Sept. 29, 1964 G. E. SEGO ETAL 3,150,890

ADJUSTABLE SCAFFOLD FOOT

Filed April 30, 1963 2 Sheets-Sheet 1

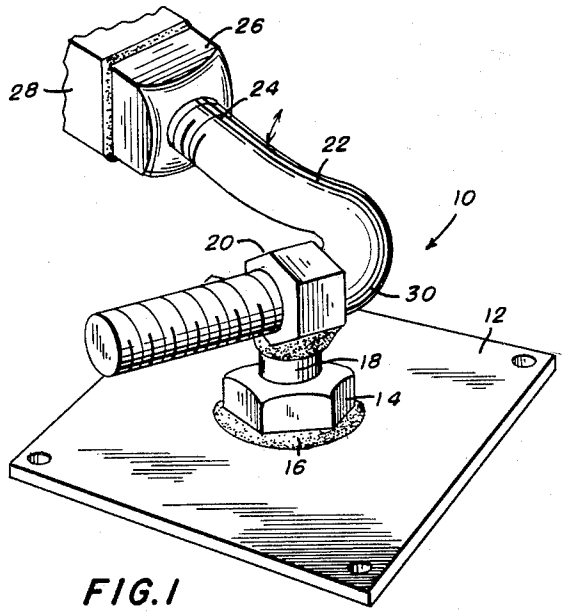


FIG. 1

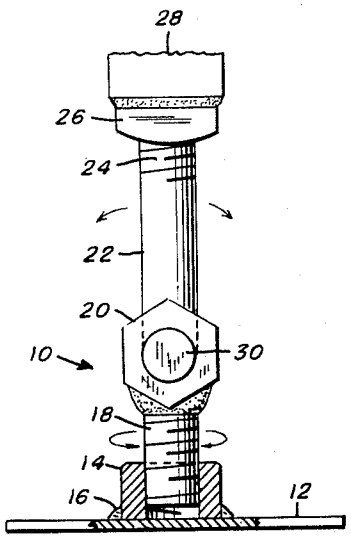


FIG. 2

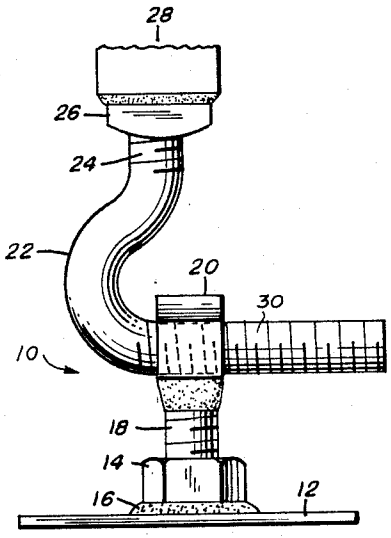


FIG. 3

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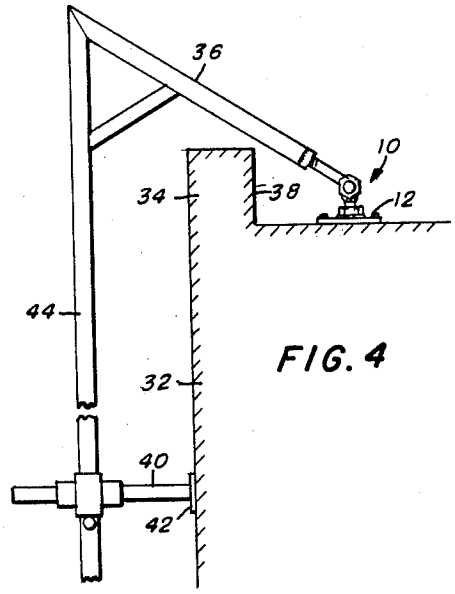


