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(54)

FLAT PACK PICTURE FRAMING SYSTEM

- (57)

A system of framing pictures or artwork which can be manufactured and packaged flat for shipping and storage, then assembled and disassembled easily by the end user, consisting of a rigid back plate (1) and window (3), and a flexible side panel (2) to wrap around the back-
- plate (1) and form the frame element of the invention. The method of assembly and dis-assembly allows the user to easily collapse the frame if required for flat storage.

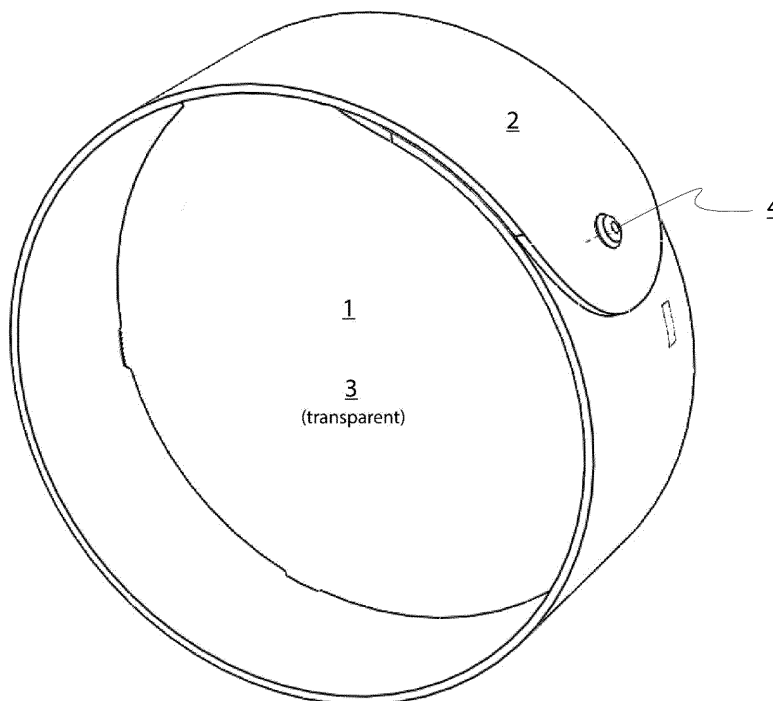


FIG 1

Description

Technical field to which the invention relates: R.42(1)(a)

[0001] The present invention relates to a method of framing photographs, images or artwork for presentation.

Indication of background art: R.42(1)(b)

[0002] A conventional picture frame comprises of lengths of shaped solid timber, joined together to form a rectangle, and fitted inside with a combination of glass and timber panels to hold and protect the end-user's pictures or artwork. This method of assembly encloses a lot of empty space within the frame, increasing the volume of product which must be stored and shipped, which is both financially and environmentally detrimental.

Technical problem to be solved: R.42(1)(c)

[0003] The objective of the present invention is to provide a lightweight picture framing system which can be stored and shipped in a flattened state, thereby saving space and weight for shipping and storage, then easily assembled and disassembled by the end-user.

Disclosure of the invention: R.42(1)(c)

[0004] In accordance with the present invention, there is provided a picture framing system, comprising a rigid flat Back Plate, flexible flat Side Panel, rigid flat Window and mechanical Fastener. The Side Panel is manufactured from a solid yet flexible material, such as plywood, in such a manner that it can wrap around the perimeter of the Back Plate and Window, engaging retaining tabs in the Back Plate as it does so, and connect back onto itself using the Fastener, thereby retaining the Back Plate and Window within the Side Panel. The fastener is designed such that it can be easily un-fastened, allowing the end user to easily disassemble the frame for storage and transport.

Brief Description of Drawings: R.42(1)(d)

[0005]

Fig.1 is an isometric view in accordance with the preferred embodiment of the present invention.

Fig.2 is a perspective detail view describing the initial connection detail between the Back Plate and Side Panel.

Fig.3 is a perspective detail view describing how the Side Panel wraps around the Backplate during assembly, thus engaging the tabs around the perimeter of the Back Plate.

Fig.4 is a detail view showing the fastener connecting the Side Panel to itself to complete the assembly process.

Fig.5 is a component list in flat form.

Description of at least one way of carrying out the invention: R.42(1)(e)

[0006] The Back Plate 1 is flat, cut from timber, plywood or other consistent rigid flat material, and can be circular as illustrated, or any other shape that allows the Side Panel 2 to bend around the outer perimeter of the Back Plate 1. The tabs around the outer perimeter of the shape correspond in both size and spacing, to slots in the Side Panel 2.

