W. M. ROEDER.

HOT AIR MOISTENER AND DEFLECTOR.

APPLICATION FILED MAR. 22, 1909.

928,703. Patented July 20, 1909.

Fig. 1.

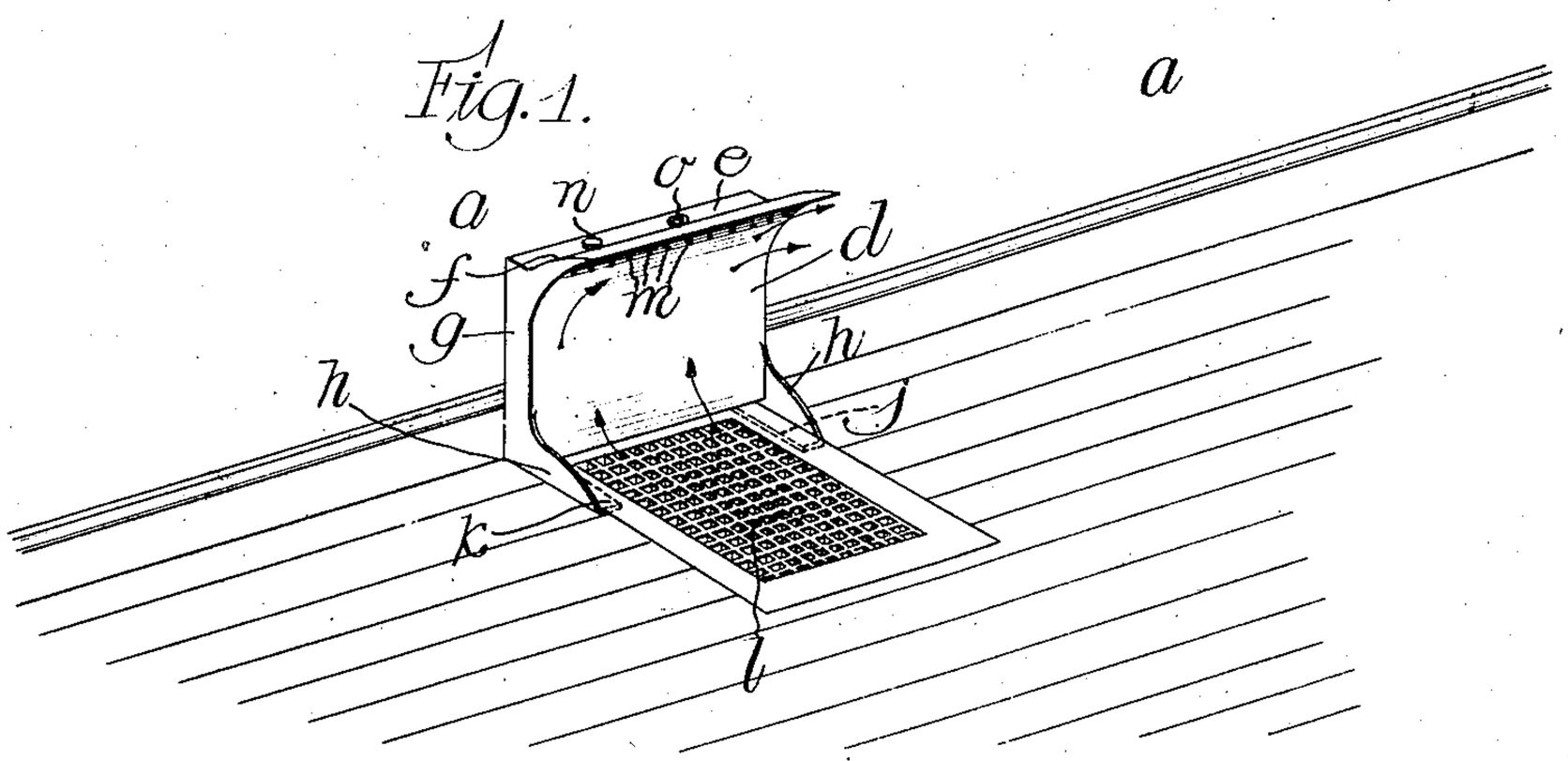


Fig. 3.

