

(12) UK Patent Application (19) GB (11) 2 293 757 (13) A

(43) Date of A Publication 10.04.1996

(21) Application No 9419989.0

(22) Date of Filing 04.10.1994

(71) Applicant(s)
Martin Alexander Humphrey
Nightingale Lodge, Brock Hill, NR WICKFORD, Essex,
SS11 7PD, United Kingdom

(72) Inventor(s)
Martin Alexander Humphrey

(74) Agent and/or Address for Service
Haseltine Lake & Co
Hazlitt House, 28 Southampton Buildings, Chancery
Lane, LONDON, WC2A 1AT, United Kingdom

(51) INT CL⁶
B62B 1/12, A47B 85/06

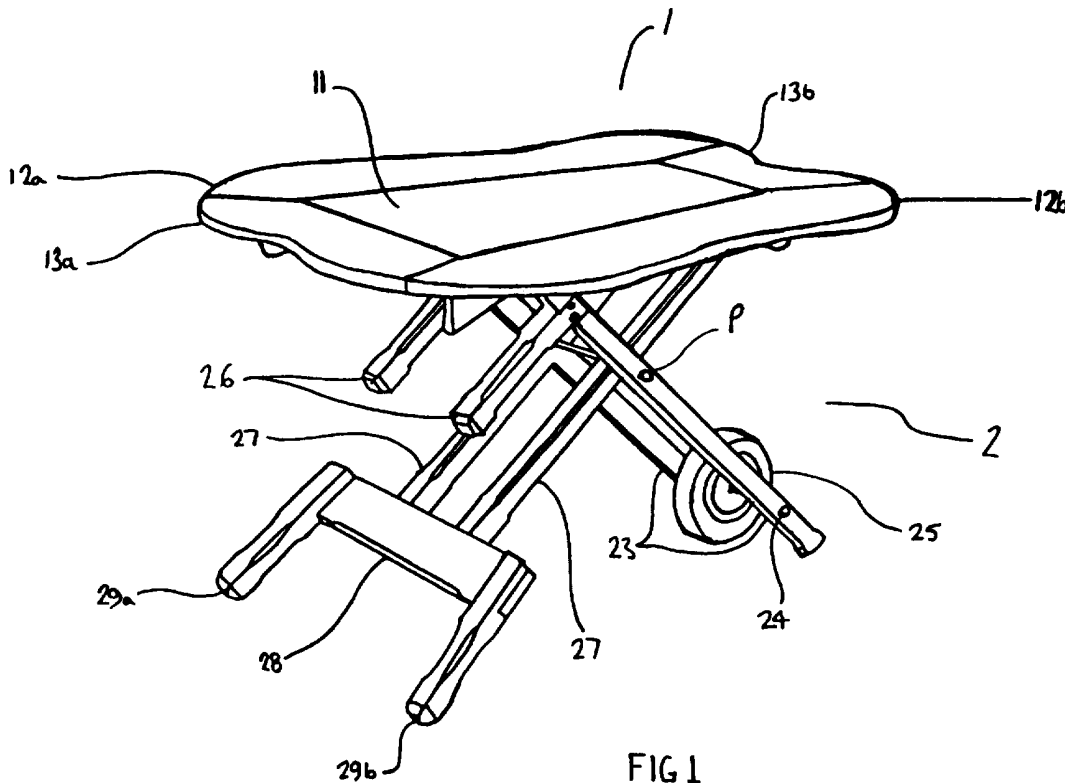
(52) UK CL (Edition O)
A4L LAAR L119
B7B BTW

(56) Documents Cited
GB 2247612 A GB 2179305 A GB 2015934 A
EP 0482757 A2 DE 004026772 A1 SU 001794774 A1
US 4934718 A US 4565382 A

(58) Field of Search
UK CL (Edition N) A4L LAAB LAAR, B7B BTC BTW
INT CL⁶ A47B 3/00 3/02 3/08 3/083 37/04 85/06, B62B
1/12
Online: WPI

(54) Collapsible table convertible to a wheelbarrow

(57) A table comprises a table top structure 1 having a central panel 11 and surrounding panels 12a, 12b, 13a, 13b which can fold up to form the sides of a wheelbarrow body [fig. 2 not shown]. The table leg assembly is an X-frame structure pivoted at P which folds up flat against the underside of the table/body. The legs 29a, 29b form the handles of the wheelbarrow, the protruding members 26 form the support legs at the rear of the wheelbarrow and the other leg assembly has the wheel 25.



