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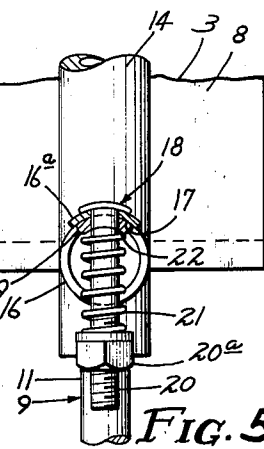
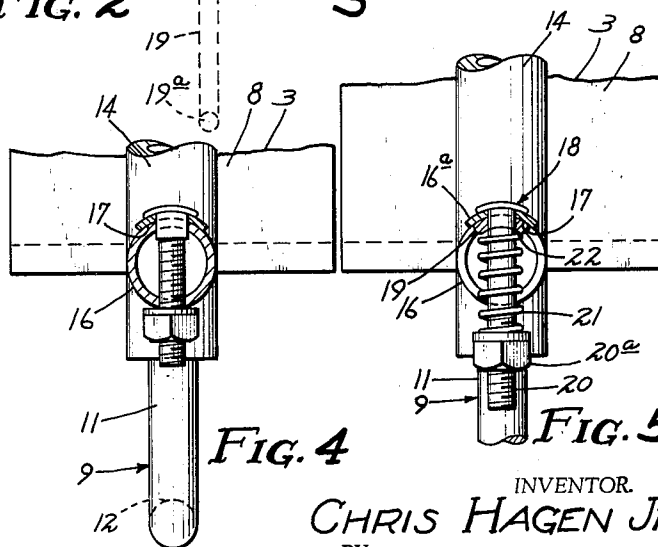
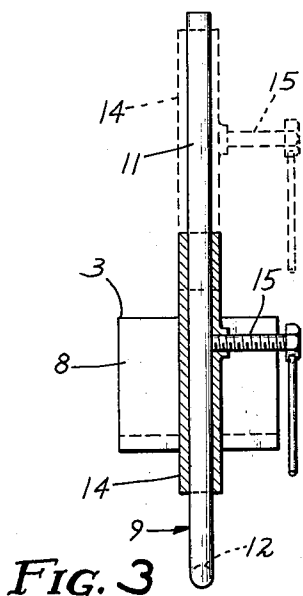
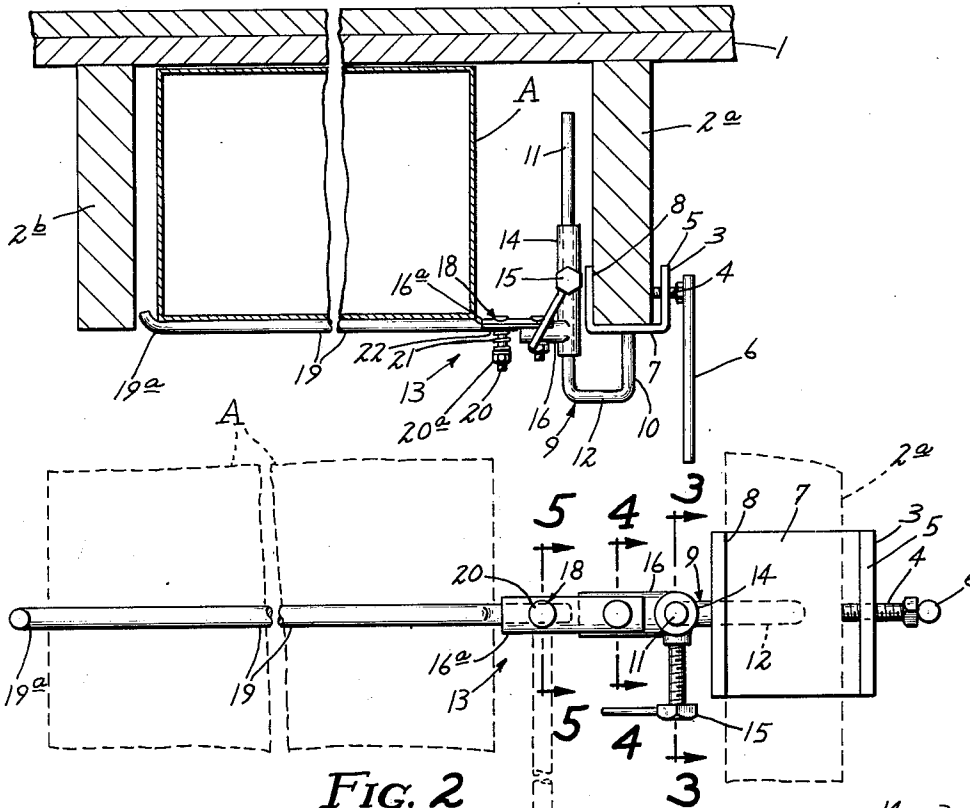
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3,219,337

SUSPENSION BRACKET FOR DUCTS AND THE LIKE

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FIG. 1



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3,219,337 SUSPENSION BRACKET FOR DUCTS AND THE LIKE

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2 Claims. (Cl. 269—309)

My invention relates generally to suspension brackets for ducts and the like and more particularly, to devices adapted for use during construction for temporarily suspending ducts and other elongated objects between adjacent floor or ceiling joists so as to facilitate making a permanent attachment thereof to said joists.

The primary object of my invention is the provision of a device of the class above described which is capable of temporarily suspending duct sections, electrical conduits, and the like, between adjacent joists and in any desired proximity to the overlying ceiling or floor.

