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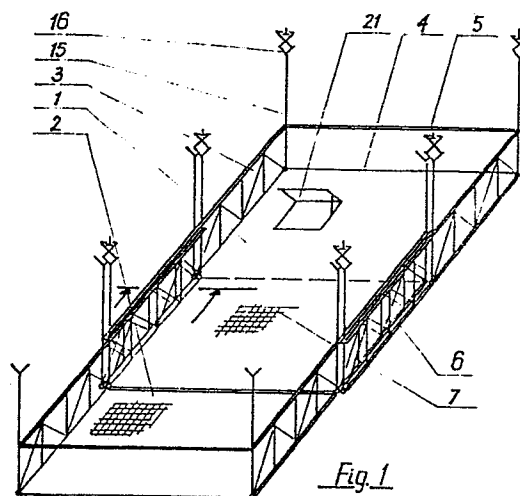
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(54) **Working platform.**

(57) The working platform is intended for doing work at some heights, such as painting, washing and cleaning structures and windows under the ceilings of rooms, particularly industrial shops. The working platform consists of upper segment 1 and lower segment 2 which are slideably mounted relative each other and a proper number of hangers 15 used for attaching the working platform at a proper height, particularly to the structural components located under the ceilings of industrial shops.

The working platform is slid horizontally directly at a height.



The subject of this present invention is a working platform intended for doing work at some heights, such as painting, washing and cleaning structures, windows and skylights under the ceilings of rooms, particularly industrial shops. Until now, such work was done with the application of scaffoldings or mechanically lifted platforms, these units being in both the cases placed at the floor level of industrial shops. Such designs fulfilled their role *only* where process equipment and lines had not been installed. However, wherever it was necessary to repair and maintain operating equipment, this was too onerous or impossible and, besides, highly expensive due, for example, to the need to stop the operation of a definite shop of a manufacturing works for the period of maintenance or repairs.

The aim of this present invention has been to avoid the above-mentioned disadvantages by developing a working platform which will enable maintenance and repair work to be done on operating equipment without needing to stop or limit the normal operation of works production shops.

The working platform as per this present invention consists of an upper and a lower segments slideably mounted in relation to each other, thereby providing a working surface for carrying out any maintenance or repair.

The working platform comprises a proper number of hangers used for fixing the platform at a proper height, particularly to the structural components located under the ceilings of industrial shops. The longitudinal components of the upper and lower segments are trusses and the transversal components of these same segments are made from beams and barriers, the beams secured to the lower beams of the trusses. The upper and lower segments are slid by means of a system of ties wound with cranks onto the drums preferably located on the upper segment and the rolling components shifting in guides, the range of sliding being determined by the position of limiters. The upper and lower segments are slid alternately forwards or backwards by the length of the stroke determined by the position of the limiters.

The above enables the platform to be shifted by indexing.

The working surface of the platform is formed from light landing grates arranged on beams, whereas the hanger comprises a holder, preferably self-clamping under the effect of the action of the force originating from the weight of the working platform and workers and adapted to the shape of the structural components to which the working platform is attached. An important step of preparing the platform for operation is the proper levelling of the upper

and lower segments and, consequently, the length of each of the hangers is adjusted, preferably by means of a turnbuckle.

Depending on the kind of the structure to which the working platform is attached the length of the beams is adjusted for the proper attachment of the segments.

Besides, the hanger holder comprises a lock preventing the hanger from undesirably disengaging from the structural components, the holder comprising feet or clamps used for attaching the holders to gusset or truss girders depending on the shape of the same components to which the working platform is attached.

Such a design of the working platform enables maintenance and repairs to be carried out under ceilings, particularly of industrial shops, without any adverse effect on the production activities of a given works production shop.

The working platform is slid directly at a height, whereby the time taken to get the working zone ready is shorter relative conventional designs. Besides, the simple construction of the working platform guarantees its long life and dependability.

