

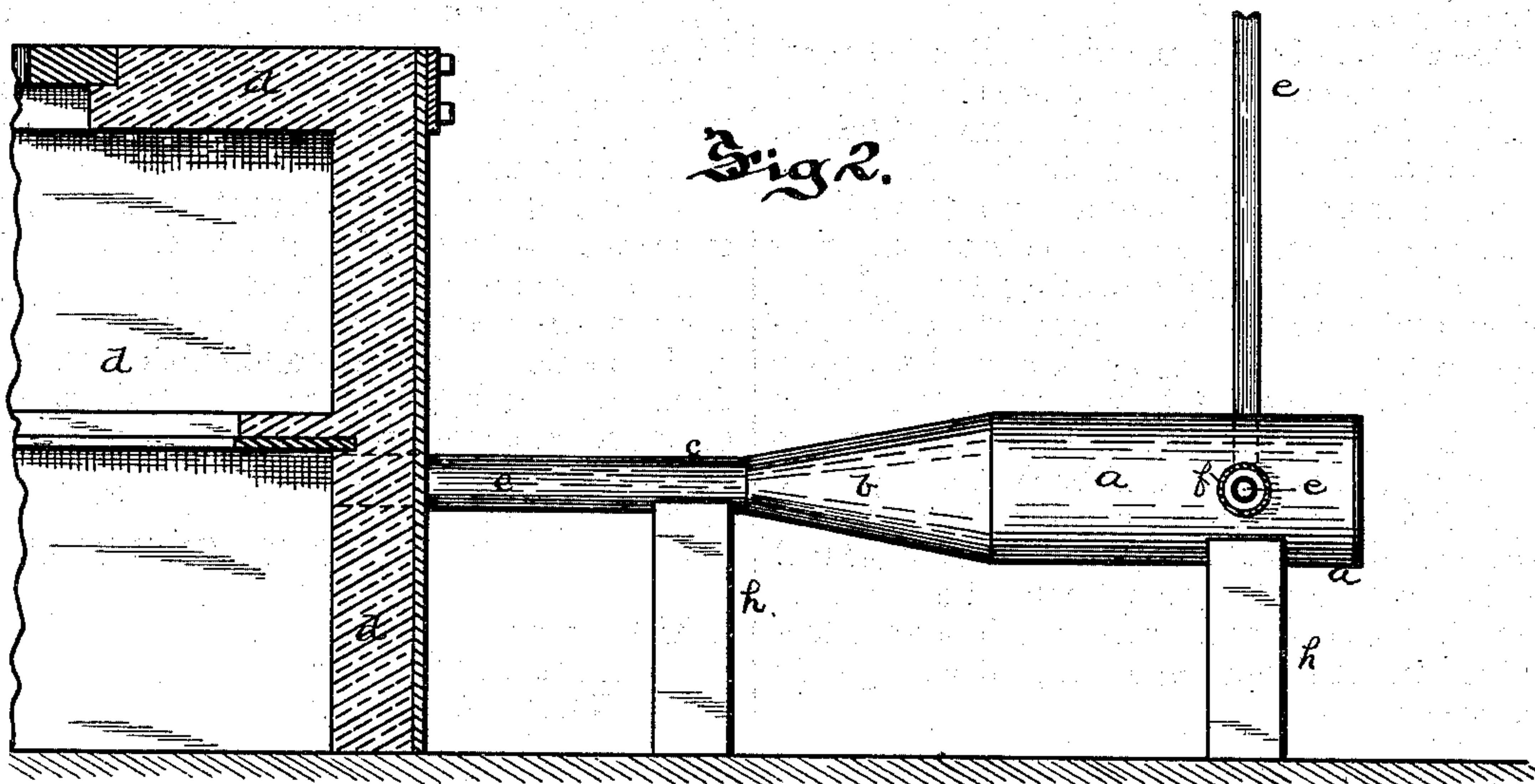
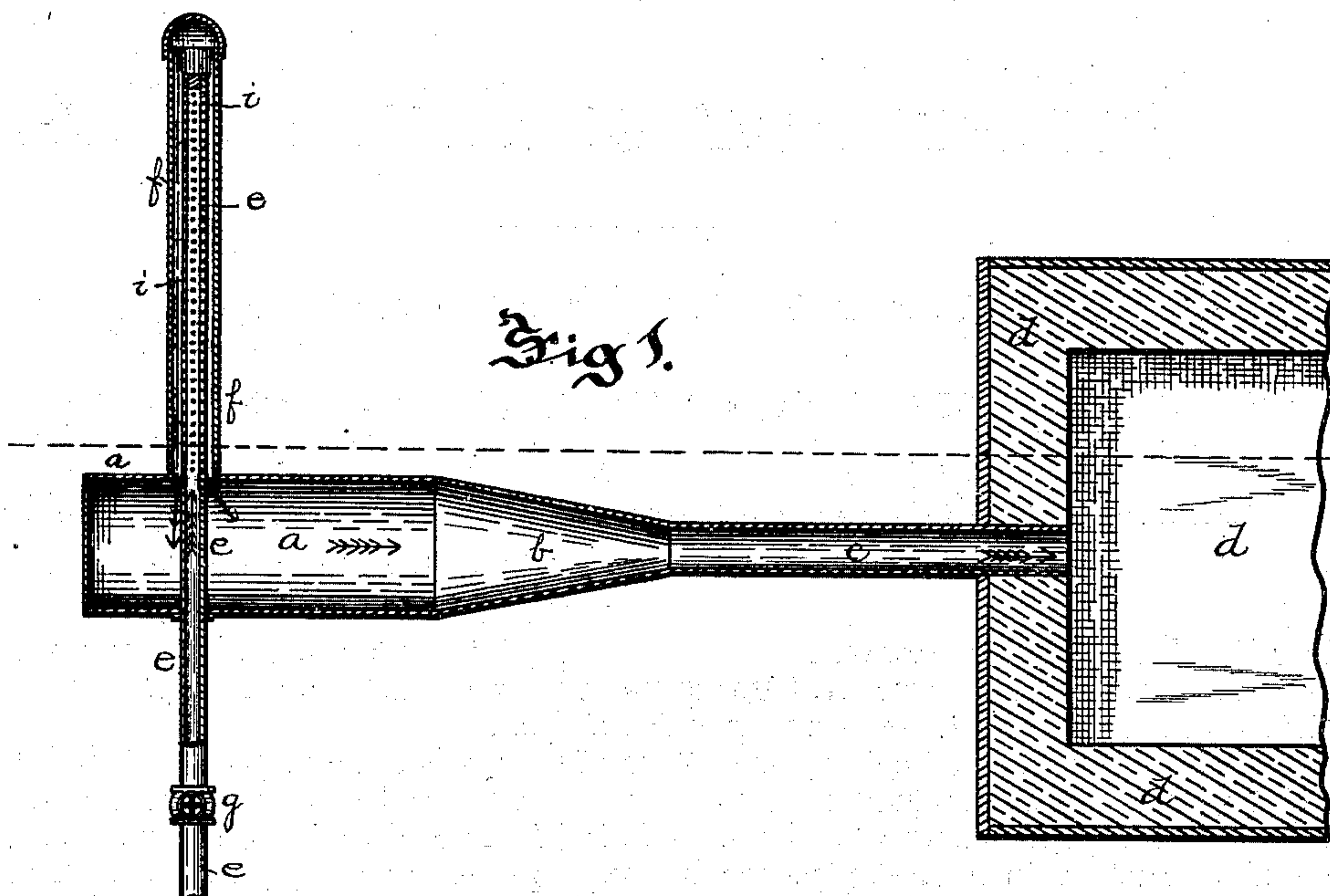
(No Model.)

