

R. J. KOCH.

TRESTLE.

APPLICATION FILED DEC. 31, 1908.

Patented Sept. 21, 1909.

2 SHEETS—SHEET 1.

934,736.

Fig. 1.

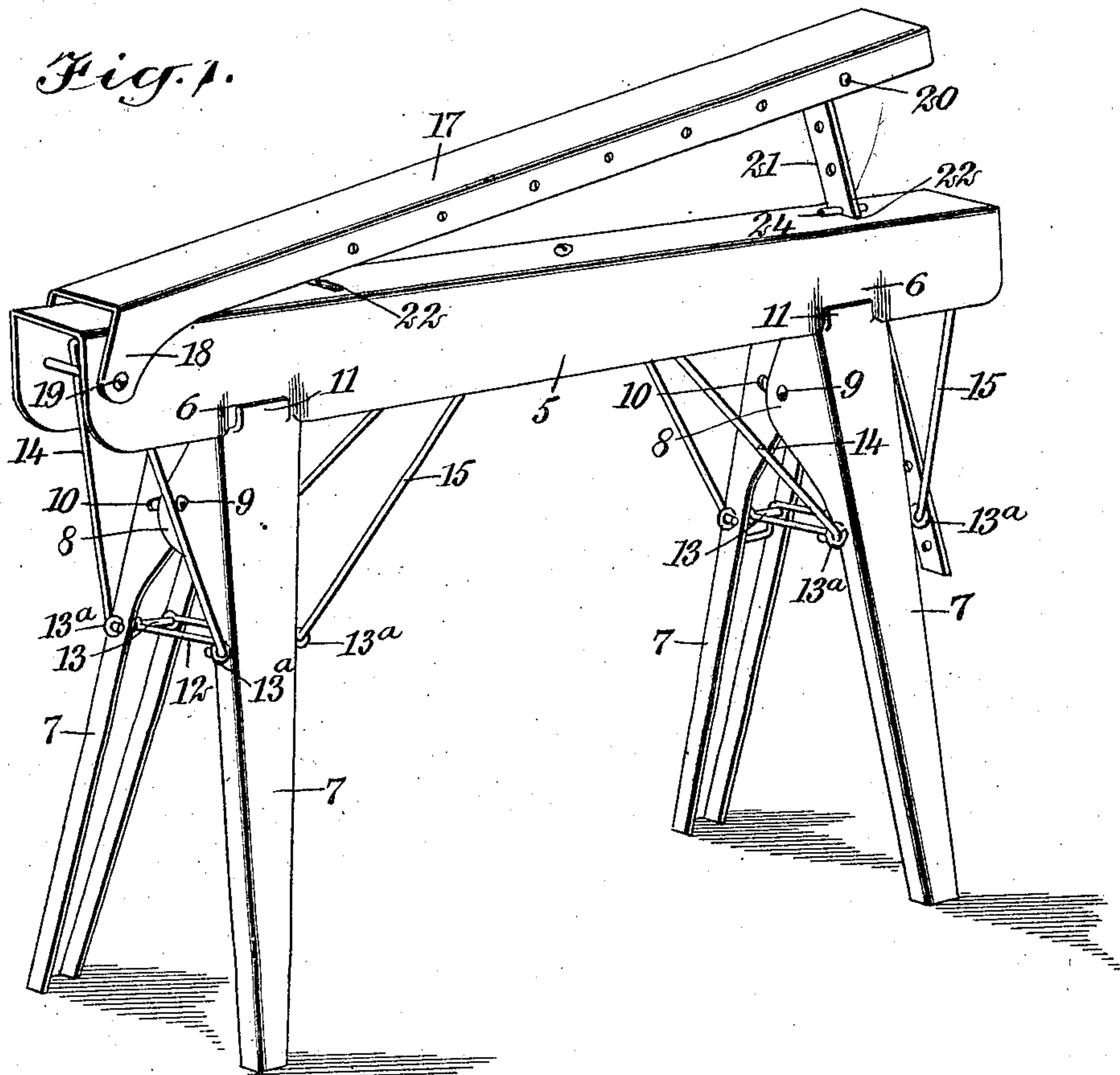
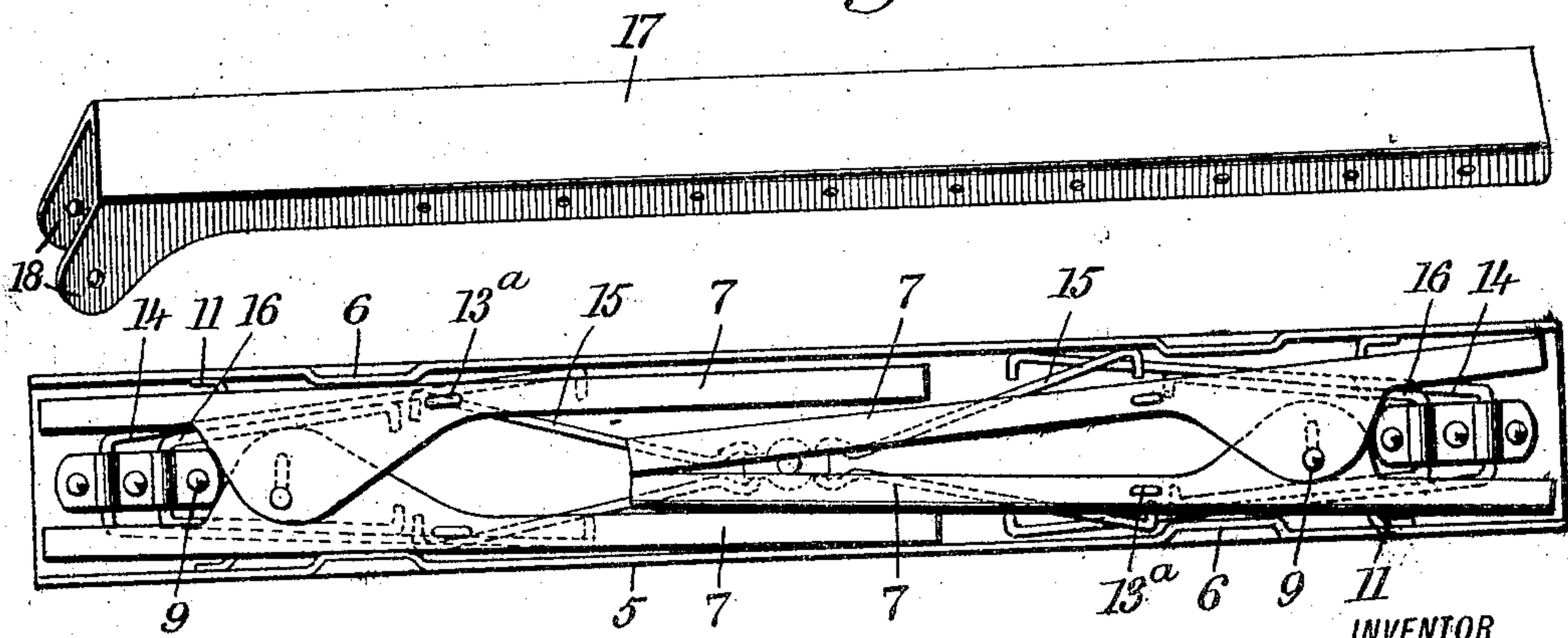


