

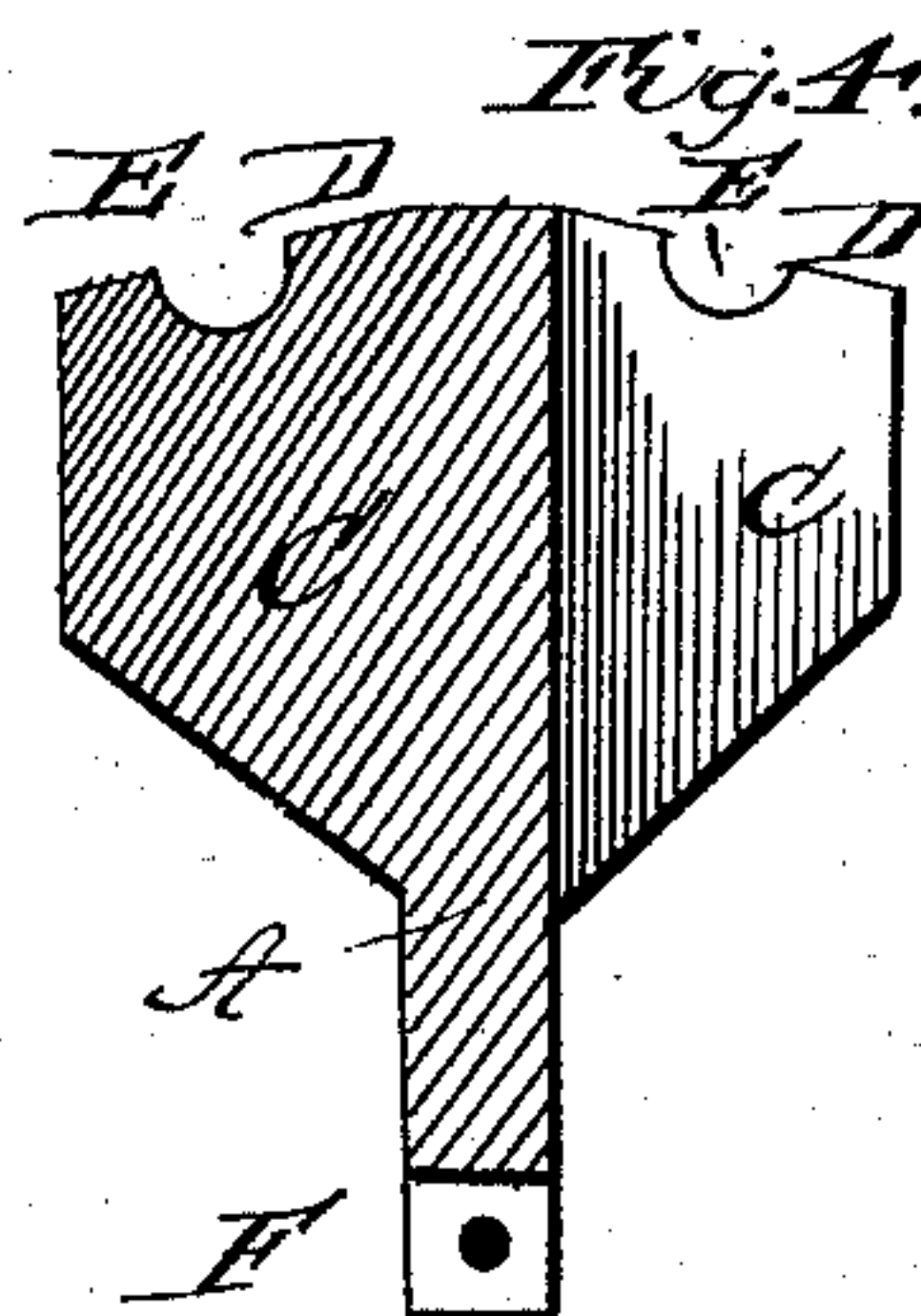
