

C. A. UPSON.  
 WALL BOARD FASTENER.  
 APPLICATION FILED SEPT. 30, 1919.

1,373,036.

Patented Mar. 29, 1921.

Fig. 1.

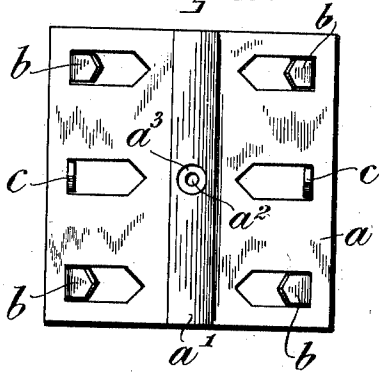


Fig. 2.

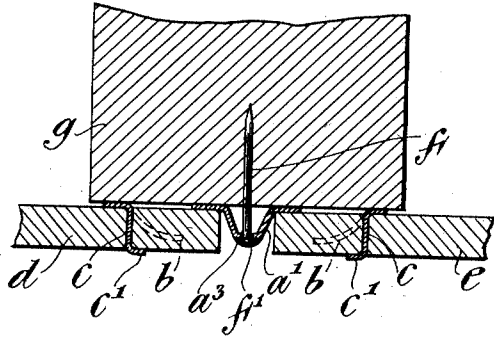


Fig. 3.

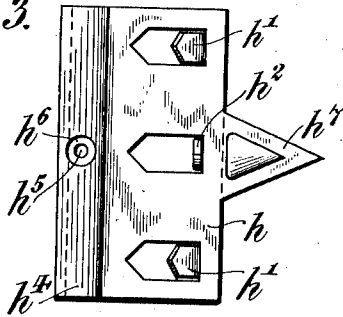


Fig. 4.

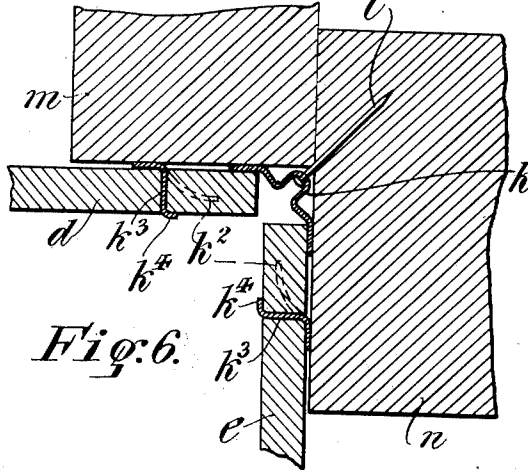
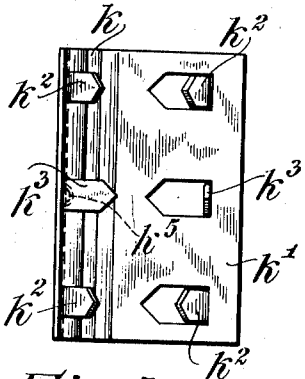
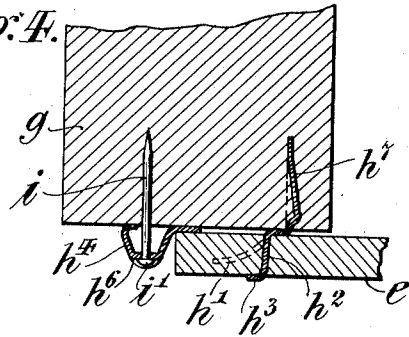


Fig. 5.

Fig. 6.

WITNESS

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# UNITED STATES PATENT OFFICE.

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## WALL-BOARD FASTENER.

1,373,036.

Specification of Letters Patent. Patented Mar. 29, 1921.

Application filed September 30, 1919. Serial No. 327,582.

*To all whom it may concern:*

Be it known that I, CHARLES A. UPSON, a citizen of the United States, residing in Lockport, in the State of New York, have invented certain new and useful Improvements in Wall-Board Fasteners, of which the following is a specification, reference being had to the accompanying drawing, forming a part hereof.

