

(No Model.)

H. H. HEISE & J. H. KAUFFMAN.

STEAM GENERATOR FOR COOKING FEED, &c.

No. 246,767.

Patented Sept. 6, 1881.

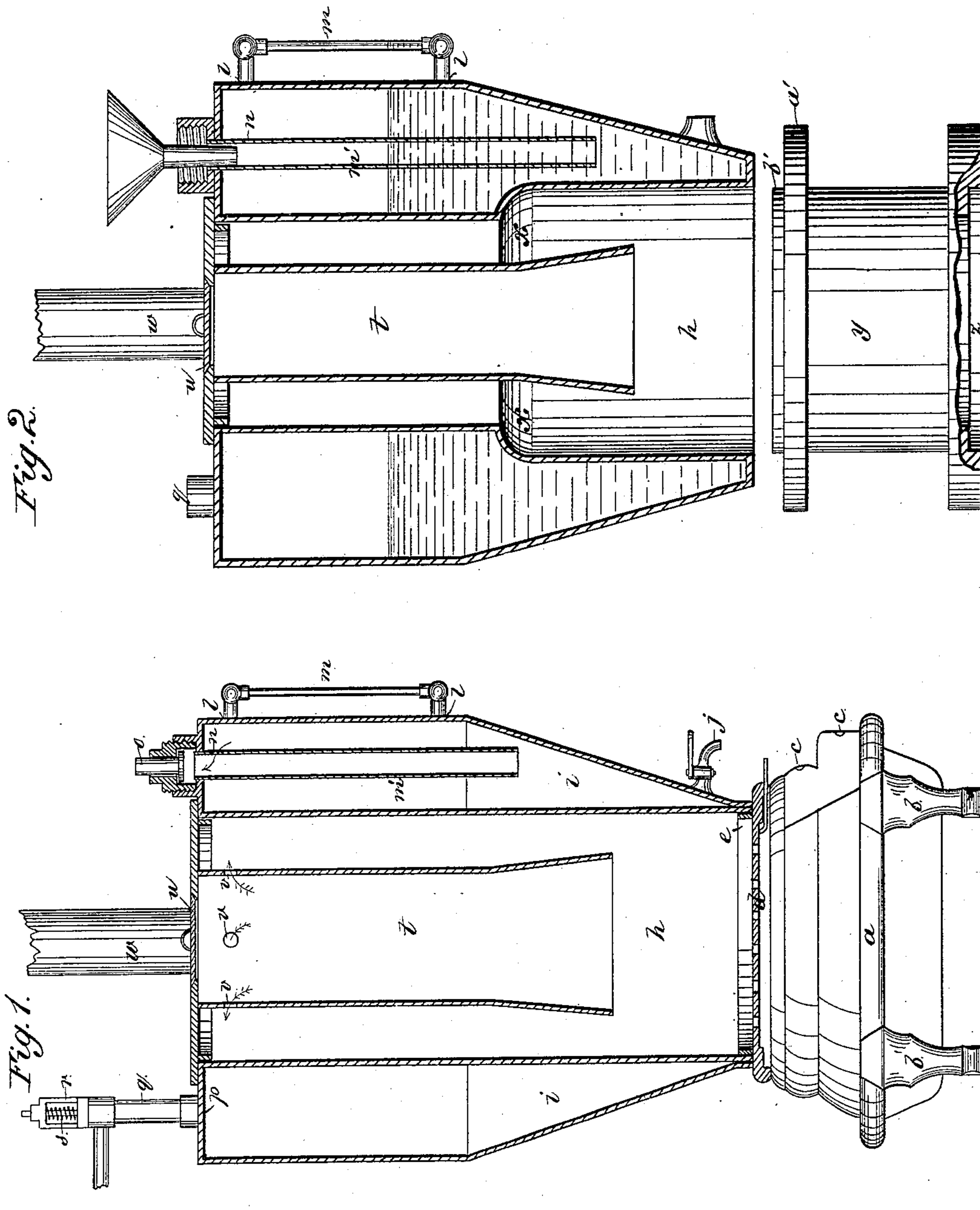


Fig. 1.

Fig. 2.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

HENRY H. HEISE AND JOHN H. KAUFFMAN, OF COLUMBIA, PA.

