No. 865,858. PATENTED SEPT. 10, 1907.

G. BONENBERGER.

SCAFFOLD OR TRESTLE.

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Fig. 1.

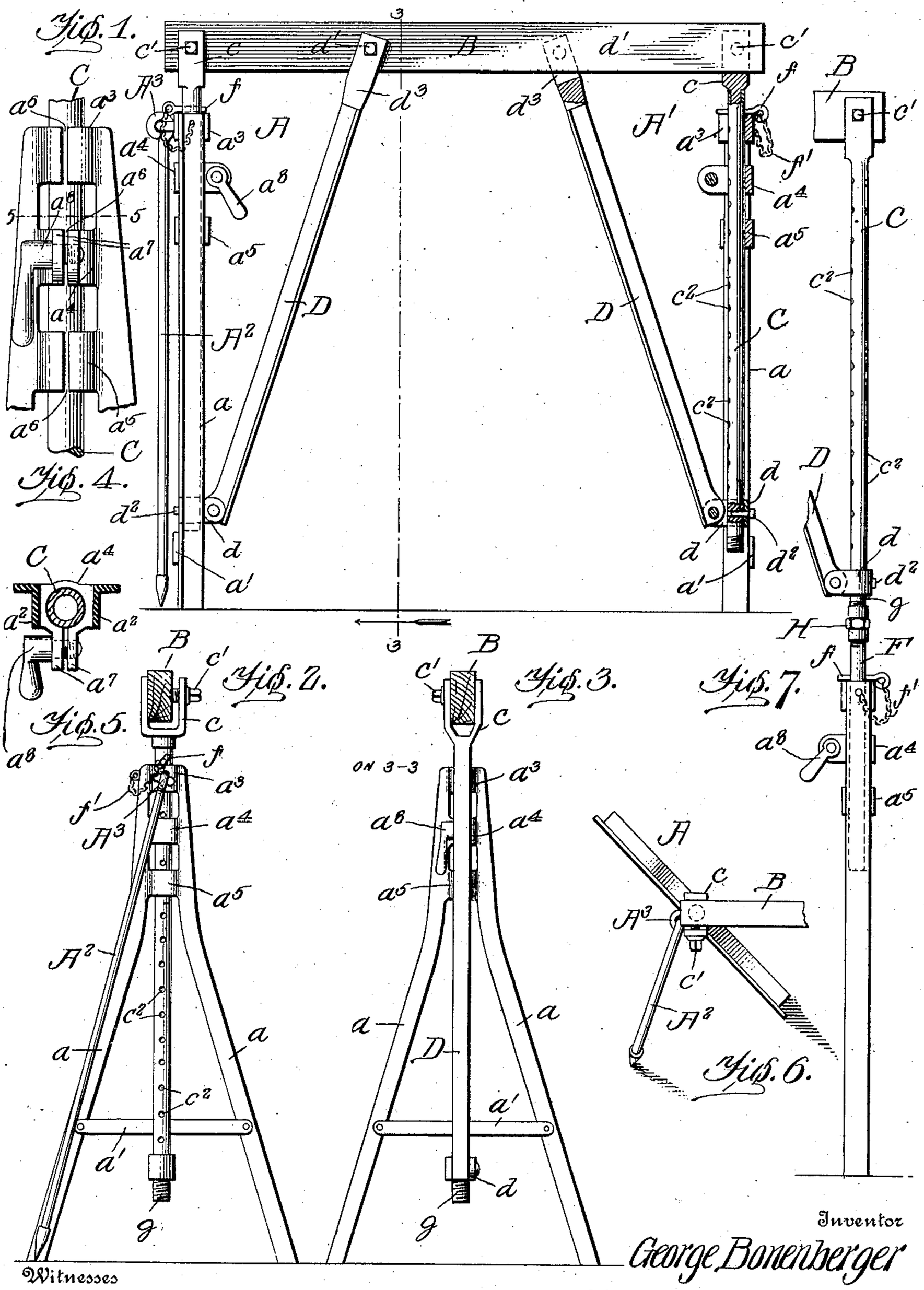

Fig. 4.

Fig. 2.

Fig. 3.

Fig. 7.

Fig. 5.

Fig. 6.

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SCAFFOLD OR TRESTLE.

No. 865,858. Specification of Letters Patent. Patented Sept. 10, 1907.

Application filed March 19, 1906. Serial No. 306,798.

To all whom it may concern:

Be it known that I, GEORGE BONENBERGER, a citizen of the United States, residing at Evansville, in the county of Vanderburg and State of Indiana, have invented certain new and useful Improvements in Scaffolds or Trestles, of which the following is a specification.

The invention to be hereinafter described relates to that general class of adjustable scaffolds or portable trestles designed and adapted for the use of carpenters, plasterers, house painters, paper hangers, brick layers and others whose work requires ready adjustability of the sustaining element, and easy transportation.

In a scaffold or trestle of the above general type, it is desirable that the parts be not only adjustable horizontally and vertically, but that they be light of structure for easy transportation, simple in their assemblage and adjustment, and capable of being put together or disassociated by unskilled persons.

With the above general considerations in view, the invention consists of the parts and combinations to be hereinafter more fully described and definitely pointed out in the claims.

In the accompanying drawings forming a part of the present specification: Figure 1 is a side elevation of a scaffold or trestle embodying one form of the present invention; Fig. 2 is an end view thereof: Fig. 3 is a section on line 3—3, Fig. 1; Fig. 4 is a detached detail of the leg connecting and clamping means for the adjustable supports. Fig. 5 is a section on line 5—5 of Fig. 4. Fig. 6 is a detail plan view of one end of the device with a supplemental leg in use, and Fig. 7 is a detail in elevation of one end of the device showing the supports adjusted to a high position by means of an added section, as will be explained.

