

No. 834,932.

PATENTED NOV. 6, 1906.

J. E. PARKISON.
GRATE.

APPLICATION FILED MAR. 21, 1906.

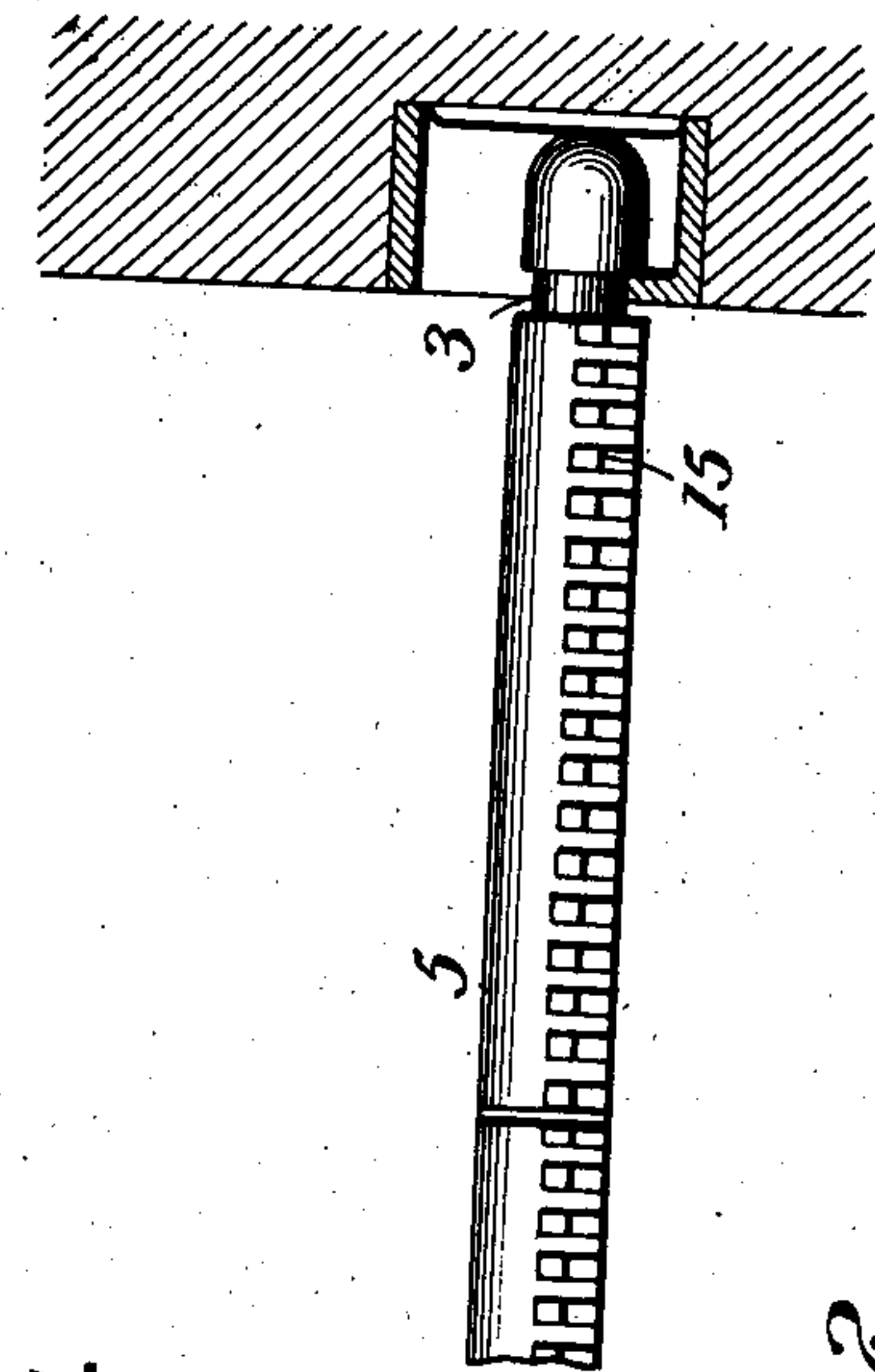


Fig. 1.

