

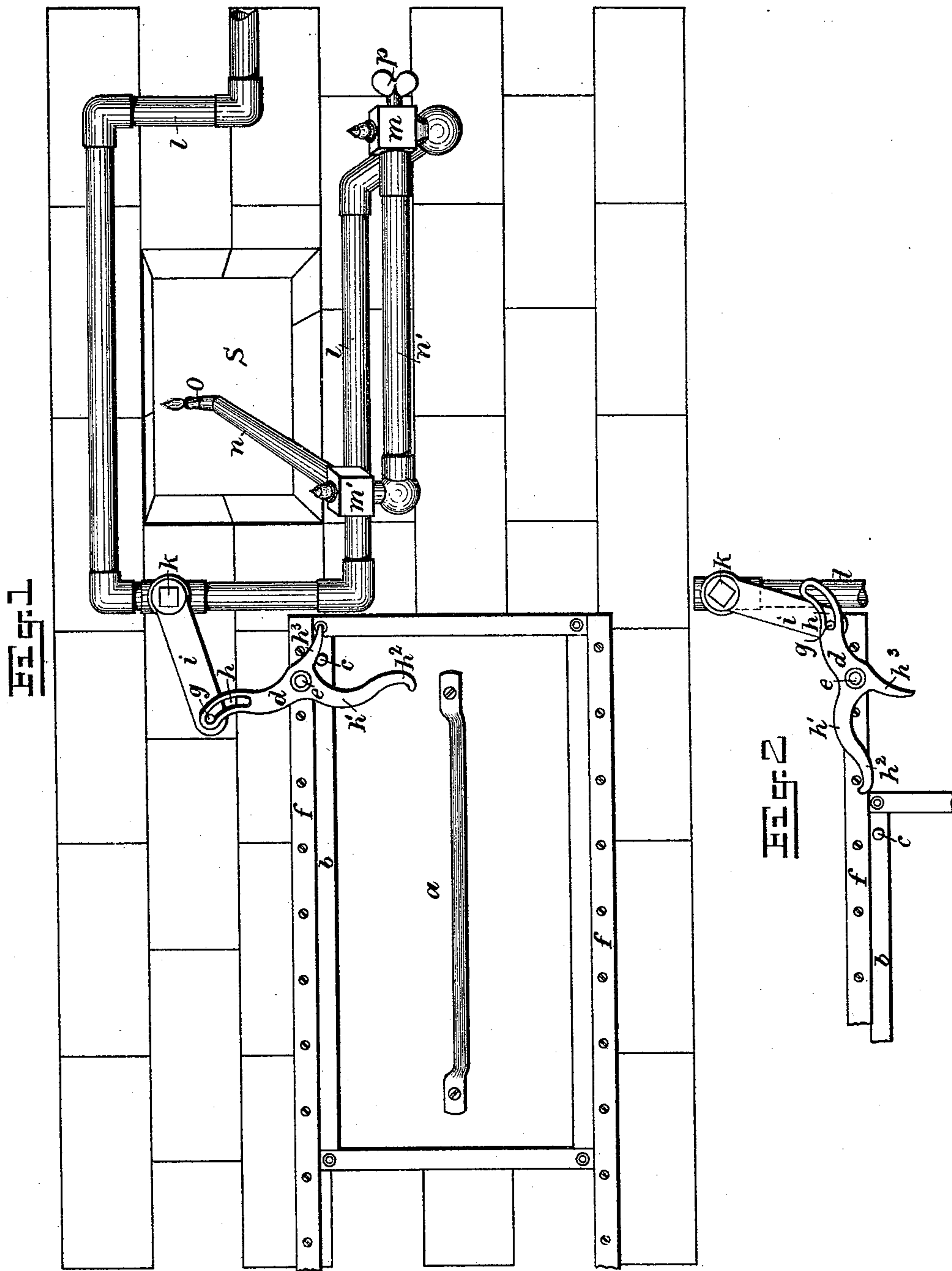
(No Model.)

A. STEPHAN.

AUTOMATIC GAS OR LIGHT REGULATING ATTACHMENT FOR BAKE OVENS.

No. 536,662.

Patented Apr. 2, 1895.



Witnesses:
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UNITED STATES PATENT OFFICE.

AUGUST STEPHAN, OF BERLIN, GERMANY.

AUTOMATIC GAS OR LIGHT REGULATING ATTACHMENT FOR BAKE-OVENS.

SPECIFICATION forming part of Letters Patent No. 536,662, dated April 2, 1895.

Application filed July 10, 1894. Serial No. 517,108. (No model.)

To all whom it may concern:

Be it known that I, AUGUST STEPHAN, a citizen of the Kingdom of Prussia, residing at Klopstock Street, 25, Berlin, in the Kingdom of Prussia and German Empire, have invented certain new and useful Improvements in Automatic Gas or Light Regulating Attachments for Bake-Ovens, of which the following is a specification.

10 The object of my invention is to provide an automatic gas or light regulating arrangement, or attachment to the door or windows of bake ovens, vaults and other similar apartments which when closed are kept dark for economic or other reasons and which are
15 lighted when opened from time to time for inspection of their contents.

