

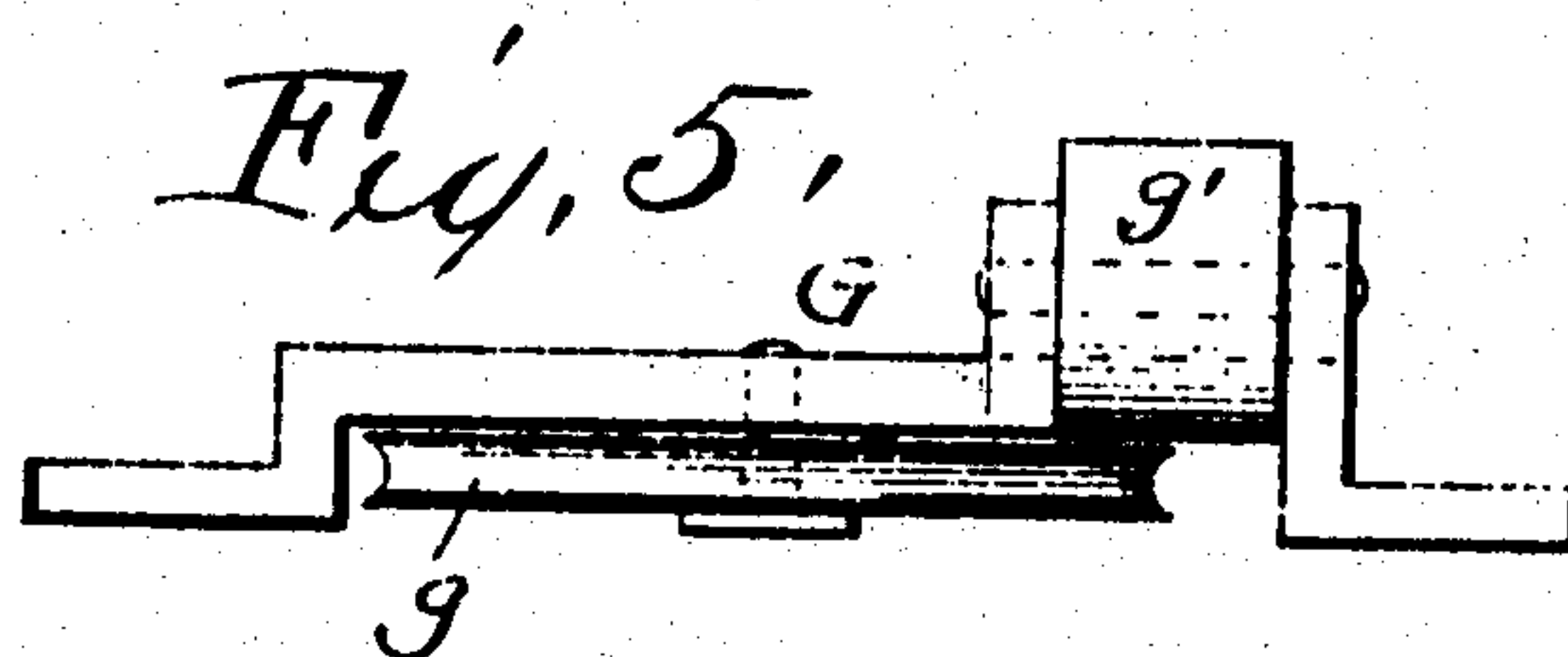