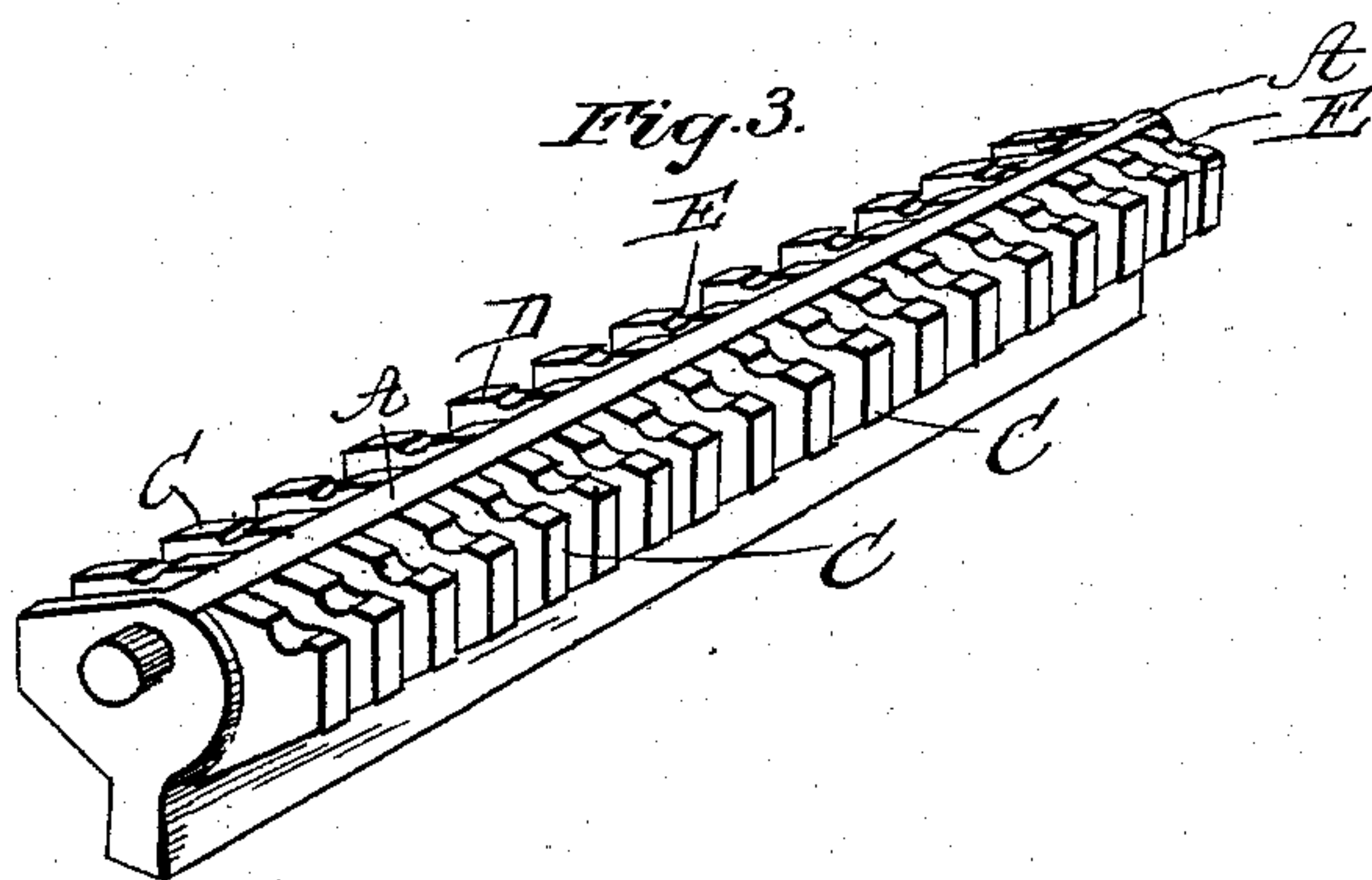
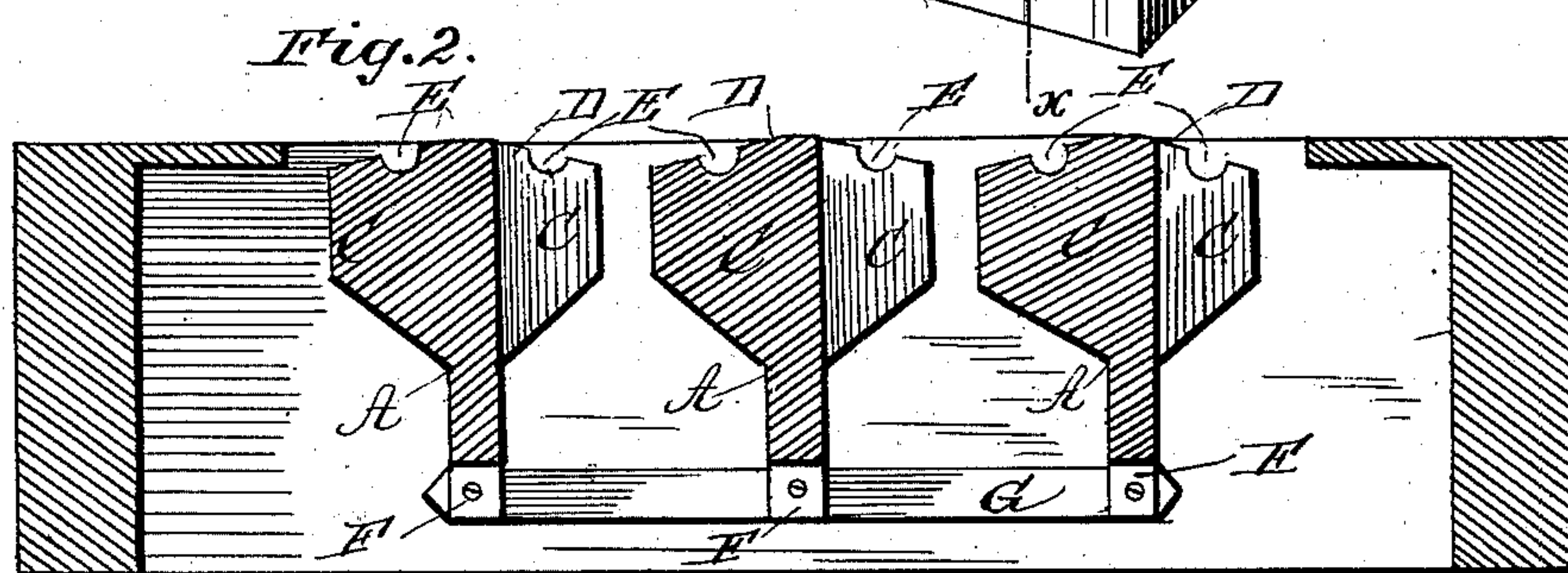