FIG. 4

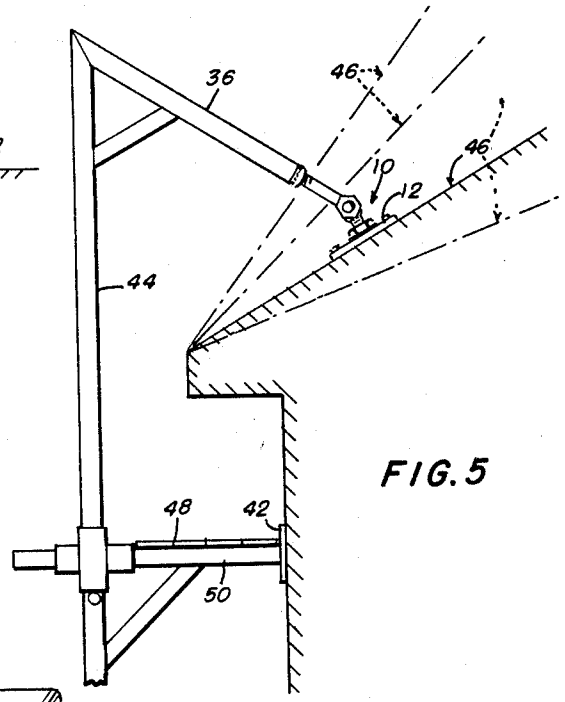
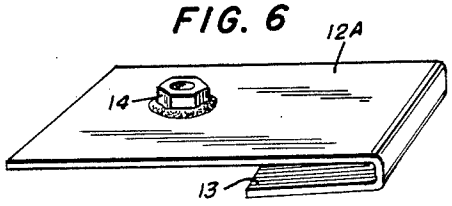


FIG. 5

FIG. 6



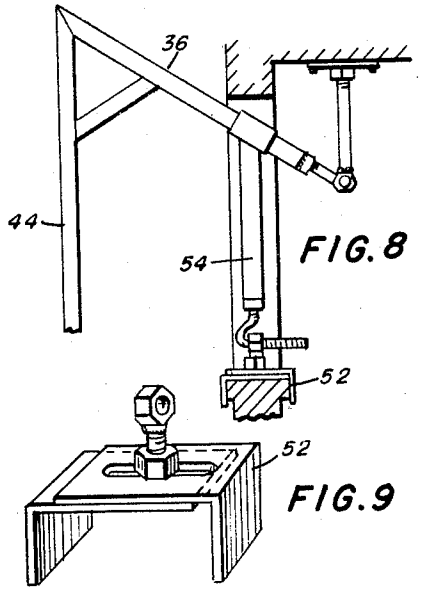
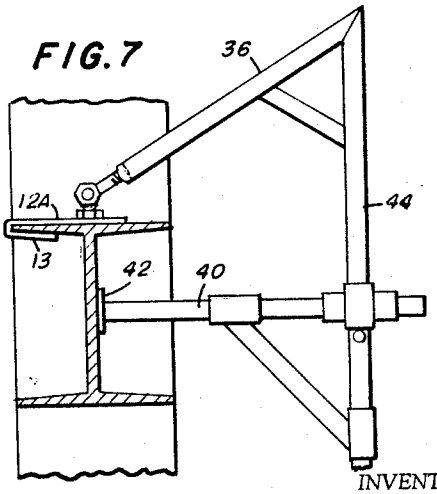


FIG. 8

FIG. 9

FIG. 7



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ADJUSTABLE SCAFFOLD FOOT

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3 Claims. (Cl. 287—20.2)

This invention relates to scaffolding and staging of the type normally employed in the construction, maintenance or repair of building structures or the like, and more particularly is concerned with a universally adjustable foot member for use in combination with such a scaffold

Heretofore scaffoldings and stagings of the type which are normally assembled and erected on the building site have been equipped with a variety of irregular surface engaging support members. However, such devices have failed in many instances to serve the intended purpose of becoming compatible with irregular roof grades, gullies, valleys, gable ends and ground surfaces for providing an adequate and safe support for the scaffolding of sufficient strength to support the workmen and their equipment because they had limited adjustability.

It is an object of this invention to accommodate a scaffold on any surface capable of supporting the same by means of a universally adjustable foot or scaffold supporting member.