This invention relates to an improved sheet metal fastener for panels of wallboard or the like which is of simple construction and which may be used to secure the edges of such panels or may be used to fasten the edges of butted panels or may be used for securing the edges of proximate panels at corners. The principal object of the invention is to incorporate in a fastener of the character described means to permit free expansion and contraction of the building frame work, wallboard or the material to which the fastener is secured. A further object of the invention is to provide in a fastener of this kind a section which will serve to give the correct spacing between abutting panels or the proximate panels used at corners. Still another object of the invention is to construct a fastener in such a manner as to facilitate its ready attachment to its support and provide prongs which may be struck up from the metal of the fasteners and extend into the panel at any such angle as may be best adapted to secure the panel firmly, these prongs being of such length as to extend into the panel or through the panel for clenching, as may be best suited for the particular circumstances. In accordance with the invention the fastener is struck from a single piece of sheet metal and in the middle of the fastener a section is formed of curved, crimped or other cross sectional configuration for the purpose of permitting free expansion and contraction at this section without imposing undue strain on the holding devices of the fastener. The invention will be described in greater detail in connection with the illustrated embodiments thereof in the accompanying drawing, in which—

Figure 1 is a view in elevation of a fastener adapted for use in securing the edges of butted panels.

Fig. 2 is a view in transverse section through a fragment of a joist and two

butted panels showing the relation thereto of the improved fastener when in place.

Fig. 3 is a view in elevation of a somewhat modified form of fastener adapted for use in securing the edge of a single panel.

Fig. 4 is a view in transverse section showing a fragment of a joist and single panel secured to the joist by means of the fastener shown in Fig. 3.

Fig. 5 is a view in elevation of the improved fastener adapted for use in securing the edges of proximate panels at a corner.

Fig. 6 is a view in transverse section indicating a portion of two joists and two panels secured to the joists at a corner by means of the fastener shown in Fig. 5.

The embodiment of the invention illustrated in Figs. 1 and 2 comprises a sheet metal body *a* from which is struck up a plurality of prongs *b*, *c*, adjacent the opposite edges thereof, these prongs being inclined at such an angle as will best serve the purpose of securing the fastener fixedly to the panels *d*, *e*. For instance, certain of the prongs *b* are intended to be driven into the panels *d*, *e*, respectively, at an angle so as not to extend therethrough but merely to clench the material of the panels. Certain others of the prongs *c* may be disposed at such an angle to the body of the fastener *a* as to extend through the panels *d*, *e*, respectively, and have their outer ends *c'* offset or clenched over the faces of the panels. It is to be understood that the invention is not to be limited to the particular angles at which these prongs *b*, *c* are disposed with relation to the face of the body *a*, nor whether any or all of these prongs merely enter the material of the panels or pass therethrough, although it is believed to be an improvement in the art to provide such a construction as will permit the workmen readily to determine whether it is desirable to have all or only some of these prongs to pass through the panel and be clenched, and bend the prongs accordingly.

Extending longitudinally of the body *a*, preferably along the median line thereof, between the rows of prongs *b*, *c*, is formed a bent section of metal *a'*, preferably integral with the body, and of curved, crimped or other suitable cross sectional configuration. As shown in Figs. 1 and 2 this section *a'* is of generally curved cross section, its base

being of such span as to afford a correct predetermined spacing for the edges of the abutting panels *d, e*. In the expansion section *a'* is also formed an opening *a<sup>2</sup>* to receive a nail, screw or other securing device, the metal around this opening *a<sup>2</sup>* being preferably recessed, as at *a<sup>3</sup>*, to receive the head of such securing device, the resulting relation being indicated in Fig. 2 where a nail *f* is shown as passing through the opening *a<sup>2</sup>* into the joist *g*. The head *f'* of the nail is seen to rest in the recess *a<sup>3</sup>*.

In using the fastener shown in Figs. 1 and 2 it will be evident that the body *a* may be secured to the joist *g* by means of the nail *f*. One of the panels *d* is then driven on to the prongs *b, c*, and where the prong *c* passes through the panel its end *c'* is clenched over its face. The edge of the panel then rests against the base of the expansion section *a'* at one side thereof. The other panel *e* is then secured in place in like manner, its proximate face resting against the base of the expansion section *a'* at the opposite side thereof. The two panels are secured to the joists in this manner firmly and their proximate edges, by reason of the spacing given by the expansion section *a'*, are maintained a predetermined distance apart. The panels *d, e* as well as the joist *g* or indeed any part of the building or frame work or the fastener *a* itself can then expand or contract freely without imposing any undue strains on the securing devices as such.

