March 30, 1965 P. E. NEELEY 3,175,642

KNOCKDOWN SCAFFOLD

Original Filed Dec. 28, 1961

Fig. 1

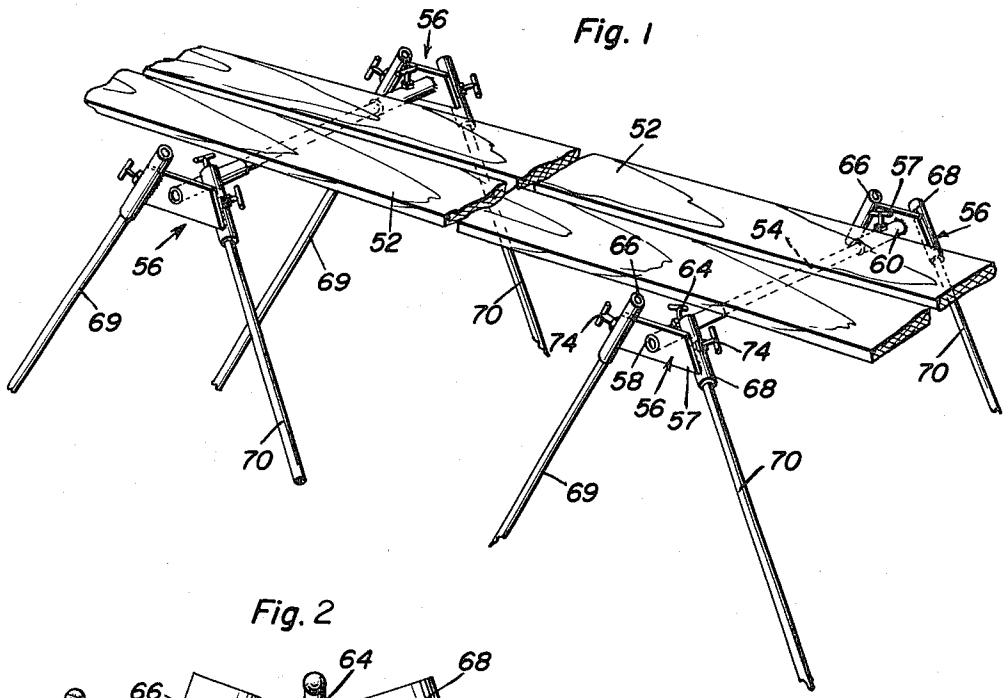


Fig. 2

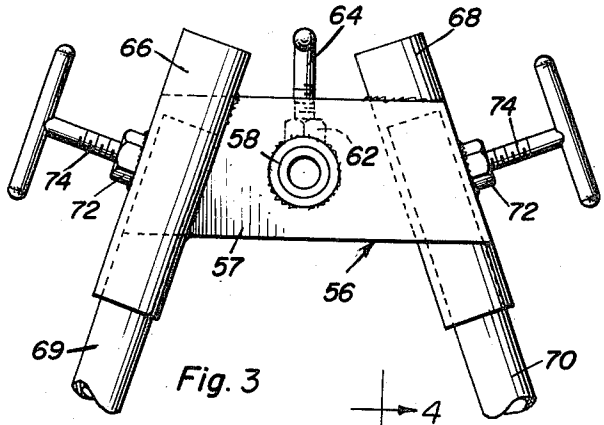


Fig. 4

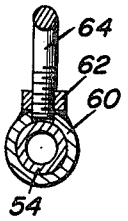
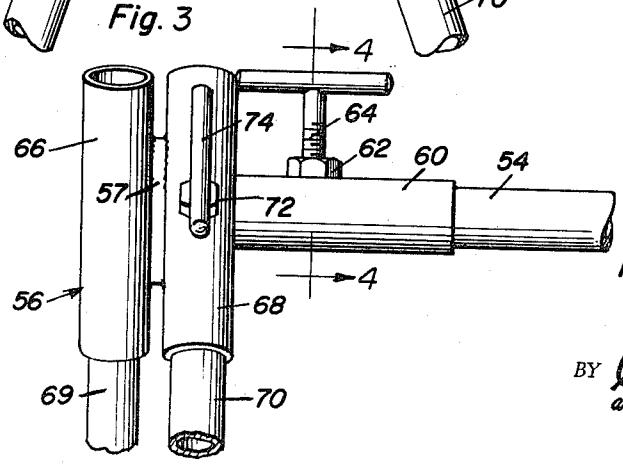


Fig. 3



Perry E. Neeley

INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jacobson

Attorneys

United States Patent Office 3,175,642 Patented Mar. 30, 1965

3,175,642

KNOCKDOWN SCAFFOLD

Perry E. Neeley, 1235 P St., Gering, Nebr.

Original application Dec. 28, 1961, Ser. No. 162,651, now Patent No. 3,120,878, dated Feb. 11, 1964. Divided and this application Nov. 19, 1963, Ser. No. 325,214
3 Claims. (Cl. 182—224)

This application is a division of U.S. Serial No. 162,651, filed December 28, 1961, now Patent No. 3,120,878.

The present invention relates to certain new and useful improvements in a scaffold construction which employs horizontal planks and vertical legs as principal structural members and readily applicable and removable component parts to effectively and reliably support the planks and legs.

Briefly, the invention has to do with an easy-to-erect knockdown-type scaffold construction characterized by a horizontally disposed support member, means at each end thereof having a horizontal socket member into which the adjacent end of the support member is telescopically removably fitted, said socket member having a fastening device securing the support member in the socket thereof, planks resting removably atop the support member, vertical legs, and means removably embracing the legs and detachably and adjustably secured to said legs.

