Dec. 30, 1947. R. C. LYONS 2,433,772

CONVEYER GUARD CLAMP

Filed Nov. 4, 1944

Fig. 1

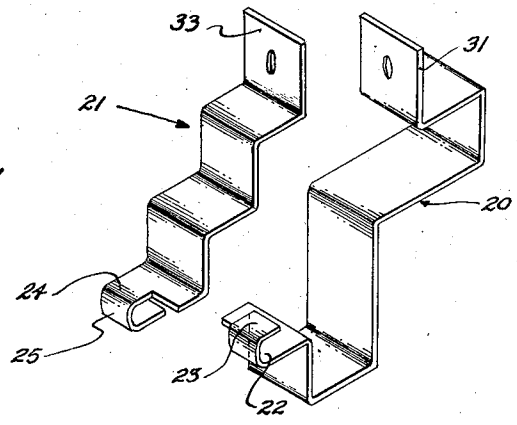


Fig. 2

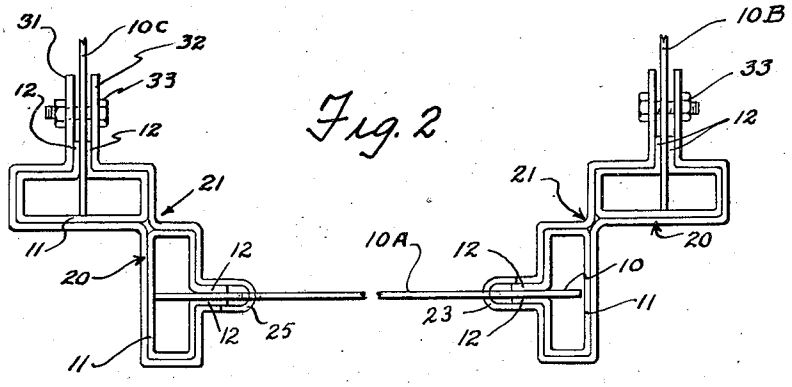
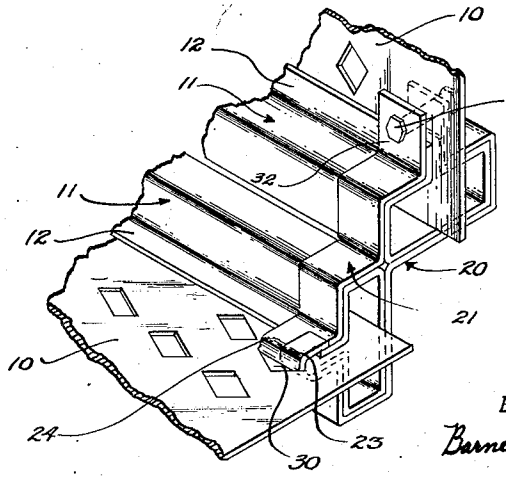


Fig. 3



INVENTOR.
REGINALD C. LYONS
BY
Barnes, Kisselle, Laughlin & Raisch
Attorneys

Patented Dec. 30, 1947 2,433,772

UNITED STATES PATENT OFFICE

2,433,772

CONVEYER GUARD CLAMP

Reginald C. Lyons, Royal Oak, Mich.

Application November 4, 1944, Serial No. 562,025

4 Claims. (Cl. 189—35)

1

This invention relates to a conveyer guard clamp.

In modern plants considerable use is made of conveyer guards in assembly lines, etc. These guards prevent operators from getting in contact with the conveyers and also prevent accidents in that any parts that might fall off from conveyers are not damaged and do not fall on operators.

It is an object of the present invention to provide a conveyer guard assembly which is inexpensive in construction and which lends itself to ease of assembly and disassembly. With the present device the panels that go to make up the conveyer guards can also be shipped and stored in much less space than was previously necessary. Panels are always ready for reuse in different assemblies which might be composed of different combinations of panels than the previous assembly. All together the particular clamp to be disclosed here affords great adaptibility in the use of these conveyer guards. In addition it is an object of the invention to provide a reinforcing means for the guards which affords additional protection in the event of unexpected loads or accidental strains to which the conveyer guards are subjected.

Other objects and features of the invention relating to details of construction will be evident in the following description and claims.

In the drawings:

Fig. 1 illustrates a perspective view of the parts of the clamp.

Fig. 2 is a sectional view illustrating the conveyer guard assembly.

Fig. 3 is a perspective view showing one corner of the assembly and the relationship of the parts therein.

