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METAL CONNECTION FOR FRAME MEMBERS

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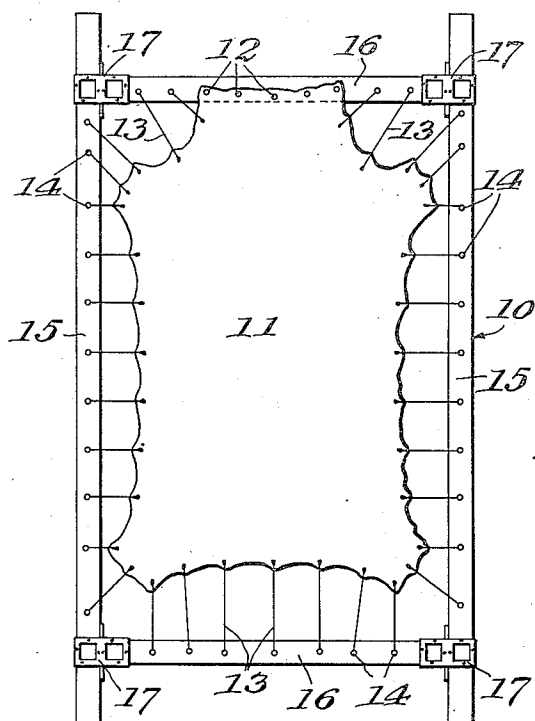


Fig. 1

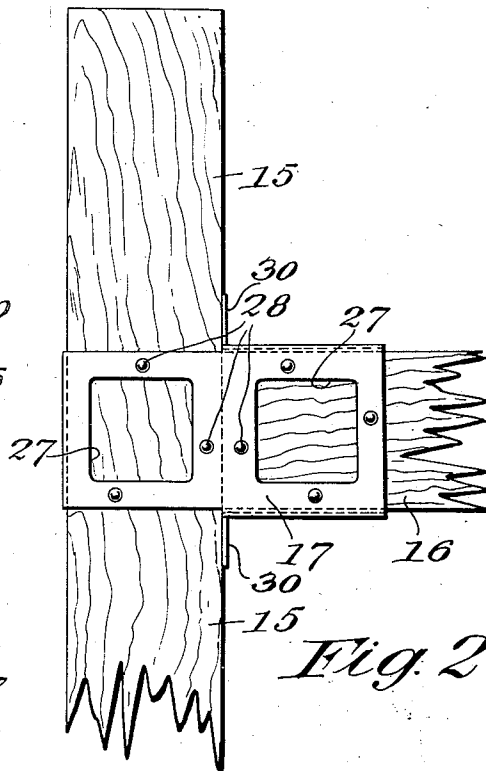


Fig. 2

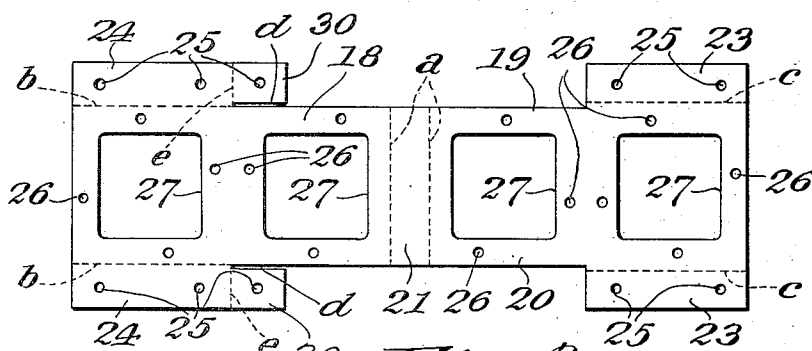


Fig. 3

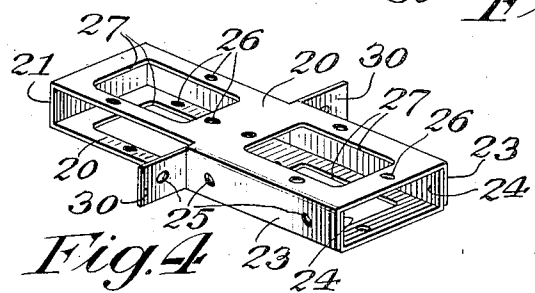


Fig. 4

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METAL CONNECTION FOR FRAME
MEMBERS

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6 Claims. (Cl. 20—94)

The invention relates to a metal connection for frames with especial adaptation for connecting frame bars angularly arranged.

The object of the invention is to provide a strong, rigid metal connection for the frame bars and one which will define the precise angular positioning of the bars on applying the bars to the connection.

The invention is particularly applicable to the construction of skeleton frames upon which hides are stretched for tanning purposes. Such frames are subjected to unusually hard usage and the abutting frame members are usually secured together by a tongue on one of the members engaging a groove in the other. Because of the hard usage that these frames receive, the tongue or groove becomes broken thus rendering the frame useless. A further object of the invention is to overcome this difficulty and provide a skeleton frame within the terms of the object first above referred to.

The invention will be more clearly understood from the following description in conjunction with the accompanying drawing in which

Fig. 1 is a plan view of a tanning frame having a metal connection embodying the invention for its frame bars.

Fig. 2 is a detail plan of one corner of the frame.

Fig. 3 is a view of the blank from which the metal connection is made; and

Fig. 4 is a perspective view of the metal connection.

