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(54) **PROCESS FOR PREPARING FURNITURE AND DECORATIVE ITEM**

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(57) **ABSTRACT**

This invention provides a process of preparing furniture and decorative items prepared from tires and tube and allied wastes comprising:

(21) Appl. No.: **09/771,559**

selecting the tires and tube or allied wastes having predetermined strength,

(22) Filed: **Jan. 30, 2001**

cleaning and treating the said tires and tubes chemically to make it eco-friendly,

**Related U.S. Application Data**

(63) Continuation-in-part of application No. PCT/IN99/00021, filed on Jun. 2, 1999.

fixing at least one said tire with or without tube on a base plate,

(30) **Foreign Application Priority Data**

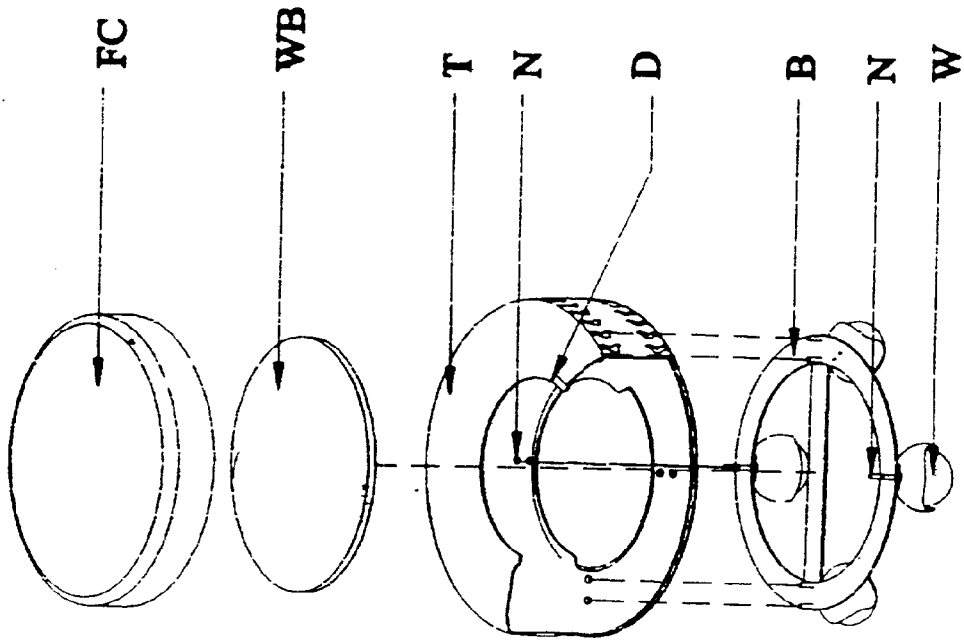
Jul. 31, 1998 (IN)..... 2240/DEL/98

providing a layer of foam of appropriate thickness with/without upholstery in the middle opening of said polished material on the top and on the sides of the entire tire for providing a cushioning.

