

No. 677,037.

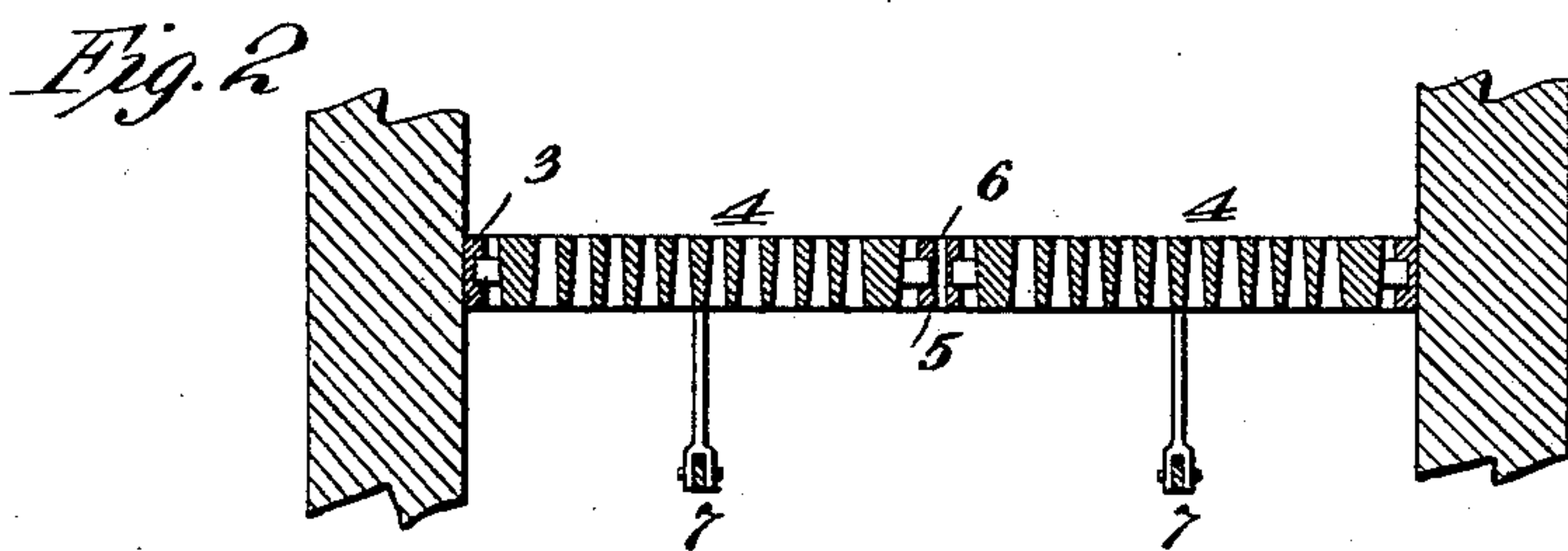
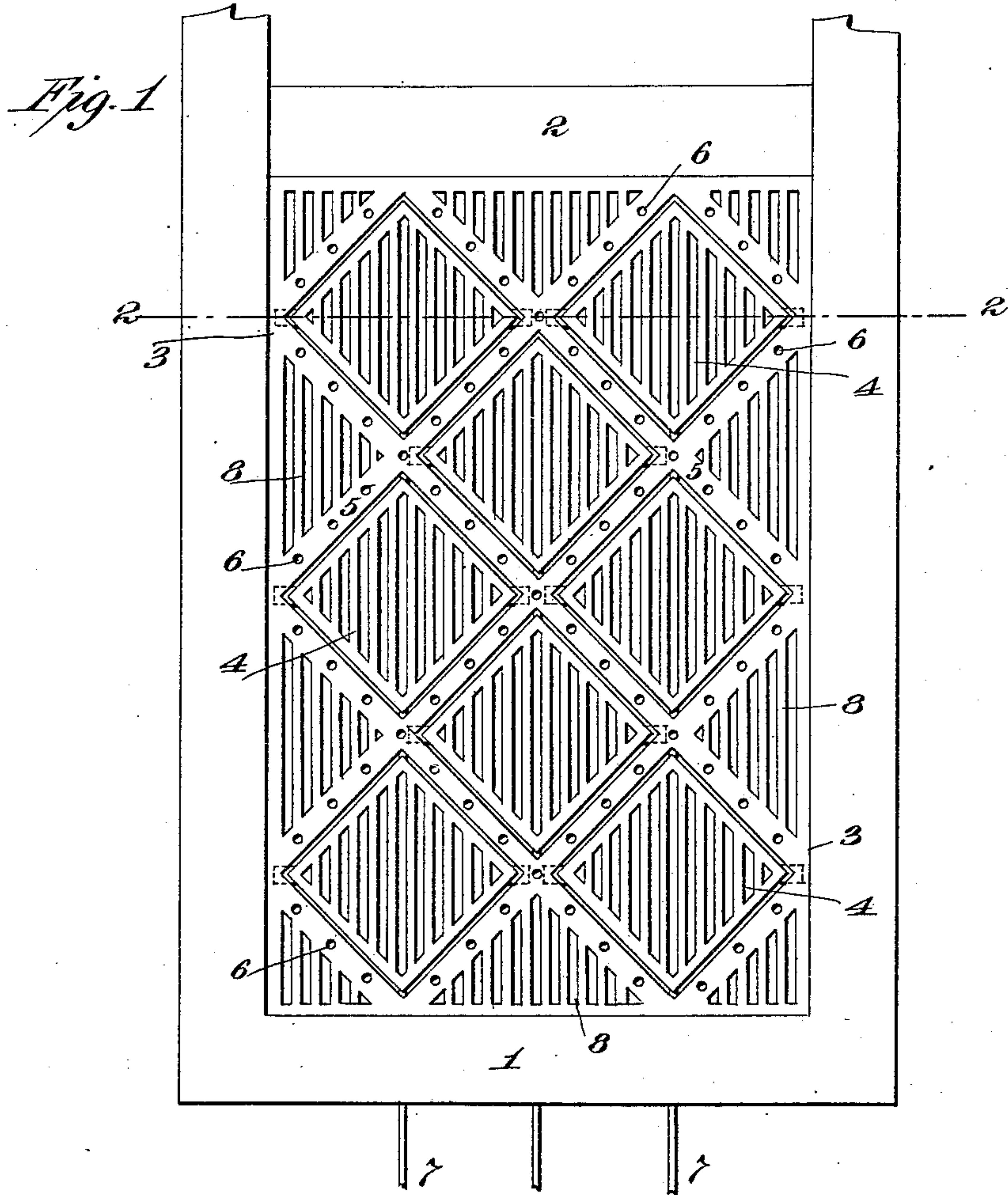
Patented June 25, 1901.

