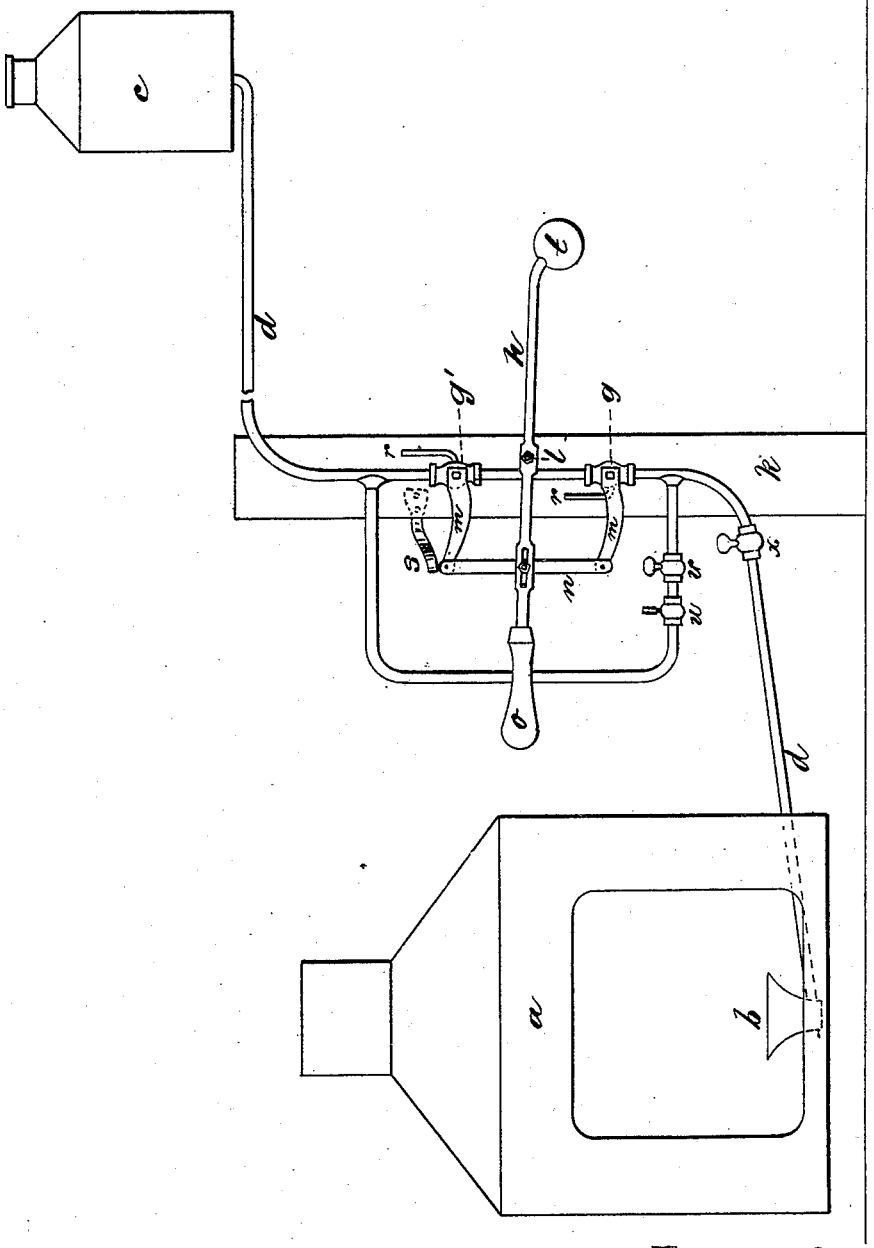
(No Model.)

J. J. METZ.

HAT SINGEING DEVICE.

No. 265,848. Patented Oct. 10, 1882.



Attest:

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UNITED STATES PATENT OFFICE.

JAMES J. METZ, OF EAST ORANGE, NEW JERSEY.

HAT-SINGEING DEVICE.

