

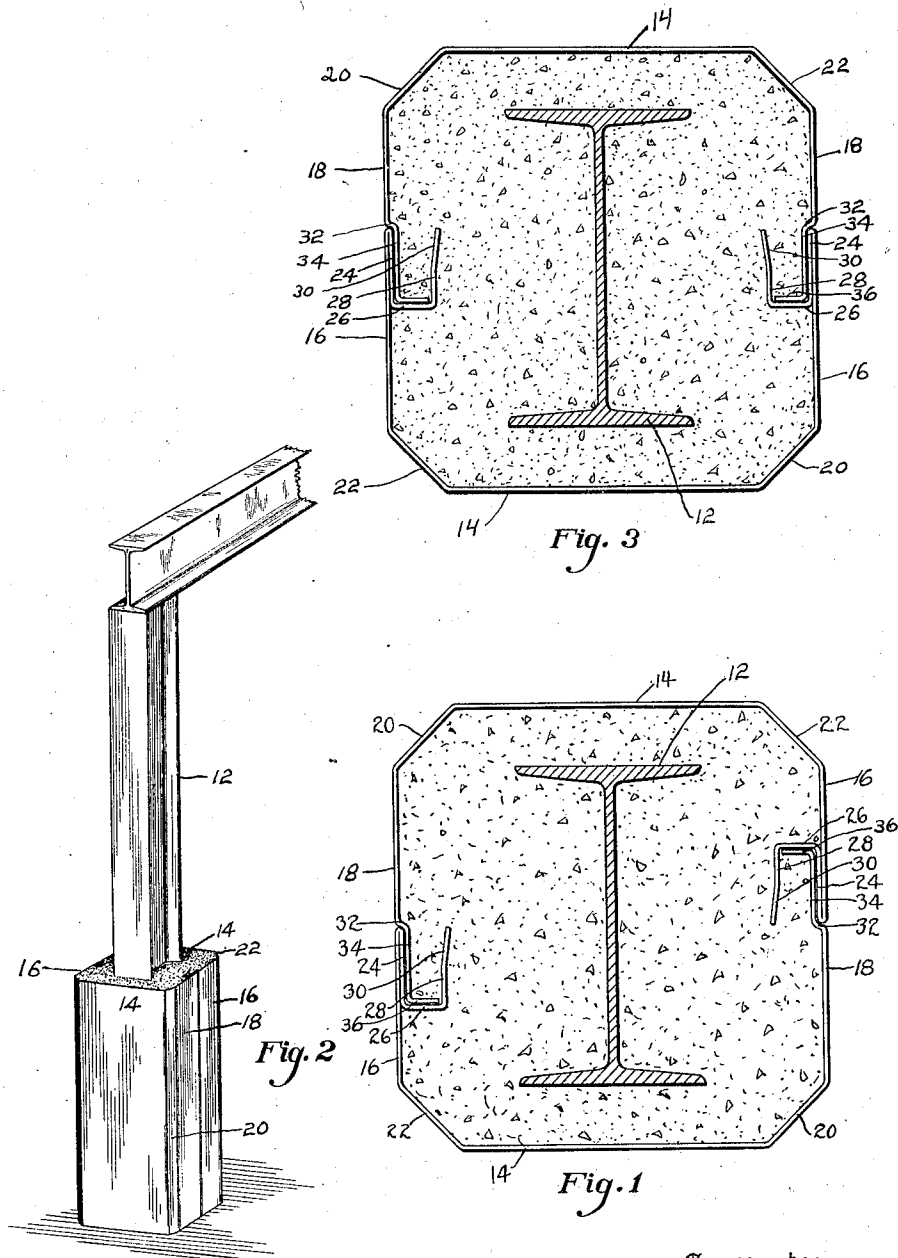
Feb. 15, 1927.

1,617,762

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COLUMN AND GUARD

Filed June 30, 1923



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## UNITED STATES PATENT OFFICE.

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## COLUMN AND GUARD.

Application filed June 30, 1923. Serial No. 648,711.

