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(54) Title: KEYBOARD STAND

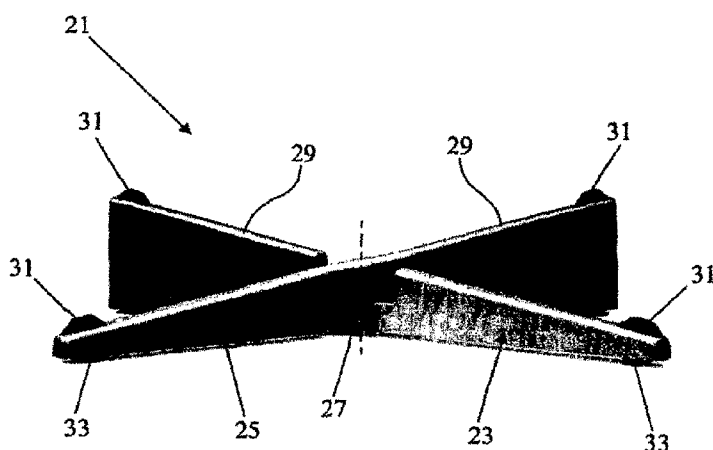


FIG. 5

(57) Abstract: A keyboard stand (21) is formed by two crossed sticks (23, 25) which in the centre are connected with each other by means of a rotary shaft (27). The rotary shaft (27) forms part of one of the sticks and extends in height direction of the sticks. The upper longitudinal edges (29) of the sticks form a supporting area for carrying the keyboard during operation. Rubber protrusions (31) on which a keyboard or notebook rests during operation are provided on the upper longitudinal edges (29) of the sticks close to the ends. Rubber feet (33) with which the keyboard stand (21) is placed on a table are found on the lower longitudinal edges opposite the upper longitudinal edges. On either side of the rotary shaft (27) a part of the stick (23a, 23b, 25a, 25b) is found.

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Keyboard stand

DESCRIPTION

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Field of the invention.

The invention relates to a keyboard stand for supporting a separate keyboard of a computer or the computer-integrated keyboard of a laptop on a table, comprising two elements pivotally connected with each other.

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State of the art.

A keyboard stand of this type is known from GB-A-2390297. In this known keyboard stand the elements are formed by planar frames which are in hinged connection with each other and can be set in an inclined position relative to one another. During periods of use one frame rests on the tabletop while the other frame carries a keyboard.

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Summary of the invention.

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It is an object of the invention to provide a keyboard stand of the type defined in the opening paragraph which in retracted state is more compact than the known keyboard stand. To this end the keyboard stand according to the invention is characterised in that the elements are formed by two crossed sticks which are pivotally connected with each other in or close to the centre, the sticks having a supporting area on which a keyboard rests during operation and which is in an inclined position relative to the table during operation. In retracted state the sticks lie side by side so that they do not take up much room.

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In order to prevent the sticks from sagging while they carry a keyboard, an embodiment of the keyboard stand according to the invention is characterised in that the sticks have a length, thickness and height with which a rotary shaft by means of

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which the two sticks are pivotally connected with each other extends in the height direction of the sticks and the supporting area is formed by the longitudinal edges of the sticks.

At one end the sticks may have a leg with which they rest on a table and
5 are at an angle relative to the tabletop. In lieu of a leg for inclining the supporting area, preferably the height of each stick diminishes from one of the ends of the stick to the other end. As a result the sticks can be in contact with the tabletop over their entire length.

To provide that the keyboard stand in retracted state does not take up
10 much room, a recess is provided preferably in the place of the rotary shaft in the bottom of one of the sticks and another recess is provided in the top of the other stick, one stick being inserted with its recess into the recess provided in the other stick.

A further embodiment of the keyboard stand according to the invention is characterised in that on either side of the rotary shaft a part of the stick is present, which
15 parts are parallel with each other and staggered, so that they are not in the same straight line and the sticks are present in a mutually mirrored state. As a result, the sticks in retracted state lie against each other over their entire length so that the keyboard stand is even more compact.

The ends of the sticks preferably have raised protrusions for holding a
20 keyboard located on the support in place during operation.

A still further embodiment of the keyboard stand according to the invention is characterised in that a spring is provided on one side of the rotary shaft so that the spring pushes the two sticks apart. In consequence, during operation a keyboard is held in place between the protrusions provided on the sticks, so that the keyboard is
25 prevented from shifting relative to the support.

The spring is preferably formed by a resilient strip which is attached with one end to one of the sticks and with the other end is in contact with the other stick, which strip in unloaded condition runs parallel with the stick to which it is attached.