It is another object of this invention to provide a universal scaffold supporting element which may be used to support a scaffold from the ground or may be employed with equal facility to support a scaffold from a part of the building structure itself, eliminating the need for ground support.

It is another object of this invention to support a scaffold on a steel girder or the like.

The invention further contemplates a scaffold support which is relatively simple in its construction, reliable in its operation and relatively inexpensive to manufacture.

Other objects and advantages will be recognized from a consideration of the following specification taken in connection with the accompanying drawings in which like numerals represent like parts throughout the several views. In the drawings:

FIG. 1 is a perspective view of an embodiment of the invention as attached to a fragmentary portion of a scaffold;

FIG. 2 is a side elevational view partly in section of the device in FIG. 1 with the fragmentary section of the scaffold disposed directly above the embodiment of the invention illustrated in FIG. 1;

FIG. 3 is a side elevational view of the structure shown in FIG. 2 rotated 90 degrees;

FIG. 4 is a view of the invention employed as a flat roof engaging support in combination with a fragmentary section of a scaffold;

FIG. 5 is a side elevational view of the invention as applied to a peaked roof and is shown in combination with a portion of a scaffold;

FIG. 6 is a perspective view of an embodiment of the invention which is adapted for mounting on a steel beam or girder;

FIG. 7 is a view in side elevation depicting the mounting arrangement employed for the embodiment shown in FIG. 6;

FIG. 8 is an elevational view of the invention applied to the ceiling of a room through a window opening; and

FIG. 9 is a perspective view of an adjustable window sill clamp.

Referring to FIGS. 1, 2 and 3, the universally adjustable support element of this invention, generally shown at 10, includes a base plate 12 which for illustrative purposes is shown as substantially square in configuration. It is to be understood that base plates of other shapes

could be employed as desired. An internally threaded coupling 14 which for purposes of illustration has been shown in the form of a nut is mounted to the base plate 12 by means of welding as at 16 or by any other suitable means.

A stud includes an externally threaded shank portion 18 and an internally threaded eyelet 20. The shank portion 18 of the stud is rotatably received within the threaded portion of the coupling 14 interconnecting a sufficient number of the cooperating threads of the stud and coupling to preclude unintended disassociation between the stud and base, yet providing for a rotatable connection of 360 degrees therebetween. A connector 22 in the form of a substantially hook-shaped element is provided with a threaded end portion 24 adapted to be received in a nut 26 or other internally threaded means attached to the end of a scaffold leg or yoke 28. The connector is similarly threaded on its opposite elongated end 30 for cooperating with the internally threaded eyelet portion 20 of the stud.

The base member 12 may be provided with a plurality of orifices of suitable size and disposition to receive fastening means such as nails, screws, bolts or the like to secure the base member to the building part with which it is associated when it is desired to do so. From a consideration of the drawings thus far described, it will be seen that the base plate together with the coupling and eyelet may be rotated relative to the elongated end 30 of the connector throughout an arc of a full 360 degrees thus enabling complete universal adjustment of the support to accommodate any surface upon which it is placed. Separate adjustment of the base member may be accomplished by rotating the base with its coupling portion and stud member and simultaneously rotating the connector element 22 relative to the nut 26 mounted in the scaffold part 28. Rotation of the aforementioned elements as a unit will result in an effective elongation or shortening of the scaffold element 28 as the threaded portion of the connector 22 is threaded into or out from the nut 26 in the scaffold part 28. A similar elongation or shortening of the scaffold leg for fine adjustment may be accomplished by rotating the stud 18 into or out from the coupling 14.

If desired, the threaded portion 24 of the connector 22 could be provided with threads of either a coarser or a finer pitch than those on the stud and coupling members, thus providing for both coarse and fine adjustment between the several elements, whereby even minute differences in the surface on which the scaffold is mounted could be accommodated.

