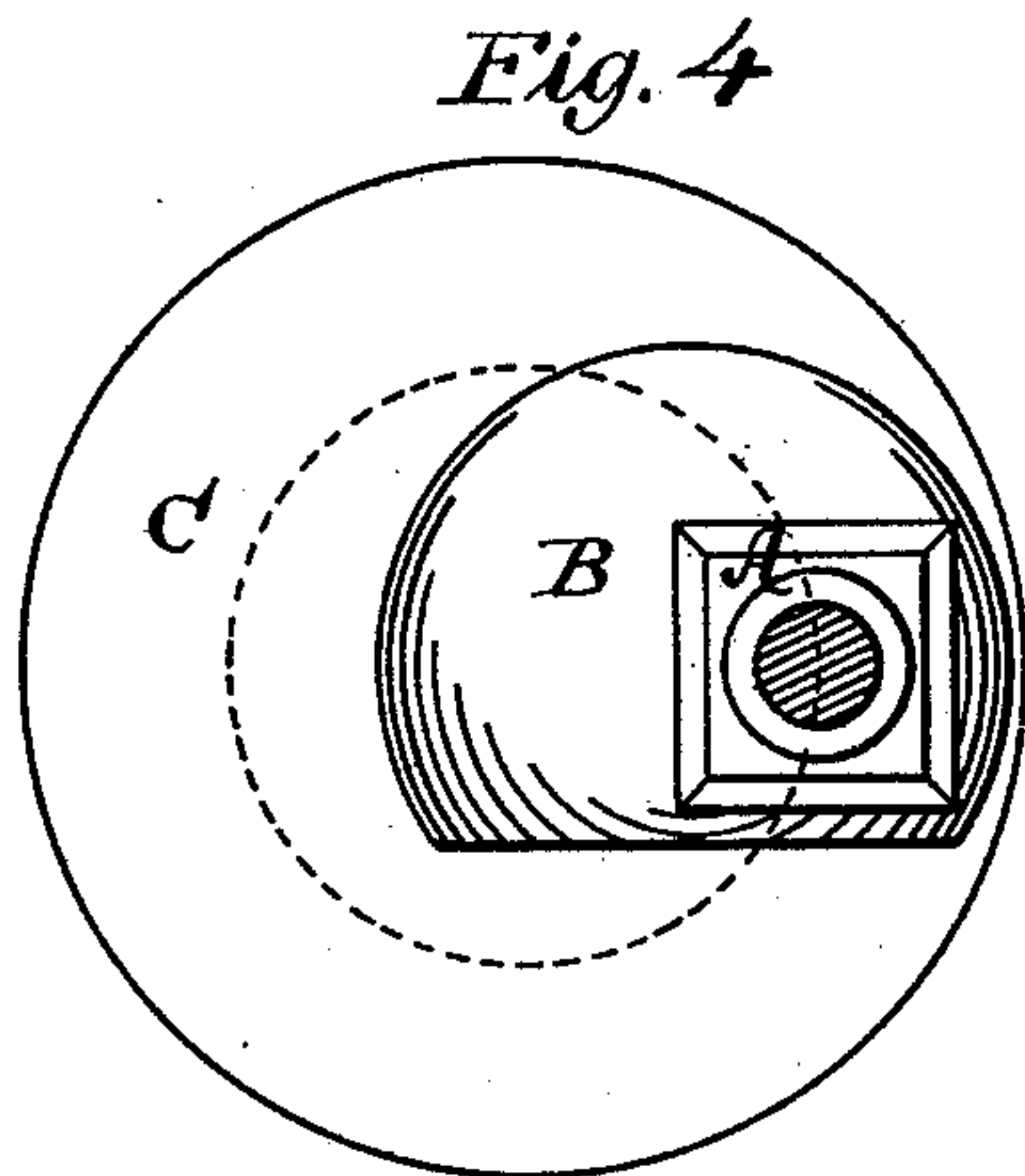
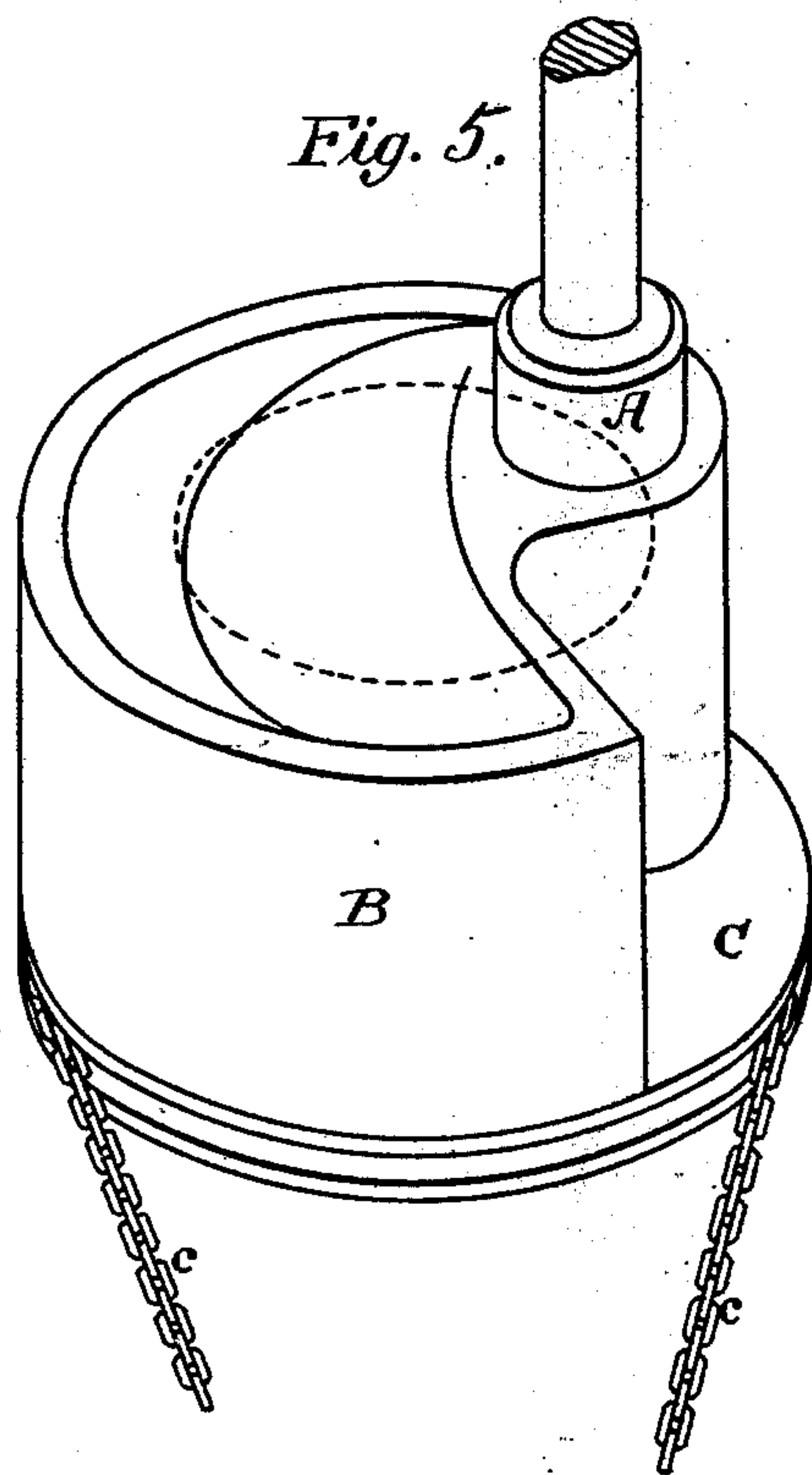
