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## (54) Collapsible ironing board

(57) This invention relates to an ironing board, and in particular to a free-standing collapsible ironing board having an ironing panel and a pair of legs. The legs are movable relative to each other and relative to the ironing panel between an extended condition which is suitable for ironing and a collapsed condition which is suitable for storage. The ironing panel has a first part and a second part, the first and second parts being moveable relative to one another so that the collapsed ironing board has a length less than the length of the ironing panel.

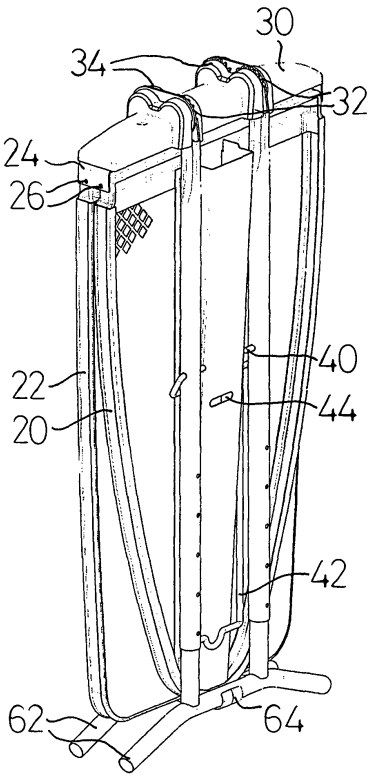


FIG 2

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## Description

### FIELD OF THE INVENTION

**[0001]** This invention relates to an ironing board, and in particular to a free-standing collapsible ironing board.

### BACKGROUND TO THE INVENTION

**[0002]** Ironing boards are in widespread use for the ironing of articles such as clothing during the laundering process. Most ironing boards which are used in the domestic environment are free-standing, and are collapsible so that they may occupy a reduced volume during storage. The collapsible feature has the additional advantage that the ironing board occupies the reduced volume during transportation from the manufacturer to the end user.

**[0003]** Collapsible ironing boards typically have an ironing panel providing a substantially flat ironing surface upon which the article to be ironed can be placed, and a pair of legs which can pivot relative to one another (and relative to the ironing surface), typically in a scissor action. When the ironing board is extended the legs are pivoted to a chosen position in which they support the ironing panel in a substantially horizontal orientation. When the ironing board is collapsed the legs are pivoted until they lie substantially parallel to the ironing panel.

**[0004]** It is usually arranged that the length of the legs relative to the length of the ironing panel, and the mounting position of the legs relative to the ironing panel, result in a collapsed condition in which the ironing board has a depth substantially the same as the depth of the ironing panel plus the thickness of the legs. This has significant advantages in terms of transportation from the manufacturer to the end user, and also in terms of storage by the end user between uses of the ironing board, the ironing board typically being stood on one of its ends and having a length (or height) little more than the length of the ironing panel, a width substantially the same as the width of the ironing panel, and a very shallow depth as set out above.

**[0005]** Whilst the volume occupied by the collapsed ironing board is reduced significantly over the volume occupied by the extended ironing board, it is becoming more difficult for the customer to find a suitable location for storage of the collapsed ironing board. A typical storage location is an understairs cupboard, but the number of houses which have stairways with a middle landing, for example to accommodate a bend in the stairs, is understood to be increasing, and such stairways provide an understairs cupboard of much-reduced height. If the height of the understairs cupboard is less than the length of the ironing panel (which is often the case) then the collapsed ironing board cannot easily be stored in the understairs cupboard, and an alternative storage location must be identified. The only alternative storage locations available in a particular domestic dwelling may be less than ideal, e.g. perhaps it is difficult to locate and retrieve the ironing board from the alternative storage location, or the ironing board remains visible when stored in that location.

### SUMMARY OF THE INVENTION

**[0006]** The inventors have realised that there is a need for a collapsible ironing board which can collapse to a smaller overall length than a conventional collapsible ironing board, so that the ironing board can be stored in cupboards and other suitable locations which could not accommodate a known collapsible ironing board.

**[0007]** According to the invention, there is provided a free-standing collapsible ironing board having an ironing panel and a pair of legs, the legs being movable relative to each other and relative to the ironing panel between an extended condition which is suitable for ironing and a collapsed condition which is suitable for storage, characterised in that the ironing panel has a first part and a second part, the first and second parts being moveable relative to one another so that the collapsed ironing board has a length less than the length of the ironing panel.

**[0008]** Preferably, the first and second parts are substantially the same length, so that the collapsed ironing board has a length approximately half the length of the ironing panel.

