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3,284,136

ARTICLES OF FURNITURE

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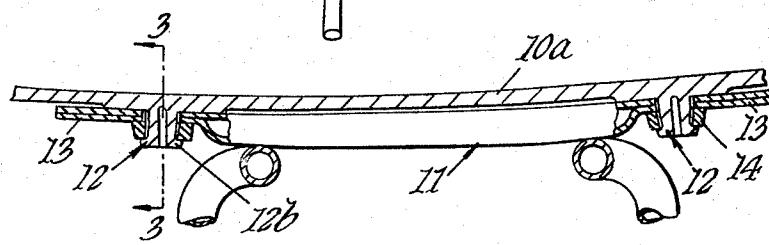
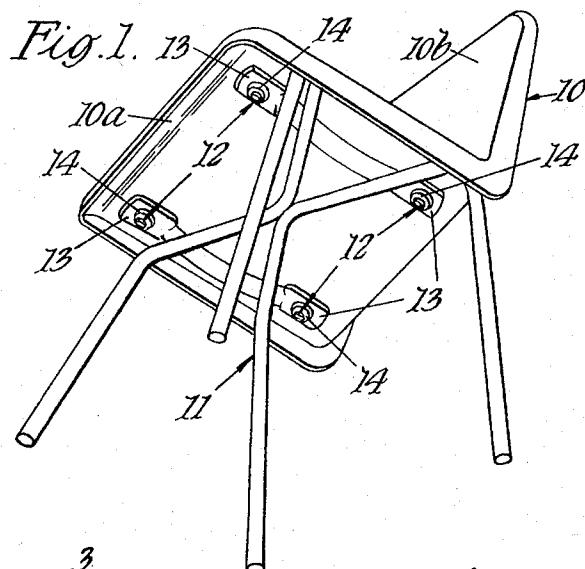


Fig. 2.

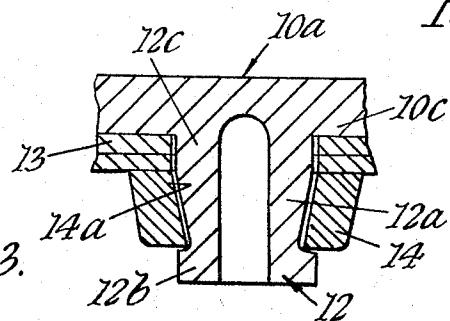


Fig. 3.

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ARTICLES OF FURNITURE

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This invention relates to articles of furniture of the kind including a supporting underframe and a top part. Whilst the invention may be applied to other types of furniture, it is envisaged that its principal application will be to chairs.

It is an object of the invention to provide such an article of furniture with convenient and secure means whereby the top part is connected to the underframe.

In accordance with the invention, in an article of furniture of the kind specified, the top part is provided with a plurality of spigot elements which project respectively through a plurality of associated parts of the underframe, each spigot element being formed intermediate its ends with a portion of reduced external dimensions so that a head is provided on the free end of the spigot element and there being also provided a plurality of retaining elements embracing said reduced portions of the spigot element respectively and each having a head-engaging part disposed between the head of the associated spigot element and the associated part of the underframe.

Preferably the top part is in the form of synthetic resin a moulding of which the spigot elements are integral parts. Where the article of furniture is a chair the moulding may define the seat portion of the chair or the integrally connected seat and back portions of the chair.

The invention also resides in a moulding adapted to form the top part of a chair constructed in accordance with the invention and provided beneath its seat portion with a plurality of integral spigot elements each of which is formed intermediate its ends with a portion of reduced external dimensions so that a head is provided on the free end of each spigot element.

Reference will now be made to the accompanying drawing in which FIGURE 1 is a perspective view showing the underside of a chair embodying an example of the invention, FIGURE 2 is an enlarged fragmentary sectional view of a detail of FIGURE 1 and FIGURE 3 is a still further enlarged fragmentary section on line 3—3 in FIGURE 2.

Referring to the drawing the article of furniture shown is in the form of a chair in which a top part 10 is supported by a tubular underframe 11. The top part is in the form of a polypropylene moulding which provides a seat portion 10a and an integral back support 10b.