This present invention has been presented by an embodiment in a drawing where Fig. 1 shows the working platform in axonometry, Fig. 2 shows a diagram of the tie system for shifting the segments of the working platform in the origin-

al position, Fig. 3 shows a diagram of the position of the tie system for shifting the lower segment to the right of the upper segment, Fig. 4 shows the section marked in Fig. 1 and presenting a rolling component of the working platform in a guide, Fig. 5 shows the alternative position of the rolling component in a guide, Fig. 6 shows a hanger with self-clamping holder, Fig 7 shows the hanger holder for attaching the working platform to a gusset girder, and Fig. 8 shows the hanger holder for attaching the working platform to a truss girder, *Fig 9 shows in diagram the shifting phases of the platform.* The working platform consists of upper segment 1 and lower segment 2 which are slideably mounted relative each other. The longitudinal components of upper segment 1 and lower segment 2 are trusses 3 and the transversal components are formed from beams 4 and barriers 5, beams 4 being attached to lower booms 6 of trusses 3. Light landing grates 7 are arranged on beams 4 to form working surface 8 of the working platform.

Upper 1 and lower 2 segments slide relative each other by means of ties 9 wound with cranks 10 onto drums 11 and rolling components 12 moving in guides 13. The mutual position of upper 1 and lower 2 segments relative each other is possible within the range determined by the location of limiters 14. Each of segments 1 and 2 is attached to the structural components of

an industrial shop, for example truss girders or gusset by means of hangers 15 of adjustable length and provided with self-clamping holder 16 with lock 17, the length of the hanger being adjusted with turnbuckle 18.

In case the working platform is attached to gusset girders holder 16 is provided with feet 19, whereas in case the working platform is attached to truss girders holder 16 is provided with overlapping clamps 20. Depending on the kind of the construction of industrial shops which impose definite spans for the attachment of the working platform, the length of beams 4 and barriers 5 are adjusted.

On the other hand, the lengths of the longitudinal components of segments 1 and 2 in the form of trusses 3 are a multiple of the structural module of industrial shops.

Entry to the working platform level can be gained through manhole 21 made in working surface 8 of the platform.

In their original position, segments 1 and 2 are placed one above the other. A shift of the working platform to the right, for example, as shown in Fig. 3 involves removing hangers 15 from the structural shop components and, then advancing lower segment 2 by the magnitude of the stroke determined by the position of limiters 14 and turning cranks 10 in agreement with the direction marked in Figs 2 and 3.

Tie system 9 wound onto drum 11 causes lower segment 2 to slide to the right until the position of limiters 14 has been reached, whereafter lower segment 2 should again be secured with hangers 14 to the structural shop components. By alternately sliding upper 1 and lower 2 segments, the working platform can be moved longitudinally forward or backward.

ing platform is attached, the length of hanger 15 being preferably adjusted with turnbuckle 18.

6. A working platform as per Claim 2, characterised in that the length of beams 4 and barriers 5 is adjustable.
7. A working platform as per Claim 5, characterised in that holder 16 includes lock 17.
8. A working platform as per Claim 5 or 7, characterised in that holder 16 includes feet 19 or clamps 20 depending on the shape of the structural components to which the working platform is attached.

