

L. O. KREUTZER & N. P. S. MÖLLER.
FIREPLACE.

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992,004.

Patented May 9, 1911.

Fig. 1.

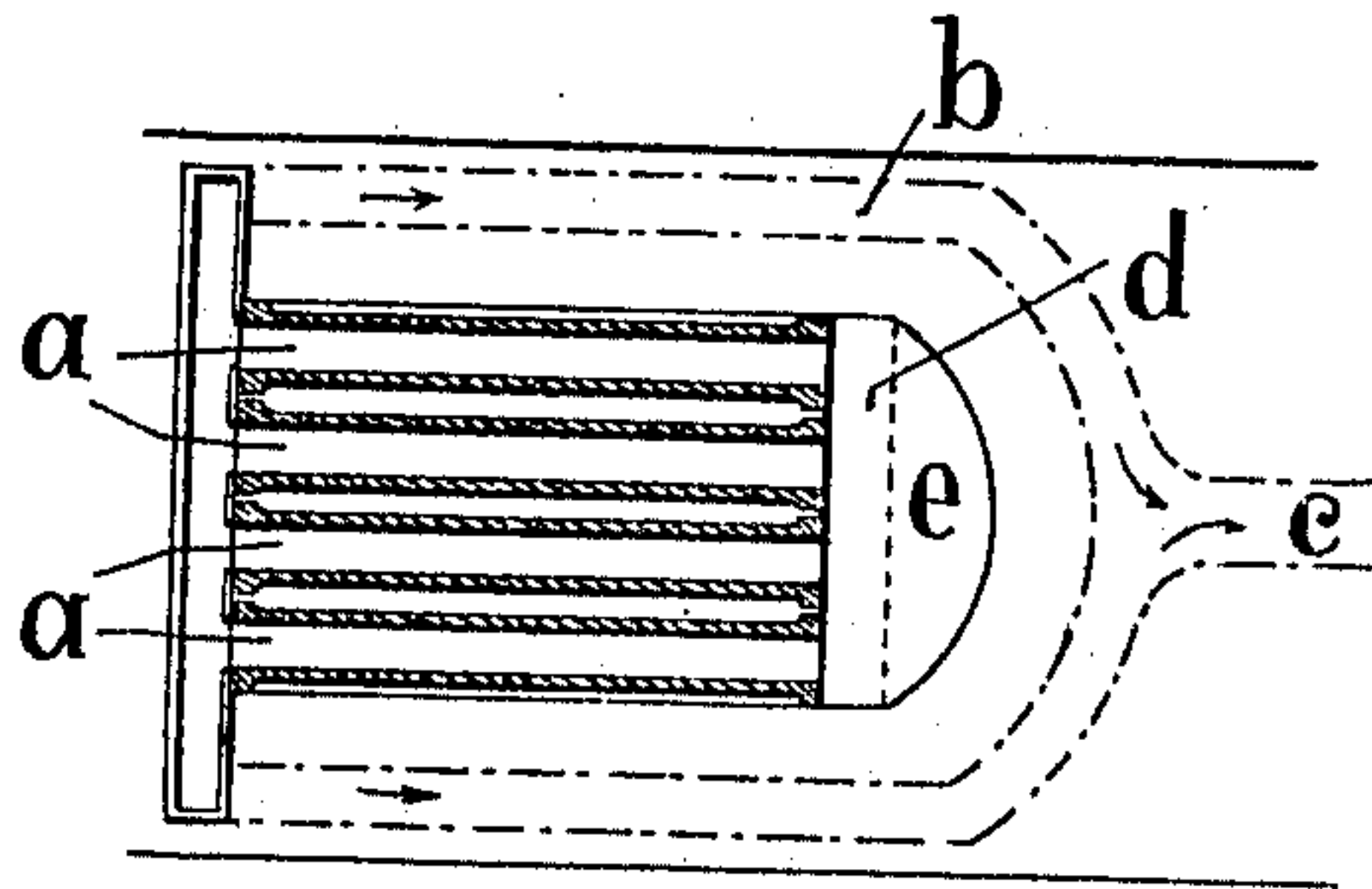


Fig. 2.

