

(No Model.)

2 Sheets—Sheet 1.

F. H. KINDL
STRUCTURAL SHAPE AND COLUMN.

No. 559,335.

Patented Apr. 28, 1896.

Fig. 1.

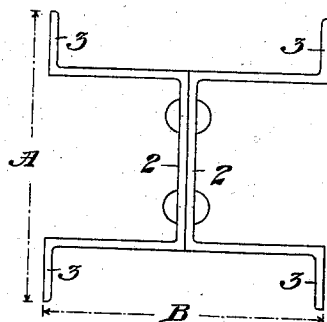


Fig. 2.

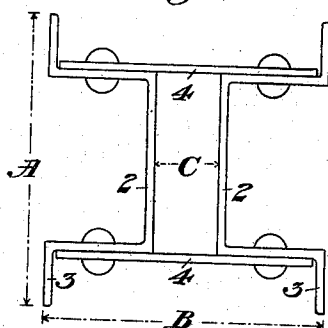
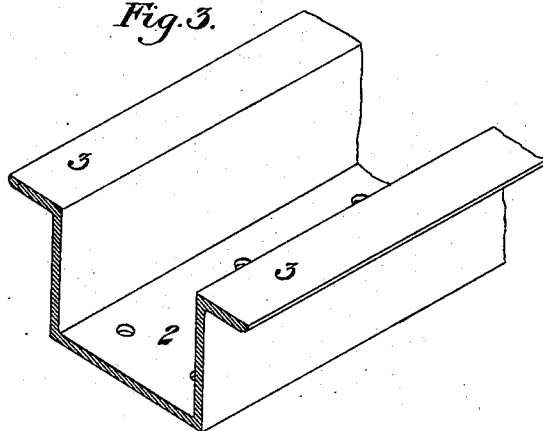


Fig. 3.



WITNESSES

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Fig. 4.

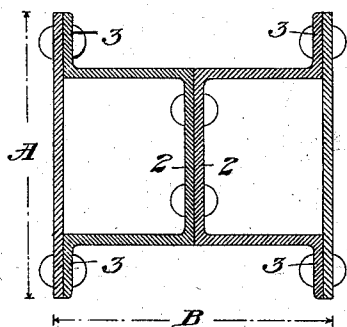


Fig. 6.

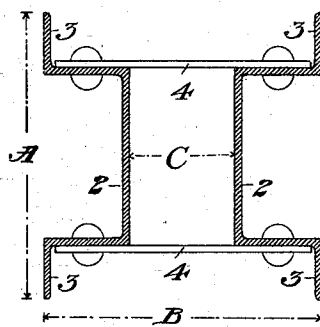


Fig. 5.

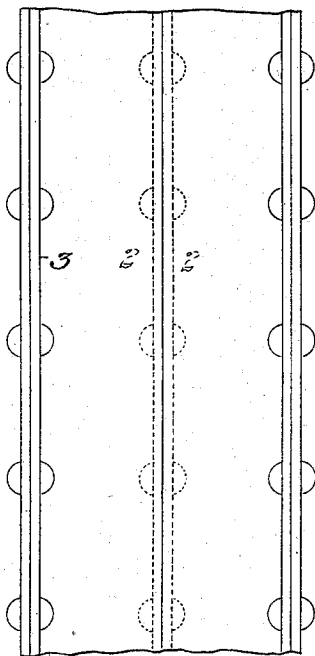
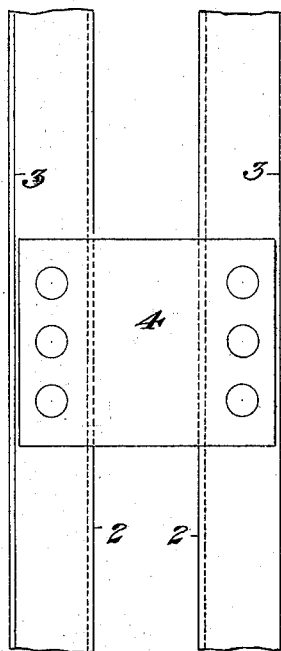


Fig. 7.



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UNITED STATES PATENT OFFICE.

FREDERICK H. KINDL, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO THE
CARNEGIE STEEL COMPANY, LIMITED, OF SAME PLACE.

STRUCTURAL SHAPE AND COLUMN.

SPECIFICATION forming part of Letters Patent No. 559,335, dated April 28, 1896.

Application filed November 15, 1895. Serial No. 569,056. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK H. KINDL, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Compound Columns, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

10 My invention relates to compound columns of the general type set forth in my former patent, No. 546,781, dated September 24, 1895, wherein the sections at the successive floors or parts of the building are composed of 15 shapes of successively less size, while the column itself has substantially uniform outline dimensions from top to bottom; and it consists in an improved construction of such column, whereby it is much more easily and 20 cheaply constructed.

In the accompanying drawings, Figure 1 is a top plan view of one form of section which I may employ. Fig. 2 is a similar view of another form of section. Fig. 3 is an isometric 25 perspective view of the rolled structural shape I employ. Fig. 4 is a cross-section, and Fig. 5 a partial side elevation, of the form of one of the lower sections of my preferred form of column. Fig. 6 is a cross-section, and Fig. 30 7 a partial side elevation, of one of the upper sections of such column.

In the drawings, 2 represents the structural shape which forms the basis of the column, two of these shapes being employed with each 35 section. This shape consists of a channel portion having oppositely-extending side flanges 3 3. In constructing a section of the column two of these sections are placed back to back and secured by rivets, which either 40 pass through the contacting bases, as in Figs. 1 and 4, or through tie-plates 4, placed on op-

posite sides of the intermediate channel portions, as shown in Figs. 2, 6, and 7.

In forming a column I preferably employ for the lower sections thereof the form of Fig. 45 4, in which cover-plates are riveted to the sides of the column, the rivets passing through the flanges of the shapes. The upper sections of the compound column are formed by shapes of the same general form, but having shallower channels, as shown in Fig. 6, these shapes 50 being secured together by the tie-plates 4, riveted to their channels.

It will be noticed that while the dimensions A and B of the section of Fig. 6 are the same 55 as those of A and B in the section of Fig. 4 the bases of the channels are spaced apart in Fig. 6 a distance C, this distance being variable in the different sections. A compound column built up in this manner possesses the 60 same advantages as those of the column shown in my former patent, while its construction is much simpler and fewer connections are necessary, as no Z-bars are employed.

I claim—

65 A compound column, the successive sections of which are composed of two separate shapes each having an intermediate channeled portion, with vertical sides, and provided with laterally-projecting flanges, the 70 channeled portions of the shapes of the successive sections being successively shallower but having their bases spaced apart in such a way that the dimensions A and B are constant; substantially as described. 75

In testimony whereof I have hereunto set my hand.

FREDERICK H. KINDL.

Witnesses:

C. BYRNES,
G. I. HOLDSHIP.