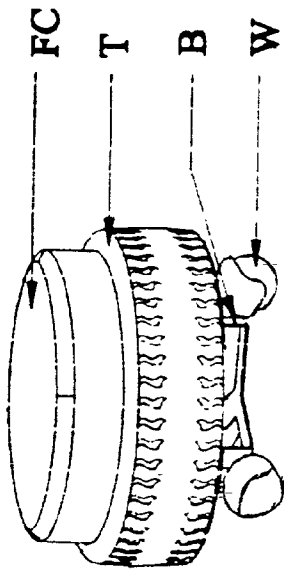
**Publication Classification**

(51) **Int. Cl.<sup>7</sup> ..... A47C 7/02**

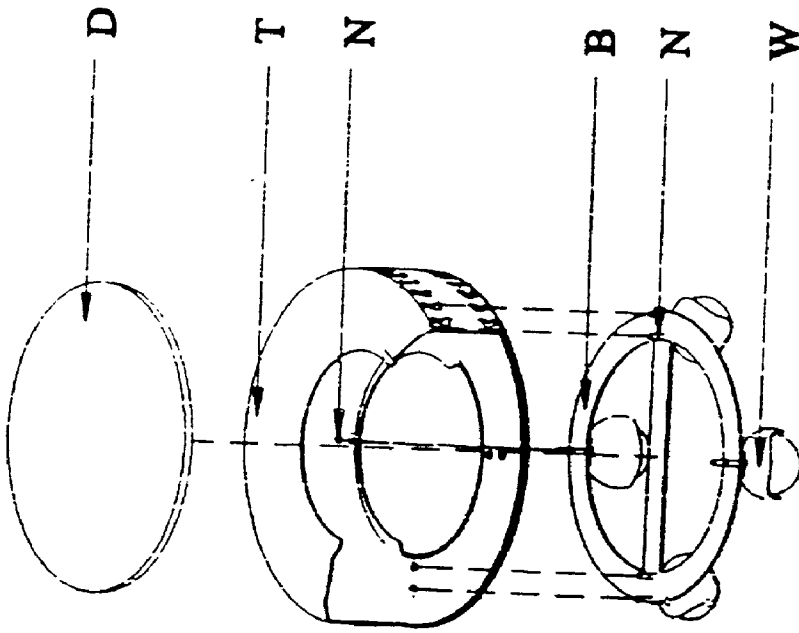
This invention also discloses an article of furniture made by the above process.



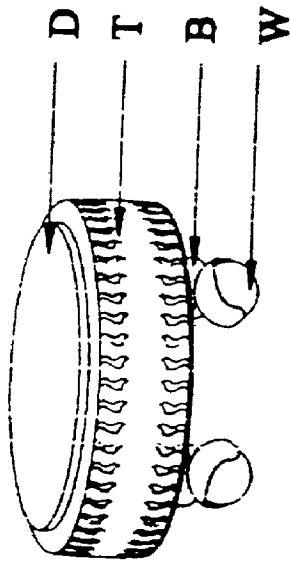
**FIG 1(b)**



**FIG 1(a)**



**FIG 2(b)**



**FIG 2(a)**

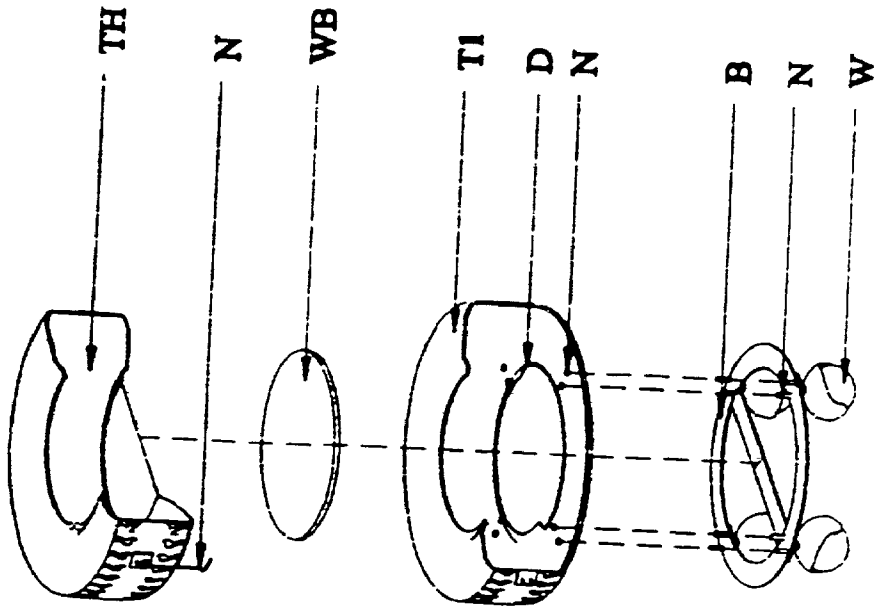


FIG 3(b)

