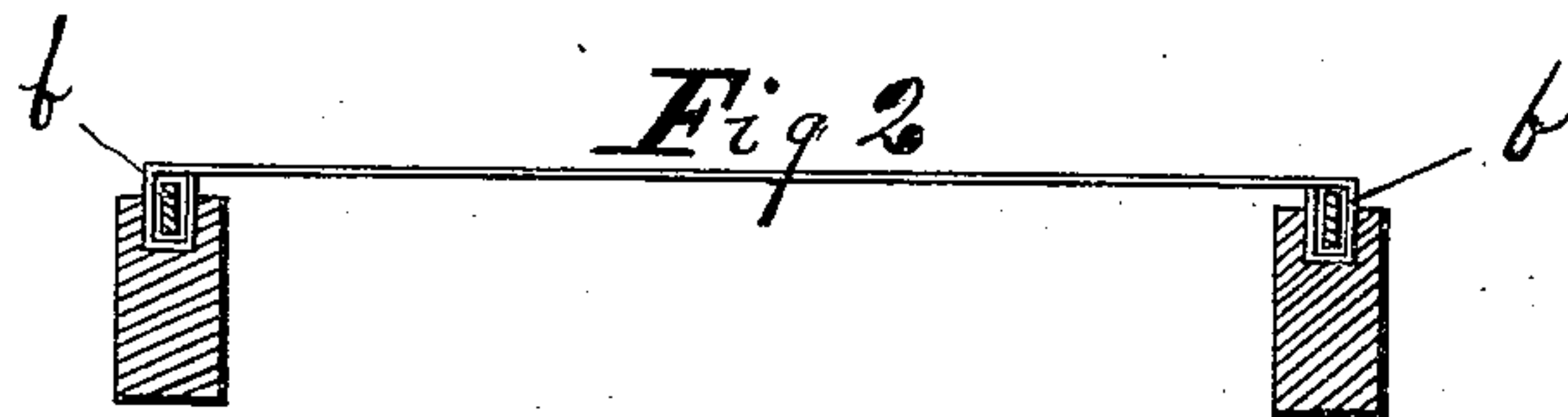
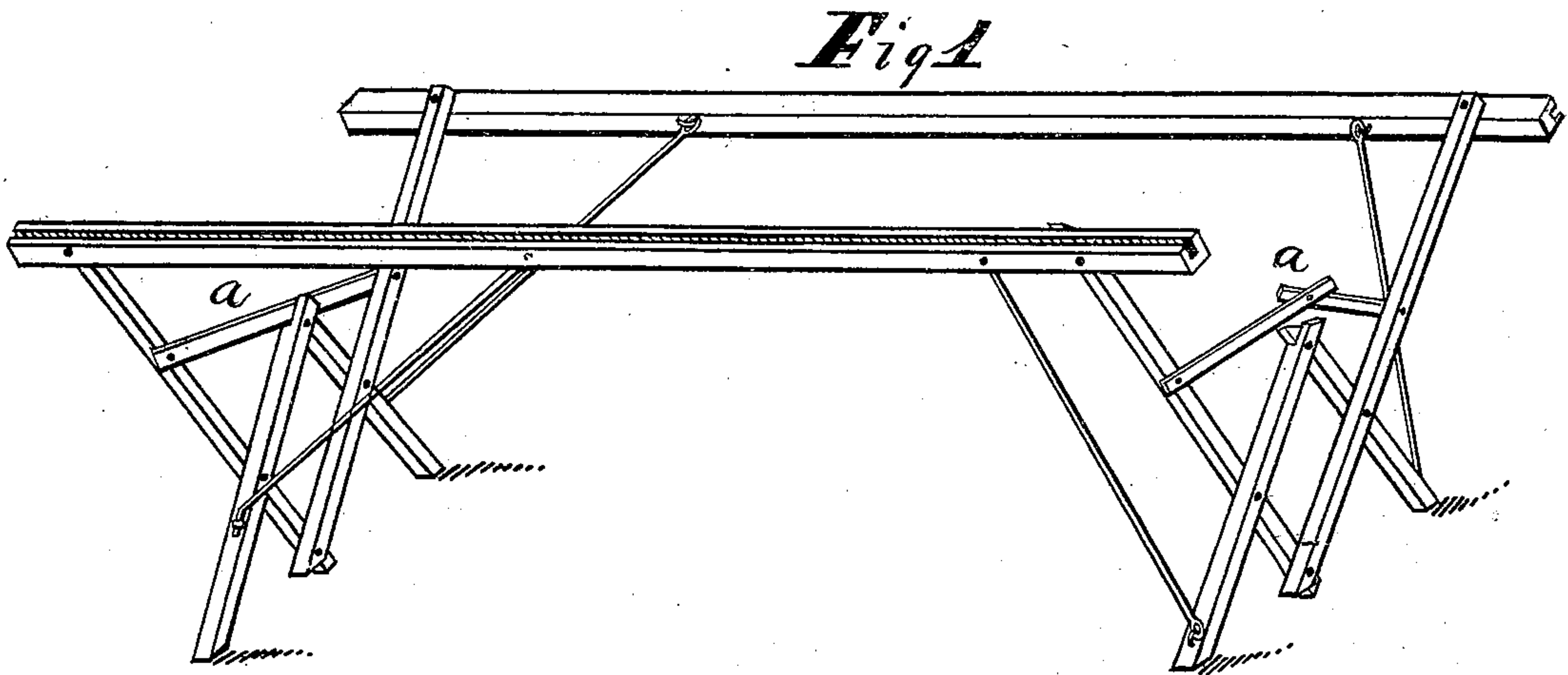


