

No. 622.894.

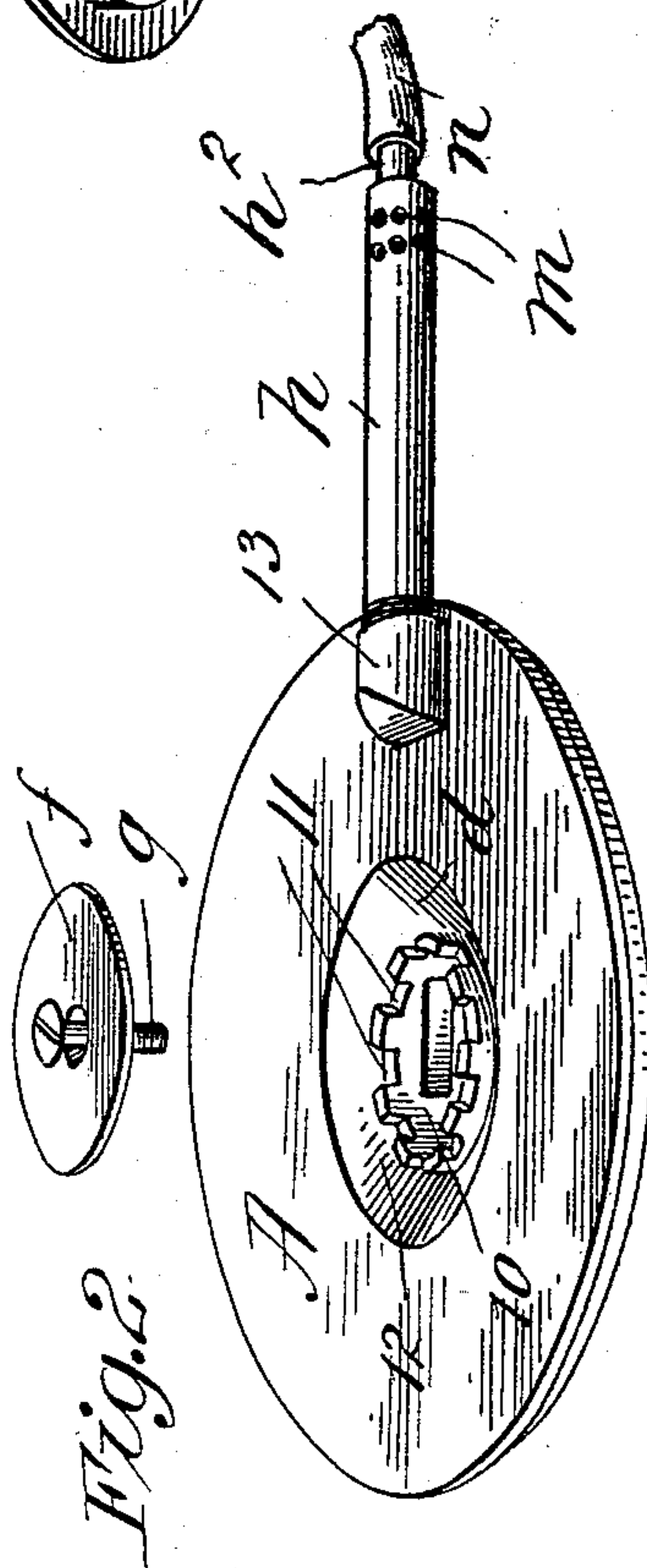
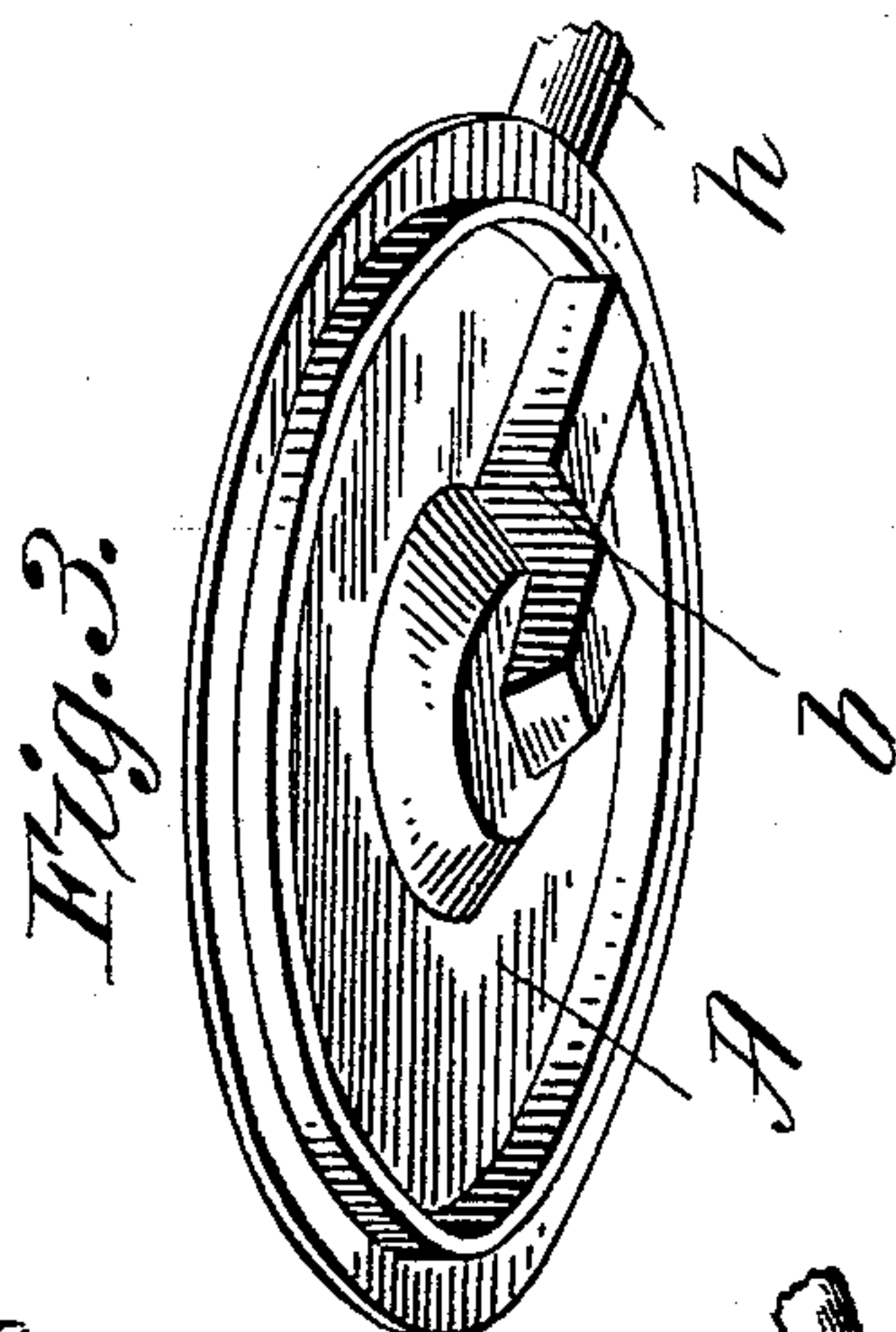
