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(71) Applicant: **HOPKINS JAMES H (CA)**

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(72) Inventor: **HOPKINS JAMES H (CA)**

(30) Priority:

(54) **FLASH LIGHT MACHINE**

(54) **MACHINE A JET DE FLAMME**

To all whom it may concern;

Be it known that I, James H. Hopkins of the City of St. Thomas in the County of Elgin, in the Province of Ontario, Photographer, having invented certain new and useful improvements in flash light machines, do hereby declare that the following is a full, clear, and exact description of the same.

Reference being made to the accompanying drawings in which;

FIGURE 1, is a front elevation of a flash-light machine embodying my invention.

FIGURE 2, is a plan of the same.

FIGURE 3, is an enlarged sectional view of the parts which are at A. B. C and D in figures one and two.

The first part of my invention relates to the combination in a flash-light machine of spirit lamps with adjustable reflectors, in such a manner that the said reflectors may be adjusted vertically, angularly, and obliquely; the object of this part of my invention being to provide a flash-light machine the light of which may be reflected in any direction.

The second part of my invention relates to the combination in a flash-light machine of a tubular lamp-bar, with tubular lamp-stands, and a tubular supporting spindle, in such a manner that the orifices of each communicate with all others.

In the drawing A.A.A.A.A. are spirit-lamps filled with asbestoes saturated with spirits and provided with covers to prevent evaporation when not in use; they are fitted with sockets 1 (which rest on tubular

lamp-stands, hereinafter described), pass upward through the centre of the lamps, and terminate in v-shaped cores the apex of which is open, B.B.B.B.B.B. and C.C.C.C.C.C. are tubular lamp-stands made of two sizes of pipes (B and C) the upper piece B telescoping the lower piece C, and being secured thereto, to form a seat for a valve 2, D is a tubular lamp bar, to which the lamp-stands are secured, E is a tubular supporting spindle secured to the centre of the lamp-bar, on its lower side, F.F.F. are reflectors adjustable vertically, angularly, and obliquely, and secured in position by set screws, G is the head of a tripod on which the machine is supported, the legs thereof being H.H. 3, 4 and 5 are brackets secured to the lamp-bar, for the purpose of supporting the reflectors.

When the operator wishes to obtain a flash the tubular lamp-stand B is filled with magnesium metal or other flash-light powder, which is prevented from descending into C or D by the valve 2; the lamps are saturated with spirits and ignited, a hose is attached to the tubular spindle E, and a blast of air from a bellows, bulb or the lungs raises all the valves 2 and forces the magnesium metal into the flames of all the lamps simultaneously causing a flash which may be varied in intensity by the number of lamps, and the quantity of powder used, or the duration of the flash may be varied by the blast applied.

I make no claim to the mode of constructing the lamps, nor to the tripod supporting the machine, for I am aware that these are not new, but what I claim as my invention, and desire to secure by patent, is;

1st. The combination in a flash-light machine of any number of spirit lamps with reflectors which may be

lamp-stands, hereinafter described), pass upward through the centre of the lamps, and terminate in v-shaped cores the apex of which is open, B.B.B.B.B.B. and C.C.C.C.C.C. are tubular lamp-stands made of two sizes of pipes (B and C) the upper piece B telescoping the lower piece C, and being secured thereto, to form a seat for a valve 2, D is a tubular lamp bar, to which the lamp-stands are secured, E is a tubular supporting spindle secured to the centre of the lamp-bar, on its lower side, F.F.F. are reflectors adjustable vertically, angularly, and obliquely, and secured in position by set screws, G is the head of a tripod on which the machine is supported, the legs thereof being H.H. 3, 4 and 5 are brackets secured to the lamp-bar, for the purpose of supporting the reflectors.

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I make no claim to the mode of constructing the lamps, nor to the tripod supporting the machine, for I am aware that these are not new, but what I claim as my invention, and desire to secure by patent, is;

1st. The combination in a flash-light machine of any number of spirit lamps with reflectors which may be

(3)

adjusted vertically, angularly and obliquely, substantially as and for the purpose hereinbefore set forth.

2nd. In a flash-light machine the combination of a tubular lamp-bar, with tubular lamp stands having valves therein and a tubular spindle for supporting the whole on a tripod, substantially as and for the purpose hereinbefore set forth.

James A. Hopkins

St. Thomas *9th* March 1895.

Signed in the presence of,

R. Louis Brown

W. J. Belcher

Hopkin's Flash Light Machine.

