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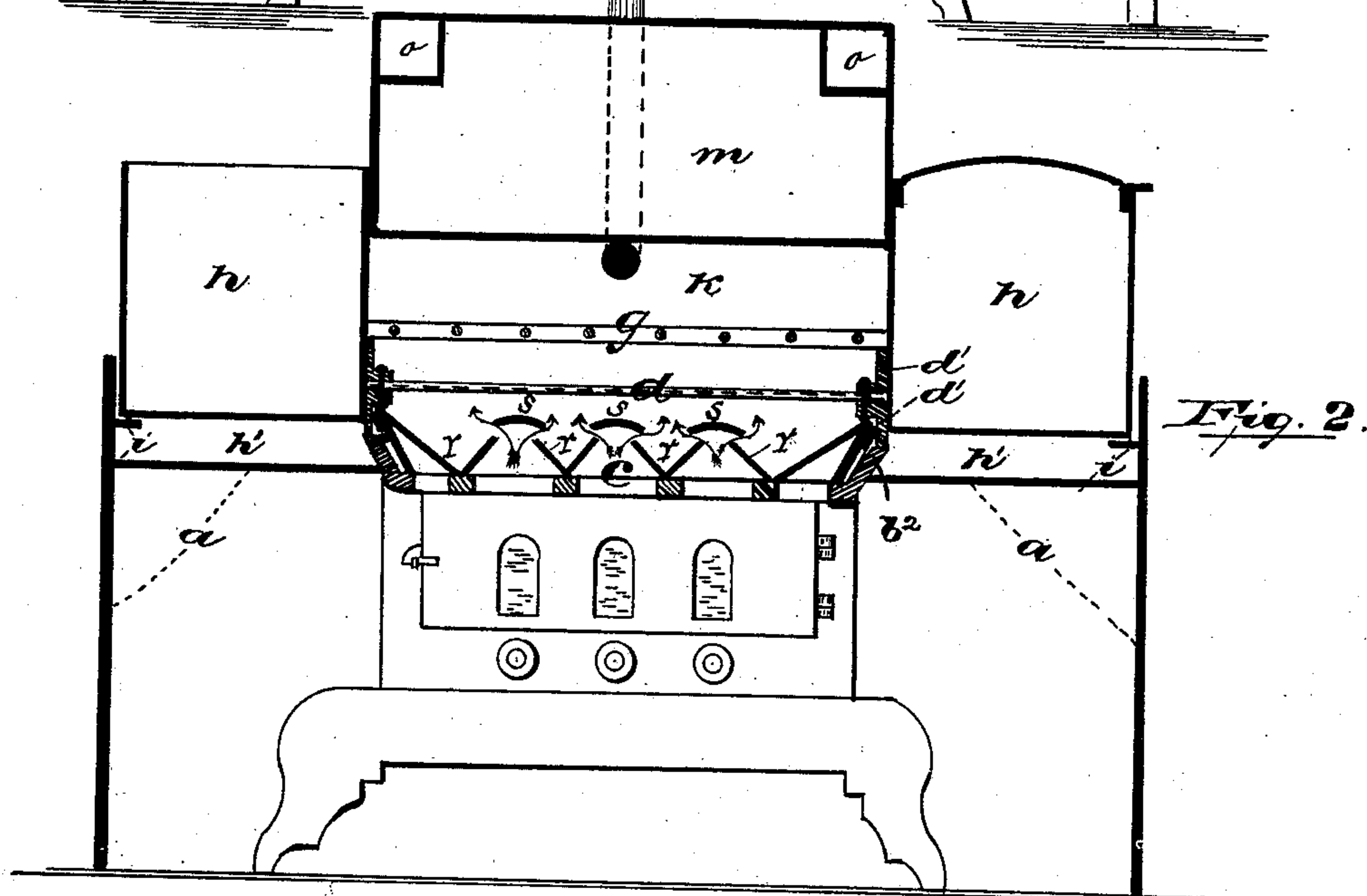
