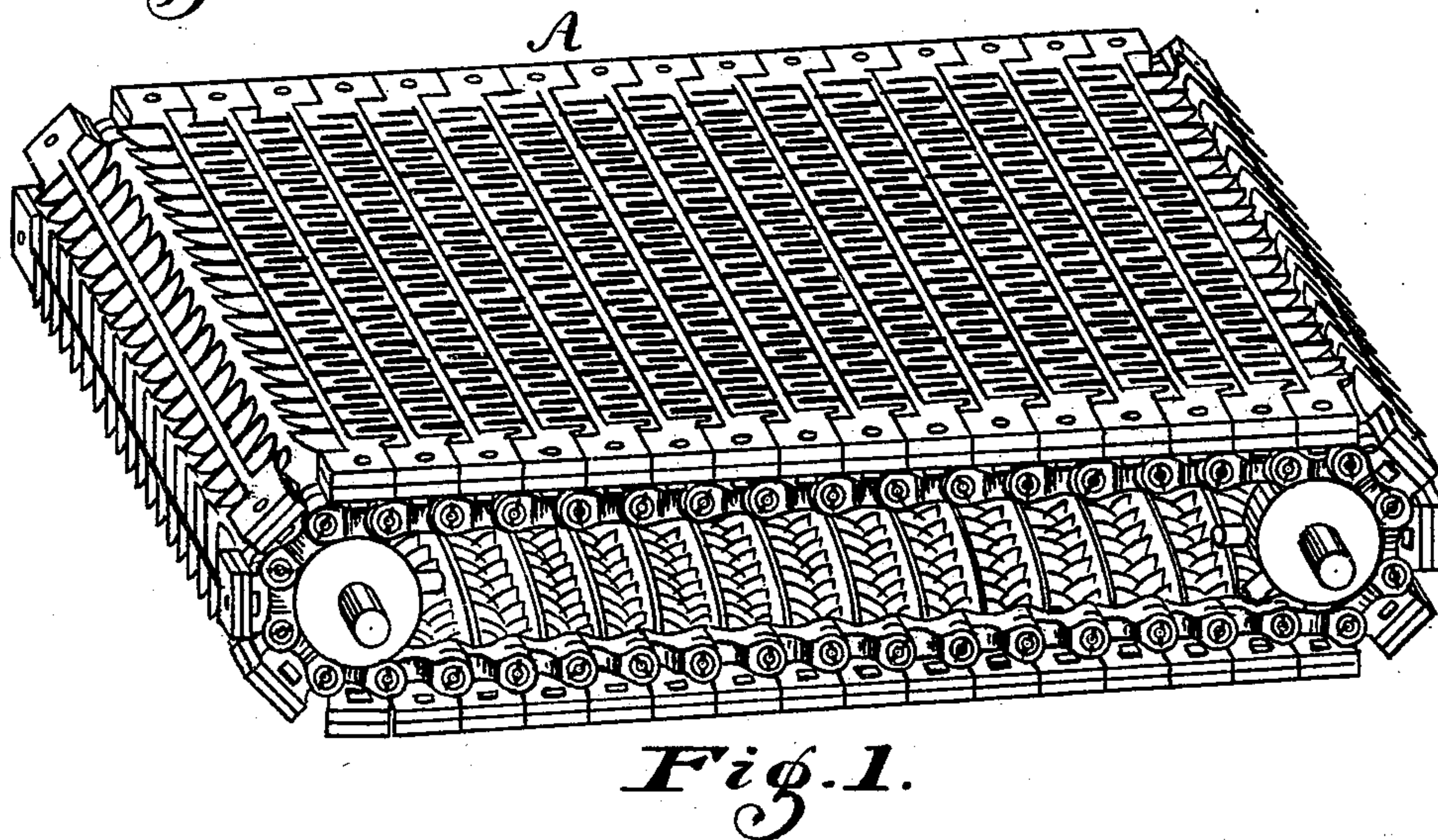
