

Specification of Samuel Hopkinson and Edwin Hopkinson : smoke-consuming apparatus.

Contributors

Hopkinson, Samuel.
Hopkinson, Edwin.

Publication/Creation

London : Great Seal Patent Office, 1865 (London : George E. Eyre and William Spottiswoode)

Persistent URL

<https://wellcomecollection.org/works/ejd4qduk>

License and attribution

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>



A.D. 1865, *2nd MARCH.* N^o 584.

SPECIFICATION

OF

SAMUEL HOPKINSON
AND
EDWIN HOPKINSON.

SMOKE-CONSUMING APPARATUS.

LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,

PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:

PUBLISHED AT THE GREAT SEAL PATENT OFFICE,

25, SOUTHAMPTON BUILDINGS, HOLBORN.

Price 4d.

1865.

THE UNIVERSITY OF CHICAGO

LIBRARY

1951

1951

1951

1951

1951

1951



A.D. 1865, 2nd MARCH. N° 584.

Smoke-consuming Apparatus.

(This Invention received Provisional Protection only.)

PROVISIONAL SPECIFICATION left by Samuel Hopkinson and Edwin Hopkinson at the Office of the Commissioners of Patents, with their Petition, on the 2nd March 1865.

We, SAMUEL HOPKINSON and EDWIN HOPKINSON, both of Bradford, in the
5 County of York, do hereby declare the nature of the said Invention for "**IMPROVEMENTS IN SMOKE-CONSUMING APPARATUS**," to be as follows:—

Our Invention has for its object the prevention of smoke arising from the imperfect combustion of coal in steam boilers, and consists in the application of heated air applied to the flame in a manner and by an apparatus now to be
10 described.

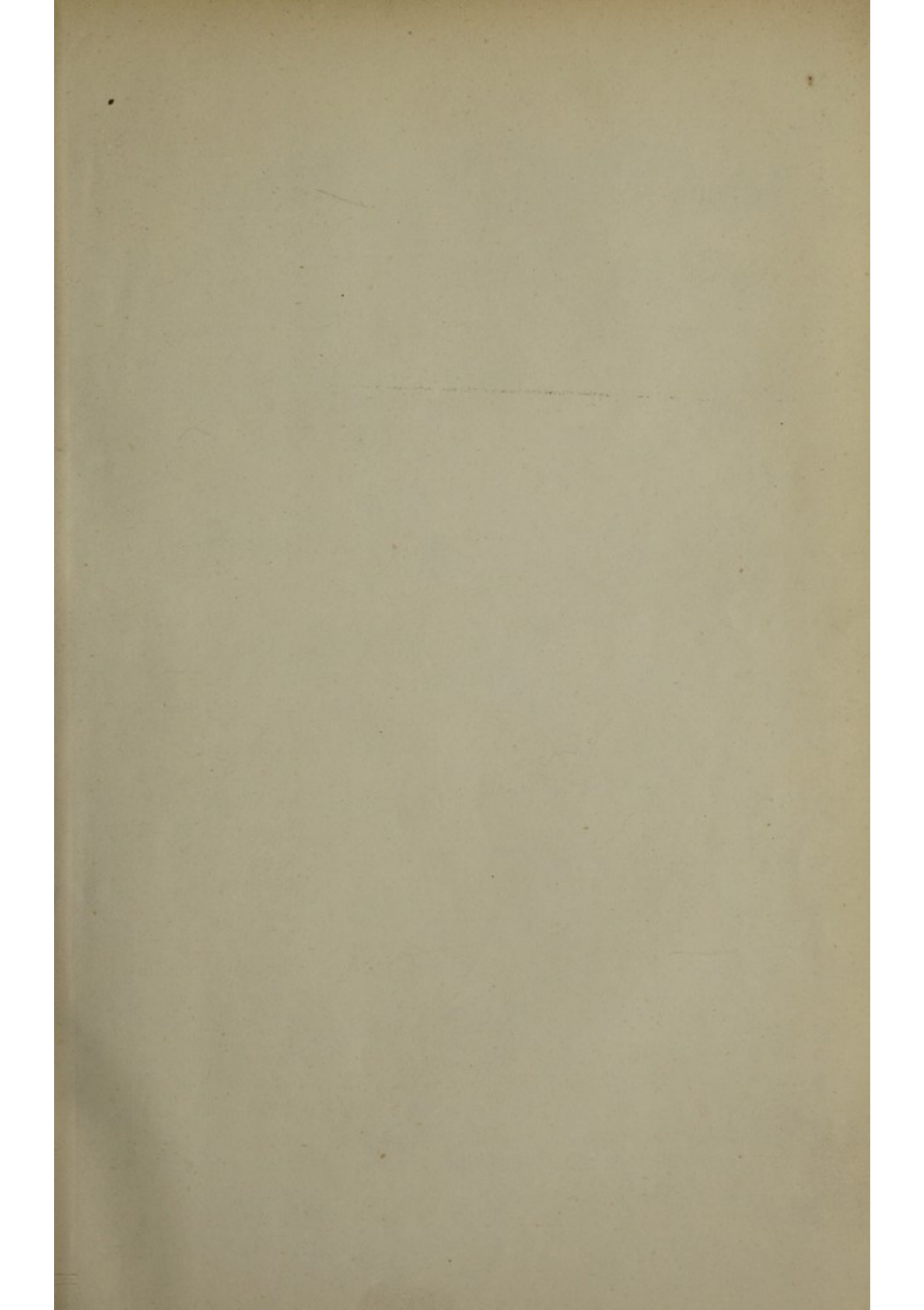
Taking a flued boiler, for example, at the end extreme from the fire, we place two rectangular iron chambers in a horizontal position parallel to each other and at some distance apart. These chambers communicate with each other by means of rows of pipes, the numbers of which vary according to
15 circumstances. To the upper chamber a stack or funnel is attached communicating with the outer air. From the bottom chamber a pipe extends into the flue nearly to the bridge. The flange of this pipe at the bridge end is made large to fill the bottom part of the flue, and extends somewhat higher than the bridge, the top of the flange being flat. A hole or holes of requisite
20 size are made in the flange for the emission of air. Directly over the bridge we place a casting, the upper part of which fits the top and side of the flue, the lower part resting upon the bridge. This casting is hollowed out and presents a semicircular aperture.

S. & E. Hopkinson's Improvements in Smoke-consuming Apparatus.

The action of the apparatus is as follows:—Air descending the stack or funnel in passing through the chambers and pipes becomes heated. On emission through the hole or holes in the flanged end of the pipe near the bridge it meets with the flame coming through the contracted aperture before named, and mingling with it consumes the smoke entirely or nearly so. 5

LONDON:

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1865.



THE
JOURNAL
OF
THE
ROYAL ANTHROPOLOGICAL INSTITUTE
OF GREAT BRITAIN AND IRELAND
VOLUME 10
PART 1
1880

Printed by George Edward Smith and Son, Stationers, 10, Abchurch Lane, London, E.C. 4.