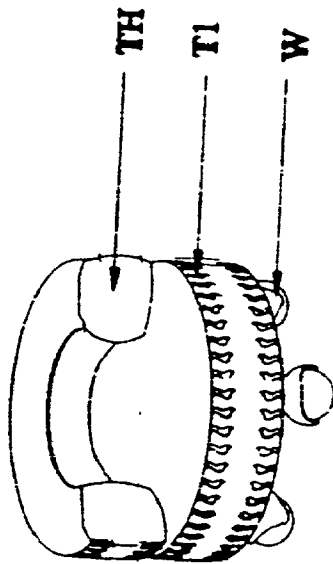
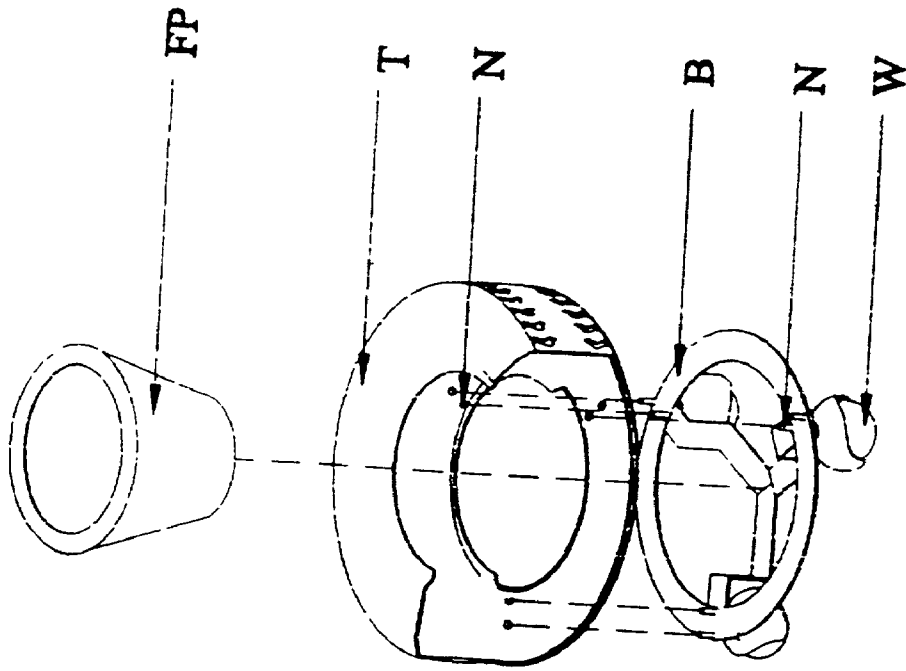
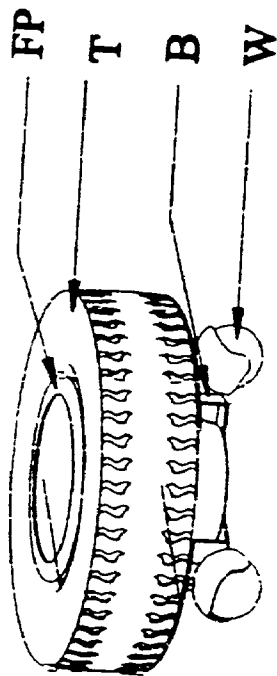


FIG 3(a)



