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W. ZEINDLER  
SKID AND THE LIKE

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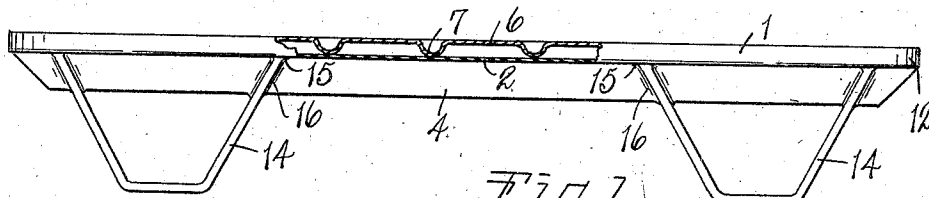


Fig. 1.

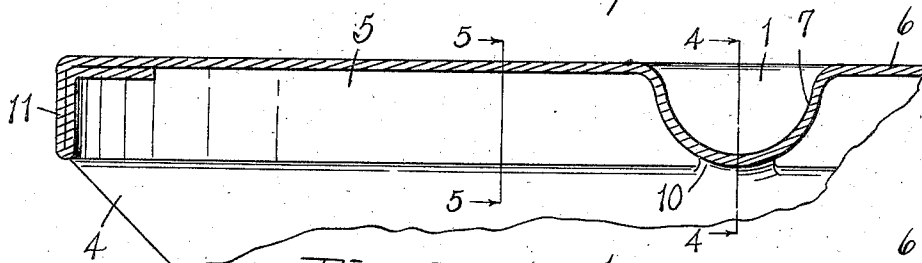


Fig. 2.

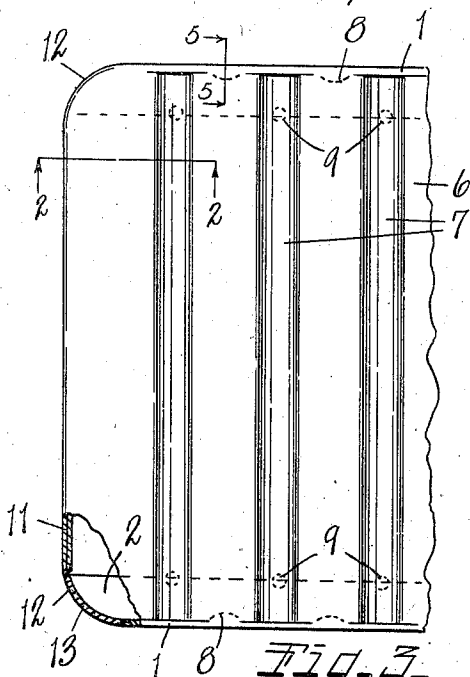


Fig. 3.

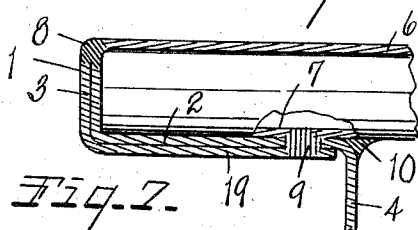


Fig. 4.

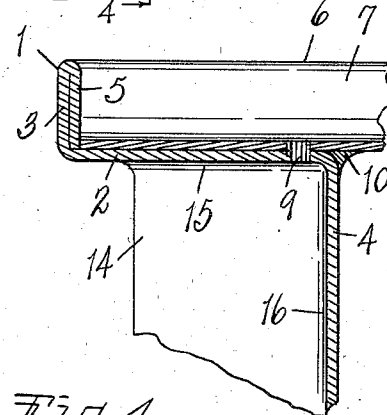


Fig. 5.

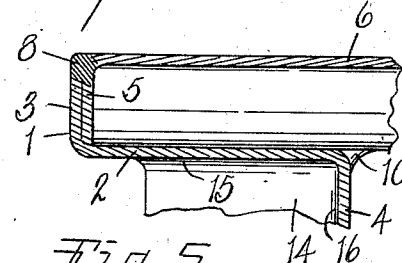


Fig. 6.

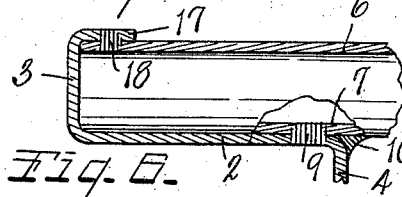


Fig. 7.

INVENTOR.  
WERNER ZEINDLER  
BY *Earl & Chaffell*  
ATTORNEYS

## UNITED STATES PATENT OFFICE

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## SKID AND THE LIKE

Werner Zeindler, Albion, Mich., assignor to The Service Caster & Truck Co., Albion, Mich., a corporation of Michigan

Application May 11, 1940, Serial No. 334,518

10 Claims. (Cl. 248—120)

This invention relates to improvements in skids and the like.