SPECIFICATION forming part of Letters Patent No. 265,848, dated October 10, 1882.

Application filed August 7, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. METZ, a citizen of the United States, residing at East Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Hat-Singeing Devices; 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 singe hats with greater facility than heretofore without loss or waste of burning material, without the same danger of burning and damaging the hats, and at the same time at a greatly-diminished danger of burning the factory by the heretofore necessarily close contiguity of the explosive materials employed.

The invention consists in the arrangement and combination of parts, substantially as will be hereinafter set forth and embodied in the claims.

Referring to the drawings, *a* indicates a chamber of sufficient capacity to allow the hat to be singed therein, it having an opening large enough to pass the hats therethrough, and a flue at the top through which the smoke, &c., may escape. At the bottom of said chamber is arranged a cup, *b*, or receptacle for the burning-fluid. This is connected with and receives said fluid from a tank, *c*, through the pipe *d*. The tank may be placed at any desired distance from the building for protection to the latter. At a short distance from the hat-singeing chamber is arranged means by which burning-fluid may be limited and controlled in its flow from the tank to the burning-receptacle *b*. Said means consist preferably in stop-cocks *g g'*, arranged on the pipe *d* at a short distance from one another, and connected in such a manner as that when one is opened the other will be closed. This is accomplished by means of the weighted lever *h*, fulcrumed to the upright or support *k* at *l*, adjusted to operate the levers *m* simultaneously by means of the connecting-rod *n*. By depressing the hand-piece *o* the upper cock, *g'*, is closed and the lower one opened, by which the amount of fluid between said cocks is allowed to flow into said fluid-receptacle. Vents *r* are provided to each of said cocks to allow the said flow of fluid. A stop-piece, *s*, is provided to limit the action of the levers *m* as operated upon by the weight *t*. In connection with the main pipe *d* is arranged a U-shaped pipe, which joins with the former above and below the stop-cocks, as shown, so that fluid may pass around and not through them. Said pipe is provided with cocks *u v*, the former regulating the flow, which, when once set is intended to remain so permanently, and the second being to open and close communication at convenience. Said U-shaped pipe allows a small amount of fluid to pass into the receptacle *b*, which, when ignited, forms a small flame termed a "pilot-light," intended to be kept burning while the hats are not being singed. The size of said pilot-light is regulated by the stop-cock *u*, before mentioned. The pipe *d* is provided with a cock, *x*, which is adapted to prevent all passage from the tank to the receptacle.

The operation of the machine is as follows: The stop-cocks *x* and *v* being opened and the stop-cock *v* being regulated to allow enough fluid to pass therethrough to produce the small pilot-light, when the hat is to be singed the handle *o* is pressed down, which closes the cock *g'* and opens the cock *g*, allowing the fluid between the said cocks *g g'* to pass into the receptacle *b*, where and by which action the small flame swells into a large flame sufficient to singe the hats. When the hand is removed from the handle the weight *t* closes the lower cock and opens the upper one, as will be well understood. The vents *r* allow ingress of air, filling the vacuum which would otherwise be produced by the descent of the fluid.

What I claim is—

1. A hat-singeing device composed of a hat-singeing chamber, *a*, a fluid-receptacle, means adapted to keep a constant or pilot light, and means adapted to increase the size of said light to a singeing-flame, all substantially as herein set forth.

2. In a hat-singeing machine, in combination, the receptacle *b* and tank *c*, the pipe *d*, cocks *g g'*, adapted to open simultaneously, and means

adapted to open said cocks simultaneously, all as herein set forth.

3. In a hat-singeing machine, in combination, the receptacle *b* and tank *c*, pipe *d*, and U-shaped pipe connected therewith, cocks *u v* thereon, cocks *g g'*, and mechanism adapted to operate the same simultaneously, all substantially as herein set forth and shown.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of July, 1882.

JAMES J. METZ.

Witnesses:
CHARLES H. PELL,
OLIVER DRAKE.