**FIG 4(b)**



**FIG 4(a)**

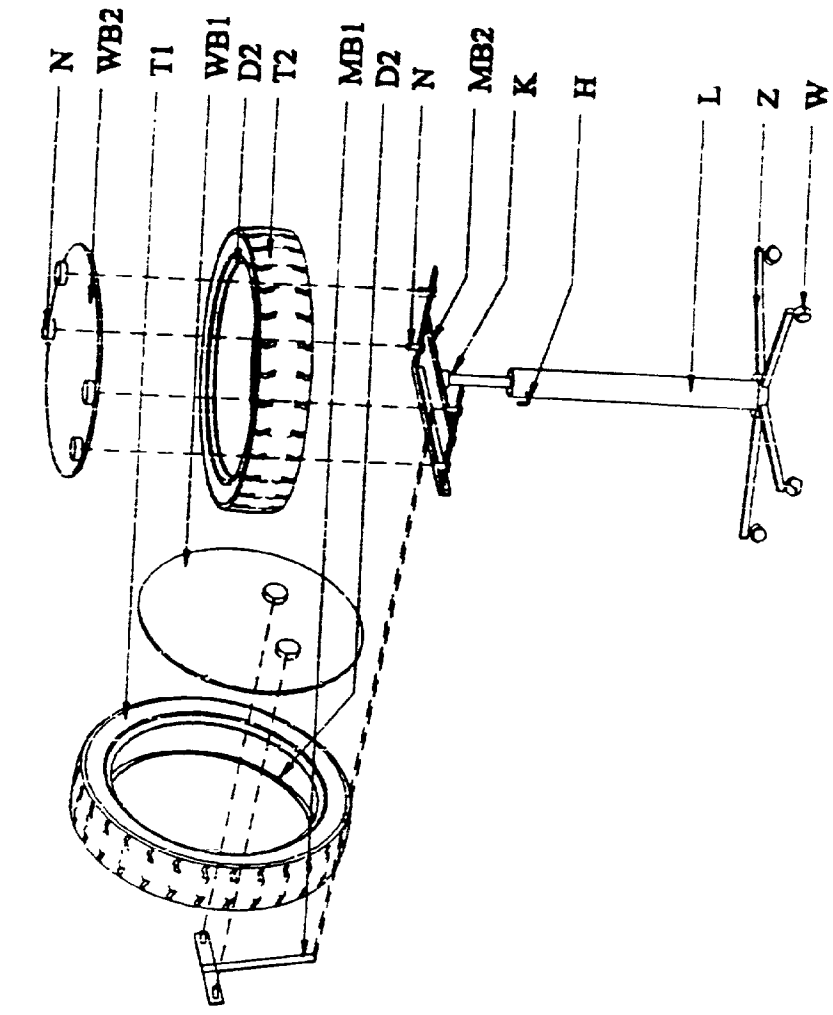


FIG 5(b)

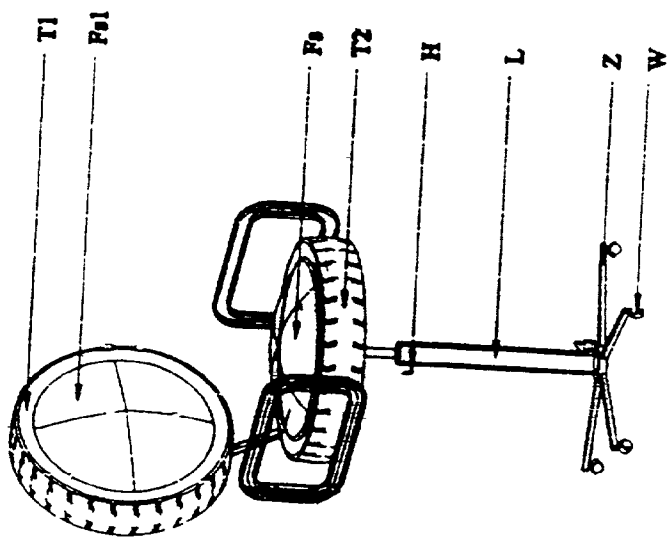


FIG 5(a)

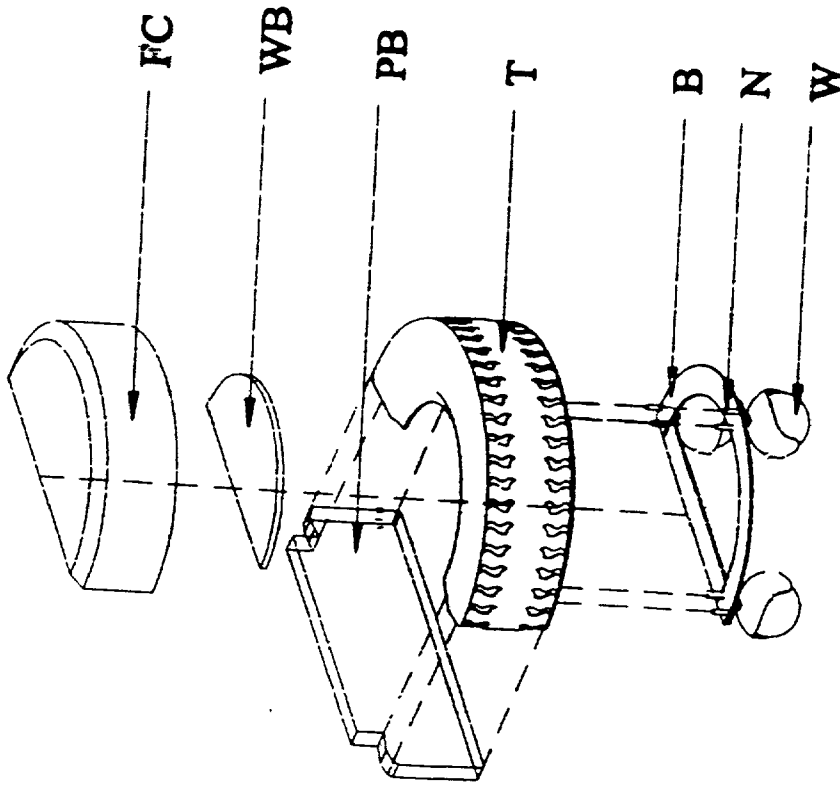


FIG 6(b)