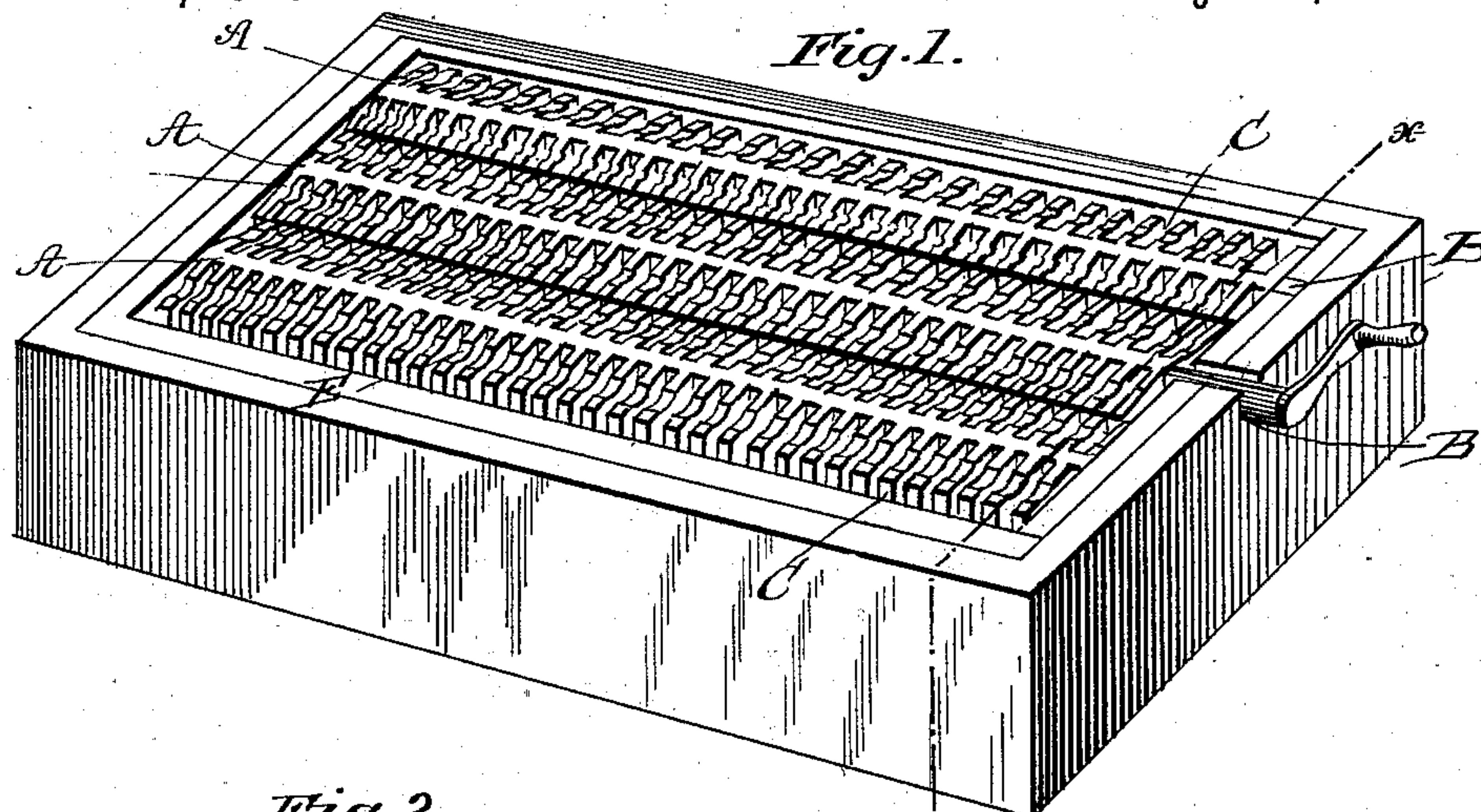
(No Model.)

