

[54] PREFABRICATED TAPERED COLUMNS

[76] Inventor: Lewis R. Kinsey, 108 So. 25th Street, Phoenix, Ariz. 85034

[22] Filed: Dec. 2, 1971

[21] Appl. No.: 204,130

[52] U.S. Cl.52/731, 52/588, 52/741, 138/157

[51] Int. Cl.E04c 3/30, E04c 1/10, E04c 1/16

[58] Field of Search.....138/157, 168, 165, 138/155; 52/731, 727, 728, 245, 588, 249

[56]

References Cited

UNITED STATES PATENTS

2,763,321	9/1956	Schuster.....	52/588 X
3,191,724	6/1965	Ridder.....	52/588 X
3,562,992	2/1971	Kinsey.....	52/588

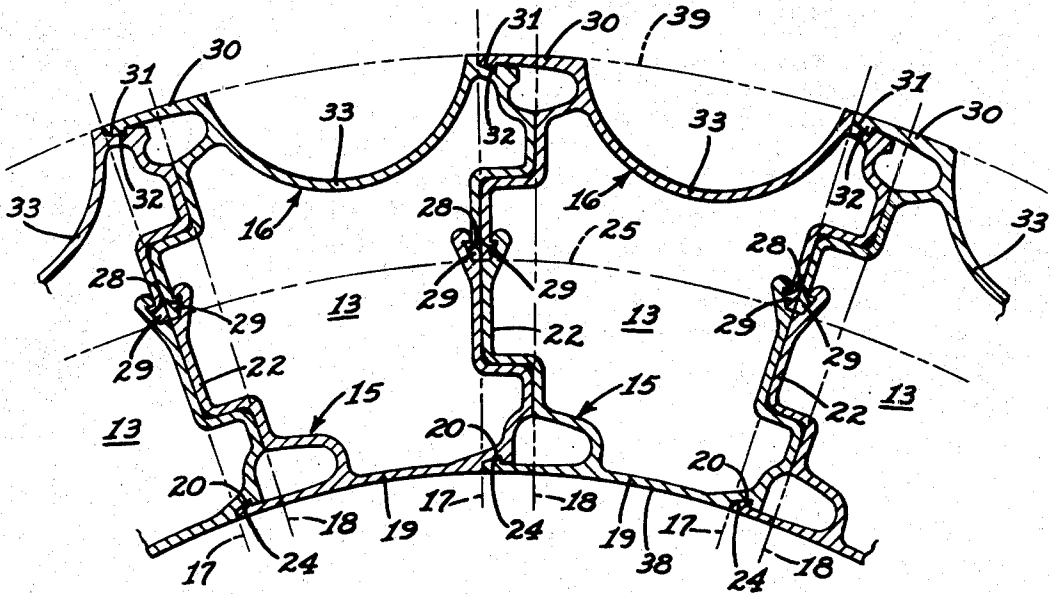
Primary Examiner—John E. Murtagh
Assistant Examiner—Carl D. Friedman
Attorney—Warren F. B. Lindsley