30 **Brief description of the drawings.**

The following description relating to the appended drawings, the whole given by way of non-limiting examples of the keyboard stand according to the invention, will provide better understanding of how the invention can be realised, in which:

5 Fig. 1 shows a plan view of a first embodiment of the keyboard stand according to the invention during operation;

Fig. 2 shows a side view of the keyboard stand shown in Fig. 1 in retracted state;

10 Fig. 3 shows the keyboard stand shown in Fig. 1 broken down into component parts;

Fig. 4 shows a plan view of the keyboard stand shown in Fig. 1 in retracted state;

Fig. 5 shows a second embodiment of the keyboard stand according to the invention in converted state; and

15 Fig. 6 shows the keyboard stand shown in Fig. 5 in retracted state.

Detailed description of the drawings.

20 Fig. 1 shows a plan view of a first embodiment of the keyboard stand during operation. The keyboard stand 1 is formed by two crossed sticks 3, 5 which are pivotally connected with each other in the centre by means of a rotary shaft 7. The rotary shaft 7 here forms part of one of the sticks and extends in height direction of the sticks. The upper longitudinal edges 9 of the sticks form a supporting area for supporting a keyboard during operation. The ends of the sticks have raised protrusions 25 11 for holding a keyboard 13 in place which is present on the support (schematically shown in dashed lines).

30 On one side of the rotary shaft 7 there is a spring 15 which pushes the two sticks 3, 5 apart. As a result of this the keyboard 13 is held in place between the protrusions 11 on the sticks during operation and it is avoided that the keyboard shifts relative to the keyboard stand. The spring 15 is formed by a resilient strip which is attached with one end to one of the sticks 3 and with the other end is in contact with the

other stick 5. The strip in unloaded state runs parallel with the stick 3 to which it is attached.

Fig. 2 shows a side view of the keyboard stand 1 in retracted state. The height of each stick 3, 5 diminishes from one of the ends of the stick to the other end, so that during operation the supporting area is at an angle to a tabletop on which the keyboard stand is placed.

In the place of the rotary shaft 7 the upper stick 3 is provided with a recess 17 at the bottom and the lower stick 5 is provided with a recess 19 at the top, see Fig. 3, in which the broken-down keyboard stand 1 is shown. The one stick 3, 5 fits into the recess 17, 19 provided in the other stick 5, 3.

Fig. 4 shows a plan view of the keyboard stand 1 in retracted state. A part of the stick 3a, 3b, 5a, 5b is present on either side of the rotary shaft 7. These parts are staggered and are parallel with each other so that they are not in the same straight line. In retracted state the sticks 3, 5 are present in a mutually mirrored state, and over their entire length they lie against each other as a result of which they do not take up much room.

Figs. 5 and 6 show a second embodiment of the keyboard stand according to the invention in converted state and in retracted state respectively. This keyboard stand 21 too is formed by two crossed sticks 23, 25 which are pivotally connected to each other in the centre by means of a rotary shaft 27. Rubber protrusions 31 on which a keyboard or notebook rests during operation are found on the upper longitudinal edges 29 of the sticks close to the ends. Rubber feet 33 with which the keyboard stand 21 is placed on a table are found on the lower longitudinal edges opposite the upper longitudinal edges. On either side of the rotary shaft 27 a part of the stick 23a, 23b, 25a, 25b is found.

Albeit the invention described above has been described in the foregoing with reference to the drawings, it will be evident that the invention is not by any manner or means restricted to the embodiments shown therein. The invention also extends over any embodiment deviating from the embodiment shown in the drawing Figures within the spirit and scope defined by the claims.

CLAIMS:

1. A keyboard stand for supporting a keyboard in an inclined position on a
5 table, comprising two elements pivotably connected with each other, characterised in that the elements are formed by two crossed sticks which are pivotably connected with each other in or close to the centre, the sticks having a supporting area on which a keyboard rests during operation and which is in an inclined position relative to the table during operation.
- 10 2. A keyboard stand as claimed in claim 1, characterised in that the sticks have a length, thickness and height with which a rotary shaft by means of which the two sticks are pivotably connected with each other extends in the height direction of the sticks and the supporting area is formed by the longitudinal edges of the sticks.
- 15 3. A keyboard stand as claimed in claim 2, characterised in that the height of each stick diminishes from one of the ends of the stick to the other end.
4. A keyboard stand as claimed in claim 1, 2 or 3, characterised in that a recess is provided in the place of the rotary shaft in the bottom of one of the sticks and another recess is provided in the top of the other stick, one stick being inserted with its recess into the recess provided in the other stick.
- 20 5. A keyboard stand as claimed in any one of the preceding claims, characterised in that on either side of the rotary shaft a part of the stick is present, which parts are parallel with each other and staggered, so that they are not in the same straight line and the sticks are present in a mutually mirrored state.
6. A keyboard stand as claimed in any one of the preceding claims,
25 characterised in that raised protrusions are provided at the ends of the sticks.
7. A keyboard stand as claimed in any one of the preceding claims, characterised in that a spring is provided on one side of the rotary shaft so that the spring pushes the two sticks apart.
8. A keyboard stand as claimed in claim 7, characterised in that the spring is
30 formed by a resilient strip which is attached with one end to one of the sticks and with the other end is in contact with the other stick, which strip in unloaded condition runs parallel with the stick to which it is attached.