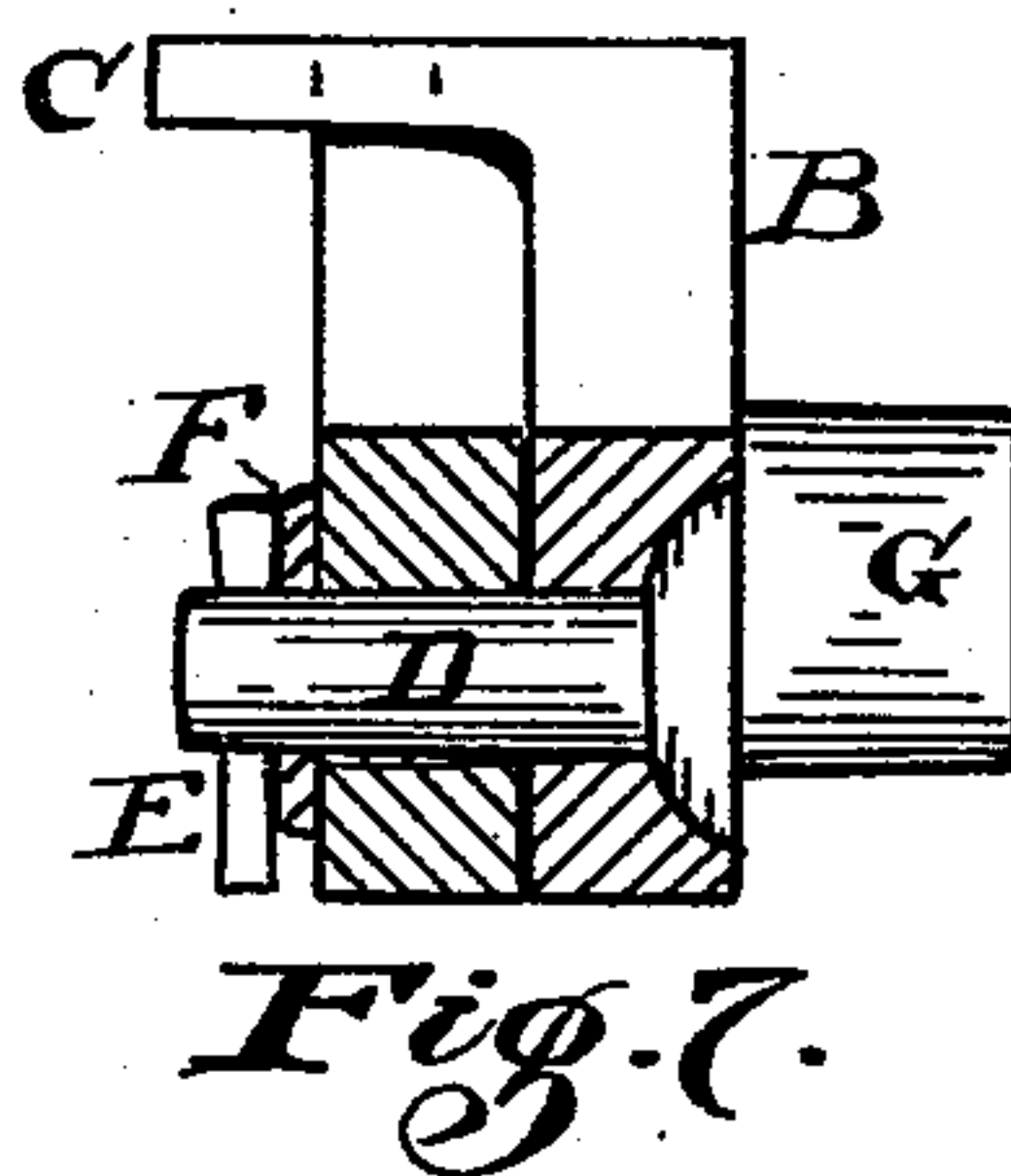
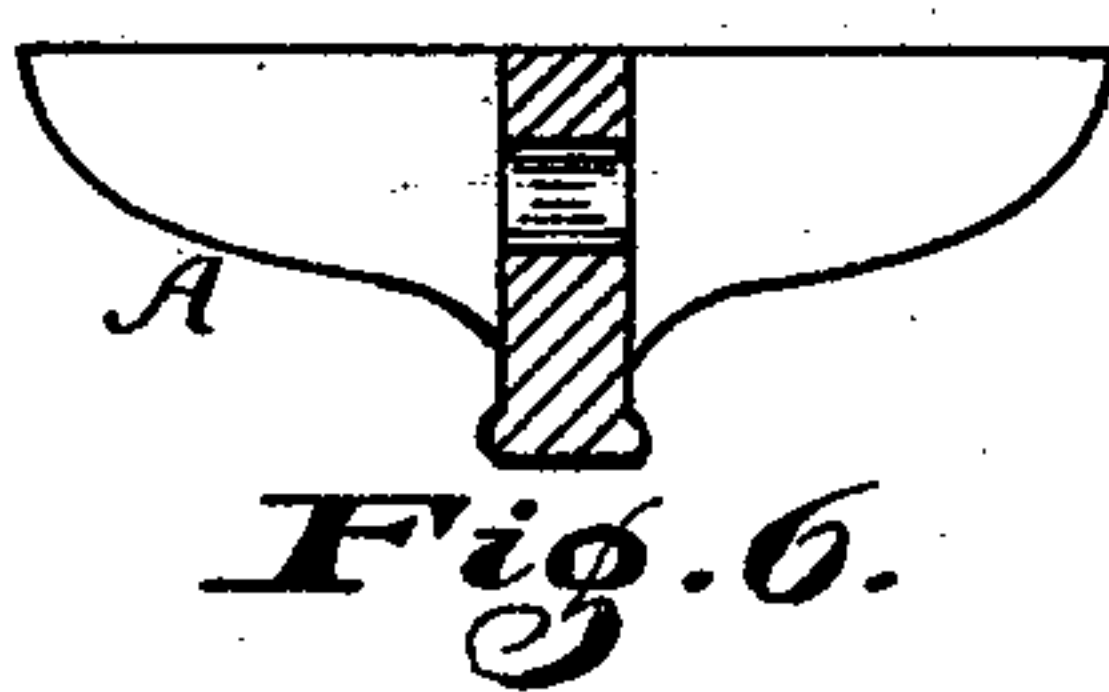