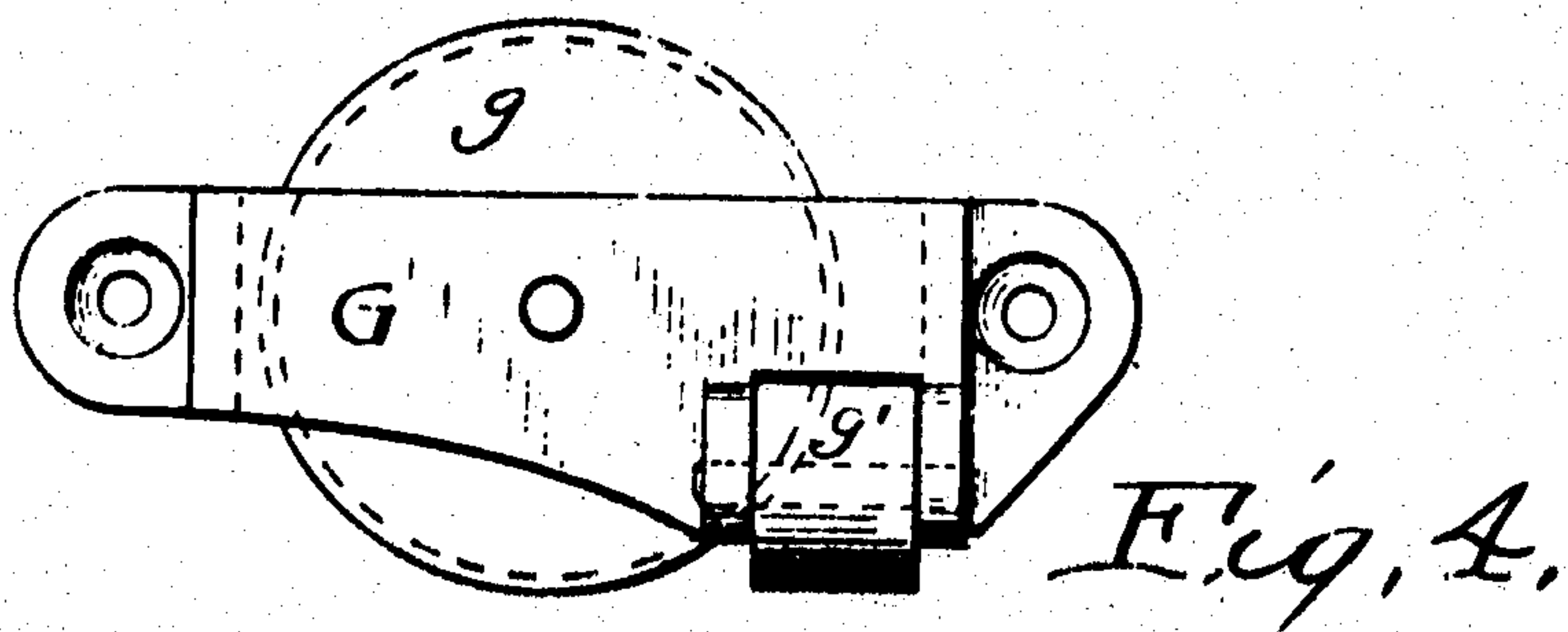