(No Model.)

E. S. GRIFFITH.
Folding Bed.

No. 241,210.

Patented May 10, 1881.



Witnesses:

Inventor.

Adolphus J. Towner
Frank P. Baker
E. S. Griffith

UNITED STATES PATENT OFFICE.

ETHELBERT S. GRIFFITH, OF TOLEDO, OHIO.

FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 241,210, dated May 10, 1881.

Application filed March 17, 1881. (No model.)

To all whom it may concern:

Be it known that I, ETHELBERT S. GRIFFITH, of Toledo, Ohio, have invented a new and useful Folding Bed, of which the following is a specification.

My invention relates, primarily, to improvements in the bed-frame in which the side rails are adapted to be brought together, or nearly so, and the end or transverse supports are permanently pivoted to the side rails, and said supports are adapted to fold or to be folded into a parallel position with the said rails when the latter are so brought together.

The objects of my invention are, first, to provide a strong and durable end or transverse support, and possessing these qualities in a much higher degree than is attained in an ordinary crossed or X-shaped support; second, to provide a ready means of closing the supports of the bed and adapting them to fold, or permitting them to be folded, into a parallel position with the side rails when the said rails are brought together, to the end that the least possible space may be occupied by the bed when it is prepared for transportation; third, to provide an appendage, in combination with the different attachments, adapting the supports of the bed to fold and to be folded, &c., by which the said supports are maintained at an angle and in proper position relative to the side rails when the cot-frame is open; fourth, to provide a means by which the flexible covering ordinarily forming the bottom of the bed is securely and continuously fastened to the side rail throughout its entire length. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the bed-frame. Fig. 2 is a sectional view of the side rails, the flexible bottom of the bed, and of the cleat by which said bottom is secured to the side rail.

The supports of the bed are composed of several pieces, and are pivoted together in the form of a jointed truss, and this truss is adapted to open and close. The upper outward ends of the truss-supports are permanently pivoted to the side rails by means of a single pivot, whereby the said supports are adapted to fold, or to be folded, into a parallel position with the side rails, according to the special arrangement of

the several braces exhibited in Fig. 1. In the one instance the braces have a permanent terminal attachment to the lower outward ends of the truss and to the side rails, to the effect that the truss closes and folds into a parallel position with the side rails when the same are brought together, and in the other instance the braces are permanently attached at their upper ends to the side rails, and their lower ends are adapted to be engaged and disengage with the truss by means of a fixed staple for that purpose, and shown in Fig. 1, to the effect that the said truss is adapted to close and to be folded into a parallel position with the side rails, the same having been first brought together.

