Jan. 16, 1923.

1,442,582

D. PALMER-JONES.
SCAFFOLDING.
FILED AUG. 4, 1921.

FIG. 2.

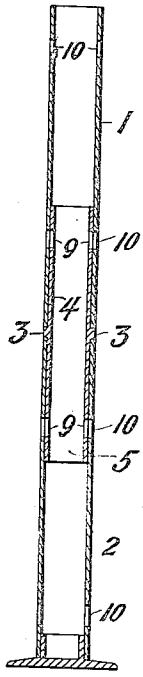


FIG. 1.

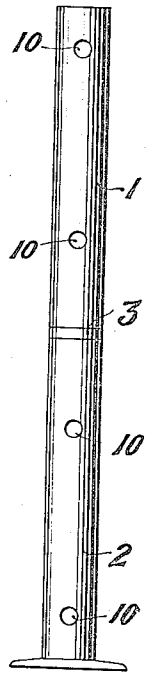


FIG. 3.

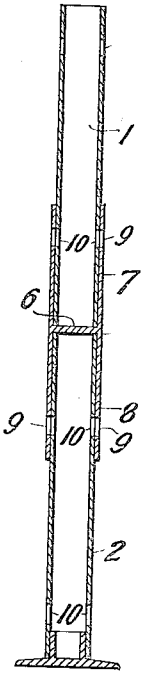


FIG. 4.

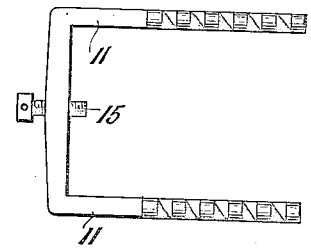


FIG. 4b.

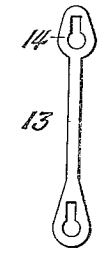


FIG. 4a.

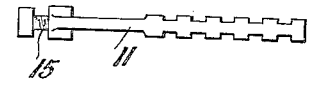


FIG. 5.

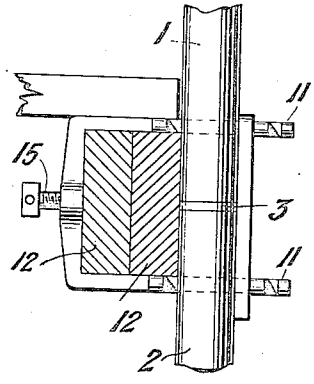


FIG. 6.

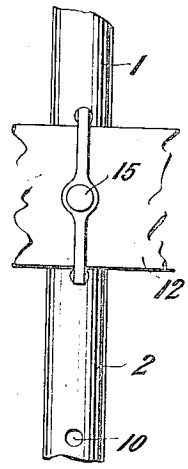
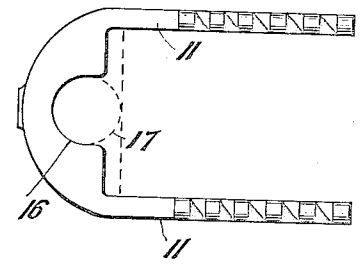


FIG. 7.



Inventor
Daniel Palmer-Jones
By Lessell & Son
his Attorneys.

Patented Jan. 16, 1923. 1,442,582

UNITED STATES PATENT OFFICE.

DANIEL PALMER-JONES, OF LONDON, ENGLAND, ASSIGNOR TO THE TUBULAR SCAFFOLDING COMPANY LIMITED, OF LONDON, ENGLAND.

SCAFFOLDING.

Application filed August 4, 1921. Serial No. 489,835.

To all whom it may concern:

Be it known that I, DANIEL PALMER-JONES, a subject of the King of Great Britain, residing at London, England, have invented certain new and useful Improvements in Scaffolding (for which I have filed an application for Letters Patent in Great Britain on May 12, 1914, under No. 11,700, Patent No. 11,700 of 1914), of which the following is a specification.

This invention relates to improvements in scaffolding of the tubular kind in which the scaffolding members such as poles or standards, are built up of sectional tubes and requisite accessories for their connection so that a scaffolding may be erected by a relatively rapid assembling manipulation during which the individual parts are safely and rapidly interlocked in the relative positions which they are to assume in the finished scaffold.

In scaffolding of this type is has been already proposed to connect standard parts of tubular or cylindrical shape and of a uniform diameter by means of smooth spigots or intermediate connecting sockets secured to the tubes with the aid of rivets for which purpose both the tubes and the spigots were provided with registering holes to receive the shanks of the rivets.

In order to enable poles or scaffolding members to be built up of tubular sections coaxially connected together without necessitating a riveting operation between the tubular sections and the connection members, connection members are provided according to this invention, each of which is constructed with a central portion comprising a collar or web, the opposite faces of which central portion constitute seatings for the ends of two opposed tube sections, and from the opposite faces of said central portion of the connection member oppositely directed end portions extend into or onto which the ends of the opposed tube sections are passed and engage; said end portions may be constructed either as spigots to enter the tube sections or as sockets into which the ends of the tube sections are inserted, said tubes having, in either case as before stated, an end seating on the central portion of the connection member. Each tubular section has at a distance from its end, opposite coinciding holes through its wall, and each of the oppositely directed end portions of the connection member has holes formed therethrough to coincide with said holes in said tubular sections when said parts are assembled; a U-shaped bracket is provided, the parallel arms of which are adapted to pass through the coinciding holes in the tubular sections and end portions of the connection member, and means are provided, hereafter described, for locking the arms of the bracket in position and also utilizing the bracket to carry ledger members.

