Aug. 20, 1929. A. B. WILLIS. 1,725,168

SCAFFOLDING TRESTLE

Filed Jan. 27, 1928

Fig. 1

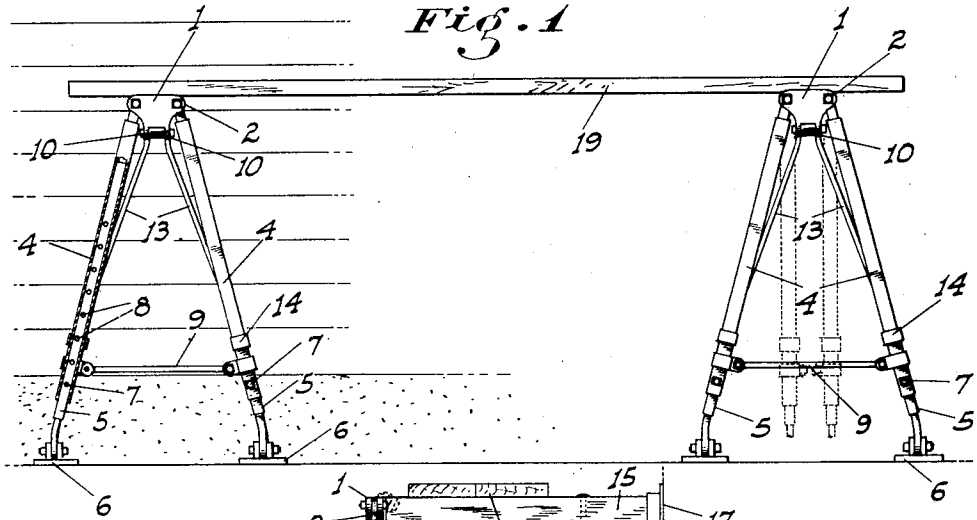


Fig. 2

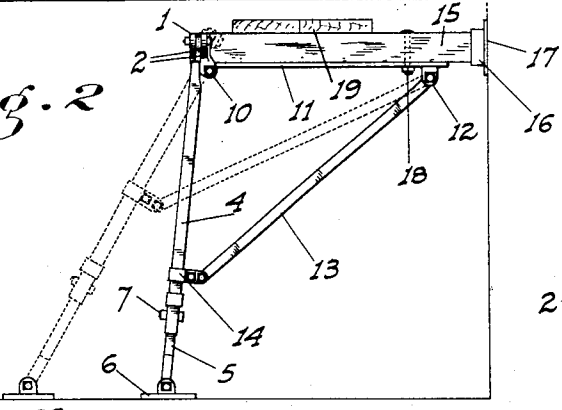


Fig. 4

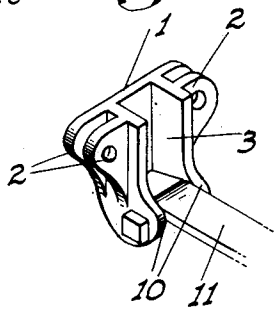


Fig. 5

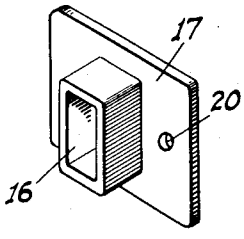
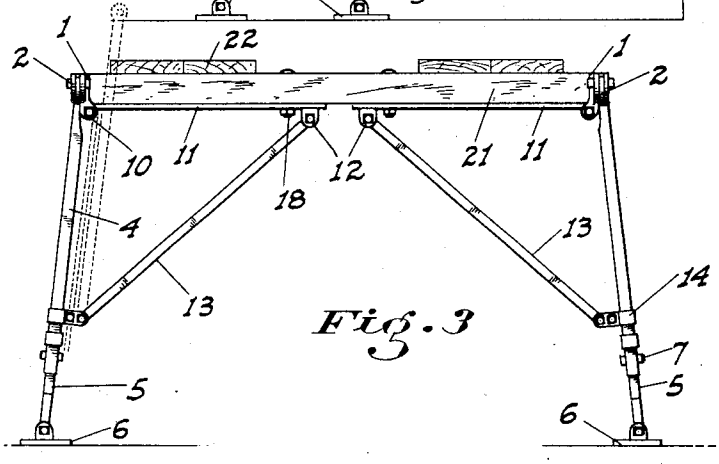


Fig. 3



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UNITED STATES PATENT OFFICE.