The main objects of this invention are:

First, to provide a skid for use in handling heavy merchandise about factories, shipment, and the like which is relatively light in weight and at the same time exceedingly strong and rigid.

Second, to provide an all-metal structure having these advantages in which there are no projecting parts likely to injure workmen or the merchandise handled.

Objects relating to details and economies of the invention will appear from the description to follow. The invention is defined and pointed out in the claims.

Preferred embodiments of the invention are illustrated in the accompanying drawing, in which:

Fig. 1 is a side elevation of a skid embodying the features of my invention partially broken away and in longitudinal section.

Fig. 2 is an enlarged fragmentary section on a line corresponding to line 2—2 of Fig. 3.

Fig. 3 is a fragmentary plan view.

Fig. 4 is an enlarged transverse section on line 4—4 of Fig. 2.

Fig. 5 is an enlarged detail section on a line corresponding to line 5—5 of Figs. 2 and 3.

Fig. 6 is a fragmentary section corresponding to that of Fig. 5 of a somewhat modified form or embodiment of my invention.

Fig. 7 is a fragmentary section similar to that of Figs. 5 and 6 of a still further modification of my invention.

The embodiment of my invention illustrated in Figs. 1 to 5 of the accompanying drawing comprises side or longitudinal rails designated generally by the numeral 1 and comprises horizontal web members 2, upwardly projecting outer arms 3, and downwardly projecting inner arms 4.

These rails are preferably fabricated from plate metal of suitable gauge and in this preferred embodiment the arm 3 is folded inwardly upon itself at 5 providing a stiff outer member as well as a member having a rounded upper edge.

The deck or platform 6 is also formed of a suitable gauge of sheet metal and is provided with transverse downwardly extending flute-like corrugations 7 extending from edge to edge, the edges of the deck and of its corrugations, or down-struck portions 7, being in abutting relation to the arms 3 of the side rails. The edges of the deck are welded to the arms 3 of the side

rails between the corrugations as indicated at 8, see Figs. 3, 5 and 7.

The corrugations are welded to the web members of the side rails by spot-welds as indicated at 9 in Figs. 3, 4, 6 and 7. The corrugations are also welded to the side rails as indicated at 10 in Figs. 2, 4, 5, 6 and 7, this latter weld being formed by a metal depositing welding method.

The end of the deck are preferably folded downwardly and inwardly, as shown in Fig. 2, providing end rails 11. The corners are rounded at 12 and curved corner irons 13 inserted and welded to the adjoining parts to provide suitable rounded reinforce corners, these corner irons complementing the side rails and infolded portions as shown in Fig. 3, the adjoining parts being welded together. I have not attempted to illustrate that.

The U-shaped legs 14 are disposed with their upper ends in abutting engagement to the under side of the web of the side rails and they are welded thereto as indicated at 15. These legs are disposed with their inner edges in abutting relation to the downwardly depending arms of the side rails and they are welded thereto as indicated at 16. The legs are thus not only effectively attached but they constitute bracing and reinforcing members for the side rails.

With the parts thus arranged I secure a structure which is very strong and rigid in proportion to the weight and gauge of material used. The deck with its corrugations or flutings arranged and secured to the side rails in the manner described not only serves as an effective way of supporting the deck but it reinforces the side rails so that it is not necessary to use heavy angle iron stock. It will be noted that rounded surfaces are provided so that injury to workmen or to the merchandise is eliminated.

It will be understood that these skids are used about factories, and used in shipping heavy merchandise such for example as paper, the skid being placed in a freight car by means of a hoisting truck or the like and is used in the delivery of the product. They are commonly returned to the shipper of the merchandise so that in view of the numerous handlings by freight and various other considerations, lightness is a feature greatly to be desired if sufficient strength is present.

In the embodiment of my invention shown in Fig. 6, the upwardly projecting arm 3 of the side rail is turned inwardly at 17 to overlap the deck 6 and the overlapping portion is welded to the deck at 18.

In the embodiment shown in Fig. 7, the upwardly projecting arm 3 of the side rail is folded outwardly upon itself and inwardly at 19 to reinforce the web portion of the rail. This provides considerable additional rigidity, either enabling the use of somewhat lighter gauge stock or adding some strength without a considerable increase in weight.