An object of the invention is to provide novel brackets and self-standing trestles or strands of a simple, practical and economical type and which are such in construction and durability that they may be used over and over, dismantled and readily carried from one construction job to another whereby to thus provide the compactness and convenience so essential in time and labor-saving needs for all concerned.

Another object of the invention is to permit the adoption and use of suitable supporting members and to so design and construct the companion or complemental parts that the desired results may be achieved with assurance, safety and reliability.

In carrying out the illustrated embodiment of the invention, the horizontal pipes or plank-supporting members are removably mounted on specifically designed brackets or assembling and connecting units having sleeves or sockets and permitting the use of outwardly and downwardly diverging leg sections, these legs and said units providing novel knockdown end frames.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view illustrating a scaffold utilizing the various interrelated components comprising the instant invention;

FIGURE 2 is an enlarged end elevational view of the upper end portion of one of the leg frames;

FIGURE 3 is an enlarged view taken at approximately right angles to the illustration seen in FIGURE 2; and

FIGURE 4 is a cross-sectional view taken substantially on a plane passing along line 4—4 in FIGURE 3.

With reference to FIGURES 1 to 4 inclusive, and particularly to FIGURE 1, it will be noted that the platform of the scaffold is made up of ordinary planks 52 supported atop the individually suitably arranged elevating trestles or stands. Each stand is the same in construction and description of one will suffice for both. The horizontal plank-support member is here denoted by the numeral 54 and comprises a suitable length of pipe or rod stock as the case may be. The adapter or accommodation brackets are at the respective ends of this plank support member 54. Actually the brackets are embodied in the end frames or leg frames as they are referred to in a combination sense. Each bracket (also coupling and assembling means) is denoted by the numeral 56 and comprises a rigid plate 57. This plate 57 is provided between its ends with an opening. One end portion 58 of a sleeve 60 is fitted into the opening and welded or otherwise secured in place. This sleeve 60 constitutes a first socket member to telescopically receive the cooperating end portion of the support member 54. The sleeve 60 has an opening therein as shown in FIGURE 4 with an aligned nut 62 to accommodate the screw-threaded portion of the substantially T-shaped setscrew 64, which obviously functions to secure the end of the support member 54 in its assembled position.

The sleeve 60 is also referred to as a socket member and cooperates with additional sleeves, one at the left which is denoted by the numeral 66, and one of the right by the numeral 68. It will be noted that one sleeve is on the outer side of the plate and the other sleeve is on the inner side to obtain rigidity and balance. These sleeves 66 and 68 are referred to either as additional sleeves or second and third sleeves and each is provided with an open-ended socket member. By having the several sleeves open at the ends it will be evident that any accumulation of dirt and mud may be removed therefrom. The supporting legs in this instance comprise pipes or rods 69 and 70 which are duplicated at least in cross-section so that the ends thereof may be fitted removably and adjustably in their respective sleeves or sockets 66 and 68. Here again each sleeve is provided with an adapter nut 72 for the T-shaped setscrew 74.

It is believed that a careful consideration of the above description in conjunction with the figures of the drawings will enable the reader to obtain a full and comprehensive understanding of the features and advantages of the invention along with an appreciation of the novelty residing in the simple though highly unique construction. For example, not only can the scaffold structure of the instant invention be quickly erected and dismantled, but also, by positioning the sleeves 66 and 68 in laterally offset relation to each other, that is in parallel vertical planes, infinite, within the limits of the support legs, vertical adjustment ofthe scaffold is possible with the upper ends of the legs 69 and 70, when such upper ends project beyond the sleeves 66 and 68, crossing each other. In addition, by incorporating a completely knockdown construction, storage of the components is a simple matter requiring only minimum amount of space, transportation of the scaffold from one location to another being simplified for the same reasons.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A scaffold bracket comprising a normally horizontal sleeve adapted to receive the end of a horizontal support, setscrew means for securing the end of the support within the horizontal sleeve, a vertically orientated flat plate secured to one end of said horizontal sleeve and projecting laterally beyond both sides thereof, a pair of oppositely inclined sleeves fixed to opposite ends of said plate on the opposite faces thereof so as to be oriented in offset vertical planes, said pair of sleeves being spaced laterally outwardly from said horizontal sleeve, said pair

of sleeves diverging downwardly below said plate and converging upwardly above said plate, and setscrew means on said pair of sleeves for locking leg forming members therein.

2. A scaffold bracket comprising a normally horizontal sleeve adapted to receive the end of a horizontal support, setscrew means for securing the end of the support within the horizontal sleeve, a vertically orientated flat plate secured to one end of the horizontal sleeve, a pair of oppositely inclined sleeve forming portions fixed to said plate in offset substantially vertical planes for the reception of leg forming members therein, and setscrew means for securing the leg forming members within the oppositely inclined sleeve forming portions.

3. The structure of claim 2 wherein said sleeve forming portions diverge downwardly from the horizontal plane of the horizontal sleeve.

References Cited by the Examiner

UNITED STATES PATENTS

488,349	12/92	Bradley	182—185
1,114,336	10/14	Blomquist	182—224
3,082,027	3/63	Johnson	182—185

FOREIGN PATENTS

471,724	2/51	Canada.

CHARLES E. O'CONNELL, *Primary Examiner.*

REINALDO P. MACHADO, *Examiner.*