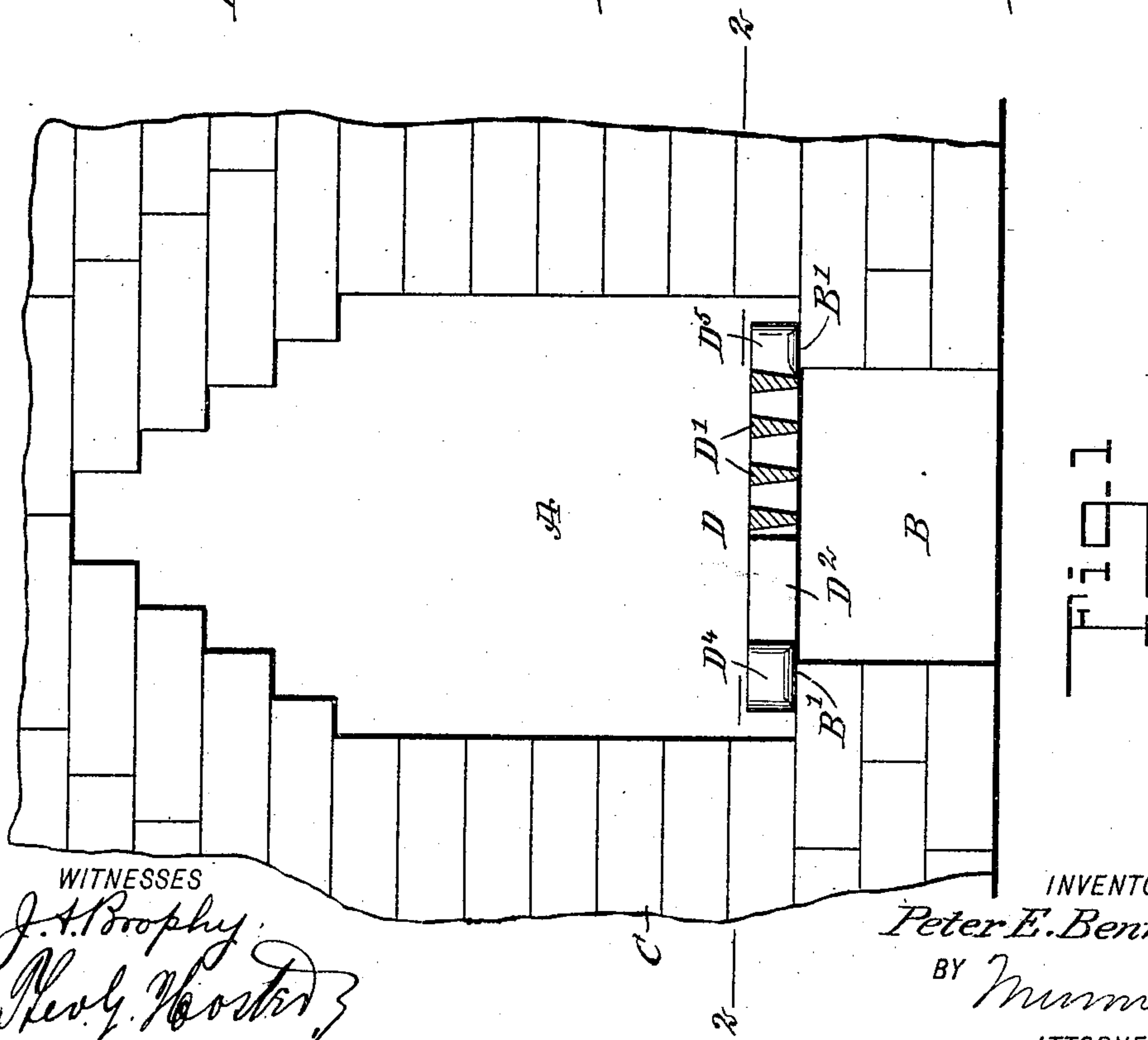