W. H. HEESON.

GRATE BAR.

No. 282,192.

Patented July 31, 1883.



WITNESSES:
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UNITED STATES PATENT OFFICE.

WILLIAM H. HEESON, OF DUDLEY, PENNSYLVANIA.

GRATE-BAR.

SPECIFICATION forming part of Letters Patent No. 282,192, dated July 31, 1883.

Application filed May 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY HEESON, of Dudley, in the county of Huntingdon and State of Pennsylvania, have invented certain new and useful Improvements in Grate-Bars; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved grate. Fig. 2 is a cross-section on line *xx*, Fig. 1. Fig. 3 is a perspective view of one of the grate-bars; and Fig. 4 is a cross-section, on an enlarged scale, of the same.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to that class of grate-bars which are pivoted at their ends and connected at their lower connecting-webs by means of a rod hinged to the under side of the same, by means of which rod, if one of the bars is rocked, the other bars may be rocked simultaneously, and which have laterally-extending ribs upon their upper portion, which intermesh with the ribs of the bars pivoted at the sides of them; and it consists in the detailed construction and combination of parts of such bars, the upper surface of which has longitudinal grooves upon the sides of the middle rib, which pass across the upper edges of the ribs, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the central longitudinal rib, which extends the entire depth of the bar, and the ends of which form trunnions, which rest and turn in bearings B in the frame which supports the grate; and C represents the ribs, which extend laterally from both sides of the web, alternating with each other, and having their upper edges, D, cut off slanting to both sides, and the lower portions of the side edges cut off slanting in toward the central web. The ribs of one bar fit into the interstices between the ribs of the bar, turning at the side

of it, with their outer ends, so that the cinders and coke which collect upon the grate will be clipped between the ribs when the bars are shaken; and to give the upper edges of the ribs a better bite upon the cinders, they are notched transversely at E, forming longitudinal grooves in the upper surface of the entire bar, one notch being upon each side of the central rib, which notches will assist in grasping the cinders and hold them when the bars are rocked, forcing them to be crushed between the ends of the ribs and fall between the bars into the ash-pit. The bars are provided upon the lower edge of the central web, at one end, with two perforated lips, F, between which a transverse bar, G, is hinged, which bar connects the several bars, so that when one of the grate-bars is rocked by a crank or similar means attached to the rounded end of the same, the other bars will be rocked simultaneously in the same direction. In this manner it will be seen that the cinders will be thoroughly broken and ground small by shaking the bars, whereby the caking and burning of the grate-bars will be prevented, which is liable to happen when the cinders cannot be broken up fine, so that they are permitted to stay upon the grate and burn and cake upon the same.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The herein-described grate-bars, consisting of a central longitudinal web pivoted at both ends, and having alternating laterally-extending ribs, having their upper edges cut off slantingly, and notched upon both sides of the central web, and provided with a connecting-bar hinged to the lower edges of the grate-bars, in combination with means for rocking the bars, as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

WILLIAM HENRY HEESON.

Witnesses:

E. F. GOULD,

GEORGE ASHMAN.