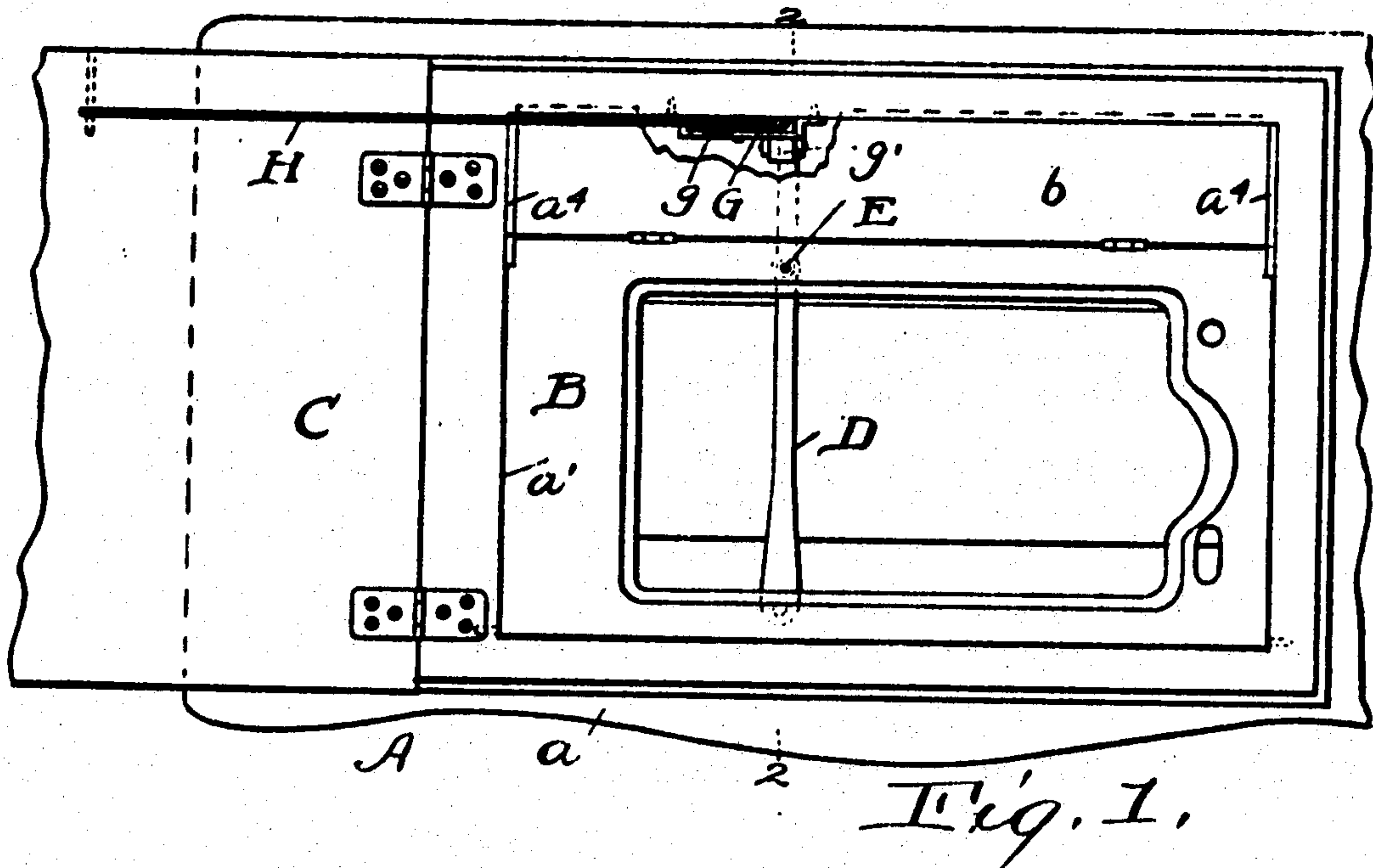
No. 799,331.