[0007] The Side Panel 2 is flat, cut from timber, plywood, or any other consistent flexible flat material. The slots along the bottom edge correspond in size and spacing of the tabs in the outer perimeter of Back Plate 1. Depending on the size and shape of Back Plate 1, Side Panel 2 may consist of more than one element to fully encircle the perimeter of Back Plate 1. The holes or slots at each end allow Side Panel 2 to connect to the other end of itself, or for multiple instances of Side Panel 2 to be connected sequentially to allow the creation of larger assemblies.

[0008] Window 3 is flat, cut from bio-plastic, plastic, glass or other consistent flat material. The inner diameter of Window 3 corresponds to the inner diameter of Back Plate 1. The tabs around the outer perimeter of Window 3 correspond in both size and spacing, to the appropriate slots in the Side Panel 2.

[0009] Referring to the Drawings, specifically Fig.2 and Fig.3, the end-user will stack together the Back Plate 1 and Window 3 (confining their personal image or artwork between the two parts), aligning the perimeter tabs on both parts. The end-user connects the starter slot in Side Panel 2, to the starter tab in the Back Plate 1. Working around the perimeter the end-user sequentially fits the tabs around the perimeter of Back Plate 1 into the corresponding slots in Side Panel 2, until Back Plate 1 is completely encircled.

[0010] The end-user will then apply Fastener 4 through the holes in the ends of Side Panel 2 to hold the entire assembly together.

[0011] Dis-assembly follows the same process in reverse.

[0012] Although the drawings and description explained in relation to the preferred embodiment are based on a circular design, it is to be understood that other shapes and modifications may be made without departing from the scope of the present invention.

Claims

1. flat-packed picture framing system, to be assembled

by the end-user for mounting and displaying the end-user's images or photographs comprising:

A rigid flat Back Plate (1) shaped to allow the flexible Side Panel (2) to wrap around the perimeter and engage the tabs protruding from the outer edge;
a flexible flat Side Panel (2), shaped to wrap fully around the perimeter of Back Plate (1) whilst engaging the tabs protruding from the outer edge of Back Plate (1);
a flat Window (3) shaped to match Back Plate (1), including tabs protruding from the outer edge to allow them to engage in the corresponding slots in Side Panel (2);
and a fastener (4) which can be easily assembled and dis-assembled, designed to fit through holes at the ends of Side Panel (2), and clamp together to hold Side Panel (2) wrapped around Back Plate (1), held in position with the tabs protruding from Back Plate (1).

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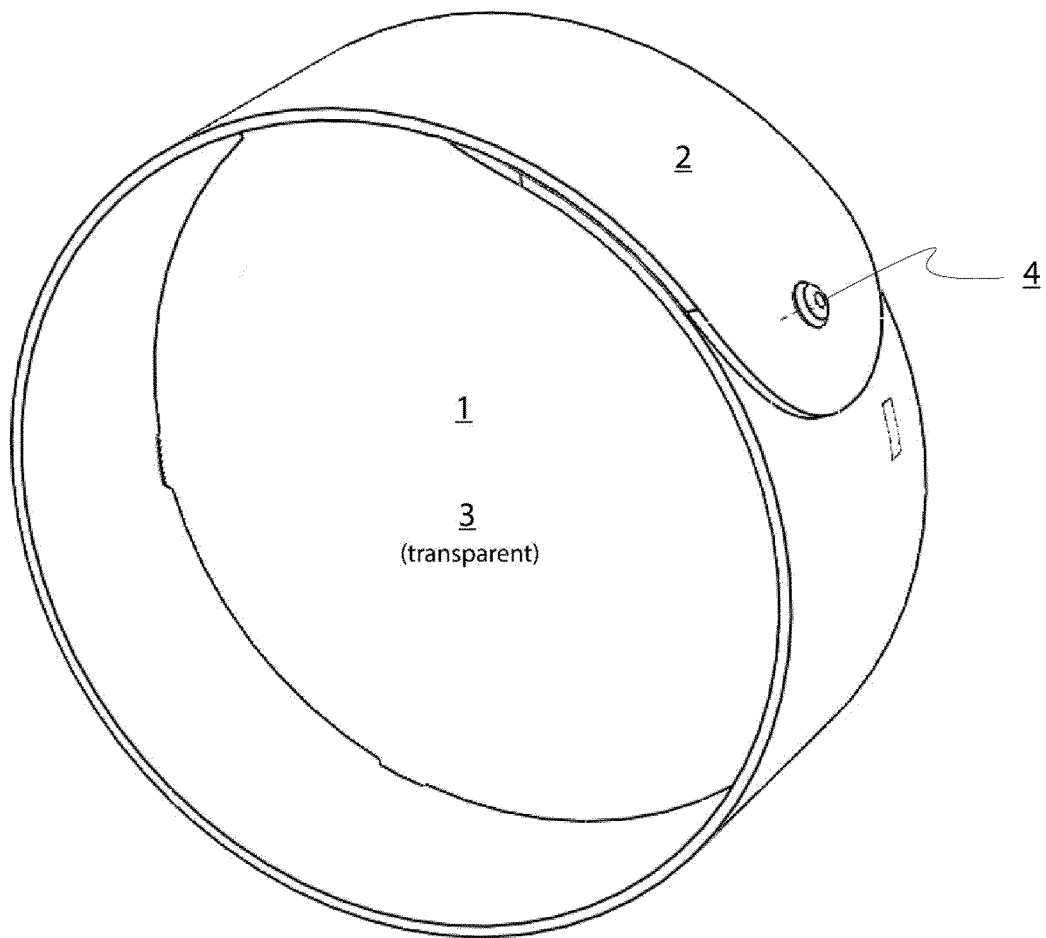