A further object of my invention is the provision of a device of the class described which is capable of suspending ducts or the like of a width nearly that of the transverse spacing between adjacent joists.

A further object of my invention is the provision of a device of the class above described which obstructs but a minimal area of the duct or the like to be suspended thereby.

A further object of my invention is the provision of a device of the class described which incorporates a suspension arm which may be quickly swung out of the way when not in use.

A further object of my invention is the provision of a device of the class described which may be quickly attached to and removed from a given joist so as to make possible its use with each progressive section of duct being installed.

A further object of my invention is the provision of a device of the class described which is relatively inexpensive to produce, has a minimum of working parts, and is foolproof in its operation.

The above and still further objects of my invention will become apparent from the following detailed specification, appended claims and attached drawings.

Referring to the drawings wherein like characters indicate like parts throughout the several views:

FIG. 1 is a fragmentary view in vertical section of the floor and adjoining joists showing my novel bracket in side elevation;

FIG. 2 is a view in top plan of my novel bracket, on an enlarged scale;

FIG. 3 is a view in vertical section as seen from the line 3—3 of FIG. 2;

FIG. 4 is a view in vertical section as seen from the line 4—4 of FIG. 2, on an enlarged scale; and

FIG. 5 is a view in vertical section as seen from the line 5—5 of FIG. 2, on an enlarged scale.

Referring with greater particularity to the drawings, the numeral 1 indicates a floor of a conventional building structure, the underlying adjacent supporting joists being identified by 2a and 2b.

My novel device comprises a C clamp 3 having a clamping screw 4 associated with the outer end portion 5. To facilitate imparting of rotary clamping movements to the screw 4, a radially extended handle 6 is provided. The intermediate saddle-forming portion of the C clamp 3 is identified by the numeral 7, whereas the inner clamping portion is identified by the numeral 8. Rigidly carried by the C clamp 3 is a leg identified in its entirety by 9 and comprising a depending stub-leg element 10, an upstanding relatively long leg element 11 adapted to project upwardly between the adjoining joists 2a and 2b in closely spaced relation to the C clamp 3 and

joists 2a contained therein, and an interconnecting transverse portion 12.

Duct supporting bracket means, identified in its entirety by 13, is mounted and guided for vertical sliding movements on the upstanding relatively long leg element 11. Bracket means 13 includes a tubular sleeve 14 telescopically received over the upstanding leg element 11 and mounted thereon for compound limited rotary and vertical sliding movements. A handle-equipped clamping set-screw 15 carried by the sleeve 14 enables the operator to lock said sleeve 14 in any desired position of its said movements with respect to leg element 11. Projecting radially from the lower end portion of the sleeve 14 is a relatively short inner arm section 16. Arm 16 is formed at its outer end to define a downwardly opening axially elongated arcuate recess 17. Pivotaly secured at its inner end, as indicated at 18, to the recess-forming outer end 16a of the inner arm 16 is a relatively elongated outer arm section 19. Arm 19, as shown particularly in FIG. 5, is of a size and shape to be nestingly received within the arcuate recess 17 when said arm sections 16, 19 are axially aligned as shown by full line illustration in FIGS. 1 and 2.

As shown, the pivotal connection 18 between the arm sections 16, 19 is established by a nut-equipped pin 20. A coil compression spring 21 is interposed between the nut 20a and the adjacent underside 22 of the outer arm section 19. However, the tension exerted upon the outer arm 19 by the spring 21 is only such as to prevent accidental swinging movements of the arm section 19 from its radially outwardly projecting position wherein it is in alignment with the inner arm section 16. The operator may, if he desires, impart swinging movements to the outer end 19a so as to unseat said arm 19 from the recess 17 and cause same to assume the dotted line position of FIG. 2. In such a position, it is obvious that a duct A may be inserted between the joists 2a, 2b, or removed therefrom. In the event that the duct A is of greater width than that shown, it may be necessary and desirable to rotate the entire bracket means 13 about the axis of the long leg element 11 by loosening of the set-screw 15.

This invention has been thoroughly tested and found to be completely satisfactory for the accomplishment of the above objects; and while I have shown and described above a preferred embodiment thereof in which the principles of the present invention have been incorporated, I wish it to be specifically understood that the same may be modified without departure from the scope and spirit of the appended claims.

What is claimed is:

1. A device for temporarily supporting ducts and the like between adjacent joists, said device comprising:

- (a) an upwardly opening C clamp adapted to be detachably secured to the lower end portion of one of said joists,
- (b) an upstanding leg element carried by said C clamp and adapted to project upwardly between said joists in closely spaced relation to said one thereof when said clamping means is in its operative position, said leg element being connected to the underside of said C clamp through means of a depending stub leg and a laterally projecting connecting portion,
- (c) duct supporting bracket means mounted and guided for vertical sliding adjustments on said leg element,
- (d) said bracket means including an arm which projects radially outwardly with respect to said leg element and which arm is adjustable from a position above the underside of the C clamp to a position below said underside,

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(e) said arm comprising radially inner and outer sections,

accidental movement from positions wherein they are longitudinally aligned.

(f) and means establishing a pivotal connection between said arm sections for swinging movements of the latter about a vertical axis closely spaced 5 from the axis of said leg element.

2. The structure defined in claim 1 in further combination with means yieldingly biasing the pivotally connected ends of said arm sections towards each other, and means for restraining said arm sections against 10

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