

(No Model.)

M. CHRISTOPHERSON.

GUIDE POST CLAMPING DEVICE FOR ELEVATORS.

No. 532,414.

Patented Jan. 8, 1895.

Fig. 1.

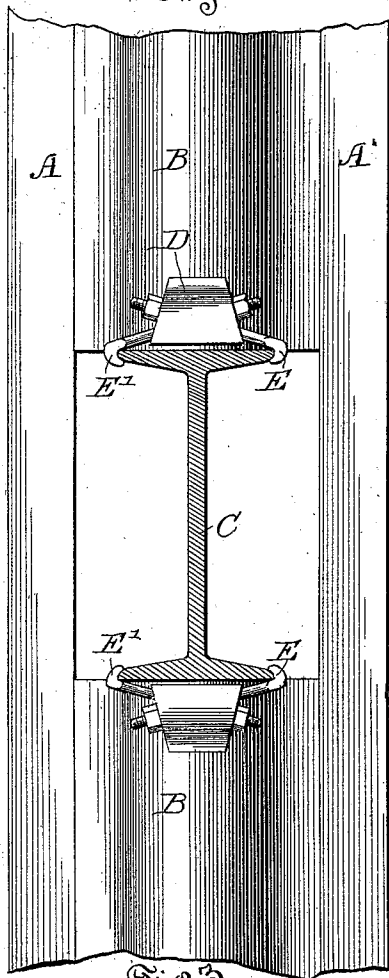


Fig. 2.

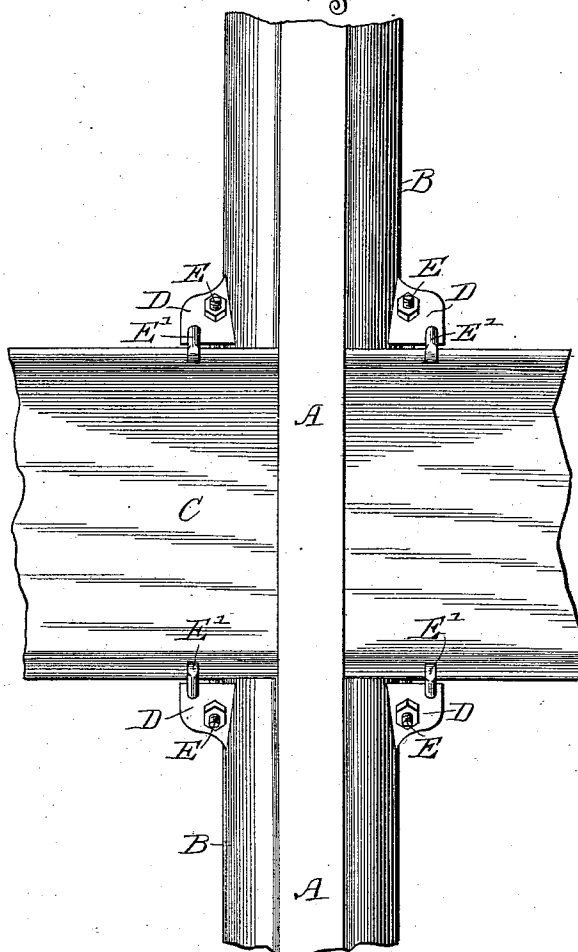


Fig. 3.

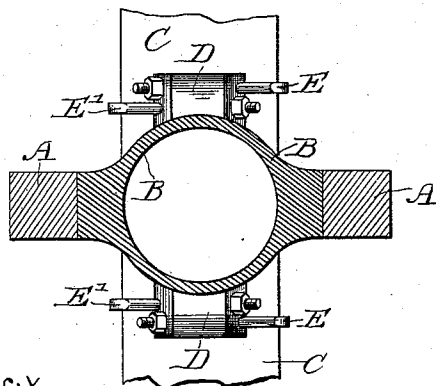
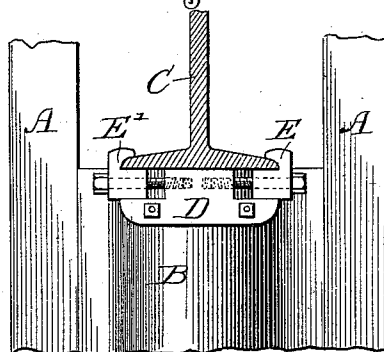


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

MARTIN CHRISTOPHERSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE
STANDARD ELEVATOR COMPANY, OF SAME PLACE.

GUIDE-POST-CLAMPING DEVICE FOR ELEVATORS.

SPECIFICATION forming part of Letters Patent No. 532,414, dated January 8, 1895.

Application filed March 26, 1892. Serial No. 426,479. (No model.)

To all whom it may concern:

Be it known that I, MARTIN CHRISTOPHERSON, a subject of the King of Sweden and Norway, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Guide-Post-Clamping Devices for Elevators, of which the following is a specification.

This invention relates to improvements in the construction of guide post clamping devices for elevators, and similar purposes, and it consists in the construction substantially as shown in the accompanying drawings, described in the subjoined specification, and more particularly pointed out in the claims.