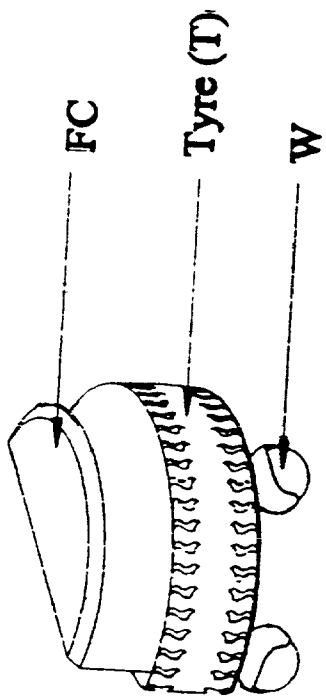


FIG 6(a)

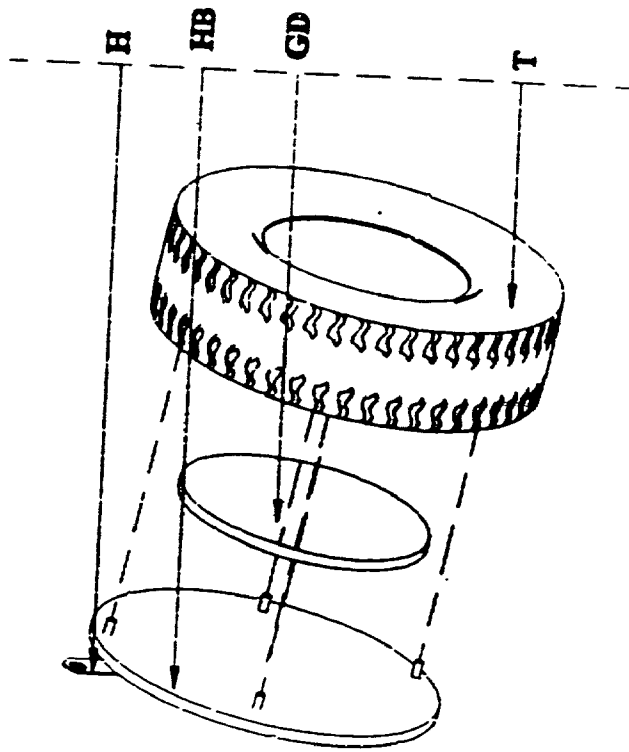


FIG 7(b)

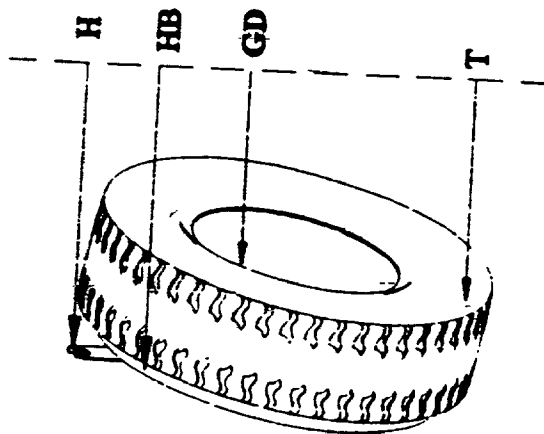


FIG 7(a)



## PROCESS FOR PREPARING FURNITURE AND DECORATIVE ITEM

### FIELD OF THE INVENTION

[0001] This invention relates to a process for preparing furniture and decorative item furniture prepared from tire and tube wastes.

### BACKGROUND

[0002] Traditionally, furniture, for instance, beds, chairs and tables are made from wood. But presently, wood is very expensive and with a view to conserve and maintain forests for future generations health, its morally wrong to use this commodity. Deforestation negates the very purpose of green umbrella.

