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(54) MODULAR STABLE STAND WITH MULTI-PURPOSE ASSEMBLY

(57) The invention relates to a modular stable stand with multi-purpose assembly (Figure 1), formed by two parts which are provided with mechanical coupling elements, clips or standard screws for holding said parts in place. The upper part of the invention includes a hole for receiving different types of sign holders. The longitudinal segment of the assembly is also provided with a hole which is used to join multiple stands using a bar, such as to form different stands to meet different types of needs. The upper part of the invention is fitted with a cap so that it can be filled with water or other elements such as sand. The lower part of the invention is fitted with another cap so that it can be emptied. In addition, the stand is provided with two handle-forming slots to facilitate the transport thereof. One embodiment of the invention has been fitted with small projections in the lower part thereof to provide improved adhesion in the event of ice or snow on the road surface.

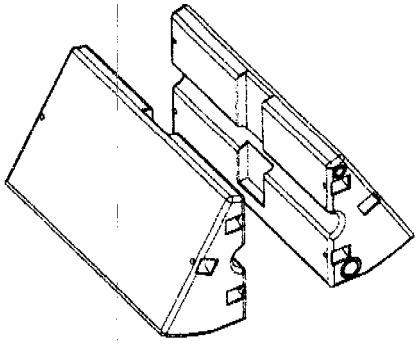

FIG. 1

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Description

Object of the Invention

[0001] The present invention relates to a modular stable stand mainly intended for the sector of civil works and road signs.

State of the Art

[0002] As background of the invention, temporary sign holders with a widespread use are known, which have low stability and different outer elements of a different nature (wheels, bricks, bags of sand, drums, stones...) must occasionally be used as a measure to ensure that the balance thereof is maintained.

[0003] Patent no. P 200202013, which has the feature of creating a stable stand with a single part, is also found as a background.

[0004] To prevent the drawbacks associated to stands of this type which are known and used in the current state of the art, the object proposed by the present invention has been conceived and designed such that it also provides, in addition to the ease when fixing the stand in a stable position, greater safety, reliability with regard to its good operation and the improvement of its professional and aesthetic appearance.

[0005] The modular stable stand (see Figure 1), object of the present description, consists of a base body obtained from plastic material formed from two halves the geometry of which allows receiving the mast of temporary signs (see Figure 2), providing the novelty of being able to receive or secure other road elements given its modularity and assembly feature.

[0006] Both halves of the body can be hollow and be suitably filled with different elements such as for example water or sand, thus facilitating the transport thereof, they can also be filled with concrete for permanent placements or partially as a preload for small stresses.

[0007] The main feature is that it allows holding different temporary sign elements and also facilitating the creation of different structures given its modulation ease.

[0008] In addition, the particular geometry with which it has been designed provides the object of the present invention with improved stability qualities with respect to those of the current art.

Description of the Intention

[0009] The main feature and improvement of the present invention with respect to the prior art is that of forming a modular stable stand capable of creating different securing assemblies for several different types of signs.

[0010] Said modular stable stand will be formed by two parts or halves, which are provided with mechanical coupling elements, clips or standard screws for keeping both parts forming the assembly joined together. The upper part of the assembly also has a hole which allows receiving different types of sign elements.

[0011] The assembly has a through hole in the longitudinal direction which is used to join multiple stand modules by means of a bar, such as to form different stands to meet different types of needs.

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Brief Description of the Drawings

[0012] To aid in better understanding, what is described in the present specification is shown only by way of an illustrative and non-limiting example.

Figure 1 is a perspective view of a modular stable stand according to the invention in the open condition (both parts or halves separate);

Figure 2 is a perspective view of a modular stable stand according to the invention, with a detail of holding a sign of any type;

Figure 3 is a perspective view of respective modular stable stands with a detail of assembling and holding a sign of any type;

Figure 4 is a perspective schematic view of several modular stable stands arranged so as to allow creating a protection barrier.

Figure 5 is a perspective view of an alternative of multi-purpose sign stand with the holding of a very large mast;

Figure 6 is a perspective view of an example of a modular stable stand used to create a securing on a crash barrier, and

Figure 7 is a schematised illustration of several modular stable stands creating a raised barrier with its half bodies.

Description of a Preferred Embodiment

[0013] The present invention provides the novelty of being modulable to be able to configure different models of use, thus solving different situations in civil works and in signs normally requiring different elements to solve each particular case.