GB 2 293 757 A

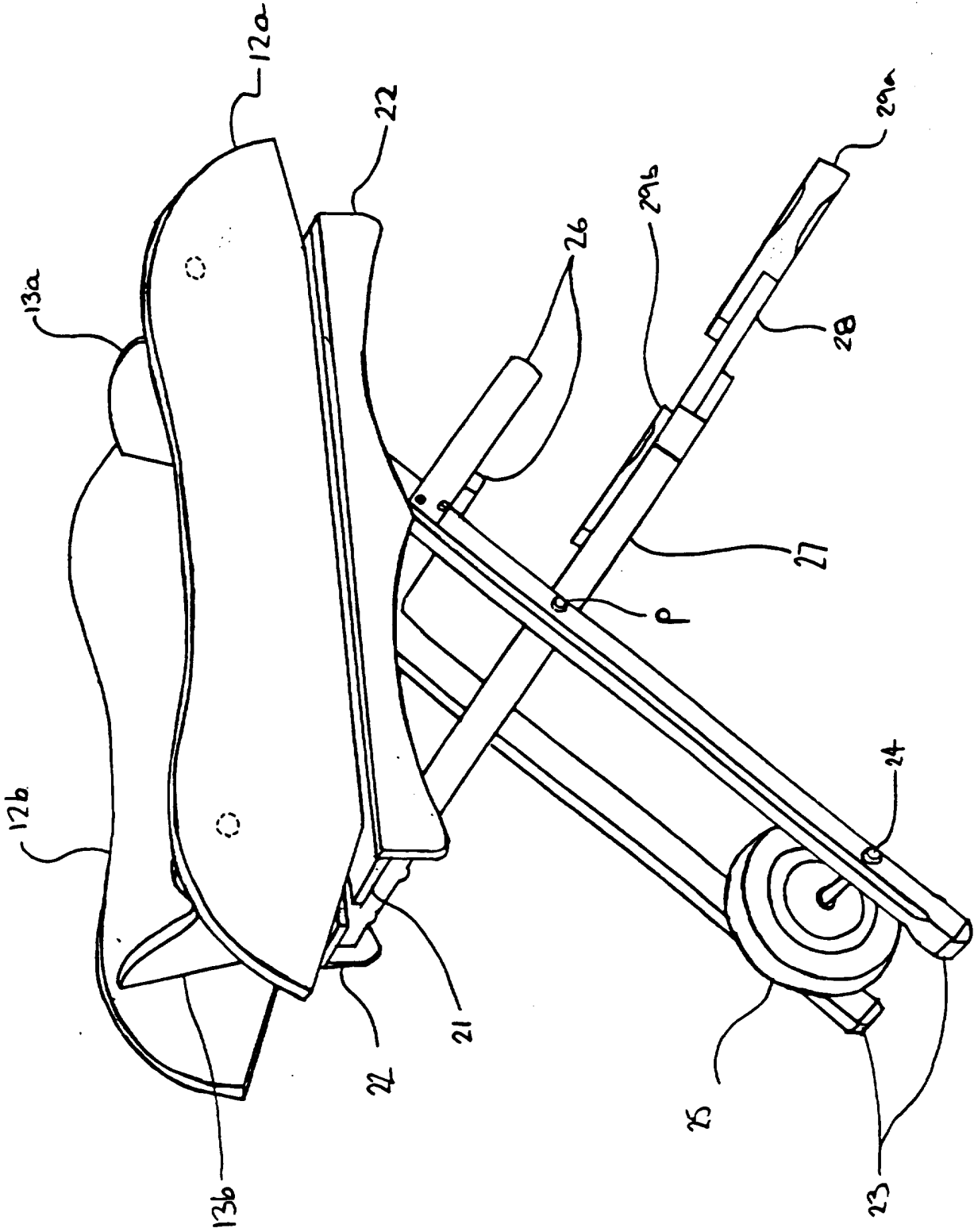


FIG. 2

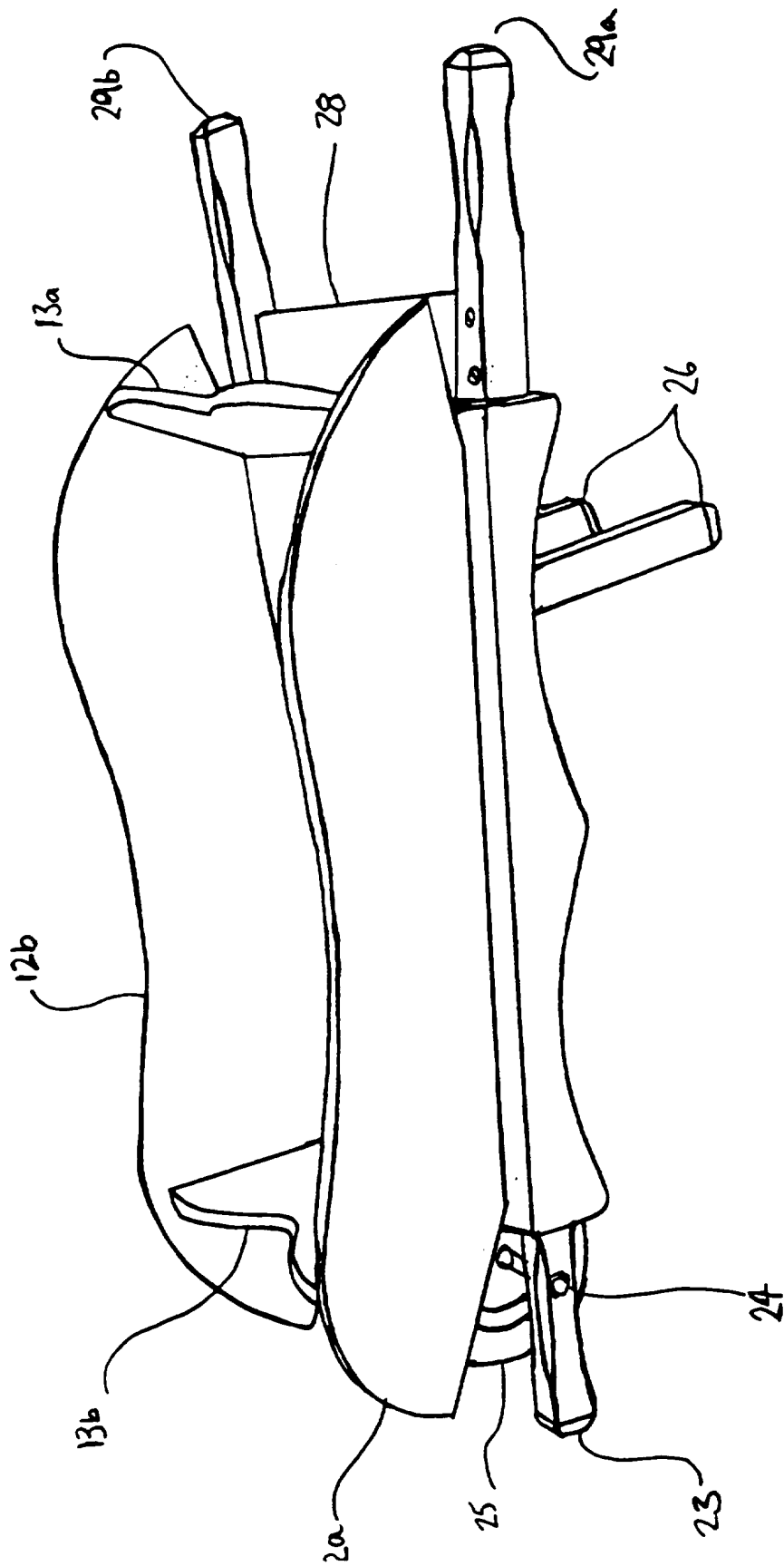


FIG. 3

