Sept. 25, 1928. 1,685,247

E. B. SELWAY

STUDDING FOR BUILDING STRUCTURES

Filed Nov. 22, 1927

Fig. 1.

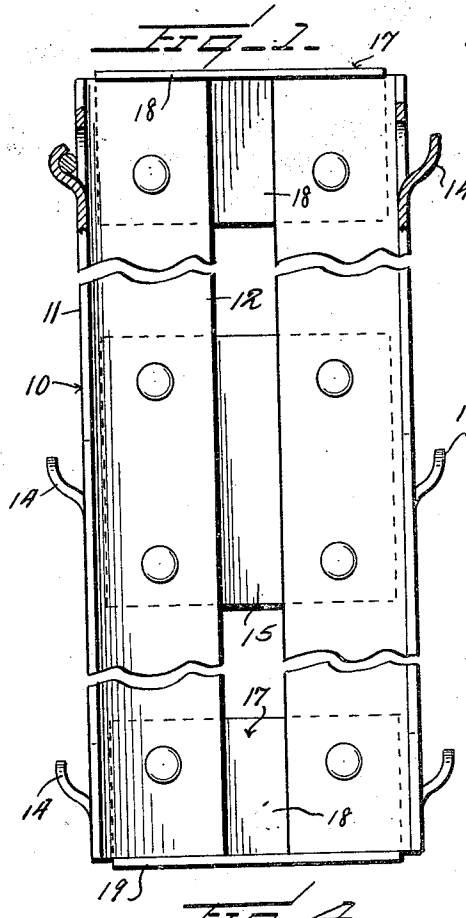


Fig. 2.

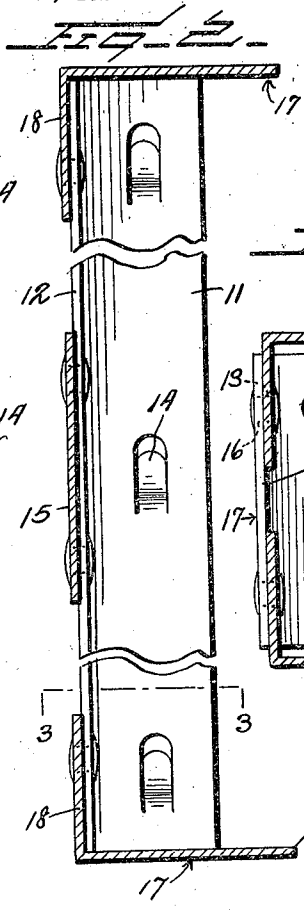


Fig. 3.

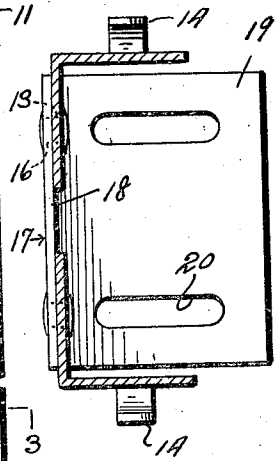


Fig. 4.

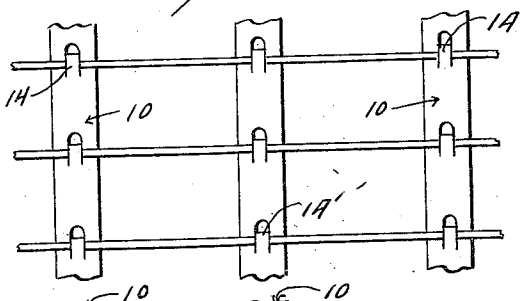


Fig. 5.

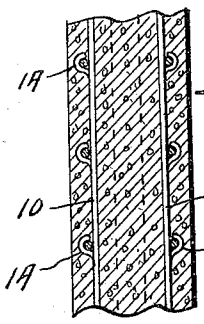
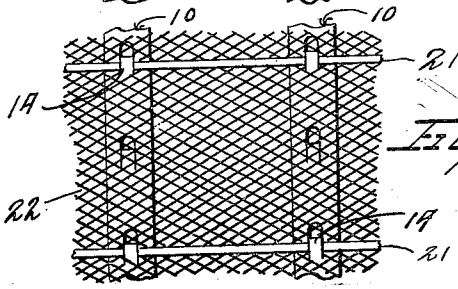


Fig. 6.