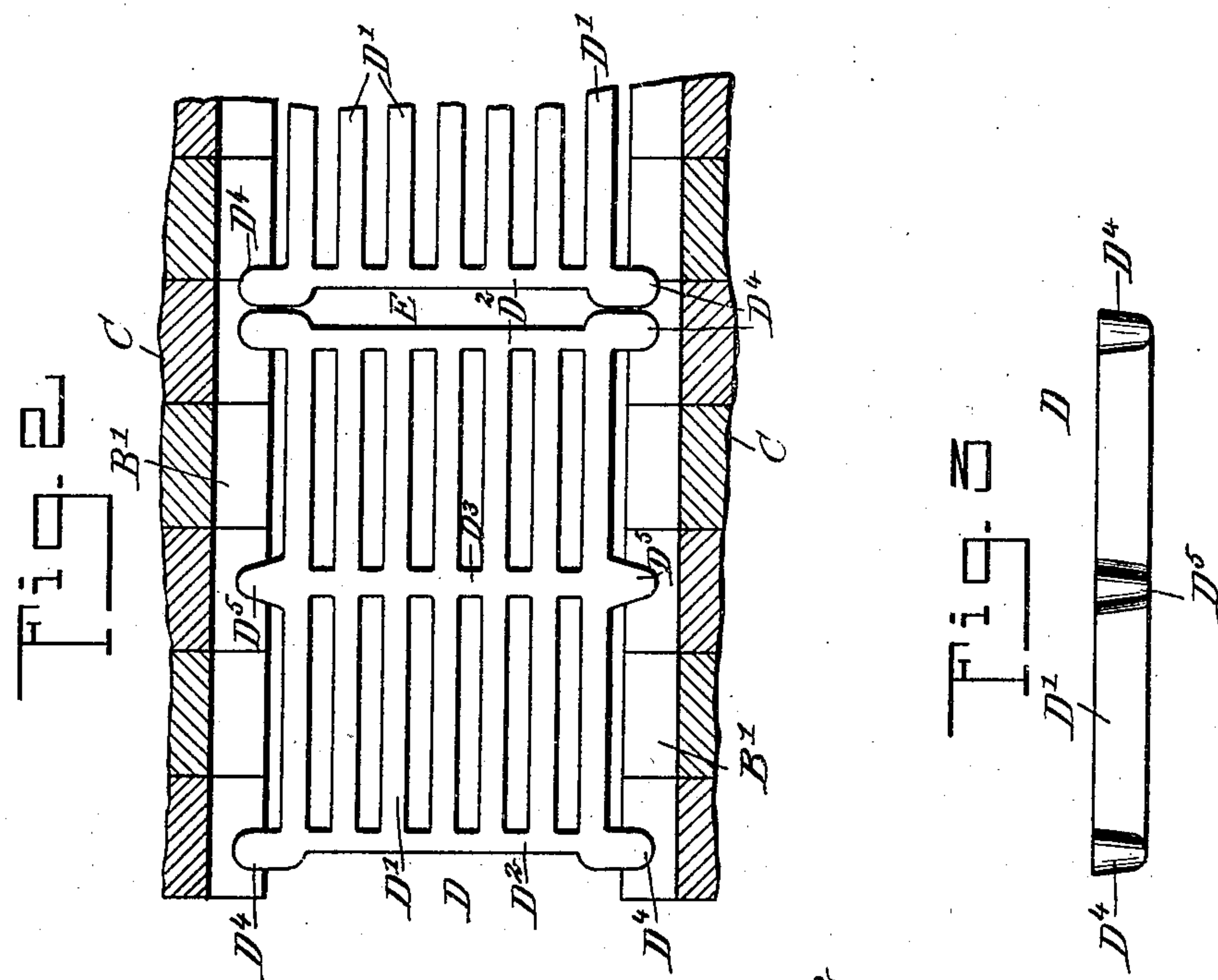


