May 14, 1968 J. BLOCH 3,382,949

SAFETY RAILING FOR TUBULAR SCAFFOLDING

Filed March 20, 1967

Fig.1.

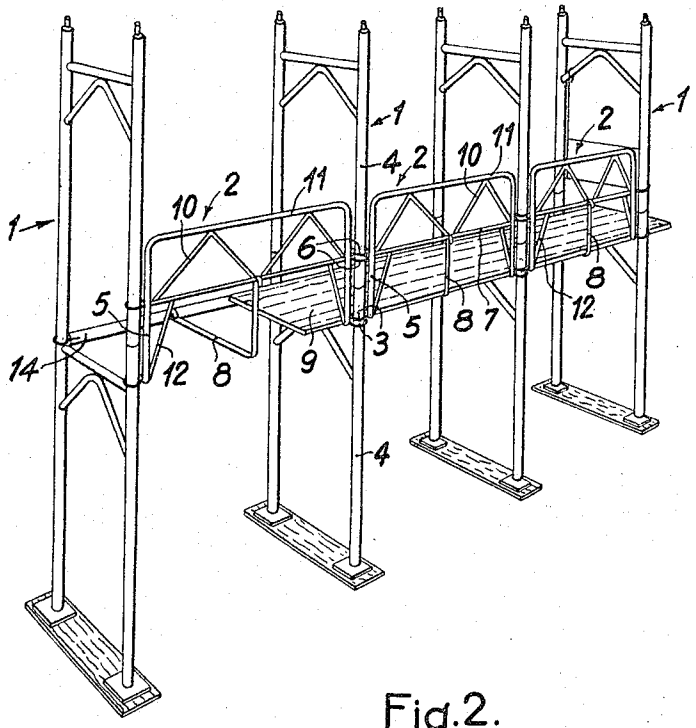


Fig.2.

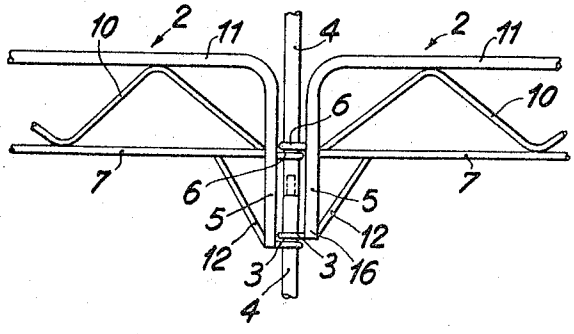
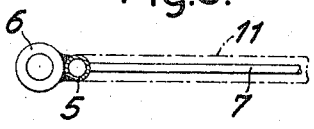


Fig.3.



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SAFETY RAILING FOR TUBULAR SCAFFOLDING

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1 Claim. (Cl. 182—113)

ABSTRACT OF THE DISCLOSURE

It is the object of the present invention to provide a safety railing for tubular scaffoldings which comprises as usual two rings disposed respectively at the lower corners thereof, and at least one ring secured at a relatively short distance above these corners, preferably at mid-height of the lateral vertical elements of the railing or balustrade.

Safety railings or balustrades of tubular scaffoldings comprise as a rule at their four corners rings in which the uprights of the scaffold ladder structure are engaged as the erection proceeds. Manufacturers of scaffoldings are required by safety regulations to place the hand rail of these safety railings at least 40 inches or one meter above the platform associated therewith, so that the scaffold ladders must be lifted at least at this level to engage the lower end of their uprights into the upper rings of the railings.

Moreover, these safety railings are generally braced and these bracing elements are frequently objectionable because they prevent the free access of building materials or tools to the working platforms.

It is the object of the present invention to provide a safety railing for tubular scaffoldings which comprises as usual two rings disposed respectively at the lower corners thereof, and at least one ring secured at a relatively short distance above these corners, preferably at mid-height of the lateral vertical elements of the railing or balustrade.

This arrangement is advantageous in that it permits of reducing the height at which the ladders must be lifted for engaging thereinto the upper rings of the railing, the scaffolding operation being facilitated accordingly.

In order properly to stiffen the railing, a horizontal bracing element is provided between the two vertical end posts thereof, substantially at the level of the upper rings, and struts connect this bracing element to the top rail or hand rail of the balustrade, so that the lower portion of the safety railing is left unobstructed.

According to another feature characterizing this invention, a bar bent at right angles is secured to this horizontal bracing element and to a coupling bar interconnecting the rear uprights of the scaffold ladders for supporting the floor or platform.

Other features characterizing this safety railing will be described more in detail hereinafter with reference to the attached drawing, it being understood that this disclosure is given by way of example only and should not be construed as limiting this invention, since various modifications may be brought thereto without departing from the spirit and scope of the invention. In the drawing:

FIGURE 1 is a perspective view of the scaffolding;

FIGURE 2 is an elevational view showing on a larger scale the mutual engagement of a scaffold ladder upright and of the retaining rings of two adjacent safety railings, and

FIGURE 3 is a fragmentary horizontal section of the safety railing, the section being taken along the plane of the upper rings.

The tubular scaffolding consists of an assembly of ladders consisting as usual of vertical parallel uprights **1** and **4**, the rear uprights **1** being interconnected by coupling bars **14**, and also of protection or safety railings or balustrades **2**. These railings are provided at their lower corners with fastening rings **3** engageable by the uprights **4** of the carrier ladders and, substantially at mid-height of their lateral vertical elements **5**, with other rings **6** also engageable by the uprights **4** of the scaffold ladders as the erection proceeds.

These upper rings **6** are disposed substantially at mid-height of the lateral vertical elements **5** of the safety railings in order to reduce the height whereat the ladders must be lifted for engaging their uprights into said rings.

A horizontal bracing element **7** is preferably provided for interconnecting the two vertical lateral elements **5** of the safety railing and giving the necesssary rigidity thereto. This bracing element **7** is also useful for fastening the bent bar supports **8** for the floor or platform elements **9**, and struts **10** are disposed between said bracing element **7** and the hand rail **11**, the space formed between the bracing element **7** and the floor or platform **9** being thus left free to facilitate the access of materials and/or tools to the platform.

Oblique reinforcing members **12** may also be disposed between the lower corners **16** of the safety railing and the bracing element **7**.

What I claim is:

1. In a tubular scaffolding consisting of parallel ladders each comprising parallel braced front and rear uprights, a floor, and bars interconnecting the rear uprights, a safety railing disposed between the front uprights of said ladders and comprising a horizontal hand rail of length equal to the horizontal relative spacing of two adjacent ladders, vertical lateral elements adjacent to said front uprights of said ladders, first rings secured to the lower end of said vertical lateral elements and engageable by said front uprights of said ladders, other rings secured at a higher level than said first rings, substantially at mid-height of said vertical lateral elements of the safety railing, a horizontal element for bracing said lateral elements substantially at the level of said other rings, struts secured between said horizontal bracing element and said hand rail, and at least one bar bent at right angles and secured on the one hand to said horizontal bracing element and on the other hand to said bar interconnecting the rear uprights of the ladders for supporting the floor in conjunction with the cross-pieces of said ladders.

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