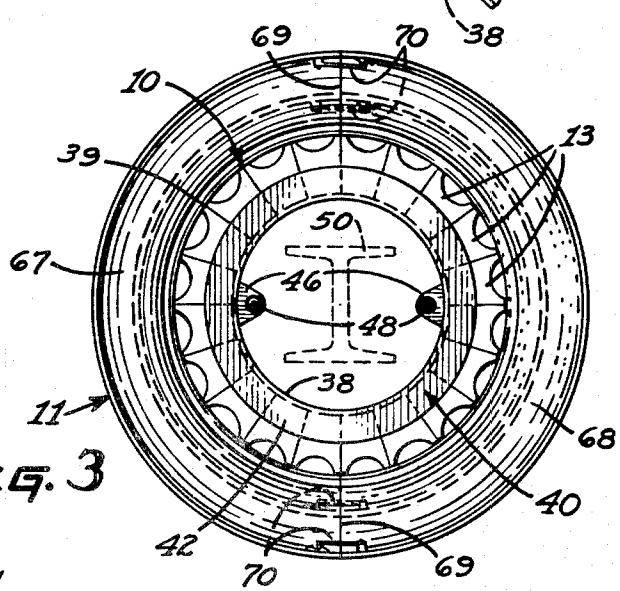
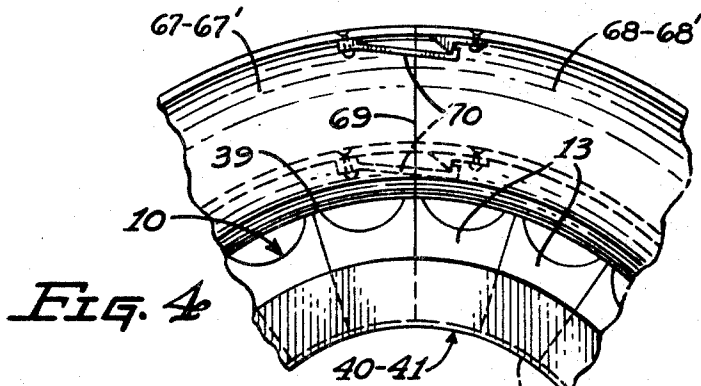
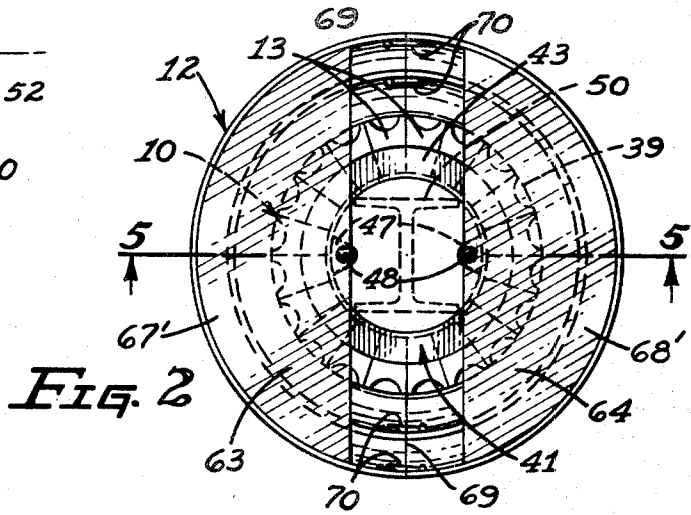
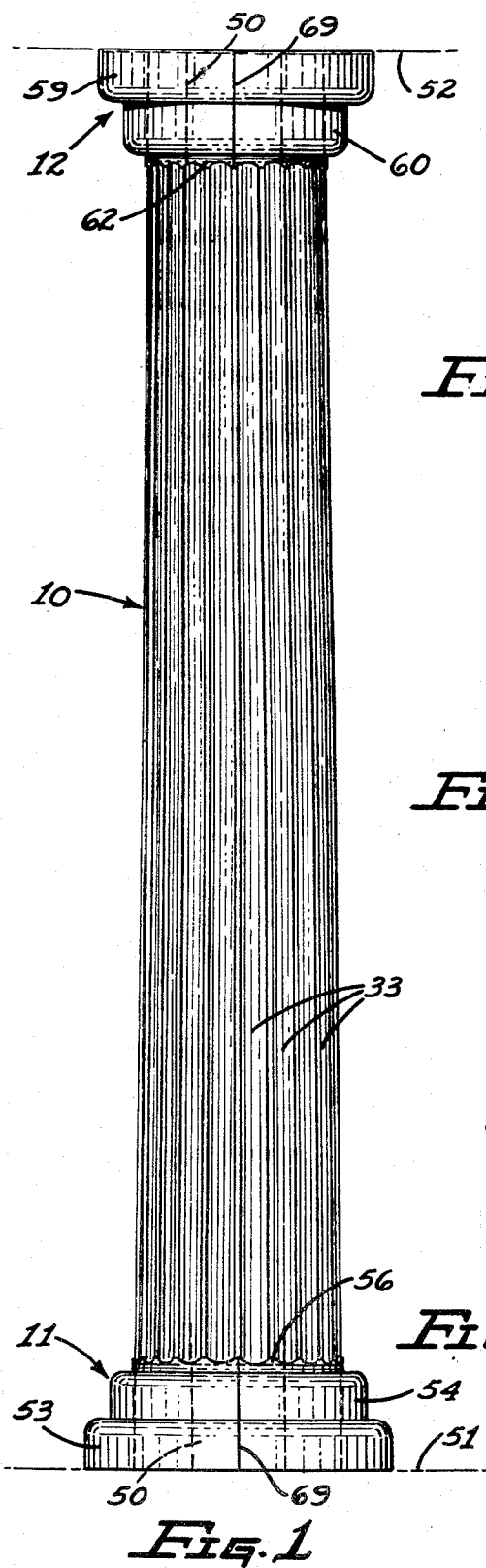
[57]

