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PILLAR FOR BRIDGES.
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988,764.

Patented Apr. 4, 1911.

Fig. 1.

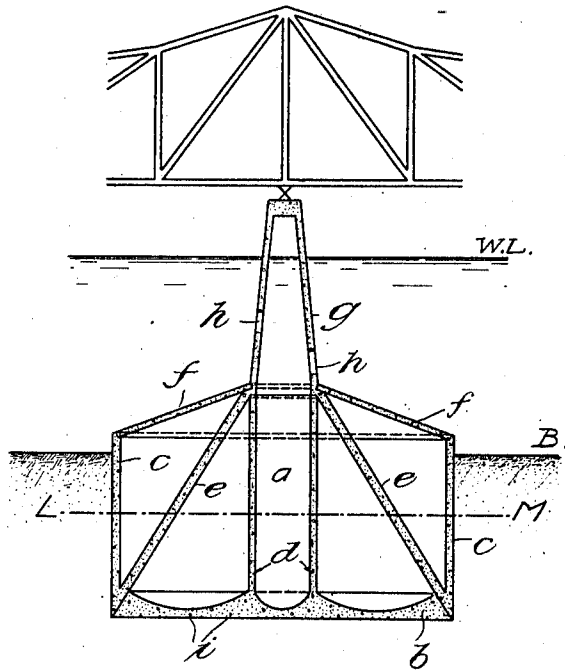
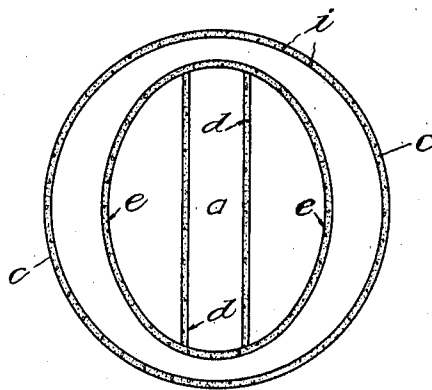


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

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PILLAR FOR BRIDGES.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CARL ABRAHAM FORSELL, engineer, of Handverkaregatan 15, Stockholm, Sweden, a subject of the King of Sweden, have invented certain new and useful Improvements in Pillars for Bridges; 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 or figures of reference marked thereon, which form a part of this specification.

The present invention relates to piers for bridges and abutments constructed of masonry and designed to be erected in marshy ground, or on river bottoms, and has for its purpose to provide a structure of that character having the maximum supporting strength with the minimum weight in its own construction.

The invention further contemplates constructing an abutment or pier of, substantially hollow design having ducts or sluices below the water level, whereby to maintain within the structure the same water level as on the outside thereof, and thus neutralize any lifting tendency of the water, and effect a more secure anchoring for the pillar.

The invention is shown by way of illustration in the accompanying drawing wherein:

Figure 1 is a vertical sectional view of the pier as erected, and Fig. 2 is a sectional view, in plan, of Fig. 1, taken on the line L—M.

Referring to the figures in further detail and with like characters of reference indicating corresponding parts in the different views shown, *a* designates the basement as a whole, and which comprises a suitable bottom or foundation *b*, which is of substantially elliptical design in outline. The bottom *b* has erected on its marginal edge, and at right angles to the plane thereof a wall *c*. The base also supports two vertical and parallel walls *d*, disposed medially and lengthwise thereof. Said walls *d* project above the plane determined by the upper edge of the surrounding wall *c*. The walls *d* are supported through the medium of a substan-

tially conical wall *e* extending from the juncture of the bottom *b* and wall *c*, to the upper edges of the vertical walls *d*. The aforesaid parts of the structure support a cover or shed *f*, and said shed is longitudinally open and has extending therethrough the pillar or supporting member proper *g* which is virtually a continuous part of the central walls *d*. The upper end of said pillar *g* is suitably constructed to support the bridge, or other structure, as shown. The basement as a whole is designed to be located in the bed B, after the manner shown, and in such position affords a suitable anchoring for the supporting pillar *g*.

It is proposed to have the structure accessible to the water for the purpose above stated and to this end the pillar is provided with sluices or openings *h*.

All of the walls of the pier are reinforced by a net work of rods or bars *i*.

Claims:

1. A pier for bridges comprising a basement and a pillar, said basement having a bottom, and a closed surrounding wall, and said pillar having bracing walls contacting therewith within said basement.

2. A pier for bridges comprising a basement and a pillar supported thereon, said basement having a bottom, a vertically extending wall around the edge thereof, a wall extending from the juncture of the bottom and vertical wall, to the pillar and reinforcing the latter; and an overlying cover supported by the pillar and vertical walls.

3. A pier for bridges comprising a basement and a pillar supported thereon, said basement having a bottom, a vertically extending wall around the edge thereof, a conical wall extending from the circumferential edge of the base to the pillar and reinforcing the latter, and an overlying cover supported by the pillar and said vertical wall.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

CARL ABRAHAM FORSSELL.

Witnesses:

HARRY ALBILIN,
G. FURNMARK.