FIG 1

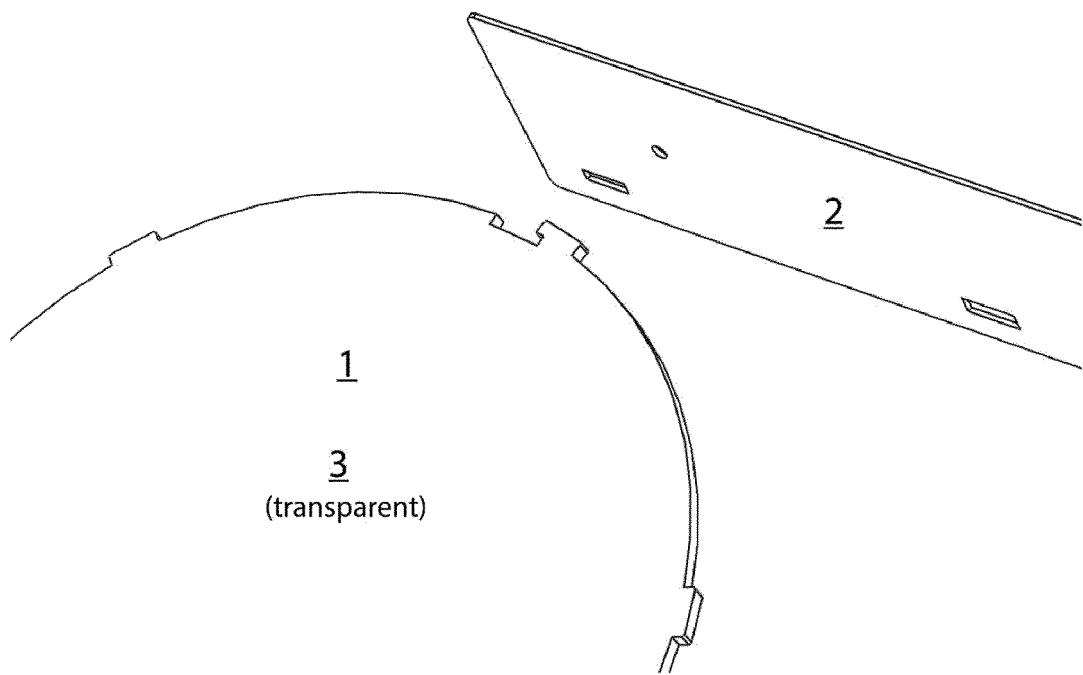


FIG 2

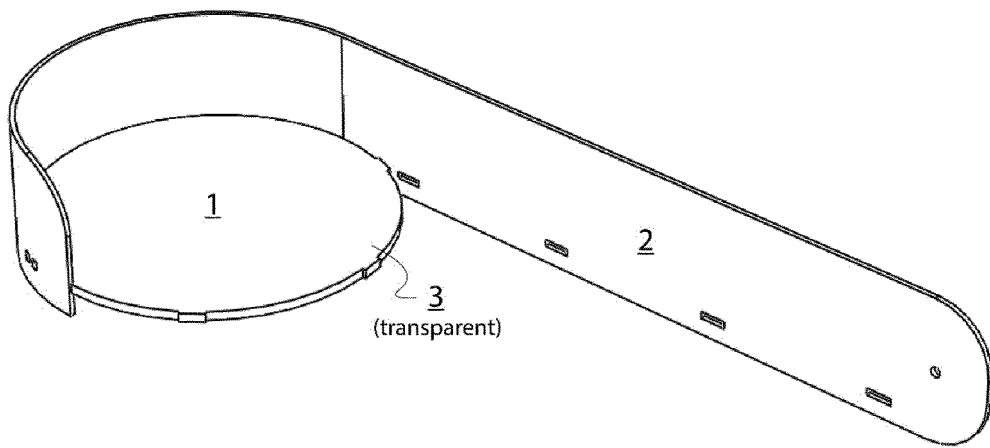


FIG 3

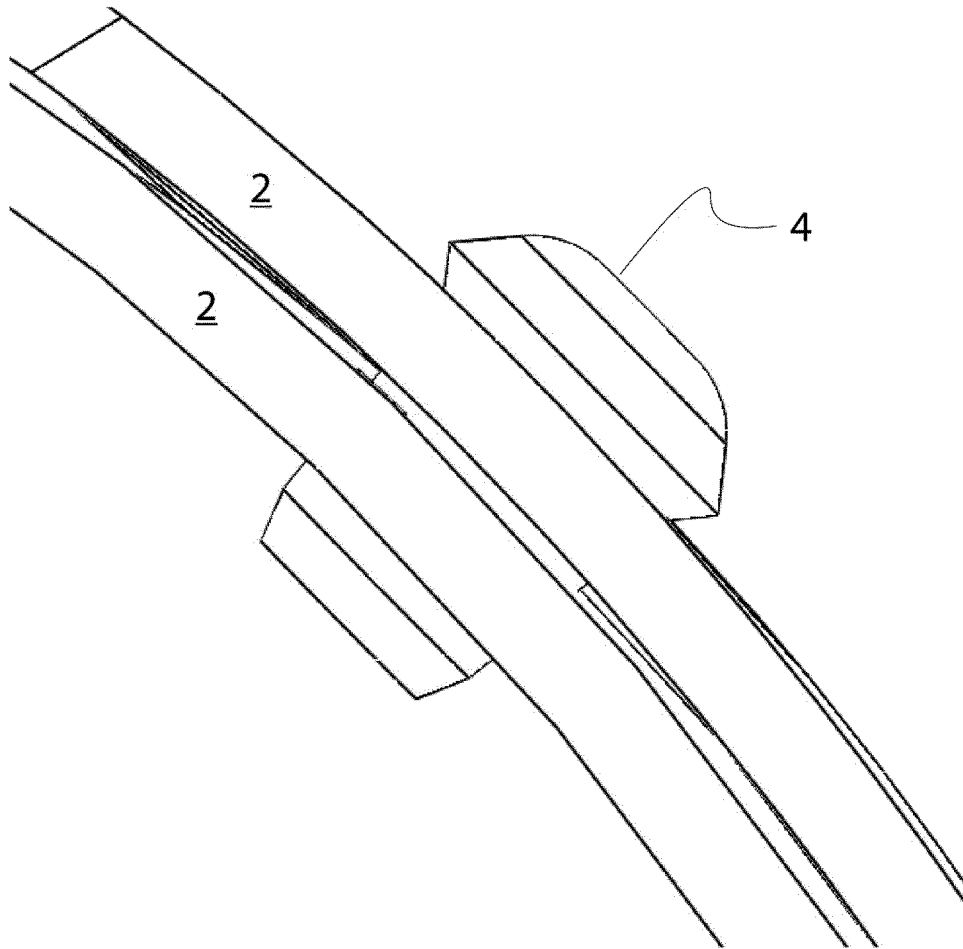


FIG 4

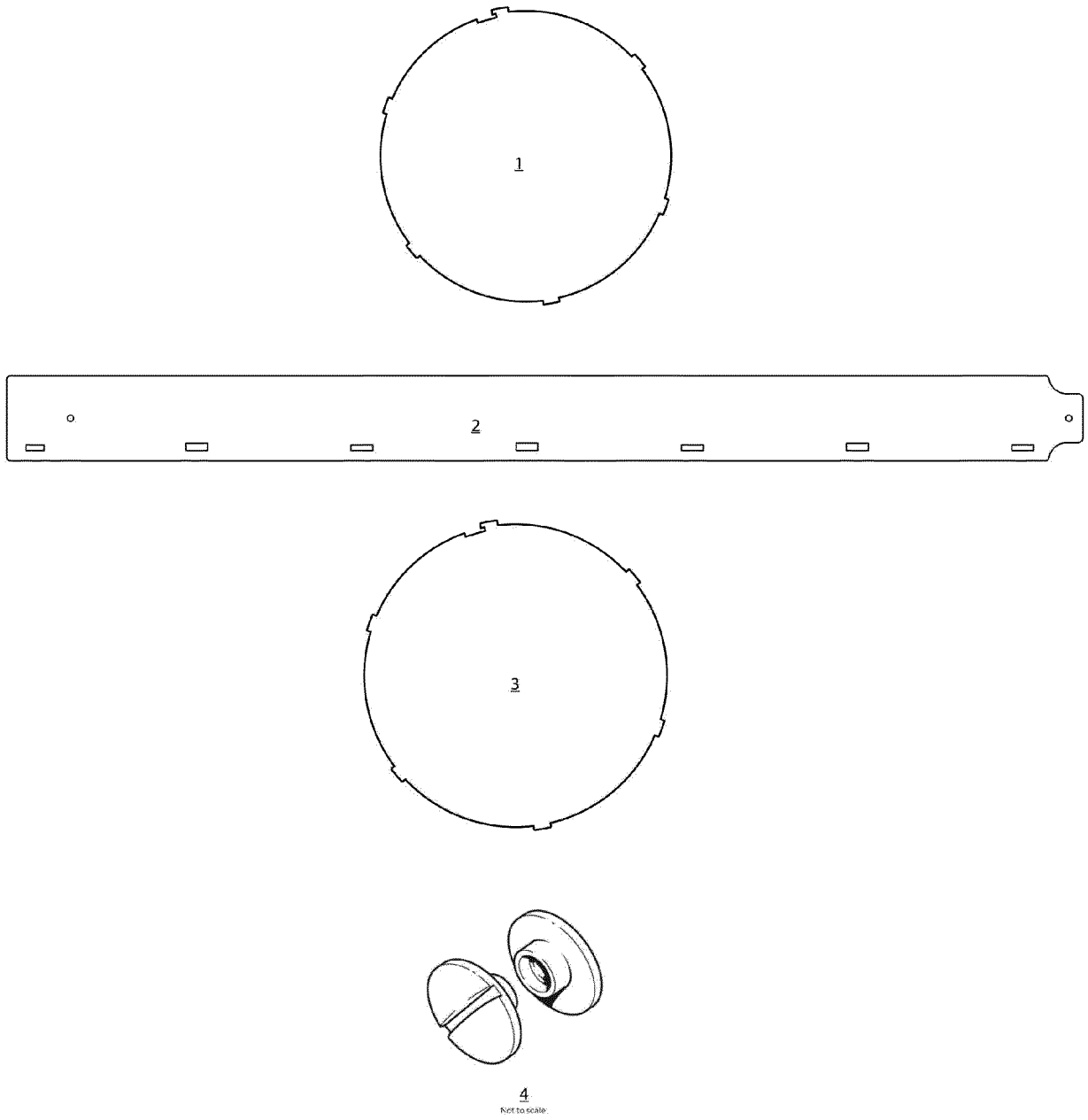


FIG 5



EUROPEAN SEARCH REPORT

Application Number

EP 22 19 3440

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DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	WO 97/12532 A1 (GRANDI LUCIO [IT]) 10 April 1997 (1997-04-10) * figures 5,6,7 *	1	INV. A47G1/06
A	----- CN 216 089 869 U (ZHEJIANG TIANJI HOUSEHOLD ARTICLE LTD COMPANY) 22 March 2022 (2022-03-22) * figures 1-3 *	1	
A	----- CN 214 855 796 U (ZHONGSHAN SHESHENG ELECTRONICS CO LTD) 26 November 2021 (2021-11-26) * figures 1-2 *	1	
A	----- US 7 578 086 B2 (QUICKFRAMES LLC [US]) 25 August 2009 (2009-08-25) * figures 1,2,8-13 *	1	
A	----- JP 2013 066662 A (YANOMAN KK) 18 April 2013 (2013-04-18) * figure 1 *	1	
	-----		TECHNICAL FIELDS SEARCHED (IPC)
			A47G
The present search report has been drawn up for all claims			

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EPO FORM 1503 03.82 (P04C01)

Place of search	Date of completion of the search	Examiner
The Hague	16 January 2023	Longo dit Operti, T
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document		

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 22 19 3440

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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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16-01-2023

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82