I have illustrated and described my invention in embodiments which I have found to be highly satisfactory. I have not attempted to illustrate or describe certain embodiments or adaptations which I contemplate as it is believed that this disclosure will enable those skilled in the art to embody or adapt my invention as may be desired.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a skid, the combination of side rails of angle section comprising horizontally disposed web members having upwardly projecting arms at their outer edges folded upon themselves and downwardly projecting arms at their inner edges, a metal deck disposed on the web members between the said upwardly projecting arms with the top of the deck flush with the upper edges of the side rails, said deck having transverse downwardly disposed corrugations extending from edge to edge thereof and resting upon and welded to the web members of the side rails, the edges of the deck having portions thereof between the corrugations welded to the upper edges of the side rails, there also being welds at the angles constituted by the meeting of the corrugations with the side rails, the ends of the deck being folded downwardly and inwardly upon itself to provide end rails, there being curved corner members complementing said end rails and side rails, and U-shaped legs disposed with their upper ends in abutting relation to the web portions of said side rails and welded thereto and having their inner edges abutting and welded to the downwardly projecting arms of the side rails.

2. In a skid, the combination of side rails of angle section comprising horizontally disposed web members having upwardly projecting arms at their outer edges folded upon themselves and downwardly projecting arms at their inner edges, and a metal deck disposed on the web members between the said upwardly projecting arms with the top of the deck flush with the upper edges of the side rails, said deck having transverse downwardly disposed corrugations extending from edge to edge thereof and resting upon and welded to the web members of the side rails, the edges of the deck having portions thereof between the corrugations welded to the upper edges of the side rails, there also being welds at the angles constituted by the meeting of the corrugations with the side rails, the ends of the deck being folded downwardly and inwardly upon itself to provide end rails, there being curved corner members complementing said end rails and side rails.

3. In a skid, the combination of side rails of angle section comprising horizontally disposed web members having upwardly projecting arms at their outer edges folded upon themselves and downwardly projecting arms at their inner edges, and a metal deck disposed on the web members between the said upwardly projecting arms with the top of the deck flush with the upper edges of the side rails, said deck having transverse downwardly disposed corrugations extending from edge to edge thereof and resting upon and welded

to the web members of the side rails, the edges of the deck having portions thereof between the corrugations welded to the upper edges of the side rails.

4. In a structure of the class described, the combination of side rails of angle section comprising horizontally disposed web members having upwardly projecting arms at their outer edges and downwardly projecting arms at their inner edges, a metal deck disposed on the web members between the said upwardly projecting arms and welded thereto, said deck having transverse downwardly disposed corrugations welded to the web members of the side rails, and inverted U-shaped legs disposed with their upper ends in abutting relation to the web portions of said side rails and welded thereto and having their inner edges abutting and welded to the downwardly projecting arms of the side rails.

5. In a structure of the class described, the combination of side rails of angle section comprising horizontally disposed web members having upwardly projecting arms at their outer edges and downwardly projecting arms at their inner edges, and a metal deck disposed on the web members between the said upwardly projecting arms and welded thereto, said deck having transverse downwardly disposed corrugations welded to the web members of the side rails, there also being welds at the angles constituted by the meeting of the corrugations with the side rails, the ends of the deck being folded upon itself to provide end rails.

6. In a structure of the class described, the combination of side rails of angle section comprising horizontally disposed web members having upwardly projecting arms at their outer edges, and a metal deck disposed on the web members between the said upwardly projecting arms and welded thereto, said deck having transverse downwardly disposed corrugations welded to the web members of the side rails.

7. In a structure of the class described, the combination of side rails of angle section comprising horizontally disposed web members having upwardly projecting arms at their outer edges, and a metal deck disposed on the web members between the said upwardly projecting arms, said deck having transverse downwardly disposed corrugations resting upon and welded to the web members of the side rails, the edges of the deck having portions thereof welded to the upwardly projecting arms of the side rails, the ends of the deck being folded upon itself to provide end rails, there being curved corner members complementing said end rails and side rails.

8. In a structure of the class described, the combination of side rails of angle section comprising horizontally disposed web members having upwardly projecting arms at their outer edges, and a metal deck disposed on the web members between the said upwardly projecting arms, said deck having transverse downwardly disposed corrugations resting upon the web members of the side rails, the edges of the deck having portions thereof welded to the upwardly projecting arms of the side rails, the ends of the deck being folded upon itself to provide end rails.

9. In a structure of the class described, the combination of side rails of angle section comprising horizontally disposed web members having upwardly projecting arms at their outer edges, and a metal deck disposed on the web members between the said upwardly projecting arms, said deck having transverse downwardly disposed

corrugations resting upon the web members of the side rails, the edges of the deck having portions thereof welded to the upwardly projecting arms of the side rails.

- 5 10. In a structure of the class described, the combination of side rails of angle section comprising horizontally disposed web members having upwardly projecting arms at their outer edges and downwardly projecting arms at their inner
- 10 edges, a metal deck disposed on the web members

between said upwardly projecting arms, said deck having transverse downwardly disposed corrugations resting on the web members of the side rails and the edges of the deck having portions thereof welded to the upwardly projecting arms of the side rails, and legs in abutting locating relation to said downwardly projecting arms of the side rails and welded to the latter.

WERNER ZEINDLER. 10