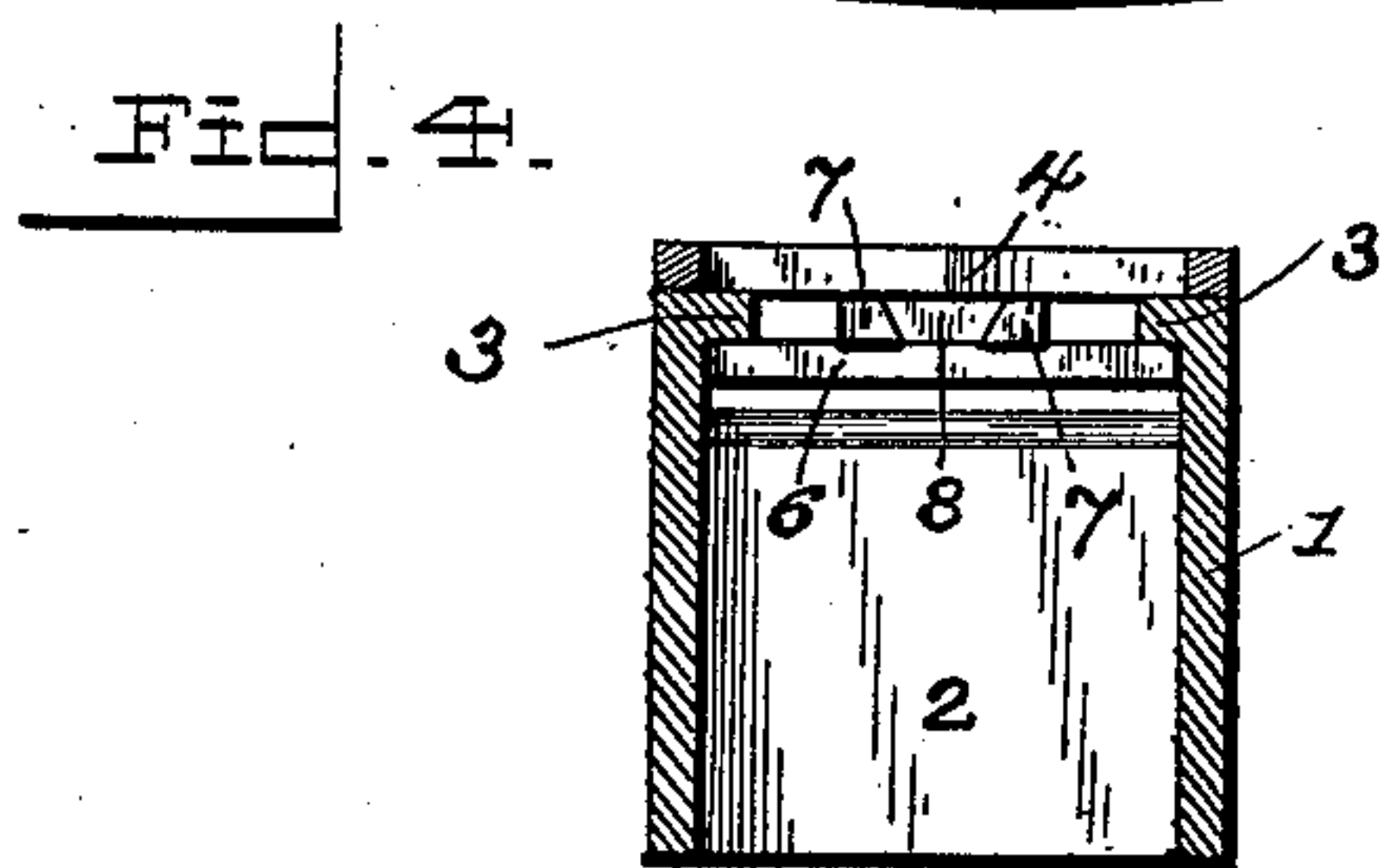