This invention relates to columns and guards therefor and to the method of building and assembling the same.

Prior to this invention, concrete columns have been encased in metal, usually by bolting two half sections together to protect the column against the bumping of exterior objects such as trucks and the like. It is a matter of some trouble to get the bolt holes in the sections to register accurately. Furthermore, even when the bolt holes register, the operation of putting in the bolts is a slow and indirect operation due to the fact that the casings are of such height that a workman cannot reach down into the casing to get at the lower bolts or nuts. This necessitates the raising of the casing onto horses or other supports so that the lower bolts can be reached from the lower end of the casing.

An object of the invention, therefore, is to produce an improved column and guard that can be easily and quickly built. Another object is to provide an improved method of assembling the guard and the column. In the illustrated construction and described method, two sheet metal sections are bent to conform to approximately one half of the periphery of the column and their meeting ends or edges are formed with interfitting flanges, such that the two sections can be simply pushed together laterally into proper relation and will become permanently locked against movement in all directions by concrete poured into the space between the sections and around the joints. By this method, an effective securing means is obtained without the use of bolts or other special fastenings.

To these ends and also to improve generally upon devices of this nature, the invention also consists of the various matters herein described and claimed.

In the drawings, Fig. 1 is a horizontal sectional view and Fig. 2 is a perspective view of the column with the guard secured thereto.

Fig. 3 is a modification of Fig. 1.

The numeral 12 indicates a steel I-beam or other post that forms the core or reinforcement of the column. The casing or guard comprises two sheet metal strips, each bent to a size and shape to conform to approximately one half of the column. The sheets can be of various shapes depending on the

contour of the column but, in the illustrated form, are of substantially U-shape with the open sides facing each other. The bases 14, 14 are straight and the sides 16 and 18 are joined to the bases by the angular portions 20 and 22. At least one side, as 16, on one of the sections has its end bent back upon itself as at 24, then inwardly as at 26, and again laterally as at 28. This produces a substantially U-shaped box or housing, the tongue formed by the last bend at 28 being preferably inclined as at 30 to form a guide as will later appear.

At least one side, as 18, on the other section, has its end bent inwardly as at 32, then laterally as at 34, and again inwardly to form a flange 36, this flange fitting the bottom or base of the box or housing on the first section. When assembling the sections 14, 14, their sides 16 and 18 are simply slid into one another laterally, the incline at 30 engaging the end of the flange 36 and guiding the sections into alignment. The interfitting joints prevent any sidewise separation of the sections, and front to rear separation is temporarily prevented by braces set against the bases 14, 14 or by a flexible member wound around the casing. Concrete is then poured into the space between the sections and all around the joints, and, when the concrete sets, a permanent lock is produced which firmly holds the casing in place, the concrete being moulded to the exact shape of the casing. It is obvious that a box or housing may be bent up on both ends or edges of one section and that both ends or edges of the other section may have the cooperating bends but the illustrated form is preferred because both sections are alike.

Although the invention has been shown and described by reference to specific structure and steps, it should be understood that, in its broader aspects, the invention is not necessarily limited thereto.

I claim:

1. In a device of the character described, a guard or casing for a concrete column comprising two sheet metal sections, each conforming to approximately one half of the column, at least one end of one of the sections being turned back on itself, then bent inwardly and again laterally to form a substantially U-shaped housing, the cooperating end of the other section having an in-

wardly projecting flange arranged to enter said housing, and a concrete filling for the space between the sections.

2. A device in accordance with the preceding claim wherein a tongue formed by one side of the U-shaped housing is bevelled or inclined to guide the sections together upon relative sliding movement.

3. In a device of the character described, a guard or casing for a concrete column comprising two sheet metal sections, each con-

forming to approximately one half of the column, one end of each section being bent back upon itself, then inwardly, and again laterally to form a U, the cooperating end of the other section being bent inwardly, then laterally and then inwardly again, said last inward bend fitting the base of the U, and a concrete filling between the sections.

In testimony whereof I have signed my name to this specification.

WILLIAM G. KIEFER.