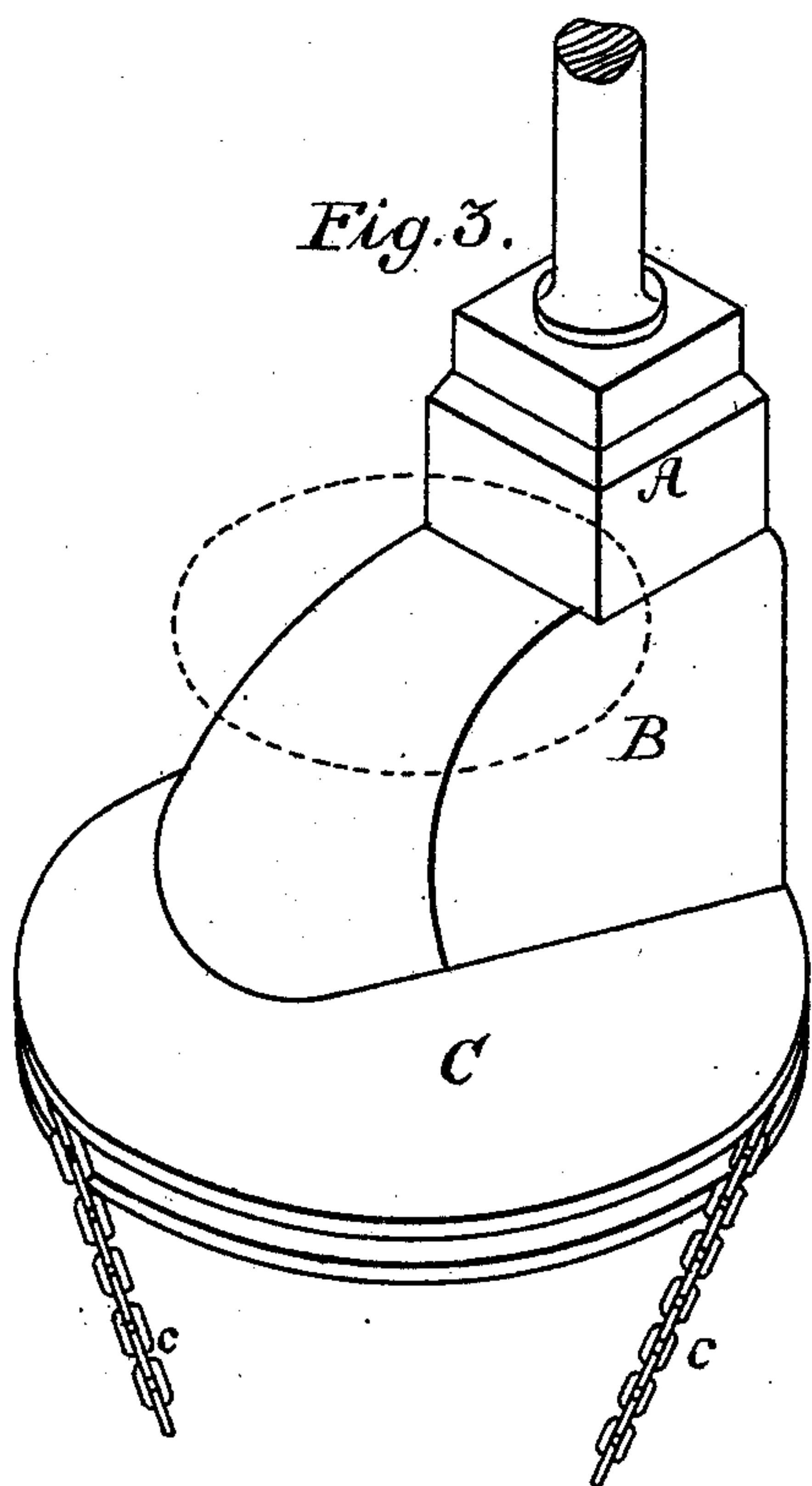
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Witnesses:
George D. Paul