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SCAFFOLDING TRESTLE.

Application filed January 27, 1928. Serial No. 249,828.

This invention relates to the building trades and particularly to the scaffolding used in connection with building or finishing operations, both outside and inside and especially on one and two story buildings.

If wood scaffolds are erected for such jobs they must be nailed to the building at various points, and many hundred feet of lumber are used, which entails a considerable expense, both in labor and materials. This is especially so since when the scaffold has served its purpose and is wrecked or dismantled, the pieces usually cannot be used again to any advantage and besides are frequently left lying around with upwardly projecting nails in the different pieces which form a source of considerable danger to the workers.

If wooden horses are used to form the foundation or supports for the operating platform, they are seldom of the correct length and the worker must either saw a portion of the legs off to lower the same or must nail extensions thereto to raise the height of the horses. This is an operation which is frequently not convenient to be performed or which is shirked by the worker and as a consequence he labors in an inefficient or cramped or strained position. The ladder type of scaffold which is sometimes used is expensive and furthermore it is not safe, as it must rest on a level surface and will upset sideways with any slight movement or pressure thereagainst.

The principal objects of my invention, therefore, are to avoid the defective and objectionable features of the above described forms of scaffolding by providing scaffold horses or trestles of a permanent nature; which are readily adjusted to different heights; which will stand in a stable manner on any ground whether level or not, so that they are rigid and will not readily upset; which do not need to be secured to the building; which may be readily folded into a compact form for transportation; and which will last indefinitely.

A further object of the invention is to provide structures of this character, a pair of which with the addition of ordinary short pieces of standard sized lumber may be used either as individual trestles or may be coupled together to form a single horse.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views:

Fig. 1 is an end elevation of a pair of my improved trestles shown as in position against a building and supporting a plank or platform therebetween.

Fig. 2 is a side elevation of a trestle in the above named operative position.

Fig. 3 is a side elevation of a pair of trestles arranged together to form a single horse.

Fig. 4 is a perspective view of a combined leg attaching and beam-socket member, detached.

Fig. 5 is a perspective view of a beam-cap member detached.

Referring now more particularly to the characters of reference on the drawings, each trestle comprises an upper member 1 which is preferably a casting and which is provided with opposed side ears 2 and with a rectangular socket 3 disposed centrally between the ears.

Pivoted onto the ears and depending therefrom are tubular legs 4 of suitable cross sectional dimensions, at the lower ends of which are telescoped leg extensions 5 which at their lower ends are pivoted onto ground engaging feet or pads 6. Each extension is held in any position in its corresponding leg 4 by suitable means such as a removable bolt 7, passed through said leg to engage any one of a row of holes 8 provided in the extension. These legs are held at a predetermined diverging angle to each other by means of a horizontal brace bar 9 which at one end is permanently pivoted onto one leg 4 near the lower end thereof and at the other end is detachably pivoted on to the other leg.

The member 1 is also provided with another pair of spaced ears 10 which extend in a plane at right angles to the ears 2 and face in the direction of the vertical open end of the socket 3. A flat bar 11 is pivoted between

the ears 10, said bar extending horizontally and away from the member 1 and its socket a predetermined distance. Adjacent to its outer end the bar has a transversely spaced pair of ears 12 depending therefrom to which are pivoted the adjacent ends of braces 13 which extend thence downwardly and in diverging relation to each other to pivotal connections with sleeves 14 which are slidably clamped about the legs 4.

