

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 1 120 771 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention
of the grant of the patent:
18.08.2004 Bulletin 2004/34

(51) Int Cl.7: **G09F 15/00**

(21) Application number: **01200271.3**

(22) Date of filing: **26.01.2001**

(54) **Stand for advertising and information purposes**

Werbe- und Informationsstände

Support pour la réclame et l'information

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR**

(30) Priority: **28.01.2000 NL 1014213**

(43) Date of publication of application:
01.08.2001 Bulletin 2001/31

(73) Proprietor: **Staten Productdevelopment B.V.
2582 AG Den Haag (NL)**

(72) Inventor: **Van Raalte, Alexander Karl
Cornelis de Wittlaan 111 2582AG Den Haag (NL)**

(74) Representative: **Lips, Hendrik Jan George, Ir. et al
HAAGSCH OCTROOIBUREAU
Breitnerlaan 146
2596 HG Den Haag (NL)**

(56) References cited:
US-A- 5 442 871 US-A- 5 875 578

Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

EP 1 120 771 B1

Description

[0001] The invention relates to a stand for advertising and information purposes substantially comprising a frame, a ballast holder and a holder member for communication expressions. The communication expressions are definitely not limited to clamping in advertising posters, but can range from e.g. a board to be written on with chalk, price indicators having changeable digits, to clamping printed panels or otherwise in the holder frame, and clamping or tensioning products to be recommended per se, as well as any possible combination thereof.

[0002] Although stands for advertising and information purposes, provided with a ballast body or ballast holder are known per se, the object of the invention is to provide for a stand which is also very stable with high wind loads, which can be assembled quickly and in a simple way, and which can furthermore be manufactured at relatively low cost.

[0003] In document US-A- 5 875 578, a portable sign stand is disclosed with resilient means and a ballast-type foot for stability.

[0004] Accordingly, the invention provides for, that the stand comprises a frame, a ballast holder having one or more compartments, a holder member for communication expressions and resilient connecting means mounted between said holder member and said frame, said frame substantially comprising at least two supporting beams extending approximately in parallel, at or near their midpoints provided with receiving elements intended for receiving said resilient connecting means. Here, according to a further elaboration, it is further provided for, that the ballast holder has its bottom side provided with recesses extending approximately in parallel for receiving said supporting beams at least partly in height and length, and that through-holes presenting a passage for said receiving elements, are provided at or near the axes of the recesses.

[0005] Thereby, it is achieved that the wind load on the holder member is directly transferred to the supporting beams through the resilient connecting means, without any force being exerted on the ballast holder.

[0006] The recesses made in the bottom side of the ballast holder provide for that the supporting beams will always be at approximately right angles to a vertically positioned holder member for communication expressions and will also be maintained in that direction. The depth of the recesses is smaller than the total vertical thickness of the supporting beams so that the stand will only bear on the supporting beams and the ballast holder will not touch the ground. Since with the stand according to the invention no forces are transferred to the ballast holder and the latter does not touch the ground nor can be dragged across the ground, due to which leakage as a consequence of worn surfaces is impossible, but said ballast holder will bear completely freely on said supporting beams, the ballast holder need only be

designed for holding ballast, which will usually be water. Therefore, the ballast holder for the stand according to the invention need only be designed for holding ballast, as a result of which a relatively thin wall thickness will suffice and the ballast holder can be manufactured at relatively low cost.

[0007] According to a preferred embodiment, it is provided for that the receiving elements substantially comprise a bush and that the resilient connecting means have one end provided with pins, intended for being received in said bushes, in which preferably provisions have been made in the bushes and pins to have bushes and pins engage by a snap connection.

[0008] With such a pin and bush system one obtains a particularly simple way of connection which can be established by anyone in practice.

[0009] By providing a snap connection between pin and bush, on one hand it is achieved that a holder member having a communication expression can not be taken along by passing vandals just like that, and that on the other hand a reliable point of application is obtained for moving the stand as will be explained hereinafter. The snap connection is preferably mounted such that one has to make some effort in order to release it. To that end, the essential parts of the snap connection are only accessible from the bottom side of the stand, for example.

[0010] Further, with the stand according to the invention it is important, that the force, caused by the wind load, which is exerted on the resilient connecting means through the holder member, and with it the force exerted on the supporting beams is distributed evenly, in order to prevent an uneven distribution of forces which might cause a relative movement between the supporting beams and with it the possibility that a force might be exerted on the ballast holder after all.

[0011] In order to prevent such a movement, the supporting beams beneath the ballast holder can be rigidly connected to each other, however, according to the invention it is preferably provided for, that the resilient connecting means engage the holder member for communication expressions by means of a stiffening frame. Various tests have shown that a stiffening frame substantially comprising stiffening angle parts, having been mounted in the bottom angles within the profile of the holder member and therefore being trapped and extending across a predetermined length at both sides of the angle points, give the holder member sufficient stiffness for always obtaining a proper distribution of forces across the receiving elements.