The jointed horizontal stays (shown at *a*, Fig. 1) have their ends pivoted to the outward and upper projections of the trusses, and are designed to maintain the different parts of the bed-frame in a fixed and firm position while in use.

The side rails are slotted or gained, as the case may be, on or near their upper edges. The cleat or fillet (shown in section at *b*, Fig. 2) has the canvas or other flexible covering of the bed wrapped around it, commencing at the inner face of the cleat. This cleat is then pressed into and fastened in the slot or gain of the rail by tacks, glue, or other suitable means, whereby the draft of the canvas tends to press the cleat tightly against the inner face of the slot, and the canvas is held throughout its entire length with corresponding firmness.

It is apparent that in an ordinary crossed-leg cot-bed, the legs being pivoted together in pairs, there is a great strain and a concentrated effect upon the single central pivot when the cot is sustaining a weight, on the principle of the lever, and in order to produce a bed having the requisite width, and at the same time the proper height from the floor, the distances from the side rail to this central pivot through the leg, and from that to the floor, are comparatively great. These conditions require long straight-grained and sound timber of considerable diameter, to secure moderate strength and stability, whereas in a cot having transverse trussed supports the distances between pivots are much reduced, the strain is divided between several distinct rivets, the length and diameter of material composing the supports are reduced nearly one-half, and a much shorter

leverage secured, and owing to which favorable conditions experience has shown that the aggregate of actual strength in a transverse truss-support over an ordinary crossed-leg support is in the ratio of five to one, or greater.

5 In an ordinary cot-bed having the legs pivoted together in pairs the effect upon the canvas or other flexible covering, owing to the combined weight of the occupant and the tendency of the legs to spread upon the floor, is very great, whereas in a bed having trussed supports this effect is much diminished, owing to a total absence of any such spreading tendency, the parts resting upon the floor being held in
10 a more erect position when in use, and, further, any possible tendency to spread by the trussed supports is overcome by the jointed horizontal stays exhibited in Fig. 1.

20 The ordinary method of tacking the canvas of the bed to the upper edges of the side rails, or to their outer faces, is objectionable, as the interspaces between fastenings are not secured. My improvement provides a means by which every point throughout the entire length of
25 the covering is permanently secured, and the strain is thereby evenly distributed when the cot is in use.

30 The operation of closing my invention is as follows: The horizontal stays are pressed off their centers, and the brace engaged with the fixed staple is then disengaged from it. The side rails may then be pressed toward each other, and when quite or nearly together the truss-support, occupying a position at a right
35 angle with the side rails, may afterward be swung into a parallel position with them, and the operation of closing the cot is completed.

The operation of opening the cot is the reverse of this order.

Having now described my invention, what I claim is—

1. In a folding cot, the side rails permanently pivoted to the upper and outward ends of transverse jointed truss-supports, substantially as shown, whereby the said rails are adapted to be folded into contact, or nearly so.

2. In a folding cot, the supports arranged as a jointed truss, and also the upper and outward ends of said supports pivoted to the side rails, substantially as indicated, whereby they are adapted to fold into a parallel position with the side rails when said rails are brought together.

3. In a folding cot, the supports arranged as a jointed truss, and also the upper and outward ends of said supports pivoted to the side rails, substantially as shown, whereby the said supports are adapted to be folded into a parallel position with the side rails, said rails having been first brought together and the supports closed.

4. The combination, in a folding cot, of an adjustable horizontal stay and a jointed truss-support, substantially as and for the purpose indicated.

5. The combination, in a folding cot, of a side rail, cleat, and flexible covering, substantially as shown, whereby the said covering is adapted to be fastened to the said rail throughout its entire length.

ETHELBERT S. GRIFFITH.

Witnesses:

FRANK P. BAKER,

ADOLPUS J. TEBEAU.