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(56) Documents Cited:
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DE 202011050754 U **NL 001017688 C**
US 1133490 A **US 0430240 A**
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(58) Field of Search:
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Other: **EPODOC, WPI**

(54) Title of the Invention: **Support assembly**
Abstract Title: **Support Assembly**

(57) A support assembly 10 for holding a newspaper, the assembly 10 including a support arrangement 12 which provides support in one plane, and a plurality of support arms 22, 24, 26 movably mounted to the support arrangement 12. The support arms 22, 24, 26 are extendible outwardly from the support arrangement 12, to provide an increased area of support. The support plane is oriented upwardly and rearwardly from a lower end of the support arrangement 12. Also included is a retaining arm 42 that secures the newspaper on the support plane. The support structure can be folded flat (Fig. 3) for ease of storage. A telescopic, height adjustable stand 14 with casters 18 on its feet is included as part of the assembly.

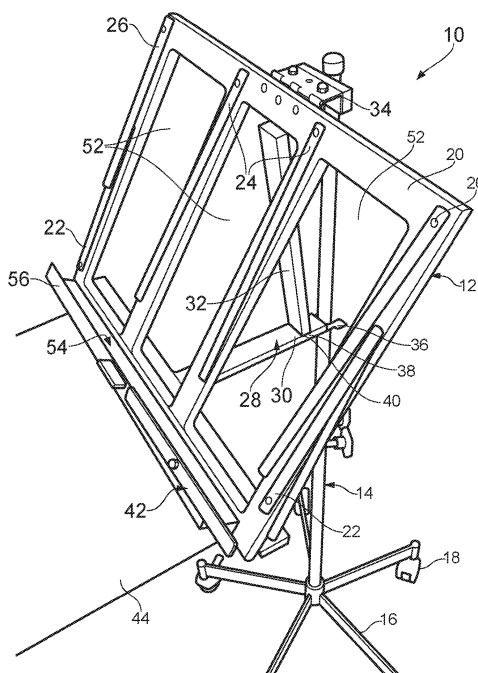


FIG. 1

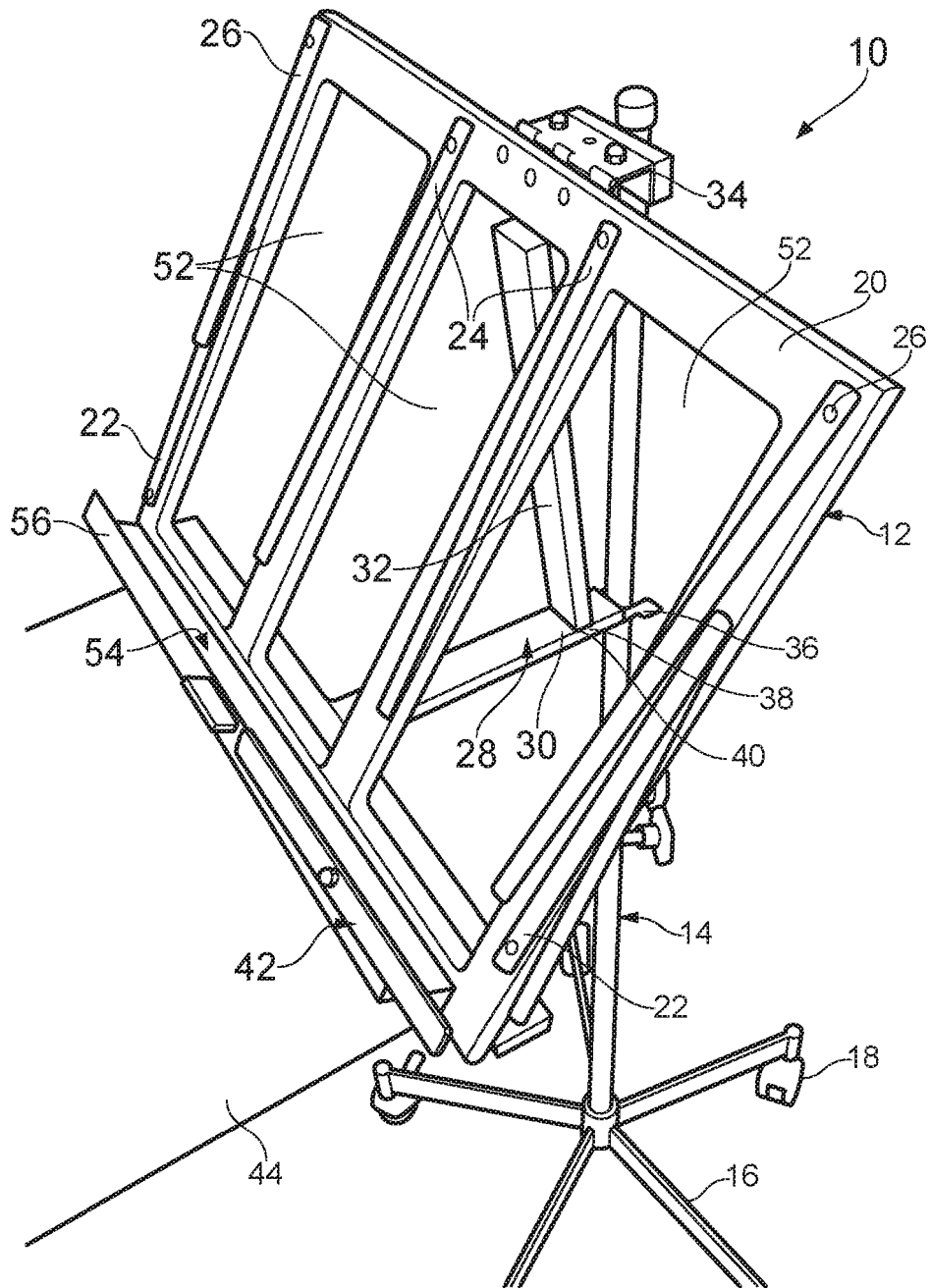


FIG. 1

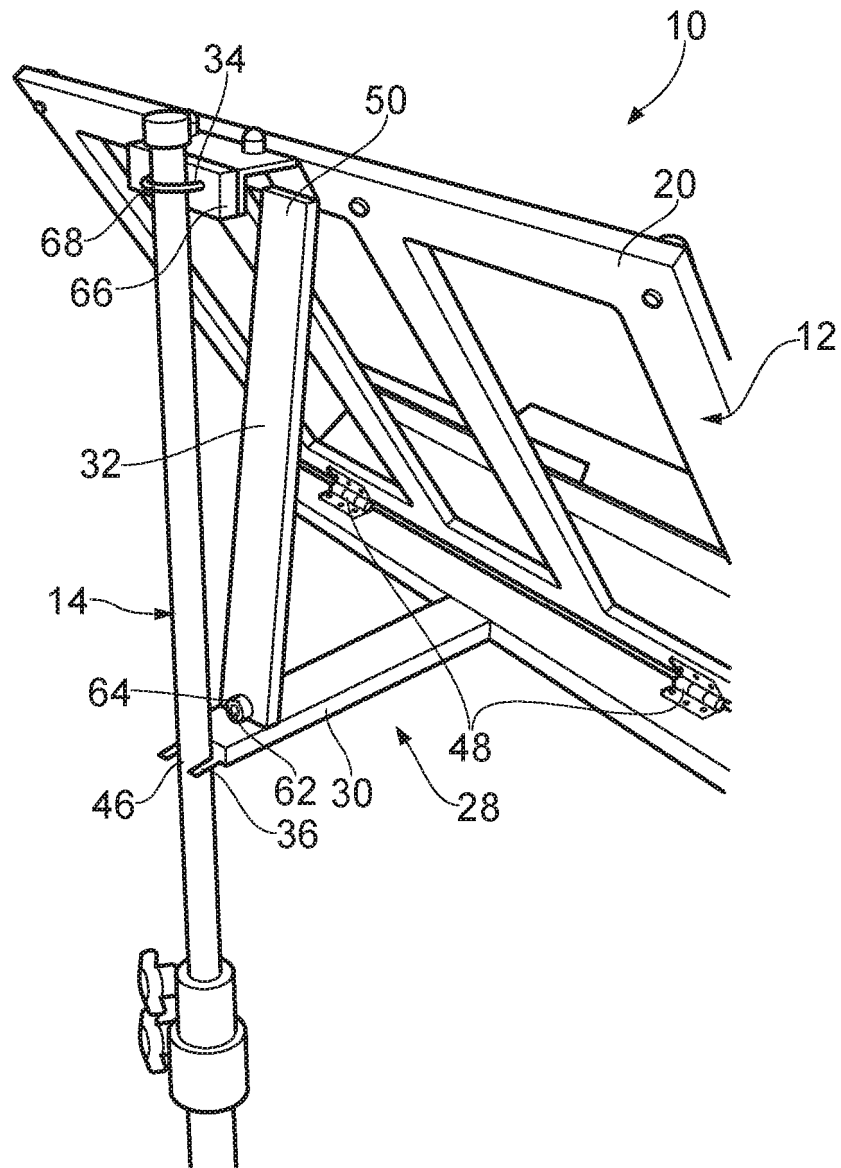


FIG. 2

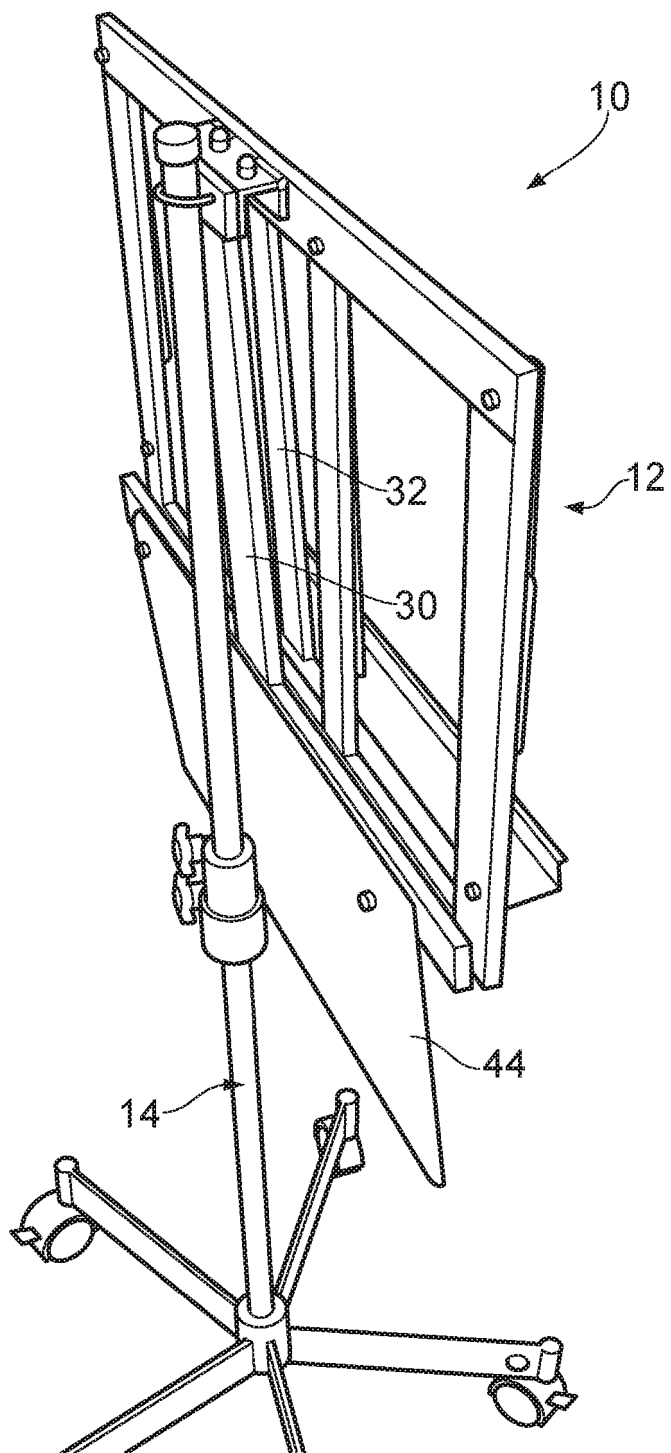


FIG. 3

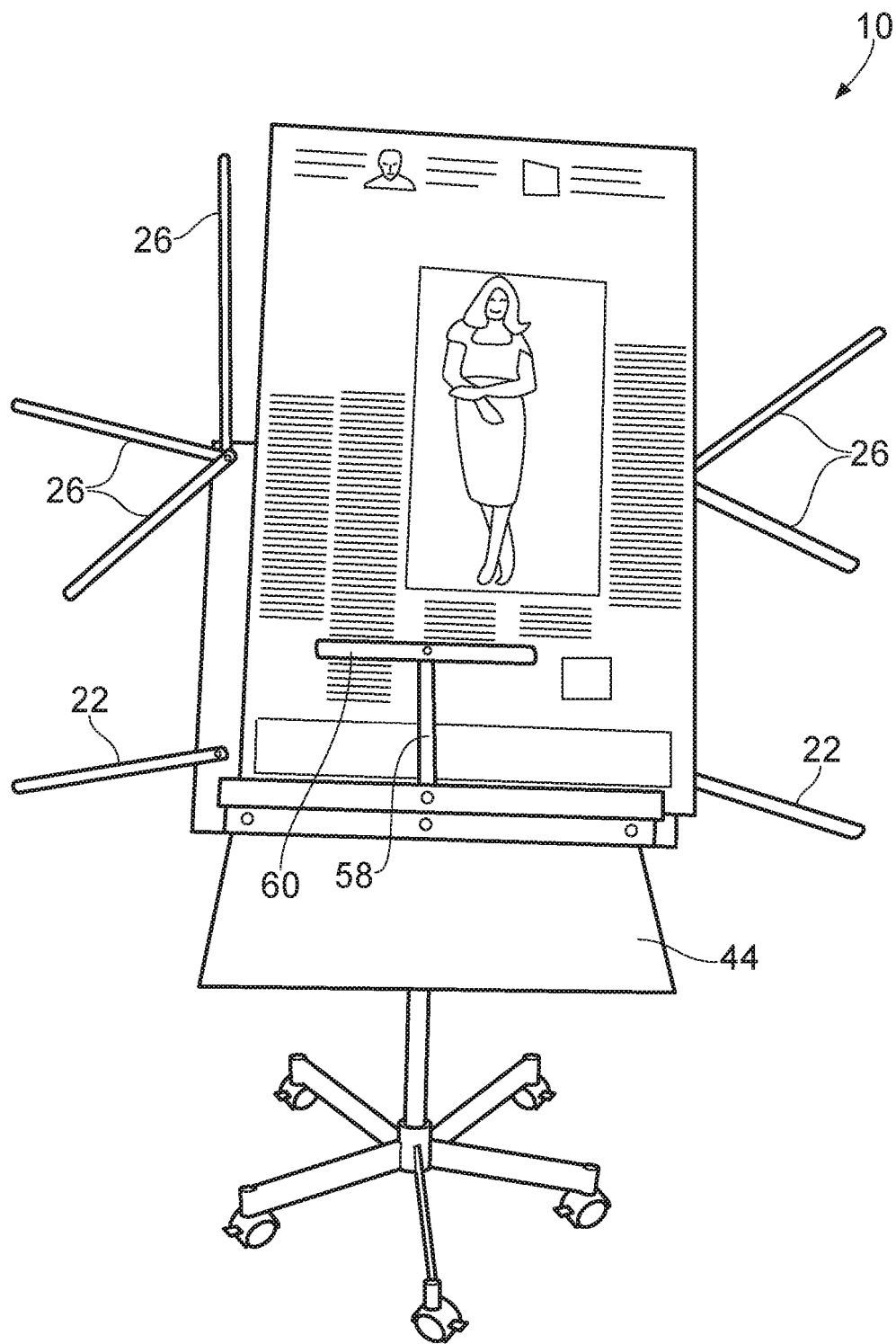


FIG. 4

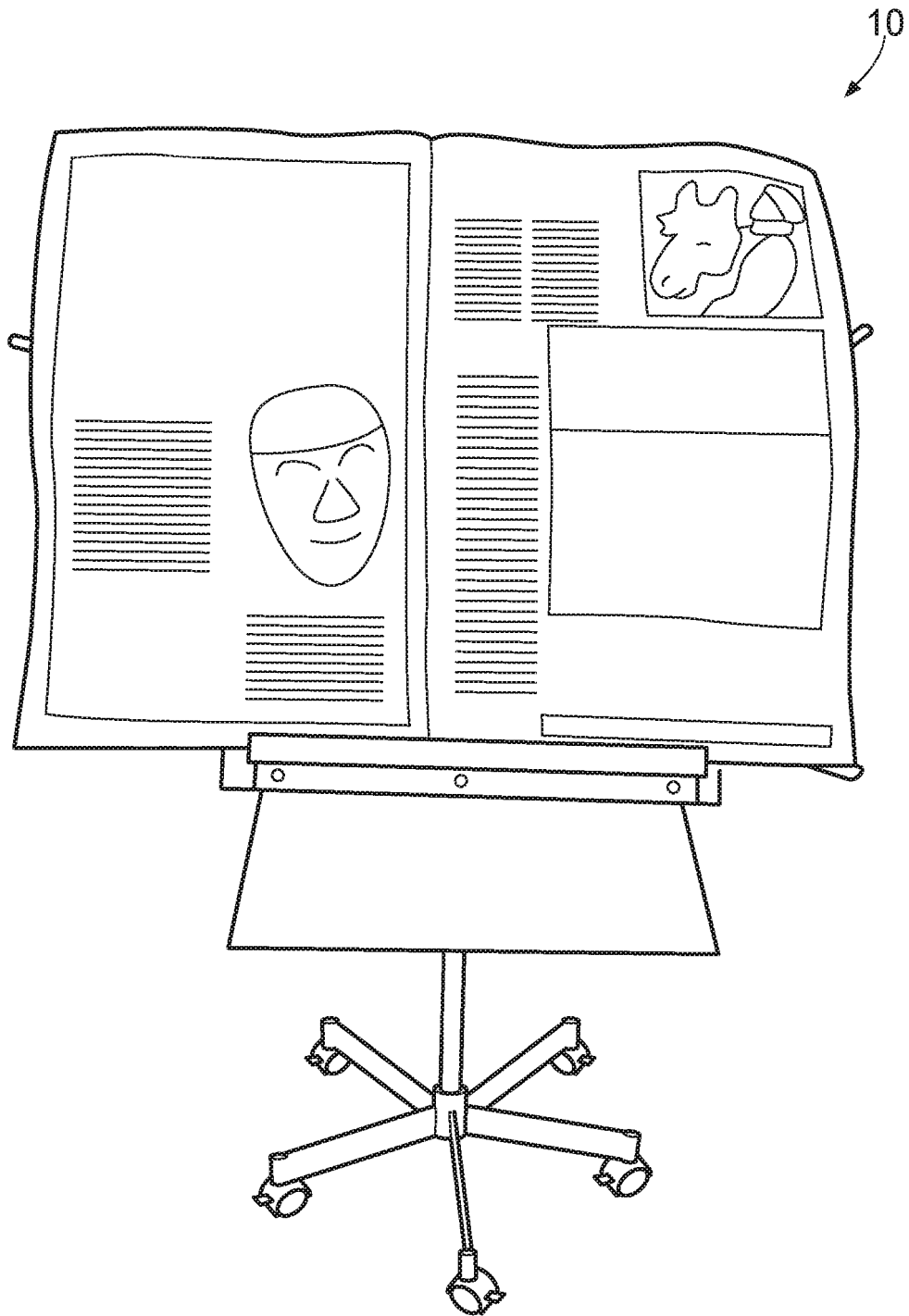


FIG. 5

SUPPORT ASSEMBLY

Embodiments of the present invention relate to support assemblies. In particular, they relate to support assemblies for holding large documents such as broadsheet newspapers, so they can be read.