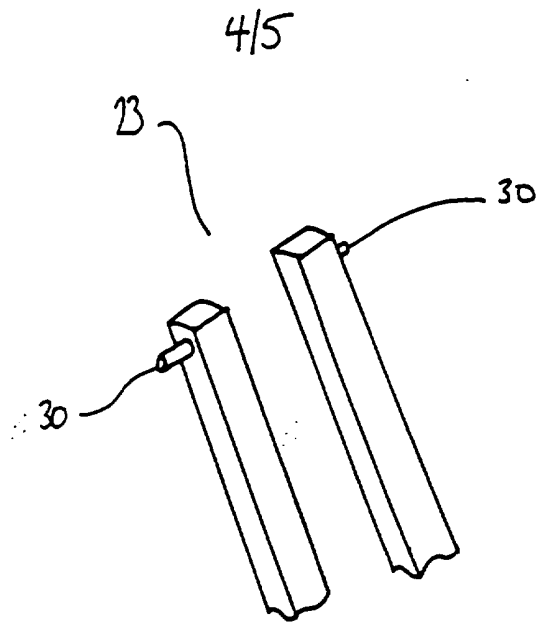


FIG. 4

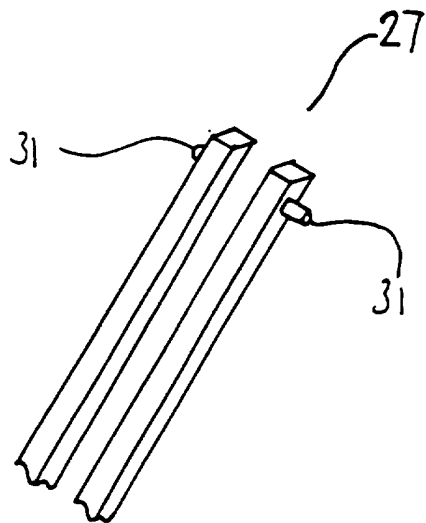


FIG. 5

5/5