The invention consists in a pivoted lever of novel construction connected with the gas
20 cock or button for regulating the light to either turn on, shut off or control the quantity of light and actuated by the door or window shutter when the same is opened or closed with invariable regularity as will hereinafter appear.

In the accompanying drawings—Figure 1, is a perspective elevation of part of the front of a bake oven with gas fixtures and my improvement attached thereto showing an
30 opening in the wall through which the burner arm of the gas fixture is projected, the oven door closed and the gas jet lowered, and Fig. 2, an elevation of my light regulating attachment, consisting of a pivoted cam shaped
35 actuating lever and gas cock lever in full with a fragment of the gas fixture and door showing the gas cock and door open.

My invention is herein shown as applied to a bake oven of the usual construction wherein
40 a sliding door *a*, having a rectangular frame *b*, is supported to move horizontally endwise in guides *f*, secured to the front wall of the oven respectively above and below the door opening. A pin *c*, projecting from the upper right
45 hand corner of the door *a*, actuates a peculiarly curved or cam shaped lever *d*, pivoted at *e*, to the upper guide bar *f*, of the door way and a pin *g*, engaging in a curved slot *h*, in the upper end of the lever *d*, and secured to
50 the free end of the pendent lever *i*, which lever is secured to and controls a stop cock *k*, of a gas fixture *l, m, n*, and serves to open the

said cock *k*, when the door *a*, is pushed open and thus turn on the light automatically when the door is opened in order that the contents of the oven may be quickly lighted and examined during the process of baking without unnecessary exposure or escape of heat and when closed to automatically turn down the light when it is not in use.

The lever *d*, is bifurcated at its lower end, one branch being a long S-shaped or ogee arm *h'*, *h*², which operates in connection with the reverse curved slot *h*, at the upper end of lever *d*, to first quickly raise the light before the door is opened to its full length and hold the gas full on during the full movement of the door and the other pendent arm *h*³, having a rounded quick moving cam shaped edge which hangs down when the door is full open as shown in Fig. 2, and which is quickly acted upon by a pin *c*, projecting from door at or near the end of its movement when the door is closed and raise it to the position shown in Fig. 1, to act upon the lever *i*, and close the cock *k*, sufficiently to lower the light within the limit of non-extinguishment.

It is self evident that the peculiar triple armed lever herein shown as applied to a gas fixture may be used in connection with an electric light and that the automatic gas or electric light regulating appliance is applicable to vaults and vault doors, closets and other unlighted apartments.

The gas fixture *l, m, n*, is of any well known or preferred arrangement; the form shown however being preferable, and especially co-operative when the gas regulating device is applied to an oven front having a window or peep hole *s*, through which the burner may be projected and withdrawn and which may also be arranged around said opening to bring the gas regulating cock in close proximity to the sliding oven door, thus to establish a direct connection in a simple manner with the triple arm lever hereinbefore described which is actuated by the sliding door.

The form of gas fixture herein shown consists of a burner *o*, and movable arms *n, n'*, connected with each other by a joint *m'*, and the arm *n'*, connected with the fixed pipe *l*, by a joint *m*, carrying a stop-cock *P*, which latter may be used either to regulate the amount of gas turned on at the burner or to

close off the gas completely when the oven is not in use. The jointed arms admit of the burners being projected through the window opening S, of the oven wall to any required
 5 position within the aperture to properly illuminate the whole or any part of the interior of the oven when desired.

I am aware that electric lights have been turned on and off by making and breaking
 10 the circuit or connection when a door is opened or closed and I am also aware that electric gas lighting attachments have been heretofore employed for similar purposes, and that mechanical devices have been employed
 15 in various connections for raising and lowering a gas jet as with cigar lighting gas burners, and I do not broadly claim such device or devices.

The novel form of the gas cock actuating
 20 levers and their combination with a sliding door, and the peculiar arrangement of the jointed gas pipes for projecting and adjusting the burner within the compartment, the stop cock for closing off the gas completely when
 25 not in use, in connection with said jointed pipes and the pivoted lever connected with the gas cock lever and actuated by the door, comprise the devices which carry out and embody my invention.

I claim as my invention and desire to secure by Letters Patent—

1. An automatic gas regulating device for bake ovens and like purposes comprising gas fixtures projecting from the outside into the interior of a compartment; a gas cock and
 35 swinging lever secured thereto and a triple armed cam lever operated upon by a projection upon the door and actuating the gas cock through its lever, substantially as described for the purpose specified.

2. In a gas regulating device connected with a sliding door, the combination with the gas fixtures and gas cock of the lever *i*, pin *g*, and triple armed lever *d*, comprising an arm having a slot *h*, the ogee arm *h'*, *h*², and the cam
 45 faced arm *h*³ pivoted to the door frame, and the sliding door having a pin or projection *c*, for actuating said levers and regulating cock, substantially as described.

In testimony that I claim the foregoing as
 50 my invention I have signed my name in presence of two subscribing witnesses.

AUGUST STEPHAN.

Witnesses:

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 CARL FR. REICHELT.