Nov. 25, 1930. B. M. FRANK 1,782,988

BED FRAME

Filed Aug. 8. 1929 2 Sheets-Sheet 1

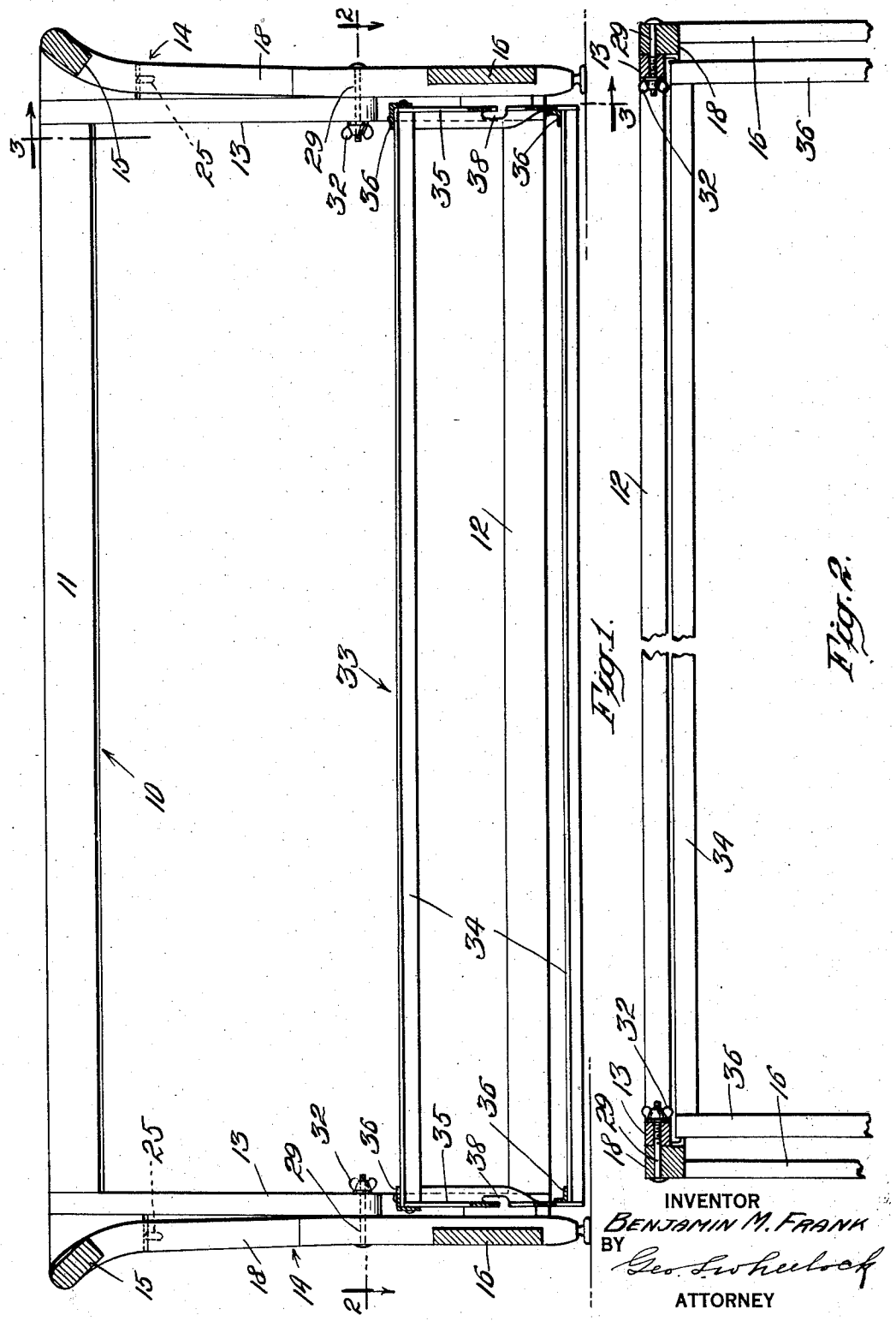


Fig. 1.

Fig. 2.