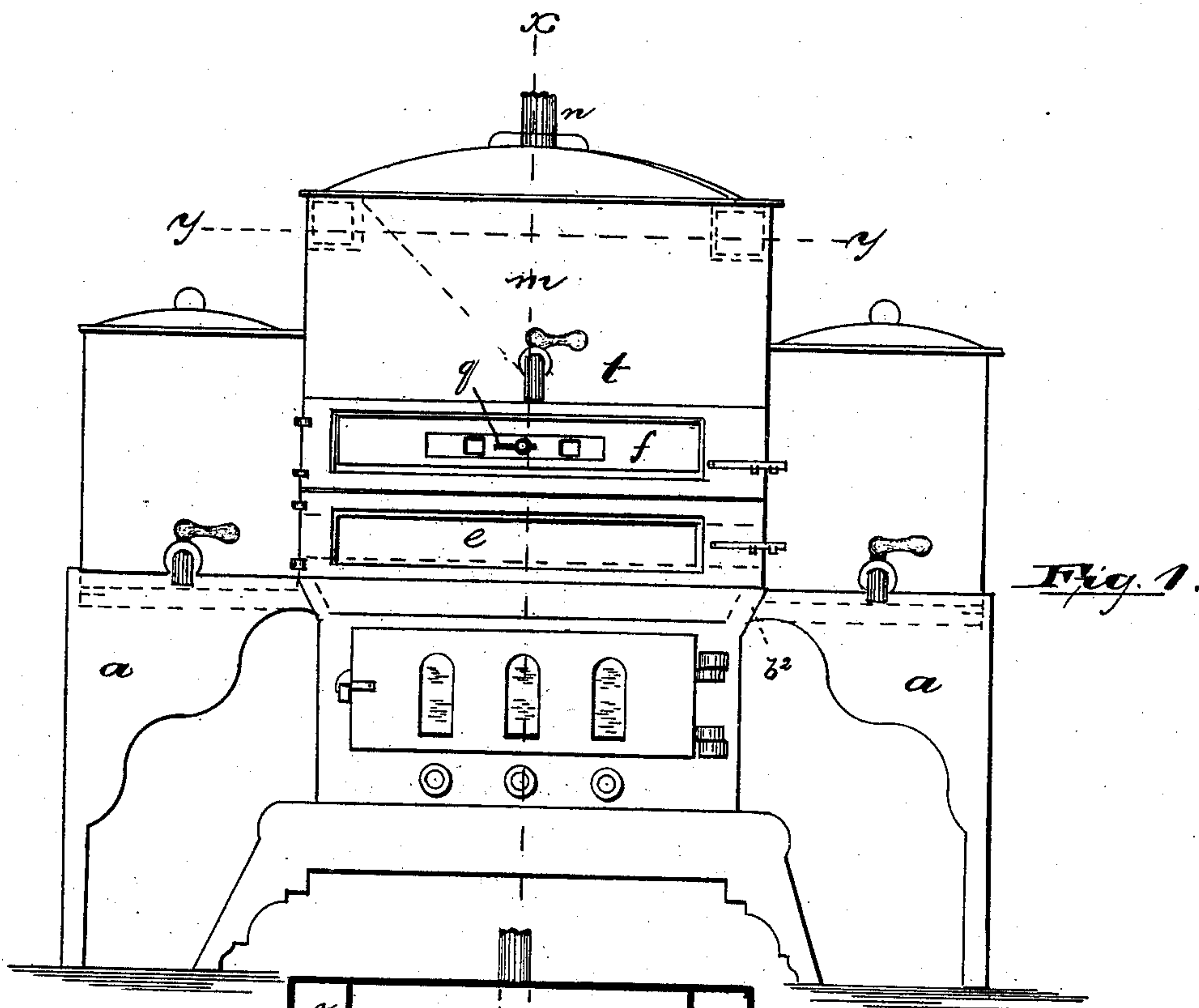
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S. ARMSTRONG.