The invention will be described with reference to the accompanying drawings.

Fig. 1 is an elevation, and Fig. 2 is a vertical section, showing two tubular sections connected by a connection member having spigots, and Fig. 3 is a vertical section showing the application of a connection member having sockets.

Figs. 4, 4^a and 4^b show one form of binding bracket and auxiliary parts used according to this invention for binding together the standard sections in their assembled positions and at the same time for supporting the ledgers and putlogs.

Fig. 5 illustrates the application of this bracket with two ordinary ledgers supported thereby, and Fig. 6 is a right-angle view of Fig. 5.

Fig. 7 is a modified form of a ledger supporting bracket for use with ledgers of circular cross section.

In the construction shown at Figs. 1 and 2, the connection member by which the tube sections 1 and 2, for example, are connected coaxially, comprises a central portion 3 in the form of a collar, the opposite faces of which constitute seatings for the ends of the opposed tube sections 1 and 2, while from the opposite faces of the collar 3, end portions extend, which in the construction shown are in the form of tubular spigots 4, 5; over the tubular spigots 4, 5 the ends of the tube sections 1, 2 are passed as shown.

In the construction shown at Fig. 3 the central portion of the connection member is constituted by a diaphragm or web 6, from the opposite faces of which socket portions 7, 8 extend, into which sockets the tube sections 1 and 2 are respectively inserted, and the opposed ends of the tubes 1, 2 have a seating on the web 6.

By the form of connection between the tube sections described with reference to Figs. 1 to 3, the manufacture of the scaffold-

ing parts is rendered cheaper and the amount of labour in assembling is reduced to the smallest possible minimum, and the rapid erection of such scaffolding is facilitated; moreover the use of screwthreads on the spigots or on the tube ends is avoided and it is unnecessary to connect the tubes to the connection members by riveting or the like.

Each extending end portion, such as 4, 5 Fig. 2, or 7, 8 Fig. 3, of a connecting member, is formed with holes 9, and if the end portions are tubular as indicated in the drawings, the holes are arranged opposite to each other. Similarly the tube sections are also formed with holes 10, so that when the tube sections are engaged with the end portions of the connecting members, the holes 10 of the tubes coincide with the holes 9 of the connection members, and the holes will consequently be brought into exact register.

These coinciding holes 9 and 10 serve for the application of the parallel arms of U-shaped brackets which serve as ledger supports.

One of the ledger supporting brackets to be advantageously employed with this invention is illustrated in elevation and plan at Figs. 4 and 4^a, which shows the bracket consisting of a U-shaped member, the horizontal arms 11 of which are preferably of circular cross section and adapted to be threaded through the registering holes in the tubes and connection members. As shown at Figs. 5 and 6 where the utilization of such a bracket is illustrated, the arms 11 are of such a length as to accommodate two or more ledgers 12, and in order to secure the brackets in position a latch bar 13, Fig. 4^b, is employed. The arms 11 of the bracket, Figs. 4 and 5, are notched as shown, which notches are opposite to each other, and the bracket having been inserted through the holes in the scaffold section as shown at Figs. 5 and 6 and the ledgers 12 being in position, the latch bar 13 is applied as at Fig. 5, the keyhole-shaped ends 14 of the latch bar 13 being passed over the arms 11 of the bracket, and the latch bar being allowed to descend so that the keyhole slots engage the recesses of the arms 11. A screw 15 in the main part of the bracket can then be used to firmly lock the structure.

At Fig. 7 a similar bracket to that at Fig. 5 is shown, formed at 16 with a semi-circular profile interiorly, by which a ledger pole shown by dotted lines at 17 can be secured.

What I claim as my invention and desire to secure by Letters Patent is:—

In tubular metal scaffolding comprising tubular sections to be coaxially connected together; the combination of two tubular sections to be connected together coaxially, each section having opposite coinciding holes formed through its wall at a distance from the end of said tubular section, a connection member comprising a central portion the opposite faces of which constitute seatings for the ends of the opposed tubular sections, said central portion having oppositely directed end portions proceeding therefrom to receive and engage the adjacent end parts of said tubular sections, each of said oppositely directed end portions having holes formed therethrough to coincide with said holes in said tubular sections when said parts are assembled, and a U-shaped bracket the parallel arms of which are adapted to pass through said coinciding holes of said tubular sections and said end portions of said connection member to lock same together, said U-shaped bracket being adapted to receive ledger members between its arms and the portion connecting its arms, means for locking said arms of said bracket to prevent the withdrawal of same from said holes, and means carried by said bracket to clamp said ledger members against said scaffolding member.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

DANIEL PALMER-JONES.

Witnesses:

THOMAS WILLIAM ROGERS,

WILLIAM A. MARSHALL.