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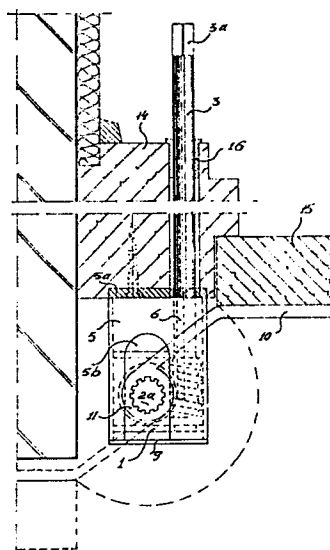
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54 **Adjustable turning-mechanism for existing and new shutters or similar horizontally movable shutting devices.**

57 A turning-mechanism consisting of a case 1, in which a transmission at an angle of 90 degrees is borne and which by means of for instance a guiding-case 5 with a slot-hole 5b in it, is horizontally adjustable, thus making it possible to adjust the turning-shaft by means of for instance the wedge-shaped teeth 2a, this in such a way that the centre of the turning-shaft is in line with the centre of the turning-points of the existing shutters.

Following the installation of the turning-mechanism (mostly between the two existing hinges) the so-called "third hinge" (as far as shape is concerned identical to the existing hinges) is mounted, after which the shutters can be opened, closed or fastened in any desired position from indoors by means of a service-handle which is shoven on the driving-shaft 3.



ADJUSTABLE TURNING-MECHANISM FOR EXISTING AND NEW SHUTTERS
OR SIMILAR HORIZONTALLY MOVABLE SHUTTING DEVICES.

The invention has bearing on a turning-mechanism with shaft and wheel with wedge-shaped teeth or any other transmission, which by means of a guiding-case, guard or by the driving-shaft of the turning-mechanism itself, is horizontally adjustable.

The intended result of the invention is to make it possible to open and close particularly existing shutters but also initially installed ones from indoors and at the same time fix them in any desired position with a turning-capacity ranging from zero till at least 180 degrees.

The construction is characterized for this purpose because the turning-mechanism is horizontally adjustable with regard to the turning-point of the existing shutters and by these means is universally applicable. The invention will be further explained by means of the drawings, with which one of the possible executions is presented. The drawings show:

- drawing 1 front-view of the wedge-shaped driving-borne in a case.
- drawing 2 section II-II of drawing 1.
- drawing 3 the guiding-case, in which section III-III of drawing 2.
- drawing 4 the so-called "third hinge-blade" in front- and topview.
- drawing 5 the service-handle and
- drawing 6 the assembled mechanism mounted on a window-frame and shutter.

Drawing 1 and 2 show the turning-mechanism which consists of a case 1, in which in the usual way the turning-shaft with wheel with wedge-shaped teeth 2 and the driving-shaft with wedge-shaped teeth 3 are borne. The end of the turning-shaft 2 is provided with wedge-shaped teeth 2a, on which the "third hinge-blade" as explained in drawing 4 is

mounted, as the ending of the driving-shaft 3 has been :
squared 3a so that the service-handle shown in drawing 5
can be shoven on.

5 In the case 1 a taphole is made for the adjusting-bolt 6,
which is shown in drawing 3.

Drawing 3 shows the guiding-case 5 with mounting-sheet 5a
which can be made of metal or other material and has an
open slot-hole 5b and a round hole 5c, which are placed in
such a way, that the turning-shaft 2 and the driving-shaft 3
10 of the turning-mechanism can slide without hindrance.
The adjustability of the turning-mechanism as in drawings 1
and 2, is achieved by means of the adjusting-bolt 6 which
at the same time, after mounting of the mounting-sheet 5a
is fixed on the window-frame 7.

15 It should be pointed out that in case of extreme variations
in dimensions of existing shutters in particular, the length
of the guiding-case should be sufficient and that after
adjustment of the turning-mechanism the empty space 8 of
the guiding-case in the front of the case 1 should be
20 shortened in such a way, that the outside of the guiding-
case 5 should not touch the inside of the turning-circle
of the shutter (drawing 6), after which the guiding-case 5
can be covered by a lid 9, made of artificial material for
instance.

25 Drawing 4 shows the so-called "third hinge-blade" which
as far as shape is concerned is similar to the usual shape
of most hinges, with the exeption of the connection 11,
which is provided with a hole with wedge-shaped teeth,
which is slid on the ending 2a of the turning-shaft 2.