OIL STOVE.

No. 351,682.

Patented Oct. 26, 1886.



Attest:

Inventor

Ed. M. Nulty.  
Wm. H. Campbell

Samuel Armstrong,  
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(No Model.)

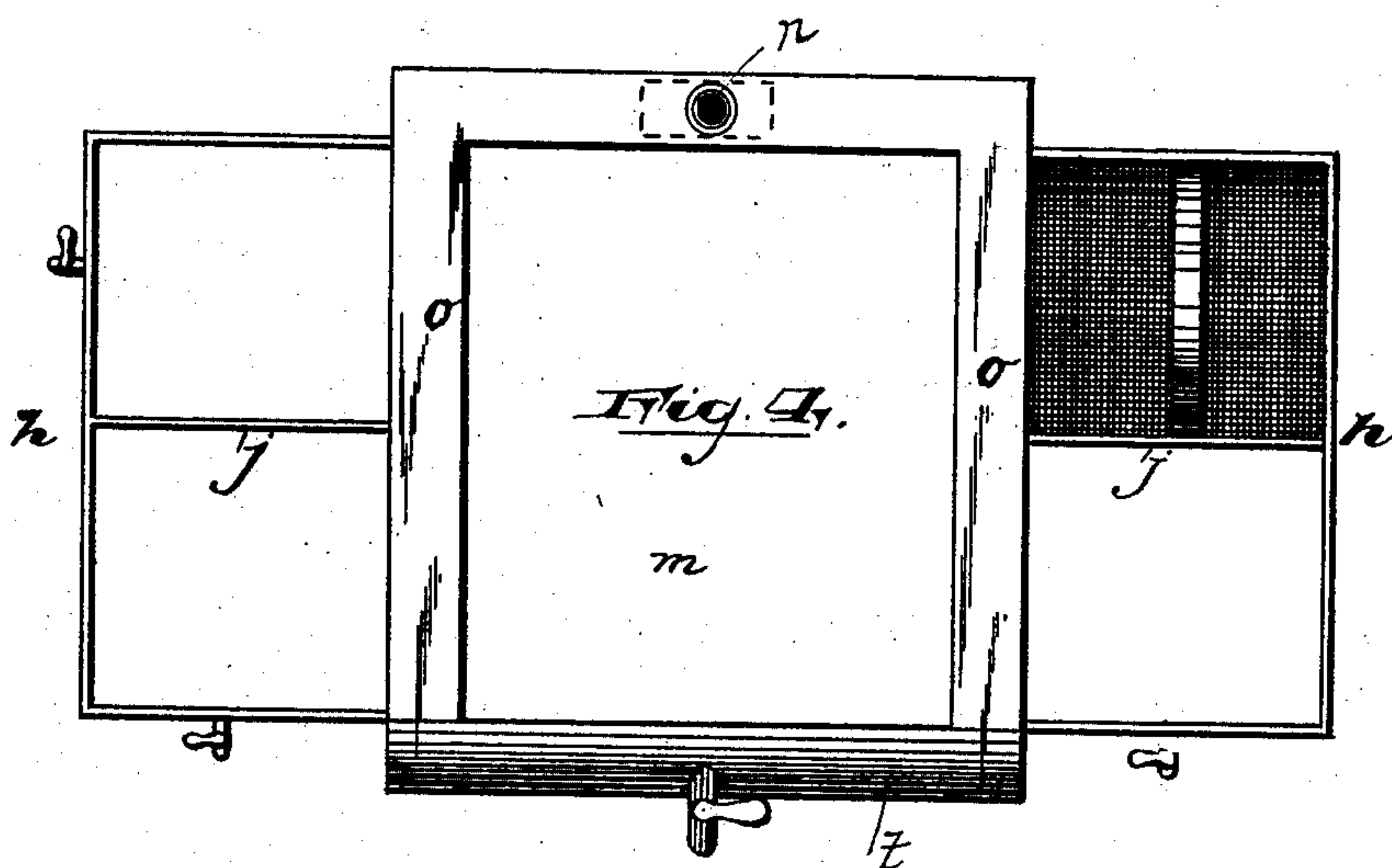
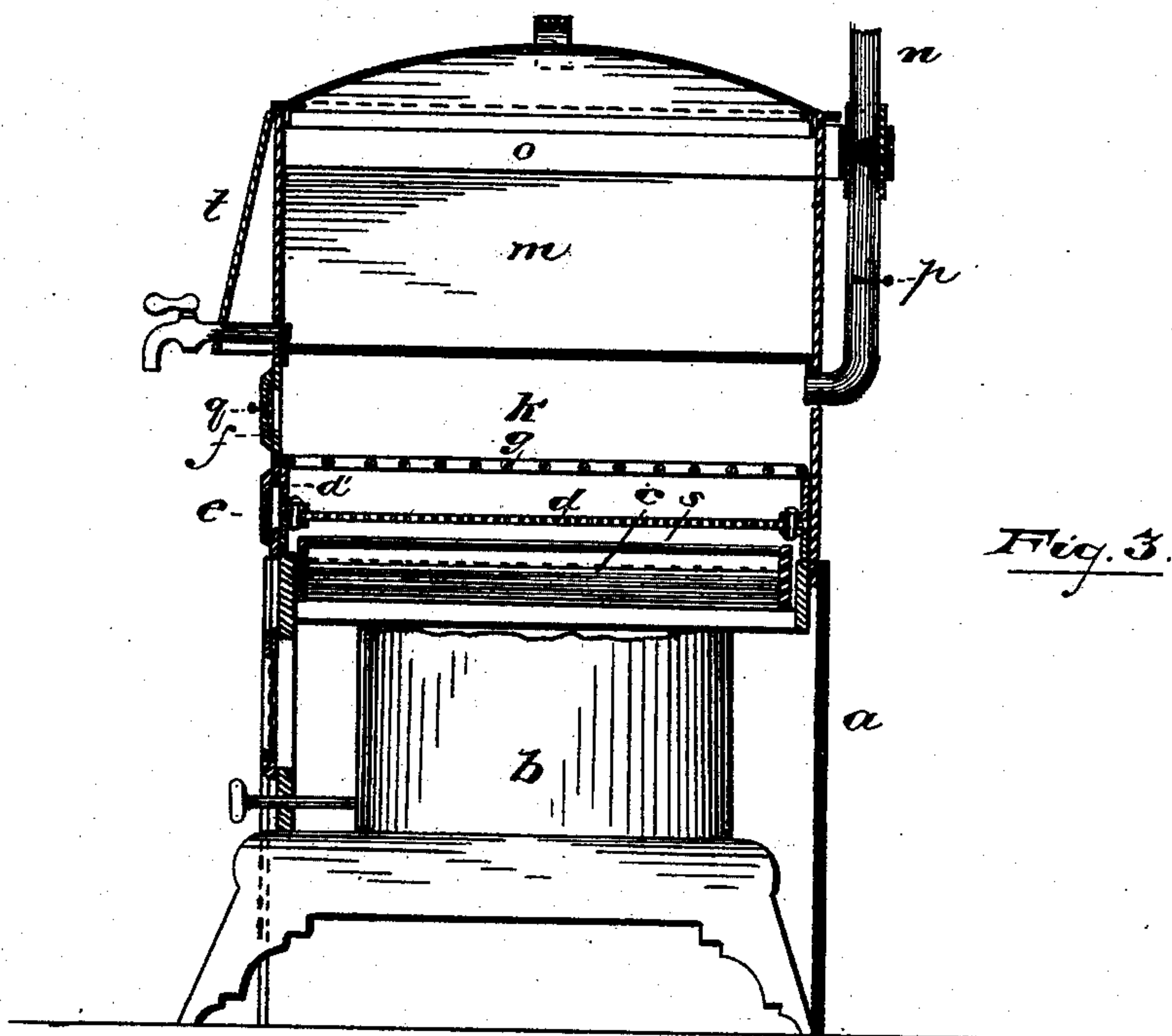
S. ARMSTRONG.