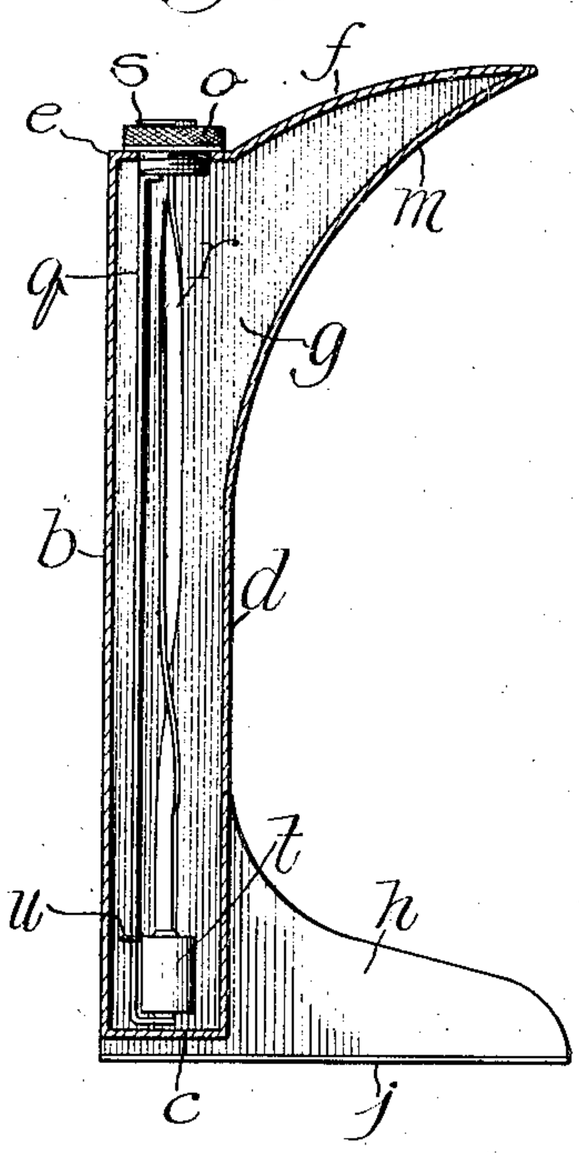


Fig. 2.

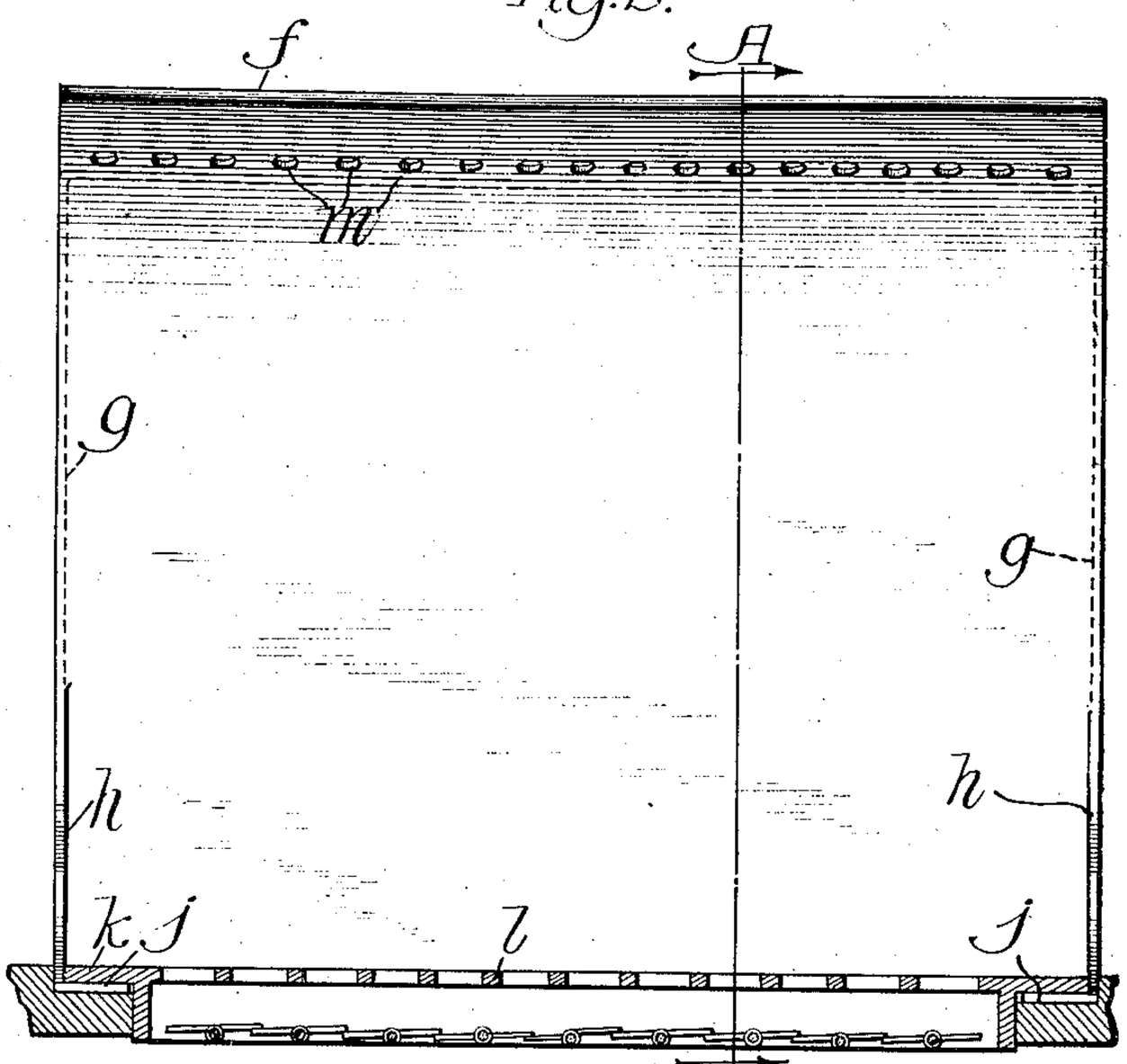
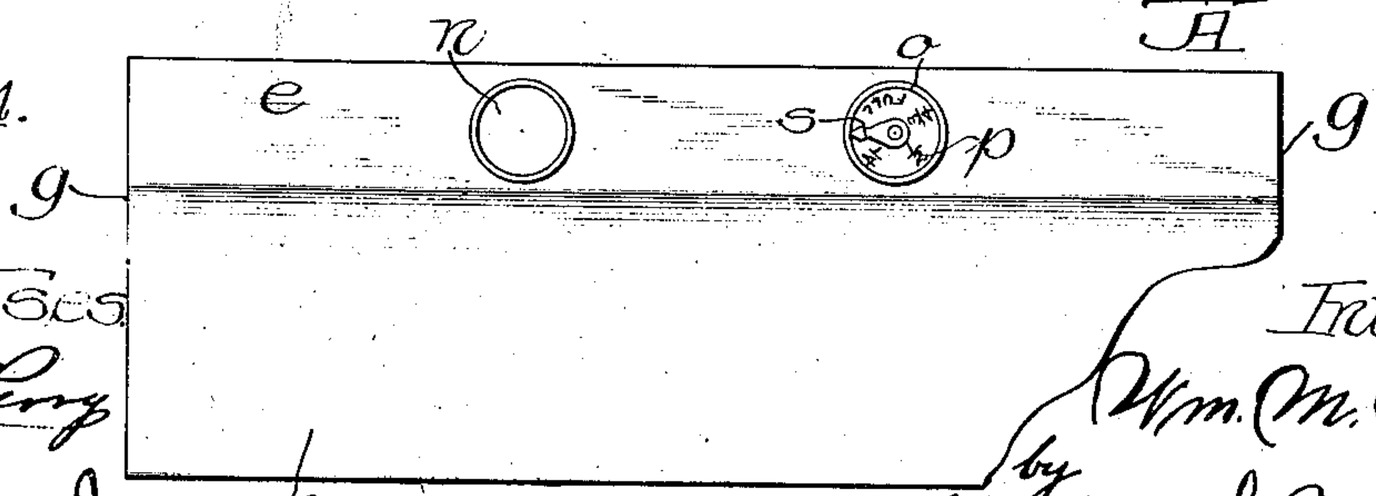