ABSTRACT

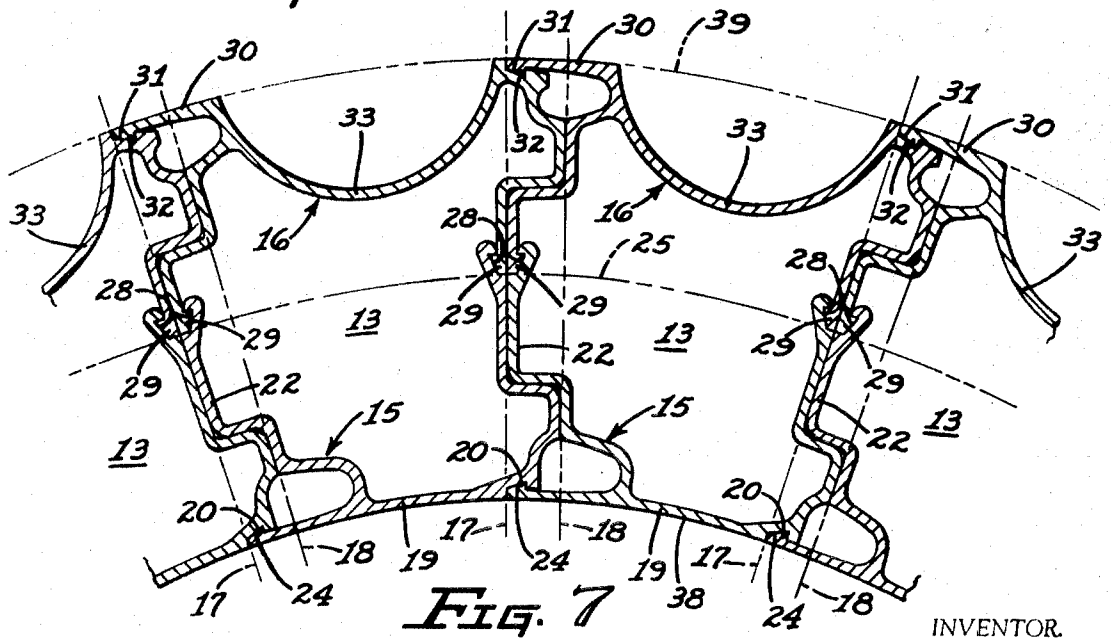
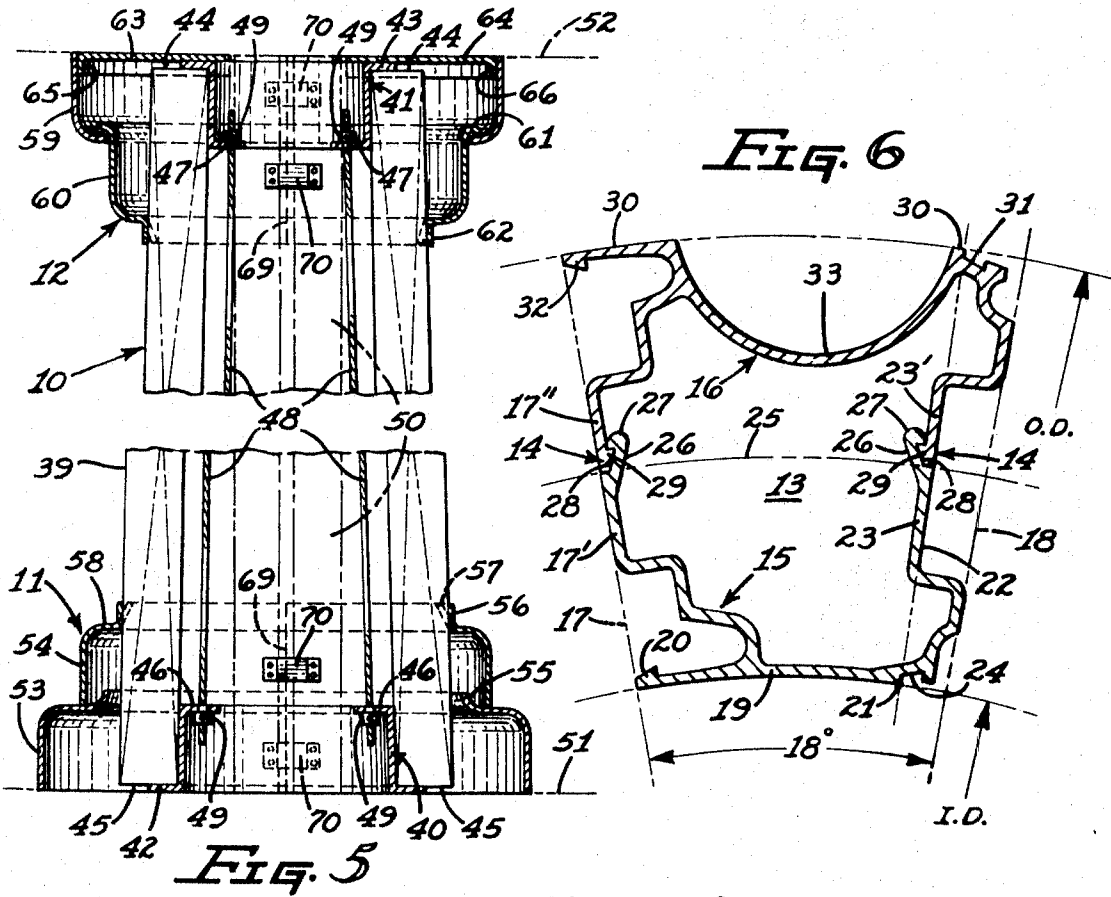
An ornamental, tapered column which is prefabricated from a plurality of identical sections of extruded material to form the angular segments of a circle which, when assembled in a circular relation, form a tapered cylindrical column.

10 Claims, 11 Drawing Figures





INVENTOR
LEWIS R. KINSEY.
BY *Walter F. M. Judd*
ATTORNEY.



INVENTOR.
LEWIS R. KINSEY.
BY *Warren F. M. Jones*
ATTORNEY.