The scaffold or trestle is composed of two duplicate end sections A A′, with the exception that one of said sections may be provided with an auxiliary leg A^2, said section being adjustably connected together by a platform support B.

The sections A A′ are formed of two legs *a a*, which are preferably formed of angle iron, the lower or ground portions being separated some distance, as shown, and braced by a cross tie *a′*. The upper portions of these angle irons are brought substantially into parallelism, as indicated in Fig. 4, and the adjacent flat webs a^2 thereof, Fig. 5, are united by circular portions or pieces a^3, a^4 and a^5, to form clamping guides for the main adjustable supports C C. The said circular portions a^3, a^4 and a^5 are continuous on one of their sides, as indicated in Fig. 5, and on their opposite sides are formed with a slit a^6, so that while they maintain the upper parts of the angle iron legs in proper relative position they also permit of a slight separation and contraction at these points. In order to draw the upper portions of the angle iron legs together and consequently tighten the circular portions a^3, a^4 and a^5 about the main adjustable supports C, C, clamping screws may be employed, for instance, as shown in Fig. 4, the middle circular portion a^4 may be provided with lugs a^7 a^7 tapped with a screw thread which can be engaged by a screw-threaded wing bolt a^8.

Passing vertically through the circular portions or clamping guides a^3, a^4 and a^5, are the main adjustable supports C C, circular in cross-section and formed preferably of gas pipe or similar hollow metal, said supports being provided at their upper ends with saddles *c c* in which rests the platform support B, set screws *c′ c′* being preferably employed to secure the support D in said saddles.

Adjustably connected to the supports C C by means of sleeves *d d* are the braces D D carrying at their upper ends saddles *d′ d′* which embrace the platform support B, said saddles being detachably connected to the support by suitable set screws. The supports C C are provided with a series of holes or perforations c^2 c^2 and the sleeves *d d* are adjustably connected to the supports C C by means of pins d^2 d^2, Fig. 1. By adjusting the sleeves *d d* up or down on the supports C C the saddles *d′ d′* may be caused to engage the platform support B at points further from the supports C C or nearer thereto, dependent upon the length of the platform support, it being obvious that should the platform support be very long, it would be liable to sag in the center in the absence of the proper adjustment of braces D D. The holes c^2 c^2 in the parts C C are also adapted to receive pins *f f* connected to the upper parts of the legs by chains *f′*, said pins *f f* serving as an additional security for the supports C C, by resting upon the upper clamping guide a^3, as indicated in Fig. 1.

From the construction thus far described, it will be seen that the leg sections, being formed of angle iron and having their upward portions brought into substantial parallelism, as shown in Fig. 4, and provided at such upper portion with the clamping guides a^3, a^4 and a^5, will afford a convenient and reliable means for adjustably clamping the main supports C in their desired position for use. It will likewise be seen that the single wing bolt A A, by drawing the upper portions of the leg sections together, serves as a convenient and ready means for effecting the clamping and unclamping action referred to, while the plurality of circular portions or clamping guides serve unerringly to hold the support C in vertical position. It will likewise be observed that, by adjusting the lower portions of the braces D up or down on the support C, all tendency for the platform support B to sag will be overcome by disposing these braces at the desired points.

It frequently happens in the surrounding condi-

tions of use that the leg sections *a* and *a'* cannot be arranged in parallelism, as shown in Fig. 1, but that one of said leg-sections, whenever an obstruction is met, such as the angle of a building or the like, must be thrown out, as indicated in Fig. 6. The fact that the main supports C are formed of circular cross-section enables this to be done and yet the clamping action of the clamping guides remains unimpaired, as will be evident. To further brace the leg section which is thus disposed at an angle as indicated in Fig. 6, there may be provided a supplemental leg A^2 connected by a universal joint A^3 near the upper portion of the leg section A and this can be thrown out in any desired direction for bracing the parts when desired.

It is frequently desirable to adjust the support C to a greater extent than is afforded by their usual length, and to accomplish this the lower ends of the support C may be provided with screw threads *g* adapted to be engaged by a coupling or sleeve H which itself may be connected to an additional piece of piping F, as indicated in Fig. 7, said additional piece F being in all substantial respects the same as the support C. In adding the additional pieces F, it is simply necessary to loosen the wing bolt, remove the sleeves *d* of the braces D, slide the support C vertically from its leg section, then replace the sleeves *d* and couple them by means of the coupling or sleeve H with the additional piece F, as indicated in Fig. 7.

By making the parts of angle iron and gas or like pipe, it will be seen that the structure is simple, light and durable; and that, by the simple clamping action of the single wing bolt A A, the upper portions of the leg sections may be clamped upon the support C by unskilled persons.

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

1. In a scaffold or trestle, the combination of leg sections formed of angle iron and having separated lower and substantially parallel upper portions, a plurality of clamping guides, each having a split side and uniting the adjacent webs of the parallel upper sections, a clamping bolt connected to one of said clamping guides for drawing the upper portions of the leg sections together, main supports passing through said clamping guides, suitable saddles mounted upon the upper ends of said supports, the aforesaid leg sections and their respective main supports being relatively rotatable, and a platform support pivotally connected to a sleeve, said sleeve being adjustably mounted on the said main support.

2. In a scaffold or trestle, the combination of substantially A-shaped leg sections, the top of the A being open and the sides near the top being substantially parallel, split-ring clamping members for connecting said parallel portions, main supports rotatably and adjustably mounted in said clamping-rings, means for clamping said rings about said main supports and platform supports pivotally connected to sleeves, said sleeves being adjustable on said main supports.

In testimony whereof, I affix my signature in the presence of two witnesses.

GEORGE BONENBERGER.

Witnesses:
PAUL I. BEEKER,
FRED BERGDOLT.