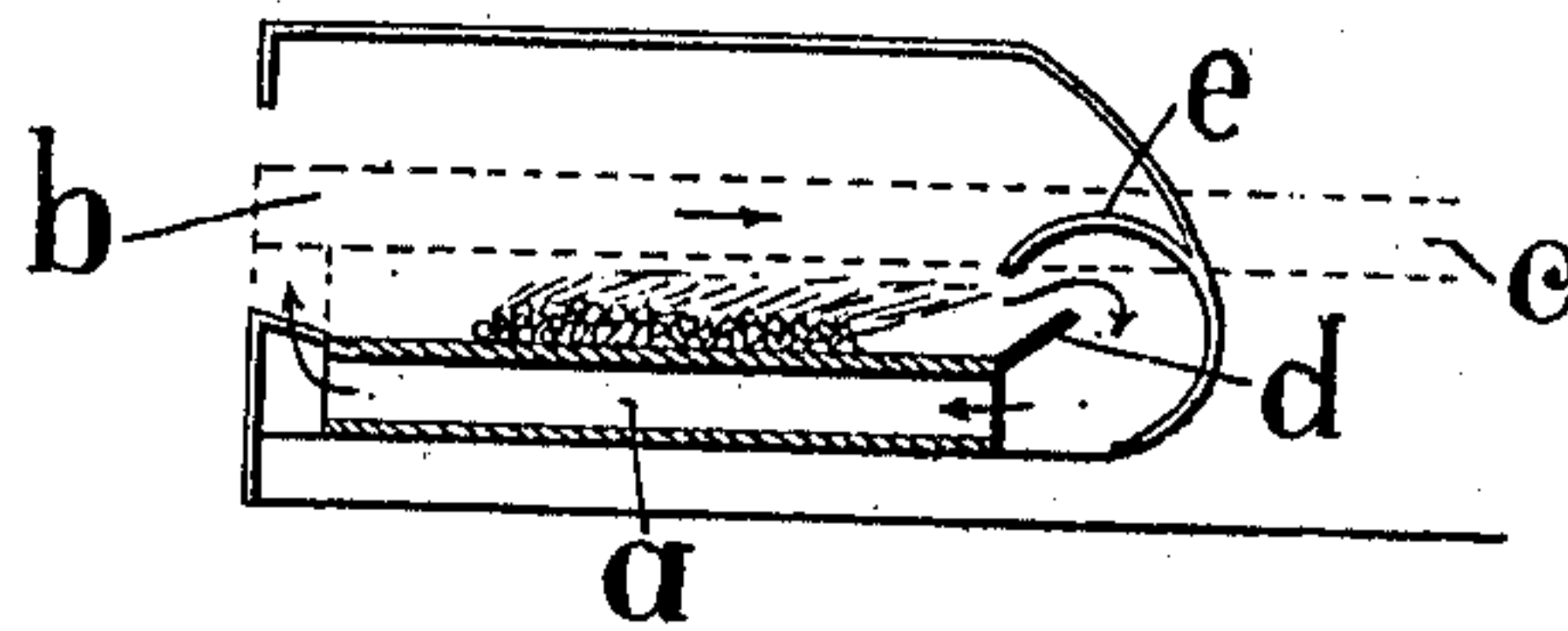
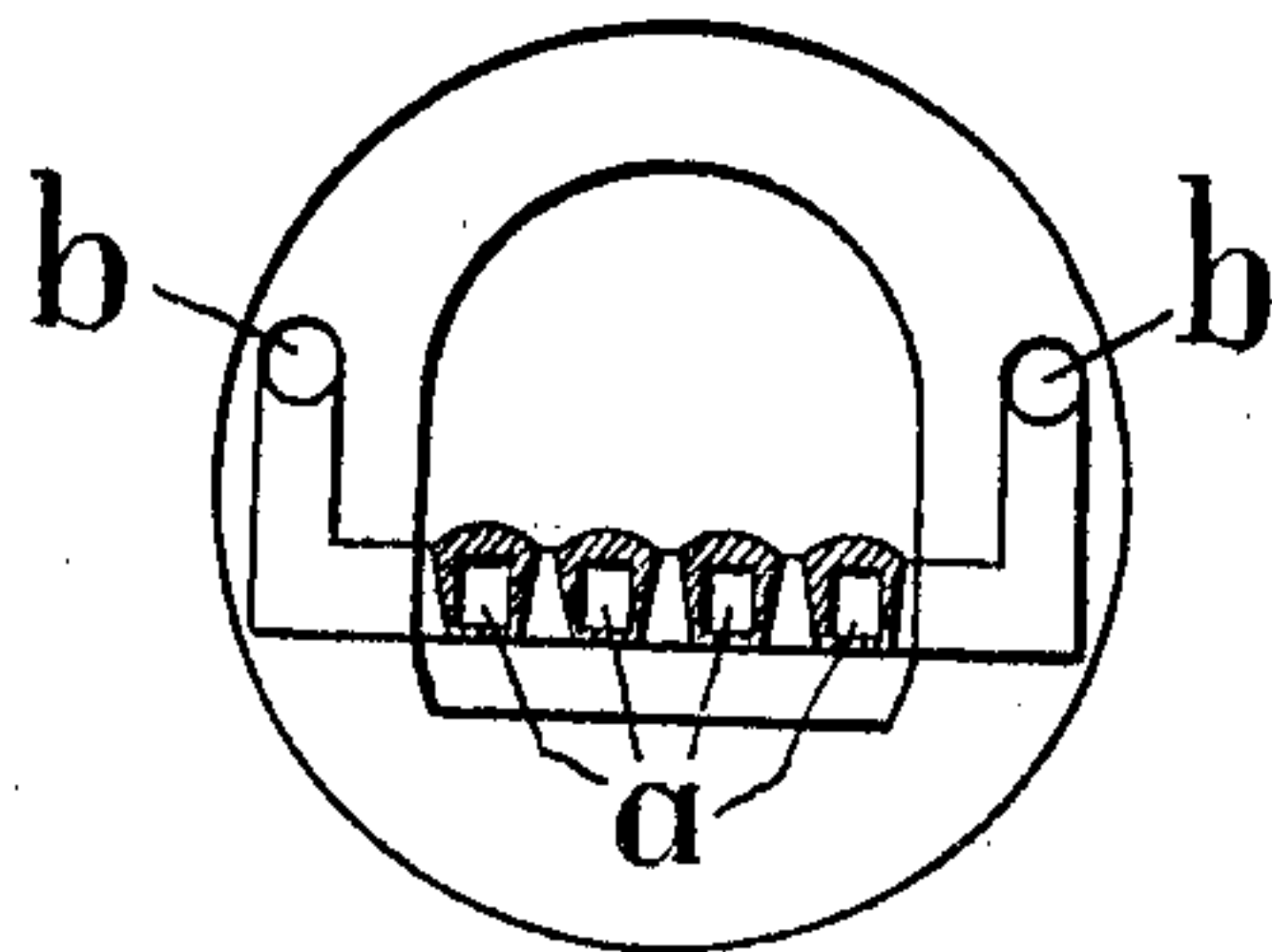