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OIL STOVE.

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WITNESSES:

INVENTOR:

*Frank F. Campbell*  
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(No Model.)

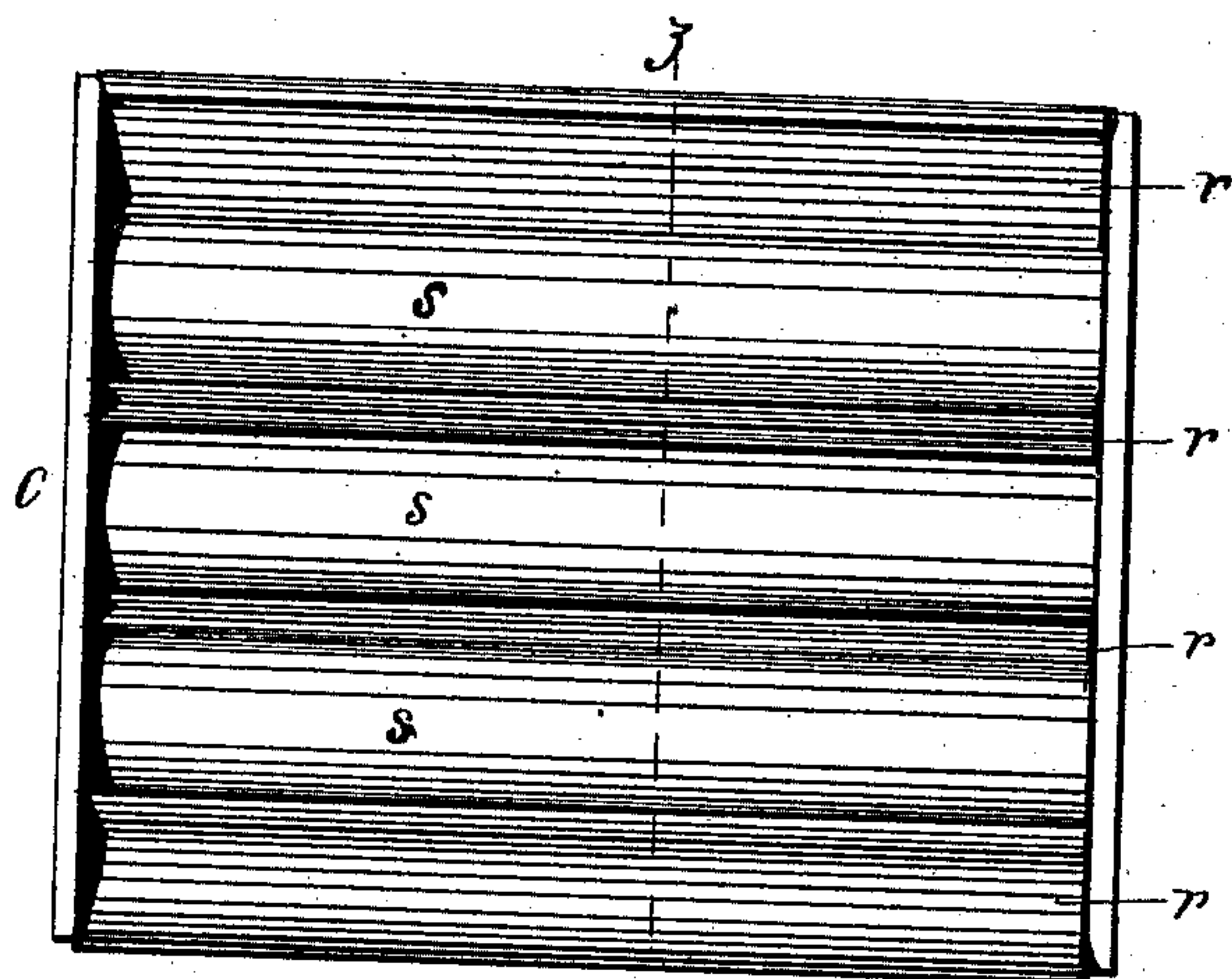
S. ARMSTRONG.