Conveyer guards are quite frequently made up from panels composed of reticulated material such as expanded metal, open mesh wire or some similar sheet metal with T-channels edging the sheets. As shown in Fig. 3 the reticulated metal 10 has edging channels 11. The leg of the T, shown at 12, is composed of two portions which are welded or otherwise secured to the opposite sides of the edge of the sheet 10.

In forming a conveyer guard these sheets or panels are arranged in angular relationship as shown, for example, in Fig. 2. Sheet 10*a* forms the bottom and at right angles to the sheet 10*a* on either side are sheets 10*b* and 10*c*. The clamp used to hold these sheets together is formed of parts 20 and 21. Part 20 is shaped

2

to correspond to the formation of two T-channels arranged at right angles as shown in Fig. 2. Part 21 has a configuration on the other side of the T-channels. Part 20 has an end projection 22 which is narrower than the general width of the part and hooked over as at 23. Part 21 has a similar extension 24 hooked as at 25. These parts are complemental in that they fit together when the parts are assembled as shown in Fig. 3. Each is adapted to pass through an aperture 30 in the reticulated sheet 10 and hook over a margin of that aperture while fitting together with the corresponding portion of the other part of the clamp. After this assembly the other two ends of the parts 20 and 21 referred to as 31 and 32 are clamped together through a suitable aperture by bolt 33. Tightening this bolt 33 causes a firm clamping action against the channels 11 to hold the panels in proper relationship.

The panels can be readily disassembled or assembled and with this arrangement they may be stored in a minimum of space. In addition with the provision of the extensions 22 and 24 with the corresponding hooked portions 23 and 25 and the other ends 31 and 32 of the clamping members there is a reinforcing action in the holding of the reticulated members 10 into the channels 11 in case the spot welding proves defective.

I claim:

1. A conveyer guard assembly comprising strips of reticulated sheet material, T-members edging said sheet material, and means to clamp said T-members together whereby said sheets have an angular relation, comprising a first clamp member formed of strip material having a projection at one end of narrower width than the remainder, a second clamp member having a similar projection arranged to interfit with the first projection, said projections being arranged to pass through and hook over a portion of said sheet material adjacent said T-members and to lock in position in adjoining relation, and releasable means to hold the other ends of the clamp members in place around said T-members to lock the same together.

2. A conveyer guard assembly comprising sheets of reticulated metal edged with sheet metal T-members welded in place, and means to fasten said T-members together in angular relation comprising a clamp formed of relatively stiff material shaped to accommodate the form of the adjoining T-members, and arranged in two parts, each of which has a portion to interfit with

the other and pass around one of said T-members through an aperture in the reticulated metal, and releasable means at the other ends of the parts to lock the same together.

3. In a guard for a conveyer or the like, a pair of panels disposed in relatively angular relationship with edges of the two panels lying adjacent and substantially parallel with each other, an edge member secured to each of the edges of the two panels, a pair of complemental clamp members, one of said clamp members being shaped to embrace the surfaces of the edge members which are on the outside of the angle formed by the two panel members, the other complemental clamp member being shaped to embrace the surfaces of the edge members on the inside of said angle, at least one of the panels having apertures therein, one end of each complemental clamp member having a hook formation, and said hook formations passing through an aperture in the said one panel from opposite sides thereof in interfitting relationship to secure said ends together and to secure said ends to said panel and means for securing the opposite ends of said complemental clamp members to the other panel to clamp the complemental members around said edge members.

4. In a guard for a conveyer or the like, a pair of guard panels disposed in relatively angular relationship with edges of the two panels adjacent and substantially parallel with each other, a hollow sheet metal edge member secured to each of said adjacent edges of the two panels, a pair of complemental clamp members, one of said clamp members being shaped to overlie surfaces of the edge members on the outside of the angle formed by the two panels and having end portions overlying the outside surfaces of the panels inwardly of the edge members, the other complemental clamp member being shaped to overlie surfaces of the edge members on the inside of the angle formed by the panels and having end portions overlying the panels inwardly of the edge members, and complemental hooks formed on one end of each complemental clamp member arranged to pass through and hook around a portion of the intervening panel from the opposite sides thereof to clamp the complemental members together at one end, and means passing through the other panel to clamp the other ends of said complemental members together.

REGINALD C. LYONS.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,094,370	Louden	Apr. 21, 1914
1,154,625	Gutenkunst	Sept. 28, 1915
1,261,582	Mathias	Apr. 2, 1918
2,363,164	Waller	Nov. 21, 1944