48985

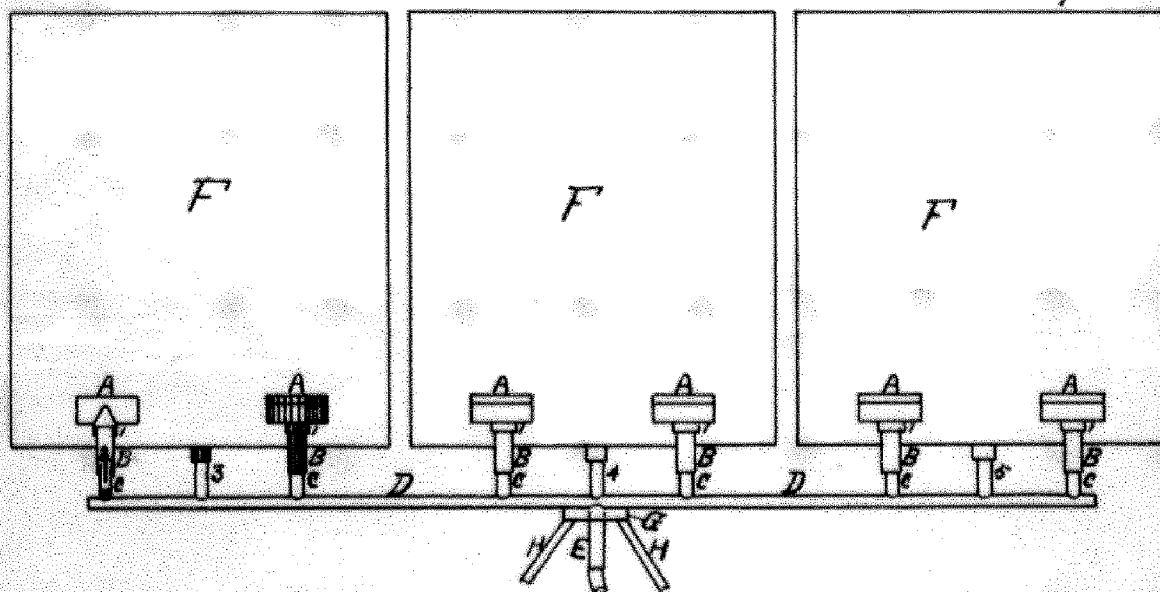


FIGURE.1.

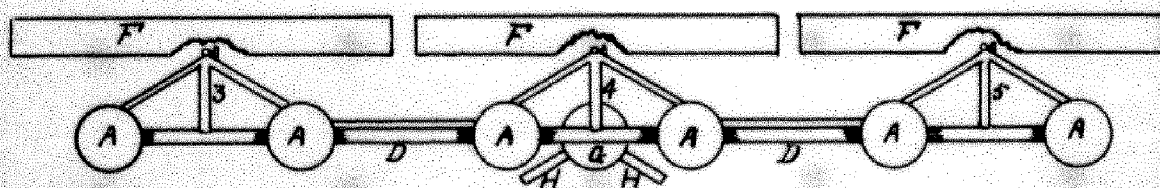


FIGURE.2.

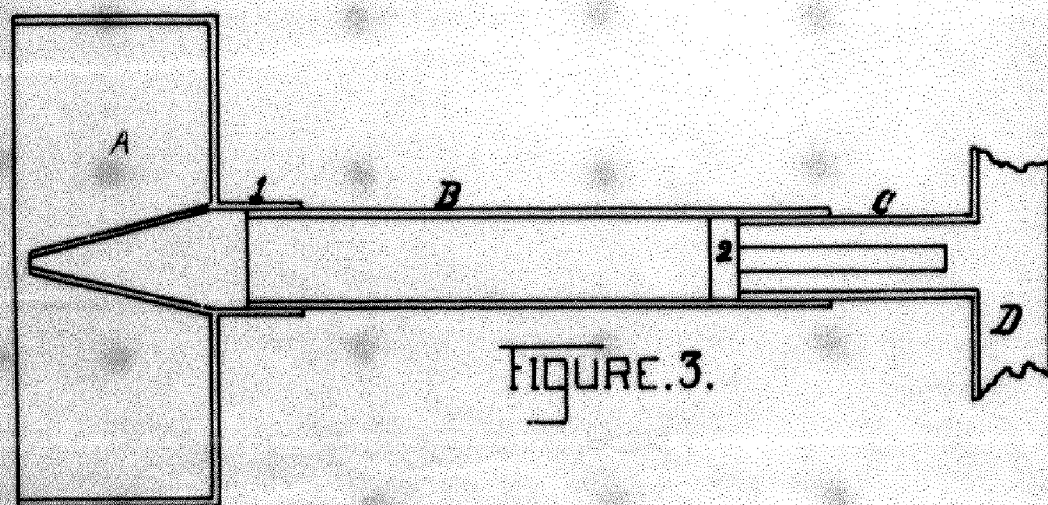


FIGURE.3.

Certified to be the Drawings referred to in the specification.
here unto annexed.

St Thomas. 9th March 1895:

W. W. Long.

Mrs. Sharon

James H. Hopkins
for J. B. Long
his Attorney