Inventor:
Herbert Wadsworth,
by *W. Bailey*
his Attorney.

UNITED STATES PATENT OFFICE.

HERBERT WADSWORTH, OF GENESEO, NEW YORK.

IMPROVEMENT IN ANVILS.

Specification forming part of Letters Patent No. **218,343**, dated August 5, 1879; application filed April 25, 1879.

To all whom it may concern:

Be it known that I, HERBERT WADSWORTH, of Geneseo, Livingston county, New York State, have invented certain new and useful Improvements in Anvils or devices for blocks over which to beat malleable substances, such as iron, steel, copper, and the like, of which the following is a specification.

It is my object to enable blows to be given by a steam or power hammer on and around an anvil, much as a smith strikes with a hand-hammer the metal, sometimes on a flat surface, sometimes over an angle, sometimes over a curve, and sometimes, when desirous of bending a bar, far away from the supporting-block.

To effect this result I combine and arrange the block or anvil and the steam or power hammer in such manner that different portions of the anvil, as desired, may be brought under and in the line of stroke of the hammer. I prefer for the purpose to make the anvil movable in a horizontal plane under the hammer—that is to say, in a plane at right angles with the line of movement of the hammer; and the best way, on the whole, to thus make the anvil movable is to mount it on a carriage adapted to revolve on a vertical pivot or axis which is eccentric to the longitudinal axis of the hammer.

The nature of my invention, and the manner in which the same is or may be carried into effect, will be understood by reference to the accompanying drawings, in which—

Figure 1 is a perspective view of a movable anvil arranged in accordance with my invention under a steam-hammer. Fig. 2 is an elevation of the same, partly in section, in order to show the pivoting of the anvil-carriage. Fig. 3 is a perspective view of the anvil. Fig. 4 is a plan of the same. Fig. 5 is a perspective view of a modified form of anvil.

In Figs. 1 and 2 I have shown combined a vertically-moving steam or power hammer, A, and an anvil, B, movable in a plane at right angles to the path of movement of the hammer, with a view to varying the relative position of the two parts. For this purpose the anvil B, which may be of the form shown, or of any other suitable form, is eccentrically fixed upon a horizontal rotary platform or turn-table, C, whose pivot *a* or axis of move-

ment is eccentric with respect to the hammer—that is to say, is to one side of the hammer.

The steam-hammer mechanism may be of any approved kind, and requires no description here. That which I have shown in the drawings is intended to be used in connection with the controlling-valve apparatus described in my Letters Patent No. 203,224, dated April 30, 1878, and with the universal-jointed lever apparatus described in my Letters Patent No. 213,079, dated March 11, 1879.

The lever or handle referred to is shown at *b* in Fig. 2, and may be used to connect with and control the power mechanism which moves the anvil or anvil-platform C. This platform, it is manifest, can be moved by any suitable mechanism—for instance, connecting with the platform by means of a belt or chain, *c*, passing around the periphery thereof.

The anvil is shown separately in Figs. 3 and 4. The dotted circle in each shows the line in which the blows of the hammer A will fall when the table is revolved. Under this arrangement it is manifest the blows of the hammer will fall at one position of the table on top of the anvil, at another just outside the anvil, at another some distance from the anvil, and so on, according as the table is revolved.

Any desired outline or configuration may be given to the anvil, according to the requirements of work—as, for instance, an anvil of the form shown in Fig. 5 may be used with good results under some circumstances.

In every case, however, the shape of the block and its position on the platform will vary with the pattern of power-hammer, and with the conditions of the foundation required and attainable.

I have described in this specification only so much of the different structures represented as needed to illustrate my invention, the main feature of which I consider to reside in the provision for adjustment in a plane at about right angles with the line of reciprocation or the axis of the hammer, with a view to varying the relative positions of the hammer and anvil, for the purposes already stated.

I am aware that an anvil or block of cylindrical form has been mounted to revolve on a horizontal axis, with a view to bringing different portions of its periphery under the ham-

mer. It is not possible, however, under such an arrangement to vary the position of the anvil with respect to the axis or line of stroke of the hammer.

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

1. The combination, substantially as hereinbefore set forth, with a power-hammer, of an anvil and an anvil-carriage arranged and adapted to rotate upon a vertical axis eccentric to the axis of the hammer.

2. The combination, substantially as hereinbefore set forth, with a power-hammer, of an anvil-carriage adapted to rotate on a vertical axis eccentric to the axis of the hammer, and an anvil eccentrically placed on said carriage.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

HERBERT WADSWORTH.

Witnesses:

ROBERT P. WINTERS,
T. H. BALL.