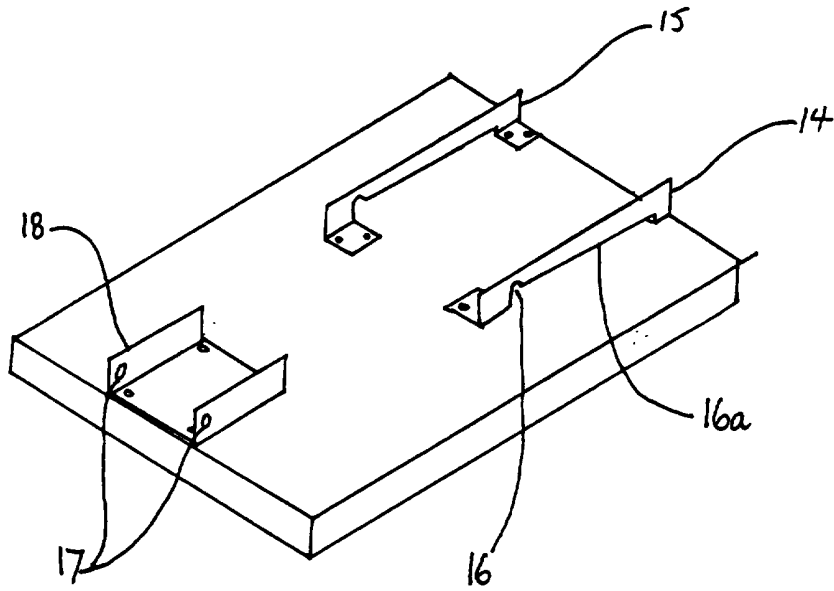


FIG. 6

COLLAPSIBLE TABLE

The present invention relates to a collapsible table.