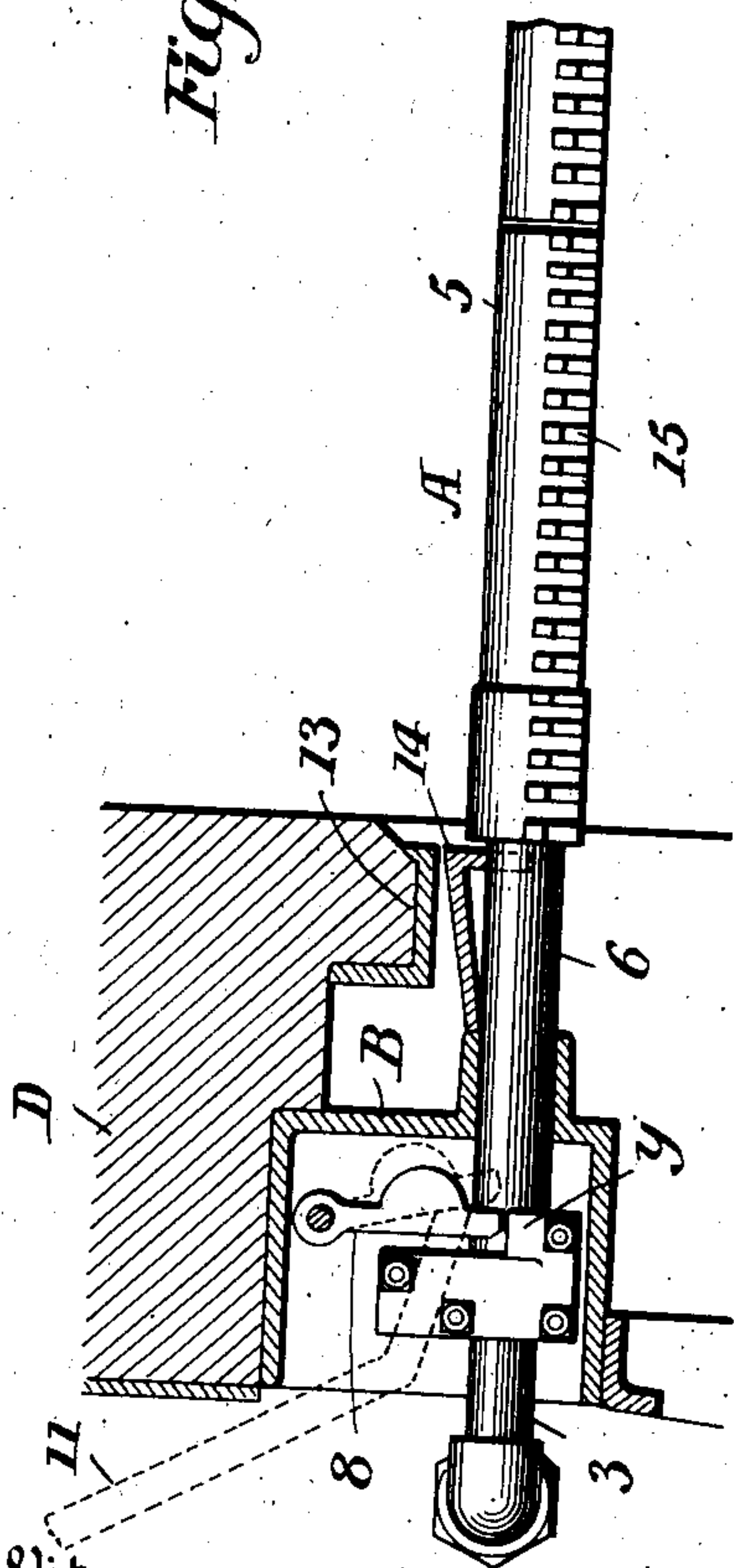