Referring now to FIG. 4, it will be seen that the scaffold with which this invention is depicted as mounted adjacent the side of a building shown diagrammatically at 32 which includes a parapet wall 34 over which the yoke portion 36 of the scaffold is mounted. It will be understood that should it be desired to do so, the base member 12 of the invention 10 could be mounted against the backside 38 of the parapet wall. This arrangement could be employed when it is desired to avoid scaffold contact with the roof surface, thereby avoiding damage to the same. An adjustable brace element 40 is provided with a foot portion 42, which, if desired, could be in the form of another universally adjustable support element 10. The brace 40 is adjustably connected to the vertical beam 44 of the scaffold and may be moved in such a manner that it may support the vertical beam 44 in a position substantially parallel to the face of the building wall. It is contemplated that two or more such scaffold arrangements would be disposed on the building structure and suitable planking would be disposed on the upper surfaces of the support 40 upon which workmen and materials would be supported in a working position relative to the building face.

The embodiment shown in FIG. 5 is substantially the

same as that shown in FIG. 4 except that the building roof generally depicted at 46 is of the peaked type, and the phantom lines disclose a variety of angles of the same to demonstrate the versatility of application of this invention. It is to be understood that those angles which are shown in phantom are not to be considered as representing the extremes within which this invention is capable of employment, but rather are merely suggestive of various roof angles. A material or workmen supporting platform shown generally at 48 is disposed on the vertically and horizontally adjustable brace member 50 which is similar to that shown in FIG. 4.

In the embodiment of the invention shown in FIG. 6, the base member 12A of the adjustable support 10 is provided with a hook-shaped portion 13 which for purposes of illustration is shown in the form of a portion of the base folded back upon itself to define a beam engaging hook portion. As shown in FIG. 7, this embodiment finds primary, but by no means exclusive, use when the scaffold is utilized in connection with buildings employing a steel girder skeleton. In such an application the base member 12 shown in FIGS. 1, 2 and 3 is removed from the threaded stud 18 and a new base member 12A complete with the aforementioned hooked portion is substituted therefor. It is to be noted that such an arrangement eliminates the necessity for adjusting clamps, binding posts or screws; and when arranged in the manner shown in the drawings with a support brace 40, similar to those previously discussed with regard to FIGS. 4 and 5, provides for a completely suspended scaffold which is simple in construction yet adequate for supporting men or materials employed in the erection, repair or maintenance of the structure.

In the employment of the invention shown in FIG. 8, the versatility of the adjustable support is further demonstrated, for in that application it will be noted that the free end of the yoke member has been placed within a window or wall opening in the structure, and the base plate 12 is disposed against the ceiling or roof portion, while a second adjustable support member 50 is disposed in supporting relation with the window sill or other framework disposed around the opening, utilizing an adjustable sill engaging clamp member 52 as shown in FIG. 9.

Thus, it may be seen that the universal support element of this invention is capable of engaging substantially any desired surface to the exclusion of any other surfaces; and when disposed in the desired position will render

the scafford safely and rigidly supported on the structure to which it is mounted.

It is within the contemplation of this invention that the adjustable foot member could be employed to engage ground surfaces with equal facility and efficiency as those hereinbefore described. The applicants have chosen the illustrated applications without intending to exclude those applications not depicted, and thus it is to be understood that many variations in the form and application of this invention may be made within the scope of the appended claims.

We claim:

1. In a universally adjustable support, the combination comprising a base plate, an internally threaded coupling element fixed to said base plate and extending upwardly therefrom, a stud including an externally threaded shank portion and an internally threaded eyelet portion transverse to said shank, the threads on said externally threaded shank portion being compatible with the internal threads of said coupling whereby said coupling and said shank may be rotatably coupled, a connector element including a substantially hook-shaped body portion and terminating in an externally threaded end portion compatible with and disposed within the internally threaded eyelet portion of said stud, said connector terminating on its opposite end in an elongated externally threaded shank portion connectible to one end of a scaffold member whereby said support element is disposed between said scaffold element and the structure to which said scaffold is attached.

2. The structure defined by claim 1 in which said eyelet portion of said stud is rotatably connected to said connector element for rotation through an arc of 360 degrees.

3. The structure defined by claim 1 wherein said base plate includes a portion folded back toward itself to define a hook thereon for engagement with a selected surface of a steel girder.

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