

993,102.

Patented May 23, 1911.

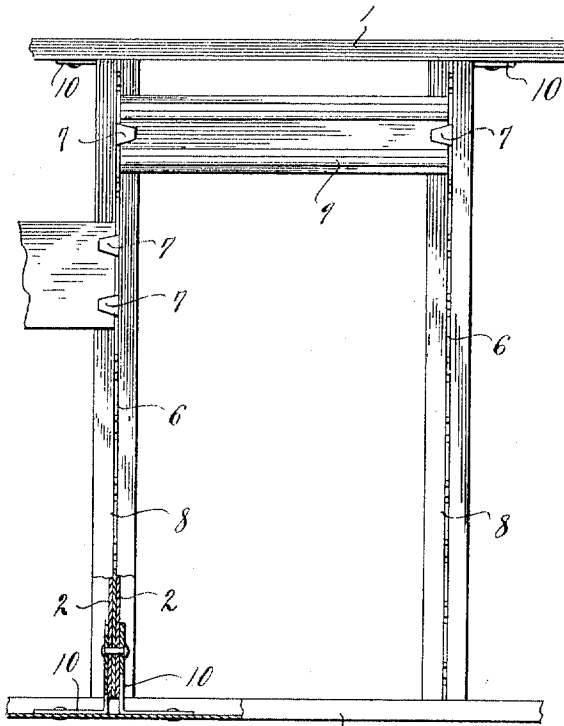


Fig. 1

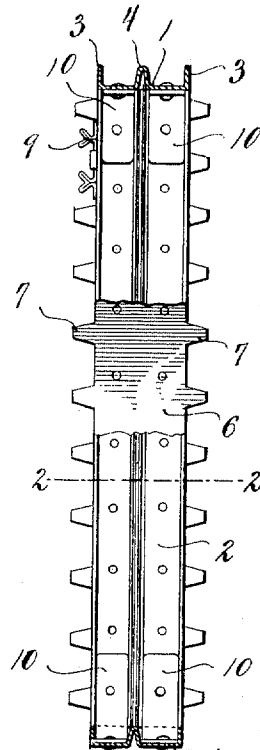


Fig. 2

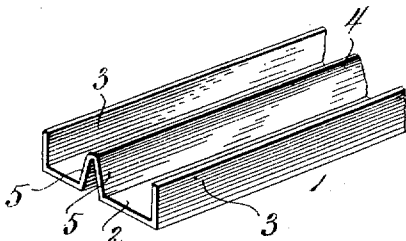


Fig. 3

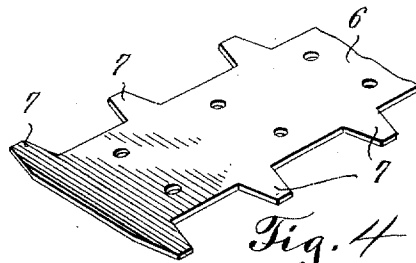


Fig. 4

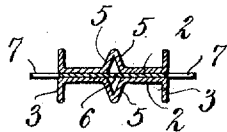


Fig. 5

WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE W. PYLE, OF GENEVA, INDIANA.

METALLIC STUD.

993,102.

Specification of Letters Patent.

Patented May 23, 1911.

Application filed January 23, 1911. Serial No. 604,272.

To all whom it may concern:

Be it known that I, GEORGE W. PYLE, a citizen of the United States, residing at Geneva, in the county of Adams and State of Indiana, have invented certain new and useful Improvements in Metallic Studs, of which the following is a specification.

This invention relates to improvements in metallic frame-work for building purposes.

One object of this invention is to provide a structural beam or the like in the most economical manner which will combine strength and stiffness with the least practical weight.

Another object is to construct a beam or stud to be used for structural purposes which, in itself, provides means whereby lathing or other covering material may be securely fastened on the same.

The above results are obtained by forming a stud of sheet metal sections fastened together with a toothed metal plate between the same, the teeth projecting beyond the surface of the beam and adapted to be clenched on the laths, glass panes, or other covering material.

With the above and other objects in view, this invention consists in the construction, combination, and arrangement of parts, all as hereinafter more fully described, claimed, and illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation partly broken away and illustrating a pair of vertical composite beams joined with a pair of beam sections like those of which the composite horizontal beam is made; Fig. 2 is an edge view of the same partly broken away; Fig. 3 is a fragmentary perspective of the sheet metal beam illustrating a feature of the present invention; Fig. 4 is a fragmentary perspective of the toothed plate; and Fig. 5 is a transverse section on the line 2—2 of Fig. 2.

Throughout the following description and on the several figures of the drawings, similar parts are referred to by like reference characters.

Referring more particularly to the drawings, 1 indicates a sheet metal stud adapted to be used particularly in the construction of houses as studding in the walls of the same, or as a flooring, ceiling, or roofing support.

It is not intended that the use of the invention should be limited to the above pur-

poses only, but it is to be used in the construction of all kinds of buildings.

Describing particularly the structure of the stud 1, at 2 is indicated the back or web portion, the same being bent adjacent to its opposite edges to form flanges 3. As illustrated, these flanges are substantially at right angles to the web portion of the stud and in a parallel plane to each other. At a point intermediate the two side flanges 3, the web portion is crimped to form a central stiffening rib 4 which, in order to provide a more effective bracing means for the stud, is formed with the two opposite walls 5 of the same in a diverging position.

The toothed plate of the lath or covering attachment means consists of bendable teeth 7 formed at either side of an elongated sheet metal plate 6. Another purpose of the elongated plate 6 is to provide a reinforcing element when the same is fastened between a pair of the above described studs so as to form part of the composite beam hereinafter described.

In order to provide a suitable beam or stud for building purposes which combines rigidity with lightness and has lathing or other covering material, as desired, the present invention comprises a broad attaching surface which has a series of teeth projecting centrally from said attaching surface. It is found very advantageous to use a pair of sheet metal studs riveted or otherwise fastened together, one on either side of the toothed plate 6. The width of the plate 6 from the bottom of the teeth is substantially equal to the width of the beam so that when the plate 6 is riveted between the beam sections the teeth will project beyond the attachment surface of the beam.

In the construction of the frame-work for building a wall or the like, a pair of sheet metal beams or studs 1 are located parallel to each other and perpendicularly disposed between the same are the desired number of composite beams 8 which are securely held in place by angle-irons 10, the same being of a width to snugly fit between one of the side ribs 3 and the central stiffening rib 4.

At 9 is indicated a lath held in position by the teeth 7, the latter being clenched over the ends of the same. The central location of the teeth which provides an attachment surface on either side of the same is especially advantageous in that the laths or other cov-

ering material may be cut in equal lengths to be joined between the series of teeth on two spaced beams, as in the construction of a building wall. The ends of a lathing on opposite sides of the beam will meet on the same beam and the teeth for fastening the laths on the beam are bent alternately, so as to engage the lathing on either side of the beam.

10 Having thus fully described my invention, what is claimed as new is:—

15 A sheet metal stud consisting of a pair of stud sections, each comprising a web portion, an intermediate stiffening rib and side flanges to provide parallel and opposite at-

tachment surfaces, and an elongated plate having bendable teeth along opposite edges, the width of the plate between the opposite teeth being substantially equal to the width of the aforesaid stud sections, the said sections being fastened on the opposite sides of the aforesaid plate so that the teeth project beyond the attachment surface of the stud sections, as set forth. 20

In testimony whereof I affix my signature in presence of two witnesses. 25

GEORGE W. PYLE.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