30 The shape of the "third hinge-blade" should be changed
by means of either a bending 12 or a possible adjustable
hinge-joint that should be fixable in such a way that the
junction 11 after mounting of the assembled mechanism
will lie on the window-frame above the ending 2a of the
35 turning-shaft 2 and so that the "third hinge-blade"
connects with the shutter.

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Drawing 5 shows one of the possible constructions of the service-handle 13, with which the turning-mechanism is put into operation.

5 Drawing 6 shows the assembled mechanism mounted on a window-frame 14 with a shutter 15 turning into the frame and shows how the turning-mechanism operates.

The driving-shaft 3 is borne at the inside of the frame 14 by means of a bearing 16, eventually made of artificial material, which secures the proper operation of the turning-
10 mechanism.

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CONCLUSIONS.

1. Adjustable turning-mechanism for existing and new shutters or similar horizontally movable shutting devices with the characteristic that the turning-mechanism is horizontally adjustable with regard to the turning-point of particularly existing- and also initially installed shutters and by these means universally applicable.
2. Construction according to conclusion 1, with the characteristic that it makes it possible to open and close existing and new shutters from indoors (shutters on flats) as well as turn them in any desired position (sunshade) and at the same time fix them tight so that the traditional windlocks and shutterlocks can be disposed of (security).
3. Construction according to conclusions 1 and 2 with the characteristic that in case of initially installed shutters no windlocks and shutterlocks are needed, while the "third hinge-blade" can serve as lower hinge.
4. Construction according to conclusions 1, 2 and 3 with the remark that since the shutters can be closed and opened from indoors, they will be used sooner and more often, especially under bad weather-conditions (economizing on energy).

Enclosure: 3 sheets of drawings.

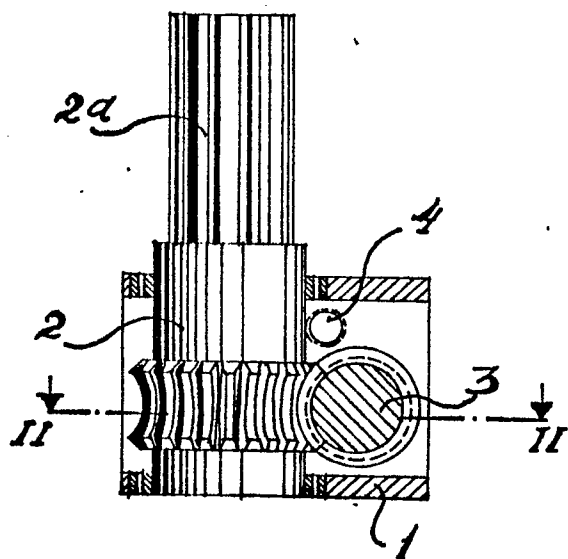
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FIG. 1

