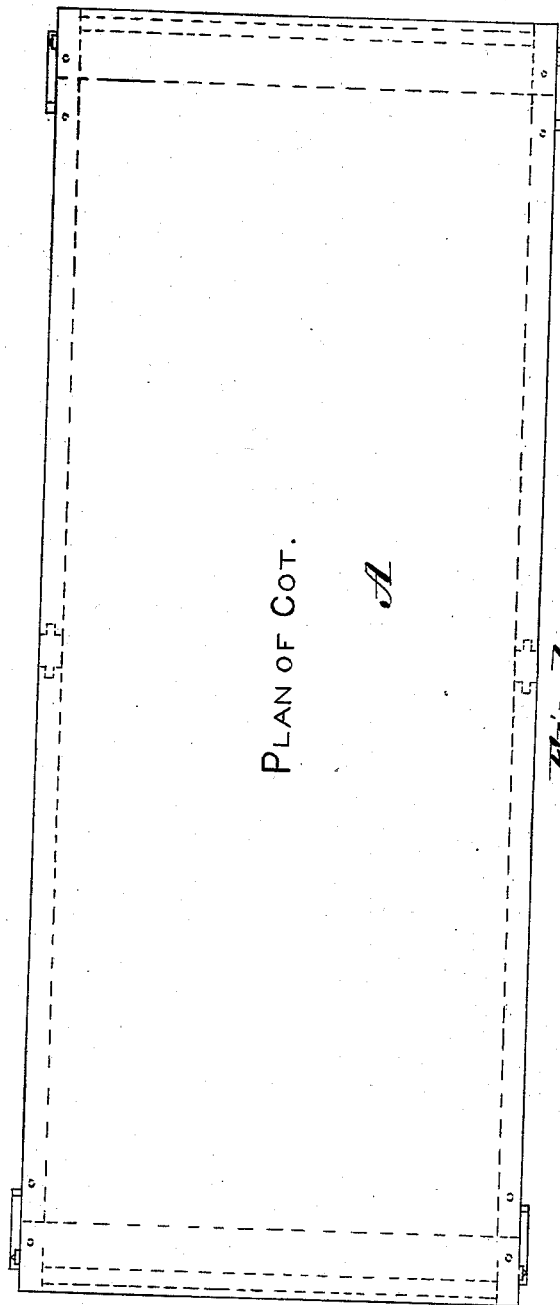
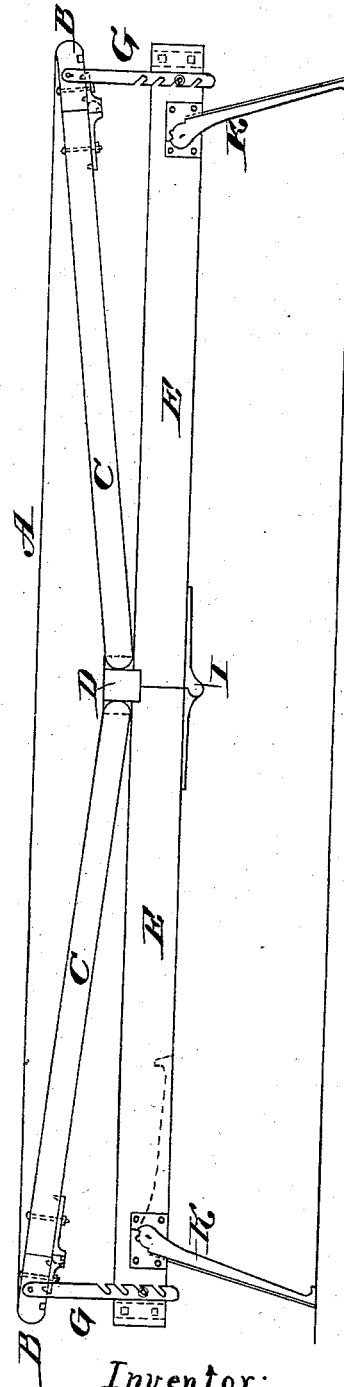


E. OLMSTED.
Spring-Cot and Bed-Bottom.
No. 215,475. Patented May 20, 1879.



PLAN OF COT.