Nov. 25, 1930. B. M. FRANK 1,782,988

BED FRAME

Filed Aug. 8, 1929 2 Sheets-Sheet 2

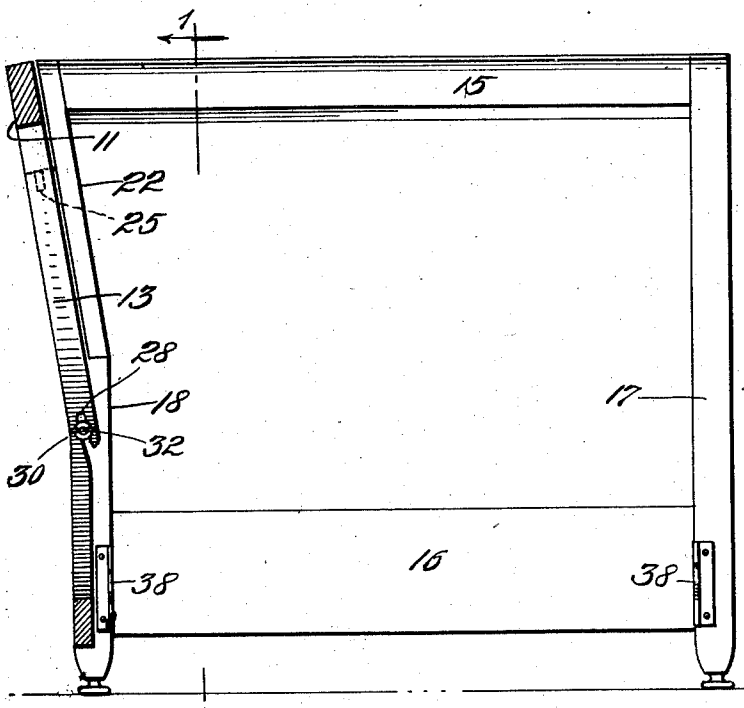


Fig. 3.

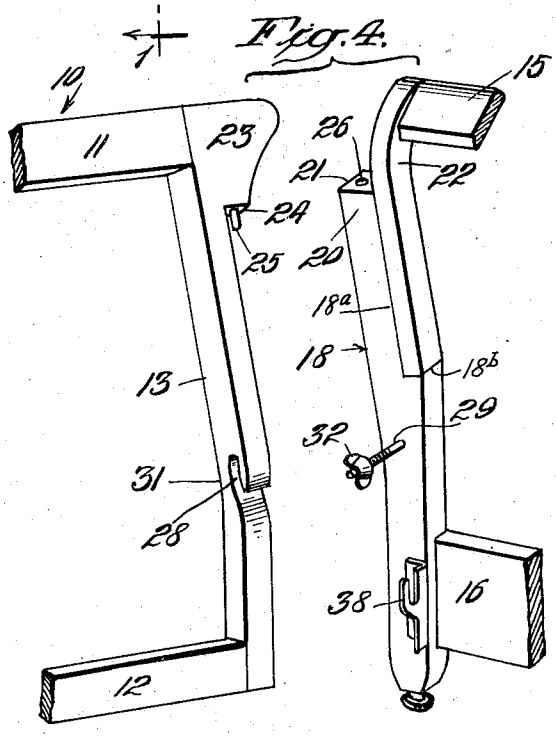


Fig. 4.

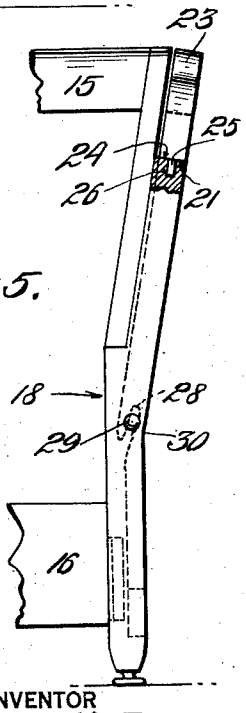


Fig. 5.

INVENTOR
BENJAMIN M. FRANK
BY
Geo. S. Wheelock
ATTORNEY

Patented Nov. 25, 1930 1,782,988

UNITED STATES PATENT OFFICE

BENJAMIN M. FRANK, OF NEW YORK, N. Y., ASSIGNOR TO GREENPOINT METALLIC BED CO., INC., OF BROOKLYN, NEW YORK, A CORPORATION OF NEW YORK

BED FRAME

Application filed August 8, 1929. Serial No. 384,281.