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM M. ROEDER, OF BLOOMINGTON, ILLINOIS.

HOT-AIR MOISTENER AND DEFLECTOR.

No. 928,703. Specification of Letters Patent. Patented July 20, 1909.

Application filed March 22, 1909. Serial No. 485,127.

To all whom it may concern:

Be it known that I, WILLIAM M. ROEDER, a citizen of the United States, and a resident of Bloomington, in the county of McLean and State of Illinois, have invented a certain new and useful Hot-Air Moistener and Deflector, of which the following is a full, clear, and exact specification.

My invention is concerned with a combined hot air moistener and deflector designed for use in connection with hot air registers to keep the hot air furnished to a room moist, and to deflect it out into the room to prevent it soiling the wall by the particles of dust carried up by the draft.

To this end, my invention consists of a receptacle adapted to receive water and to be placed adjacent a hot air register and having an overhanging deflecting plate associated therewith and preferably forming one of the sides of the receptacle.

To illustrate my invention, I annex hereto a sheet of drawings in which the same reference characters are used to designate identical parts in all the figures, of which—

Figure 1 is a perspective view of a portion of a room showing my invention in use; Fig. 2 is a front elevation of the same on an enlarged scale; Fig. 3 is a vertical section on the line A—A of Fig. 2; and Fig. 4 is a top plan view.