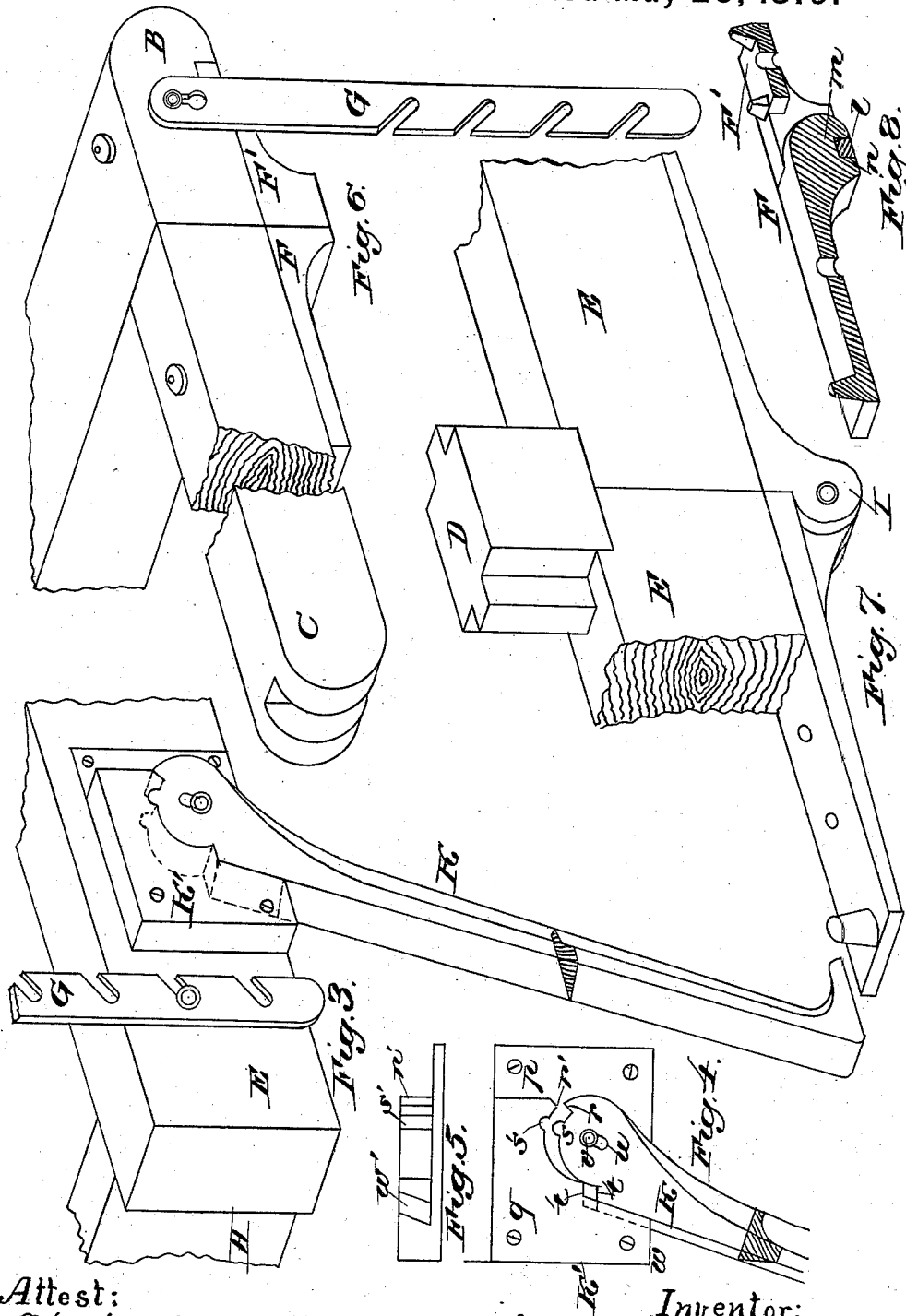


SIDE VIEW OF COT.

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UNITED STATES PATENT OFFICE.

EDMUND OLMSTED, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN SPRING-COT AND BED-BOTTOM.

Specification forming part of Letters Patent No. **215,475**, dated May 20, 1879; application filed July 14, 1877.

To all whom it may concern:

Be it known that I, EDMUND OLMSTED, of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Folding Cots and Bed-Bottoms; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, of which—

Figure 1 is a plan view of the cot; Fig. 2, a side elevation of the same; Fig. 3, an enlarged detail view, showing the leg in gear with the socket-block; Fig. 4, a detached view, showing the leg out of gear; Fig. 5, a plan view of the socket-block inverted; Figs. 6 and 7, enlarged detail views, and Fig. 8 a central longitudinal section of the joint for attaching the levers to the head-rails.

My invention relates, chiefly, to the construction of folding cots; but some of the leading features are equally applicable to beds of the ordinary kinds.

The object of my invention is to produce a cot which shall be adapted to be taken apart and put together with great ease and rapidity, and without the aid of tools of any kind, which shall be capable of folding and packing together into a smaller and more compact compass than any cot hitherto in use, and in which the usual sagging of the cloth bottom toward the center shall be wholly obviated.

To these ends my invention consists, first, in the combination of inclined levers and tension bars or straps with the head-rails to which the cloth bottom is attached, by means of which the stretching or tightening of the cloth bottom is effected; secondly, in the construction of the legs and their sockets, whereby the said legs are adapted to stand firmly upon the floor when the cot is put together, yet readily fold up against the side rails when it is taken apart; and, thirdly, in the construction of the joint, by means of which the ends of the levers are firmly secured to the head-rails and readily detached at will, all as hereinafter more fully set forth.

