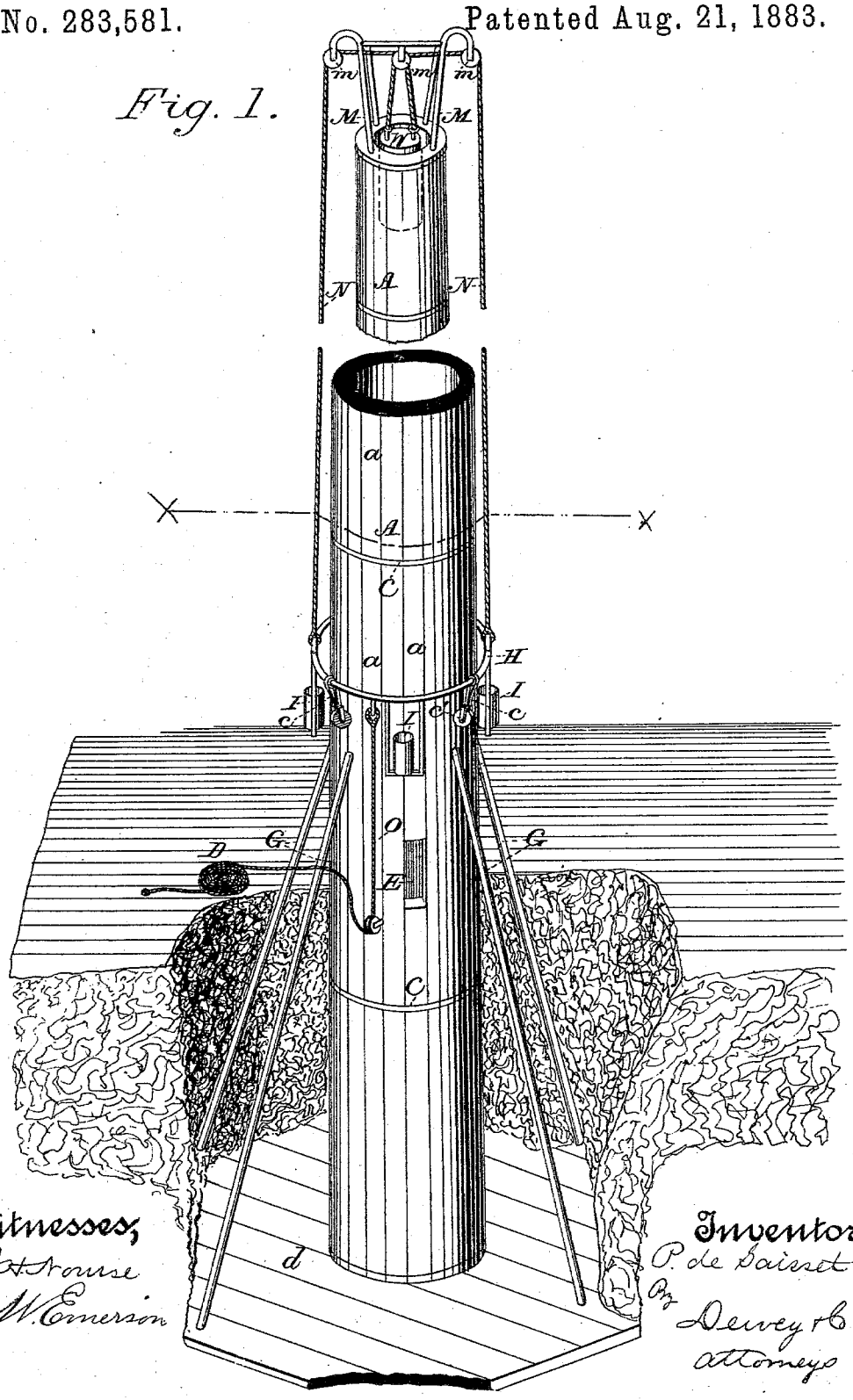
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P. DE SAISSET.

MAST FOR ILLUMINATORS.

No. 283,581. Patented Aug. 21, 1883.

Fig. 1.