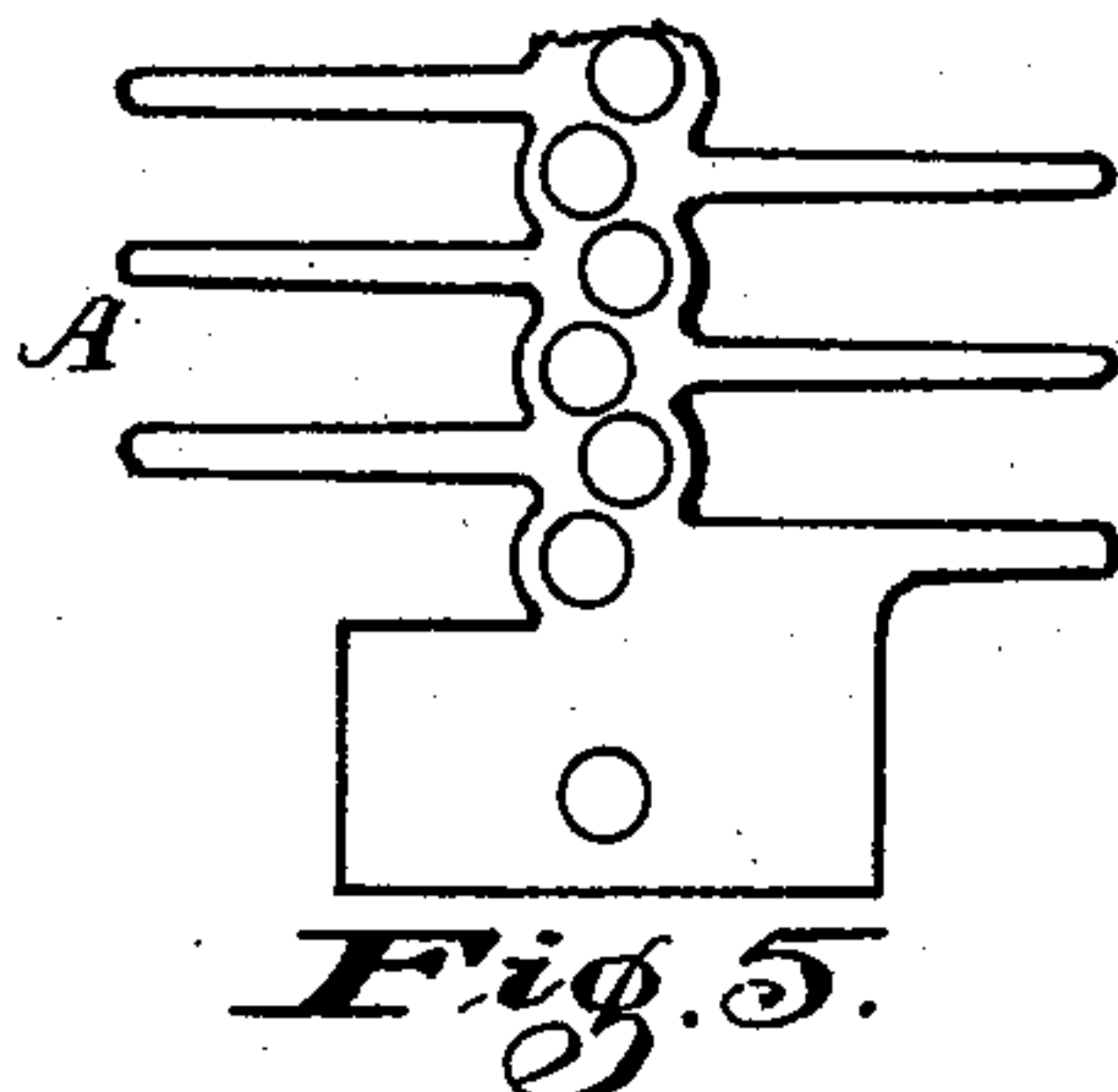