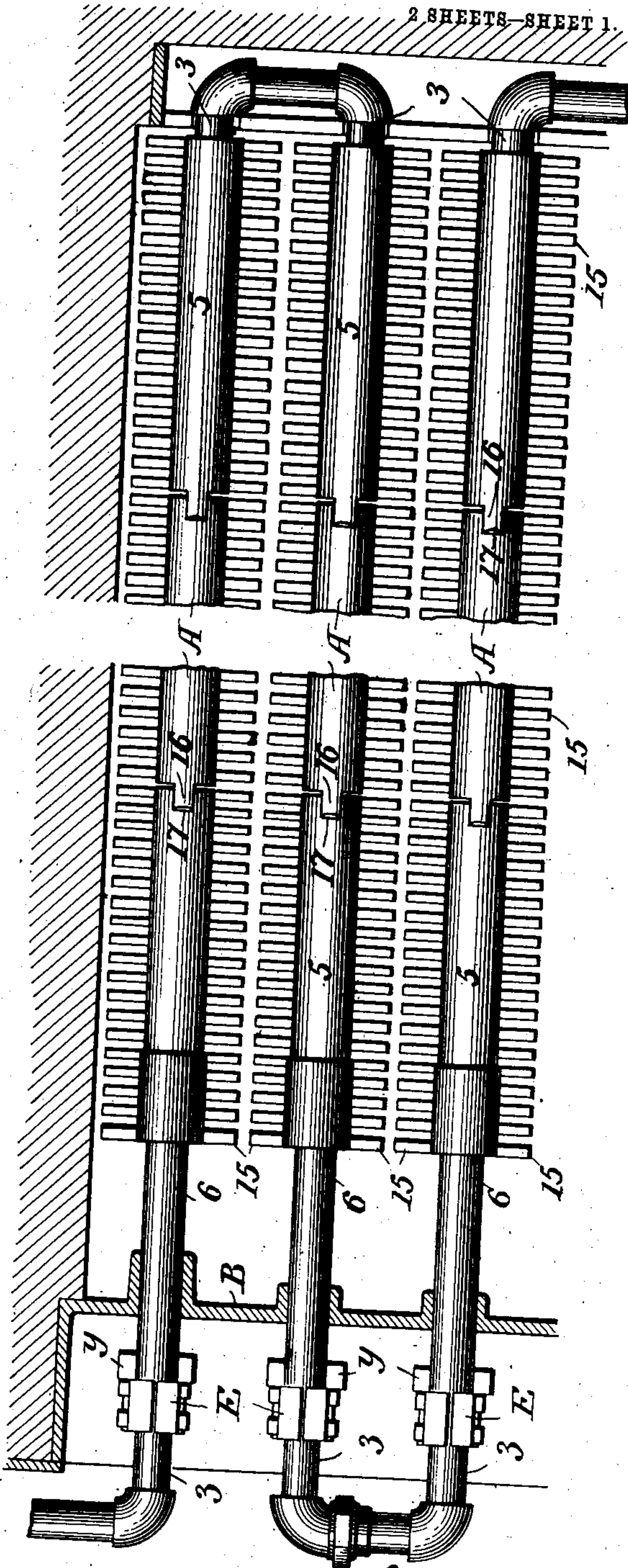