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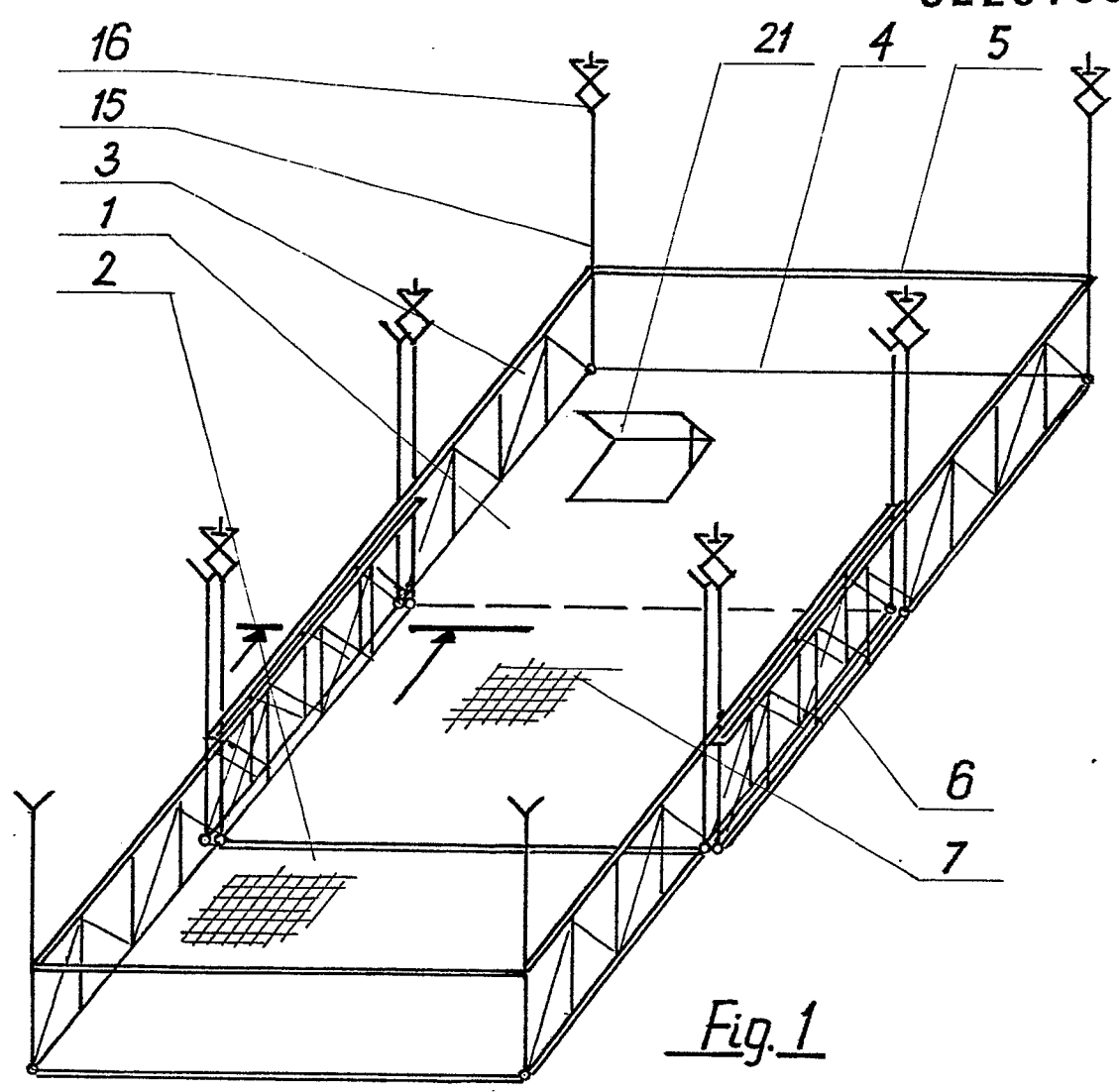