J. MACCORMACK.

DUMPING GRATE.

(Application filed Aug. 16, 1900.)

(No Model.)



Witnesses:

*Jas. F. Coleman
 Jno. R. Taylor.*

Inventor

*John Mac Cormack
 by Ayer Edmunds & Ayer*
Att'ys

UNITED STATES PATENT OFFICE.

JOHN MACCORMACK, OF BAYONNE, NEW JERSEY, ASSIGNOR TO ROYAL C. PEABODY, OF BROOKLYN, NEW YORK.

DUMPING-GRATE.

SPECIFICATION forming part of Letters Patent No. 677,037, dated June 25, 1901.

Application filed August 16, 1900. Serial No. 27,013. (No model.)

To all whom it may concern:

Be it known that I, JOHN MACCORMACK, a citizen of the United States, residing at Bayonne, in the county of Hudson and State of New Jersey, have invented a certain new and useful Improvement in Dumping-Grates, of which the following is a description.

My invention relates to improvements in dumping-grates adapted particularly for use in furnaces equipped with automatic stokers; and the object of the invention is to provide a grate of simple construction which can be dumped effectively and quickly.

Preferably my improved dumping-grate provides for the dumping of the grate as a whole in cases of emergency or in sections where it is desired not to entirely extinguish the fire.

In order that my invention may be better understood, attention is directed to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a plan view of the improved grate, and Fig. 2 is a section on the line 2 2 of Fig. 1.

In the above views corresponding parts are designated by the same numerals of reference.

1 represents the front wall, and 2 the bridge-wall, of a suitable furnace. Rigidly mounted between these walls is a rectangular frame 3, carrying the grate-sections 4 4 4. Extending across and between the members of the frame are the braces 5, which are perforated at 6, as shown, for the purpose of allowing the air to pass through said braces from the ash-pit to keep the same cool. Pivoted on their opposite diagonals in the openings formed by the braces are the grate-sections 4, which in this instance

are made rectangular. These grate-sections may be dumped either successively or simultaneously in any suitable way—as, for instance, by means of the dumping-rods 7, as shown. The partial sections 8, which are arranged around the dumping-sections 4 of the grate, as shown in Fig. 1, are ordinarily kept stationary, although obviously these partial sections may also be constructed to be dumped or tilted.

The special advantage of the construction shown is that by employing relatively small grate-sections of the shape shown the grate-sections may be shaken without being dumped, the pointed free corners of the grate-sections effecting a jolting pickax-like action on the fuel and serving to break the same when of a relatively soft character, like bituminous coal, which is apt to crust, clinker, and keep the fire down and prevent the heat from reaching the boiler.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows:

An improved dumping-grate comprising in combination a main frame, a series of rectangular grate-sections pivotally supported at their opposite corners by the main frame, and means for operating said grate-sections, substantially as set forth.

This specification signed and witnessed this 3d day of August, 1900.

JOHN MACCORMACK.

Witnesses:

ARCHIBALD G. REESE,
JNO. R. TAYLOR.