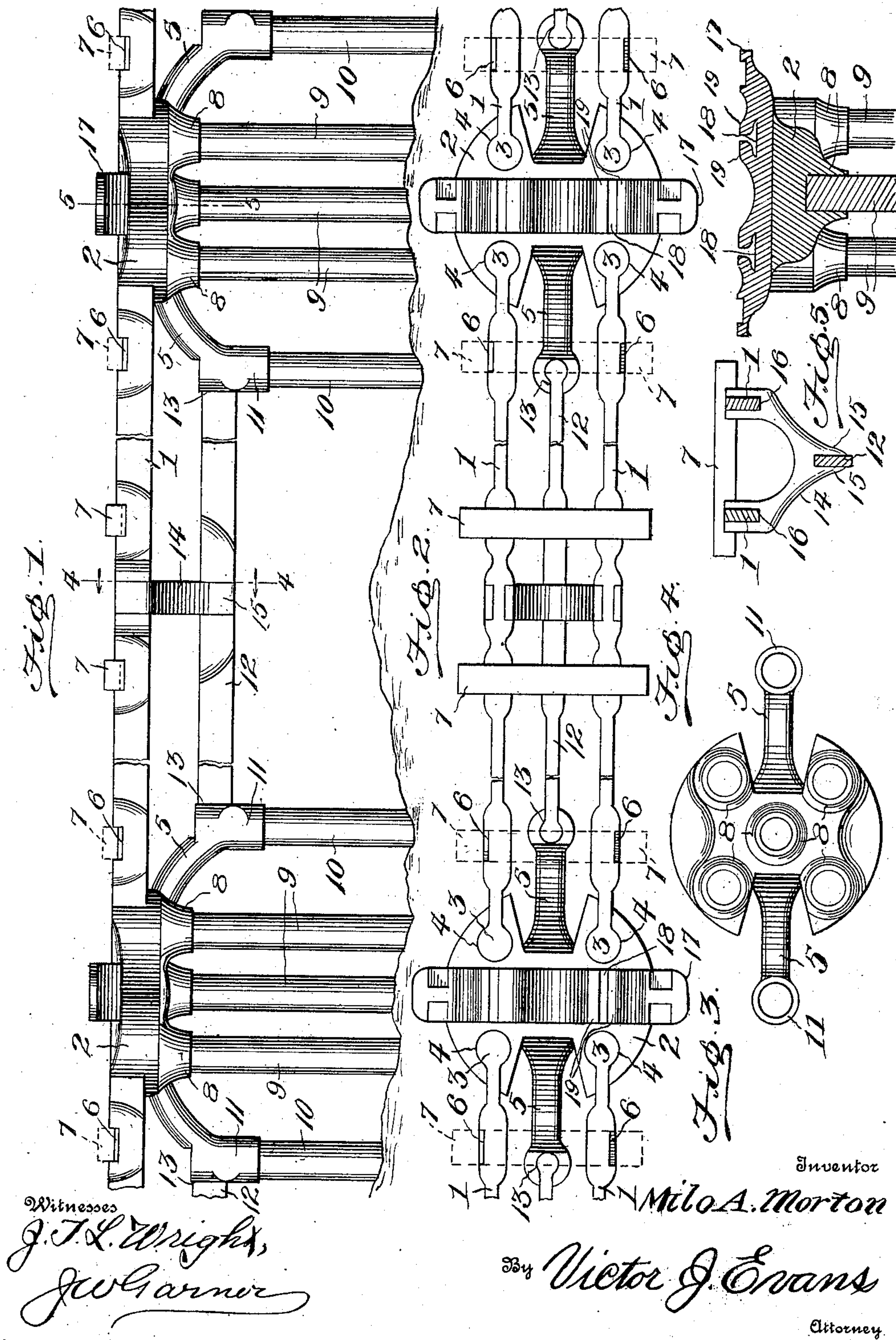


No. 887,008.

PATENTED MAY 5, 1908.

M. A. MORTON.
BUILDING STRUCTURE.
APPLICATION FILED AUG. 9, 1907.



UNITED STATES PATENT OFFICE.

MILO A. MORTON, OF BROWNWOOD, TEXAS, ASSIGNOR OF ONE-HALF TO J. W. WHATLEY,
OF BROWN COUNTY, TEXAS.

BUILDING STRUCTURE.

No. 887,008.

Specification of Letters Patent.

Patented May 5, 1908.

Application filed August 9, 1907. Serial No. 387,875.