Broadsheet newspapers can be difficult to hold for prolonged periods of time. Furthermore, it can be difficult to read the content of a broadsheet newspaper without first reducing its size by folding the pages. The newspaper then has to be unfolded before the page can be turned. The process of folding and unfolding the newspaper can be difficult, and can also result in damage to the newspaper.

According to the present invention there is provided a support assembly for holding a newspaper, the assembly including a support arrangement which provides support in one plane, and a plurality of support arms movably mounted to the support arrangement, the support arms being selectively extendible outwardly from the support arrangement generally within said one plane, to provide an increased area of support in the same plane, the support arrangement being arranged so as to provide a planar support surface extending upwardly and rearwardly from a lower end of the support arrangement.

The support arms may be pivotally mounted to the support arrangement so as to be moveable in said one plane. The support arms may be elongate, and may be formed of a rigid material, such as metal

The support arms may be mounted at spaced locations around the support arrangement, and some may be spaced along an upper end of the support arrangement.

The support arrangement may comprise a generally rectangular frame. Support arms may be mounted at locations adjacent to some or each respective corner of the support arrangement.

5 Two or three support arms may be mounted at the same location respectively adjacent one or more corners of the support arrangement, and some of the multiple support arms mounted at the same location adjacent a corner may be of different lengths.

10 The support assembly may include a selectively moveable retaining arm spaced from the support arrangement to locate a newspaper therebetween. The retaining arm may be T-shaped. The retaining arm may be spring urged to urge the newspaper against the support arrangement.

15 The support assembly may include an upstanding support member with a base, and the base may be ground engaging. The base may include a wheeled arrangement, and the wheeled arrangement may include a plurality of casters.

