Feb. 3, 1959 G. W. EMMERT 2,871,489

BED CONSTRUCTION

Filed May 29, 1956

Fig. 1.

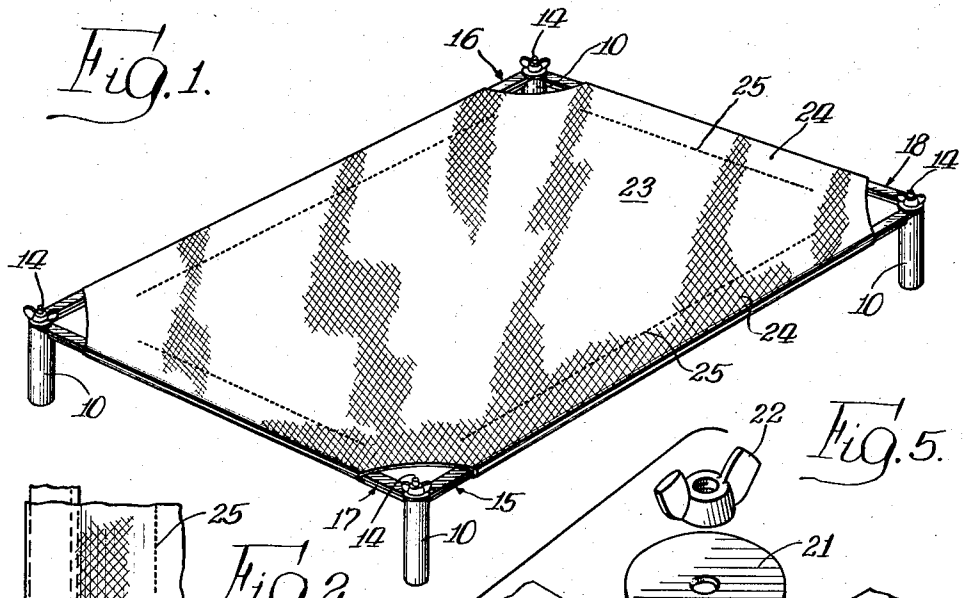



Fig. 2.

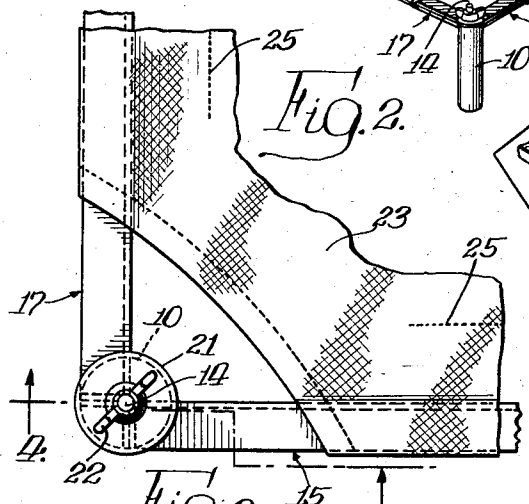



Fig. 3.

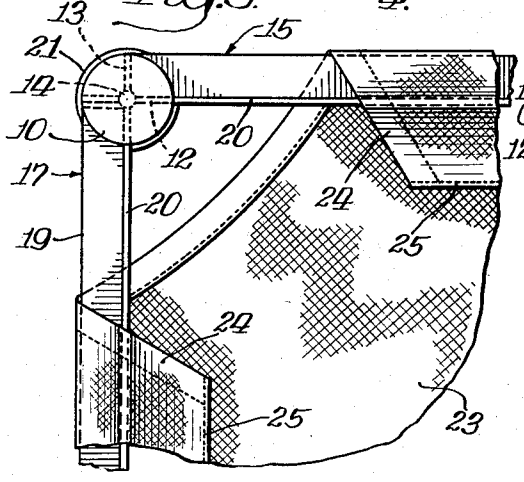



Fig. 5.

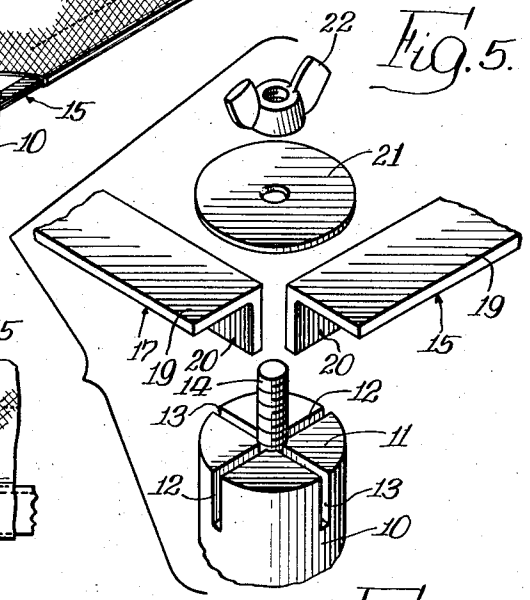
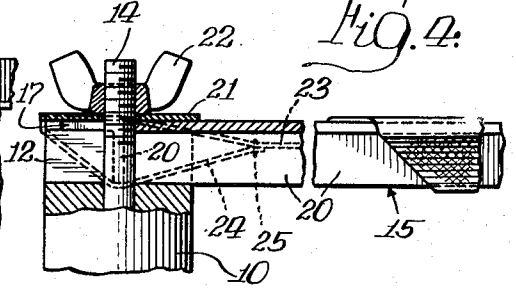



Fig. 4.