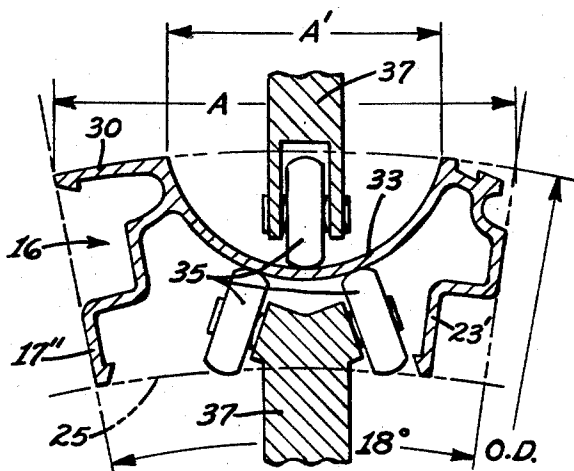


FIG. 8

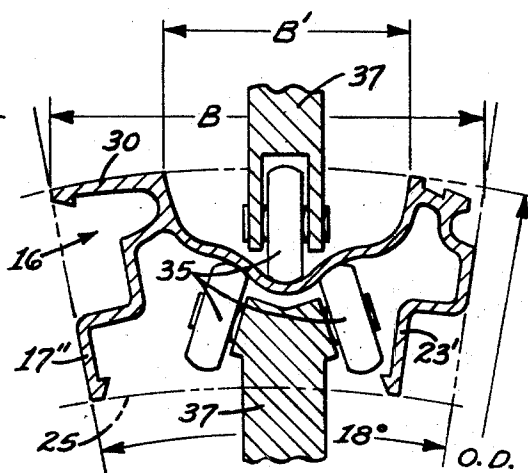


FIG. 9

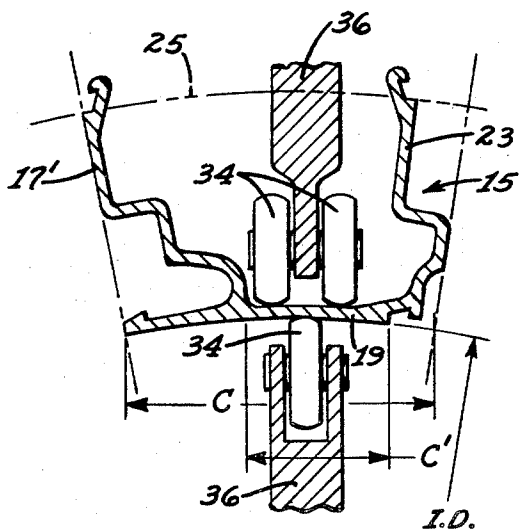


FIG. 10

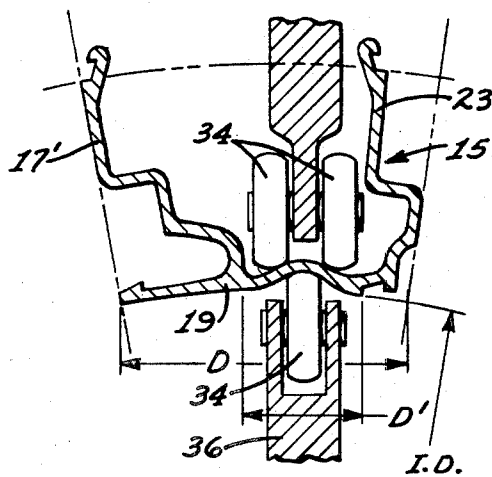


FIG. 11

INVENTOR.

LEWIS R. KINSEY.

BY *Wm. F. B. Jones*

ATTORNEY.

PREFABRICATED TAPERED COLUMNS

BACKGROUND OF THE INVENTION

This invention pertains to ornamental, tapered columns, and more particularly to columns formed of extruded sections.

1. Field of the Invention

This invention is particularly directed to ornamental tapered columns which are entirely prefabricated from extruded plastic or metallic sections.

2. Description of the Prior Art

Large columns have been used for support and ornamentation in buildings for many centuries, particularly from the times of ancient Greece and Rome to the present time. Massive masonry columns are now used in many of our Federal, State and Memorial Buildings.

These great columns always stood as a silent symbol of the architectural splendor and grandeur of the past, and when specified for public buildings of the present are usually designed to be architecturally compatible with the design periods such buildings represent; but the cost of producing and handling these great columns today has almost eliminated their use.

Heretofore such columns were usually constructed of reinforced concrete in several vertical sections to attain the desired height, and were assembled at the building site to form the columns.

The base and cap or capital portions of these columns were usually cast of concrete in the particular ornamental design required to blend with the architectural period of the building, such as "Doric," "Ionic," or "Corinthian," and were usually assembled with the columns at the building site. This old style building procedure necessitated the use of many expensive forms, heavy duty hauling and handling apparatus, and a great deal of time for building and installing each column, making the overall cost of producing such masonry columns prohibitive today.

In accordance with the present invention, new and improved columns and methods of prefabricating them have been provided which columns may be tapered from bottom to top, having a fluted outer perimeter, ornamental bases and caps or capital portions to produce simulated versions of the great columns of old. The method disclosed prefabricates such columns inexpensively, of lightweight, extruded plastic or metallic sections which are simple to handle and easily assembled into columns for building structural use.

SUMMARY OF THE INVENTION

It is therefore one object of this invention to provide a prefabricated, tapered column formed of interlocking sections.

Another object of this invention is to provide a new and improved method of performing interlocking arcuate sections which, when assembled, form a replica of the Doric, Ionic and Corinthian architectural periods.

A further object of this invention is to provide an improved extruded arcuate section which, when extruded in an elongated section and assembled with other like sections, forms a structural column.

A still further object of this invention is to provide an extrudable section of plastic or metal which, when interlocked with other like sections, forms a column.

A still further object of this invention is to provide an extruded tapered column formed of a plurality of ex-

truded arcuate sections which interlock to form a column.

Further objects and advantages of the invention will become apparent as the following description proceeds and the features of novelty which characterize this invention will be pointed out with particularity in the claims annexed to and forming a part of this specification.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an elevational view of a tapered column of this invention with its Doric type base and capital in place as it would appear when installed in a building structure.