**[0009]** Desirably, the legs are collapsible, i.e. the legs can themselves be collapsed so that they do not limit the reduction in length available between the extended and collapsed conditions. Preferably, the legs are telescopically collapsible so that the volume occupied by a collapsed leg is less than the volume occupied by the extended leg.

**[0010]** Preferably, the first and second parts of the ironing panel are connected by a hinge. Desirably, a flexible cover piece is provided to cover the hinge and to provide a substantially flat ironing surface in the extended condition. In use, the ironing panel will typically be covered by a (removable and replaceable) fabric covering, and the cover piece lies underneath the fabric covering.

### BRIEF DESCRIPTION OF THE DRAWINGS

**[0011]** The invention will be described, by way of example, with reference to the accompanying drawings, in which:

Fig.1 shows a perspective view of the ironing board according to the invention in the extended condition; and

Fig.2 shows the ironing board in the collapsed condition.

### DESCRIPTION OF THE PREFERRED EMBODIMENTS

**[0012]** The ironing board 10 comprises a substantially flat ironing panel 12 providing a similarly flat ironing sur-

face, and a pair of legs 14, 16. In the extended condition of Fig.1 the legs can support the ironing panel at a substantially horizontal orientation.

**[0013]** It will be understood that the ironing board 10 is a "full-sized" ironing board, and has an ironing panel 12 of suitable dimensions. The actual dimensions can vary to suit the manufacturer's or customers' requirements, but typically the length of the ironing panel 12 will be between around 0.95 m and 1.3 m, and the width of the ironing panel will be between around 0.30 cm and 0.45 cm.

**[0014]** The ironing panel 12 comprises a first part 20 and a second part 22, which parts are joined together by a connector 24, each of the parts 20 and 22 being respectively hingedly mounted to the connector 24 by respective hinge pins 26. The connector 24 limits the pivoting movement of each of the parts 20, 22 to substantially 90°, i.e. between the extended position in which the parts 20,22 are substantially parallel and coplanar, and the collapsed condition in which the parts 20,22 are substantially parallel and overlying one another.

**[0015]** As shown in Fig.2, the connector 24 carries a housing 30 which locates two axles (not shown), the axles serving to locate and support the gear wheels 32, 34 which are connected to the ends of each part of the respective legs 14, 16. Each gear wheel 32 is enmeshed with a respective gear wheel 34, the gear wheels ensuring that as the legs 14, 16 are pivoted to their extended positions the legs 14, 16 move relative to the connector 24 (and hence relative to the parts 20, 22) by the same amount. This will ensure that in the extended condition, when the legs 14, 16 are placed upon a substantially horizontal surface, the connector 24 adopts a substantially horizontal attitude, and therefore the ironing panel 12 also adopts a substantially horizontal attitude.

**[0016]** In other embodiments the gear wheels are omitted, and the legs pivot independently of each other, and freely relative to the connector, until each engages a stop upon the connector, engagement of the respective leg with its stop ensuring that the connector, and therefore the ironing panel, is substantially horizontal.

**[0017]** To hold the legs 14, 16 in their respective extended positions a stay 36 is mounted on the leg 16 and can be located upon the leg 14 by respective pins 40, the pins 40 being the terminal ends of a stay 42 which is mounted onto the first leg 14 and can locate in an opening 44 in the underside of the first part 20.

**[0018]** The stay 36 is mounted upon the leg 16 by pins 46 (only one of which can be seen) which are the terminal ends of a stay 50 which is mounted onto the second leg 16 and can locate in an opening in the underside (not shown) of the first part 22 which is similar to the opening 44.

**[0019]** It is arranged that the length of the stays 42, 50, and their position upon the respective legs 14, 16, ensures that when the stays support the first and second parts 20, 22 of the ironing panel 12, the parts 20, 22 are substantially parallel and coplanar.

**[0020]** Though not shown in Fig.1, the gap between the parts 20, 22 will be filled or covered by a flexible cover piece, the cover piece serving to cover the gap so that the whole of the ironing surface is substantially flat. The flexible cover piece is preferably a silicon moulding, as this material is able to fold as required but retain a good "memory" so as to return to a substantially flat shape when the ironing board is extended.

**[0021]** It will be understood that the ironing surface is typically totally or largely covered by a removable fabric covering. It is not intended that the fabric covering is removed prior to the ironing board being collapsed, and the direction in which the ironing panel 12 is folded will reduce or avoid any requirement for the fabric covering to stretch. The fabric covering may in any event be vented or elasticated in order to allow it to follow the folding action. The preferred folding direction is that shown, i.e. with the ends of the ironing panel 12 folding upwardly relative to the centre, such a folding direction giving a better hinge and providing a more solid structure when extended.