[0003] The concept is to utilise reusable (recyclable) waste materials to reduce environmental pollution and simultaneously to make manufacture products that could add to the national income and help generate employment.

[0004] It is the object of this invention to prepare durable furniture with the help of tire and tube wastes and thereby reduce the cost considerably.

[0005] To achieve the said objective, this invention provides a process of preparing furniture and decorative items from tire-tube wastes comprising:

[0006] selecting the tires having pre-determined strength,

[0007] cleaning and treating the said tires chemically to make the said tires eco-friendly,

[0008] fixing at least one tire with or without tube on said base plate, if desired, providing a layer of foam of predetermined thickness with/without upholstery in the middle opening of the said tire.

[0009] The said tire and tubes are polished.

[0010] One or more half or quarter tire are fixed on a base tire to provide arms and the back of predetermined height to the said base for making a chair.

[0011] The seats, sofa, chair are covered with appropriate material to give attractive look.

[0012] The sofa of say 4 seats, 4 tires/tubes fixed on the base plate and four subsections of said tires are enjoined to the former to provide the arms and back rests.

[0013] The base plate is made of wood, plastic or any other strong metal sheet capable of bearing the load of the said tires.

[0014] To make the furniture easily movable from one place to the other, wheels are provided at the bottom of the base plate, alternatively, legs are provided at the base plate to achieve the desired height of the furniture.

[0015] Two or more tires may be fixed to the base plate one above the other for making the furniture of desired height.

[0016] That a piece of cleaned and polished waste materials may be connected to the base plate/platform and other

pieces of similar characteristics placed, stacked or enjoined together one on top of the other or individually to form into a piece of furniture.

[0017] A base plate/platform of specific size is provided to achieve the desired height of the furniture.

[0018] A sealing plate/disc is placed at the base of the tire to act as a planter/flowerpot or a picture frame.

[0019] The said furniture is mounted on base plate/platform having a glass disc on top.

[0020] That another glass disc in the cavity provided with a light fixture and can have a painting, an art or craft work or an aquarium.

[0021] That inflated tube inside the tire and the said tire being wholly mounted on a base plate/platform covered with rexine/plastic/waterproof fabric to be used as a seat/rescue tub/floating life boat/floating snack and drink bar.

[0022] That base plate/platform is provided with wheels, the capacity of the said base plate/platform can be made to hold multiple seats or individual seat and can be fixed with segments of other tires on top to provide arms, back/headrests.

[0023] That half a segment of tire as seat with duly upholstered cushion on top placed against the wall in a halfmoon shape, a space saver.

[0024] A structure for holding plants comprises a tire, one end of the tire being sealed with a base plate to hold earth, preferably a plastic base plate. This structure may be mounted on an assembly having wheels for mobility of the said structure. This structure holds plants, saplings, greens for indoor as well as outdoor decorations, arrangements and exhibitions. Also, this cavity by itself can hold flowerpots made of earth, plastic or metal with flowers, foliage, etc.

[0025] Likewise, a secretarial chair may also be constructed wherein the said chair comprises of a tire seat placed on a base structure for secretarial chair. The said tire seat is attached with arms on either side. Another tire preferably having a diameter smaller than that of the tire seat is fixed to the vertical plate of the secretarial chair to provide the back rest. The tire seat and the tire providing the back rest are cushioned for providing comfort. The base structure of the secretarial chair is a conventional structure comprising multi-legged pedestal on wheels. The said pedestal contains a column with a hydraulic system to adjust the height of the seat and to hold the same in its proper place. The tire is mounted on the said column with a spring to increase or decrease the incline of the seat back and forth.

[0026] Similarly, a table structure can be made using one or more tires. The said table comprises one or more tires fixed one on top of the other by any conventional means. The said assembly of the tires is mounted on platform which may or may not be provided with wheels. The cavities of the tire may be filled with any conventional filling material. A glass or wooden plate or desired shape and thickness is placed on top to act as a table top. This said plate can be replaced by a raised cushion to act as seat and be suitably upholstered as per the requirements.

