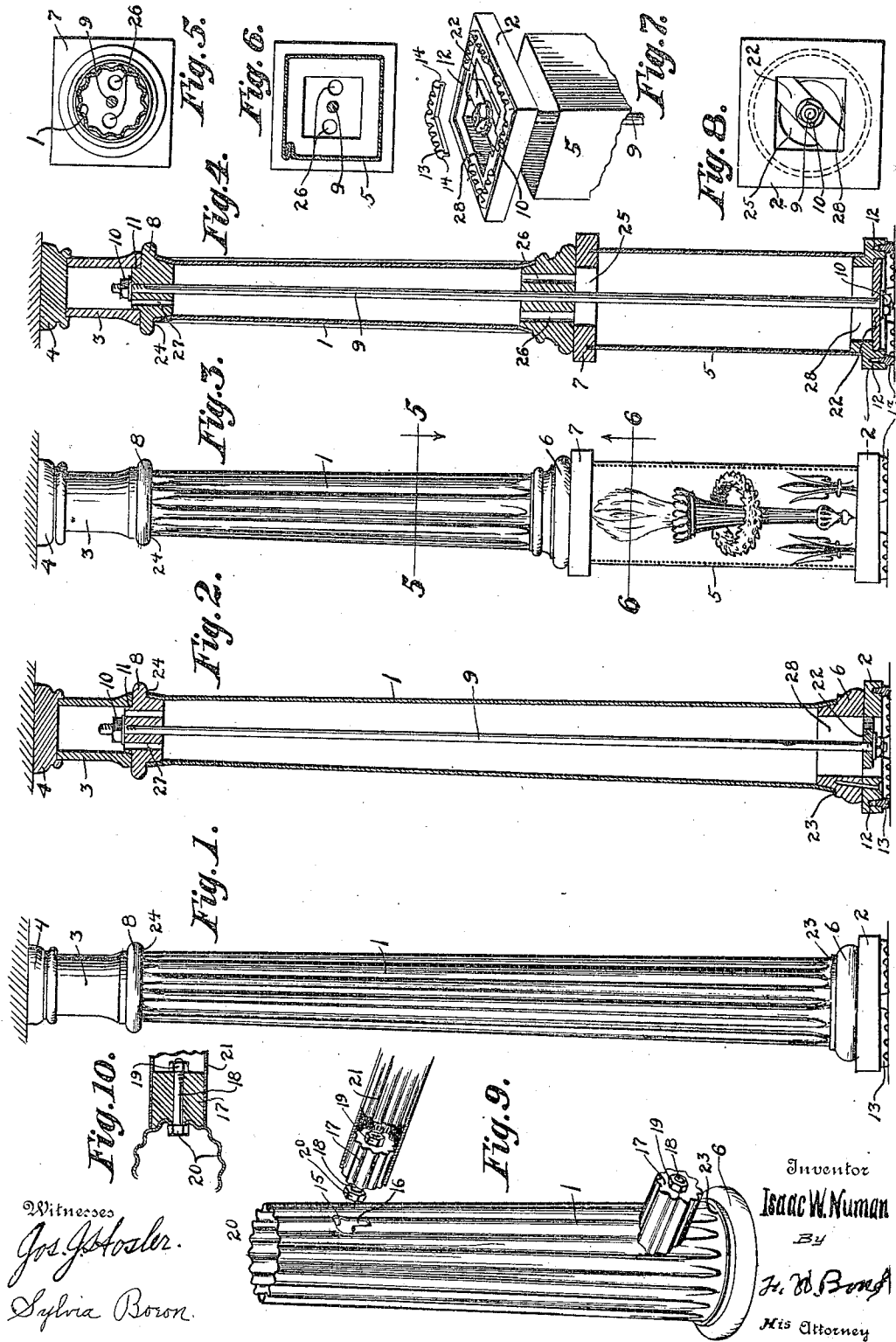


No. 838,571.

PATENTED DEC. 18, 1906.

I. W. NUMAN.
COLUMN.

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UNITED STATES PATENT OFFICE.

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COLUMN.

