

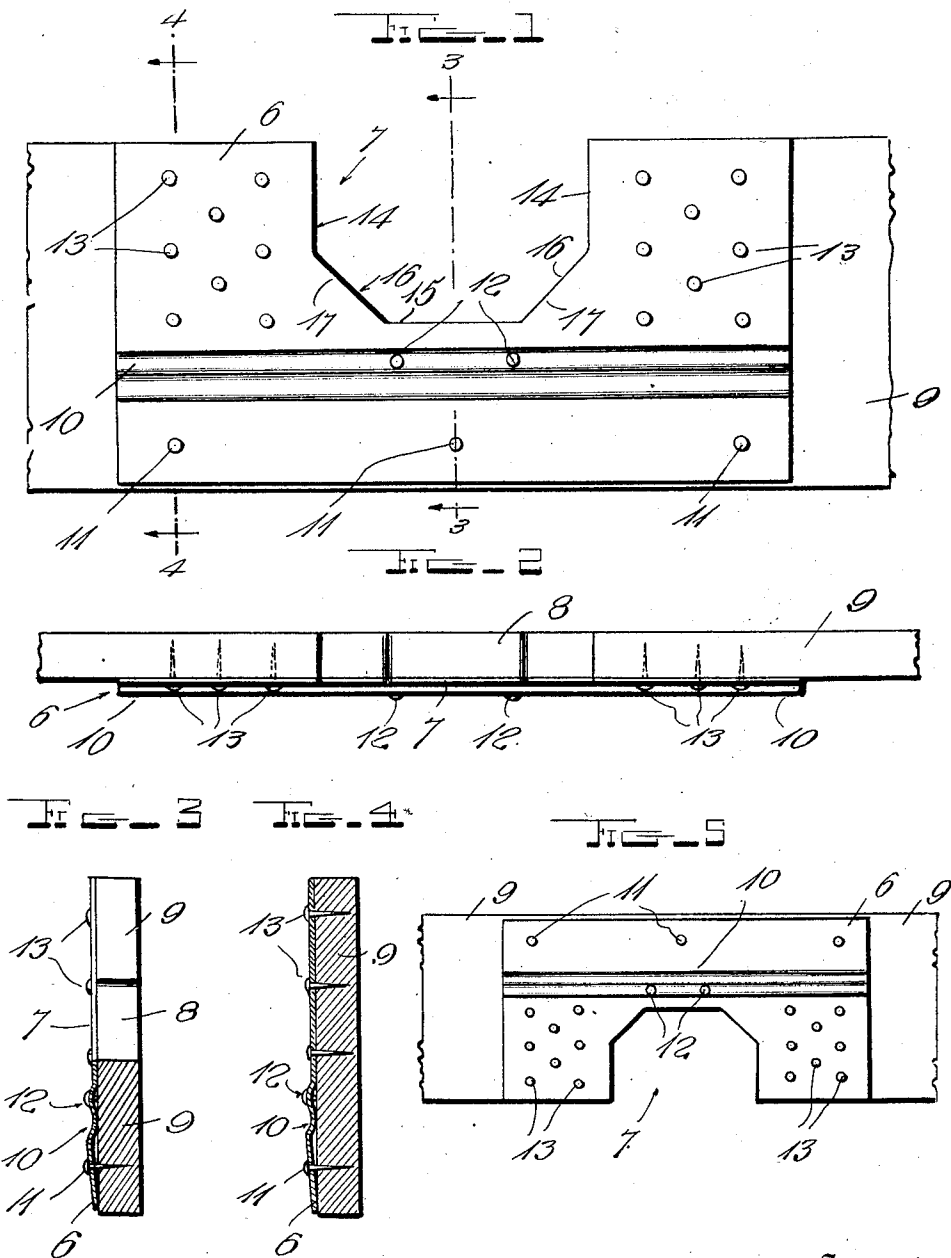
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JOIST REENFORCING DEVICE

Filed Jan. 23, 1928



Witness

[Signature]

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UNITED STATES PATENT OFFICE.

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JOIST-REENFORCING DEVICE.

Application filed January 23, 1928. Serial No. 243,741.

The invention aims to provide a new and improved device for reenforcing a floor joist or the like at any point where it is necessary to form a notch in said joist to receive a pipe or pipes, or an analogous member, such as an electrical conduit soil pipe and heat conductor pipe.