[0027] For constructing a moon shaped backless sofa, a segment of tire is mounted on a platform having wheels. The

segment and the platform having wheels are fixed by any conventional means. A half round ply board is fastened to the cut edge of tire segment.

[0028] In yet another embodiment, a tire is fixed by any conventional means on platform with wheels.

[0029] The base of the cavity has a small round disc of plastic/wood/metal to hold an electric connection. Similarly, for any other capacity also, the same parameters may be used. The base plate is made of wood, plastic or any other strong metal sheet capable of bearing the load of tires and tune or allied wastes.

[0030] To make the furniture easily movable from one place to the other, wheels are provided at the bottom of the said base plate. Alternatively, legs of predetermined height are provided at the bottom of base to achieve the desired height of the furniture.

[0031] Two or more tires and tubes, or allied wastes may be fixed to the base plate one above the other for making the furniture of desired height.

[0032] The present invention will now be described with reference to the accompanying drawings.

[0033] FIGS. 1a & 1b illustrates a backless single sofa;

[0034] FIGS. 2a & 2b illustrates a table with a glass or a wooden table top;

[0035] FIGS. 3a & 3b illustrates a single seat sofa with one tire segment at the back;

[0036] FIGS. 4a & 4b illustrates a planter;

[0037] FIGS. 5a & 5b illustrates a secretarial office chair;

[0038] FIGS. 6a & 6b represents a 'moon sofa' the space saver;

[0039] FIGS. 7a & 7b shows a picture frame.

[0040] Referring to the drawings, FIGS. 1a & 1b show a single tire backless sofa. The said article of furniture comprises a single tire piece T. The tire is enjoined on a base plate B. The open end of the tire is sealed with a base WB with any conventional means N. A round cushion (FC) preferably having a diameter less than that of the inner diameter D and having a predetermined thickness is placed within the tire. One or more wheels W may be attached to the base plate B to make the sofa movable. Also to raise the height of the sofa, more than one tire may be used. The cushion may be upholstered.

[0041] FIGS. 2a & 2b illustrate a round table comprising a single tire T enjoined on a base plate B by any conventional means N. A table top D is placed on the opposite end of the tire. The said table top may be of any suitable material such as plastic, glass or wood. One or more wheels W may be attached to the base plate B to make the table movable. Also to raise the height of the table, more than one tire may be used.

[0042] FIGS. 3a & 3b illustrate a single seat sofa comprising of tire T1 and a tire segment TH. A cushion may be placed on the tire T1. The tire segment is placed on top of the tire T1 adjoined thereto by conventional means N. The said assembly of T1 and TH are enjoined on a base plate B with any conventional means N. One or more wheels W may be attached to the base plate B to make the sofa movable. A

wooden base WB having a diameter more than the inner diameter D of the tire is placed within the tire T1. The tire segment TH is then attached by any conventional means on tire T1 and the said wooden base WB.

[0043] FIGS. 4a & 4b illustrate a flower pot holder comprising of tire T, said tire is enjoined to a base plate B with any conventional means N. One or more wheels W may be attached to the base plate B to make the pot holder movable. The base of the cavity of tire T has been sealed with a plate preferably made of wood or plastic to hold the pot.

[0044] In yet another embodiment of this invention, the cavity within the tire T can also hold flowerpots FP made of earth, plastic or metal with flowers, foliage, etc.

[0045] FIGS. 5a & 5b illustrate a secretarial chair comprising of tires T1 and T2. The said tire T2 is horizontally placed on column and fixed thereto by conventional means. Tire T2 has on either sides conventional armrests. Tire T2 is placed on a metal base MB2. A wooden base WB2 having a diameter less than to the inner diameter D2 of the tire T2 is fixed within the tire T2 while a wooden base WB1 having a diameter greater than the inner diameter D1 of the tire T1 is fixed within the tire T1 to provide the back rest. The back rest is attached to a vertical metallic base MB1. The said tires T1 and T2 are cushioned with Fs1 and Fs2 respectively. The said seating assembly comprising of tires T1 and T2 is mounted on a multi-legged pedestal Z, having column L and metal base MB2 at one end to which the tire T2 of the said seating assembly is fixed by any conventional means N. The said pedestal Z contains in its column L, a hydraulic hoisting system H to adjust the height of the seat T2 and lock it in place with lock K. The seat T2 is mounted on column L with spring S to increase or decrease the incline of the seat back and forth.