Tables which are collapsible can take up less storage space when not in use than non-collapsible tables. However, storing a high quality (expensive) collapsible table for a large amount of time, as happens with garden furniture for example, could be considered to be a waste of resources.

10 It is therefore desirable to provide a collapsible table which can be used for some alternative purpose when in its collapsed configuration.

According to the present invention, there is provided a table comprising a table top structure and a supporting structure, the table being convertible from a table configuration to a wheelbarrow configuration.

An embodiment of the present invention includes table top and supporting structures which both comprise pivotally attached parts to enable such conversion to occur.

In one preferred embodiment of the present invention the supporting structure comprises a first leg structure pivotally attached to the table top structure and a second leg structure in pivotal and slidable relationship relative to the table top structure, the first and second leg structures being pivotally coupled.

In an embodiment of the present invention, one of the leg structures may comprise a pair of members and the other of the leg structures may be located between that pair. In such an embodiment the other of the leg structures may also comprise a pair of members. In at least one of the leg structures said pair of members may also be substantially parallel.

35 When in the wheelbarrow configuration, the construction may be such that the first and second leg

structures lie substantially parallel to one another adjacent the table top structure and extend in substantially opposite directions.

One of the leg structures may be provided with a
5 wheel which can serve to provide a ground engaging
feature for the table in the wheelbarrow configuration.
Such an embodiment may also be provided with at least
one support member on said one of the leg structures so
as to provide a wheelbarrow leg when the table is in
10 the wheelbarrow configuration. In such an embodiment
the other one of the leg structures may be provided
with features which serve to provide supporting feet in
the table configuration and handles in the wheelbarrow
configuration. Such features may comprise a crosspiece
15 and a handle member attached to each end region of that
crosspiece.

The table top structure in one embodiment of the
present invention may comprise a centre portion having
two pairs of substantially opposing edge regions, there
20 being four side portions pivotally attached to
respective ones of those edge regions so that, when the
table is in the table configuration, the centre portion
and the side portions form a substantially continuous
load bearing surface.

25 In such an embodiment, the table top structure may
further comprise engagement means for releasably
engaging each side portion with adjacent side portions,
so that the table top structure forms a substantially
box-like zone when the table is in the wheelbarrow
30 configuration. The engagement means may comprise
permanent magnets located in one opposing pair of
portions and corresponding magnetic (e.g. steel)
inserts located in the other pair of portions.

The table top structure may further comprise a
35 base member attached to the underside region of the
centre portion of the table top structure, for

attachment of said supporting structure to the table top structure. Decorative side portions can then be attached to opposite edge or side regions of the base member.

5 For a better understanding of the present invention, and to show how the same may be carried into effect, reference will now be made, by way of example, to the accompanying drawings, in which:

10 Fig. 1 shows a perspective view of a collapsible table;

Fig. 2 shows a perspective view of the table of Fig. 1 in a partially collapsed state;

Fig. 3 shows a perspective view of the table of Fig. 1 in a fully collapsed state; and

15 Figs. 4, 5 and 6 show views of connecting parts of the table of Fig. 1.

Figs. 1, 2 and 3 show a collapsible table in two configurations - a table configuration (Fig. 1) and a wheelbarrow configuration (Fig. 3).