## STEAM-GENERATOR FOR COOKING FEED, &c.

SPECIFICATION forming part of Letters Patent No. 246,767, dated September 6, 1881.

Application filed June 6, 1881. (No model.)

*To all whom it may concern:*

Be it known that we, HENRY H. HEISE and JOHN H. KAUFFMAN, of Columbia, in the county of Lancaster and State of Pennsylvania, have  
5 invented a new and useful Improvement in Steam-Generators for Cooking Feed, &c.; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings,  
10 forming part of this specification, in which—

Figures 1 and 2 represent vertical sections of our improved steamer.

Our invention relates to improvements in steam-generators for sweating tobacco, cooking  
15 feed, washing clothes, &c.; and it consists in the peculiar construction and arrangement of the parts, as hereinafter more fully set forth.

In the accompanying drawings, *a* represents the base of our improved steamer, which is  
20 constructed like an ordinary stove-base, supported by legs *b*, and provided with draft-openings *c*, a dumping and shaking grate, *d*, and an upwardly-projecting circular flange, *e*.

*h* represents a cylindrical fire box, surrounded by a water jacket or boiler, *i*, closed at its  
25 ends, and made cylindrical at its upper and conical at its lower end, and held in place on the base *a* by means of its own weight and the circular rim or flange *e*. An orifice is made in  
30 the lower conical end of the boiler for drawing off water through an ordinary spigot, *j*, inserted in said orifice.

*l l* are orifices made in the upper cylindrical part of the boiler *i* for the reception of a glass  
35 water-gage, *m*, attached to the boiler at the orifices *l l*.

*m'* represents a feed-pipe for the purpose of supplying water to the boiler, made open at both ends and inserted in an orifice in the top  
40 of the boiler. The feed-water pipe *m'* is provided with a small opening, *n*, on one side, near the top of the boiler, to allow steam to enter said pipe and raise or close a vacuum-valve, *o*, inserted in the upper end of the water-feed-  
45 ing pipe.

*p* represents a screw-threaded orifice in the top of the boiler, into which is screwed the steam-pipe *q*, provided with a safety-valve, *r*,  
50 at its upper end, having a spring, *s*, bearing on its upper face.

*t* represents the cylindrical fuel-magazine, of the usual construction, suspended in the center of the fire-pot, and into which the fuel is poured.

*u* represents the cover of the magazine, and  
55 *v* a hole in the magazine for the escape of gas. *w* is the pipe for the escape of smoke and products of combustion.

By this construction it will be seen that water introduced into the boiler through the  
60 feed-water pipe will be rapidly heated, and the steam generated will pass out through the steam-pipe, to be applied to the cooking of feed or the washing of clothes or other suitable purposes, the safety-valve relieving the pressure  
65 of steam in the boiler when the pressure is too great, and the vacuum-valve preventing the collapsing of the boiler when condensation of steam arises on the introduction of water into  
70 the boiler, thereby producing a partial vacuum, causing the opening of the vacuum-valve and the introduction of air into the boiler.

In Fig. 2 we have represented the fire-box  
75 *h*, enlarged at its lower end, with an arched top, *x*, for the enlarged part, whereby an enlarged heating-surface and greater boiler capacity are attained over the construction shown in Fig. 1.

For the purpose of increasing materially the heat radiated by the steamer for heating a tobacco-warehouse and at the same time "sweating" tobacco, we employ a lengthening cylinder, *y*, provided with a circular recess, *z*, in its  
80 base, adapted to receive the rim or flange *e* and hold the cylinder in place on the base *a*. The upper end of the cylinder *y* is provided with a horizontal flange, *a'*, on which the lower  
85 end of the boiler and fire-pot rest, and a vertical rim or flange, *b'*, by means of which the boiler and fire-pot are held in place.

What we claim as our invention is—

The combination, with the base *a*, provided with draft-openings *c*, a shaking and dumping grate, *d*, and rim *e*, of the cylinder *y*, provided with the circular recess *z*, and flanges *a' b'*,  
95 fire-box *h*, having deflecting-arch *x*, magazine *t*, glass water-gage *m*, feed-pipe *m'*, having opening *n*, vacuum-valve *o*, arranged in the feed-pipe, and steam-pipe *q*, having safety-valve *r*, substantially as described, and for the  
100 purpose set forth.

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Witnesses:

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