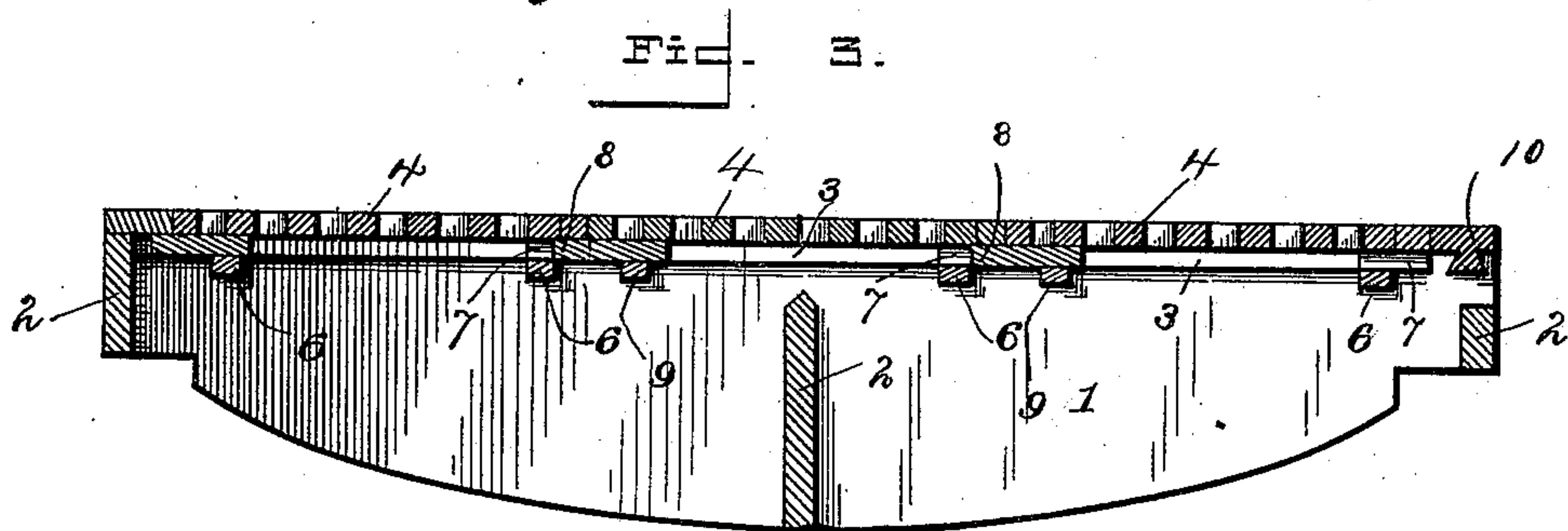
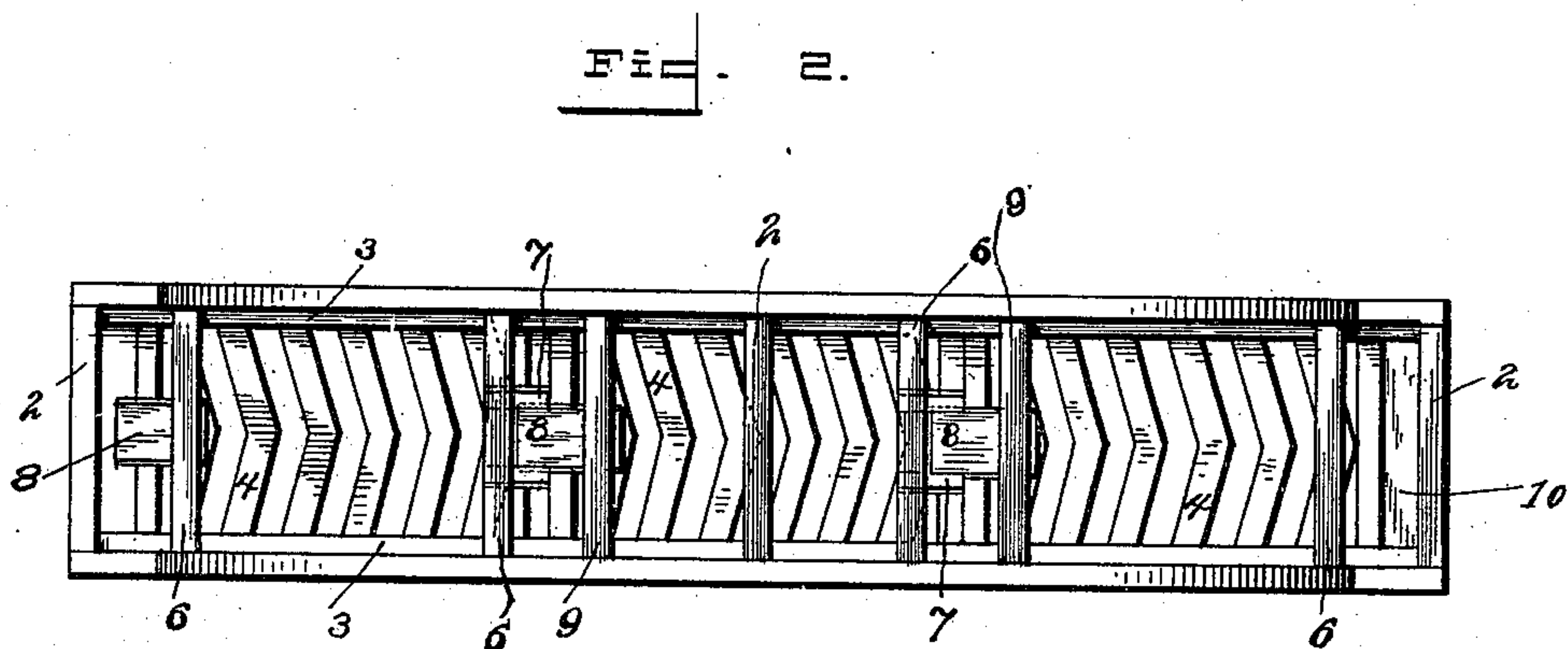