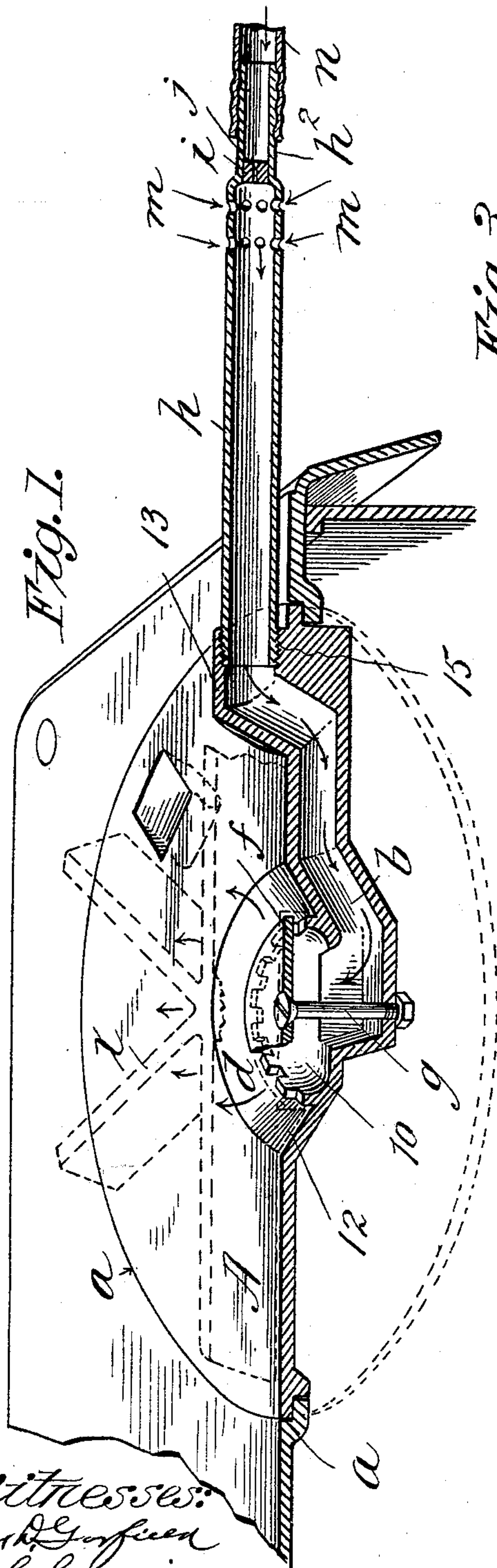
Patented Apr. 11, 1899.