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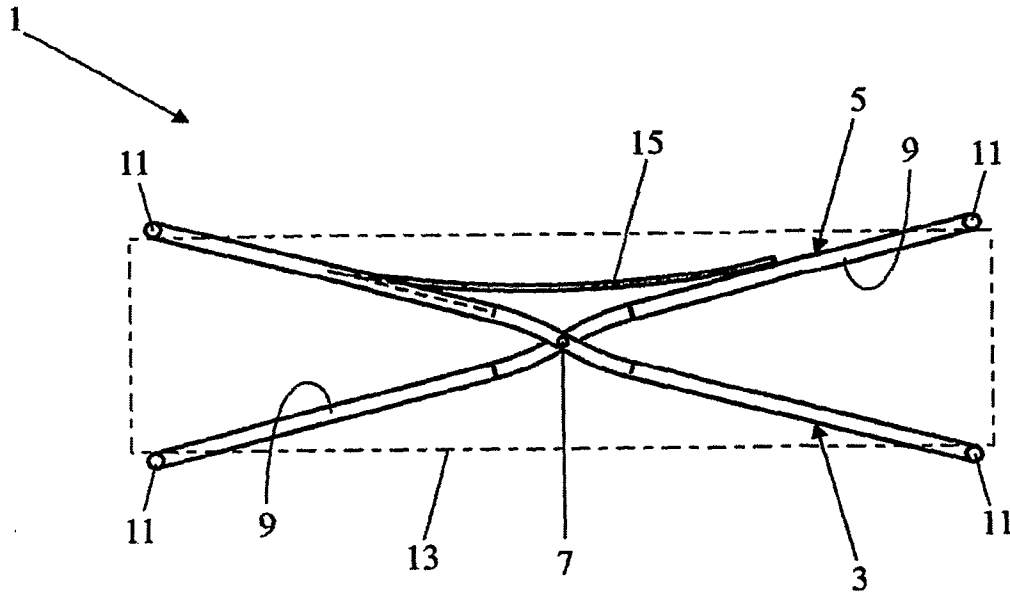


