

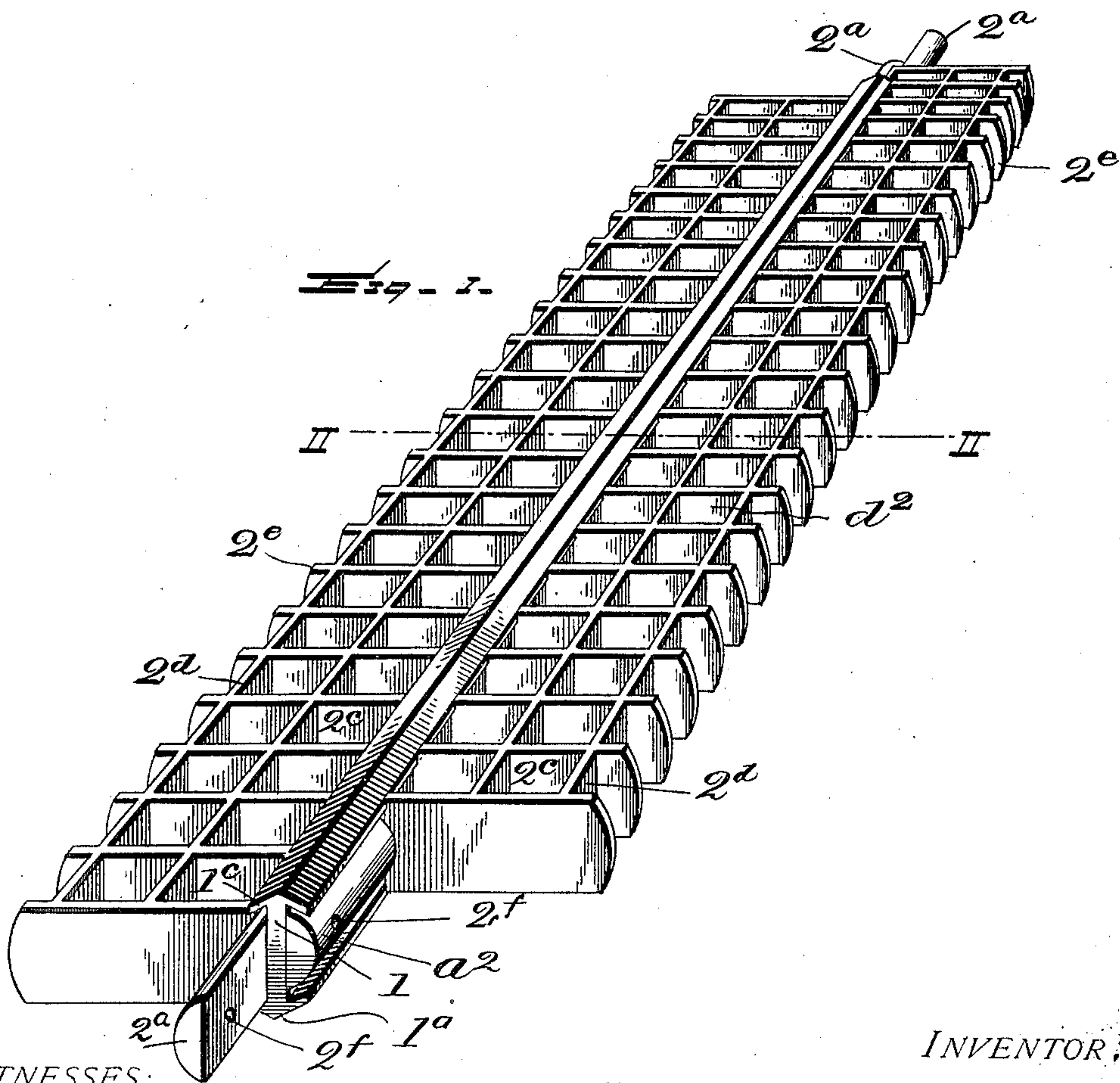
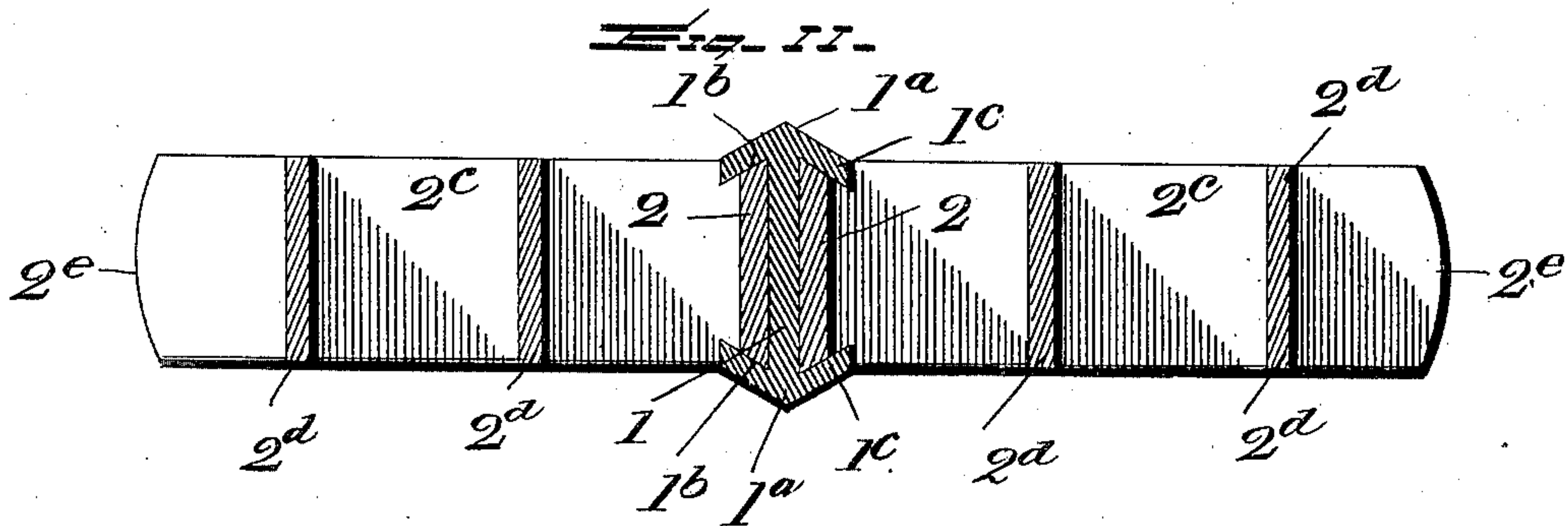
No. 673,844.

