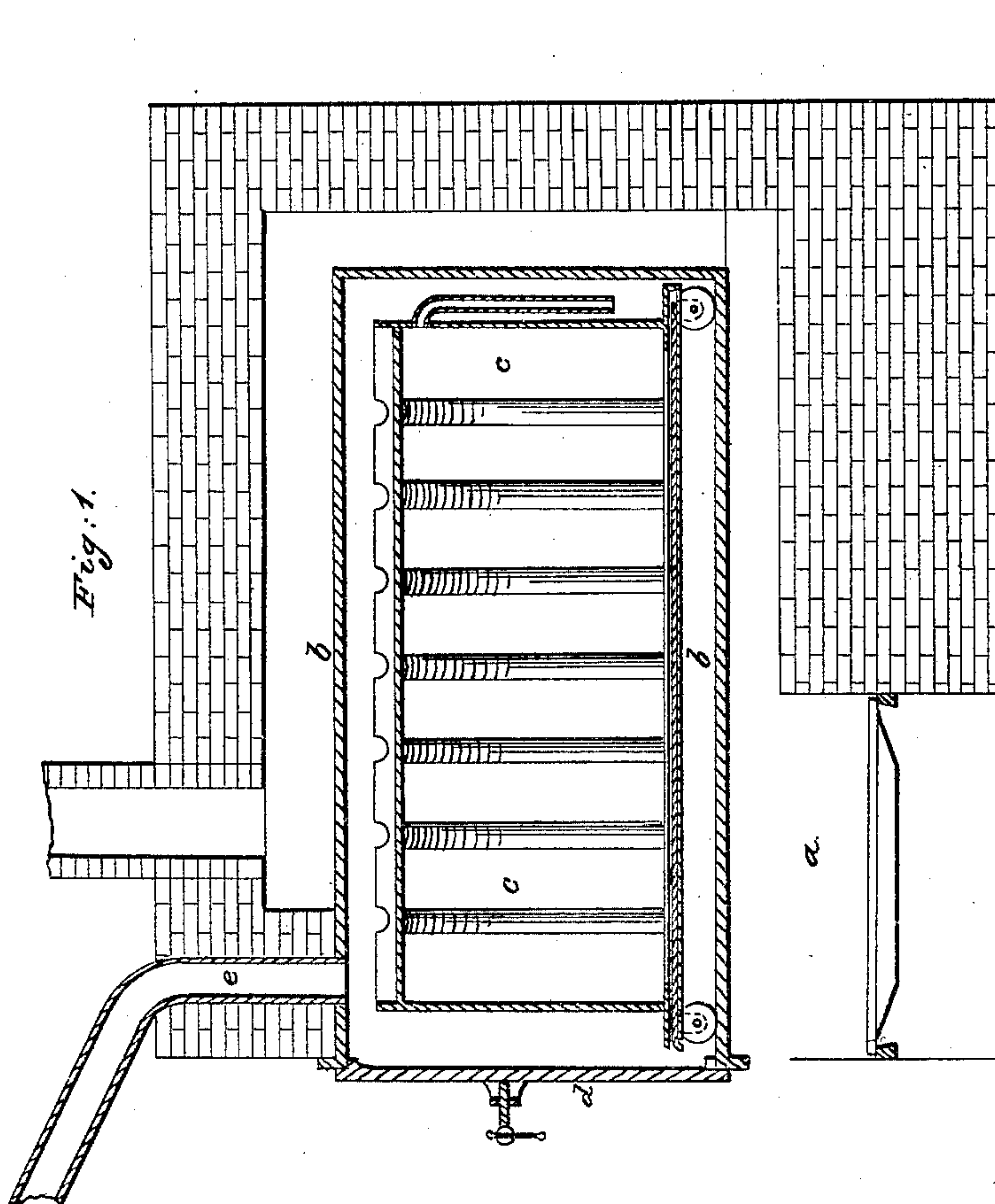
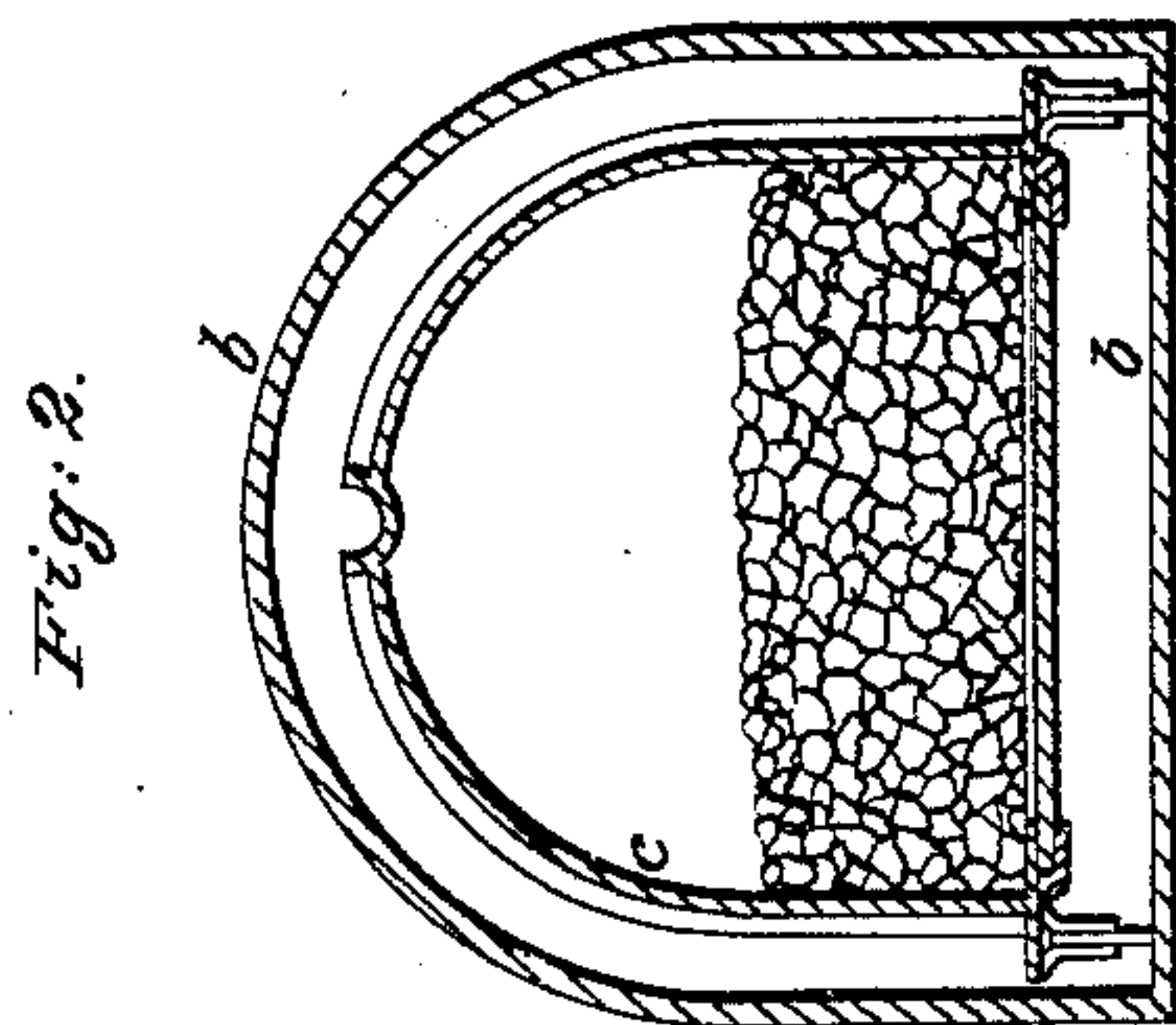