20 The support arrangement may include a support configuration engageable against the upstanding support member. The support configuration may include first and second elongate members pivotally mounted to the support arrangement, the first elongate member being mounted to a lower end of the support arrangement and the second elongate
25 member being mounted to a top end of the support arrangement.

 The first and second elongate members may be selectively engageable together in an in use condition to support the support arrangement so as to provide a planar support surface extending upwardly and rearwardly from a
30 lower end of the support arrangement , with each elongate member inclined relative to the support arrangement in an in use condition of the assembly.

The support assembly may be arranged to be selectively moveable between the in use condition of the assembly and a collapsed condition in which each elongate member extends generally parallel relative to the support arrangement.

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The support assembly may include a shelf extending generally horizontally outwardly from the lower end of the support arrangement when in the in use condition. In a collapsed condition of the assembly the shelf may extend generally parallel relative to the support arrangement. The shelf may be connected to the first elongate member and extend outwardly therefrom. The shelf may be coplanar with the first elongate member.

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The upstanding support member may be height adjustable, and may be telescopic.

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An embodiment of the present invention will now be described by way of example only and with reference to the accompanying drawings, in which:-

Fig. 1 is a perspective view from the front and one side of a support assembly according to the invention in an in use condition;

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Fig. 2 is a perspective view from the back and one side of the support assembly shown in Fig. 1;

Fig. 3 is a similar view to Fig. 2 but with the support assembly in a collapsed condition;

25

Fig. 4 is a front view of the support assembly in use holding a closed newspaper;

30

Fig. 5 is a similar view to Fig. 4 but with the support assembly holding an open newspaper.

The drawings show a support assembly 10 for holding a newspaper. The assembly includes a support arrangement 12 mounted to an upstanding support member 14. The upstanding support member 14 has a base 16
 5 which includes five spaced casters 18. The upstanding support member 14 is telescopic so as to be height adjustable.

The support arrangement 12 includes a generally rectangular frame 20 which provides a planar support surface extending in use upwardly and
 10 rearwardly from a lower end of the support arrangement 12. The generally rectangular frame 20 includes three spaced rectangular openings 52.

As best shown in Fig. 1, elongate metal support arms 22, 24, 26 are pivotally mounted at locations around the rectangular frame 20. Three
 15 elongate support arms 26 are pivotally mounted on the rectangular frame 20 adjacent to each top corner. A single elongate support arm 22 is pivotally mounted on the rectangular frame 20 adjacent to each bottom corner of the rectangular frame 20. Two elongate support arms 24 are pivotally mounted at spaced locations on the rectangular frame 20 between the top corners. The
 20 support arms 24, 26 between the top corners are equispaced from each other.

Each of the three support arms 26 pivotally mounted at each top corner of the rectangular frame 10 is of a different length.

25 As shown in Fig. 4, the support arms 22, 24, 26 are selectively extendible outwardly from the rectangular frame 20 within the same plane as the support surface provided by the rectangular frame 20, to provide an increased area of support in the same plane.

30 A relatively narrow shelf 54 extends horizontally from a lower part of the rectangular frame, the shelf 54 being configured, for instance, to support

the lower end of a newspaper. An upstanding lip 56 extends from the front of the shelf 54 to prevent a newspaper from sliding off the shelf 54.

5 The support assembly 12 also includes a selectively moveable retaining arm 42 spaced from the support arrangement 12 to locate a newspaper therebetween. As best seen in Fig. 4, the retaining arm 42 consists of a first elongate arm 58 pivotally mounted at a first end to the upstanding lip 56, and a second elongate arm 60 pivotally mounted about a mid point to a second end of the first elongate arm 58.

10

The support arrangement 12 also includes a support configuration 28 in the form of first and second elongate members 30, 32, the first elongate member 30 having a T-shape.

15

The cross bar of the T of the first elongate member 30, is pivotally mounted to a lower part of the rectangular frame 20 by two spaced hinges 48. A first end of the second elongate member 32 is pivotally mounted to the upper part of the rectangular frame 20 by a hinge 50.

20

The support assembly 10 also includes a generally horizontal shelf 44 extending outwardly from the lower end of the support arrangement 12. The shelf 44 is fixed to the cross bar of the T of the first elongate member 30, and is coplanar with the first elongate member 30.

25

The first elongate member 30 includes a recess 38 at the lower end of the stem of the T, and the second elongate member 32 includes a projection 40 at the second end thereof, which projection 40 is selectively locatable in the recess 38. The first elongate member 30 also includes an upstanding screw 62 located adjacent to the recess 38. The second elongate member 32 also includes a sprung clip 64 located adjacent to the projection 40. In a condition where the projection 40 is located in the recess 38 the sprung clip 64 locates around the upstanding screw 62 to provide a secure fixing.