A. GRIFFITH.

COMBINED STOVE COVER AND GAS BURNER.

(Application filed Mar. 23, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

AMENZO GRIFFITH, OF SPRINGFIELD, MASSACHUSETTS.

COMBINED STOVE-COVER AND GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 622,894, dated April 11, 1899.

Application filed March 23, 1898. Serial No. 674,950. (No model.)

To all whom it may concern:

Be it known that I, AMENZO GRIFFITH, a citizen of the United States of America, and a resident of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in a Combined Stove-Cover and Gas-Burner, of which the following is a full, clear, and exact description.

10 This invention relates to an improved gas-burning appliance for an ordinary cook stove or range, the object being to provide a cover, which is adapted to serve as one of the covers for a stove-hole or to be substituted for
15 one of the stove-hole covers, with a burner having a passage communicating therewith for the introduction of a combustible gas or of admixed gas and air for combustion directly at the cover, and all in a simple and
20 inexpensive manner and also in a manner so as not to obstruct or interfere with the stove for its ordinary coal or wood burning capabilities or to be itself interfered with by the provisions in the stove whereby it is adaptable for the ordinary use.

25 The invention consists in the combination, with a stove-top having an opening therein, as usual, of a plate or cover to fit in said opening and constructed with a burner having a
30 passage for conveying gas thereto.

The invention consists in a combined stove-cover and burner constructed substantially as hereinafter described, and set forth in the claims.

35 The invention, furthermore, consists in the construction and formation of parts to constitute an approved form of the stove-cover burner, all substantially as will hereinafter fully appear, and be set forth in the claims.

40 Reference is to be had to the accompanying drawings, in which—

Figure 1 is a central section and perspective view of a top portion of a cook stove or range and the cover-burner as provided for
45 covering the usual stove-hole thereof. Fig. 2 is a perspective view, as seen from above, of the burner-cover, parts thereof being shown as separated for clearer illustration of the structural composition thereof. Fig. 3 is a
50 perspective view of the burner-cover as seen from below.

In the drawings similar characters of ref-

erence indicate the same parts or features in all the views.

A represents a cover or lid to fit in one of 55 the usual holes in the top of a stove, said cover being constructed with a cup-shaped depression 10 below its top, having through its side wall, at or near its upper edge, a series of radial outwardly-opening gas-openings 11 11, 60 with passage *b* leading radially to the lower portion of the depression-chamber from at or beyond the edge of the cover, said cover proper, the circular wall surrounding the depression 10, and that surrounding or within 65 which is the said passage *b* being all integrally formed in a single casting, and the casting is, furthermore, constructed with the comparatively deep annular groove or trough *d* outside the circular wall of the chamber depression 10, the outer wall of which trough is upwardly and outwardly flaring, as shown at 12.

The chamber depression 12 is overlaid by the circular plate *f*, which constitutes the top 75 of the burner-chamber, the screw *g* holding it in place.

The integrally-cast wall of the passage *b* is comprised in a portion 13 of the casting above and near the margin of the cover A, the inwardly-leading passage therethrough being thence continued obliquely downward to a point below the under side of the cover, thence continued more or less nearly horizontally and connecting with the depression- 85 chamber 10 upwardly through the bottom thereof.

The protuberance 13 of the casting at the cover margin has the opening 15 therein screw-threaded, receiving the pipe-section *h*, 90 the outer end of which has the contracted extension *h*², provided with the closely-fitted metallic plug *i*, having the axial needle-hole *j* therethrough for the admission from the gas-supply of a suitable restricted quantity of the 95 gas into the burner ingress-passage. In advance of the centrally-perforated plug *i* the pipe-section has a double series of radially-entering air-ingress holes *m m*. To the contracted outer end of the said pipe-section *h* 100 connection is made with a flexible or other gas-supply pipe *n*, which may convey the gas to the burner-cover from a gas-fixture or any suitable gas-supply.

The gas entering, in conjunction with atmospheric air, into the burner-chamber 10 thence passes outwardly through the radial openings surrounding the burner-top and
 5 burns in an annular body in and above the surrounding trough or groove *d*, formed in the cover, the upwardly-flaring outer wall thereof upwardly deflecting the flame, whereby it may impinge against a kettle, pan, or
 10 whatever may be supported thereover to be heated, and in order that the free combustion of the gaseous fuel may not be obstructed the article or receptacle to be heated is supported above the top surface of the cover
 15 upon the spider-frame, (indicated at *x*,) which may be of cast-iron separately made and placed on the cover or it may be cast as an integral portion of the burner-cover.