Integrally connected to the underside of the seat portion 10a are a plurality of (for example four) hollow spigot elements 12. Each spigot element 12 is formed on a slightly raised surface area 10c of the moulding and is of generally circular cross-section along its whole length. The external diameter of a part 12a of each spigot element 12, intermediate the ends thereof, is reduced and tapers towards the free end of the spigot element. The free end of the spigot thus forms a head 12b. The head 12b is of approximately the same external diameter as the portion 12c of the spigot element 12 disposed between the reduced part 12a and the aforementioned raised area 10c.

The axial length of this last mentioned portion 12c of the spigot element 12 is only slightly greater than the thickness of each of a plurality of apertured lugs 13 on the

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underframe. The spigot elements 12 extend respectively through the apertures in these lugs 13 and each carries a retaining element 14. The retaining elements are in the form of rings made of a hard synthetic resin material, such as that known as Delrin, and each has a flared mouth 14a at one end. The axial thickness of the ring is approximately equal to the axial length of the reduced part 12a of the associated spigot element 12, the minimum internal diameter of the ring 14 being somewhat less than the diameter of the head 12b.

In assembling the chair described the top part 10 is arranged on the underframe 11 so that the spigot elements 12 project through the apertured lugs 13 on the underframe and a suitable tool is used to force the rings 14 over the heads 12b of the spigots 12. During this operation the spigot element 12, being hollow, contracts slightly and then, owing to its resilience, expands again to hold the ring 14 and lug 13 firmly in position.

Thus the example described will be seen to provide a very simple connection between the top part of the chair and the underframe thereof. The connection is, nonetheless, secure.

The invention includes within its compass many variations of the construction described above. The spigot elements, which need not necessarily be integral with the moulding, may be of square or other non-circular section if desired. The shape of the rings would, of course, be altered accordingly. Furthermore, the rings may be replaced by caps which fit tightly over the ends of the spigot elements. The rings or caps may be formed of any suitable material, such as sintered metal.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. An article of furniture comprising a top part moulded in a synthetic plastic material, a plurality of spigot elements integrally formed on the top part, each spigot element having an intermediate portion of reduced external dimensions defining a head at the free end of each spigot element, an underframe for supporting the top part and including a plurality of parts having apertures therein through which said spigot elements project respectively, and a plurality of retaining elements each of which includes a throat portion of dimensions smaller than the dimensions of the head of each spigot element, the retaining elements being engaged with snap-action between the heads of the spigot elements and said underframe parts to secure the top part to the underframe.

2. An article of furniture comprising a top part moulded in a flexible resilient synthetic plastic material, a plurality of hollow spigot elements integrally formed on the top part, each spigot element having an intermediate portion of reduced external dimensions so as to provide a head on the free end of each spigot element, an underframe for supporting the top part and including a plurality of apertured lugs through which the spigot elements extend respectively, and a plurality of retaining rings engaged respectively with said spigot elements, each ring having a flared mouth tapering to a throat of internal dimensions smaller than the cross-sectional dimensions of the head of each spigot element, so that each ring is engaged with snap-action between the head of each spigot element and the associated apertured lug.

3. A chair comprising a top part moulded from a flexible resilient synthetic plastic material, said top part including a seat portion, an integral back portion, and a plurality of integral hollow spigot elements projecting from the seat portion, each spigot element having an intermediate portion of reduced external dimensions so as to provide a head on the free end of each spigot element, an

underframe for supporting the top part and including a plurality of apertured lugs through which said spigot elements extend respectively with the seat portion resting on said lugs and a plurality of retaining rings engaged respectively with said spigot elements, each ring having a flared mouth tapering to a throat of dimensions less than the cross-sectional dimensions of the head on each spigot element so that the rings are engaged with the spigot elements with snap-action and engage between the heads of said spigot elements and said lugs.

4. A chair as claimed in claim 3 in which each spigot element has a portion disposed between said intermediate portion and the seat portion of the top having cross-sectional dimensions identical with those of the head portion, and the apertures in said lugs on the underframe having only slightly larger dimensions than the cross-sectional dimensions of the head portion of each spigot element.

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