Jan. 10, 1928. **1,655,662**

T. REPAY

CONNECTER

Filed Dec. 13, 1926

Fig.4.

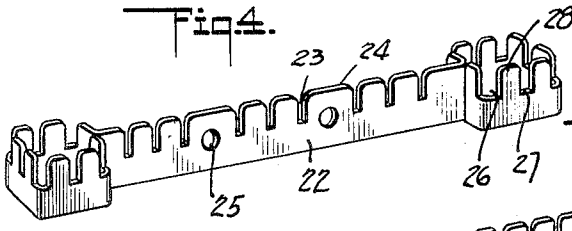


Fig.1a.

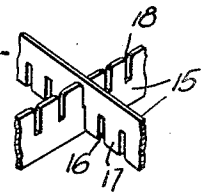


Fig.1.

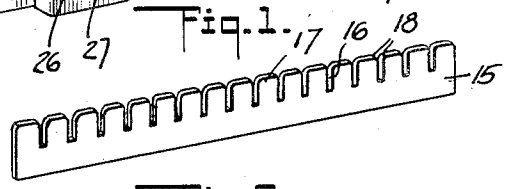


Fig.5.

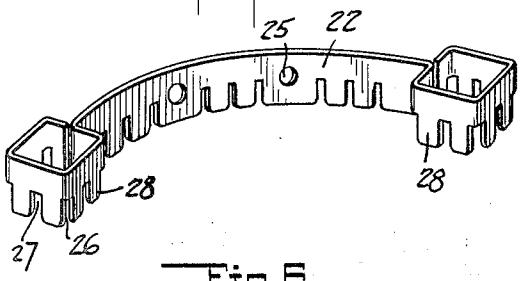


Fig.2.

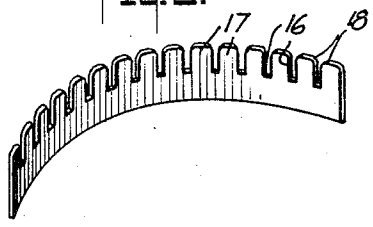


Fig.6.

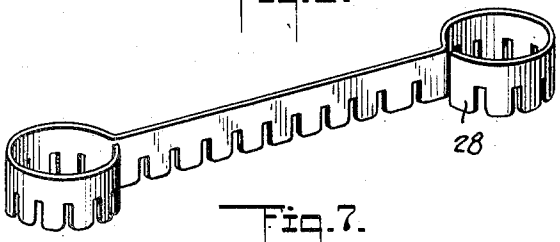


Fig.3.

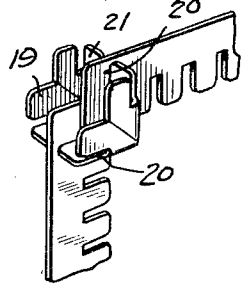


Fig.7.

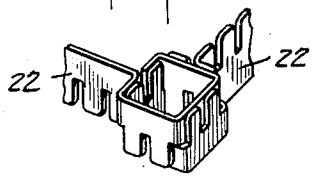


Fig.10.

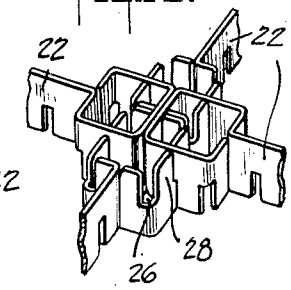


Fig.8.

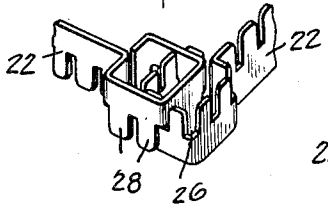
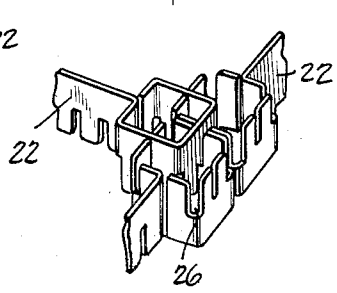


Fig.9.



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UNITED STATES PATENT OFFICE.

THEODORE REPAY, OF LOS ANGELES, CALIFORNIA, ASSIGNOR TO FERNANDO SPANGENBERG, OF LOS ANGELES, CALIFORNIA.

CONNECTER.

Application filed December 13, 1926. Serial No. 154,510.

My invention relates to and has for its purpose the provision of a connecter of extremely simple, durable and inexpensive construction by which it can be detachably secured to one or a plurality of similar connecters in a manner to lock the connecters in fixed relation to each other, my invention being capable of many uses, such as building toys, ornamental iron work, grille work, and in any capacity where it is desired to detachably connect one element to another.

I will describe only six forms of connecters embodying my invention and will then point out the novel features thereof in claims.

In the drawings

Figure 1 is a view showing in perspective one form of connecter embodying my invention;

Figure 1ª is a fragmentary perspective view showing two of the connecters of the form shown in Figure 1 in connected relation;

Figure 2 is a similar view showing another form of connecter embodying my invention;

Figure 3 is a fragmentary perspective view of two of the connecters shown in Figure 1 in applied position to a third form of connecter embodying my invention;

Figures 4, 5 and 6 are perspective views of other forms of connecters embodying my invention;

Figure 7 is a fragmentary perspective view showing one of the ends of two connecters of the form shown in Figure 4 in connected relation to each other;

Figure 8 is a view similar to Figure 7, showing another method of connecting one end of a pair of connecters of the form shown in Figure 4;

Figure 9 is a view similar to Figure 7, showing one end of three of the connecters of the form shown in Figure 4 in connected position;

Figure 10 is a view similar to Figure 9, showing one end of four of the connecters in connected relation.