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The support arrangement 12 is releasably mounted to the upstanding support member 14 by means of a mounting bracket 34 located at the upper part of the rectangular frame 20 and a sprung clip 36 located on the first
5 elongate member 30 at the far end of the stem of the T.

As can be seen in Fig. 2, the mounting bracket 34 consists of a plate 66 with a loop 68 extending therefrom. In a mounted condition, the loop 68 extends around the upstanding support member 14.
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As can also be seen in Fig. 2, in a mounted condition a pin 46 passes through aligned openings in each arm of the sprung clip 36 to secure the sprung clip 36 to the upstanding support member 14.

15 In an in use erect condition of the assembly the projection 40 is located in the recess 38 such that each frame member 30, 32 is inclined relative to the rectangular frame 20, and the rectangular frame 20 provides the planar support surface extending upwardly and rearwardly from the lower end of the support arrangement 12. In the erect condition the angle between the frame
20 members 30, 32 is approximately 90°.

To collapse the support arrangement 12 from the erect condition shown in Fig. 1 to the collapsed condition shown in Fig. 3, the projection 40 is disengaged from the recess 38 and the sprung clip 36 is disengaged from the
25 upstanding support member 14. The first and second elongate members 30, 32 are then moveable relative to one another such that support arrangement 12 can adopt the configuration shown in Fig. 3 in which the first and second elongate members 30, 32, the shelf 44, and the rectangular frame 20, are all substantially parallel.

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As shown in Figs. 4 and 5, in use the assembly 10 can support a broadsheet newspaper. As shown in Fig. 4, a closed broadsheet newspaper

may be supported by virtue of the rectangular frame 20 and two vertically extending elongate support arms 24, 26. As shown in Fig. 5 an opened broadsheet newspaper may be supported by virtue of the rectangular frame 20 and all the support arms 22, 24, 26 extending in various directions away
5 from the frame 20 to increase the area of support in the same plane as the rectangular frame 20. In Fig. 5, the retaining arm 42 is holding the newspaper open.

There is thus described a support assembly which enables for instance
10 a broadsheet newspaper to be supported and easily read. The assembly is readily adjustable to suit different locations and for instance different newspapers. The assembly can readily be collapsed when not required. The assembly can be inexpensively and robustly manufactured for long term use.

15 Although embodiments of the present invention have been described in the preceding paragraphs with reference to various examples, it should be appreciated that modifications to the examples given can be made without departing from the scope of the invention as claimed.

20 For example, the support arrangement 12 could be mounted to a support member other than the upstanding support member 14 shown in the drawings. Such alternative support members may be configured to extend transversely over a users bed, such that a user could read a newspaper supported by the support arrangement whilst in bed.

25

Features described in the preceding description may be used in combinations other than the combinations explicitly described.

Although functions have been described with reference to certain
30 features, those functions may be performable by other features whether described or not.

Although features have been described with reference to certain embodiments, those features may also be present in other embodiments whether described or not.

5 Whilst endeavoring in the foregoing specification to draw attention to those features of the invention believed to be of particular importance it should be understood that the Applicant claims protection in respect of any patentable feature or combination of features hereinbefore referred to and/or shown in the drawings whether or not particular emphasis has been placed
10 thereon.

CLAIMS

1. A support assembly for holding a newspaper, the assembly including a support arrangement which provides support in one plane, and a plurality of support arms movably mounted to the support arrangement, the support arms being selectively extendible outwardly from the support arrangement generally within said one plane, to provide an increased area of support in the same plane, the support arrangement being arranged so as to provide a planar support surface extending upwardly and rearwardly from a lower end of the support arrangement.

2. An assembly according to claim 1, in which the support arms are pivotally mounted to the support arrangement so as to be moveable in said one plane.

3. An assembly according to claims 1 or 2, in which the support arms are elongate.

4. An assembly according to any of the preceding claims, in which the support arms are formed of a rigid material.

5. An assembly according to claim 4, in which the support arms are formed of metal.

6. An assembly according to any of the preceding claims, in which the support arms are mounted at spaced locations around the support arrangement.

7. An assembly according to claim 6, in which some of the support arms are spaced along an upper end of the support arrangement.

8. An assembly according to any of the preceding claims, in which the support arrangement comprises a generally rectangular frame.