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# BED CONSTRUCTION

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1 Claim. (Cl. 5—114)

This invention relates to improvements in bed constructions, and more particularly to a conveniently assembled and disassembled bed especially useful, for example, for household pets and the like.

One of the objects of the present invention is to provide an inexpensive bed construction of the kind just stated, having a minimum number of parts and wherein all of the parts of the bed may be inexpensively fabricated from stock materials without the use of costly special tools and dies or the like Another object of the invention is to provide a bed of this character wherein there is maximum interchangeability between the parts, thereby reducing to a minimum the number of different parts that need to be manufactured. Still another object of the invention is to provide a bed having the foregoing qualities, wherein the bed is relatively light in weight but is very strong and capable of withstanding hard wear and substantial abuse. Still another object is to provide an easily assembled and disassembled bed of the above character wherein the parts may be quickly assembled for use and wherein the assembled bed may easily be disassembled by inexperienced persons for convenient storage or shipment.

These and other objects and advantages of the present invention will be apparent from the following description, taken with the accompanying drawing, wherein:

Fig. 1 is a perspective view of a bed constructed in accordance with the present invention;

Fig. 2 is a top plan view of one corner portion of the bed, on an enlarged scale;

Fig. 3 is a bottom view of the same corner portion;

Fig. 4 is a fragmentary cross-sectional view taken substantially along the line 4—4 in Fig. 2; and

Fig. 5 is an exploded perspective view showing the manner in which the frame elements of the bed are received by and secured upon the legs of the bed.

The present bed comprises four upstanding identical wooden legs **10** which define the four corners of the bed. The legs at their lower ends are adapted to rest upon a floor or other supporting surface, and in the present embodiment the legs are cylindrical in shape and stand vertically upright. The upper end of each leg terminates in a horizontal planar face **11** that has two downwardly directed, radially disposed slots **12** and **13** formed therein. These slots are located at right angles to each other and, as will best be seen in Fig. 5, the slots extend entirely through each leg from one side thereof to the other so as to intersect at the vertical axis of the leg. At this point of intersection an upstanding threaded stud **14** is anchored in the face **11** of each leg so that the axis of the stud coincides with the vertical axis of the leg. The particular manner in which the studs **14** are anchored in the legs at the location just stated may vary, but it is preferred that the lower end of each stud be provided with threads such as those commonly used on wood screws so that the studs may be screwed downwardly into the upper ends of the legs.

The side edges of the bed are defined by a pair of identical, longitudinally extending side frame members **15** and **16** and the ends of the bed are similarly defined by identical frame members **17** and **18**. As shown, these frame members **15** to **18**, inclusive, may be comprised of angle members of extruded aluminum or the like, each having a horizontal upper flange **19** and a downwardly projecting flange **20**. The respective flanges **20** may extend the full length of the frame members to rigidify the same, and these flanges at their ends are adapted to be received downwardly into the slots **12** and **13**, with the underside of each of the horizontal flanges **19** resting flush upon the upper faces **11** of the legs, and with the ends of the frame members, and particularly the ends of the downwardly projecting flanges **20** thereof, abutting the upwardly extending studs **14**. The reception of the flanges **20** into the slots **12** and **13** orients the frame members upon the legs and prevents lateral movement of the frame members with respect to the legs. It will also be observed that the abutment of the ends of the flanges **20** against the studs **14** orients the frame members longitudinally within the slots **12** and **13**. The ends of the frame members **15** to **18**, inclusive, are frictionally secured upon the legs by means of washers **21** that are received upon the studs **14** in a position overlying the horizontal flanges **19** of the adjacent frame members, and by means of wing nuts **22** or the like which are threaded onto the studs. Turning the wing nuts downwardly on the studs **14** presses the washers **21** tightly against the upper surfaces of the horizontal flanges **19** of the frame members, thus clamping the under-surfaces of these horizontal flanges firmly against the respective upper faces **11** of the legs **10**, thereby establishing rigidity between the legs and the frame members.

The supporting surface for the pet or other occupant of the bed preferably comprises a web **23**, of cotton duck or the like, that is provided along its opposite edges with wide hems **24** sewed along the lines **25**. These hems freely receive the frame members **15** to **18**, inclusive, so that the web **23** is stretched relatively tautly to support the weight of the occupant.