J. H. SHEFFLER.

DEVICE FOR MIXING NATURAL GAS AND COLD AIR.

No. 330,932.

Patented Nov. 24, 1885.



Witnesses:
H. J. Child
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UNITED STATES PATENT OFFICE.

JOHN H. SHEFFLER, OF PITTSBURG, PENNSYLVANIA.

DEVICE FOR MIXING NATURAL GAS AND COLD AIR.

SPECIFICATION forming part of Letters Patent No. 330,932, dated November 24, 1885.

Application filed September 26, 1885. Serial No. 178,241. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. SHEFFLER, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful device for mixing natural gas and cold air by counteraction in a blast-pipe for heating purposes, for heating, welding, puddling, or other furnaces, of which the following is a specification.

The object of my improved device is to create or produce a greater or more effective and cheaper heat for furnaces than that obtained by the use of coal or other similar fuel.

It consists, essentially, in a drum to which a blast-pipe is connected at one side and gas-pipe at the other side passing through the drum and into the blast-pipe, the said gas-pipe being covered by a cap, and the upper end in the blast-pipe being perforated. The blast, being of greater force than the pressure of the gas, forces the gas back through the blast-pipe and drum into the furnace, the counteraction thoroughly mixing the natural gas and cold air before entering the furnace. I obtain these results by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a top sectional view of my device, and Fig. 2 a side view of the same.

a a is a drum with a funnel-shaped end, *b*, connected with the tube *c*, which enters in the furnace *d* and admits the blast therein. The gas enters the pipe *e e e e*, being regulated by the valve *g*, of any ordinary construction, and passes through the drum *a a* into the blast-pipe *f f*, the gas passing through the perforations *i i* in the gas-pipe *e e e e* and mingles with the cold air, which passes into the drum *a a* and through the funnel-shaped end *b* and pipe *c* into the furnace *d*.

What I claim as my invention, and desire to secure by Letters Patent, is as follows:

The perforated gas-pipe *e e e e* passing through the drum *a a*, and being perforated at *i i*, as described, in combination with the drum *a a* and blast-pipe *f f* and valve *g*, constructed as described, for the purposes set forth.

JOHN H. SHEFFLER.

Witnesses:

H. S. CALEB,
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