Fig. 4.



WITNESSES

Geo. Taylor
Wm. H. Volz

INVENTOR

Richard J. Koch

BY *Mumford Co.*

ATTORNEYS

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2 SHEETS—SHEET 2.

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Fig. 2.

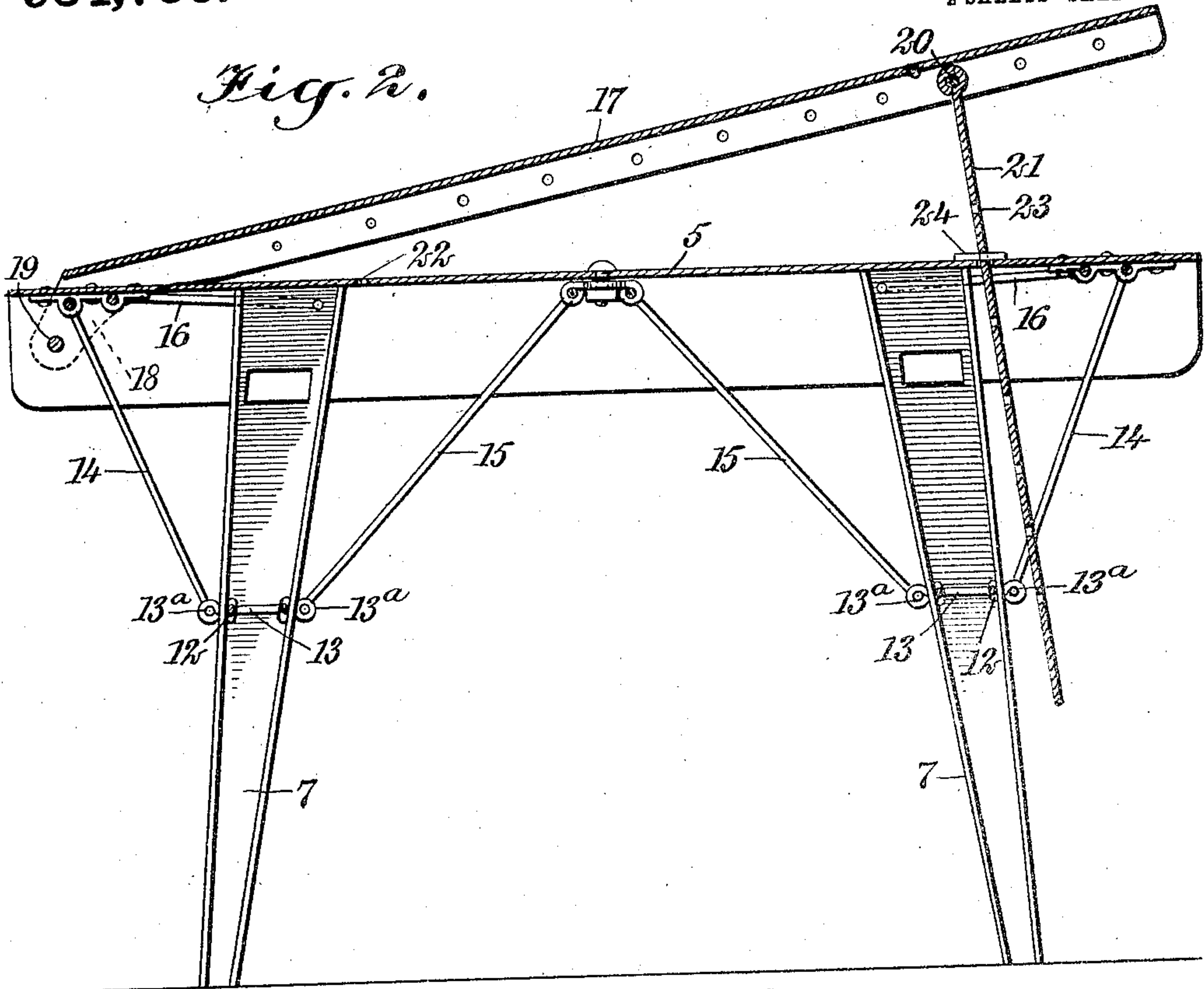
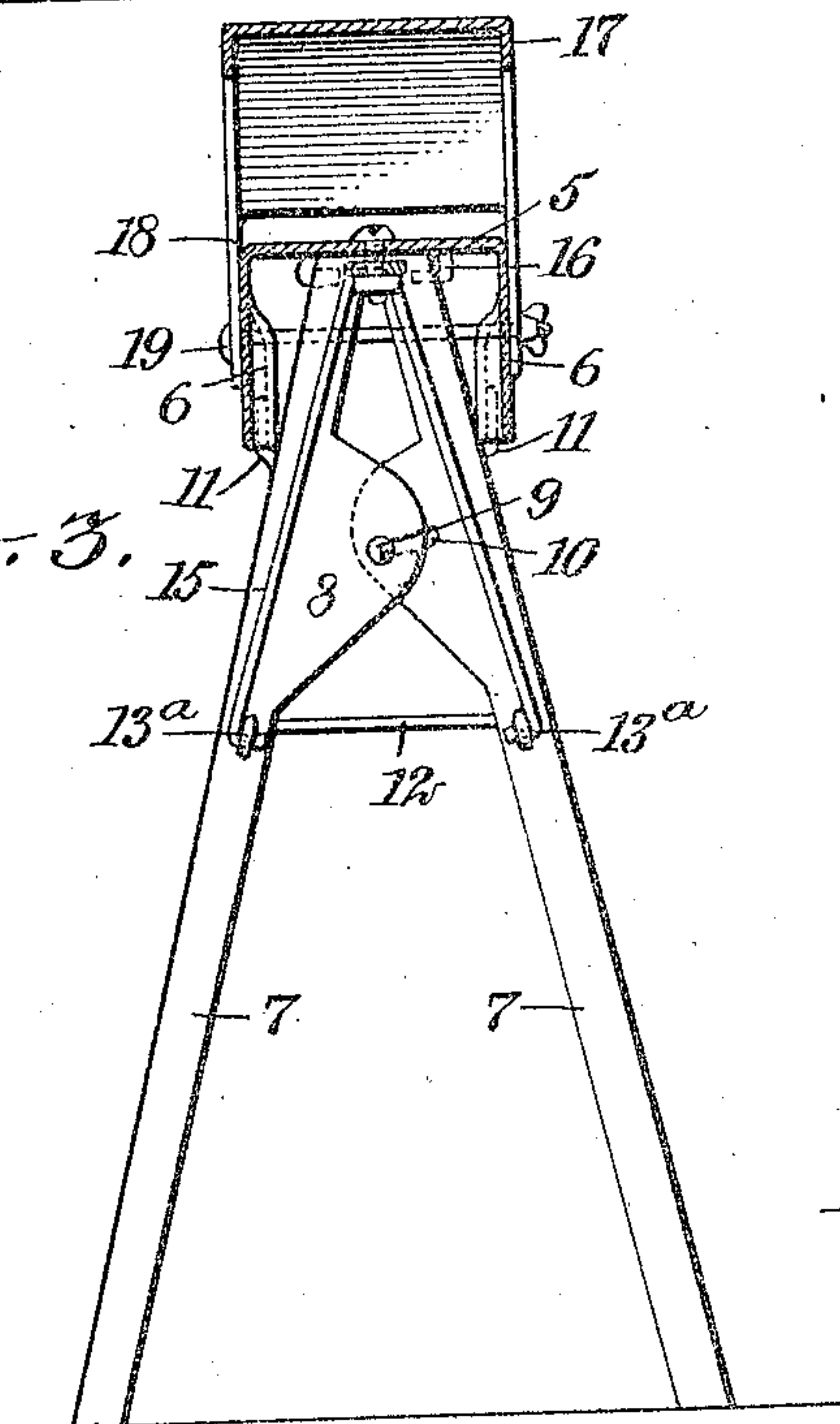