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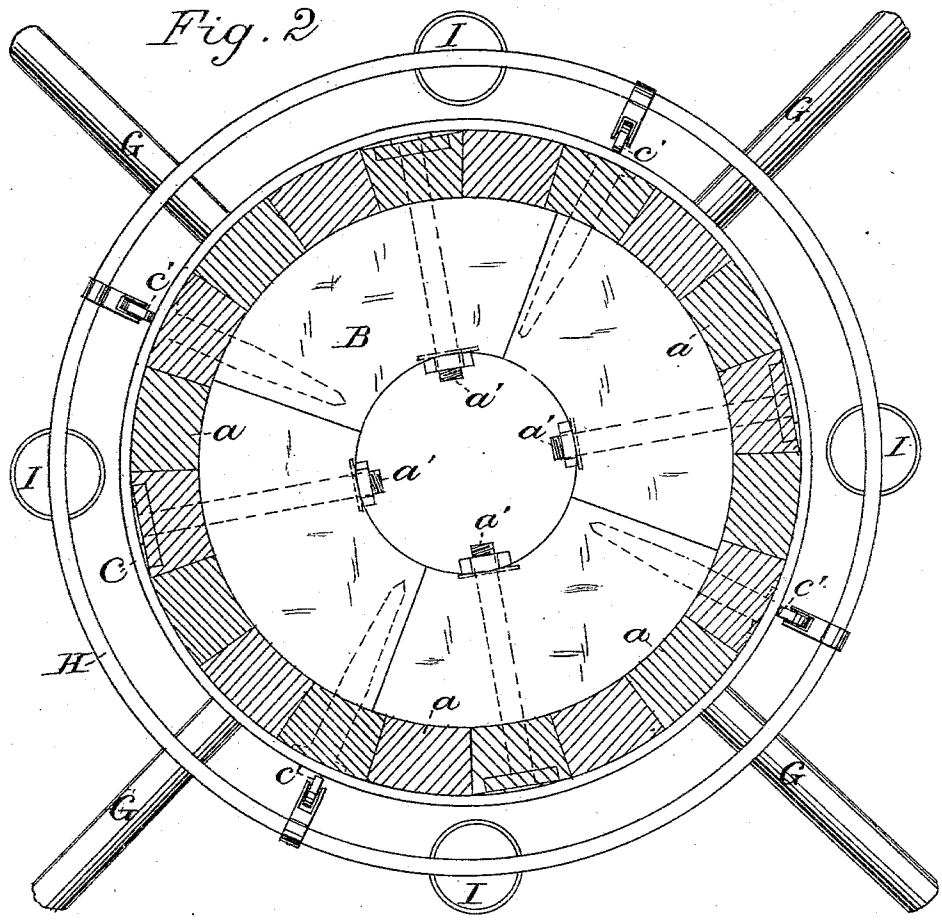
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Fig. 2



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Fig. 4.

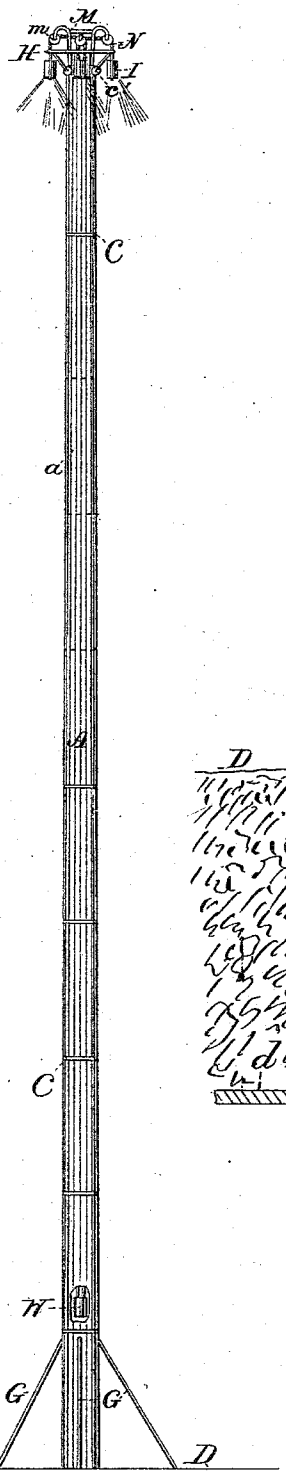
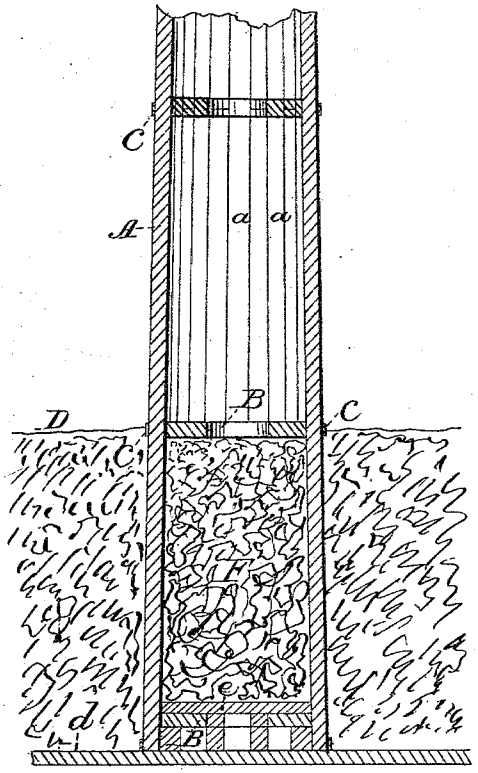


Fig. 3.



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UNITED STATES PATENT OFFICE.

PÉDRE DE SAISSET, OF SAN JOSÉ, CALIFORNIA.

MAST FOR ILLUMINATORS.

SPECIFICATION forming part of Letters Patent No. 283,581, dated August 21, 1883.

Application filed March 31, 1883. (No model.)

