

ADDISON C. FLETCHER.

Improvement in Grate Bars.

No. 120,733.

Patented Nov. 7, 1871.

Fig. 1

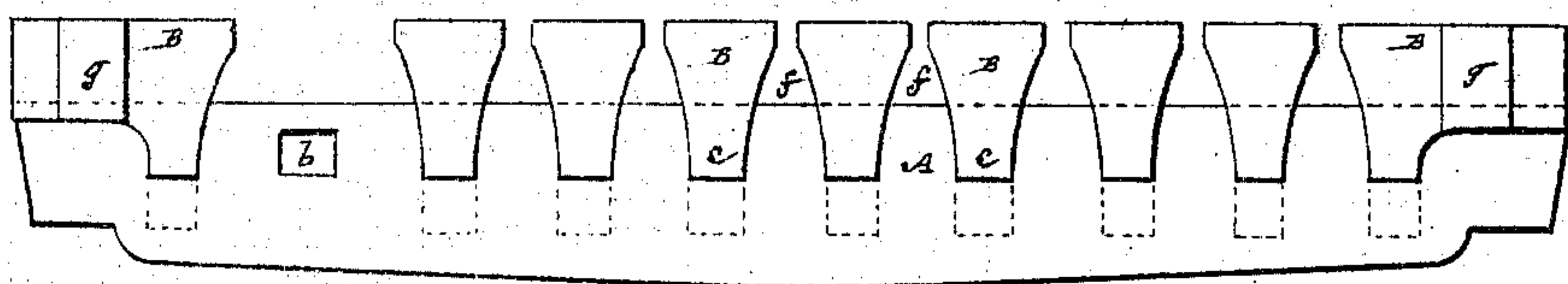


Fig. 2

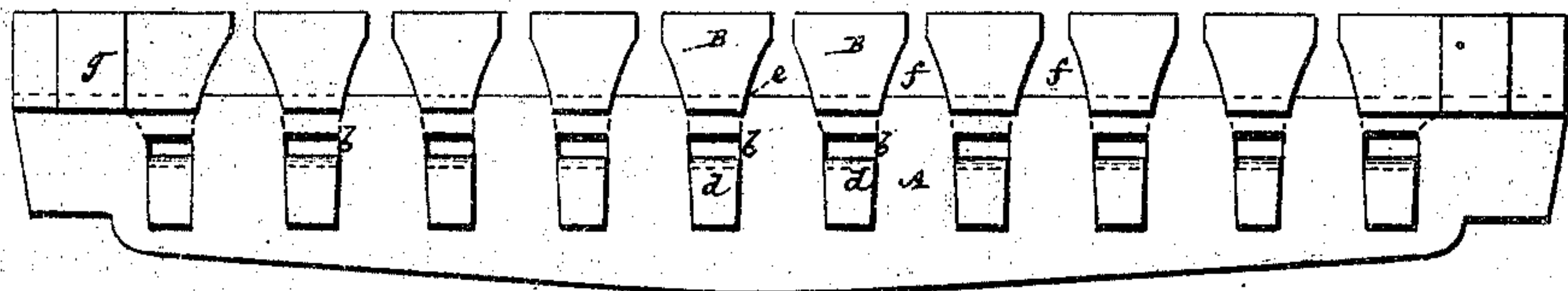


Fig. 3



Witnesses:

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ADDISON C. FLETCHER, OF NEW YORK, N. Y.

IMPROVEMENT IN GRATE-BARS.

Specification forming part of Letters Patent No. 120,733, dated November 7, 1871.

To all whom it may concern:

Be it known that I, ADDISON C. FLETCHER, of the city, county, and State of New York, have invented a new and useful Improvement in Grate-Bars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, and in which—

Figures 1 and 2 represent views from opposite sides of a grate-bar constructed in accordance with my invention; and Fig. 3, a transverse section thereof through one of its detachable fuel-bearings or points.

Similar letters of reference indicate corresponding parts throughout the several figures of the drawing.

This invention relates to a grate-bar provided with a series of detachable fuel-bearings or points. The invention consists in a novel construction of such a bar and mode of attaching the detachable fuel-bearings or points to the body thereof, whereby I am enabled to use a plain flat body made of one or more plates, which may be of wrought-iron, and the fuel-bearings or points are attached to said body through holes punched or otherwise formed in the latter, thus enabling grate-bars of various lengths to be made cheaply and expeditiously. The invention also consists in a special construction of said fuel-bearings or points to facilitate their attachment or removal, and to insure their steady hold when in place on the body of the bar.

Referring to the accompanying drawing, A represents the body of the bar, made of a single flat plate, preferably of wrought-iron; or it may be of two or more plates riveted together to give the necessary thickness. In or along said body—that is, through it from either side, I punch a series of holes, *d*, at such distances apart as it is required to arrange the fuel-bearings or points B, which are disposed in a series or successively along the body A, and may either touch or be arranged at a greater or less distance from one another with draught openings, *f*, between them. The holes *b* in the body serve to provide for the attachment of the fuel-bearings or points, and

for their detachment, when necessary, by means of a hooked construction of said bearings or points at their lower ends. Thus said fuel-bearings or points may be made with a downward extension, *c*, on their one side, bent or hooked at their lower ends, *d*, and be formed with a groove, *e*, above or on the under side of their tops, so that said bearings or points may be fitted to the body by passing their hooked ends *d* through the holes *b* to form a lap on the one side of the body, while the upper portions of the extensions *c* lie against the other side of the body, and when the bearing or point is pushed down to its place the groove *e* receives the upper edge of the body within it. This constitutes a simple and firm mode of attaching the fuel-bearings or points to the body, and, by merely lifting on the bearings or points to release their grooved portions from the upper edge of the body and unhooking them at their lower ends, every facility is afforded for removal of said bearings or points when necessary; as, for instance, when they either collectively or separately become burned or injured so as to require renewal.

Said detachable fuel-bearings or points may be made of cast-iron, and the end ones, as also certain or each of the intermediate ones, if desired, be provided with side projections, *g*, to keep the bars at their proper distances apart.

Having thus described the invention, I claim as new—

1. In grate-bars, constructed or provided with detachable fuel-bearings or points, the construction of the body A of the bar of a plate or plates having holes, *b*, in it, in combination with fuel-bearings or points B, formed with hook-shaped extremities for passage through said holes to lock with the body, substantially as specified.

2. The construction of the fuel-bearings or points B with lower side extensions, *c*, hooked, as at *d*, with a groove, *e*, on the under side of their upper portions, essentially as herein set forth.

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Witnesses:

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(149)