[0014] The object of the invention allows, due to its modularity, the possibility of configuring: a stand for temporary signs (Figure 2), a stand for very large signs (Figure 3), a protection barrier (Figure 4) in civil works, a stand for very large masts (Figure 5) such as temporary traffic lights and lighting, as well as any combination combining several of these possibilities of use.

[0015] A multi-purpose stand configured with two parts

can also be created, which allows increasing the variety of use thereof, such as for example for the creation of a raised barrier (Figure 7) using to that end an arrangement of its base elements.

[0016] The modular stable stand with multi-purpose assembly (Figure 1) consists of two parts or halves made of plastic material with a general prismatic geometry with a triangular cross-section, which at its upper part has a hole with a base for holding a standard sign bar. At the central part of the assembly it has another hole running according to the longitudinal direction from one part of the stand to another, which allows placing a bar for the possible modulation of two or more multi-purpose stands.

[0017] In its upper part it is fitted with a cap so that it can be filled with water or other elements such as sand or concrete, having another cap in its lower part so that it can be emptied in the commonest case that water is used.

[0018] The stand in its assembly has two handle-forming slots (Figure 1) to thus facilitate the transport thereof. An alternative embodiment has been fitted with small projections in the lower part thereof to provide improved adhesion in the event of ice or snow on the road surface.

Claims

1. A modular stable stand with multi-purpose assembly, of the type comprising a sign-brace-counterweight assembly the rocking point of which is the actual counterweight, with curve geometry in its base, and the contact of which with the ground is in a line, **characterised in that** is formed by parts or halves (Figure 1) which can be coupled to one another and can adopt different configurations, such that coupled to one another they form a modular element capable of receiving and holding a conventional sign element (Figure 2).

2. The modular stable stand according to claim 1, **characterised by** comprising a modular element or body capable of being assembled and supported on the side thereof, such that it allows receiving a very large sign element such as traffic lights or a streetlamp (Figure 5).

3. The modular stable stand according to claim 1, **characterised in that** in an embodiment it provides a holding means for crash barrier or gap elements (Figure 6).

4. The modular stable stand according to claim 1, **characterised in that** each of the halves of the body used separately and successively aligned provide a raised surface formation element as a result of the inclination of its side faces (Figure 7).

5. The modular stable stand according to claim 1, **characterised in that** its lower part has projections intended to allow better adhesion in ice or snow conditions.