[0012] In case of communication expressions substantially comprising a plate-shaped element and requiring no holder member having a circumferential profile edge, a stiffening frame can be formed by the angle parts connected to the receiving elements and the plate-shaped element per se. Then, the angle parts when seen in a direction perpendicular to their legs will preferably have a U-shaped cross-section for being able to

receive the plate-shaped element, in which fastening means for fastening the plate-shaped element to the angle parts have been provided as well.

[0013] In order to offer the possibility of moving the stand in a simple way, according to a further elaboration, a set of wheels can be mounted at one side to a supporting beam, being spaced apart, in which at both sides of the wheel the shaft of each wheel is connected to the supporting beam through a fastening arm. In a normal position of the stand, the wheels are a small distance above the ground, but in case of slight tilting of the stand into a direction perpendicular to said supporting beams, to which end the stand can be grasped at the holder member, the supporting beams will come free from the ground and the stand can be moved. Further it is stated that tilting of the supporting beam by the wheels located at some distance from it is impossible due to the unitary structure having the pin and bush system and the holder member profile stiffened by angle parts.

[0014] Preferably, at both of their ends, at both sides of the wheels, the wheel shafts have been received directly in a fastening arm in order to prevent the wheel shafts from bending-through under the weight of the ballast at all times.

[0015] The invention is further explained by way of the example given in the drawing, in which:

Fig. 1 shows a side view of a stand according to the invention;

Figs. 2A,B,C,D,E show bottom, plan, side, front and rear views, respectively, of a part of the frame and the ballast holder;

Figs. 3A,B show a plan view and a cross-section of a first supporting beam;

Figs. 4A,B show a plan view and a cross-section of a second supporting beam having wheels fastened to it; and

Figs. 5A, B show partly in view and in cross-section, a mounted and a dismounted assembly of receiving element and connecting means.

[0016] Fig. 1 shows a side view of a stand having a frame 1, a ballast holder 2 and a holder member or interchangeable frame 3 being connected to the frame 1 by connecting means 4. The frame comprises supporting beams 5, 6, wheels 9, 10 being mounted to one of the supporting beams with forks 7, 8 (see also Fig. 2).

[0017] Fig. 2A shows the bottom side of the ballast holder 2 with part of the frame 1 and with the recesses 12, 13 for the respective supporting beams 5, 6 made in the flat bottom 11 of the ballast holder. Further recesses 14, 15 have been made for the forks 7, 8 with the wheels 9, 10. The wheels 9, 10 are located within the outermost circumferential edge 16, but protrude far enough beyond the lowermost lateral restriction 17 of the ballast holder for coming into contact with the ground in case of a slightly tilted stand or a tilted ballast holder. Neither do both supporting beams 5,6 protrude beyond

the outermost circumferential edge 16, so that when seen from above, the shape of the ballast holder 2 will not be disturbed by various projections.

[0018] Usually, through-holes 18, 19 (Fig. 2B) for the bushes 20, 21 have been provided in the ballast holder (see Fig. 3). Further, the holes are provided with collars 22, 23 having approximately the same diameter as the connecting means 4. However, this has been done for visual reasons only and not for supporting the connecting means 4, since these will come to bear on the bushes 20, 21 (see Fig. 5).

[0019] Figs. 3A,B and Figs. 4A,B show a plan view and a cross-section, respectively, of the supporting beams 5, 6, which clearly indicate the shape of the receiving elements 20, 21 comprising tube portions 20, 21. Said tube portions or bushes 20, 21 project into the supporting beams 5, 6 of square cross-section and have been welded to them. In the opposite sides of the supporting beams 5, 6, openings 24, 25 have been provided immediately below the bushes 20, 21, said openings having a function in releasing a snap connection between the connecting means 4 and the bushes 20, 21, as will be further explained hereinafter (see Fig. 5).

[0020] The outer ends of the supporting beams 5, 6 mount sealings 26, 27, 28, 29 having extensions 26', 27', 28', 29' against a part of the bottom side of the supporting beams 5, 6. These extensions are preferably made of a frictional material and serve for preventing sliding of the stand caused by e.g. the wind. The thickness of said extensions 26', 27', 28', 29' determine partly or even completely the clearance of the ballast holder 2 in relation to the ground.

[0021] Finally, Figs. 5A,B show a mounted and dismounted assembly, respectively, of a bush 21 mounted on a supporting beam 6 and a hollow pin 30 fitting into it, the hollow pin 30 being connected to the connecting means 4. The connecting means 4 substantially comprise a draw spring 31, 32 being provided at the outer end of a fastening member not further indicated, said outer end contacting the hollow pin 30, with said fastening member being intended to engage the thread means 33 mounted within the pin, and in which said pin has its other outer end fastened to a fastening member likewise not further indicated, through a fitting 34, said fastening member being intended for engaging a threaded hole of a stiffening angle piece 36 mounted in the profile 35.

[0022] For receiving a communication expression not further indicated, the profile 35 has both sides provided with clamping edges 44, 45 which can be swung aside and which are known per se.