The fastener shown in Figs. 3 and 4 is adapted for securing the edge of a single panel. This fastener is much like that shown in Fig. 1, consisting of a body *h*, in the metal of which are struck up prongs *h<sup>1</sup>, h<sup>2</sup>* at such an angle as either to enter the panel and clench or pass entirely there-through for the clenching of the end as indicated at *h<sup>3</sup>*. Along one edge of the body *h* is struck up an expansion section *h<sup>4</sup>* which may be of any desired cross sectional configuration. This expansion section has provided therein a hole *h<sup>5</sup>* to receive a securing device, such as a nail *i* and there is formed around the hole *h<sup>5</sup>* a recess *h<sup>6</sup>* to receive the head *i'* of the nail. In this form of fastener or in the other forms shown in Figs. 1 and 5 there may be formed along one edge an additional corrugated or embossed prong *h<sup>7</sup>* which will be driven into the joist *g* or other frame work to which the panel is to be attached. Such a prong, it will be evident will give some additional strength and rigidity.

From the description given it will be evident that the fastener shown in Figs. 3 and 4 is secured to the joist *g* by means of the nail *i* and when the prong *h<sup>7</sup>* is provided, this prong is driven into the joist. The panel *e* is then driven on to the prongs *h<sup>1</sup>,*

*h<sup>2</sup>*, one or more of which may pass through the panel and have the end *h<sup>3</sup>* clenched over the face. The edge of the panel abuts against the side wall of the contraction section *h<sup>4</sup>* at its base.

The fastener shown in Figs. 5 and 6 is intended for use in securing the proximate panels *d, e* at a corner. This fastener may be formed exactly like the fastener shown in Fig. 1, although in the drawing the cross sectional configuration of the contraction section *h* is shown as a reverse crimp instead of as substantially curved form. Otherwise, the fastener comprises, as before, a body *h'* from which are struck up adjacent the opposite edges several prongs *h<sup>2</sup>, h<sup>3</sup>*, some of which *h<sup>3</sup>* may extend at a different angle from the other prongs *h<sup>2</sup>* and pass through the panels *d, e*, respectively, and have their ends *h<sup>4</sup>* offset on the face of the panels. In this form, holes *h<sup>5</sup>* for the securing device, such as a nail *l*, are formed in the expansion section *h*.

In using this type of fastener, it is first secured to the studs *m, n* or other frame work at the corner by means of the nails *l*, and the panels *d, e* are then driven on to the prongs *h<sup>2</sup>, h<sup>3</sup>*, the edges of the panels resting against the expansion section *h* at its base, that is, at the point where it unites with the body *h'* of the fastener.

All of the types of fasteners illustrated embody the advantages of simplicity, cheapness of cost and ready attachment to both the panels and to the joists. The fastener is so constructed that when any of the prongs *h<sup>2</sup>, h<sup>3</sup>* are passed through the panel and offset, the exposed ends thereof will be covered in accordance with usual constructions by means of a decorative strip, batten or the casings of windows or doors according to the position of the particular panel on the wall of the room. Further, the so-called expansion section *a', h<sup>4</sup>, h* not only serves the purpose of permitting free expansion and contraction, thereby relieving the securing devices as such of undue strains, but this section also serves as a convenient guide in positioning the edges of the panels and insures the correct spacing of the edges of abutting panels.

The scope of the invention will appear from the appended claims.

I claim as my invention:

1. In a metal wallboard fastener, in combination with devices for securing the fastener to the board, expansion means carried with the fastener disposed between said securing devices and comprising a section of expansible metal, and devices independent of the first named devices connected directly with said expansion means for securing the fastener to the frame work of the building.
2. In a sheet metal wallboard fastener, prongs struck up therefrom to engage the

board, expansion means formed integral with the fastener and comprising a section of expansible metal and devices independent of the first named devices connected directly

5 with said expansion means for securing the fastener to the frame work of the building.

3. In a sheet metal wallboard fastener, prongs struck up therefrom to engage the board, an expansible section formed integral

10 with the body of the fastener and comprising a fold of metal against the sides of which the edges of the board may bear, and devices connected directly with said expansion

15 means for securing the fastener to the frame work of the building.

4. In a sheet metal wallboard fastener for abutted panels, prongs struck up from the fastener to engage the panels, an expansible section formed integral with the body of the fastener and comprising a fold of metal dis- 20 posed between the prongs, and having the base of such fold of such width as to space the edges of the panels correctly, and devices connected directly with said expansion means for securing the fastener to the frame 25 work of the building.

This specification signed this 24th day of September, A. D. 1919.

CHARLES A. UPSON.