With the foregoing in view, the invention resides in the novel subject matter hereinafter described and claimed, description being accomplished by reference to the accompanying drawing.

Fig. 1 is a side elevation of the invention attached to a joist.

Fig. 2 is an upper edge view of the parts shown in Fig. 1.

Figs. 3 and 4 are sectional views on the correspondingly numbered lines of Fig. 1.

Fig. 5 is a view similar to Fig. 1 but showing the reenforcing device used in an inverted position.

The drawing above briefly described illustrates the preferred form of construction and while such construction will be herein specifically explained, it is to be understood that within the scope of the invention as claimed, variations may be made.

The numeral 6 on the drawing denotes a horizontally elongated, rectangular plate of suitable gauge sheet metal, said plate having a notch 7 in one edge for registration with a pipe-receiving or other notch 8 in a joist 9. Between the other longitudinal edge of the plate 6 and the notch 7, said plate is provided with a longitudinally corrugated portion 10 whose corrugation or corrugations extend uninterruptedly from end to end of said plate, giving approximately twice the strength thereto. Between the corrugated portion 10 and said other edge of the plate 6, the latter is formed with receiving openings for nails, screws or other fasteners 11. In said corrugated portion, openings are provided to receive additional fasteners 12, and in the portions of the plate between the notch 7 and the ends of said plate, the latter is provided with groups of openings to receive fasteners 13. Thus, the plate may be so securely fastened to one side of the joist, that the latter is greatly strengthened and weakening of said joist by the formation of the notch 8, is effectively counteracted so that there is no danger of sagging.

Preferably, notch 7 is provided with two edges 14 at right angles to the longitudinal

edges of the plate 6, with an inner edge 15 parallel with said longitudinal plate edges, and with oblique edges 16 connecting said edges 14—15. By providing a notch of this shape, less of the plate 6 is cut away than if notches of other kinds were employed, and the portions 17 of said plate which terminate at the edges 16, serve to brace this plate against edgewise springing or bending.

The device may be constructed of any desired size or sizes, according to the character of the work to be done and it is obvious by a comparison of Figs. 1 and 5 that it may be used with the notch 7 opening either upwardly or downwardly. Moreover, while the invention has been described for use only with a joist, it is obvious that it could be employed to reenforce any other horizontal, vertical or inclined framing member which is necessarily notched for one reason or another.

As excellent results are obtainable from the details disclosed they are preferably followed. However, attention is again invited to the fact that within the scope of the invention as claimed, variations may be made.

I claim:—

1. A joist reenforcing device comprising a horizontally elongated metal plate having a notch in one longitudinal edge for registration with a notch in a joist, said plate having a plurality of openings in its other longitudinal edge portion and at opposite sides of said notch to receive fasteners for securing the plate against one side of the joist.

2. A joist reenforcing device comprising a horizontally elongated metal plate having a notch in one longitudinal edge for registration with a notch in a joist, said plate having a plurality of openings in its other longitudinal edge portion and at opposite sides of said notch to receive fasteners for securing the plate against one side of the joist, said notch having two edges at right angles to said one longitudinal edge of the plate, an inner edge parallel with said one longitudinal edge of said plate and two oblique edges connecting the aforesaid notch edges.

3. A joist reenforcing device comprising a horizontally elongated metal plate having a notch in one longitudinal edge, a longitudinally corrugated portion between said notch and its other longitudinal edge, a plurality of fastener-receiving openings between said corrugated portion and said other longitudinal edge, fastener-receiving openings in said cor-

rugated portion, and groups of fastener-receiving openings between said notch and the plate ends.

4. A joist reenforcing device comprising a
5 horizontally elongated metal plate having a notch in one longitudinal edge, a longitudinally corrugated portion between said notch and its other longitudinal edge, a plurality of fastener-receiving openings between said
10 corrugated portion and said other longitudinal edge, fastener-receiving openings in said

corrugated portion, and groups of fastener-receiving openings between said notch and the plate ends, said notch having two edges at substantially right angles to said longitudinal edges of the plate, an inner edge parallel with said longitudinal edges, and two oblique edges connecting the aforesaid notch edges. 15

In testimony whereof I have hereunto affixed my signature.

WILLIAM P. SCHUSTER.