9. An assembly according to any of the preceding claims, in which the support arms are mounted at locations adjacent to some or each respective corner of the support arrangement.

5 10. An assembly according to claim 9, in which two or three support arms are mounted at the same location respectively adjacent one or more corners of the support arrangement.

10 11. An assembly according to claims 9 or 10, in which some of the multiple support arms mounted at the same location adjacent a corner are of different lengths.

15 12. An assembly according to any of the preceding claims, in which the support assembly includes a selectively moveable retaining arm spaced from the support arrangement to locate a newspaper therebetween.

13. An assembly according to claim 12, in which the retaining arm is T-shaped.

20 14. An assembly according to claims 12 or 13, in which the retaining arm is spring urged to urge the newspaper against the support arrangement.

25 15. An assembly according to any of the preceding claims, in which the support assembly includes an upstanding support member with a base.

16. An assembly according to claim 15, in which the upstanding support member is height adjustable.

30 17. An assembly according to claim 16, in which the upstanding support member is telescopic.

18. An assembly according to claim 17, in which the base is ground engaging.

19. An assembly according to claims 17 or 18, in which the base includes a wheeled arrangement.

5 20. An assembly according to claim 19, in which the wheeled arrangement includes a plurality of casters.

21. An assembly according to any of claims 17 to 20, in which the support arrangement includes a support configuration engageable against the
10 upstanding support member.

22. An assembly according to claim 21, in which the support configuration includes first and second elongate members pivotally mounted to the support arrangement, the first elongate member being mounted to a lower end of the
15 support arrangement and the second elongate member being mounted to a top end of the support arrangement.

23. An assembly according to claim 22, in which the first and second elongate members are selectively engageable together in an in use condition to
20 support the support arrangement so as to provide a planar support surface extending upwardly and rearwardly from a lower end of the support arrangement, with each elongate member inclined relative to the support arrangement in an in use condition of the assembly.

24. An assembly according to claim 23, in which the support assembly is arranged to be selectively moveable between the in use condition of the assembly and a collapsed condition in which each elongate member extends generally parallel relative to the support arrangement.

25. An assembly according to claims 23 or 24, in which the support assembly includes a shelf extending generally horizontally outwardly from the lower end of the support arrangement when in the in use condition.

26. An assembly according to claims 24 or 25, in which in a collapsed condition of the assembly the shelf extends generally parallel relative to the support arrangement.

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27. An assembly according to claims 25 or 26, in which the shelf is connected to the first elongate member and extends outwardly therefrom.

28. An assembly according to any of claims 25 to 27, in which the shelf is coplanar with the first elongate member.

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29. A support assembly, the assembly being substantially as hereinbefore described and with reference to the accompanying drawings.

30. Any novel subject matter or combination including novel subject matter disclosed herein, whether or not within the scope of or relating to the same invention as any of the preceding claims.

15



Application No: GB1423110.4

Examiner: Dr Jeff Webb

Claims searched: 1 - 29

Date of search: 13 May 2016

Patents Act 1977: Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance
X	1 - 9, 15 - 21	DE 202011050754 U (SCHEURING CARLA; SCHEURING INES) See WPI Abstract Accession No. 2011-P05441; Figs. 1, 5.
X	1, 3 - 9, 15 - 21	US 2003/0178544 A1 (ANDERSON GARY) See abstract; Figs. 1, 2, 6, 12, 13, 16.
X	1 - 12	US1133490 A (MEHM CHARLES A; TITE CHARLES E) See description page , lines 20 - 25, 84 - 92, and the figure.
X	1 - 9, 15 - 21	US 430240 A (CLAYTON S. STEVENS) See description page 1, lines 16 - 25, 31 - 74 and Figs. 1 - 5.
X	1 - 9, 15 - 21	NL 1017688 C (HOOGERVORST-MOULIJN PETRONELLA) See WPI Abstract Accession No. 2003-127547; Figs. 1 - 5
X	1 - 8, 22 - 28	GB 2310593 A (LUKACS JESSICA CLAIRE) See abstract; Figs. 1, 2.
X	1 - 8, 22 - 28	BE1016774 A6 (SABA AMEDEO) See EPODOC abstract; Figs 1, 2.

Categories:

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.

Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC^X :

Worldwide search of patent documents classified in the following areas of the IPC

A47B; B42D

The following online and other databases have been used in the preparation of this search report



EPODOC, WPI

International Classification:

Subclass	Subgroup	Valid From
A47B	0019/06	01/01/2006