Like letters refer to the same parts in the several figures of the drawings, in which—

Figure 1 represents a side elevation of the guide post and pair of guide strips and clamping devices secured to such posts, and a vertical section of the I-beam to which the guide post is secured. Fig. 2 is an edge view of the guide strip, guide post and clamping devices and a side view of a portion of the I-beam. Fig. 3 is a horizontal section of the guide post and guide strips showing the clamping devices and the I-beam in plan; and Fig. 4 represents a similar view to Fig. 1 except that a modification of the clamping devices is illustrated and only a small portion of the guide strips and I-beam.

As is well known, the elevator car or cab is commonly caused to travel vertically upon guide strips arranged on either side of the elevator car or cab and preferably formed of maple or other wood; and such guide strips are usually secured in any convenient manner to tubular guide posts which latter are made in sections of a length corresponding to the distance from one floor of a building to another, and at each floor these sections are secured to a transversely arranged I-beam, the ends of which latter are secured to the floor of the building. The customary manner of fastening the I-beams to the guide posts is to drill holes in the flanges of the beams, and similar holes in projections or lugs from the guide posts, and then clamp the posts to the beams by bolts which pass through the holes in both of the parts mentioned. Such a construction is comparatively expensive and

troublesome because it frequently happens that the guide posts and strips must be adjusted in position in the elevator hatchway or well and that such adjustment throws the holes out of alignment, and consequently new holes must be formed for the bolts. I have devised an adjustable connection between the I-beams and the guide posts by means of which their relative position may be varied quickly and conveniently without necessitating the drilling of other holes.

In the accompanying drawings I have shown two forms of construction which will serve to illustrate the character of the invention, though of course they do not attempt to delineate all the forms of construction coming within the scope of such invention, for it is obvious that a skilled mechanic could make many variations or modifications of the construction shown without departing from the spirit of the invention.

In the drawings, A, A, designate the pair of guide strips made of maple or other suitable material, and designed to be erected within the elevator hatchway for guiding the elevator or cab. These guide strips are secured to the opposite sides of the guide post B, which latter is of metal and preferably hollow, as shown in Fig. 3, and is composed of as many sections as there are floors to the building, or they may be made of any convenient number of sections according to the exigencies of the occasion. Each section may be provided at both its upper and lower end with a projection or lug formed integrally with the same or otherwise rigidly connected thereto.

The guide post I designate by the letter B and the lugs by the letter D.

In Figs. 1 and 2 of the drawings I have shown the preferable construction of clamping device which consists of a pair of hooked bolts which are reversely arranged in apertures in the lugs, and hook over the edges of the I-beam. Of course the slots or apertures in the lugs must be so formed as to permit the proper play of the hooked bolts. If it is desired to shift the guide strips to the left the nuts on the two bolts E' are loosened and the nuts on the two bolts E are tightened, which will cause the lugs D to slide to the left through the space permitted by the loosening of the nuts. If it

is desired to move the guide strips to the right the manipulation of the bolts is reversed.

If it is found that a guide strip on one side of the elevator hatchway is not in exact alignment with the strip at the opposite side of such hatchway proper adjustment may be given to the first mentioned strip by loosening the nut on the bolt E and tightening the nut on the bolt E'.

It will be seen by the above description that guide strips can be adjusted closer together or farther apart by the manipulation of the clamping devices as first mentioned; or if they are out of alignment they may be brought into alignment, or in other words arranged so as to be in the same vertical plane, by the twisting action of diagonally opposite bolts in the manner last mentioned. Moreover by this adjustable arrangement of clamping devices the parts may be quickly put together or taken apart.

In the modification shown in Fig. 4, the lug D is provided with screw threaded sockets on opposite sides of the same in which turn the bolts upon which are arranged the sliding hooks E, E'. The hooks in this instance are sliding blocks through which the bolts loosely pass and which may be guided upon ledges or ways formed on the lugs D.

It is obvious that the action of the modification illustrated, is similar to that of the construction first described, and shown in the other figures of the drawings.

What I claim, and desire to secure by Letters Patent, is—

1. In an elevator hatchway, the combination of guide posts and supporting beams, an

adjustable clamping device connected to the post and bearing against the beams; substantially as and for the purpose set forth.

2. In an elevator hatchway, the combination of guide posts, hooked bolts, having bearings in the guide posts, and their hooks projecting beyond the same, with supporting beams adapted to be clamped by such hooks; substantially as and for the purpose set forth.

3. The combination of a beam, posts having lugs with inclined sockets, and bolts passing through said sockets, having hooks engaging the edges of the beams and tightening nuts; substantially as set forth.

4. In an elevator hatchway the combination of guiding posts composed of a number of sections carrying guide strips, and each section bearing against an I-beam at top and bottom, with hooked bolts adjustable in the guide posts and clamping the flanges of the I beam, substantially as and for the purpose set forth.

5. In an elevator hatchway the combination of guide strips, guide posts carrying such strips, and composed of a series of sections, cross beams interposed between the sections and supported by the building, clamping bolts arranged in pairs in bearings formed in the guiding posts, and with the hooked ends of each pair oppositely placed, and serving to clasp the flanges of the beams and thereby secure the same to the guiding posts and provide a convenient adjustment for the latter; substantially as and for the purpose set forth.

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Witnesses:

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