Fig. 3.



WITNESSES

Geo. W. Taylor
W. W. Boer

INVENTOR

Richard J. Koch
BY *Mum & Co.*

ATTORNEYS

UNITED STATES PATENT OFFICE.

RICHARD J. KOCH, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO JOHN W. HESSE
OF NEW YORK, N. Y.

TRESTLE.

934,736.

Specification of Letters Patent. Patented Sept. 21, 1909.

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To all whom it may concern:

Be it known that I, RICHARD J. KOCH, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Trestle, of which the following is a full, clear, and exact description.

The invention is an improvement in trestles of a folding or knock-down type for general use where such an elevated support is required, and has in view a trestle preferably in the main constructed of sheet metal, providing a relatively strong structure which, when disassembled, may be packed within a space approximately not larger than the trestle beam.

To this end the invention may be defined as consisting of a channel trestle beam, and legs adapted to be either detachably connected to the beam or folded therein, the legs preferably arranged in pairs, with the legs of each pair pivoted or hinged together to swing apart in a plane cross-wise of the beam when the legs are in engagement therewith. Suitable detachable bracing is provided between the beam and legs when the trestle is assembled, and in connection with the trestle beam is an auxiliary beam serving either as an adjustable inclined support or as a cover for the trestle beam when the legs are folded therein.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of a trestle, when assembled, constructed in accordance with my invention; Fig. 2 is a central vertical longitudinal section through the same; Fig. 3 is a central cross-section of the trestle; and Fig. 4 is an inverted plan of the trestle beam with the legs detached therefrom and folded therein, and showing the auxiliary beam in perspective preparatory to placing it over the trestle beam as a cover.