Fig. 1

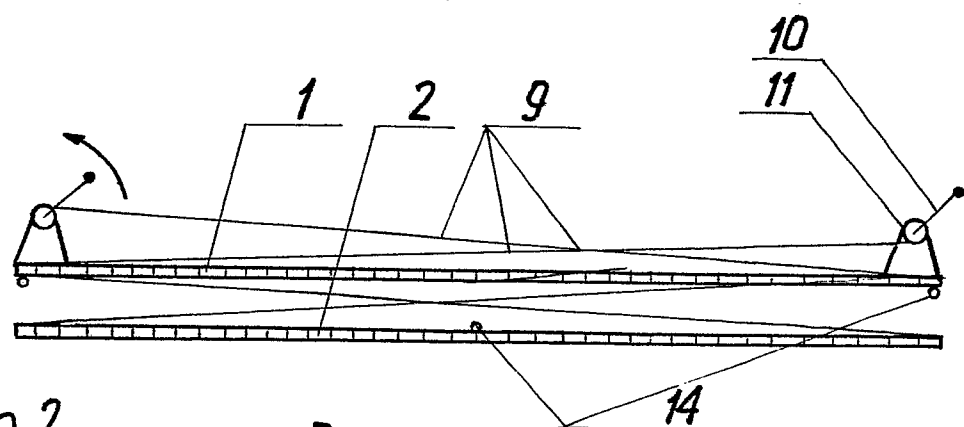


Fig. 2

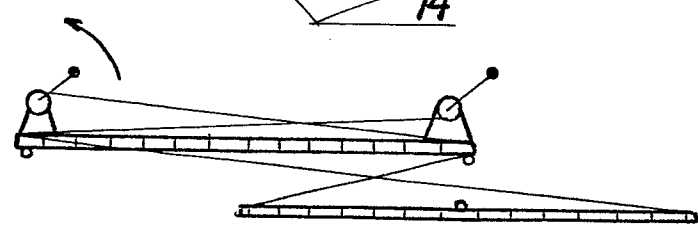


Fig. 3

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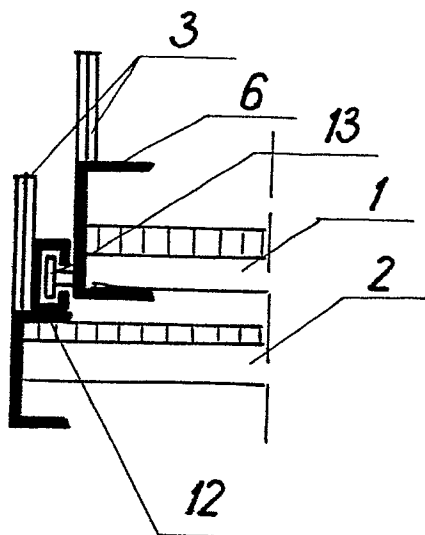