PATENTED SEPT. 12, 1905.

W. GROTHE.
DROP TABLE FOR SEWING MACHINES.

APPLICATION FILED JUNE 10, 1902.

2 SHEETS--SHEET 1.



Witnesses.
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H. M. Kiss

Inventor:
William Grothe.
By His Attorneys,
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3 SHEETS—SHEET 2.

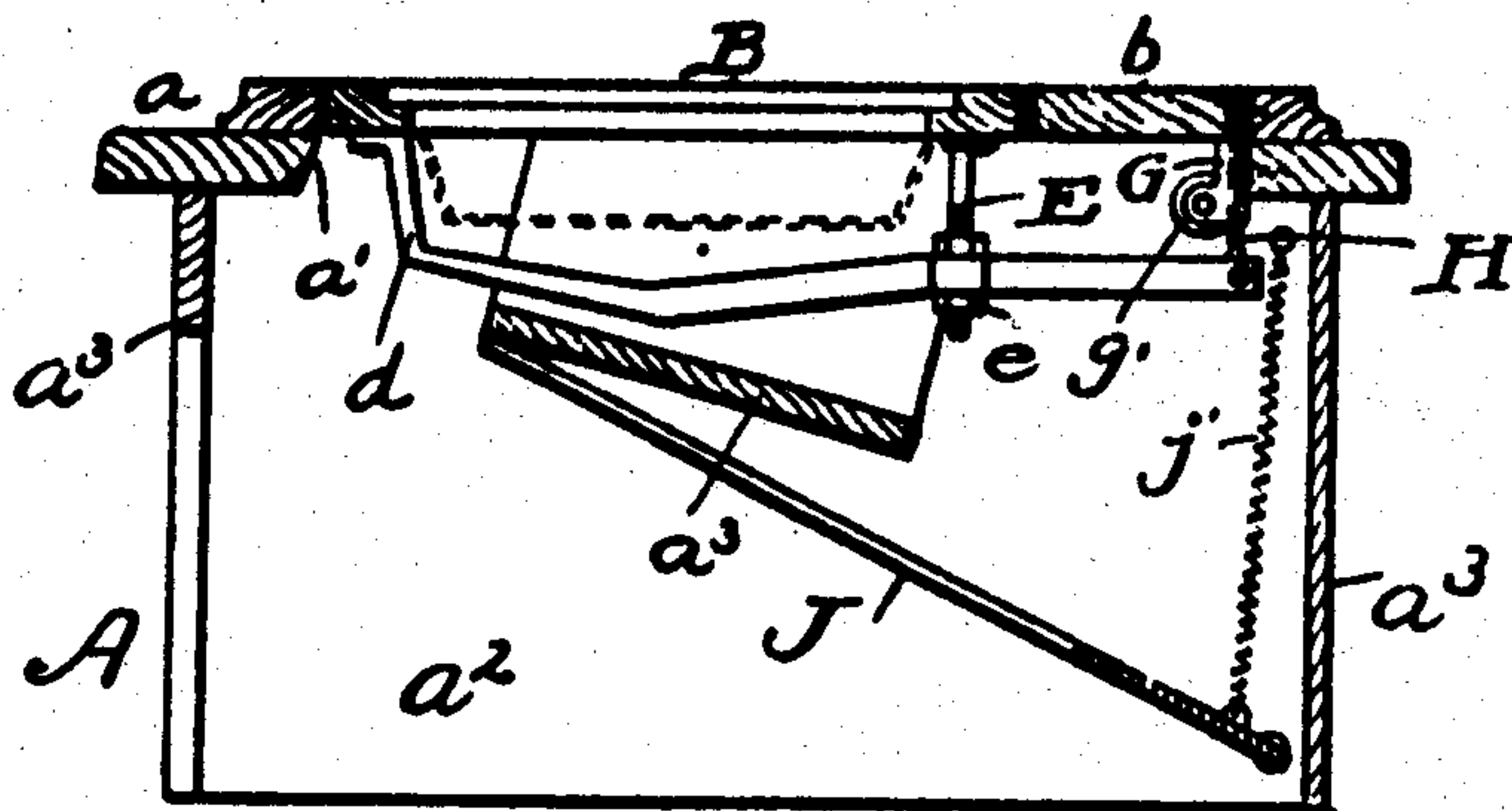


Fig. 2.