Fig. 3.



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UNITED STATES PATENT OFFICE.

LUDVIG CARL KREUTZER AND NIELS PETER SÖRENSEN MÖLLER, OF VEJLE, DENMARK.

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Specification of Letters Patent.

Patented May 9, 1911.

Application filed August 31, 1908. Serial No. 451,041.

To all whom it may concern:

Be it known that we, LUDVIG CARL KREUTZER, furrier, and NIELS PETER SÖRENSEN MÖLLER, mason, subjects of the King of Denmark, and residents of Vejle, in the Kingdom of Denmark, have invented certain new and useful Improvements in Fireplaces, of which the following is a specification.

Our invention relates to improvements in fire places, the object of which is the combustion of the smoke and at the same time a more perfect utilization of the coal.

In the accompanying drawing Figure 1 is a transverse horizontal section of the improved fire place; Fig. 2 a longitudinal vertical section and Fig. 3 a cross section of the same.

The grate of the fire place comprises hollow grate bars *a* having an oblique plate *d* extending from the rear ends of the bars and arranged adjacent to an arched plate *e* extending over the rear ends of said bars, the two plates conjointly forming a passage way through which the smoke passes in the direction of the arrow. The hollow grate bars *a* are at their forward ends connected with passages *b* surrounding the fire place and joining each other in a flue *c* which latter opens into the atmosphere.

The smoke will pass in the direction of the

arrows through the hollow grate bars *a*, the passages *b* and the exit flue *c*. By thus leading the smoke from the fire chamber downward and thence through the heated grate bars a combustion of the combustible particles of the smoke will be effected and the heating capacity of the fuel utilized in a more perfect manner.

Having thus described our invention we claim:

In a fire place, the combination of hollow grate bars; an arched plate extending over the rear ends of said bars; and spaced therefrom, an oblique plate extending from the rear ends of the bars beneath the overhanging side of said arched plate and forming with said arched plate a passage way between the fire chamber and said hollow bars; passages situated at the sides of the fire place, and in communication with the forward ends of said bars, and an exit flue in communication with said passages, substantially as described.

In testimony whereof we affix our signatures.

LUDVIG CARL KREUTZER.

NIELS PETER SÖRENSEN MÖLLER.

In the presence of—

BERNH. LARSEN,

GLORZ N. NIELSEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."