As is generally known, the registers for admitting hot air to a room in a hot air heating system are usually placed immediately adjacent the wall *a*, and as a result the hot air rising directly carries up particles of dust and soot and soon discolors the wall above the register. The air which has been heated in passing through the furnace has all the moisture driven off, and some moisture should be supplied to the hot air in order to make it perfectly wholesome. In remedying both of these defects in a single apparatus, I employ a receptacle which has the straight back *b* adapted to rest against the wall, the narrow bottom *c*, the front *d*, the upper portion of which is preferably curved and extends out over the register, and the top of which is formed of the horizontal portion *e* corresponding in width to the bottom *c*, and the curved portion *f* connecting the portion *e* and the front *d*. The sides *b* and *d* and the bottom *c* and the top *e*, *f* are preferably formed of a single piece of sheet metal. The two ends *g* are of the same design and construction, and have the supporting portions *h*, which extend out underneath the overhanging portion to secure the necessary stability, and have the inwardly projecting flanges *j* which are adapted to fit beneath the edges *k* of the register cover plate *l*. It will thus be seen that the body of the receptacle is made up of three pieces which are soldered or otherwise secured together, making a simple and rigid construction. At some suitable point near the top, such as in the under side of the overhanging portion of the side *d*, I place one or more openings *m* through which the vapor of water is adapted to escape, and it will be understood that the heat of the air rising against the side of the receptacle will cause the water in the receptacle to be evaporated rapidly, thus furnishing the desired supply of moisture. At a suitable point in the top portion *e* I place a cap *n* by which the receptacle can be filled, and to indicate its condition, whether full, empty, or partially filled, I employ the indicator *o*, which will be seen to consist of the stationary indicating disk having the necessary indications *p* marked thereon, and depending from the disk is a bar *q*, which has at its bottom the bearing for the shaft *r*, the other end of which has a bearing in the top of the disk and has the pointer *s* on its upper end coöperating with the indications *p*. The shaft *r* is a strip of flat metal bent into a helix, and sliding on this strip is a cylindrical hollow float *t*, which has the lugs *u* coöperating with the bar *q* so that as the position of the float *t* is raised or lowered by the rise or fall of the water, the float cannot turn, and as a consequence the shaft *r* must turn, thus furnishing the desired indication.

The operation of my invention will be readily apparent. It is put in place simply by lifting the register cover plate *l* out and sliding its edges *k* between the bottom *c* and the inturned flanges *j* of the receptacle, after which the register plate is put back in place. With the receptacle filled with water, it will be obvious that the air coming up through the register will be suitably moistened and deflected away from the wall.

While I have shown and described my invention as embodied in the form which I at present consider best adapted to carry out its purposes, it will be understood that it is capable of modifications, and that I do not desire to be limited in the interpretation of

the following claims, except as may be necessitated by the state of the prior art.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. In a device of the class described, the combination with a liquid tight receptacle open at the top to permit the escape of vapor adapted to be placed at one side of a hot-air register, of an overhanging deflecting plate secured thereto and preventing the hot air from passing out at the side of the register by which the receptacle is placed for the purpose described.

2. In a device of the class described, a liquid tight receptacle open at the top to permit the escape of vapor adapted to be placed at one side of a hot-air register, and having one generally vertical side thereof overhanging for the purpose described.

3. In a device of the class described, a liquid tight receptacle open at the top to permit the escape of vapor adapted to be placed at one side of a hot-air register, and having one generally vertical side thereof overhanging for the purpose described, and provided with the supports extending out beneath the overhanging side.

4. In a device of the class described, a liquid tight receptacle open at the top to permit the escape of vapor and having one side thereof overhanging for the purpose described and provided with supports having inwardly projecting flanges adapted to fit beneath the edges of a register cover plate.

5. In a device of the class described, the combination with a liquid tight receptacle open at the top to permit the escape of vapor adapted to be placed at one side of a hot-air register, of an overhanging deflecting plate secured thereto and preventing the hot air from passing out at the side of the register by which the receptacle is placed for the purpose described, and means for securing the receptacle to the register cover plate.

6. In a device of the class described, the combination with a liquid tight receptacle open at the top to permit the escape of vapor adapted to be placed at one side of a hot-air register and having one generally vertical side thereof overhanging for the purpose described, of means for securing the receptacle to a register cover plate.

7. In a device of the class described, a liquid tight receptacle adapted to set at the edge of a hot air register and having the top of one generally vertical side overhanging and provided with an opening to permit the escape of the vapor of water near the top of the overhanging side.

8. In a device of the class described, a liquid tight receptacle adapted to set at the edge of a hot air register and having the top of one generally vertical side overhanging and provided with an opening to permit the escape of the vapor of water near the top of the overhanging side, and means for securing its base to the register cover plate.

9. In a device of the class described, a liquid tight recepatcle adapted to set at the edge of a hot air register and having the top of one side overhanging and provided with an opening to permit the escape of the vapor of water near the top of the overhanging side, and means for securing its base to the register cover plate consisting of the supports having the inwardly projecting flanges.

In witness whereof, I have hereunto set my hand and affixed my seal, this 13th day of March, A. D. 1909.

WM. M. ROEDER. [L. S.]

Witnesses:
JOHN HOWARD MCELROY,
F. E. BROM.