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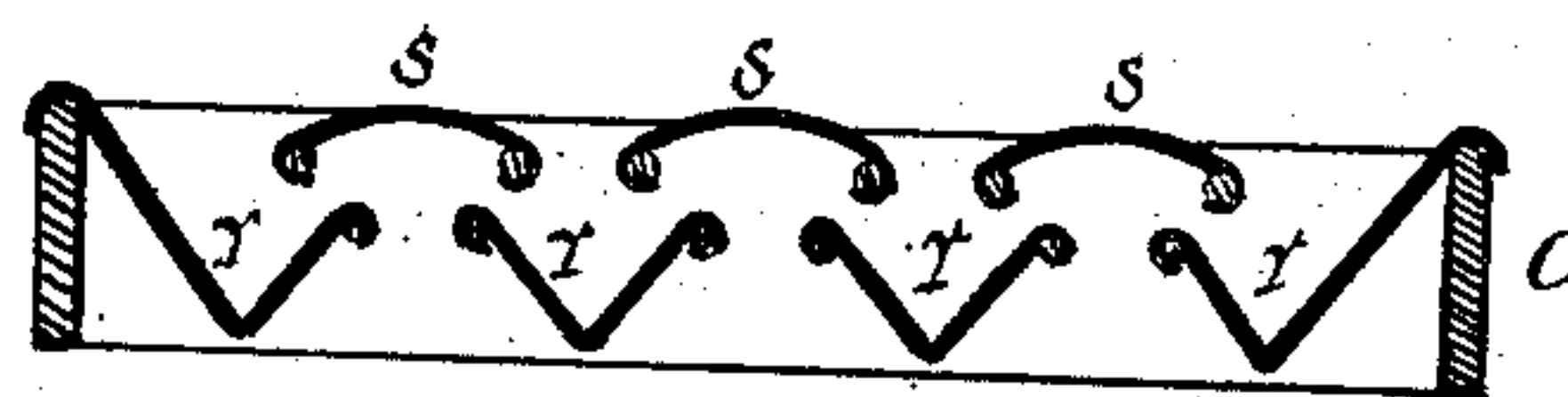
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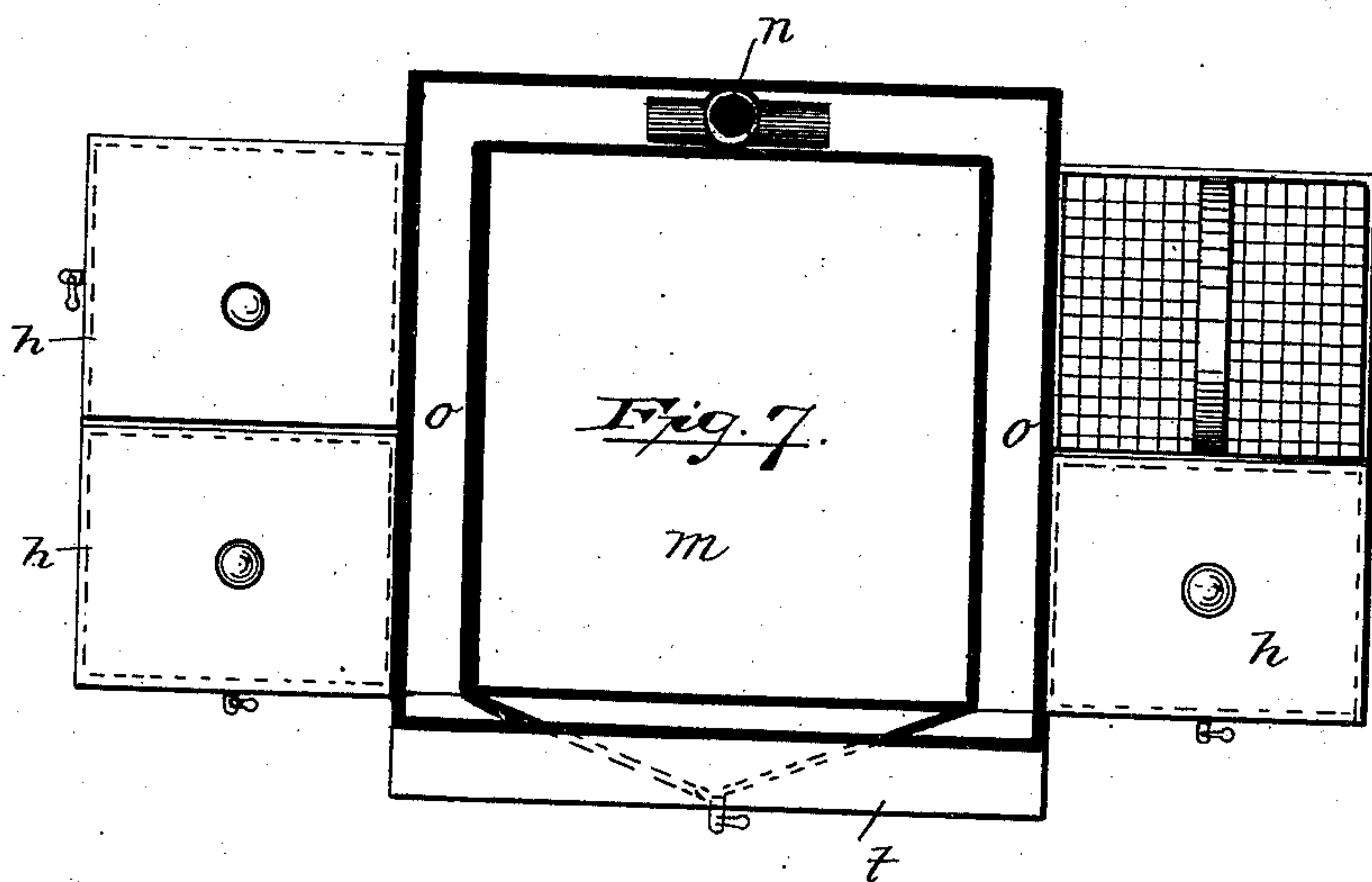
Patented Oct. 26, 1886.