The present invention relates to a supporting bed frame adapted for use with bed structure proper to constitute a sofa or couch day bed, and an object of the invention is to provide simple and efficient means for detachably connecting the ends and back of such a frame so that they may readily be assembled or taken apart and handled separately from the main couch or bed structure.

Another object of the invention is to provide novel connecting means such that by lowering the back of the frame into position relative to the ends it will be connected therewith and supported thereby and may be locked thereto to prevent accidental separation.

These being among the objects of the present invention, the same consists of certain features of construction and combinations of parts to be hereinafter described and then claimed with reference to the accompanying drawings illustrating a preferred form of the invention, in which:

Fig. 1 is a front elevation, partly in section along the line 1—1 of Fig. 3, of the sides and back of the frame in assembled relation and carrying the bed proper;

Fig. 2 is a fragmentary plan view, partly in section taken on the line 2—2 of Fig. 1;

Fig. 3 is a sectional view taken along the line 3—3 of Fig. 1;

Fig. 4 is a fragmentary view illustrating in perspective and in separated relation adjacent edge portions of the back and of an end; and

Fig. 5 is a fragmentary view, in elevation, of the right hand end of the frame, part of the end being broken away to show a dowel which extends from a projecting portion of the back down into a corresponding socket in the end, and the edge of the back behind the rear post of the end being shown in dotted lines.

Referring to the drawings, the outer supporting frame includes a back 10 having a top bar 11, a bottom bar 12 and end members or uprights 13 connecting the corresponding ends of the top and bottom bars; and frame ends 14 each comprising a top bar 15, a lower bar 16, a front upright or post 17 to which the front ends of the bars 15 and 16 are secured, and a rear upright or post 18 to which the rear ends of the bars 15 and 16 are secured. The back 10 is supported by the frame ends 14 and preferably the posts 17 and 18 of such ends extend below the lower bars 16 and are provided at their lower ends with suitable devices to facilitate movement of the frame along a floor from one position to another.

The front posts 17 may be of any suitable shape but, inasmuch as the invention relates to connections between the ends 14 and the back 10 which render it easy to separate or assemble these parts, the construction of the rear posts 18, of the end members 13 of the back 10 and the means for attaching the end members 13 to the back 10 is of importance. Details of the parts at the rear corner and left end of the frame, looking from the back to the front, are shown clearly in Figs. 3, 4 and 5 and, in view of the fact that the construction is in general the same at both ends of the frame, it will be sufficient for all practical purposes to confine the description of the connections to the structure shown in these figures.

As shown in Figs. 4 and 5, the rear post 18 is provided at its rear with an upwardly facing supporting portion 20 of which the top is in the form of a shoulder 21 projecting rearwardly below the upper end of a part 22 at the front of the post. The upper part 22 is attached at its upper end to the rear end of the top bar 15 and, as here shown, both of these parts are inclined outwardly to give the desired lines and shape at the end of the frame. Preferably, and as here shown, it is desirable to make the upper part 22 in a separate piece and secure it permanently to the main body of the post in any suitable manner. The upright part 22 is preferably made separate from the post 18 and is doweled and glued in a recess 18^a in the post. The recess 18^a provides a shoulder 18^b in abutting relation with the lower end of upright part 22.

The left end member 13 (Fig. 4) of the back 10 is provided with a downwardly facing portion 23 forming at its lower edge a

shoulder 24 to rest on the shoulder 21 on the adjacent post 18. To prevent the shoulder 24 from slipping off the shoulder 21, the downwardly facing portion 23 is provided with a dowel 25 projecting from the shoulder 24 in position to enter a recess or socket 26 formed in the upwardly facing supporting portion 20 with its outer end suitably positioned at the surface of the shoulder 21. It should be noted that the upper part of the end member 13 of the back, constituting the downwardly facing portion 23, is shaped at its outer side to conform with the shape of the upper end or part 22 of the adjacent post 18; and also that there is provided, as shown in Fig. 1, a narrow space between the front face of the portion 23 of the end member 13 and the rear face of the upper end 22 of the rear post 18, to accommodate upholstery material on said parts. It should be understood that the arrangement of the dowel and socket may be reversed and that any other suitable means may be used in place thereof.