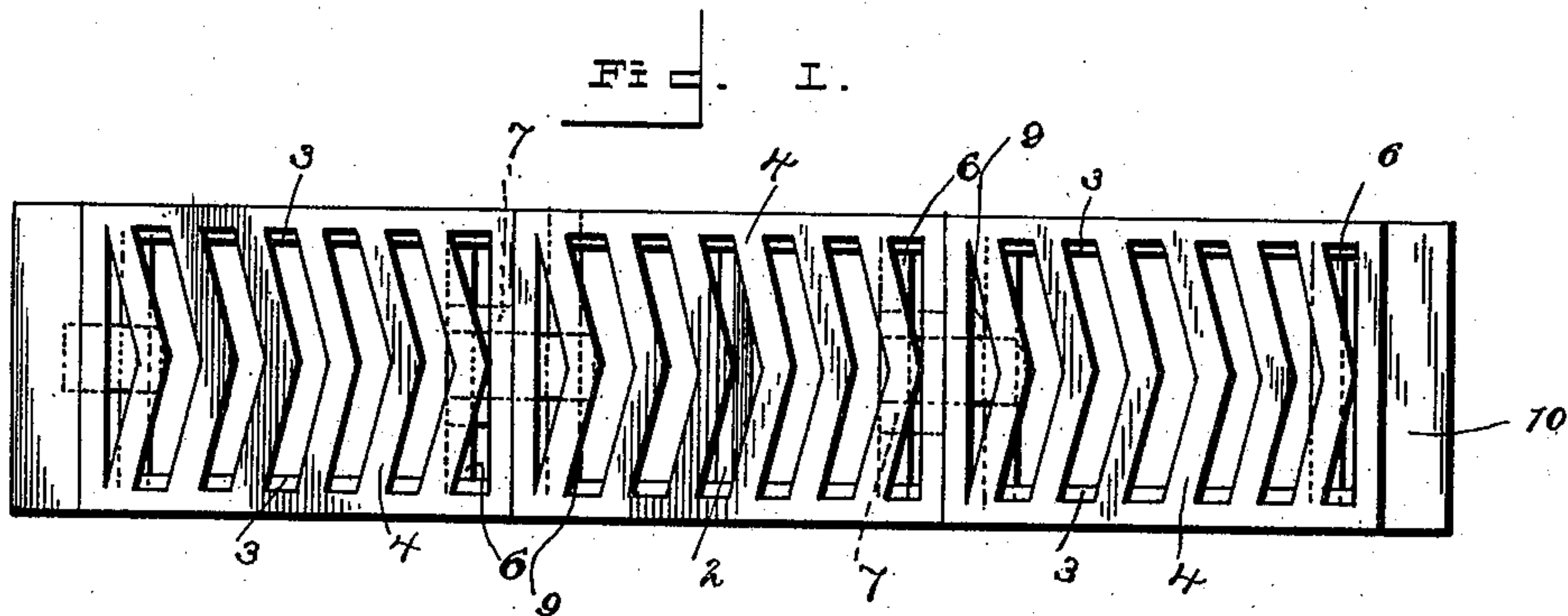