Fig. 4

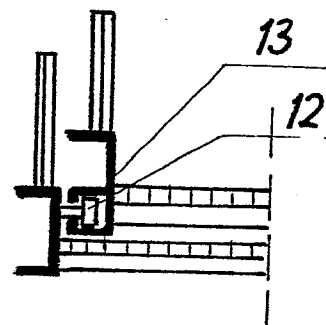


Fig. 5

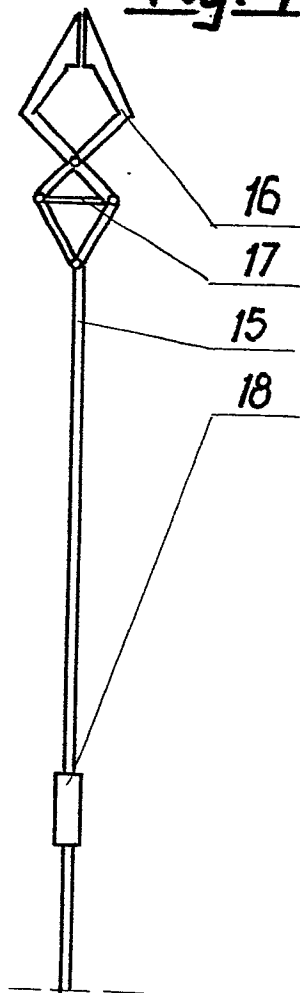


Fig. 6

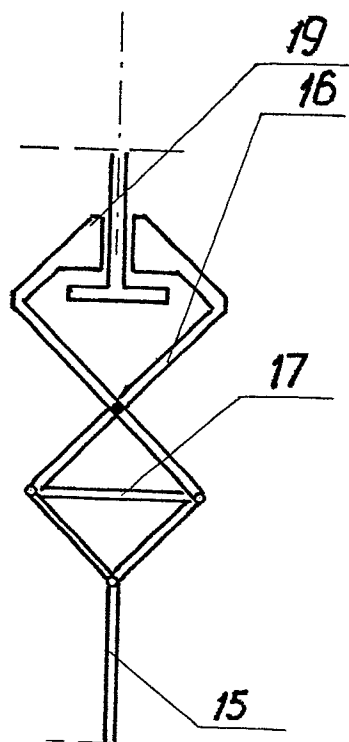


Fig. 7

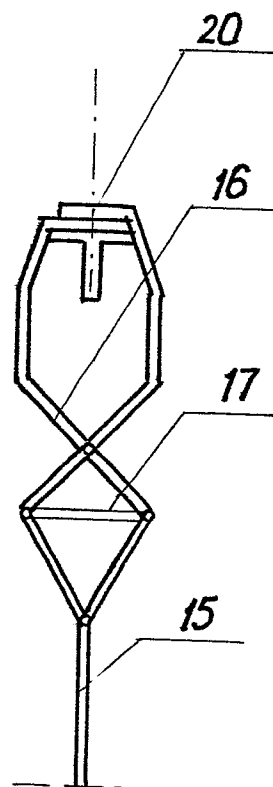


Fig. 8

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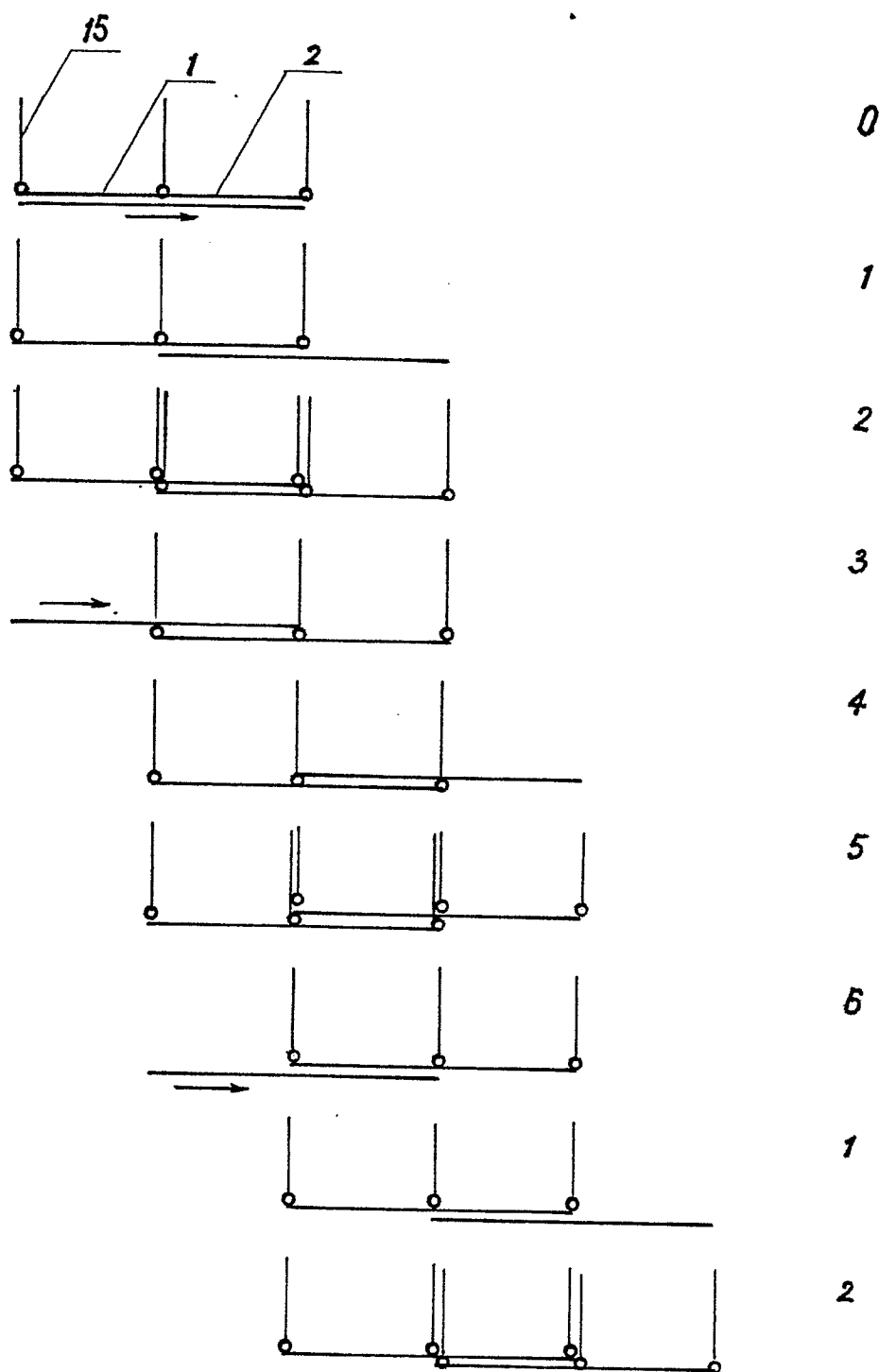


Fig. 9