The invention more specifically described embodies in its construction a channel trestle beam 5, with the side flanges thereof, when the trestle is assembled, projecting downwardly and pressed inwardly at opposite sides near each end to form pockets or recesses 6. Legs 7 arranged in pairs, also of channel construction, have the flanges there-

of arranged inwardly and extended a substantial distance below the top of the legs to form ears 8, the ears of each pair of legs overlapping, and connected together by a hinge or pivot-pin 9. The ears of one leg of each pair are slotted as indicated at 10 to permit of the pivot-pin sliding laterally therein. The legs of each pair above their pivotal connection have upwardly-projecting tongues 11 stamped from their side faces to engage over the flanges of the trestle beam 5 at the points of the recesses 6. The shoulders of these recesses prevent a movement of the upper portion of the legs lengthwise of the trestle beam. The location of the tongues 11 is such that when the flanges of the trestle beam seat on the bottom thereof the under face of this beam seats flat on the upper ends of the legs, as shown in Fig. 2, the legs of each pair inclining downwardly and outwardly. In engaging the legs with the beam it is necessary to close the legs of each pair, with the legs well pressed together at the point of pivotal connection, to carry the pivot-pin to the outer ends of the slots 10. By reason of this sliding pivotal connection between the legs of each pair the bottom portions thereof may be spread apart, with the tongues 11 engaged and with the upper ends of the legs in contact, as is best observed in Fig. 3. For holding the lower portions of the legs of each pair distended when the legs are applied to the beam, are hooks 12 arranged below the pivots 9 and pivotally supported at one end on pins 13 extending between the flanges of one leg and engaging with similar pins 13 extending between the flanges of the opposite leg, each pin having eyes 13^a at opposite ends at the outside of the flanges of the legs. The eyes 13^a at the outer edges of the legs are detachably engaged by braces 14 and at the inner and opposite edges of the legs by braces 15, each brace being in the nature of a wire or bar loop having the intermediate portion thereof pivotally connected to the under side of the trestle beam 5, and the extremities inwardly turned to pass into the eyes 13^a. These inwardly-turned or offset extremities of the braces normally stand apart a lesser distance than the distance between the eyes, whereby it is necessary to spring the wires of the loops apart in effecting the engagement, and accordingly rendering the engagement secure. The pivotal

connection of the upper ends of the braces 15 is made at or near the center of the trestle beam, and the braces 14 are connected to the outer ends of the beam.

- 5 In addition to the braces 14 and 15 detachably connecting each pair of legs to the beam the upper portions of the legs are connected by braces 16, also of wire or bar construction and pivotally supported at the
10 trestle beam adjacent to the braces 14. The braces 16 are also inwardly turned at the extremities and extend inwardly of the trestle beam and engage in openings in the upper portions of the legs, as shown in Figs. 2 and
15 3. By this construction, any strain on the trestle tending to spread the pairs of legs apart will be resisted by the braces 15 and 16, and a strain tending to force the pairs of legs together will be resisted by the braces
20 14 and by the trestle beam 5, in view of the downward and outward inclination of the legs.

In connection with the trestle, I provide an auxiliary beam 17, also of channel construction, with the flanges thereof at one end
25 extended to provide ears 18 which are pivotally connected to the trestle beam 5 either at one end or an intermediate point by a removable pin 19. The flanges of the auxiliary beam have apertures at points of their
30 length in which a removable pin 20 may be inserted to connect a supporting-bar 21, the latter being adapted to pass through any one of a number of slots 22 formed in the top of
35 the trestle beam 5 and having openings 23 at points of its length through which a pin or key 24 may be inserted to retain the auxiliary beam at any desired inclination. This attachment is especially useful for architects
40 and draftsmen in the supporting of a drawing board, as well as in other relations where an inclined support is required. When the legs are detached from the trestle beam the braces 14, 15 and 16 are foldable within the
45 latter, as is also each pair of legs, as illustrated in Fig. 4. With the auxiliary beam detached the supporting-bar is foldable therein, and the auxiliary beam serves as a cover for the trestle beam, inclosing the legs,
50 braces, etc. With the auxiliary beam serving in this capacity it may be connected through the ears 18 by the pivot-pin 19 at the opposite side of the trestle beam, thus affording a cover with a hinged connection. It is thus
55 seen that the entire apparatus may be packed up within a compass not substantially larger than the trestle beam alone.

