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DRAWINGS ATTACHED

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(54) IMPROVEMENTS IN REINFORCED CONCRETE CONSTRUCTION

(71) We, CIVIL & CIVIC PTY. LIMITED, a Company incorporated in the State of New South Wales, Commonwealth of Australia, of Australia Square Tower, George Street, Sydney, New South Wales, Commonwealth of Australia, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to a novel method of erecting structures.

The structural elements used in structures are those elements which are responsible for transmitting their own dead load and other imposed loads to the ground. The sum total of all structural elements is referred to as the structure. Structures are identified by the material contained in these elements and by the treatment the material receives prior to, or after its use in the structural elements.

Of the many types of structures there are those using steel and concrete in all possible combinations.

The known methods using steel and concrete either independently or in any composite manner have the disadvantage that some of the materials in the form used do not contribute their full capacity, or the components require temporary formwork and/or support, or the components are extremely heavy and require large capacity hoisting equipment, or the system of assembly inhibits speed of construction. Furthermore in no case do the known methods exploit the progressive gain in strength characteristic of concrete.

It is an objective of this invention to overcome the disadvantages of presently known methods of erecting structures and to fully exploit the progressive gain in strength characteristic of concrete.

According to the present invention, in a staged method of constructing a monolithic multi-storey reinforced concrete structure comprising at least one primary and at least one secondary stage, the primary stage comprises the steps of:

(1) erecting column and/or wall form members in their final position,
(2) forming a first part of the reinforcement for a reinforced concrete primary beam member in the form of at least one truss adapted to be supported in final position in the completed structure and sufficiently strong and stiff to support, during construction without external supports other than the column and/or wall form members, it own weight, any necessary attached formwork, loads applied to it during construction including loads from other structural members, the remaining part of the reinforcement for each member and the wet concrete to complete each beam member,
(3) supporting each truss at its points of support in the completed structure,
(4) attaching the concrete formwork for the primary beam member,
(5) placing the securing any remaining beam or beam and column junction reinforcement,
(6) supporting the ends of secondary joist reinforcing trusses on the primary beam trusses,
(7) erecting those slab and joist forms which are adjacent to the primary beams,
(8) placing and securing the beam and joist junction reinforcement,
(9) pouring the concrete to complete the column and beam members and to complete the beam, joist and slab junctions to provide a stable work platform for intermediate repetition of steps (1)—(9), the secondary stage comprising the further steps of,
(10) allowing the reinforced concrete primary framing members from steps (1)—(9) to strengthen before imposing fur-

Diana, do you think ē info is sufficient?

Filing Date / priority date

Title

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