A. MILLOCHAU.

Gas Retort.

No. 58,553.

Patented Oct. 2, 1866.



Witnesses:
Geo. B. Walker.
Thos. Geo. Harold.

Inventor:
A. Millochau.

UNITED STATES PATENT OFFICE.

ADOLPH MILLOCHAU, OF NEW YORK, N. Y., ASSIGNOR TO THE AMERICAN RETORT COMPANY, OF SAME PLACE.

IMPROVEMENT IN THE MANUFACTURE OF ILLUMINATING-GAS.

Specification forming part of Letters Patent No. 58,553, dated October 2, 1866.

To all whom it may concern:

Be it known that I, ADOLPH MILLOCHAU, of the city and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Retorts for the Manufacture of Illuminating-Gas; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a longitudinal section of my improved retort, and Fig. 2 is a cross-section of the same.

Similar letters denote the same parts.

The nature of my said invention consists in a double retort formed by an interior casing containing the coal or other material to be distilled, and an outer casing or retort, in which the products of distillation are reheated for their more perfect conversion into illuminating gas. By this means I am enabled to prevent the formation of tar, because the coal or other material being distilled does not come into direct contact with the heated retort, but the products of distillation are reheated in passing between the casing and retort, so that they are perfectly combined and converted into illuminating-gas.

In the drawings, *a* represents the furnace or a portion thereof. *b* is the main or outer retort, and *c* the inner retort or casing. This outer retort is to be formed in any usual manner, with the movable end plate, *d*, secured by luting and a set-screw; and *e* is the rising-pipe to the hydraulic main, which is so inclined that any oily material runs back into the retort *b*, falling upon the exterior of the casing *c*, which casing is grooved both longitudinally at top and upon its curved sides, so as to distribute such oily material over the inner retort for its conversion by the heat into illuminating-gas.

The interior retort or casing is made with a loose or sliding bottom, a movable end or cover, and a pipe or opening at the back end.

The retorts may be of any desired size, and the interior casing is to be filled while withdrawn from the retort *b*, and for that purpose an opening may be left near the middle.

The materials employed may vary; but I prefer and use about equal proportions of coke and bituminous coal, ground and mixed together.

The gaseous products evolved from the inner retort after it is introduced into the heated exterior retort come into contact with such heated exterior retort, and are reheated for their more perfect conversion into illuminating-gas.

When the distillation is completed the inner retort or casing is drawn out and the movable bottom removed, so as to discharge the coke remaining therein. This inner retort or casing may contain the usual bituminous coal in lumps, as now employed in gas-retorts, or the ground coke and coal may be introduced as aforesaid.

What I claim, and desire to secure by Letters Patent, is—

1. A separate casing for containing the coal or other material to be distilled, in combination with the main retort, within which said casing is introduced, as and for the purposes specified.

2. The method herein specified of subjecting the products of distillation to a reheating operation within the retort in which they are generated, as and for the purposes set forth.

Dated this 19th day of June, A. D. 1866.

AD. MILLOCHAU.

Witnesses:

LEMUEL W. SERRELL,
GEO. D. WALKER.