Having thus described my invention, I claim as new and desire to secure by Letters
60 Patent:

1. The combination of a channel trestle beam, and legs to support the beam, arranged in pairs, with the legs of each pair pivoted together and detachably connected to
65 and foldable within the beam.

2. The combination of a channel beam, legs to support the beam, detachably connected to and foldable within the beam, and braces connected to and foldable within the beam and detachably connected to the legs. 70

3. The combination of a trestle beam having downwardly-projecting flanges, legs to support the beam, arranged in pairs, with the legs of each pair pivoted together and passing between the flanges of the beam, 75 each leg having a tongue offset therefrom to engage over the outside of one of the flanges.

4. The combination of a channel trestle beam, and legs to support the beam, with 80 the legs arranged in pairs, each leg of each pair having a tongue stamped therefrom to receive and engage with the flanges of the beam.

5. The combination of a channel trestle beam, and legs to support the beam arranged in pairs, with the legs of each pair having a sliding pivotal connection and provided with means to embrace the flanges of the beam at each side. 90

6. The combination of a channel trestle beam, and legs to support the beam, arranged in pairs, with the legs of each pair pivoted together to swing apart in a plane crosswise of the beam, and with the legs provided with tongues offset therefrom and engaging on the outside of the flanges of the beams. 95

7. The combination of legs arranged in pairs, with the legs of each pair pivoted together to swing apart, and each leg provided with an offset tongue, and a channel beam seating on the tops of the legs, with the flanges thereof passing between the outer faces of the legs and tongues. 105

8. The combination of legs arranged in pairs, with the legs of each pair pivoted together to swing apart at the bottom, each leg having an upwardly-projecting tongue pressed therefrom, a channel beam seated on the tops of the legs, with the flanges thereof passing on the inside and engaged by said tongues, the pairs of legs inclining downwardly and outwardly, and braces detachably connecting the legs and beam together 110 arranged on both sides of each pair of legs.

9. The combination of a trestle beam, legs to support the beam arranged in pairs, with the legs of each pair pivoted together to swing apart in a plane crosswise of the beam, detachable braces connecting the pairs of legs to the beam arranged on both sides of the legs of each pair, and links arranged longitudinally of the beam and connecting the beam with the upper end portions of the respective pairs of legs. 120

10. The combination of a channel trestle beam, legs to support the beam, detachably connected to and foldable within the channel beam, and an auxiliary beam serving as 130

a cover for the open side of the trestle beam and having means to support it in an inclined position over the trestle beam.

11. The combination of a channel trestle beam, legs to support the beam, detachably connected to and foldable within the beam, an auxiliary beam to cover the under side of the trestle beam and having means to detachably connect and pivotally support it at the opposite side of the trestle beam to provide an inclined support.

12. The combination of a channel trestle beam, legs to support the beam foldable therein, and an auxiliary channel beam adapted to fit over the under side of the trestle beam and confine the legs therein and having means to support it at varying inclinations at the opposite and upper side of the trestle beam to provide an inclined support.

13. The combination of a trestle beam, legs to support the beam, arranged in pairs, and a brace arranged between the beam and

each pair of legs, having spring arms relatively movable to and from each other into and out of engagement with the legs.

14. The combination of a channel trestle beam, legs to support the beam, arranged in pairs, with the legs of each pair pivoted together to swing to and from each other in a plane crosswise of the beam, braces arranged at each side of each pair of legs, pivotally supported on the under side of the beam and foldable therein, each brace having means to engage the legs below the pivotal connection thereof, and braces pivotally connected to the under side of the beam having means to detachably engage the legs above the pivotal connection thereof.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

RICHARD J. KOCH.

Witnesses:

W. W. HOLT,
EVERARD B. MARSHALL.