The dimensions of the socket 3 are such as to receive the end of a standard piece of lumber (preferably a 2 x 4) therein and when using the structure as a trestle, a beam 15 of such lumber is cut to any suitable length greater than that of the bar 11. The beam is projected at one end into the socket, extends parallel to and rests on the bar 11 and at its outer end removably projects into a socket 16 which is formed in connection with a vertical plate 17 which then extends in a plane at right angles to the longitudinal plane of the beam. To hold the beam against displacement, a bolt 18 is removably placed through the beam and bar 11 adjacent the outer end of the latter. Since the opposite end of the beam is seated in the socket 3, it will be obvious that the one bolt is sufficient to prevent any lateral swinging movement of the beam relative to the bar on which it rests.

In using the trestles they are placed any desired distance apart, with the feet resting on the ground and with the plates 17 resting against the building as shown in Fig. 2; the legs of the respective trestles being first adjusted to desired height. One or more planks 19 are then laid across the beams 15 to form the operating platform. The foot pads are of sufficient area to engage the ground without danger of slipping, and since the legs are held in rigid relation to the beam 15 by the bar 11 and the braces 13, it will be seen that any weight on the platform will cause the plates 15 to press firmly against the building, and the greater the weight, the greater will be this pressure. To prevent any possible displacement of the trestles laterally, however, the plates 17 may be provided with holes 20 through which nails may be driven into the building if desired. The trestle only having two legs which are capable of individual adjustment the bars 11 and the pads supported thereon may always be set in a horizontal position and so that the beams of the two trestles lie in the same horizontal plane regardless of ground conditions. The legs of each trestle are spaced far enough apart at the base so that the trestle is firm on its feet and cannot be easily tipped side ways.

If the trestles are to be used to form a horse they are arranged in opposed relation to each other and a suitable distance apart as shown in Fig. 3 and a single piece of lumber forming a beam 21 connects the two trestles and is held in place by a bolt 18 on each trestle. In this case, of course, four trestles are necessary to form a pair of horses so as to support the platform boards 22 which extend therebetween.

If it is desired to place the legs at a different angle to the bar 11, it is only necessary to loosen and slide the sleeves 14 lengthwise along the legs, so that the latter can then be turned about in connection with the ears 2 while maintaining the bar in a horizontal position as indicated in Fig. 2.

When it is desired to transport or store the trestle, the brace 9 is disconnected at one end and swung upwardly, while the legs are brought together as indicated in Fig. 1; and the braces 13 are disengaged from the ears 12, said braces and bar 11 are then moved to occupy positions substantially parallel to the legs as indicated in Fig. 3.

The horse arrangement shown in Fig. 3 is particularly intended for interior use, for plasterers, etc., since it is readily adjusted in height, to suit the height of the workers and their positions relative to the ceiling.

For small confined areas, such as closets, a single trestle, rigged and set up as for outside use, serves admirably as a support for the artisan working in the closet.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described my invention what I claim as new and useful and desire to secure by Letters Patent is:

1. A scaffolding trestle including a pair of legs, a horizontal bar extending in one direction from the upper ends of the legs, means rigidly connecting the legs and bar, a beam to be supported on the bar and to extend lengthwise thereof, and a member to which one end of the bar and the upper ends of the legs are connected and having a socket for the reception of the adjacent end of the beam.

2. A scaffolding trestle including a pair of legs, a member on which the upper ends of the legs are pivoted, a brace between the legs toward the lower ends thereof to maintain them in spaced relation, pivot means connecting the brace at its ends to the legs, one of said pivot means being removable to enable the brace to fold against one leg and the legs to be brought together, a foldable bar normally projecting from said

member to support a horizontal beam, and foldable brace means directly connected to the legs and bar.

3. In a scaffolding trestle having a leg unit, a horizontal beam to extend in one direction from the upper end of the unit, and means supporting the beam from the unit; a socket member to removably fit over the outer end of the beam, and a plate formed with the socket member at its outer end to bear against a vertical surface when the socket is thus associated with the beam.

In testimony whereof I affix my signature.

ARTHUR B. WILLIS.