To all whom it may concern:

Be it known that I, MILO A. MORTON, a citizen of the United States of America, residing at Brownwood, in the county of Brown and State of Texas, have invented new and useful Improvements in Building Structures, of which the following is a specification.

My invention relates to improvements in building structures, such as trestles, bridges, buildings, dams and the like, to effect interlocking connections between stringers or beam members and caps, whereby such stringers or beam members are firmly tied to such caps, and the said invention consists in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawings,—Figure 1 is a side elevation of a trestle illustrating a practical embodiment of my invention. Fig. 2 is a top plan view of the same. Fig. 3 is a detail inverted plan of one of the caps. Fig. 4 is a detail transverse sectional view taken on the plane indicated by the line 4—4 of Fig. 1. Fig. 5 is a detail vertical transverse sectional view taken on the plane indicated by the line 5—5 of Fig. 1.

In the embodiment of my invention I provide stringers or beam members 1 and caps 2 to which such stringers or beam members are detachably connected. Such stringers or beam members are formed at their ends with enlarged heads 3 which are here shown as substantially cylindrical in form, but which may be of other suitable shape. The caps 2 are here shown as circular in form, but may be of other suitable shape, and the same are provided in their upper sides and inner opposite side edges with recesses 4 which correspond in size and shape with the head or end portions of such stringers or beam members and are adapted to receive such head or end portions of such stringer or beam members to effect tight connections between such members 1, 2. The depth of the said recesses 4 corresponds with the thickness of such stringers or beam members so that the head or end portions of the latter are gained in the said recesses, and the upper sides of said stringers or beam members are disposed flush with the upper sides of such caps or tie members 2. Such caps or tie members are further provided with brace arms 5 which are inclined and extend downward therefrom. The said

caps or tie members may be of any suitable size adapted for the reception of head portions of any suitable number of the stringer members. Where the structure is a bridge, trestle or the like, as here shown, said stringer members are provided in their upper sides with recesses 6 to receive the lower sides of cross ties 7 for the support of the railroad rails.

The caps or tie members 2 are provided on their undersides with countersunk depending bosses or socket portions 8 to receive the upper ends of supporting columns, piles or the like supporting elements 9 and thereby enable the said cap or tie elements to become firmly attached to the said columns or supporting members and to connect the latter together so that they mutually brace and sustain one another and hence greatly increase the strength and stability of the structure.

In connection with the supporting piles or columns 9 I also employ reinforcing piles or columns 10, the upper ends of which are placed in sockets 11 in the brace arms 5. Reinforcing stringers 12 are also provided, which have their head or end portions gained in recesses 13 in the upper sides of the end portions of the brace arms 5 and are disposed below the stringers 1 and at points midway between the vertical planes of such stringers.

In structures of this character I also employ reinforce brackets 14 to connect the stringers 1 and the reinforce stringers 12. Such brackets have openings 15 in their lower ends to receive the reinforce stringers and have notches 16 in the upper ends of their arms, to receive the stringers 1. Chair blocks 17 have their lower sides seated in transverse recesses in the upper sides of the caps and are provided in their upper sides with seats 18 for the reception of the bases of railway rails, such seats providing flanges 19 to bear on the base flanges of such rails.

It will be understood from the foregoing and by reference to the drawings that the structure embodying my invention is exceedingly strong and durable, is secure against injurious vibration and may be readily erected, since bolts and other like devices are not employed in securing a cap or tie members on the supporting column, nor in securing the stringer or beam members to such cap or tie members.

Having thus described the invention, what is claimed as new, is:—

1. In a structure of the class described, the combination of stringers, a reinforce stringer, 5 and a reinforce bracket having openings for the reception of such stringers and reinforce stringer.

2. In a structure of the class described, the combination of stringers, a member connect- 10 ing them together, a reinforce stringer, and a reinforce bracket, the latter having openings for the reception of such stringers and reinforce stringer, and devices to engage such connecting member.

3. In a structure of the class described, the combination of a supporting column and a reinforcing column, a cap on the supporting 15 column, and having a brace arm on the re-

inforcing column, said cap and brace arm having recesses in their upper sides, a stringer 20 having a head gained in the recess of the cap, and a reinforce stringer having a head gained in the recess of the brace arm.

4. In a structure of the class described, the combination of a supporting column and a 25 reinforcing column, with a cap on the supporting column and having a brace arm, the latter on the reinforcing column, a stringer jointed to the cap, and a reinforcing stringer jointed to the brace arm. 30

In testimony whereof, I affix my signature in presence of two witnesses.

MILO A. MORTON.

Witnesses:

CHAS. BAUGHMAN,
HENRY BUCK.