Patented May 7, 1901.

C. PATTERSON.
GRATE.

(Application filed Aug. 30, 1900.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

CAREY PATTERSON, OF CHICAGO, ILLINOIS.

GRATE.

SPECIFICATION forming part of Letters Patent No. 673,844, dated May 7, 1901.

Application filed August 30, 1900. Serial No. 28,539. (No model.)

To all whom it may concern:

Be it known that I, CAREY PATTERSON, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Grates, of which the following is a specification.

The object of my invention is to provide an improved construction of sectional grate, so as to increase the duration of such article, while at the same time facilitating the handling of the grate so as to quickly dump the ashes.

My invention relates to an improvement on the sectional grate forming the subject-matter of my application for Letters Patent filed February 6, 1899, Serial No. 704,768.

My improvement consists in a sectional grate having novel features of construction, as hereinafter described and claimed.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure I is a perspective view of my improved sectional grate. Fig. II is a transverse section on the line II II, Fig. I.

My grate is constructed with a central section formed with a narrow or thin longitudinal web 1, with longitudinal V-shaped ridges 1^a, and with longitudinal undercut or dovetail grooves 1^b, providing a pair of inclined flanges or extensions 1^c to the ridges 1^a. To this central section are secured side sections or wings, each formed with longitudinal tongues 2, fitted to an undercut or dovetail groove in the central section, having sectional trunnions or extensions 2^a, with transverse bars 2^c and with longitudinal division-bars 2^d, dividing the spaces between the transverse bars 2^c into rectangular draft-openings 2^e and leaving projecting fins 2^e. The sectional trunnions or extensions 2^a are provided with combined rod and bar holes 2^f, whereby a series of my sectional grates may be connected together by a rod to hold them in horizontal position or turned individually by a suitable bar inserted in the rod and bar holes 2^f of each pair of sectional trunnions when it is desired to dump the clinkers or clear the grate. It will thus be seen that my improved sectional grate is divided into three separa-

ble parts, consisting of a central section and two side sections, as in my construction described in my former application hereinbefore referred to; but in the present invention for facilitating the manufacture and also for convenience in use the trunnions are divided and formed on the side sections instead of on the central web. The side sections are adapted to be slid endwise out or in or to be removed and replaced when the grates are turned a quarter around in either direction, according to whether it is desired to remove the right or left side section. As shown in the drawings, the side sections are connected with the central section by dovetail joints, which provide a simple form of joint. The wings or side sections being removable, there is no difficulty in substituting new side sections or wings as they become burned out. The fuel is readily winged from grate to grate as the fuel burns up. The grate is also reversible, so that what is at first used as the top of the grate can be turned over, so as to use the bottom of the grate as the top.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. A sectional grate comprising a central section, longitudinal side sections having sections of trunnions, and groove-and-tongue joints between the central section and the side sections so as to adapt the side sections to slide lengthwise on the central section, said sections of trunnions forming a complete trunnion when the parts are assembled.

2. A sectional grate comprising a central section having grooves in the sides thereof providing undercut flanges, and longitudinal side sections having sections of trunnions and undercut tongues fitting in the grooves so as to adapt the side sections to slide lengthwise on and to interlock with the central section, said sections of trunnions forming a complete trunnion when the parts are assembled.

3. A sectional grate comprising a central section having longitudinal dovetail grooves in the sides thereof, providing undercut flanges and longitudinal side sections having sections of trunnions and dovetail tongues fitting in the grooves so as to adapt the side sections to slide lengthwise on and to interlock with, the central section, said sections of trun-

nions forming a complete trunnion when the parts are assembled.

4. A sectional grate comprising a central section having V-shaped ridges, and inclined
5 flanges, providing grooves and extensions to the ridges, and longitudinal side sections having sections of trunnions and tongues fitting in the grooves so as to adapt the side sections

to slide lengthwise on and interlock with, the central section, said sections of trunnions so forming a complete trunnion when the parts are assembled.

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