*Fig. 5.*



*Fig. 6.*



*Attest:*

*Andk. F. Campbell.*  
*B. Q. McHally*

*Inventor:*

*Samuel Armstrong,*  
*by Drake & Co.*  
*attys*



# UNITED STATES PATENT OFFICE.

SAMUEL ARMSTRONG, OF NEWARK, NEW JERSEY, ASSIGNOR OF ONE-HALF  
TO JOHN STANARD, OF SAME PLACE.

## OIL-STOVE.

SPECIFICATION forming part of Letters Patent No. 351,682, dated October 26, 1886.

Application filed July 13, 1885. Serial No. 171,497. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL ARMSTRONG, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Oil-Stoves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to secure, in cooking, all the advantages arising from the use of oil and oil-stoves, and yet to obviate certain objectionable features which have materially interfered with such use in certain kinds of cooking.

Heretofore in using oil-stoves in toasting bread, broiling meats, and in other forms or processes of cooking where the flame from the wick came into intimate contact with the food, the peculiar smoke from the flame so affected the food as to render it unpalatable. In my improvements the flame is caused to pass through a layer or stratum of burning coals or other matter, so that the smoke of the oil is burned before it comes in contact with the food.

The invention consists in the peculiar arrangements and combinations of parts, substantially as will be hereinafter set forth, and finally embodied in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the figures of the three sheets of drawings, Figure 1, Sheet 1, is a front elevation of the improved stove. Fig. 2 is a longitudinal and vertical section of the same, taken at right angles to line *x*, the portion of the stove containing the wicks, wick-operating mechanisms, and the oil-receptacles not being in section, inasmuch as this portion of the stove is of any ordinary construction. Fig. 3, Sheet 2, is a vertical cross-section taken through line *x*. Fig. 4 is a plan of the device. Fig. 5, Sheet 3, is a detail plan of an ash-receiver. Fig. 6 is a sectional view of the same, through line *z*; and Fig. 7 is a section of the stove, taken through line *y*.

In said drawings, *a* indicates a suitable frame, which at the top may resemble a pan,

the center of the bottom of which may be open or cut away to afford an opening for the passage of the flame, said bottom being more or less elevated above the points of support to allow the lamp *b* to be placed in position.

The lamp *b*, which may be of any suitable construction, is arranged so that it may be easily attached to or disconnected from the frame, the upper portion of said lamp being preferably provided with projecting tongues or cleats, which slide into or upon the frame, as at *b*<sup>2</sup>. Within said pan-like portion is arranged, over the opening in the bottom thereof, a removable ash receiver, *c*, of peculiar construction, adapted to prevent the passage of ashes or other matter down to the lamp, but to allow the flame of the lamp to pass therethrough. The construction preferred to secure this result is shown in Figs. 2, 5, and 6, in which *r r* indicate a series of narrow pan-like bars, which are arranged a little apart from one another, allowing a passage for the flame between. Above these flame-passages are arranged guards or shields *s*, which tend to guide the ashes to the receivers and to prevent said ashes from falling through the openings to the lamp.

Above the ash-receiver, and preferably supported thereby, is a receptacle, *d*, for charcoal, coke, or similar material, which consists of a perforated plate or wire netting, held at the edges by flanged frames *d' d'*, the flange of the upper frame serving to hold the coal upon the netting, while the under flange may serve to hold the said receptacle *d* in place over the ash-receiver or in the frame *a*. The charcoal and ash receptacles are adapted to be easily removed from the stove through the doorway of the door *e*.

Over the charcoal-pan is arranged a grid-iron, *g*, which rests upon the said pan in any suitable manner. This is used more particularly in broiling meats; but when I desire to do other cooking I may, in lieu thereof, employ other utensils, such as stewing or frying pans or toasting devices.

Upon the frame *a* is arranged a series or collection of cooking utensils, which are connected together so as to be easily removed therefrom at one time. Of this collection the side utensils, *h h*, rest upon the frame at the sides of the lamp, spaces *h' h'* being preferably formed between the bottom of the pan-like



portion of the frame and the bottom of the said side utensils to retain the air that becomes heated therein by conduction or otherwise.

5 Cleats or supports *i* may be employed to hold said utensils in place. Said side utensils may be subdivided by partitions *j j*, Fig. 4, to enable a larger variety of meats, vegetables, &c., to be cooked or kept warm at one  
10 time. The several utensils of the group may be provided with faucets to allow liquids therein to be drawn off without tipping the said utensils.