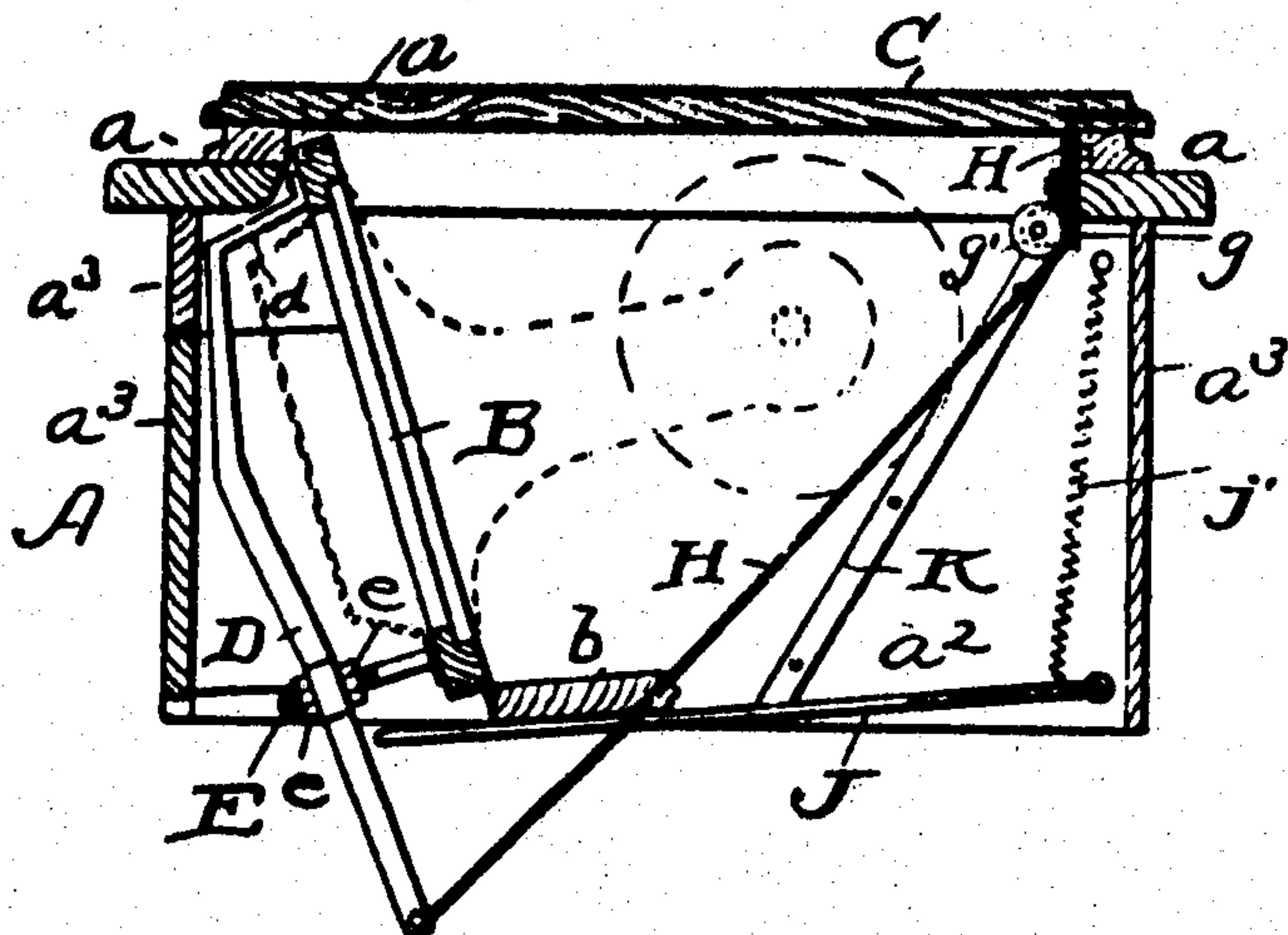


Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM GROTHE, OF CLEVELAND, OHIO, ASSIGNOR TO THE WHITE SEWING MACHINE COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

DROP-TABLE FOR SEWING-MACHINES.

No. 799,331.

Specification of Letters Patent.

Patented Sept. 12, 1905.

Application filed June 16, 1902. Serial No. 111,814.

To all whom it may concern:

Be it known that I, WILLIAM GROTHE, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Drop-Tables for Sewing-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to certain improvements in so-called "drop-tables" for sewing-machines and the like; and the object is to produce a table of this character which is exceedingly simple and cheap, but nevertheless thoroughly efficient.

The invention is illustrated in the accompanying drawings; and it consists in the construction and combination of parts hereinafter described, and definitely set forth in the claim.

In the drawings, Figure 1 is a plan view of a sewing-machine cabinet embodying my invention. Fig. 2 is a transverse sectional view on the line 2-2 of Fig. 1 when the parts are in the position and condition shown in Fig. 1. Fig. 3 is a similar view when the drop-leaf is lowered and the hole in the table-top covered by the extension-top. Fig. 4 is an enlarged front view of the bracket-plate carrying the sheave and roller over which the operating cable or cord passes, and Fig. 5 is a bottom plan view of the same.

The cabinet A consists of a top *a*, having through it a hole *a'* large enough to allow the machine-head to pass, and such sides *a''* *a'''* and end pieces *a''* *a'''* as may be desired. The table-top is really the only part of the so-called "cabinet" which is essential to the primary invention herein set forth, and this cabinet in whatever form it may be constructed may be secured to suitable supporting-legs or frame members of the usual or any suitable construction. It has not been thought necessary, however, to show such legs or frame members in the drawings.

B represents a drop-leaf on which the machine-head must be firmly secured by any suitable means. This leaf is pivoted near its front edge to the cabinet, preferably to the top *a*. This drop-leaf is capable of taking the position shown in Fig. 1, where it fills the opening *a'* in said table-top and forms substantially a part of said top. This drop-leaf may have its middle part cut out, as shown,