(No Model.)

J. T. GLOVER.
GRATE.

No. 591,467.

Patented Oct. 12, 1897.



Witnesses:
Anton S. Felt.
J. A. Briggs.

Inventor;
John T. Glover,
By *A. B. Wilson,*
Attorney.

UNITED STATES PATENT OFFICE.

JOHN THOMAS GLOVER, OF HIGH POINT, NORTH CAROLINA.

GRATE.

SPECIFICATION forming part of Letters Patent No. 591,467, dated October 12, 1897.

Application filed May 6, 1897. Serial No. 635,365. (No model.)

To all whom it may concern:

Be it known that I, JOHN THOMAS GLOVER, a citizen of the United States, residing at High Point, in the county of Guilford and State of North Carolina, have invented certain new and useful Improvements in Grates; and I do 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 ap-
10 pertains to make and use the same.

My invention has relation to grates, and more particularly to furnace-grates.

The object of the invention is to provide the grate-bars of a furnace-grate with remov-
15 able grate-sections, which when burned or damaged may be easily and quickly removed and be replaced by new sections, thus obviating the necessity of supplying the furnace with a new grate.

20 With this object in view the invention consists of certain features of construction and combination of parts, which will be herein-after fully set forth and claimed.

In the accompanying drawings, Figure 1 is
25 a top view of one of the grate-bars of which the improved grate is formed. Fig. 2 is a bottom view of the same, and Fig. 3 is a longitudinal sectional view. Fig. 4 is a transverse section.

30 In said drawings, 1 denotes the parallel sides of the grate-bar, which may be of any suitable or well-known construction and which are connected together by the cross-pieces 2. On the inner sides of the side pieces, near their upper edges, are formed integral
35 side flanges 3.

4 denotes the grate-sections, the undersides of which are provided with cross-pieces 6, spaced apart from the sections by blocks 7. Said blocks also act as guides or ways for the
40 tongues 8, carried by the adjoining sections. These cross-pieces are arranged at one end of each section and are adapted to lie under the guide-flanges of the grate-bar and prevent
45 the grate-sections buckling or curving upward, due to the intense heat. The other end of each section is provided with a forwardly-projecting tongue 8, which is adapted

to project between the blocks of the adjacent grate-section and thus form an interlocking
50 joint. Integral with this tongue is a cross-piece 9, which acts in conjunction with the cross-piece at the other end of the grate-section and serves to prevent that end of the grate-section to which it is secured from buck-
55 ling. These sections are placed in position, as shown, and the ends of the side pieces of the grate-bars are provided with removable cross-pieces 10, so that when it is desired to remove the grate-sections all that is necessary
60 is to first remove one of the cross-pieces and then slip the grate-sections off the grate-bar.

By the employment of a grate constructed in this manner it is evident that a material saving will be effected, for the grate-surface
65 is the part most subjected to the heat, and consequently more liable to be damaged.

When the grate-sections employed by me are damaged, they may be readily removed and replaced by new ones, thus saving the
70 expense of furnishing an entirely new grate-bar.

Although I have specifically described the construction and relative arrangement of the several elements of my invention, I do not
75 desire to be confined to the same, as such changes or modifications may be made as clearly fall within the scope of my invention without departing from the spirit thereof.

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

In a grate, a grate-bar comprising two parallel sides having inwardly-projecting flanges, of grate-sections resting on said parallel sides,
85 and having cross-bars engaging the undersides of the flanges, and coacting tongues, and apertures for locking one section to the other, substantially as described.

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

JOHN THOMAS GLOVER.

Witnesses:

A. S. ELLISON,
N. M. DUCKWORTH.