Sept. 8, 1942. J. M. LAVIN 2,294,993

HEADFRAME FOR SCAFFOLDING

Filed May 3, 1940

Fig. 2.

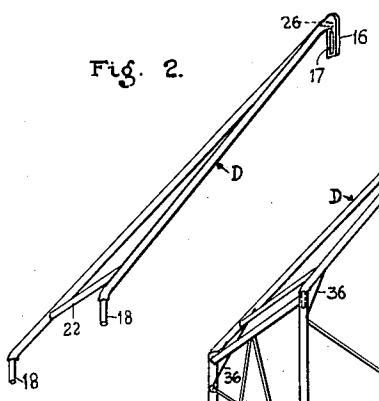


Fig. 3.

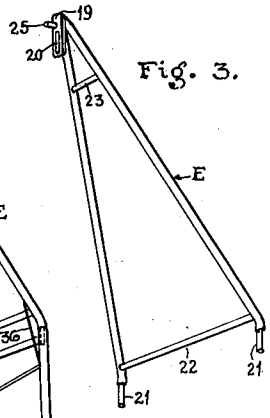


Fig. 1.

INVENTOR.
John M. Lavin

BY

Fred L. Gunn
ATTORNEY.

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HEADFRAME FOR SCAFFOLDING

John Michael Lavin, Los Angeles, Calif., assignor to Twentieth Century-Fox Film Corporation, Los Angeles, Calif., a corporation of New York

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4 Claims. (Cl. 304—2)

This invention relates to scaffolding and deals with a headframe for a particular type of scaffolding.

The hereinafter described invention has been conceived and designed for use with steel scaffolding which is erected by superposing units of a well known type and construction. Scaffolding of this type usually comprises a plurality of identical or equivalent units which may be of a collapsible nature, said units being fitted one into the other to provide a substantially upright structure of any desired height. The unit sections are so constructed that a platform may be installed at the top of the scaffolding or at any junction between sections. The usual construction of scaffolding of this type consists of upright pipes, generally four in number, braced with cross members and diagonal members, some of which may be detachably mounted for collapsing the structure for storage or handling. One end of the upright pipes, usually the upper end, is left open and the lower end is provided with a plug or a reduced extending member adapted to fit in the open upper ends of the section below.

The primary object of this invention is to provide a headframe of a collapsible nature that may be quickly and easily mounted upon the top of the scaffolding in the open upper ends of the top pipe section and provide a means having sufficient stability and strength for raising and lowering loads through the scaffolding. Another object is to provide a platform mounted near the top of the scaffolding having trapdoors through which a load may be raised or lowered. Another object is to provide a two-piece headframe of light, durable construction that may be quickly and easily mounted on the top of scaffolding of the nature described.

Other objects and advantages will appear as the description proceeds in conjunction with the drawing, in which:

Figure 1 is an elevation of a scaffolding showing how my invention would be applied on the upper end thereof;

Figure 2 is a view of one member of the headframe; and

Figure 3 is a view of the other complementary member of the headframe.

In the drawing I have shown and illustrated a scaffolding consisting of a section generally designated A and a section generally designated B having my headframe generally designated C mounted thereon. There may be more sections if desired. The sections A and B are substantially identical in construction and a description of one will serve for both. Referring to the section B, it will be noted that it consists of four upright members 11, 12, 13 and 14. These members are held in an upright position by means of cross bracing and diagonal bracing, which is shown in the drawing but not described inasmuch as this construction is old in the art. However, it should be stated that the upright members 11, 12, 13 and 14 are ordinarily tubular in form and are usually set with the open end up and the lower end is equipped with an extending plug or a reduced member to extend into the upper open ends of the members below as indicated at 15. This method and means for joining adjacent sections in the scaffolding has been used before but in this instance is used to mount a headframe upon the top section of a scaffolding of the above type.