Fig. 2.



2 SHEETS-SHEET 1.

Witnesses

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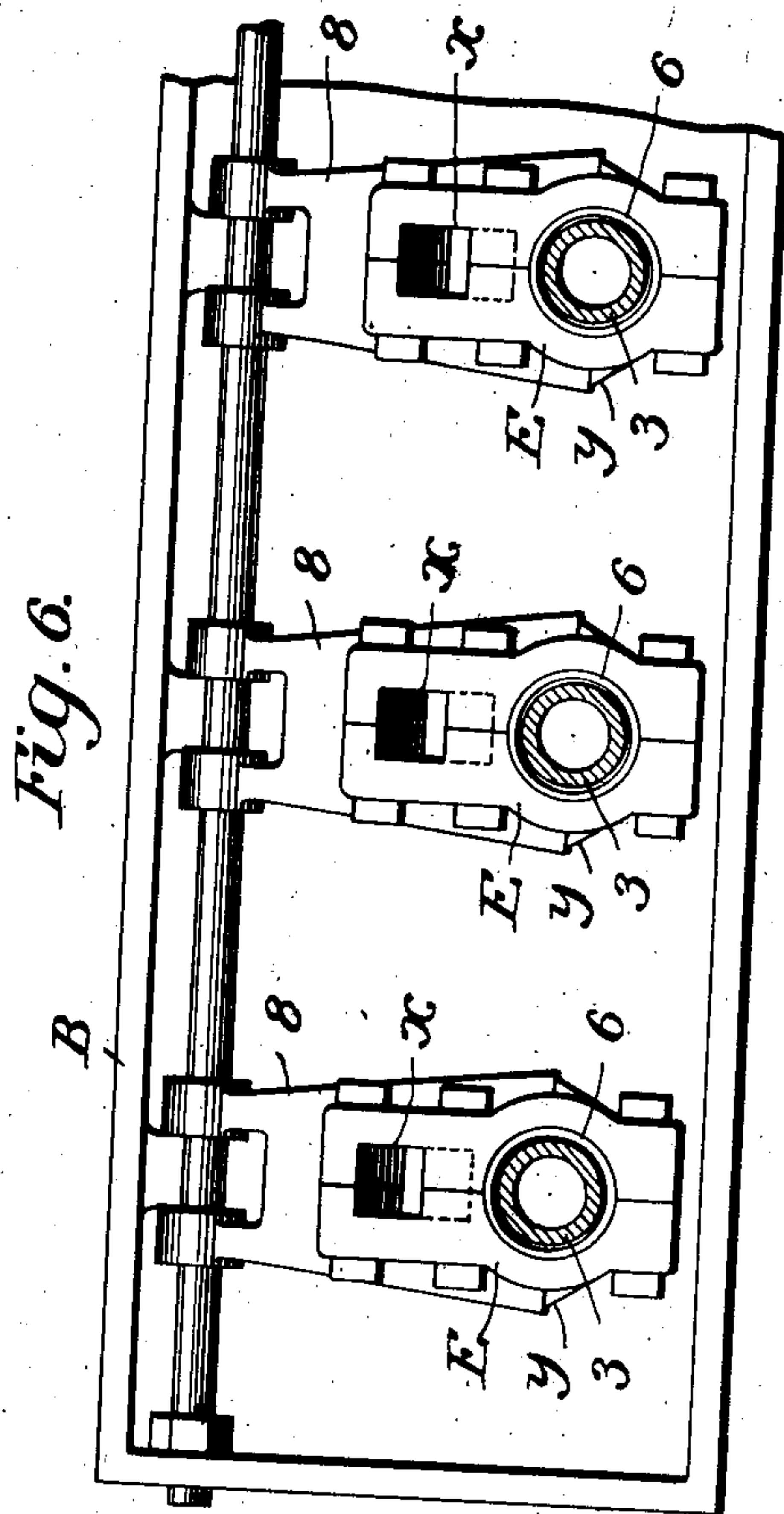
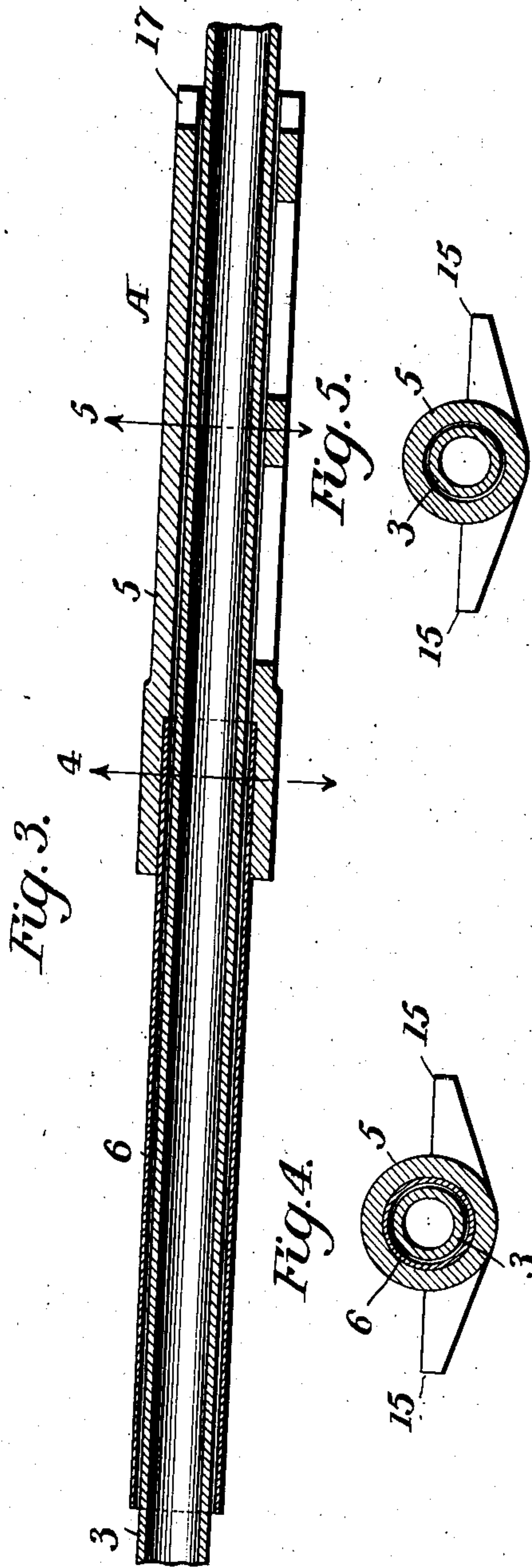
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

JOHN ELMER PARKISON, OF DENVER, COLORADO.

GRATE.

No. 834,932.

Specification of Letters Patent.

Patented Nov. 6, 1906.

Application filed March 21, 1906. Serial No. 307,181.

