(Model.)

A. H. FROST.

BED BOTTOM.

No. 255,613. Patented Mar. 28, 1882.

Fig. 1.

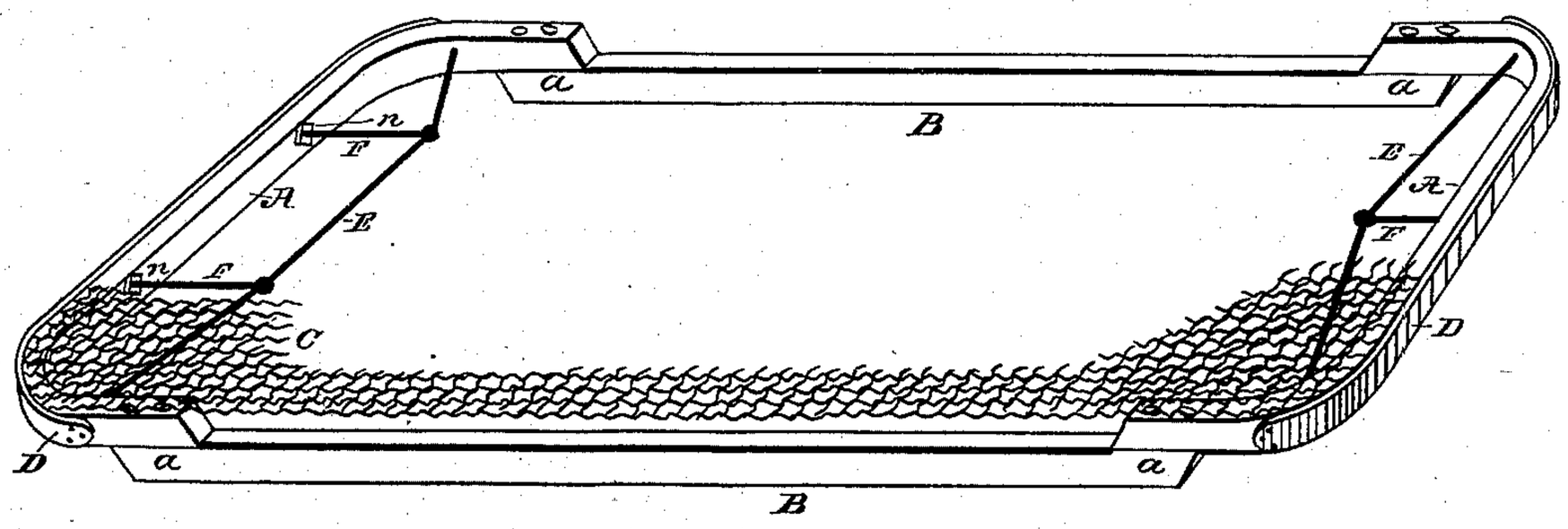
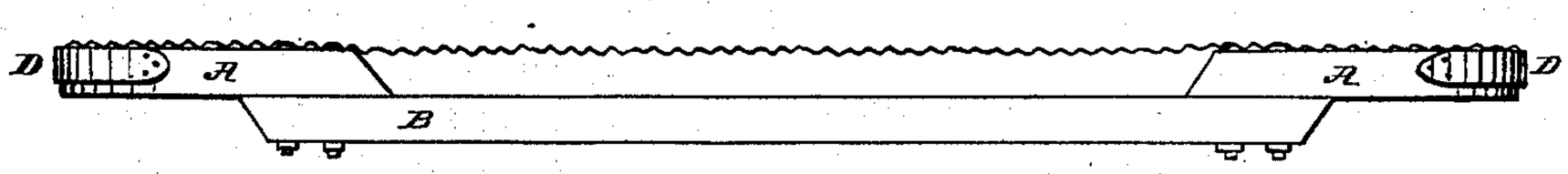


Fig. 2.



WITNESSES.

F. B. Townsend

W. C. Adams.

INVENTOR.

Abel H. Frost

per M. E. Dayton

Attorney

UNITED STATES PATENT OFFICE.

ABEL H. FROST, OF CHICAGO, ILLINOIS.

BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 255,613, dated March 28, 1882.

Application filed April 16, 1880. Renewed March 6, 1882. (Model.)

To all whom it may concern:

Be it known that I, ABEL H. FROST, of Chicago, State of Illinois, have invented certain new and useful Improvements in Bed-Bottoms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to frames for bed-bottoms of the class in which the frame supports a fabric stretched from end to end thereof.