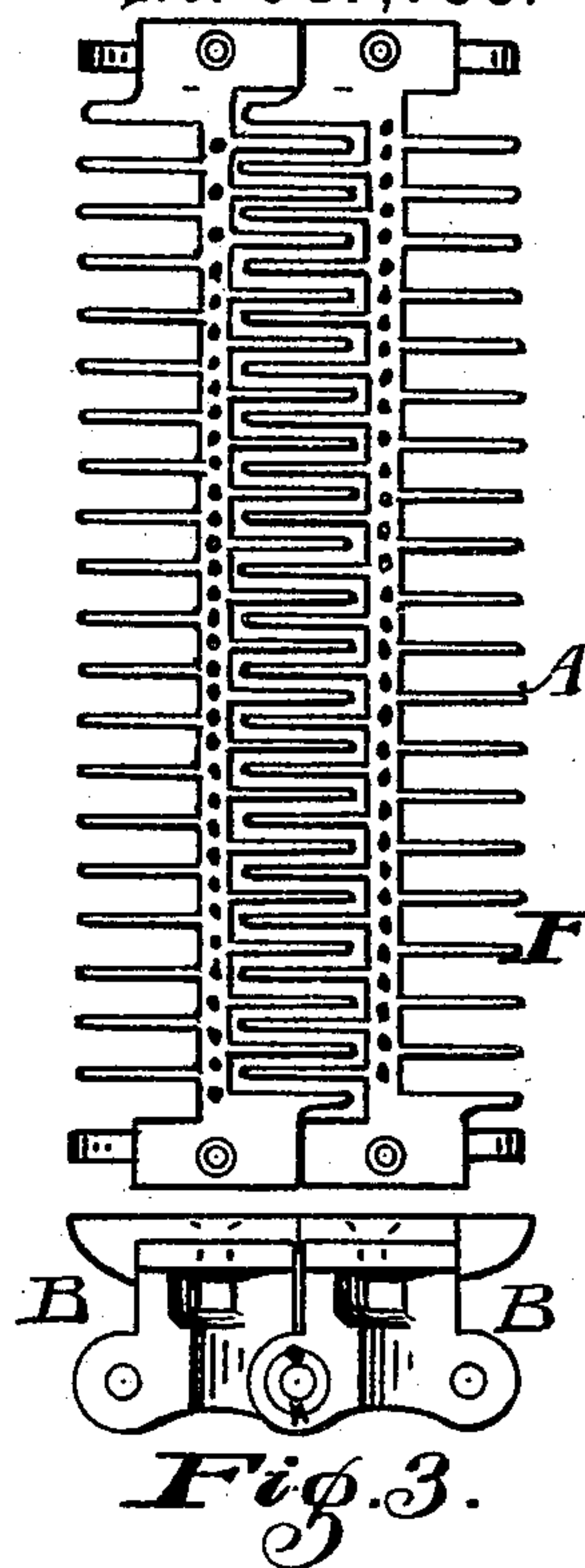