No. 877,825.

PATENTED JAN. 28, 1908.

P. E. BENNETT.
GRATE FOR BRICK KILNS.
APPLICATION FILED JUNE 25, 1907.



WITNESSES
J. A. Brophy
Rev. G. H. Foster

INVENTOR
Peter E. Bennett
BY *Mum & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

PETER E. BENNETT, OF ROSETON, NEW YORK.

GRATE FOR BRICK-KILNS.

No. 877,825.

Specification of Letters Patent.

Patented Jan. 28, 1908.

Application filed June 25, 1907. Serial No. 380,804.

To all whom it may concern:

Be it known that I, PETER E. BENNETT, a citizen of the United States, and a resident of Roseton, in the county of Orange and State of New York, have invented a new and Improved Grate for Brick-Kilns, of which the following is a full, clear, and exact description.

The invention relates to drying and burning bricks in an ordinary set-up kiln, and its object is to provide a new and improved grate for brick kilns, arranged to insure proper burning of the fuel in the fire-box, to permit of conveniently placing the grate in position, and to allow quick removal of the grate from the fire-box of one kiln for re-use in the fire-box of another kiln.

The invention consists of novel features and parts and combinations of the same, which will be more fully described herein-after and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a front end elevation of the improvement as applied, parts being shown in section; Fig. 2 is a sectional plan view of the same on the line 2—2 of Fig. 1, and Fig. 3 is a side elevation of one of the grate sections.

The fire-box A and the ash pit B, are formed by setting up the bricks C, in the manner customary in setting up ordinary brick kilns, and the ash pit B is somewhat narrower than the fire-box A, to form the ledges or shoulders B', for supporting the sections D of the grate on which the fuel is to be burned. In an ordinary kiln about ten such grate sections, one abutting against the other, are used on each side of the kiln, and each grate section D consists of a plurality of spaced longitudinally extending grate bars D', integrally connected with each other at the ends by end cross bars D² and at or near the middle by intermediate cross bars D³. At the corners of each grate section D are integrally formed supporting lugs D⁴ each projecting sidewise, to rest on the ledge B' and endwise to abut against the corresponding lug D⁴ of the next adjacent section, with a view to produce a draft space E between the adjacent sections, as will be

readily understood by reference to Fig. 2. Sidewise extending lugs D⁵ are arranged intermediate the end or corner lugs D⁴, and the said intermediate lugs D⁵ are practically continuations of the intermediate cross bars D³, as will be understood by reference to Fig. 2. Now the lugs D⁴, D⁵ are tapered in a downward direction and are rounded off at the bottom, so that when the grate sections are withdrawn from the kiln the lugs D⁴, D⁵ readily ride over projections or other inconveniences on the ledges B', thus permitting convenient pulling out of one grate section after the other, for re-use in the fire-box and ash pit of another kiln.

It will be seen that by the arrangement described proper draft spaces are had between the grate bars D' and the ledges B', as well as between adjacent and abutting grate sections, so as to insure complete combustion of the fuel burned on the grate.

By making each grate section of a single piece of metal, it can be conveniently handled when placing it in position or removing it from the kiln.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

A grate section for a brick kiln, comprising longitudinally extending spaced grate bars, and cross bars connecting the said grate bars, lugs at the corners of the grate section, the lugs extending sidewise beyond the sides of the outermost of the said cross bars and adapted to engage a supporting means for supporting the section, said lugs also extending endwise beyond the cross bars whereby to properly space the adjacent grate, an intermediate cross bar integrally connecting the grate bars with each other, and intermediate lugs projecting integrally outward from the side grate bars opposite the ends of the said intermediate cross bar, and adapted to engage a supporting means, the said corner lugs and the said intermediate lugs being rounded off at the bottom.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PETER E. BENNETT.

Witnesses:

LE ROY DICKERSON,
RUSSEL S. COUTANT.