No. 838,571.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ISAAC W. NUMAN, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Columns; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the numerals of reference marked thereon, in which—

Figure 1 is a side elevation showing the different parts of the column properly assembled. Fig. 2 is a vertical section of the column shown in Fig. 1. Fig. 3 is a side elevation of a column, showing a modified form of base. Fig. 4 is a vertical section of Fig. 3. Fig. 5 is a transverse section on line 5 5, Fig. 3. Fig. 6 is a transverse section on line 6 6, Fig. 3. Fig. 7 is a detached perspective view showing the different parts of the column-base detached from each other and the parts connected. Fig. 8 is a bottom or under side view of the column-base, showing the spacing and supporting bars removed, said figure being the bottom or under side view of the base shown in Fig. 1. Fig. 9 is a perspective view showing a portion of the column and the banister detached therefrom. Fig. 10 is a transverse section of the column and a longitudinal section of a portion of the banister-rail, showing the same attached to the column.

The present invention has relation to columns especially designed for building purposes and more especially designed for porch-posts; and it consists in the novel arrangement hereinafter described, and particularly pointed out in the claims.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, 1 represents the corrugated or fluted column, which is of any desired length, reference being had to the length of the column designed to be constructed, and which may be formed of sufficient length to constitute substantially the entire length of the column except the supporting-base 2 and the reducible top section 3 and its cap 4. The column 1 is to be formed of sheet metal and of a thickness to serve the purpose designed. The column is operated upon to produce the flutes or corrugations by machinery especially designed for that purpose. In Figs. 3 and 4 the cor-

rugated or fluted column is formed somewhat shorter than the one shown in Figs. 1 and 2 and a base-section 5 provided, which base section is preferably rectangular in cross-section, and for the purpose of ornamentation its sides may be provided with any suitable design, such as shown in Fig. 3. Upon the base 2 is mounted and securely attached the tapered filling-block 6, which tapered filling-block is for the purpose of receiving the bottom or lower end of the column 1. The filling-block 6 may be set upon the block 7, which block is secured to the top or upper end of the base 5, the purpose being the same in either event. To the top or upper end of the column 1 is attached the filling-block 8, and upon which tapered portion of the filling-block is connected the top or upper end of the column 1. It will be understood that by tapering the filling-blocks 6 and 8 they can be easily entered in the ends of the column 1 and drawn toward each other by means of the rod 9 and the screw-threaded nut 10, by which arrangement the metal is stretched, so as to flare the ends of the column and rigidly connect the filling-blocks 6 and 8 to the column. The upper section 3 is seated upon the filling-block 8, said filling-block being provided with the flange 11, which flange is formed of a size to fit the bottom or lower end of the section 3, as illustrated in Fig. 3.

For the purpose of changing the length of the columns proper the upper section 3 should be formed of wood, so that its length can be reduced by sawing or otherwise removing a portion or portions of the upper sections 3.

The column herein described is well adapted for porch posts or columns, and it is well understood that the floors of porches are inclined, so as to provide proper drainage, and some provision must be made to hold under all circumstances the base 2 in a true horizontal position. In order to accomplish this result, the base 2 is provided with the grooves 12, into which grooves are placed the notched and angled supporting-bars 13, which supporting-bars are provided with the shoulders 14, which shoulders are adapted for contact with the bottom face of the base 2. The base 2 is preferably formed rectangular, and for the purpose of assisting in holding the members of the base 2 the supporting-bars 13 are angled so that they will fit the right-angled grooves into which they are to be seated,

and thereby assist in holding the right-angled members of the base in proper relationship with reference to each other. The grooves 12 are formed of greater depth than the inserted portions of the supporting-bars 13, by which arrangement the bottom or under face of the base 2 can be changed or brought into a plane located at an angle to the top of the base, thereby allowing the supporting-bars to be brought into different horizontal planes and compensate for the incline of the floor upon which the base is to be mounted, thereby holding the base 2 in a true horizontal position. The grooves 12 should be formed of a depth sufficient to allow a groove of sufficient depth to receive the inserted flange of the angle-bars 13 after a portion of the bottom or under side of the base proper has been removed from a part of its lower face.

For the purpose of providing suitable ventilation and drainage the supporting-bars 13 should be notched, as illustrated in the drawings.