It consists, first, in making the end rails of the frame of bent wood; second, in the combination, with the bent-wood end rails, of an interior truss; and, third, in the combination of parallel side rails with bent-wood end rails extended into the planes of and higher than the side rails.

The objects of the invention are to materially lighten and cheapen the frame; to increase its strength; to facilitate handling of the frame by reason of its rounded corners, by which it may be readily rolled upon its edge, and also, as a result of this rounded form, to adapt the frame to fit any ordinary construction of bedstead.

In the drawings, Figure 1 is a perspective of the frame provided with a woven-wire fabric, partly removed to better show the construction of the frame. Fig 2 is a side elevation of the frame supporting a woven-wire fabric.

A A are the end rails, and B B are the side rails, of the frame.

C is the fabric, of woven wire or other material, secured to the end rails. Said end rails are of bent wood, straight, or nearly so, in their central portion, and turned at their ends into the planes of the side rails, B. Viewed vertically the latter are straight, and are fastened either rigidly or movably to the under surface of the end rails, as shown, to give suitable elevation to the latter for the proper support of the fabric C above the side rails.

D D are thin cleats of wood or metal applied to cover the raw edge of the fabric after it has been secured to the end rail.

E E are metal truss-rods, reaching from side to side of the frame at points in or near the curves of the bent-wood end rails; and F F are struts set to bear between the truss-rods and end rails. These struts are preferably extensible by being let deeply into the end rails, and provided with the nuts *n n*, by turning which the end rails may be sprung outward centrally to increase the tension upon the fabric when required. Heretofore such variation of the tension of the fabric has been invariably effected by sliding the end rail bodily outward upon the side rails by means of adjusting-screws located at or near the junction of the end and side rails. This mode is defective, however, for the twofold reason that the end rail, however rigid, will yield centrally under the powerful strain of the fabric as usually applied, and that the increased tension contemplated is generally required only in the central portion of the fabric, where it is least obtained. In the frame constructed as here described, on the other hand, while the bodily movement of one or both end rails may be provided, if desired, if such movement be absent, the fabric may still be given the increased strain or central elongation required by means of the truss-rod and variable struts described. In such rigidly-connected frame, indeed, it has been found that by connecting the rods E at or near the lateral extremities of the curves, the effect of running out the struts will be to slightly contract the frame laterally, and thus to materially increase its length and elongate the fabric. The use of bent-wood end rails combined with the trusses shown, and dispensing with the usual metal corner-fastenings, effects a reduction in the weight of the entire structure, including woven-wire fabric, of about twenty-five per cent., a very important advantage in the matter of transportation and of cost to the remote purchaser.

It is obvious that whether the parts of the frame are movably or rigidly joined the extended surface of attachment (shown at *a a*) favors a much stronger connection than is possible in the usual construction. It is also plain that in moving the necessarily heavy structure

through a doorway, or, generally, in the handling of the same by a single person, the operation will be greatly facilitated by the round corners enabling it to be readily rolled upon its edge. Such form of the corners, moreover, enables one to wholly disregard any peculiar construction of the bedstead, since space is thereby afforded for any corner-projections likely in any case to be encountered in the bedstead.

By extending the truss-rods E from the lateral extremities of the curves at the corners and providing the same with swivel-nuts, by which the frame may be laterally contracted, and by further giving an outward central curve, in the first instance, to the end rails, the struts F may be dispensed with, since the shortening of the rod E will in that case evidently throw the end rails centrally outward and elongate the fabric. I prefer to employ the struts, however, as being a more positive and reliable means of obtaining the end sought.

I do not broadly claim the truss in a bed-frame, but only in the combination defined in the appended claims.

Having thus described my invention, I claim—

1. A bed-bottom frame having the bent-wood end rails and straight side rails joined in the vertical planes of the side rails, substantially as described.

2. Combined with the side rails, B, the end rails, A, of bent wood, secured to the upper edges of the side rails, substantially as and for the purposes set forth.

3. A removable bed-bottom frame having end rails of bent wood, forming round corners, secured to the upper edges of the side rails, substantially as described, and for the purposes set forth.

4. The combination, with the bent-wood end rails, of the rod E and strut or struts F, arranged to flex the end rails by pressure supported by the side rails, substantially as described.

5. In combination with an extensible fabric, C, the bed-bottom frame having its ends of bent wood and adjustably trussed to secure central relative elongation of the frame, substantially as and for the purpose described.

6. The combination with a bed-bottom frame having bent-wood rounded corners, of the transverse rods E, adapted to contract the frame laterally, and thereby to longitudinally extend the same, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

ABEL H. FROST.

Witnesses:
M. E. DAYTON,
JESSE COX, Jr.