(No Model.)

G. PLAYFORD.
TRAVELING GRATE FOR FURNACES.

No. 547,738.

Patented Oct. 8, 1895.



Witnesses,
Frank Tibbitts
Geo. B. Tibbitts

Inventor,
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UNITED STATES PATENT OFFICE.

GEORGE PLAYFORD, OF CLEVELAND, OHIO, ASSIGNOR TO THE PLAYFORD
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TRAVELING GRATE FOR FURNACES.

SPECIFICATION forming part of Letters Patent No. 547,738, dated October 8, 1895.

Application filed July 1, 1895. Serial No. 554,558. (No model.)

To all whom it may concern:

Be it known that I, GEORGE PLAYFORD, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Traveling Grates for Furnaces, of which the following is a specification.

This invention relates to traveling grates for boiler-furnaces; and it consists in the new features of construction and combinations, substantially as hereinafter described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of my new traveling grate. Fig. 2 is a plan view of the grate-bars. Fig. 3 is an end view of the bars attached to links. Fig. 4 is a side view of the said bars and links. Fig. 5 is a plan view of a grate-bar, showing openings through the web. Fig. 6 is a cross-section of the same, showing transverse openings in the web. Fig. 7 is a section through the joint of the links.

A represents the new grate-bars, which I construct with fingers on both sides of the web, the fingers on one side placed opposite the spaces on the other side of the web. The ends of the bars are made flat where they are attached to the links and are four inches in width, so that when the bars are joined together on the links there is just four inches distance from center to center of the bolt-holes. Both ends of the bars are made exactly alike, so that they are reversible or interchangeable, making them very convenient for attachment or removal for repairs or otherwise. They are also perforated through the web vertically and crosswise to provide air-spaces.

B B are chain-links having flanges C, to which the ends of the grate-bars are attached. The holes in the ends of the bars are counter-

sunk in the upper sides, so that the heads of the bolts will be flush with the top surface. One of the eyes in each of the links are also countersunk on the inside, so that the bolt-heads D will be flush with the inside surface of the links.

E represents steel washers, and F are split pins put through holes in the bolts for holding them in place, and are easily removed.

G represents pin projections on the insides of the links, by means of which the grate is propelled by the sprocket-wheels.

By this method of constructing the bars and links great economy is attained, as the bars are made exactly alike on both ends, and are each independently attached to the links. The matter of removal and reattachment of these bars, in case of repairs or cleaning, is rendered extremely simple and easily and readily performed without the necessity of stopping the movements of the grate, for as its motion is slow a bar may be removed while at the front by simply removing the bolts at each end and a new bar attached and bolted on in a very short time.

Having described my invention, what I claim is—

The herein described improvement in traveling grates, consisting of links B B, countersunk eyes in one end of each link, bolts D D, joining said links, washers E on each bolt, split pins F securing the bolts in place, and a perforated flange C, in combination with grate bars A having countersunk holes in each end, and bolts securing the bars to the links flush with their top surface, as shown and described.

GEORGE PLAYFORD.

Witnesses:

GEO. W. TIBBITTS,
FRANK TIBBITTS.