In the construction of porches, and especially posts for porches, it is desirable to provide a banister or banisters, and in order to accomplish this result the column is provided with the apertures 15, from which apertures lead the slots 16. For the purpose of providing a means for holding a banister-rail, which rail may be of any desired construction, the connecting heads or blocks 17 are provided, to which heads or blocks are connected the bolts 18, which bolts receive the screw-threaded nuts 19. The bolts 18 are provided with the heads 20, which heads are formed of such a size that they can be passed through the apertures 15, after which the nuts 19 can be turned upon the screw-threaded portion of the nuts 18, and thereby securely clamp the heads or blocks 17 to the column 1. It will, however, be understood that before the heads or blocks 17 are clamped they should be moved downward, so as to bring the extended portions of the bolts 18 into the slots 16, by which arrangement the heads or blocks 17 will be securely clamped and held in proper position to receive the banister-rail 21.

For the purpose of providing a means for clamping the base 2 and all of the parts connected to the column proper, except the reducible section 3, and in order to accomplish this result and to provide an anchor for the bottom or lower end of the rod 9 the bar 22 is provided, which bar is seated against the bottom or under side of the base 2 or the filling-block 6 when the construction shown in Fig. 2 is employed and to the base 2 when the construction shown in Fig. 4 is employed. The connecting or filling block 6 is provided with the annular shoulder 23, which annular shoulder receives the bottom or lower end of the corrugated column 1. The filling or con-

necting block 8 is provided with the annular shoulder 24, which shoulder is for the purpose of receiving the top or upper end of the column 1, by which arrangement the corrugated ends of the column are abutted at its top and bottom in such a manner that a proper support will be provided for the weight of the object designed to be carried by the column, and of course any number of columns may be employed, reference being had to the construction of the building or porch. By placing the tapered portion of the filling or connecting block 6 within the corrugated column the water will be properly drained, so that there can be no accumulation of water within the column. This is an important feature, owing to the fact that in the construction of porches the columns, together with their parts, are exposed to the weather, and if in the event water accumulates it has a tendency to destroy the base or other wood parts connected to and belonging to the column or columns.

For the purpose of providing proper ventilation for the column or columns the connecting-blocks and the base are provided with suitable air-passages 25, 26, 27, and 28, thereby forming a continuous circulation of air throughout the entire length of each and every part of the column.

For the purpose of giving a pleasing appearance and at the same time increasing the strength of the column it is tapered from its bottom toward its upper end, removing to a certain extent the danger of the metal buckling when heavy strain is brought to bear upon it.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a column of the class described, the combination of a corrugated section, filling-blocks adapted to be inserted in the ends of the corrugated columns, said filling-blocks provided with tapered portions, a base adapted to support the lower filling-block, and column, and a bar secured to said base, and a screw-threaded rod provided with a nut, said bar connected to the base into the upper filling-block and the tapered portions of the filling-blocks adapted to flare the corrugated section of the column, substantially as and for the purpose specified.

2. In a column of the class described, the combination of a base provided with grooves, supporting-bars provided with shoulders, said shoulders adapted to support the base, the grooves in the base formed of a depth greater than the width of the supporting-bars, a column adapted to be supported upon the base, filling-blocks secured in the ends of the column and means for holding the filling-blocks within the column, substantially as and for the purpose specified.

3. In a structure of the class described, a

corrugated column, a base therefor, said column provided with apertures and slots leading from the apertures, a banister-rail-connecting block secured to the column and adapted to support and hold a banister-rail, substantially as and for the purpose specified.

4. In a column of the class described, the combination of a base provided with grooves, supporting-bars provided with shoulders and teeth said supporting-bars formed angled, and adapted to be embedded in the angled grooves of the base, substantially as and for the purpose specified.

5. The combination of a column and a base therefor, said base provided with grooves, supporting-bars provided with shoulders, said shoulders adapted to support the base and the grooves formed of a depth greater than the width of the supporting-bars in-

serted in the grooves, and means for connecting the column to the base, substantially as and for the purpose specified.

6. The combination of a column, a base therefor, said base provided with grooves, supporting-bars provided with shoulders, said shoulders adapted to support the base and the grooves formed of a depth greater than the width of the portion of the bars inserted in the groove, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ISAAC W. NUMAN.

Witnesses:

J. A. JEFFERS,
F. W. BOND.