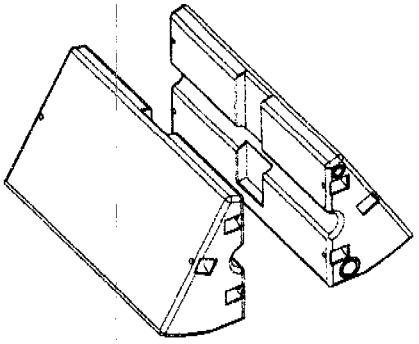

FIG. 1

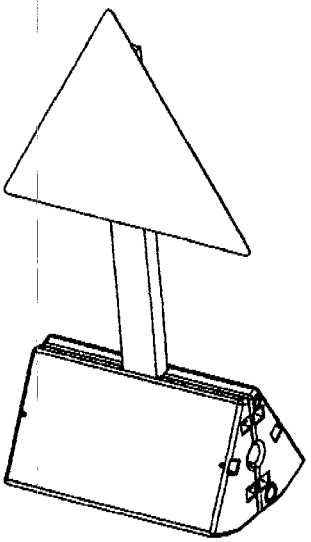

FIG. 2

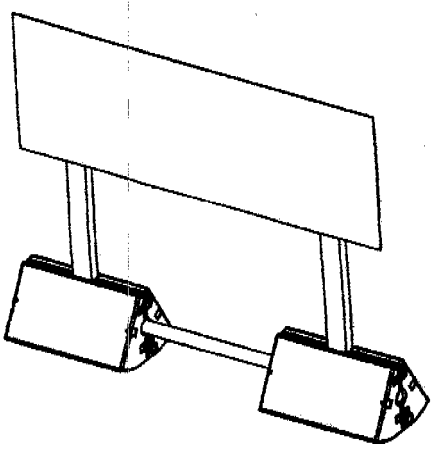

FIG. 3

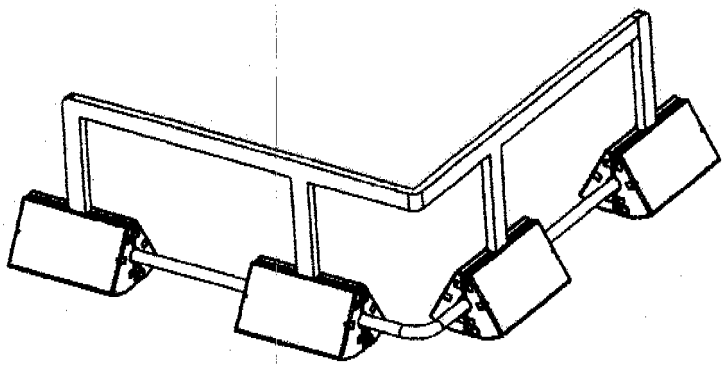

FIG. 4

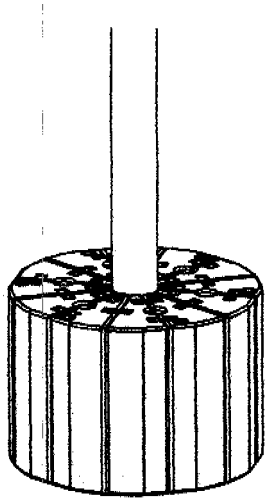

FIG. 5

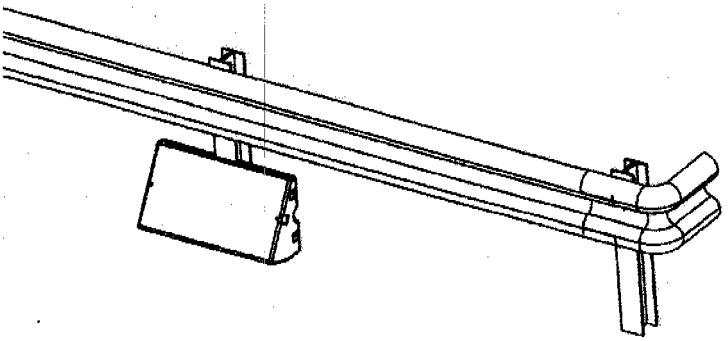

FIG. 6

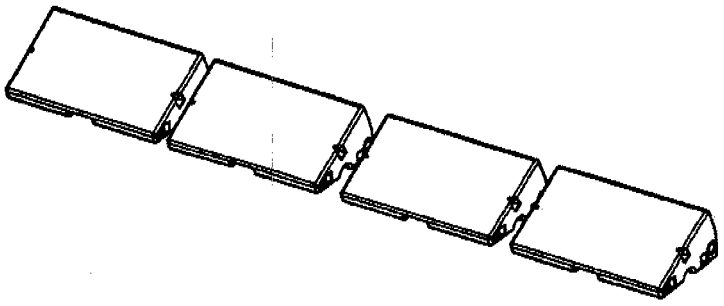

FIG. 7

INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

see extra sheet
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)
E01F, G09F

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 practicable, search terms used)

CIBEPAT,EPODOC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4766686 A (GLASENER et al.) 30.08.1988, column 2, line 63 - column 6, line 51; figures.	1
A	GB 2308913 A (VENTURE PROJECTS) 09.07.1997, the whole document.	1
A	WO 8502287 A1 (HOLM BERNT) 23.05.1985, page 2, line 4 - page 3, line 13; figures.	1
A	FR 1272889 A (CHAUVE ET PIALLAT ETS) 29.09.1961, the whole document.	1
A	GB 189559 A (HARRY GEORGE WHITTON) 05.12.1922, the whole document.	1
A	FR 1122179 A (JOSE BOIRON) 03.09.1956, the whole document.	1
A	US 1459866 A (DALE et al.) 26.06.1923, the whole document.	1

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents:
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"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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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
22.October.2007 (22.10.2007)	(31/10/2007)
Name and mailing address of the ISA/ O.E.P.M. Paseo de la Castellana, 75 28071 Madrid, España. Facsimile No. 34 91 3495304	Authorized officer Mª J. Cuenca González Telephone No. +34 91 349 30 74

Form PCT/ISA/210 (second sheet) (April 2007)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/ ES 2007/070127

Patent document cited in the search report	Publication date	Patent family member(s)	Publication date
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GB 189559 A	05.12.1922	NONE	----------
FR 1122179 A	03.09.1956	NONE	----------
US 1459866 A	26.06.1923	NONE	----------

Form PCT/ISA/210 (patent family annex) (April 2007)

INTERNATIONAL SEARCH REPORT

International application No.

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CLASSIFICATION OF SUBJECT MATTER

E01F 9/017 (2006.01)
G09F 7/22 (2006.01)

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REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- WO P200202013 A **[0003]**