FIG. 2 is a top plan view of the base and column structure shown in FIG. 1.

FIG. 3 is a bottom end view of the base and column structure shown in FIG. 1.

FIG. 4 is an enlarged fragmentary view illustrating one method of securing two half portions of either the base or capital together around the column.

FIG. 5 is a vertical sectional view through the assembled column, taken on the line 5—5 of FIG. 2.

FIG. 6 is an enlarged transverse sectional view of one of the assembled angular sectors, showing one method of securing the outer and inner sections of the sectors together.

FIG. 7 is an enlarged, fragmentary transverse sectional view through a portion of the assembled column, illustrating one method of assembling the individual angular sectors as shown in FIG. 6 into the completed circular column.

FIG. 8 is an enlarged transverse sectional view through one of the outer extruded sections at the start of the rolling and pressing operation which gradually tapers each section from one end to the other.

FIG. 9 is an enlarged transverse sectional view, similar to FIG. 8, showing the changed shape and width of the section at the end of the rolling and pressing operation.

FIG. 10 is an enlarged transverse sectional view through one of the inner extruded sections at the start of the rolling and pressing operation which gradually tapers each section from one end to the other.

FIG. 11 is an enlarged transverse sectional view similar to FIG. 10, showing the changed shape and width of the section, at the end of the rolling and pressing operation.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the various views of the drawings for a more detailed description of the construction and other features of the invention by characters of reference, FIG. 1 illustrates the prefabricated, tapered column 10, assembled with its base member 11 and cap or capital member 12, as it would appear when installed in a building structure.

The tapered column 10 is preferably prefabricated from a number of hollow pre-assembled sectors 13, such as shown in FIGS. 6 and 7 and in diagrammatic form in FIGS. 2, 3, 4 and 5. These sections may be formed of suitable plastic or metallic materials and as shown and described here is formed of extrudable aluminum. As by way of example, the preferred number of sectors 13

utilized to form the tapered column 10 of this invention is twenty, and each sector is pre-assembled to provide an 18 degree segment, radiating from the center of a circular plane, having a predetermined outside and inside diameter. Each of the sectors 13 is assembled into a single unit by joining together, as at 14 in FIG. 6, the inner and outer individually shaped extruded aluminum sections 15 and 16, respectively.

The forming of the sections 15 and 16, which may be U-shaped in cross-sectional configuration, only requires the use of two extrusion dies, one to produce the shape of the inner section 15, and the other to produce the shape of the outer section 16. These sections and the resulting assembled sectors 13 fabricated therefrom may be any desired length (from 20 to 30 feet or longer), depending on the required height of the column being fabricated. The desired outside and inside diameters of the column being fabricated can readily be attained by increasing or decreasing the arcuate widths and radial lengths of each inner and outer section, and hence the assembled sectors or segments 13, so long as the converging angular sides (represented by planes shown by dot-dash lines 17 and 18 in FIGS. 6 and 7) of each sector 13 remain in contacting alignment with the radial dividing lines of each 18 degree segment of the particular column.

It should be noted and understood that the number of sectors 13 utilized to form or fabricate the tapered column 10 of the invention would not necessarily be limited to 20, or 18 degree segments of a circle, as recited in the foregoing example of the preferred embodiment; but that a column of any desired diameter could be fabricated from any number of pre-assembled sectors designed to have the same angular convergence as an equal number of radial segments into which a perfect circle could be divided. In the preferred embodiment shown, an equal number of sectors or segments is utilized to allow for assembly and installation of the column in two separate halves, the purpose of which will hereinafter appear.

The inner and outer sections 15 and 16 are quickly and inexpensively produced in any desired length by any known extrusion method, and as previously stated, only one extrusion die is required to obtain the desired shape of each section.

Each of the sections 15 and 16 are preferably shaped as shown in FIG. 6, with their aligned converging sides represented by planes 17 and 18, angled to align with the radial dividing lines of a predetermined segment of a circle, so that each assembled sector 13 will nestle within each adjoining sector (as shown in FIG. 7) to form the diameter of the desired cylindrical column.

The inner and outer sections 15 and 16 are extruded of aluminum to provide fairly thin and slightly flexible wall sections in the desired shape. The inner section 15 is shaped with an arcuate faced wall section 19 which extends to its angular converging left side represented by plane 17, where it is provided with an angular shaped detent or catch 20, and which extends on the right side to a point 21 which is in radial alignment with the outer face 22 of the inwardly depressed portion 23 of the angular converging right side formed by plane 18. At this point wall section 19 is provided with an angular depression or notch 24 which is adapted to receive in locking relation another detent 20 on an adjoining section 15, as clearly shown in FIG. 7.

The angular converging or diverging side walls represented by planes 17 and 18 and the integrally depressed wall portions 23 of sections 15 and 16 are designed to project inwardly or outwardly approximately one half of the radial depth of an assembled sector 13, as indicated by the dot-dash line 25. The end 17'' of the inner section's portion of its diverging side wall and its diverging depressed portion 23 are provided with inwardly projecting extensions 26 having rounded cam-shaped ends 27 and outwardly facing angular depressions or notches 28 in their opposed sides which are adapted to mate with and receive the inwardly projecting detents or catches 29. These catches are integrally formed on the ends 17'' of the outer section's portion of its converging side wall represented by plane 17 and its portion 23' of the inwardly depressed wall 23, to securely lock the inner section 15 and outer section 16 into a single unit sector or segment 13.