Referring to the drawings, A is the bottom, of canvas or other suitable material, fastened at its ends to the head rails, B. C C are the levers, (one pair being employed at each side of the cot,) which work at their inner ends in

blocks D at the centers of the side rails, E, and which thence incline upward, and are jointed at their outer ends to the head-rails by means of the device shown in section at Fig. 8, a description of which is as follows: The part F is secured to the under side of the lever C, and the part F' to that of the head rail, B. The end of the part F' contiguous to the part F is recessed out, leaving only the square bar *l* extending across the lower forward edge. The part F is provided at its end with a curved lug, *m*, adapted to enter the recess in the part F', the lower outer end of this lug forming with the shoulder *n* a square notch exactly fitting the bar *l*. Thus the part F hooks into the socket part F', and the whole continues perfectly firm and straight under a downward pressure exerted upon the head rail, owing to the inability of the square bar *l* to turn in the notch; but the parts readily become detached when the head-rail is tipped upward.

G is a bar provided with oblique slots, or it may be a strap provided with holes, or any analogous contrivance, which connects the head rail, B, to the side rail, E, being permanently attached to the former and hooking to a stud on the latter. Such a tension bar or strap is attached to each of the four corners of the cot.

H is a cross-rail, one such connecting the side rails at each end of the cot. I prefer to have each cross-rail hinged at one end to a side rail, in order that it may fold up against the latter when the cot is taken apart, and connect with the opposite side rail by means of a suitable bed-fastening; but, if preferred, the hinge may be dispensed with, and the ordinary fastening employed at both ends.

The side rails, E, are each formed in two parts of equal length, connected by a hinge, I, placed on the under side of the rail and adapted to double only in one direction, whereby when the rail is straightened out further downward pressure is resisted.

The construction of the folding leg is as follows: The socket-block K' is attached to the outside of the rail E, and its face is rabbeted or recessed from the inner end, as shown, thus comprising the plate *p* and bearing *q*, the latter being equal in breadth to the thickness of the

top of the leg K. The top of the leg is rounded and provided, as shown, with the shoulder *r*, ridge or bead *s*, and shoulder *t*, the last being at a sufficient height to leave an ample portion of the part *q* for the leg to bear against laterally. This portion is beveled to conform to the sloping direction of the leg, and also beveled inward, as shown at *w'*, Fig. 5, to conform to the beveled edge *w* of the leg, which tends to prevent its spreading out sideways.

The bearing *q* is provided with the shoulder *r'*, recess *s'*, and shoulder *t'*, formed to coincide exactly with the corresponding parts of the leg.

The leg K is loosely pivoted to the plate *p* of the block K' by means of a slot, *u*, in the upper part of the said leg and bolt *v* on the plate. The slot gives the leg sufficient play to enable the shoulders, rib, and bevel to engage with the corresponding parts of the block when set up in position upon the floor, as shown at Fig. 3, thus holding it firm and stationary, but to drop out of gear, as shown at Fig. 4, as the block is lifted, when it may be turned or folded up against the side rail.

The construction of the leg is such, it will be seen, that the cot may be mounted upon casters and rolled endwise or sidewise, or in any other manner, without in the least affecting its security, and, moreover, that the heavier the weight imposed upon the legs the firmer and more stable they become.

When the cot has been put together and it is desired to tighten the cloth bottom, it is only necessary to bear down upon the head rails, thus depressing the outer ends of the levers C, and adjust the bar or strap G to the proper notch or hole. The high degree of tension and elasticity thus attainable, as also the absence of rails at the sides of the cloth bottom, are among the chief advantages afforded by my cot.

To apply my bed-bottom to common beds, the block D should be secured to the inside of the rail upon the slat-rest and studs driven at the proper points for the adjusting of the straps G.

Instead of having the inner ends of the levers C recessed and fit projections upon the block D, as shown, the block may be formed with recesses or sockets adapted to receive the ends of the levers, and the recesses in the latter dispensed with.

What I claim as new, and desire to secure by Letters Patent, is—

1. The inclined levers C, working at their inner ends in sockets at the center of the side rails, in combination with the head-rails, B, and the bars or straps G, attached to the said head-rails, and adapted to hook or catch upon the side rails, whereby the cloth bottom is tightened, substantially as described.

2. The leg K, pivoted to the block K' by means of a slot, *u*, and bolt *v*, and provided, as shown, with a shoulder, *r*, rib *s*, shoulder *t*, beveled edge *w*, all conforming to corresponding parts on the block K', substantially as described, and for the purpose set forth.

3. The joint consisting of the part F', recessed, as shown and described, and provided with the square bar *l*, and the part F, provided with the lug *m*, adapted to enter the said recess, and forming, with the shoulder *n*, a square notch to fit the bar *l*, as and for the purpose set forth.

4. The cot consisting of the cloth bottom A, head-rails, B, pivoted levers C, side rails, E, straps or bars G, cross-rails H, and legs K, all adapted to be taken apart or folded together, substantially as described.

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