It will be perceived on consideration of the
 20 cover-burner described that its cost beyond an ordinary stove-cover is not extensive, that it is applicable upon the common cook-stove without any adaptation or modification of the latter being required, that it can be employed
 25 as a supplement to the heating provisions constituted by the coal or wood being burned in the stove or in substitution thereof, and that its use is entirely safe, economical, and, as demonstration has proved, satisfactory and
 30 efficient in expeditiously acquiring an ample heat.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

35 1. An imperforate stove-hole cover constructed with a depression in its upper surface, such depression containing a burner-chamber having openings leading to the top of the cover, and a conduit formed as a part
 40 of the cover leading into such burner-chamber, substantially as described.

2. A combined stove-cover and burner constructed with a central depression-chamber, completely separated from the under side of
 45 the cover having a top wall, and outwardly-opening passages, and with an annular upwardly-opening depression surrounding the depression-chamber, and having a passage for supplying gas leading into said chamber, substantially as described.
 50

3. A combined stove-cover and burner constructed with a central depression-chamber 10, entirely closed at its bottom, having a top wall, and a series of outwardly-opening passages; and with an annular trough or groove
 55 in the top of the cover surrounding the depression-chamber, and into which said passages lead, the outer wall of which is outwardly and upwardly flaring; and a passage
 60 for conveying gas into said chamber, substantially as described.

4. A combined stove-cover and burner constructed with a chamber within its margin, which is entirely closed at its bottom, provided with a series of burner-openings leading
 65 outwardly therefrom and with a protuberance at a marginal portion of the cover

having an opening leading therein to which is continued in a passage leading inwardly below the cover to communication into the bottom
 70 of said chamber, and a gas-supplying-pipe connection connecting with said marginal opening, substantially as described.

5. The combined stove-cover and burner shown and described, the same consisting of
 75 the central depression-chamber 10, entirely closed at its bottom, having at its top the series of sidewise burner-openings, and with the surrounding annular trough depression in the top of the cover, the outer wall of which is
 80 outwardly and upwardly flaring; and to which said sidewise openings lead, provided with marginal protuberance, 13, having the threaded opening which is continued within the passage-surrounding wall to communication with
 85 the said chamber, all integrally cast; the burner top plate *f*, the pipe-section *h* screwing into the opening in said marginal protuberance, having the outer contracted portion provided therein with the plug *i* having
 90 the minute opening *j* therethrough, and said pipe-section having one or more air-entering openings *m* in advance of said plug, for the purposes set forth.

6. A combined stove-cover and burner constructed with a burner-chamber below the
 95 cover-top which is completely inclosed at its under side and having a top wall, with an annular upwardly-opening depression surrounding said burner-top and having outwardly-opening passages leading through the
 100 top portion of the burner to said depression, a passage for supplying gas leading into said chamber and a frame or spider *x* provided for the top of the cover-burner, substantially as
 105 described.

7. As a new article of manufacture, an imperforate stove-cover having a depression containing a burner-chamber, having openings leading to the top of said stove-cover,
 110 and a conduit, formed as an integral part of the said cover, for conveying combustible gas from the outside of the cover into the burner-chamber, combined with a pipe connected to said conduit and which is perforated at its
 115 outer end, and to which a flexible tube for conducting the gas is attached, substantially as specified.

8. As a new article of manufacture, an imperforate stove-hole cover having a depression
 120 in its top, and in which the burner chamber or recess is located, and a gas-conduit leading from the margin of said cover to the chamber, and which is formed as an integral part of the cover, and which conduit has a contracted
 125 passage and air opening or openings in advance thereof, the chamber having burner-openings leading outwardly therefrom to the top of the cover, substantially as set forth.

9. An imperforate stove-hole cover having
 130 a depression in its top, and in which the burner-chamber is located, the top wall or cover of which chamber is placed upon the same plane as the top of the stove-hole cover,

said burner having a series of openings leading from said chamber to the top of the cover, and a conduit connected with said burner-chamber for conveying combustible gas there-into, and which conduit forms a part of the cover, substantially as set forth.

10. An imperforate stove-hole cover provided with a depression in its top, and in which depression the burner-chamber is located, and which top is placed upon the same plane as that of the stove-cover, and forms a separate part thereof, the burner-chamber having openings leading to the top of the

cover, and a conduit for conveying combustible gas into said burner-chamber, said conduit forming a part of the cover, combined with a pipe connected to the conduit and through which the gas is introduced, and which pipe forms a handle for the cover, substantially as set forth.

Signed by me, at Springfield, Massachusetts, this 17th day of March, 1898.

AMENZO GRIFFITH.

Witnesses:

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F. C. CARRIGAN.