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UNITED STATES PATENT OFFICE.

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STUDDING FOR BUILDING STRUCTURES.

Application filed November 22, 1927. Serial No. 235,005.

This invention relates to building structures, and particularly to studding.

The general object of the invention is to provide a stud which is made of angle iron adapted to be used in building construction for steel frame houses, partitions in office buildings, or wherever a 2 x 4 wooden stud is now used.

A further object is to provide a steel cleating stud of angle iron that is so constructed that it will simplify the clamping thereto of reinforcing wire for concrete or clamping thereto the metal lath for plastering.

Another object is to provide a steel stud that will simplify the wiring and piping of a building and which will provide a fire-proof system of studding for the building.

Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawing, wherein:—

Figure 1 is an inside elevation of a stud constructed in accordance with my invention partly broken away at its upper end;

Figure 2 is a vertical sectional view through the stud;

Figure 3 is a section on the line 3—3 of Fig. 2;

Figure 4 is an elevation showing the studding as used for supporting reinforcing wires;

Figure 5 is a vertical sectional view through a wall showing the studding, reinforcing members and concrete;

Figure 6 is a front elevation of the studding used in connection with metallic lathing.

Referring to this drawing, it will be seen that my improved studding comprises the two oppositely disposed angle irons 10. Each of these angle irons is, of course, formed to provide a flange 11 and a flange 12 extending at right angles to each other. The flange 12 is formed with a plurality of apertures for bolts or rivets, designated 13, and the flange 11 is punched out to provide the outwardly and upwardly projecting tongues 14. These tongues initially have their extremities extending upward parallel to the face of the flange 11 but the tongues are adapted to be turned over into a hook shape or clenched upon reinforcing rods, pipes, wires or the like, as shown in Figure 5. These angle irons are of any desired length and preferably 1½ x 1½.

The angle irons are held in laterally spaced position by means of the tie plates 15, each tie plate being 3½″ square and provided with apertures 16 through which bolts, rivets or like connecting members may be passed, these members passing through the apertures 13 in the flange 12. These tie plates, when in place, act to hold the two angle irons or studding in proper spaced relation. At the top and bottom of the studding there are provided the angle iron cleats 17. These cleats are angular in cross section to provide a vertical flange 18 and a horizontal flange 19. The horizontal flanges are preferably longitudinally slotted, as at 20, while the vertical flanges 18 are apertured for the passage of bolts or rivets which pass through the adjacent holes 13 of the angle iron studding elements. The angle iron cleats 17 are disposed both at top and bottom of the stud and constitute the ends of the studding. The holes 13 are equally spaced so that any desired assembly may be made.

Any desired number of the tie plates 15 may be used to connect the studding elements and the completed stud may be used in any desired assembly, either with rods 21 such as are used for reinforcing concrete constructions, or the studs may be used with metal lath 22, as shown in Figure 6, for plastering walls or ceilings. This stud is held in place by screws or bolts or other fastening devices passing through the slots 20 and engaging the beams or sills, and the construction of the stud is such as to permit piping or wire conduits to be readily passed through the studding between the angle irons 11. This studding can be used with ordinary concrete, stucco, plaster or any other building material now in use and its construction makes it particularly easy for the application of plaster or concrete wall surface. The slots 20 permit any adjustment to be made which may be found necessary in the centering of the studs on the joists. The tie plates can be either bolted or riveted to the angle irons as desired.

I claim:—

A metallic stud of the character described comprising two parallel angle irons having

flanges projecting toward each other and perforated, the other flange of each angle iron being provided with outwardly projecting tongues, tie plates connecting the first named flanges of the angle irons, and angle irons disposed at the top and bottom of the studding and having flanges connected to the first named flanges of the angle irons and having horizontal flanges formed with apertures for the passage of pipes, wiring, etc.

In testimony whereof I hereunto affix my signature.

EDWARD B. SELWAY.