**[0022]** In common with prior art ironing boards, the present ironing board includes means to adjust the height of the ironing surface. In this embodiment the adjustment is by way of telescopic legs, i.e. the leg parts 52 can slide into the respective tubular leg parts 54. The leg parts 54 each have a row of aligned holes 56, and the leg parts 52 each have a spring-biased pin (not seen) which can project into a chosen hole 56 to determine the length of the legs 14, 16 and therefore the height of the ironing panel 12.

**[0023]** It is arranged that the length of the first part 20 is approximately the same as the length of the second part 22, so that the collapsed length of the ironing board is approximately half the length of the ironing panel. If, for example, the ironing surface is around 1.5m long, the length of the collapsed ironing board will be slightly more than 75cm, and it will be understood that a collapsed ironing board of this length will be far easier to store than a collapsed ironing board which is around 1.5m long.

**[0024]** As seen in Fig.2, it is arranged that the legs 14, 16 can collapse to a length slightly longer than the length of each part 20, 22, so that when collapsed the legs 14, 16 project slightly beyond the parts 20, 22, and the collapsed ironing board can rest upon its feet 62 as does the extended ironing board.

**[0025]** One of the pairs of feet 62 carries a resilient clip 64 which can locate over the other pair of feet 62 and serve to hold the feet together in the collapsed condition, and therefore serve also to maintain the legs 14; 16 and the parts 20, 22 in their fully collapsed condition, as shown in Fig.2.

## Claims

1. A free-standing collapsible ironing board having an ironing panel and a pair of legs, the legs being mov-

able relative to each other and relative to the ironing panel between an extended condition which is suitable for ironing and a collapsed condition which is suitable for storage, **characterised in that** the ironing panel has a first part and a second part, the first and second parts being moveable relative to one another so that the collapsed ironing board has a length less than the length of the ironing panel.

**2.** An ironing board according to Claim 1 in which the first and second parts are substantially the same length.

**3.** An ironing board according to Claim 1 or Claim 2 in which the first part and the second part are interconnected by a hinge.

**4.** An ironing board according to Claim 4 in which a flexible cover piece covers the hinge.

**5.** An ironing board according to Claim 4 having a fabric covering, in which the cover piece lies underneath the fabric covering.

**6.** An ironing board according to any one of Claims 1-5 in which the first and second parts are substantially coplanar in the extended condition, and substantially parallel and overlying in the collapsed condition.