20 The table has a decoratively shaped table top structure 1 supported by a collapsible supporting structure 2. This table top structure 1 comprises a centre portion 11, two side portions 12a and 12b and two end portions 13a and 13b. The side and end
25 portions are pivotally attached to respective edge regions of the centre portion so that, in the table configuration, the centre, side and end portions form a flat, substantially continuous, table top surface and, in the wheelbarrow configuration, the side and end
30 portions are folded up to form a load-carrying zone (as shown in Figs. 2 and 3). The side portions are releasably held to the end portions by permanent magnets and corresponding magnetic, e.g. steel, inserts located in the side and end portions respectively
35 (shown by dotted lines in Fig. 2).

As shown more clearly in Fig. 2, the supporting

structure 2 comprises a base member 21 which is fixed to the centre portion 11 of the table top structure 1. Decorative side portions 22 are fixed to opposite sides of the base member 21.

5 A first pair of substantially parallel spaced support members 23 is held, at one end region thereof, in pivotal and slidable engagement with the base member 21, inwardly of the pair of decorative side portions 22.

10 A second pair of substantially parallel spaced support members 27 is pivotally attached, at one end region thereof, to the base member 21, inwardly of the first pair of support members and at an opposite end region of the base member to the engagement region of
15 that first pair.

 As shown in Fig. 4, each member of the first pair of support members 23 has a pin 30 extending outwardly therefrom, which pins engage in respective brackets 14 and 15 (Fig. 6) which are shaped so that the first pair
20 of members are able to pivot and slide relative to the table top. The pins engage with respective slots 16 in these brackets in order to locate the support members in position when the table is in use in its table configuration. When the table is converted from the
25 table configuration to the wheelbarrow configuration the two pairs of support members are rotated and the pins 30 disengage from the slots 16 and slide along ramps 16a of the brackets 14 and 15.

 As shown in Fig. 5, the second pair of support
30 members 27 has a pin 31 extending outwardly from each member. These pins pivotally engage with respective holes 17 in a connecting bracket 18 (shown in Fig. 6).

 The first pair of supporting members is pivotally attached to the second pair of supporting members by a
35 connecting rod P thereby allowing the supporting structure to be converted into the configuration shown

in Fig. 3 (wheelbarrow configuration).

An axle 24 supporting a wheel 25 is located between the first pair of support members 23 at an opposite end region thereof. This wheel 25 forms the wheel of the wheelbarrow shown in Fig. 3. The axle 24 is located along the first pair of support members such that the wheel 25 is clear of the ground when the table is in the table configuration.

A foot member 26 is attached to each of the first pair of support members 23 at an upper region thereof, and serves to provide a supporting feature for the wheelbarrow, as shown in Fig. 3.

Referring back to Figs. 1 to 3, a cross-piece 28 is attached to the second pair of support members, at a lower end region thereof, and handles 29a and 29b are attached to respective opposite end regions of the cross-piece 28. The handles 29a and 29b serve as supporting feet the table, as shown in Fig. 1, and serve as handles for the wheelbarrow, as shown in Fig. 3.

To convert from the table configuration shown in Fig. 1 to the wheelbarrow configuration shown in Fig. 3, a user folds up the end and side portions of the table top to form the load-carrying zone of the wheelbarrow, as shown in Fig. 2. These table top portions are held in position by the magnets.

The first pair of supporting members 23 are then displaced from the table position and the user lifts the handles 29a and 29b. The first pair of members pivot and slide in the brackets 14 and 15 and the second pair pivot in the bracket 18 until the two pairs of members extend, parallel to one another, in opposite directions.

The wheelbarrow shown in Fig. 3 is supported on the two feet members 26 and the wheel 25 and can be moved by lifting the handles 29a and 29b in

conventional wheelbarrow fashion. The wheelbarrow configuration can be used as a real wheelbarrow if required and also as an ornamental feature for a garden, for example to hold pot plants.

5 To convert the wheelbarrow of Fig. 3 into the table of Fig. 1, the user must lower the handles 29a and 29b whilst raising the table top 1. The first pair of supporting members slides relative to the table top in order to allow both pairs of support members to
10 pivot until that first pair are located in the table configuration. The user can then fold down the side and end portions of the table top to form a flat table surface.