The outer section 16 is shaped to provide an arcuate faced wall section 30, which extends to the left converging side plane 17 of the section, and is evident on the right side for a short distance, ending in alignment with the radial outer face 22 of the depressed wall portion 23 where it is provided with an angular depression or notch 31. The arcuate faced wall section 30 is also provided at its left end with an integral inwardly projecting detent or catch 32. The notch 31 and the detent 32 are adapted to mate with identical detents and notches in the adjoining outer sections 16 (as shown in FIG. 7) to form the outer circular perimeter of the column being assembled.

The arcuate faced wall section 30 is provided with an integral concave wall section 33, which is substantially semi-circular in shape and is located approximately midway between the angular converging sides forming planes 17 and 18 of the outer section 16. This concave wall section 33 is intended to simulate in appearance the longitudinal flutes or concave depressions in the massive masonry columns of the past.

Previous to the assembly of the inner and outer sections 15 and 16 into unit sectors 13 from which the tapered aluminum column 10 is fabricated, another operation is required which will result in tapering of the assembled column. Reference should be had to FIGS. 8, 9, 10 and 11 of the drawings which illustrate one method and the equipment required to perform the tapering operation.

The tapering of the inner and outer sections 15 and 16 may be accomplished by a simple rolling and pressing operation which is performed on each piece or section before said sections are assembled together to form sectors 13. In other words, this operation results in the reduction of the overall cord widths of each piece or section, as indicated by the dimensions "A" in FIG. 8 and "B" in FIG. 9 of the outer section 16, and also by the dimensions "C" in FIG. 10 and "D" in FIG. 11 of the inner section 15, resulting in the reduction of the inner and outer cord widths of the assembled sectors 13.

The rolling and pressing equipment required to accomplish a gradual tapering of each section from one end to the other preferably comprises two sets of three rollers each, one set 34 for the operation on the inner sections 15, and one set 35 for the operation on the outer sections 16. Each of the rollers 34 and 35 is journaled to rotate in opposed lever arms 36 or 37 of the

stationary tapering machine (not shown), which also includes advancing mechanism for moving the extruded aluminum sections through the machine.

The rollers 34 and 35 are preferably positioned with one roller contacting the outside surface, and two rollers contacting the inside surface of portion A' of section 16 in FIG. 8 and portion C' of section 15 in FIG. 10 to be narrowed by the tapering operation. It should be understood that each of the sections 15 and 16 upon which the tapering operation is to be performed may be 20 or 30 feet in length, or even longer, to provide for the required height of the column to be assembled from these individual sections.

The tapering operation described above must be done gradually and accurately and the machine or mechanism employed must be nearly automatic to advance the shaped sections through the rollers at a constant speed and constant depression rate from one end to the other end of the section being tapered. If only one pass through the machine is not enough or if the depth of the depression being formed is not enough to provide the necessary narrowing of that particular section as shown in FIGS. 9 and 11 of the drawings and indicated by the dimensions B' and D' respectively, then one or more additional passes of the section through the machine must be undertaken to provide further deepening of the formed depressions and hence the required narrowing of sections 15 and 16. FIGS. 9 and 11 illustrate the final shape of the sections at the end of the tapering operation.

Having described in the preceding paragraphs the features pertaining to fabrication and tapering of the extruded aluminum sections which are utilized to prefabricate the tapered aluminum column 10 of this invention, the following steps are required to assemble these components and base member 11 and capital member 12 into a complete column as shown in FIG. 1.

The inner sections 15 and the outer sections 16 are first joined together as at 14 to form the individual sectors or segments 13. This is easily accomplished by slightly bending the angular side 17'' and the depressed wall portion 23 of sections 15 inwardly toward each other and forcing the opposed sections 15 and 16 toward each other, allowing the rounded ends 27 of the extensions 26 to pass inwardly over the ends of the detents or catches 29 on the ends of outer sections 16. This action causes the projecting detents 29 to snap into the angular shaped notches 28 in the extensions 26 of the inner section 15 to complete the assembly of sections 15 and 16, resulting in the creation of a segment 13.

The pre-assembled sectors 13 are next assembled in locked contacting radial relation to each other to form the cylindrical tapered column 10. This is accomplished by aligning the angular converging side formed by planes 17 and 18 of each sector 13 with the like sides of the next sector to which it must be secured, and sliding the right hand depressed portion, which is made up of the wall portions 23 and 23' of each inner and outer section, over the left hand extending portion which is made up of the wall portions 17' and 17'' of each inner and outer section until the outer face 22 of the depressed portion meets the adjacent outer face of the left hand extending portion, as clearly illustrated in FIG. 7.

When this nesting operation is being performed it automatically causes the angular surfaces of the inner section detent 20, and the outer section detent 32, to spread the arcuate faced outer wall section 30 and the arcuate faced inner wall section 19 slightly apart, and allows the detents 20 and 32 to snap into their respective mating notches 24 and 31 in the inner and outer sections. This nesting operation forms a portion of the inner and outer cylindrical surfaces of the bore 38 and the outer perimeter 39 of the tapered column being assembled. The assembly of all the sectors 13 in the same subsequent manner completes the assembly of the column. In assembling this column these members must always be first pressed into two halves, then these two halves are pressed together; otherwise the last member will not go in place. This mating operation can easily be done with two rocking jigs.