It will be observed that the entire bed, and all of its component parts, are fabricated of stock materials, thereby very greatly reducing the cost of construction. When the bed is utilized as a bed for pets and the like, the legs **10** may be fabricated from standard one inch wooden dowel material, for example, and the web **23** may be of an ordinary fully sanforized 32 oz. duck material. The frame elements **15** to **18**, inclusive, may be fabricated of angle stock of standard size and weight or, if desired, these frame members may have their cross-sectional configurations of another shape, such as that of T-shaped stock which, like the frame members shown, will have a downwardly directed flange adapted to be received in the slots **12** or **13**.

It will be readily apparent that the present bed may be very quickly and easily disassembled and reassembled at the convenience of the user. Its disassembly is accomplished merely by loosening or removing the wing nuts **22** and the washers **21** from the studs **14**, whereupon the opposite ends of each of the frame members may be withdrawn from the slots **12** and **13** in the upper faces **11** of the legs, thereby freeing the legs and frame members and releasing all of the tension existing in the web **23**. The frame members may then be withdrawn from the hems **24** at the edges of the web and all of the components of the bed may be rolled within the web to provide convenient storage or shipping. Reassembly of the bed is equally conveniently and easily accomplished. With the parts of the bed laid out in accessible positions, the frame members are inserted into the appropriate hems of the web **23** and the downwardly directed flanges **20** of the frame members are inserted into the

slots 12 and 13, with the end extremities of the frame members in abutting positions against the studs 14, as shown. This positioning and insertion of the frame members into the slots of the legs tensions the web 23, whereupon the washers 21 and wing nuts 22 may be applied to the studs 14 and tightened thereon, thereby rigidifying the entire assembly and completing the reassembly thereof.

If desired, a pillow or mattress-like pad of any suitable thickness or construction may be loosely laid upon the top of the web 23 for the pet or other occupant that is to use the bed.

All of the legs 10 are of identical construction and are, therefore, completely interchangeable. Their construction is such that their rotative position with respect to the frame members is not critical. This is achieved by the fact that the slots 12 and 13 in each case extend entirely through the legs from one side thereof to the other and on opposite sides of the studs 14. Thus, because only one end portion of each of the slots is utilized during assembly of the bed, the legs may be oriented at any one of four 90 degree positions during assembly, the only positioning requirement being that one end or the other of each of the slots 12 and 13 is aligned with the downwardly directed flange 20 of the corresponding adjacent frame member. At the same time, the fact that the slots 12 and 13 extend entirely through the legs renders the legs easier to manufacture since the slots may be formed by a simple sawing operation.

It will be fully appreciated by those skilled in the art that the identical construction of the several legs and their frame clamping parts, and the identity between the side frame members 15 and 16 and the end frame members 17 and 18, reduces to a minimum the number of different kinds and sizes of parts that must be manufactured, and thus reduces the cost of the bed to a bare minimum. Furthermore, the wide interchangeability of the parts greatly increases the ease with which the bed may be assembled.

In addition to all of the previously mentioned advantages of the present bed construction, numerous others will be apparent. For example, the light weight nature of the bed very greatly reduces the shipping costs of the manufacturer and also increases the ease with which the user may move the bed from one place to another. Furthermore, the ease with which the bed may be assembled and disassembled lends great advantage to the housewife in keeping the bed in a clean and sanitary condition, particularly when the bed is used for pets. Because of the constructural features of the bed and the ease of its complete disassembly and subsequent reassembly, the bed may be taken apart and the web 23 may be washed and the other parts of the bed may be thoroughly cleaned whenever the housewife desires.

The foregoing description has been given for clearness of understanding only and no unnecessary limitations



are intended thereby, for it will be readily apparent to those skilled in the art that numerous variations may be made in the present bed construction, all within the spirit and scope of the appended claim.

I claim:

An easily assembled and disassembled bed comprising, four upstanding legs defining the four corners of said bed, a horizontal planar face on the upper end of each of said legs and extending thereacross, each of said faces having therein a pair of downwardly directed slots extending across said face at right angles to each other and physically intersecting at substantially the axial center of the leg, an upstanding axially extending stud anchored in the upper end of each leg at the physical intersection of said slots, a plurality of longitudinally extending frame members removably interconnecting said legs and defining the edges of said bed, each of said frame members overlying and removably resting at its opposite ends upon the faces of an adjacent pair of said legs with the opposite ends of each frame member abutting and bearing against the respective upstanding studs of said adjacent pair of legs to fix the minimum distance between said adjacent pair of legs, downwardly directed flanges on said frame members at the opposite ends thereof removably residing in said slots for preventing lateral movement of said frame members with respect to said legs, means removably secured upon the upper ends of said studs and overlying the ends of said frame members for clamping the ends of said frame members against said faces of said legs and for retaining said flanges in said slots, and a supporting web secured to said frame members and suspended therebetween to provide a sleeping surface, said frame members being readily disengaged from said legs upon release of said last mentioned means to provide easy disassembly of said bed.


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