Obviously the back 10 should have additional connections with the frame ends at points beneath the shoulders 21. To this end, each end member 13 of the back 10 is provided at a suitable point with a slot 28 extending from its open end at the forward edge of the end member upwardly in said member, and the adjacent post 18 is provided with a suitable cooperating device, such as a bolt 29, extending inwardly from the outer side of the post in a position to be received in the slot as the corresponding dowel 25 is inserted in the corresponding socket 26. It is in general desirable to have the back 10 inclined to the rear to some extent, and as herein disclosed this effect is obtained by constructing each rear post 18 of the frame ends with a bend at the point 30 adjacent to the location of the bolt 29, and by forming each end member 13 of the back 10 with a corresponding bend at a point 31 adjacent to the slot 28. As shown most clearly in Fig. 5, the open end of the slot 28 is just below the point 31 so that the slot may extend, at a slight inclination, upwardly substantially centrally of the part of the member above the bend, thereby facilitating the placing of the back 10 on the ends 13 with the dowels 25 in the sockets 26 and with the bolts 29 in the slots 28. After the back and ends have been assembled in this relation they are clamped together by suitable means such as wing nuts 32 threaded on the inner ends of the bolts 29 and preferably acting against washers interposed between the wing nuts 32 and the end members 13.

The frame ends 14 are used to support the bed structure proper which as here illustrated has a frame 33 with ends each made up of top and bottom rails 34 and uprights 35 joining these rails at their ends, and with rails 36 adjacent to the ends 14 of the outside frame and connecting the ends of the frame 33 at both top and bottom. The connection between the frame 33 and the ends 14 may be obtained in any suitable manner as, for example, by means of hooks 38 secured to the posts 17 and 18 near the lower ends thereof and adapted to enter slots in the uprights 35 of the frame 33 and cooperate with the material at the upper ends of the slots to support the frame 33 and connect it securely to the ends 14. It will be evident that this arrangement gives a strong connection between the ends 14, and that, in general, the frame 33 is connected with the ends 14 before the back 10 is applied to these ends.

It should be understood that various changes may be made in the construction and arrangement of the parts and that various parts may be used without others, without departing from the true spirit and scope of the invention.

What I claim as new is:

1. In a supporting frame for bed structures, the combination of two frame ends each having at its rear edge a post of which the front part extends to substantially the full height of the end and of which the rear part terminates in an upwardly facing supporting shoulder at a lower level and is provided with a socket extending downwardly from said shoulder, a bolt extending through each of said posts below the level of the shoulder thereof and with its threaded end projecting towards the other end of the frame, a frame back including at each end an upright having at the upper part thereof an outwardly projecting portion of which the bottom constitutes a downwardly facing shoulder to rest on the upwardly facing shoulder of the adjacent post and a dowel projecting downwardly from the downwardly facing shoulder to enter said socket and hold the corresponding parts against lateral displacement, each of said uprights having a slot extending longitudinally thereof and open at its lower end to receive the corresponding bolt when the back is lowered into position to place the dowels in the sockets, and means including a nut on each of said bolts for clamping the frame back and the frame ends together in assembled relation.

2. In a supporting frame for bed structures, the combination of two frame ends each having at its rear edge a post of which the front part extends to substantially the full height of the end and of which the rear part terminates in an upwardly facing supporting shoulder at a lower level, a bolt extending through each of said posts below the level of the shoulder thereof and with its threaded end projecting towards the other end of the frame, a frame back including at each end an upright having at the upper part thereof an outwardly projecting portion of which the bottom constitutes a downwardly facing shoulder to rest on the upwardly facing shoul-

der of the adjacent post, a dowel extending away from one of the shoulders, and a socket in the other shoulder and entered by the dowel for holding the corresponding parts against lateral displacement, each of said uprights having a slot extending longitudinally thereof and open at its lower end to receive the corresponding bolt when the back is lowered into position to place the dowels in the sockets, and means including a nut on each of said bolts for clamping the frame back and the frame ends together in assembled relation.

BENJAMIN M. FRANK.