[0046] FIGS. 6a and 6b illustrate a single seat moon-shaped sofa comprising of tire segment T. The said tire segment T is enjoined on a base plate B having one or more wheels W with any conventional means N. A wooden base WB having a diameter corresponding to the inner diameter D of the tire is placed within the tire segment T. A half round ply board PB which is cut slightly higher than the height of the tire T, is enjoined to the cut edge of tire segment T. A cushion FC is placed on the tire T.

[0047] FIGS. 7a & 7b tire T is provided one end of the tire being sealed by a base plate HB, the other end also being sealed by another plate of a diameter relatively bigger than that of the inner diameter of the tire. This is used as a picture frame. Similarly, the center table may be prepared by replacing the thick foam layer disc from the top of the tire by placing preferably a glass disc as shown in FIG. 1.

[0048] Such a decorative piece can be placed by the side of a sofa or in a drawing room, lobbies or verandah, terrace, lawns, etc.

[0049] All items are fixed to the base plate P with nut bolts and the base plate is mounted on wheels (W) for easy movement.

[0050] These alternate embodiments are all by way of explanation and do not intend to limit the scope of the invention.

We claim:

1. A process of preparing furniture and decorative items prepared from molded rubber, rubber or tires and tube and allied wastes characterized by

selecting the tires and tube or allied wastes having predetermined strength,

cleaning and treating the said tires and tube chemically to make it eco-friendly,

fixing at least one said tire with or without tube on a base plate,

providing a layer of foam of appropriate thickness with/without upholstery in the middle opening.

2. A process as claimed in claim 1 wherein the said tire and tubes are polished.

3. A process for preparing furniture as claimed in claim 1 wherein one or more half or quarter tire are fixed on a base tire to provide arms and the back of predetermined height to the said base for making a chair.

4. A process as claimed in claim 1 wherein the seats, sofa, chair are covered with appropriate material to give attractive look.

5. A process for preparing furniture as claimed in claim 1 for preparing the sofa of say 4 seats, 4 tires/tubes fixed on the base plate and four subsections of said tires are enjoined to the former to provide the arms and back rests.

6. A process for preparing furniture as claimed in claim 1 wherein the base plate is made of wood, plastic or any other strong metal sheet capable of bearing the load of the said tires.

7. A process for preparing furniture as claimed in claim 1 wherein to make furniture easily movable from one place to the other, wheels are provided at the bottom of the base plate, alternatively, legs are provided at the base plate to achieve the desired height of the furniture.

8. A process for preparing furniture as claimed in claim 1 wherein two or more tires may be fixed to the base plate one above the other for making the furniture of desired height.

9. The furniture prepared by the process as claimed in claims 1 to 6.

10. An article of furniture as claimed 9 wherein a piece of cleaned and polished waste materials may be connected to the base plate/platform and other pieces of similar characteristics placed, stacked or enjoined together one on top of the other or individually to form into a piece of furniture.

11. An article of furniture as claimed in claim 9 wherein a base plate/platform of specific size is provided to achieve the desired height of the furniture.

12. An article of furniture as claimed in claim 9 wherein a sealing plate/disc is placed at the base of the tire to act as a planter/flowerpot or a picture frame.

13. An article of furniture as claimed in claim 9 wherein the said furniture is mounted on base plate/platform having a glass disc on top to form a table.

14. An article of furniture as claimed in claim 9 wherein another glass disc in the cavity provided with a light fixture and can have a painting, an art or craft work, or an aquarium.

15. An article of furniture as claimed in claim 9 wherein inflated tube inside the tire and the said tire being wholly mounted on a base plate/platform covered with rexine/plastic/waterproof fabric to be used as a seat/rescue tub/floating life boat/floating snack and drink bar.

16. An article of furniture as claimed in claims 9 to 15 wherein base plate/platform is provided with wheels, the capacity of the said base plate/platform can be made to hold multiple seats or individual seat and can be fixed with segments of other tires on top to provide arms, back/headrests.

17. An article of furniture as claimed in claim 9 wherein half a segment of tire as seat with duly upholstered cushion on top placed against the wall in a half moon shape, a space saver.

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