The invention is illustrated in the accompanying drawing as applied to a tanning frame 10 to which a hide 11 is secured either by tacks 12 engaging both the hide and frame or by strings 13 extending from the various parts of the hide 11 to tacks 14. The frame 10 comprises longitudinal bars 15 between which extend cross bars 16 near the ends thereof, with the ends of the bars 16 abutting the inner edges of the bars 15.

In accordance with the invention the frame bars 15 and 16 are secured together by metal connections 17, each comprising a metal sheet bent to provide a sheath surrounding the longitudinal bar 15 and embracing the adjacent end of the cross bar 16, the sheath being attached to the respective bars.

The connection 17 is formed from an elongated substantially rectangular blank 18 of sheet metal. The side portions of this blank are cut away as shown at 19 in Fig. 3, leaving side wings 23 and 24 respectively at the ends of the blank.

The wings 23 and 24 are of substantially the

same size. The wings 24 are each provided with a wing extension 30 separated from the body of the blank by a cut *d*. The blank 18 is folded upon the dotted lines *a* to provide opposing spaced face portions 20 and a connecting end portion 21 in the formed connection, (see Fig. 4) the portions 20 extending respectively from the top and bottom edges of said end portion. The side wings 23 and 24 of the blank are also folded respectively upon the dotted lines *b* and *c* to form side portions 23 and 24 in the formed connection. The folded side portions 23 and 24 will then extend from the side edges of the face portions 20, and in the formed connection will occupy overlapping relationship to one another, the portions 23 occupying an overlapping position with relation to the underlying portions 24. To secure such overlapping relationship between these side portions of the connection it will be observed that in the blank the dotted line *c* upon which the wing 23 is bent is slightly offset from the side edge of the body of the blank, the wings 24 turning on the dotted line *d* which lies within said edge.

The wing extensions 30 to the wings 24 are folded along the lines *e* to provide outwardly extending flanges 30 in the formed connection. Each of the side portions 23 and 24 and flanges 30 are provided with holes 25 for receiving nails by which they may be secured to the frame bars 15 and 16. For like purpose the face portions 20 are provided with holes 26. If the connections are to be used for fastening together the bars of tanning frames the face portions 20 are preferably provided with one or more openings 27.

The frame bars 15 and 16 are assembled with the connection 17 by inserting the frame bar 15 within the opening formed by the face portions 20, the end portion 21 and the fore edges of the overlapping side portions 23 and 24, the flanges 30 thus engaging the side of the bar 15. The frame bar 16 is inserted in the opening formed by the face portion 20 and the overlapping side portions 23 and 24, the bar 16 being brought into abutting relation with the side of the frame bar 15. With the frame bars thus assembled with the connection both bars and connection are fixedly united by nails 28 extending through the openings 25 and 26 in the connection. When the connection is used for fastening together the bars of tanning frames and is provided with openings 27 in the face portions thereof, these openings permit the hide to be secured to those portions of the frame bars underlying said openings.

I claim:—

1. A metal connection for angularly arranged frame bars, said connection comprising a metal sheet bent to form a sheath having separate housings for receiving and defining the angular position of said respective bars and attachable thereto for connecting said bars, said sheath including an end portion, opposing face portions extending respectively from the top and bottom edges of said end portion, and opposing side portions extending from the side edges of at least one of said face portions, at least one of said side portions being spaced from said end portion.
2. A metal connection for angularly arranged frame bars, said connection comprising a metal sheet bent to form a sheath having separate housings for receiving and defining the angular position of said respective bars and attachable thereto for connecting said bars, said sheath including an end portion, opposing face portions extending respectively from the top and bottom edges of the end portion, opposing side portions extending from the side edges of at least one of said face portions, at least one of said side portions being spaced from said end portion, and an out-turned flange forming portion substantially parallel with said end portion extending from the fore edge of the side portion spaced from said end portion.
3. A metal connection for angularly arranged frame bars, said connection comprising a metal sheet bent to form a sheath having separate housings for receiving and defining the angular position of said respective bars and attachable thereto for connecting said bars, said sheath including an end portion, opposing face portions extending respectively from the top and bottom edges of said end portion, and overlapping side portions extending from adjacent side edges of said face portions on opposite sides thereof and spaced from said end portion.
4. A metal connection for angularly arranged

frame bars, said connection comprising a metal sheet bent to form a sheath having separate housings for receiving and defining the angular position of said respective bars and attachable thereto for connecting said bars, said sheath including an end portion, opposing face portions extending respectively from the top and bottom edges of said end portion, overlapping side portions extending from the side edges of said face portions on opposite sides thereof and spaced from said end portion, and out-turned flange forming portions substantially parallel with said end portion extending respectively from the fore edges of the underlying ones of said overlapping side portions.

5. A metal connection for angularly arranged frame bars, said connection comprising a metal sheet bent to form a sheath having separate housings for receiving and defining the angular position of said respective bars and attachable thereto for connecting said bars, said sheath including an end portion, opposing face portions extending respectively from the top and bottom edges of said end portion, overlapping side portions extending from adjacent side edges of said face portions on opposite sides thereof, at least one set of said side portions being spaced from said end portion.

6. A metal connection for angularly arranged frame bars, said connections comprising a metal sheet bent to form a sheath having separate housings for receiving and defining the angular position of said respective bars and attachable thereto for connecting said bars, said sheath including an end portion, opposing face portions extending respectively from the top and bottom edges of said end portion, and opposing side portions extending from the side edges of at least one of said face portions and spaced from said end portion.

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