In Figures 2 and 3, I have shown the two members of my headframe which may be mounted upon the section B and have designated them D and E. It will be noted that the member D is triangular in form and terminates at the upper apex in a plate 16 having an opening 17 therethrough and that the lower points of the triangle terminate in plugs or reduced portions 18 which are adapted to fit into the upper open ends of the upright members 11 and 12. The member E is similar in construction, having a plate 19 at the upper joint thereof, said plate having an opening 20 therethrough. The lower points of the triangular member are reduced as shown at 21 to fit into the upper open ends of the upright members 13 and 14. Both of the members D and E may be cross braced as shown at 22 and 23, if desired. It will be noted that the plugs or reduced members 18 and 21 extend at angles from the members to which they are joined and that they are so spaced they will fit into respective ends of the upright members 11, 12, 13 and 14. When the two members D and E are mounted upon the upper open ends of the upright members 13 and 14, the two plates 16 and 19 will come together as shown in Figure 1 and the openings 17 and 20 will coincide to form one opening 24 (see Figure 1). In order to insure accurate registration of the openings 17 and 20 and to prevent any slippage that may arise due to the springing of members, I may incorporate a dowel pin 25 on the plate 19 which is adapted to be inserted in a hole 26 on the plate 16. In conjunction with this headframe, I provide trapdoors 27 and 28 in a platform 29 which is mounted upon cross members 30 and 31 of the

lower section A. The platform may be anchored in place by hold-down members **32** and may be prevented from slipping endwise by members **33**, all of which may be detachably mounted upon the sections A and B.

The headframe is for the purpose of raising or lowering loads from the ground to the platform **29** and in practice a block **34** may be hooked through the opening **24** at the apex of the headframe C and a rope or cable **35** may be dropped through the platform **29** by opening the trapdoors **27** and **28** to pick up any load desired. The load may then be raised by pulling the rope **35'** from the ground or the platform. In the drawing I have illustrated a simple block, but it is to be understood that any type of block and tackle or pulley and cable arrangement may be used, including power driven equipment. After the load is raised through the trapdoors **27** and **28**, the doors may be closed and the load set in position upon the platform **29**. The headframe may then be dismounted or left in place, whichever is desired. It will be noted that small hold-down members **36** are provided to insure that the headframe will not be displaced out of its socket mountings. These members are for the purpose of preventing displacement of the headframe in the event that the scaffolding is moved intact, and make take the form of rods having hooks adapted to engage holes in the respective members or any other device suitable for the purpose. Similar members **36** are provided for a like purpose at the base of the scaffolding for holding the section A to a base member **37**. It will also be noted that the apex of the headframe is slightly to one side of the center of the platform for the purpose of permitting a person to stand on one end of the platform while a load is being handled by the block and tackle arrangement.

A headframe of this construction is quickly and easily mounted upon the upper end of the scaffolding of any height and provides a safe, light, and efficient means for raising and lowering loads through the scaffolding.

I claim:

1. For use with scaffolding having four tubular upright supporting members, a pair of triangular members adapted to be mounted on said scaffolding to form a headframe thereover, each of said triangular members having means on two legs thereof adapted to be detachably mounted in the upper ends of respective tubular upright members to bring the upper points of said triangular members into engagement over said scaffolding.

2. For use with scaffolding having four tubular upright supporting members, a pair of triangular members adapted to be mounted on said scaffolding to form a headframe thereover, each of said triangular members having means on two legs thereof adapted to be detachably mounted in the upper ends of respective tubular upright members to bring the upper points of said triangular members into engagement over said scaffolding, and suspension means on the upper point of each of said triangular members adapted to form a suspension opening for supporting a load when said upper points are in engagement.

3. For use with scaffolding having four tubular upright supporting members, a pair of triangular members adapted to be mounted on said scaffolding to form a headframe thereover, each of said triangular members having means on two legs thereof adapted to be detachably mounted in the upper ends of respective tubular upright members to bring the upper points of said triangular members into engagement over said scaffolding, and a plate having an opening therethrough fixed to the upper point of each of said triangular members arranged to bring said openings into registration to form a single opening when said upper points are in engagement.

4. For use with scaffolding having four tubular upright supporting members, a pair of triangular members adapted to be mounted on said scaffolding to form a headframe thereover, each of said triangular members having means on two legs thereof adapted to be detachably mounted in the upper ends of respective tubular upright members to bring the upper points of said triangular members into engagement over said scaffolding, and a plate having an opening therethrough fixed to the upper point of each of said triangular members arranged to bring said openings into registration to form a single opening when said upper points are in engagement, one of said plates having an extending pin and the other of said plates having a hole therein arranged to receive said pin to prevent relative movement of said plates when the upper points of said triangular members are in engagement.

JOHN MICHAEL LAVIN.