Between the side utensils is formed or arranged a central utensil or receptacle, *m*, to be  
15 employed more particularly in heating water. This is raised considerably above the level of the side utensils and above the charcoal-pan, to allow access of heat to said side receptacles  
20 and to form a chamber for toasting or broiling the bread or meat over the coals in the charcoal-pan. Said chamber is provided with a pipe or flue, *n*, which leads the smoke, &c., to the open air. This pipe removes the smell of  
25 the broiling meat, thus preventing it from tainting the air of the room or apartment in which the stove is situated.

To prevent the smoke from passing into the room when the door *f*, for allowing the insertion and withdrawal of the meat, &c., is open,  
30 I form a projecting curtain or hood, *t*, connected with the middle vessel, *m*, at or near its top, Figs. 1 and 3. This hood *t* forms, in connection with the front wall of the vessel *m*,  
35 a chamber open at its lower end, just above the door *f*. The upper part of the chamber communicates with the pipe *n* through a flue or flues, *o*. Smoke passing through the doorway of the door *f* is drawn by the draft of  
40 the chimney up behind the hood and in front of the receptacle *m*, passing at each side of the faucet, connecting with the said receptacle before it can commingle with the air of the room. This hood and flue *o* may also be  
45 utilized in changing the direction of draft in the fire-chamber, so that, if found desirable, the charcoal at the front of the charcoal-pan will be more thoroughly ignited. This may be  
50 effected by closing the damper *p* in the chimney or pipe *n* below the entrance of the flue thereto and opening the dampers *q* in the front door, *f*, the smoke being thus caused to pass out through the damper-openings and up behind the hood, as before.

55 In operating the invention, the parts being in their respective positions, the charcoal-pan or receptacle is filled with coal, charcoal, coke, or other suitably-inflammable material or materials, a mixture of broken coke and  
60 charcoal being preferred. The lamp is filled with oil and the wick ignited. The flame from the wick in turn ignites the charcoal or similar material. In the passage of the flame of the oil-lamp or the products of combustion therefrom through the burning coals, the  
65 peculiar characteristics of the same are lost, so that in cooking the meat by broiling or in

toasting bread the effect of the oil will not tend to render the food objectionable in taste.

Having thus described the invention, what  
I claim as new is—

1. The combination, with a frame having a chamber, of a lamp therein, a passage for the products of combustion from the lamp, and a perforated receptacle for charcoal or similar material located in such passage, the walls  
75 of said passage having an opening beyond the charcoal-receptacle to afford access thereto of a cooking utensil, substantially as described.

2. The combination, with a stove-frame, of a lamp, walls forming a passage for the products of combustion, an ash-receptacle located above the lamp, and provided with passages therethrough for the flame or heat, a perforated receptacle for charcoal above the ash-receptacle, and a chamber formed by the walls  
85 of the passage for the reception of a cooking utensil, as set forth.

3. The combination, with the main frame  
90 of the stove having an opening in its top, and provided with supports for cooking utensils, of a lamp located in or beneath said opening, an ash-receptacle provided with passages therethrough for the flame or heat arranged above the lamp, and a perforated receptacle for charcoal above the ash-receptacle,  
95 substantially as described.

4. In combination, an oil-lamp, a frame, walls forming a chamber, *K*, provided with  
100 an opening for the insertion of the food-receptacle, and a flue for the passage of the products of combustion, a hood or curtain connected with the wall forming the chamber *k*, and projecting over the opening through  
105 which the food-receptacle is passed, the said hood or curtain forming, in connection with the said wall, a chamber, and a flue or flues connecting said chamber and the main exit-flue, substantially as described.

5. The combination, with an oil-stove provided with a charcoal-receptacle, of the ash-receptacle arranged below said charcoal-receptacle, both of said receptacles being above  
110 the oil-burner of said stove, the ash-receptacle consisting of a series of pan-like bars arranged apart, and shields or fenders arranged over the spaces between said bars, substantially as and for the purpose set forth.

6. The herein-described improvement in  
120 the process of cooking, consisting in interposing between the flame or source of heat and the substance to be cooked a layer of inflammable material to burn out or absorb odoriferous products of combustion arising from  
125 the flame, as herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 2d day of May, 1885.

SAMUEL ARMSTRONG.

Witnesses:

CHARLES H. PELL,  
OSCAR A. MICHEL.