To all whom it may concern:

Be it known that I, JOHN ELMER PARKISON, a citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Grates, of which the following is a specification.

My invention relates to improvements in that class of grates where the grate-bars are supported so as to be rocked each upon its longitudinal axis; and it consists of certain details of construction whereby to properly support, connect, and rock the series of sections constituting each bar, as fully set forth hereinafter and as illustrated in the accompanying drawings, in which—

Figure 1 is a sectional elevation of a grate-bar embodying my improvements; Fig. 2, a sectional plan; Fig. 3, a section through part of one of the grate-bars; Fig. 4, a section on the line 4 4, Fig. 3; Fig. 5, a section on the line 5 5, Fig. 3; and Fig. 6, a front view.

The grate consists of a series of grate-bar sections A, which are supported by rods 3, which, while they may be solid, are preferably hollow and connected together so as to form a continuous channel for the passage of water, which serves to keep the grate cool.

Each grate-bar section A consists of a central hollow boss 5, having a series of lateral fingers 15, and the supporting-rod 3 passes through the bosses of the sections of each grate-bar, which therefore rock upon the same.

The contiguous ends of the sections A are formed so as to constitute a clutch, whereby one section will rock with the other. As shown, the end of one section has projections 16 adapted to recesses 17 in the other.

Each front section A has connected therewith a sleeve 6, adapted to receive the rod 3, the connection preferably being formed by casting the grate-bar section upon the sleeve, so that there is practically no possibility of the parts becoming detached by heat or wear, and each of said sleeves extends through a bearing in the box-like cross-bar B, which is supported in the front wall D of the furnace and provided with a sill 13, below which a detachable locking-plate 14 is arranged so as to abut against the end of the front section and against the cross-bar B, thereby maintaining the sections A in proper position upon the supporting-rod.

Within the box-like cross-bar B each sleeve 6 has secured thereto a bracket or head E,

with a socket *x*, adapted to receive the end of an operating-handle 11, which when introduced into the socket serves as a means of rocking the sleeve, the front grate-section connected therewith, and the other grate-sections, which are clutched to said front-grate section.

In order that the grate-sections may be retained in their normal position with the fingers 15 coinciding with a horizontal plane, a detent 8 is pivoted within the cross-bar B, so as to swing forward above shoulders *y* of the bracket E, thereby preventing any rocking of the grate-bar, and the end of the handle 11 is adapted to pass through the socket *x* and contact with the detent to swing it to the position shown in dotted lines, Fig. 1, so as to unlock the grate-bar whenever the handle is applied to rock the grate-bar.

Without limiting myself to the construction shown, I claim—

1. The combination in a grate, of a supporting-rod, and a series of grate-sections each comprising a hollow boss receiving said rod and provided on its opposite sides with lateral fingers, said sections having terminal clutches whereby they are caused to rock together.

2. The combination in a grate, of a supporting-rod, a series of hollow grate-sections rocking thereon and having terminal clutches, a sleeve secured to and projecting from one section, and a bracket secured to said sleeve and adapted to be engaged by an operating-handle.

3. The combination in a grate, of a supporting-rod, a series of grate-sections mounted thereon and each comprising a hollow boss, a sleeve secured to and projecting from one section, and a bracket secured to said sleeve and having a socket for a handle, said sections having terminal clutches.

4. The combination in a grate, of a supporting-rod, a series of grate-sections with terminal clutches rocking on said rod, a sleeve extending from the front section around said rod, and a bracket having a socket secured to said sleeve.

5. The combination in a grate, of a supporting-rod, a series of grate-sections with terminal clutches rocking on said rod, a sleeve extending from the front section around said rod, a bracket secured to said sleeve and having shoulders and a socket, and a movable detent arranged to engage said shoulders.

6. The combination in a grate, of a supporting-rod, a series of grate-sections with terminal clutches rocking on said rod, a sleeve extending from the front section
5 around said rod, a bracket secured to said sleeve and provided with shoulders and a socket, and a movable detent arranged to engage said shoulders and to swing out of position by contact with a handle when in said
10 socket.

7. The combination with the supporting-rod, series of grate-sections, one having a sleeve, a cross-bar through which the sleeve and rod extend, and a locking-strip arranged

between the front grate-section and the cross- 15 bar.

8. The combination with a series of grate-sections provided with hollow bosses and clutches, of supporting hollow rods extending through the bosses, a sleeve connected to 20 the front section and inclosing said rod, and a cross-bar with a bearing for said sleeve.

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

JOHN ELMER PARKISON.

Witnesses:

H. JACOBY,
L. L. DOBLE.