CLAIMS:

1. A table comprising a table top structure and a supporting structure, the table being convertible from a table configuration to a wheelbarrow configuration.

5 2. A table as claimed in claim 1, wherein both structures comprise pivotally attached parts to enable the conversion to occur.

3. A table as claimed in claim 1 or 2, wherein the supporting structure comprises a first leg
10 structure pivotally attached to the table top structure and a second leg structure in pivotal and slidable relationship relative to the table top structure, the first and second leg structures being pivotally coupled.

15 4. A table as claimed in claim 3, wherein one of the leg structures comprises a pair of members and the other of the leg structures is located between that pair.

20 5. A table as claimed in claim 4, wherein said other of the leg structures comprises a pair of members.

6. A table as claimed in claim 5, wherein in at least one of the leg structures said pair of members is substantially parallel.

25 7. A table as claimed in any one of claims 3 to 6, wherein, when the table is in the wheelbarrow configuration, the first and second leg structures lie substantially parallel to one another adjacent the table top structure and extend in substantially
30 opposite directions.

8. A table as claimed in any one of claims 3 to 7, wherein one of the leg structures is provided with a wheel which serves to provide a ground engaging feature for the table when in the wheelbarrow configuration.

35 9. A table as claimed in claim 8, wherein said one of the leg structures is also provided with at

least one member providing a wheelbarrow leg when the table is in the wheelbarrow configuration.

10. A table as claimed in claim 8 or 9 wherein the other one of the leg structures is provided with features which serve to provide supporting feet in the table configuration and handles in the wheelbarrow configuration.

11. A table as claimed in claim 10, wherein said features comprise a crosspiece and a handle member attached to each end region of that crosspiece.

12. A table as claimed in any preceding claim, wherein the table top structure comprises a centre portion having two pairs of substantially opposing edge regions, there being four side portions pivotally attached to respective ones of those edge regions, so that, when the table is in the table configuration, the centre portion and the side portions form a substantially continuous load bearing surface.

13. A table as claimed in claim 12, wherein the table top structure further comprises engagement means for releasably engaging each side portion with adjacent side portions, so that the table top structure forms a substantially box-like area when the table is in the wheelbarrow configuration.

14. A table as claimed in claim 13, wherein the engagement means comprise permanent magnets located in one opposing pair of portions and corresponding magnetic inserts located in the other pair of portions.

15. A table as claimed in any one of the preceding claims, wherein the table top structure further comprises a base member attached to the underside region of the table top structure and to which said supporting structure is attached.

16. A table as claimed in claim 15, further comprising decorative side portions attached to opposite edge regions of the base member.

17. A collapsible table substantially as hereinbefore described with reference to the accompanying drawings.



Application No: GB 9419989.0
Claims searched: 1-17

Examiner: John Wilson
Date of search: 13 December 1995

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.N): A4L[LAAB LAAR]; B7B[BTC BTW]

Int Cl (Ed.6): A47B 3/00 3/02 3/08 3/083 37/04 85/06; B62B 1/12

Other: Online:- WPI

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
Y	GB2247612A Wright - whole document	1-3,6,8 at least
X,Y	GB2179305A Mullard - whole document	1,8 at least
Y	GB2015934A Dual Purpose Designs - whole document	1,8 at least
Y	EP0482757A2 Bono & Hoffman - whole document	1-3,8 at least
X,Y	DE4026772A1 Röser - see figs. 1,2,8 & 9 and col.2 ll.50-56	1,2,6,8 at least
X,Y	SU1794774A1 Sarat Aggregates Works - fig.4 shows a barrow and fig.3 a seat/table configuration	1,2,6,8 at least
Y	US4934718 Voegele - whole document	1-3,6,8 at least
Y	US4565382 Sherman - whole document	1-8 at least

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.