To all whom it may concern:

Be it known that I, PÉDRE DE SAISSET, of San José, county of Santa Clara, State of California, have invented an Improved Mast for Illuminators; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to an improved mast, the object of which is to enable any suitable illuminating devices to be supported at an elevation.

My invention consists in the novel construction of the mast, and in the application of certain illuminating devices—such as electric lamps—as will hereinafter fully appear.

Considerable attention is now being directed toward the subject of lighting large areas from a single source. This can only be done by supporting the light at an elevation, and for this purpose posts and towers have been employed. The posts, when constructed of a single piece, are too heavy and too expensive, and if made of several sections are not strong. The tower is too costly, and not practicable.

The object of my invention is to provide a light and cheap mast having great strength and rigidity.

Referring to the accompanying drawings, Figure 1, Sheet 1, is a perspective view of my device. Fig. 2, Sheet 2, is a horizontal section of my device on the line *x x*, Fig. 1. Fig. 3, Sheet 3, is a vertical section of the lower part of the mast A. Fig. 4, Sheet 3, is an elevation of my device, showing the lamps I in position at top of the mast A.

A is the mast, constructed as follows: *a* are staves of suitable length and thickness to form the periphery. These are secured, by bolts or screws *a'*, to inner rings, B, formed of several sectors of wood or iron, and placed at points opposite the joints of the mast-sections on the inside. These rings do not extend to the center, thus leaving the center of the mast hollow. The staves *a* break joints with each other throughout the height of the mast, thereby increasing its strength. On the outside of the mast, at every joint of the staves, are iron bands C, to bind the whole firmly together. These bands, by covering the joints, lie outside of the inner rings, and thus the staves are held between the two firmly and strongly, whereby the entire mast is rendered as stiff and rigid as possible.

The manner in which I plant the mast in the ground is as follows: D is the surface of the ground. I excavate a large and deep cavity, the bottom of which I plank with boards *d*, dipped previously in coal-tar or other suitable solution, and crossed and beveled. I place planks *e* on the lowest of the inner rings, B, which, being a flange, is well adapted to support these planks, with necessary beams under the flooring, Fig. 3. This forms a flooring within the mast at its base. By means of suitable derrick-power the mast is raised and its base rested upon the planking in the excavation. The flooring *e* in the mast may be braced from below by intervening blocks resting on the main planking *d*. Access is had to the center of the mast through a man-hole, E, above the ground. Concrete F is then filled in the mast, resting on the flooring *e*, up to a point a little above or about the level of the ground, Fig. 3. This concrete is ballast, and weights the base of the mast to assist in maintaining its equilibrium. By having the flooring *e* the ballast is practically part of the mast, being confined therein. I may use braces G, extending into the ground and secured a short distance above to the mast. The excavation I fill in with concrete, and thus firmly embed both mast and braces.

H is a ring or crown from which are hung the electric lamps I.

Attached to the crown are springs *c*, having mounted on their ends small rollers *c'*, adapted to travel against the outside of the mast, and thus to steady the crown in its ascent or descent.

To the top of the mast are secured arms M, having pulleys *m*. These arms are for the purpose of receiving the crown when it is hoisted to its extent, and thus allow the light to be unobstructed, which would not be the case if the crown could not go above the top of the mast, as the opaque body of the mast would intervene and obstruct some of the light.

N are the ropes passing from the crown over pulleys *m* and down inside of the mast, having a counterbalance-weight, W, attached to them within the mast.

O is the rope for hauling down the crown.

One advantage of the hollow mast is in its adaptability to recive the counterbalance-

weight, the wires, and part of the running-gear inside, where it can be out of the way, and less liable to be injured.

A suitable form of safety catch or clamp might be attached on top of the mast to hold the crown if any of the running-gear should break.

This mast may be applied to many purposes other than the elevation of lamps. It may be used as a flag-pole, or as a ventilator for sewers, it being hollow; or, on account of its rigidity, it might be useful as a ship's mast, or in the construction of bridges. By constructing it of sufficient diameter and putting in a central post a spiral stairway may be constructed within it, and it may then be used as a tower, the advantage of which would lie in the interior and therefore safe ascent, in which case the lamps would be held fast in their proper place at the top of the tower under suitable reflectors.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A mast constructed of the inner rings, B, placed at intervals, the staves *a*, bolted or screwed to the rings and breaking joints with each other, and the outer iron bands, C, over the joints, substantially as herein described.

2. A mast for illuminating purposes, in combination with the means for weighting the base of the same, consisting of the flooring *e*, supported on the lowest inner ring, B, and the concrete or ballast F, filled inside the mast upon the flooring *e*, substantially as herein described.

3. The mast A, having the arms M on its top, in combination with the lamp-supporting crown or ring H, and running-gear for hoisting said crown to and upon the arms, substantially as and for the purpose herein described.

4. The mast A, in combination with the crown or ring H, having lamps I, and running-gear to hoist or lower it, and the springs *c*, having rollers *c'* to steady the crown, substantially as herein described.

In witness whereof I hereunto set my hand.

PÉDRE DE SAISSET.

Witnesses:

GEO. H. ROE,

JAS. SPIERS.