Similar reference characters refer to similar parts in each of the several views:

My invention essentially consists in the provision of a length of rigid material such as a strip of metal having one or both edges thereof, preferably one of the longitudinal edges, slotted at intervals to provide intervening tongues, the outer corners of the tongues being beveled or rounded so as to provide relatively wide or tapered entrance ends for the slots to facilitate the insertion of a similar connecter, while the remainder of each slot is of a width slightly in excess of the thickness of the strip in order that the strip of a similar connecter will have a sliding fit within the slot to permit the proper positioning of the tongues of the connecter with respect to the tongues of the other connecter to effect the interlocking of the two strips, and at the same time permitting the ready detaching thereof when desired.

Referring to Figure 1, I have shown a connecter comprising a flat elongated body 15 of metal or other suitable rigid material, with one longitudinal edge formed with slots 16 at regular spaced intervals to provide intervening tongues 17 of one and the same width. As indicated at 18, the outer corners of each tongue are beveled or rounded so that the confronting corners of adjacent tongues provide a relatively wide entrance end for the corresponding slot to facilitate the insertion of a similar connecter as above described. Each slot is of a width slightly in excess of the thickness of the body 15 so that when the connecter is used in conjunction with a similar connecter having a body of like width the two connecters can be associated with each other in the manner illustrated in Figure 1ª. As here shown, the tongues of one connecter embrace the body 15 of the other connecter at opposite sides thereof, and with sufficient security to releasably interlock one connecter with respect to the other, so that the two are secured in intersecting relation. It will of course be understood that while holding one connecter and applying a force to the other in the plane of itself the disconnection of the two connecters can be effected, but it is important to note that the force applied must be in the plane of one connecter or the other to effect disconnection; otherwise they will remain interlocked.

In Figure 2 I have shown another form of connecter which is identical to that shown in Figure 1, with the exception that it is curved longitudinally. This connecter may be used with similar curved connecters or with straight connecters, as shown in Figure 1.

In Figure 3 I have shown two connecters

of the form shown in Figure 1 connected at one of their ends by another form of connecter embodying my invention. This embodiment constitutes a corner connecter and is made from a single sheet 19 of metal or other suitable material bent to the form shown and having certain of its edges slotted as indicated at 20 to provide intervening tongues 21, the slots being of sufficient width to loosely receive the ends of the connecters 15 and in the manner illustrated in Figure 3 so that the tongues function to retain the connecters 15 in right angular relation. Of course it is to be understood that the connecters 15 can be inserted into other slots of the corner connecter so as to be connected in different relations than that just described.

In Figure 4 I have shown another form of connecter which comprises a single length of metal or other suitable material having a flat and straight intermediate portion 22 provided with slots 23 at different intervals to provide intervening tongues 24, the slots and tongues being formed in the same manner as described in connection with the connecter shown in Figure 1, with the exception that the slots are not at regular intervals. The arrangement of the slots is such that certain of the tongues 24 are of greater width than the remaining tongues to permit forming therein openings 25 through which suitable fastening members (not shown) may be extended for securing the connecter as a unit to a suitable support.

The ends of the strip of material are bent upon themselves and in the form of a rectangle, and one edge of these terminal portions is provided with slots 26 and 27 to provide intervening tongues 28. It is important to note that the slots 27 correspond in width to the slots 23, while the slots 26 are wider. The tongues 28 are formed in the same manner as the tongues 24 so as to provide relatively wide entrance ends for the slots. These terminal portions constitute corner connecters to connect a plurality of such connecter units to each other, as illustrated in Figures 8, 9 and 10.

In Figure 8 I have shown two of the connecters of the form shown in Figure 4, connected in right angular relation through the medium of the rectangular terminal connecters. In Figure 9 I have shown three of such connecters in connected relation, and in Figure 4 four of such connecters.

In Figure 5 I have shown a connecter identical in construction to the connecter shown in Figure 4, with the exception that the portion 22 is curved. In Figure 6 a connecter is shown constructed in accordance with the connecter shown in Figure 4, but having terminal portions of circular formation and adapted to co-operate with similar portions of similar connecters so that a plurality of such connecters can be connected in the manner illustrated in Figures 8, 9 and 10.

Although I have herein shown and described only three forms of connectors embodying my invention, it is to be understood that various changes and modifications may be made herein without departing from the spirit of the invention and the spirit and scope of the appended claims.

I claim:

1. A connecter comprising an elongated body of rigid material having slots at intervals throughout its length to provide intervening tongues, the end portions of the body being bent upon themselves to form tongued heads of angular configuration adapted to have separable interlocking engagement with tongued heads of other connecters.

2. A connecter comprising an elongated body of flat rigid material having one of its longitudinal edges slotted at intervals to provide tongues and adapted to have separable interlocking engagement with a similarly tongued and slotted body, the outer ends of said slots being widened to facilitate interlocking of the body with another body, the end portions of the body being bent upon themselves to provide terminal heads of geometrical configuration, said heads being slotted along one edge to provide intervening tongues and adapted to have separable interlocking engagement with similarly tongued and slotted heads of other connecters so that a plurality of connecters can be separably connected to extend in different directions from their point of connection.

3. A connecter comprising an elongated body of flat rigid material having at least one of its ends bent laterally upon itself to provide a hollow head of geometrical configuration, said head being slotted at intervals along one edge to provide intervening tongues and adapted to have interlocking engagement with identically tongued and slotted heads of other connecters so that a plurality of connecters can be separably connected with their heads in overlapping and intersecting relation to extend in different directions from the point of connection of their heads.

THEODORE REPAY.