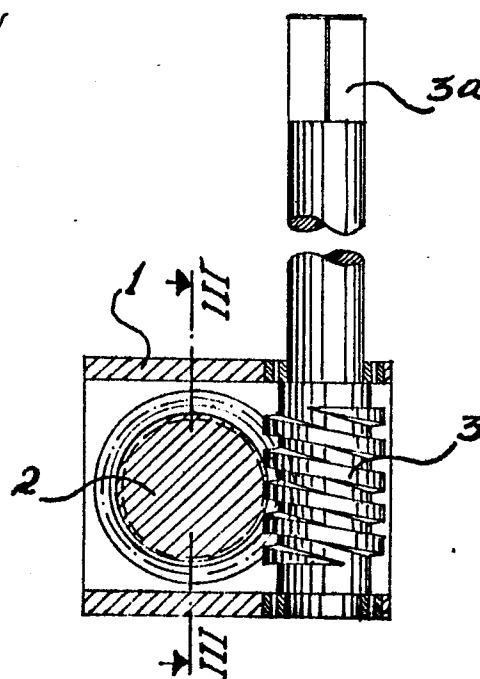


FIG. 2

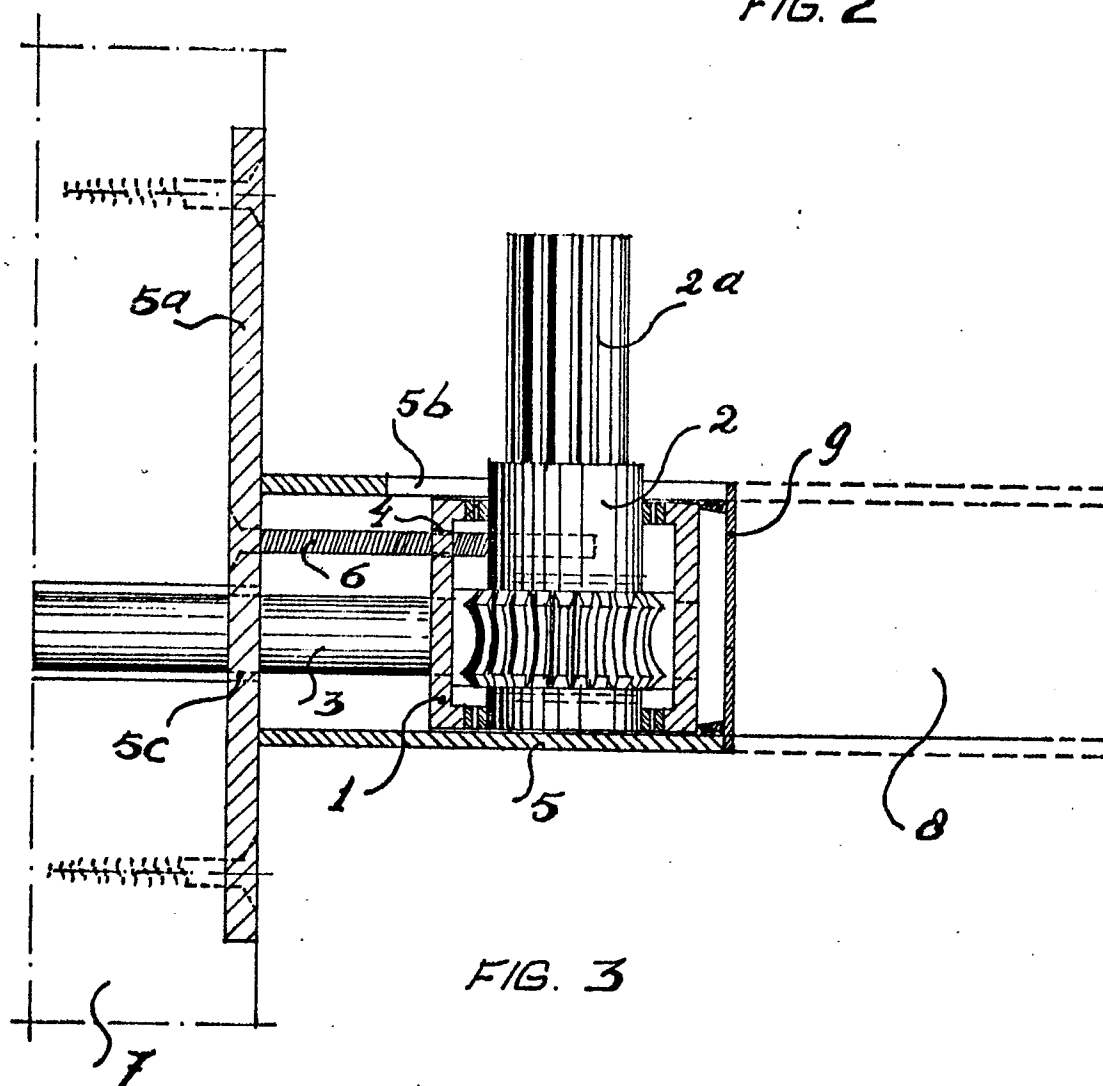
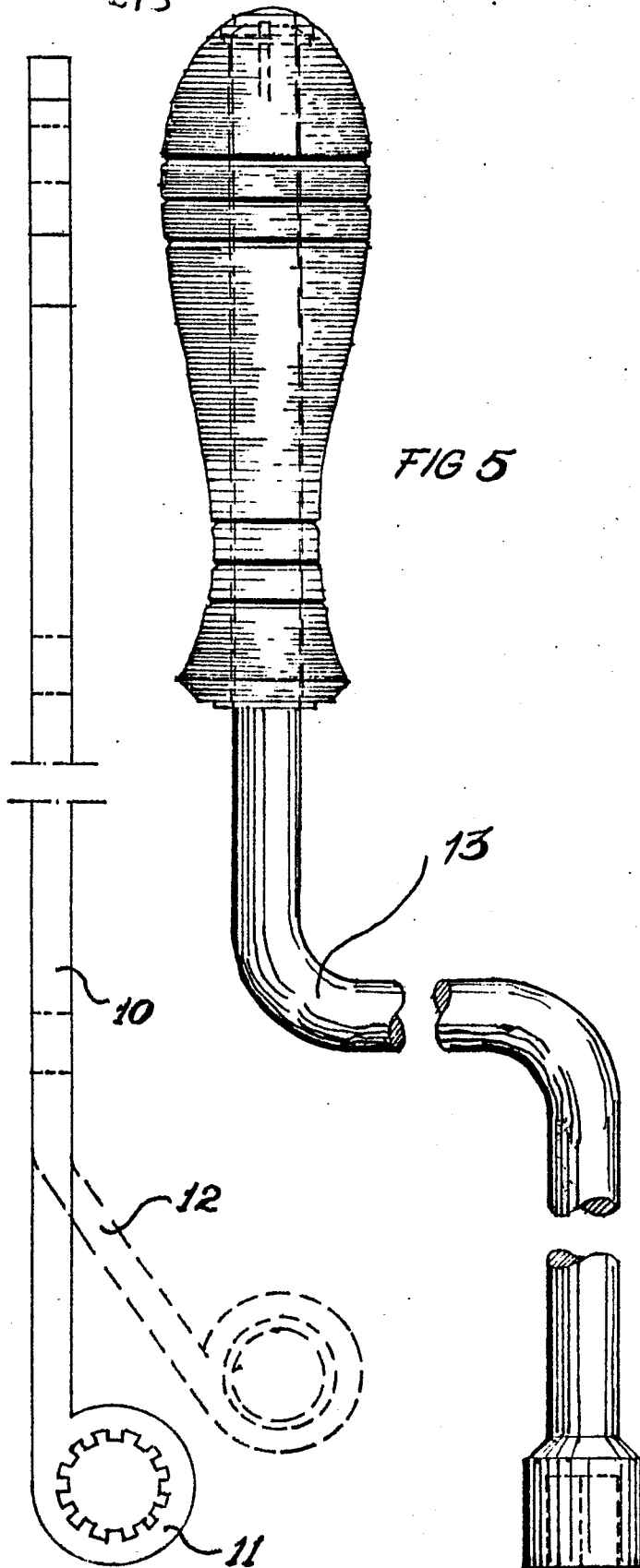
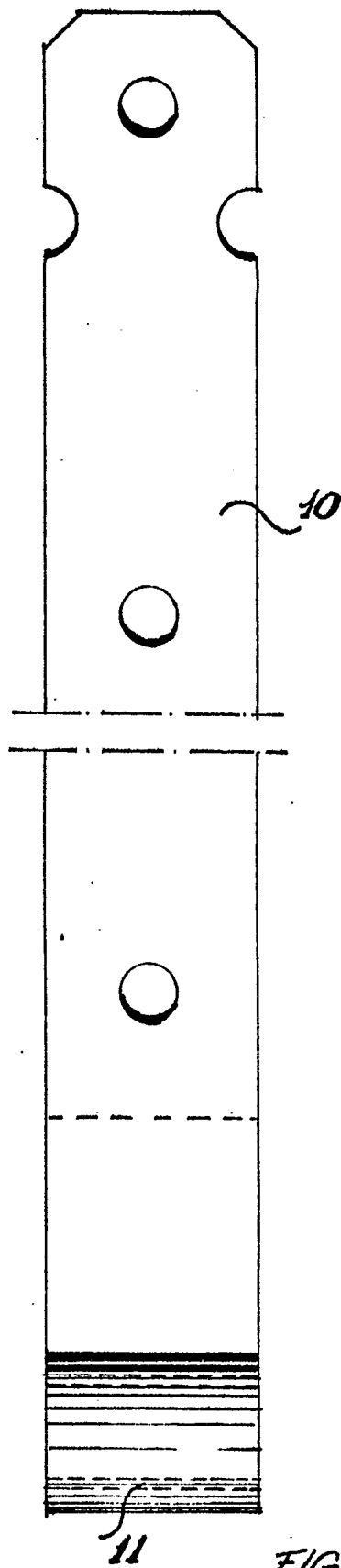
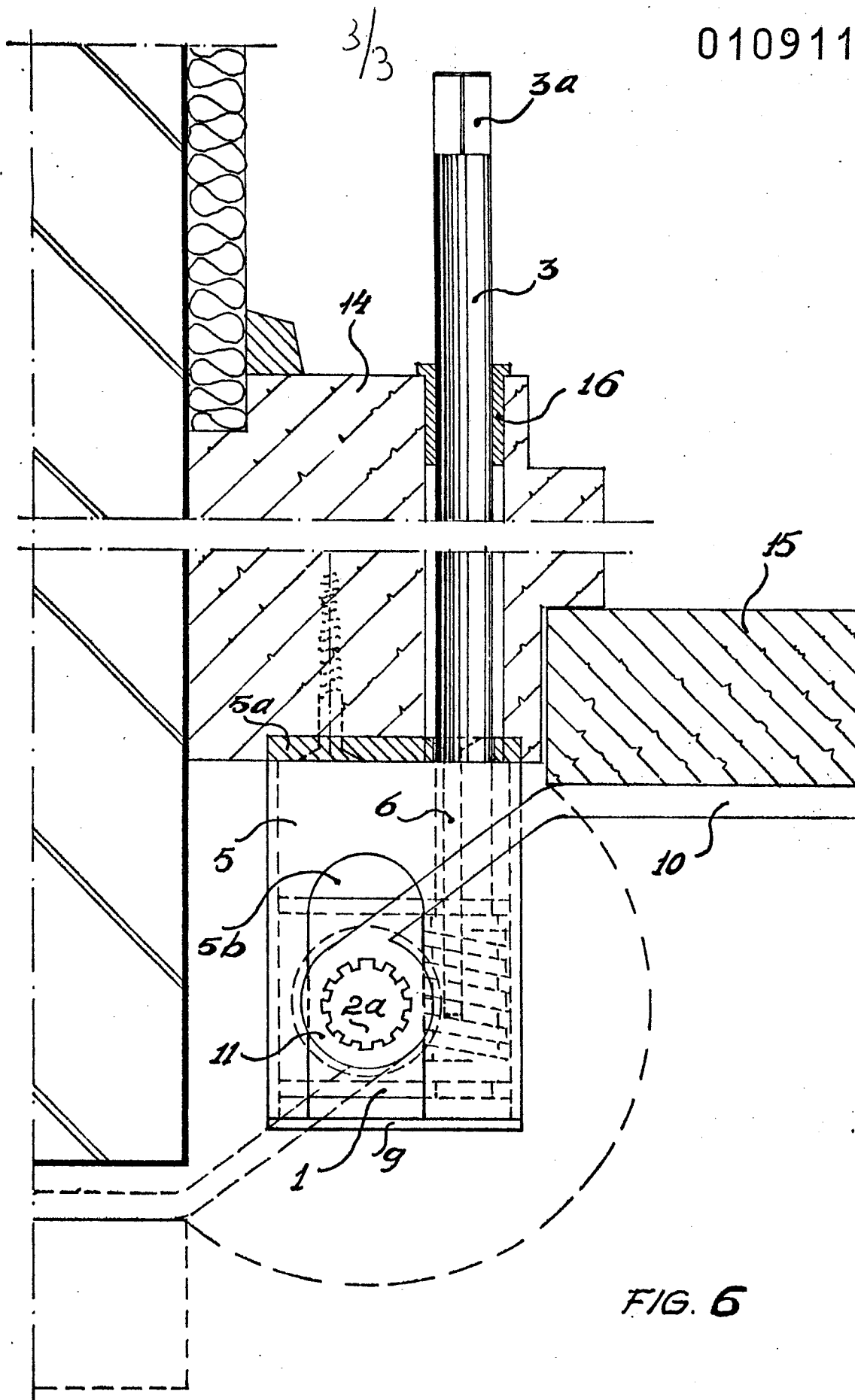


FIG. 3







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EUROPEAN SEARCH REPORT

0109112
Application number

EP 83 20 1515

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. ³)
A	CH-A- 103 600 (RIMEY) * Whole document *	1-3	E 05 F 11/36
A	FR-A-2 504 969 (GEISSERT) * Page 2, lines 3-28; figure 1 *	1	
A	DE-A-2 125 626 (TAYLOR) * Page 5 *	1	
A	DE-C- 489 159 (LAABS et al.) * Claim 1 *	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl. ³)
			E 05 F
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 15-02-1984	Examiner NEYS B.G.
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			