In order to add strength and stability to the assembled column and to prevent longitudinal creeping of the assembled sections and sectors of the column, especially during transportation to and installation of the column at the building site, the tapered bore 38 of the column is provided at each open end with reinforcing flanged sleeve members 40 and 41 as shown in FIGS. 2-5. These sleeve members are adapted to fit snugly into the tapered bore 38 of the column and are provided at their outer ends with integral flat cylindrical flanges 42 and 43, the diameters of which are large enough to extend radially over the end surfaces 44 and 45 of each of the assembled sections 15 and 16.

Each of the flanged sleeve members 40 and 41 is provided with diametrically opposed pairs of integral inwardly projecting brackets 46 and 47 at their inner ends, and each bracket is provided with a hole or aperture through which a pair of cables or rods 48 extend longitudinally from one end of the assembled column to the other. These cables or rods 48 are preferably made of aluminum material so as to have similar expansion and contraction characteristics as the material of which the components of the column are made. Each cable is secured in longitudinal compressed relation to the outer surfaces of the brackets 46 and 47, as by means of the collars 49, which are provided with set screws to adjustably secure the cables or rods in taut relation between the brackets, to thereby strengthen, reinforce and prevent longitudinal movement of the many sections or components of the entire assembled column as clearly shown in FIG. 5.

It should be noted that suitable means other than the cables 48, adjustable collars 49 and their set screws, as shown, could be utilized to accomplish the same purpose. For example, rods having integral head portions at one end and threaded portions at their other ends extending through the holes in brackets 46 where they could be secured by nuts to provide the desired compression of the column's components may be used.

Large prefabricated aluminum columns such as shown and described could be used as weight-bearing support members if so desired; but this would necessitate the use of thicker and stronger aluminum sections for their fabrication. This would entail considerable additional expense for material and fabricating operations. Therefore in the preferred embodiment of the invention shown, these large columns are not intended to be used as weight supporting structural mem-

bers and hence can be fabricated from thinner, lighter and less expensive material, resulting in lower assembled weight of the column and less expensive handling, transportation and installation costs of the finished product.

In other words, the prefabricated, tapered aluminum column of this invention has been designed to be ornamental in nature rather than structural, and to simulate the appearance of the great heavy masonry columns of old, without their inherent prohibitive cost.

The columns of this invention are therefore designed to have the large cylindrical bore 38 in their exact centers so they can be installed in the building structure over and around suitable weight bearing structural members such as "I" beams 50 (shown in dotted line) in FIGS. 1, 2, 3 and 5. These "I" beams may be installed in or on a concrete base 51, previously prepared at the building site at the desired locations of the columns, in perpendicular relation to the base 51 and are rigidly secured to the base. They are somewhat longer than the assembled columns, so that they can be securely attached at their tops to a horizontal structural member 52 before or after the surrounding column is installed. If the assembled column is to be installed before the "I" beam 50 is connected to the horizontal structural member, the column would be delivered to the site completely assembled, and lifted by crane or other suitable equipment with its base end above the top end of the "I" beam, then carefully lowered directly over the upright beam until its bottom end rests on the concrete foundation or base 51.

Should it be desired to install the column after the "I" beam has been connected to the horizontal structural member 52, the column would be pre-assembled and delivered to the site in two semi-circular halves, where each half would be set up in vertical position, adjacent to the "I" beam 50 and assembled or snapped together to form the complete column surrounding the pre-installed "I" beam.

Having thus installed the prefabricated, tapered aluminum column 10 in the building structure as above described, it remains only necessary to install the ornamental base member 11 and the ornamental cap or capital member 12 each in their respective positions surrounding the lower end and upper end of the previously installed column to complete the installation or erection of the non-weight-bearing, tapered aluminum column of this invention.

The component parts of the base and cap members 11 and 12 are preferably fabricated of aluminum by a rolling and pressing procedure, especially for the simple Doric styled members shown in FIGS. 1, 2, 3 and 5 of the drawings. The base member 11 comprises two cylindrical upstanding sections 53 and 54, the section 54 being of smaller diameter than the section 53 upon which it rests. Section 53 is adapted to be held in concentric relation to the center of column 10 which it surrounds by the inwardly extending cylindrical flange or collar 55. The upper section 54 is provided with a slightly tapered cylindrical flange or collar 56 which is adapted to bear against the circumferential tapered wall portions 30 of the column for the same purpose. The circumferential portions of the flange or collar 56 fit into the concave wall sections or flutes 33 of the assembled column and can be made to fit snugly therein-

to by performing the additional operation of forming the collar into a series of compound curves as shown in dotted line at 57 in FIG. 5. This can also be accomplished by initially making the flange 56 in a contour pre-formed to match the outside contour of the column at the point of contact with the same.

The top cap or capital member 12 is preferably fabricated in a manner similar to that described for base member 11, that is, it is made in two sections, an upper section 59 and a lower section 60. The lower section is smaller in diameter than the upper section and adapted to be held in concentric relation with the center of the column by means of its semi-circular shaped exterior rim 61, shown in FIG. 5, which interlocks with upper section 59. The lower section 60 is also provided with a downwardly extending cylindrical flange or collar 62 which may be made to match and mate with the outside tapered, fluted contour of the column at its point of contact in a manner similar to that described in connection with the formation of cylindrical flange 56 on the upper base section 54.