so as to permit certain parts of the sewing-machine head to pass down through it. Secured to this drop-leaf is an operating-arm D, the front end of which is bent upward and attached to the front part of the drop-leaf. The body part of this operating-arm is therefore such a distance below the under side of the drop-leaf that it will not interfere with said sewing-machine mechanism, which passes through said drop-leaf. This operating-arm is adjustably secured to the rear side of the drop-leaf by means of a threaded stud E, secured to said drop-leaf and passing through a hole in the operating-arm, and two nuts *c* upon said stud. This operating-arm, it will be seen, serves as the means for connecting the cable H with the drop-leaf. If one cable alone were used in a construction in which this arm D were not present, that cable would have to be attached wholly to one end of the drop-leaf, and thus the pull tending to close and hold the drop-leaf closed would be applied wholly to this end and would not probably be efficient. Then, again, it is necessary when the drop-leaf is closed that it shall nicely fit the opening in the table-top and shall be held in the plane thereof. Without this adjustable arm this result would only be secured by making the cable H of exactly the necessary length; but with this arm made adjustable, as shown, the cable may be made of approximately proper length, and the arm D may be adjusted in its position relative to the drop-leaf, so that the cable shall be effective in producing the result stated. The arm D has sufficient flexibility, and it is attached at its end to the drop-leaf with such a degree of looseness that it is possible that it may be moved relative to the drop-leaf quite as much as is necessary for securing the stated result. It is the position of its front end to which the cable is attached relative to the drop-leaf that is essential, and this is determined by the position of the nuts *c* on the plate E, which passes through said arm.

An extension-top C is hinged to one side of the top *a* on an axis at right angles to the axis of the drop-leaf, and this extension-top may be swung into the position shown in Fig. 1, where it serves as an extension of the top *a*, or into the position shown in Fig. 3, where it rests upon the top *a* and closes the hole *a'* therein. A cable or cord H, preferably a

small wire cable, is fastened at one end to the rear adjustable end of the arm D and at the other end to the extension-top C some little distance beyond its hinge. This cable
 5 passes from this latter point of attachment over a grooved sheave *g*, mounted in a bracket-plate *G*, which is secured to the cabinet near the rear edge of the hole *a'*, so that the axis of this sheave is at right angles to the axis of the
 10 drop-leaf. Then the cable passes under a roller *g'*, also mounted in the same bracket-plate on an axis at right angles to the axis of the sheave. The cable then passes and is secured to the arm D, as before stated. When the
 15 extension-top is swung to the position shown in Fig. 1, it acts, through said cable, to lift the drop-leaf into the position shown in Fig. 2, where it is firmly held, because the cable *H*, which lies in a groove in the top *a*
 20 and the extension C, passes below the axis on which the said extension-top swings, and therefore any weight upon the drop-leaf when the same is raised cannot possibly cause it to move downward.
 25 As shown, the drop-leaf has an extension-strip *b* hinged to its rear edge on an axis parallel with its hinge-axis. Secured to one of the end pieces *a'* is an inclined guide-strip *K*, against which when the drop-leaf is being
 30 raised or lowered the rear edge of this extension-strip *b* will engage and be thereby prevented from swinging by gravity into alignment with the drop-leaf. When, however, the drop-leaf is in the horizontal position, as
 35 shown in Fig. 2, this extension-strip and the rear edge of the drop-leaf as well engage

with stop-plates *a'*, secured to the table-top, slightly overhanging the hole *a'*.

J represents a dust-board, which is pivoted to the ends of the cabinet and is held by a
 40 spring *j'* in such position that when the drop-leaf is lowered it will engage with the front part of the said drop-leaf and thereby in a large measure inclose the space in which the
 45 machine-head is inclosed. The purpose of this board is to prevent in a large degree the access of dust to said machine-head.

Having described my invention, I claim

The combination of a table-top having a hole through it, a drop-leaf, having a hole
 50 through it, hinged to the table-top and adapted to close the hole therein, a bent operating-arm having at its front end an upwardly-extended foot which is secured to the under side
 55 of the front part of said drop-leaf, a threaded stud secured to the rear part of said drop-leaf and passing through said operating-arm, and two nuts on said stud, with an extension-top hinged to said table-top at right angles to
 60 the axis of the drop-leaf, a cable or cord secured at its ends to said extension-top and to said operating-arm respectively, and a sheave, and roller, mounted at right angles to each other, with which said cable or cord engages,
 65 substantially as specified.

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

WM. GROTHE.

Witnesses:

E. B. GILCHRIST,
 E. L. THURSTON.