FIG. 1

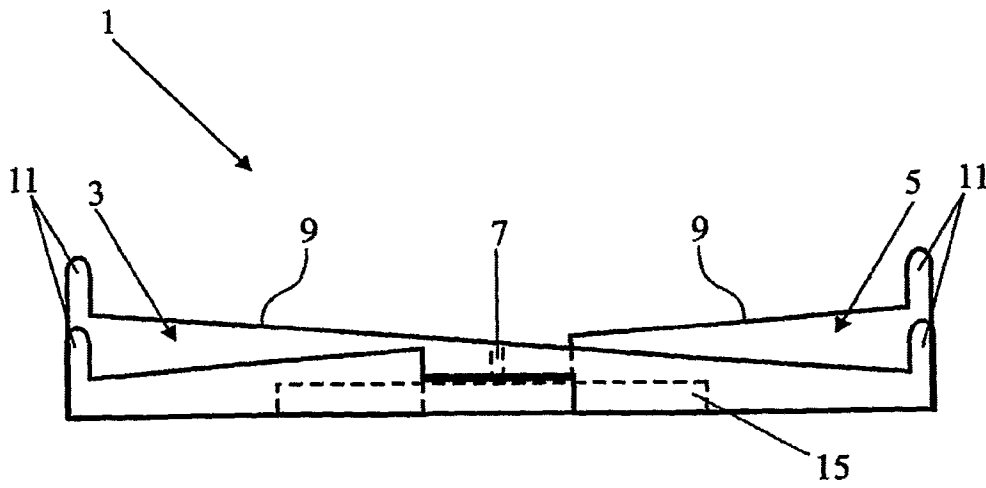


FIG. 2

2 / 3

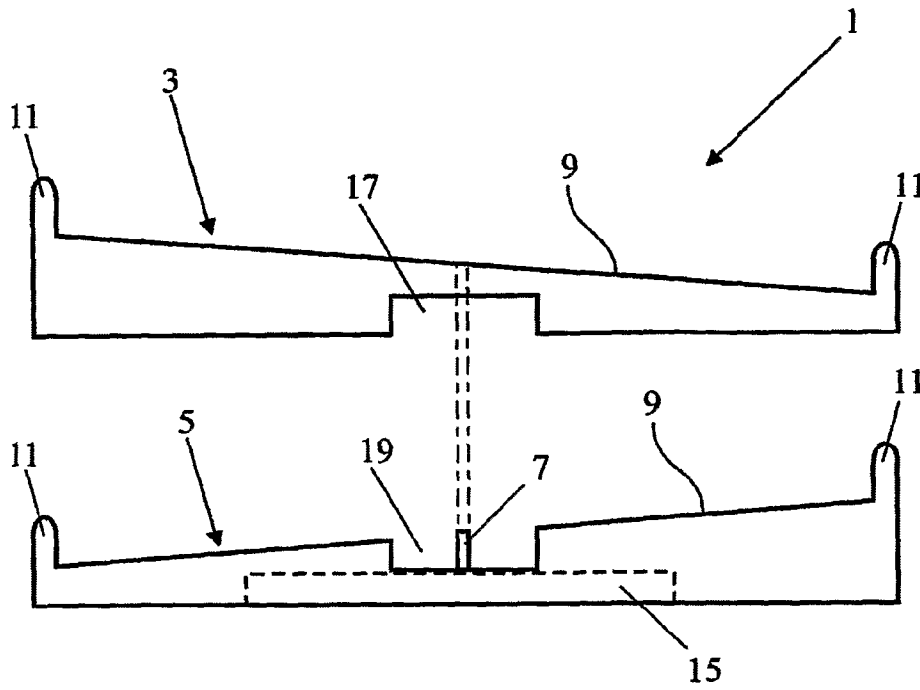


FIG. 3

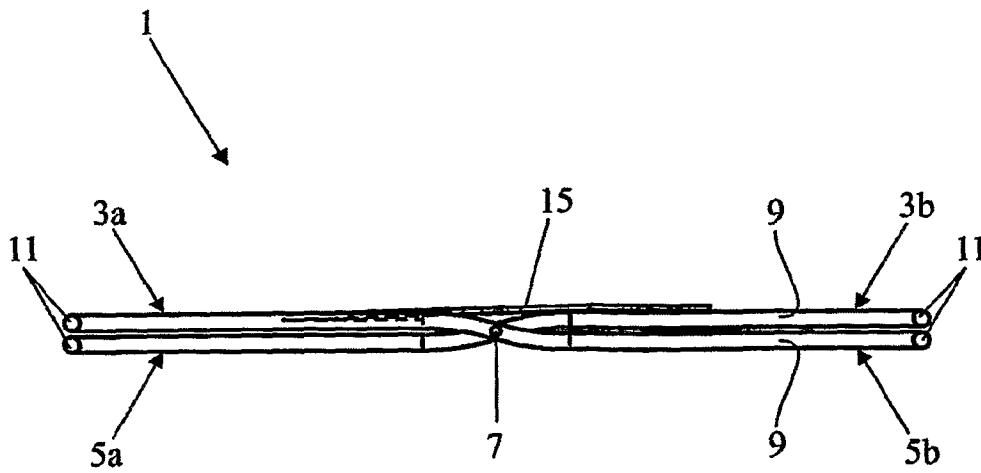


FIG. 4

3 / 3

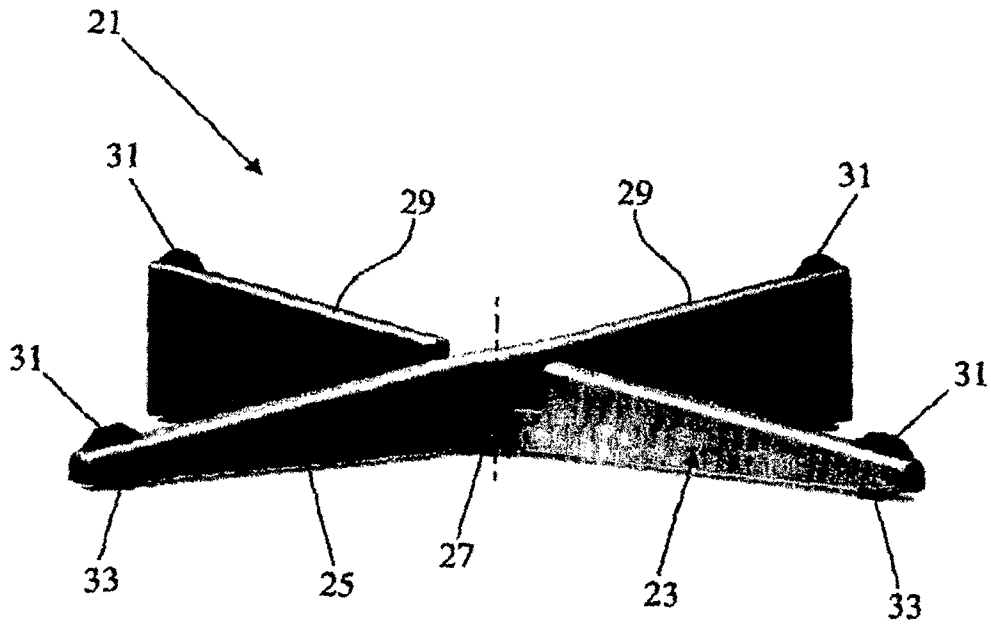


FIG. 5

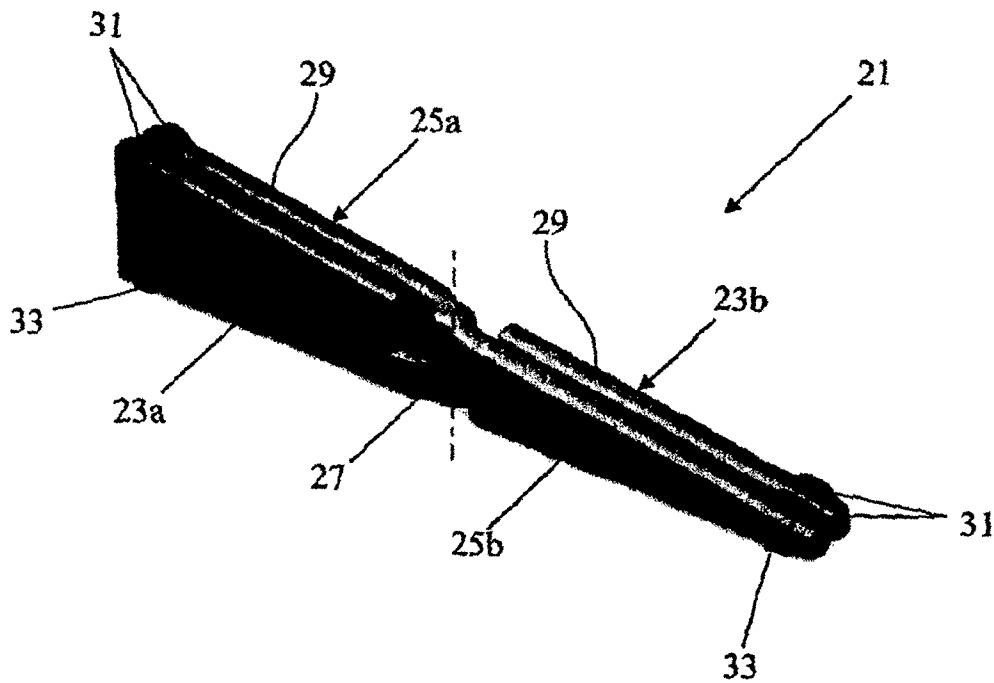


FIG. 6

INTERNATIONAL SEARCH REPORT

International application No

PCT/NL2008/050668

A. CLASSIFICATION OF SUBJECT MATTER
INV. A47B23/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
A47B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 768 768 A (BENLIAN V) 30 October 1973 (1973-10-30) column 1, line 25 - column 2, line 10; figures 1-4	1-8
X	US 6 488 252 B1 (IBRAHIM ZAFAR Y [US]) 3 December 2002 (2002-12-03) column 1, line 63 - column 2, line 57; figures 1-4	1-8
A	US 5 375 800 A (WILCOX KATHERINE C [US] ET AL) 27 December 1994 (1994-12-27) column 10, line 15 - column 14, line 44; figures 1-9	1-8
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Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

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 "E" earlier document but published on or after the international filing date
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 "O" document referring to an oral disclosure, use, exhibition or other means
 "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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Date of the actual completion of the international search

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Date of mailing of the international search report

20/03/2009

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INTERNATIONAL SEARCH REPORT

International application No
PCT/NL2008/050668

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 640 789 A (MALIZIA MARIO [IT]) 1 March 1995 (1995-03-01) column 3, line 19 - column 6, line 23; figures 1-5 -----	1-8
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/NL2008/050668

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