**7.** An ironing board according to any one of Claims 1-6 in which the legs are collapsible.

**8.** An ironing board according to Claim 7 in which the legs are telescopically collapsible.

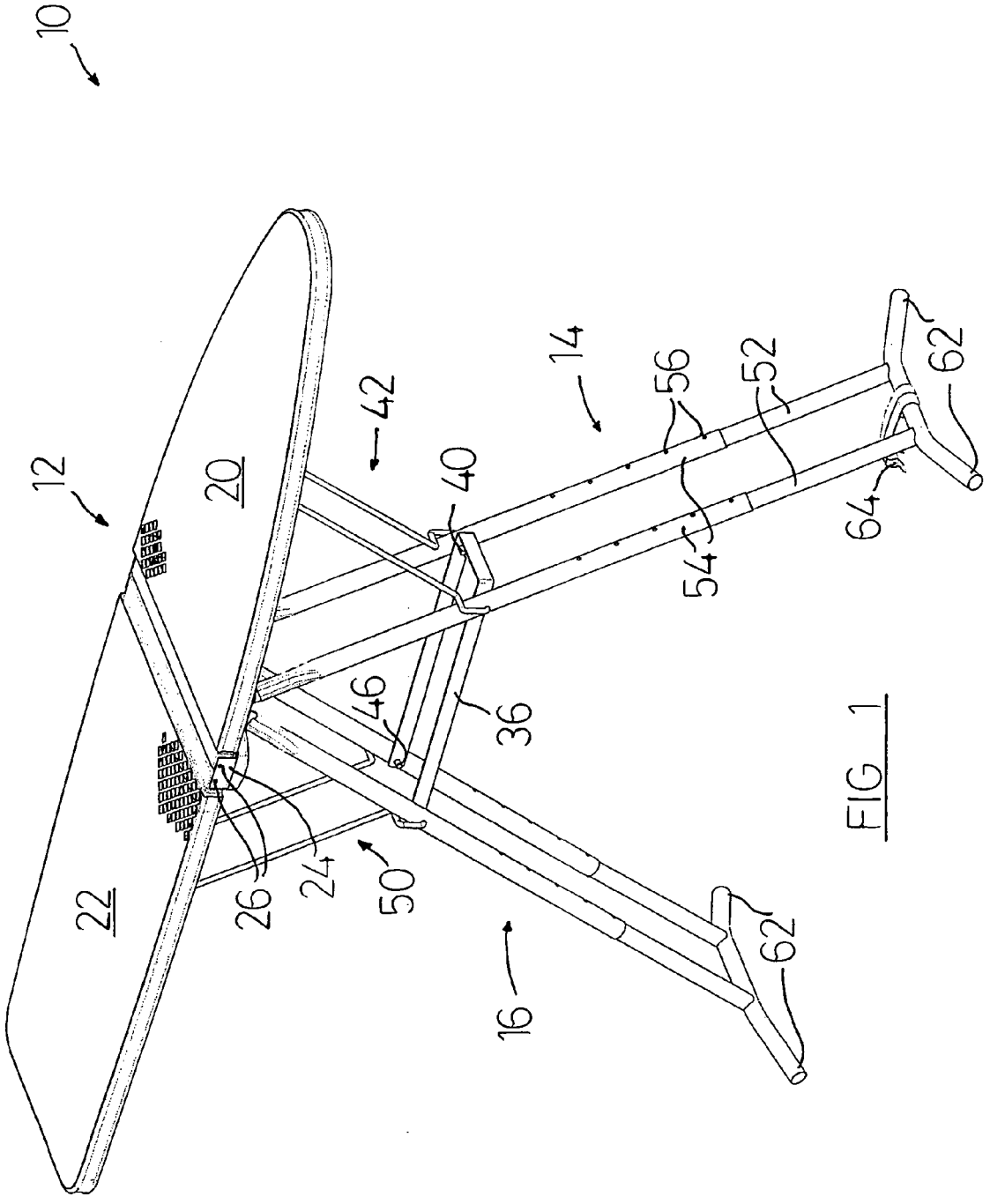


FIG 1

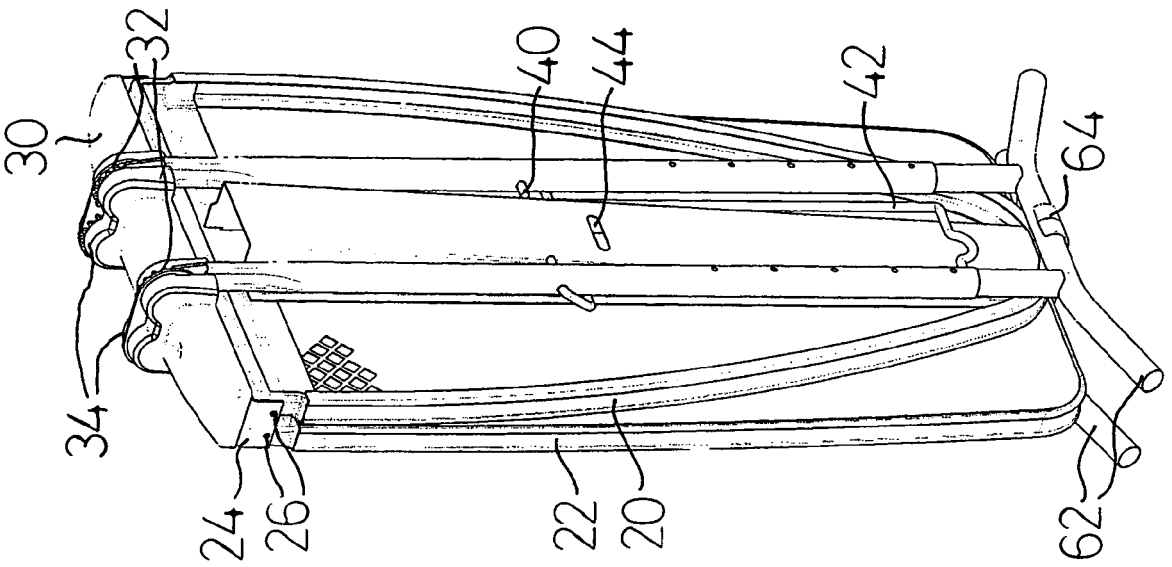


FIG 2

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# EUROPEAN SEARCH REPORT

Application Number
EP 06 25 5744

## DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (IPC) |
|---|---|---|---|
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The present search report has been drawn up for all claims

| Place of search | Date of completion of the search | Examiner |
|---|---|---|
| Munich | 9 February 2007 | Prosig, Christina |

CATEGORY OF CITED DOCUMENTS

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## ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 06 25 5744

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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