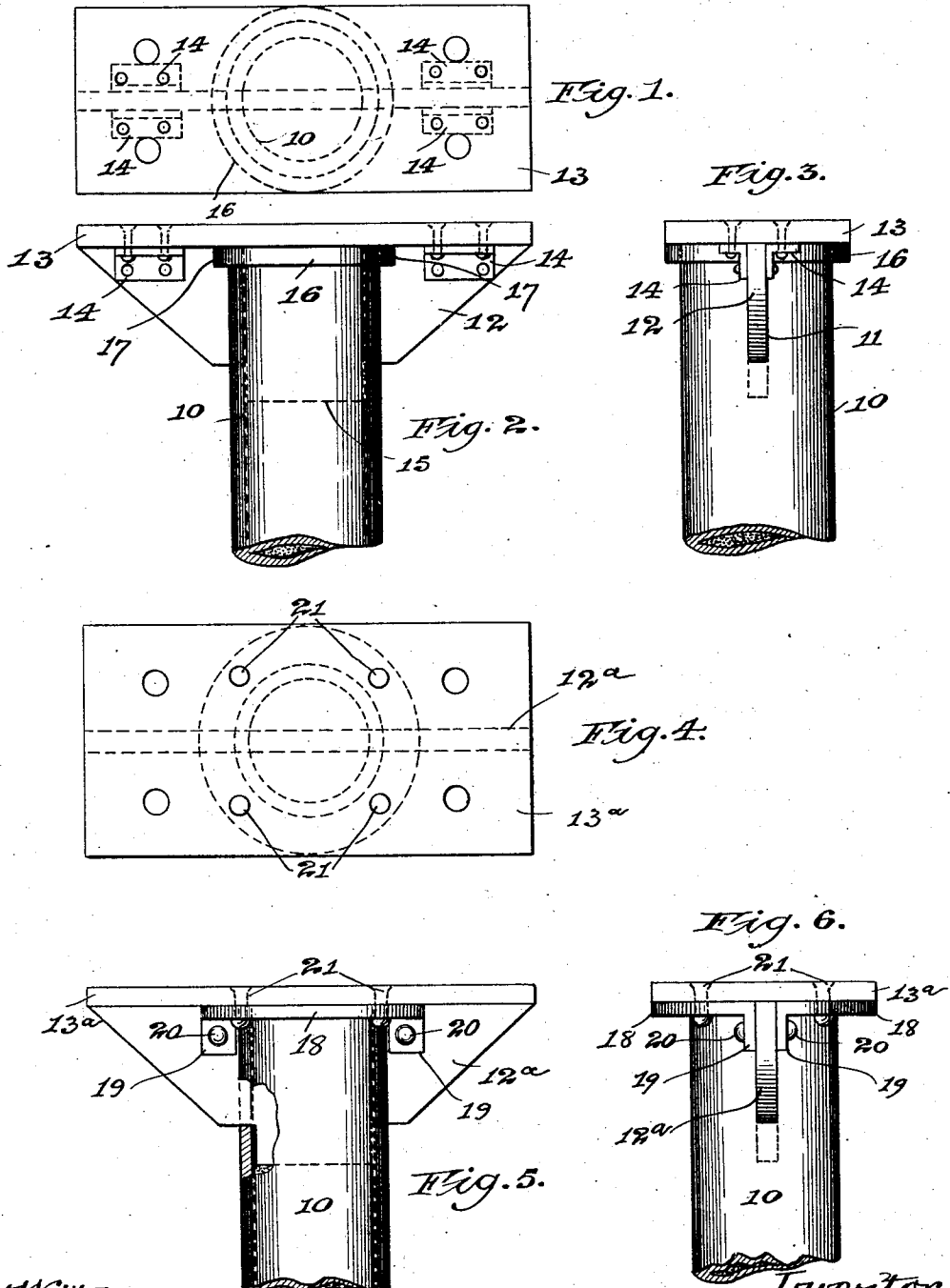


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LOAD SUPPORTING COLUMN FOR BUILDING STRUCTURES.
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Patented Apr. 30, 1912.



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UNITED STATES PATENT OFFICE.

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LOAD-SUPPORTING COLUMN FOR BUILDING STRUCTURES.

1,024,761.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ADOLF F. ANDERSON, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Load-Supporting Columns for Building Structures, of which the following is a specification.