The upper section 59 of the cap member 12 is provided with a pair of opposed, flat cover members 63 and 64 respectively, the inner parallel edges of which are spaced apart sufficiently to allow clearance for the upwardly extending top end of the "I" beam structural member 50. These cover members are of sufficient thickness to slide between the underside of the horizontal structural member 52 and the top face of the flat cylindrical flange 43 of the sleeve member 41 to close up the gap therebetween. These cover members also securely support the assembled capital member 12 by means of the depending integral arcuate rims 65 and 66 which project downwardly in contact with the inside cylindrical wall of the upper section 59, where they are secured as by means of welding or otherwise, as clearly shown in FIG. 5.

The assembled base member 11 and the assembled cap member 12 could each be constructed as individual units, to be installed on the assembled columns in their respective positions at the factory, allowing for transportation to and erection of the complete column at the job site; but this method would increase the cost of handling and erection of the completely assembled column. Therefore the base member 11 and the capital member 12 of this invention have been designed to be fabricated as two separate semi-circular portions. Portions 67 and 68 form base member 11, and portions 67' and 68' form capital member 12. These half portions of the base and capital members are installed in their respective positions surrounding the erected column by sliding the two half portions together until their mating edges meet at the central dividing line 69, where they are securely held together to form the base or capital by means of suitable snap-locking spring catches or latches 70. One element of each of the latches is mounted on the opposite halves of the inside cylindrical walls of the upper and lower sections that form the assembled base member or cap member 12, as clearly shown in FIG. 4.

It should be noted that neither the base member 11, the capital member 12, or the assembled column itself carries any load, but are designed to completely surround and cover the load bearing "I" beam structural support member 50 to thereby enhance the appearance

and lessen the cost of the completely installed ornamental column. It is also conceivable that other designs of the base and cap members could be substituted for the Doric styled members shown and described because of their simplicity and consequently minimum cost factor involved in the use of such styling; but that other styles of ornamental bases and capitals such as the elaborate Ionic or Corinthian period designs could be used if they fitted the desired architectural design motif of the structure.

Such departure from the Doric styled base and capital members shown to the Ionic, Corinthian or other styles would merely require such members to be fabricated of cast aluminum, with open contoured tapered bores which would receive and closely surround the lower and upper contoured circumference of the erected column.

Although but one embodiment of the invention has been shown and described, it will be apparent to those skilled in the art that various changes and modifications may be made therein without departing from the spirit of the invention or from the scope of the appended claims.

I claim:

1. An extruded column comprising in combination: a plurality of elongated arcuate sectors each comprising a part of the circumference of the column and when assembled in interlocking arrangement forming the column, each of said sectors comprising an extruded inside portion and an extruded outside portion, said inside portion and said outside portion each formed to provide a pair of spaced legs which interlock at their free edges with a corresponding leg of the other portion to form a basic sector, latch devices interlocking said inside portion and said outside portion into said basic sector comprising cooperating members one on each of the free ends of said inside portion and said outside portion to demountably interconnect the portions, the legs of said inside portion being distorted slightly to cause them to protrude inside of the legs of said outside portion to cause said latch device at the edges of the portions to snap into locking engagement to form the basic sector, latch notches formed on one side of the basic sector, resilient hook members formed on the other side of the basic sector, and the latches, notches and hook members being interconnectable to demountably secure a plurality of the basic sectors together to form a column.

2. The extruded column set forth in claim 1 wherein

said outside portion of at least some of said basic sectors are fluted longitudinally thereof to form a fluted column.

3. The extruded column set forth in claim 1 wherein the outside portion of each of said basic sectors is fluted longitudinally thereof along the portion forming the outside surface of the column to form a fluted column.

4. The extruded column set forth in claim 1 wherein said basic sectors are tapered longitudinally thereof to form when assembled together a tapered column.

5. The extruded column set forth in claim 1 in further combination with a pair of collars each mounted over a different end of the column to hold the sectors together, and adjustable fastening means arranged to extend between each of said collars within the column formed by the basic sectors for holding the sectors in coaxial alignment.

6. The extruded column set forth in claim 5 wherein said basic sectors define a bore extending longitudinally of the column and an I-beam mounted within the column forming a load bearing member.

7. The extruded column set forth in claim 1 wherein said outside and inside portions of each of said basic sectors are formed of aluminum.

8. The extruded column set forth in claim 5 in further combination with a decorative base and capital formed in sections interlockingly mounted around the base and top of column for decorative purposes.

9. A method of forming columns of extruded elongated metallic basis sectors wherein each of said sectors comprises a portion of the outer circumference of the column and wherein each sector comprises interlocking inside and outside portions, the steps comprising:

forming each inside and outside portion into a U-shaped configuration wherein the free edges of the U-shaped configuration are arranged to interlock in end to end relationship,

deforming the crown of the U-shaped configuration of the inside and outside portions into an arcuate configuration,

interlocking the free ends of an inside portion and an outside portion to form a basic sector, and

interlocking a plurality of basic sectors together to form a tapered column.

10. The method of forming a column set forth in claim 9 in further combination with the step of tapering the inside and outside portions evenly along their lengths to form tapered portions which when formed into basic sectors and when said sectors are interlocked together form a tapered fluted column.

* * * * *

55

60

65