This invention relates to the art of building structures, and has reference more particularly to an improved column or pillar designed to form the main support of girders, floor beams, and similar structural members.

Among the salient objects of the invention are to provide a very simple, strong, and economical structure of the class specified; to provide a structure that is easily and cheaply assembled; and, generally, to provide an improved structure of the kind specified as compared with similar structures at present employed.

My invention, its novel structural features, and the chief advantages secured thereby will be readily understood when considered in connection with the accompanying drawings, in which—

Figures 1, 2, and 3 show a simple form of the invention more particularly applicable to buildings in which the main supporting column has the height of but a single story; Fig. 1 being a top plan view, Fig. 2 a side elevation, broken off below its lower end, and Fig. 3 a side elevation at right-angles to that of Fig. 2. Figs. 4, 5, and 6 are views corresponding with Figs. 1, 2, and 3, respectively, showing a slightly different specific form of the invention.

Referring first to Figs. 1, 2, and 3, 10 designates an upright metal tube, preferably of steel, and of any diameter suited to the particular job in hand; this tube being preferably solidly packed with concrete to increase its rigidity and solidity, although the use of a concrete filling does not constitute any essential feature of the invention. This tube is formed with a diametrical slot 11 extending downwardly for some distance from its upper end; and engaged with this slot is the depending web member 12 of a load-supporting bracket, this latter including also a top member or cap-plate 13 that overlies the upper end of the tube 10 and the upper edge of the web member 12. This cap-plate may be either integral with or suitably secured to the web 12, as desired, or

as permitted or required by other structural features. In the form shown in Figs. 1, 2, and 3, the cap-plate 13 is a separate member secured to the web 12 by angle connectors 14, as shown. To increase the rigidity of the bracket relatively to the upper end of the tube, the lower edge of the web member 12 is provided with a depending tenon 15 that snugly engages the inner surface of the tube below the lower end of the slot; and to prevent any possible spreading of the divided upper end of the tube and compensate for the slotting thereof I preferably provide suitable bonding means, herein shown as a continuous ring 16 which may be driven down over the upper end of the tube before the cap-plate 13 is applied, the upper edge of the web member 12 being suitably cut away as at 17 to accommodate said ring.

In the form of the invention shown in Figs. 4, 5, and 6, there are present the same slotted tube and load-supporting bracket; but in this case the web 12^a and cap-plate 13^a may be made integral, if desired, and a bonding ring made in two approximately semi-circular sections 18 may be employed, each of said sections having downwardly turned end lugs 19 apertured to receive rivets 20 which pass through said lugs and through the web member 12^a lying between them, as clearly shown in Figs. 5 and 6. In this case, the cap-plate 13^a, whether integral with the web 12^a, or not, may be, and preferably is, secured to the bonding ring 18 as by rivets 21.

The described construction is exceedingly strong, rigid, and simple. It reduces the riveting required to the minimum and eliminates many adjunctive parts heretofore employed in load-supporting structures designed for the same general purpose.

It will be evident to those trained in the art that the novel features of the invention might be varied somewhat in detail without departing from the principle involved or sacrificing materially any of the benefits and advantages secured. Hence, I do not limit the invention to the exact and specific forms illustrated, except to the extent clearly indicated in specific claims.

I claim—

1. A load-supporting column for building structures, comprising an upright integral metal tube diametrically slotted at its upper end, and an angle bracket comprising a ver-

5 tical web-member engaging said slot and formed on its lower edge with a single integral depending tenon engaging the inner surface of the tube below the lower end of said slot, and a horizontal cap-plate overlying and resting upon the upper end of said tube, substantially as described.

10 2. A load-supporting column for building structures, comprising an upright integral metal tube diametrically slotted at its upper end, an angle bracket comprising a web-member engaging said slot and a cap-plate overlying and resting upon the upper end of said tube, and a bonding ring embracing
15 the upper end of the slotted portion of said tube, substantially as described.

3. A load-supporting column for building structures, comprising an upright integral metal tube diametrically slotted at its upper end, an angle bracket comprising a web- 20 member engaging said slot and formed on its lower edge with a single integral depending tenon engaging the inner surface of the tube below the lower end of said slot and a cap-plate overlying and resting upon 25 the upper end of said tube, and means for bonding the upper end of the slotted portion of said tube, substantially as described.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."