[0023] With draw spring 32 and pin 30 secured to one another, the bottom side of the draw spring forms a stop by which the draw spring comes to lie against the top side of the bush 21. At the bottom side, the hollow pin 30 holds a spring 37 having its shoulders 38, 39 project outwardly through openings 40, 41 in the pin 30. When inserting the pin 30 into the bush 21, the spring is pushed inwards by the obliquely ascending shape of said shoul-

der parts 38, 39 and the pin can easily be slid into the bush. The length of the pin 30 is chosen such that when the draw spring 32 contacts the upper edge of bush 21, shoulder parts 38, 39 of spring 37 have just passed the bottom side of bush 21 and are driven out by spring force. The straight portions of shoulder parts 38, 39 now contact the bottom side of bush 21 and removing the pin 30 from the bush 21 is no longer possible without difficulty.

[0024] In order to remove the pin 30 from the bush 21, the shoulder parts 38, 39 first have to be brought within the inner diameter of bush 21 again. This can be done by inserting a pipe part having the same diameter as the bush 20, 21 through openings 24, 25 in the supporting beam 5, 6 illustrated in Figs. 3B, 4B and pushing said pipe part across said spring as a result of which it will come to lie within the circumference of the pin again.

[0025] Pin 30 is further provided with grooves 42, 43 for receiving O-rings which must provide for an exact fit of pin 30 within bush 21.

Claims

1. Stand for advertising and information purposes, comprising a frame (1), a ballast holder (2) having one or more compartments, a holder member (3) for communication expressions and resilient connecting means (4) mounted between said holder member (3) and said frame (1), **characterized in that**

- said frame (1) substantially consists of two inverted T-shaped members, each having a horizontal beam (5,6) and an upward directed leg, the leg (20,21) being rigidly connected to the horizontal beam (5,6),
- the ballast holder (2) is provided at the bottom side with two spaced apart and parallel recesses (12,13) shaped to receive the horizontal beams (5,6) of the inverted T-shaped members and two through-holes (18,19) at or near the midpoints of the recesses (12,13) and substantially perpendicular thereto to let freely pass the upward directed legs (20,21) of the inverted T-shaped members, and that
- locking means (37-41) are provided to releasable lock extensions (30), which are connected to the resilient connecting means (4), into the legs (20,21).

2. Stand according to claim 1, **characterized in that** the upward directed leg of the inverted T-shaped member consists of a hollow beam or tube portion (20,21) forming a bush, and that the resilient connecting means (4) have an extension (30) that fits into a bush formed by the upward directed leg (20,21) of the inverted T-shaped member.

3. Stand according to claims 1-2, **characterized in that** the resilient connecting means (4) engage the holder member (3) for communication expressions by means of a stiffening frame (35,36).

4. Stand according to claim 3, **characterized in that** a stiffening frame (35,36) substantially comprising stiffening angle parts (36), having been mounted in the bottom angles within the profile of the holder member (3) and being trapped therein and extending across a predetermined length at both sides of the angle points.

5. Stand according to claims 1-4, **characterized in that** the locking means (37-41) consists of a snap connection between the bushes (20,21) and pins (30).

6. Stand according to claims 1-5, **characterized in that** at least one supporting beam (5,6) mounts a set of wheels (9,10), being spaced apart, in which at both sides of the wheel (9,10) the shaft of each wheel (9,10) is connected to the supporting beam (5,6) through a fastening arm (7,8).

7. Stand according to claim 6, **characterized in that** the wheels (9,10) have been mounted such, that they are situated at least partly below the ballast holder (2) and that subsequent further recesses (14,15) for receiving the wheels (9,10) at least partly have been provided in the bottom side of said ballast holder (2).

8. Stand according to claims 1-7, **characterized in that** at least one of the supporting beams (5,6) has at least one side provided with a telescoping extension.

9. Stand according to claim 8, **characterized in that** at least one of the supporting beams (5,6) and/or the telescoping extensions thereof are provided with locking aids for locking the stand into the ground.

10. Stand according to claims 1-9, **characterized in that** at least one supporting beam (5,6) is at least at the outer ends provided with friction material or with a friction profile (26-29, 26'-29').

Patentansprüche

1. Ständer für Werbe- und Informationszwecke, umfassend ein Gestell (1), einen Ballasthalter (2) mit einer oder mehreren Abteilungen, ein Halteglied (3) für Mitteilungsausdrücke und zwischen dem Halteglied (3) und dem Gestell (1) angeordnete elastische Verbindungsmittel (4), **dadurch gekennzeichnet**

zeichnet, daß

- das Gestell (1) im wesentlichen aus zwei Gliedern in Gestalt eines umgekehrten T's besteht, von denen jedes einen horizontalen Träger (5, 6) und einen nach aufwärts gerichteten Schenkel aufweist, wobei der Schenkel (20, 21) mit dem horizontalen Träger (5, 6) starr verbunden ist, 5
 - der Ballasthalter (2) an der Unterseite mit zwei räumlich getrennten und parallelen Aussparungen (12, 13) versehen ist, die so geformt sind, daß sie die horizontalen Träger (5, 6) der Glieder in Gestalt eines umgekehrten T's aufnehmen, und mit zwei durchgehenden Öffnungen (18, 19) in oder nahe den Mittelpunkten der Aussparungen (12, 13) und im wesentlichen senkrecht hierzu, um die nach aufwärts gerichteten Schenkel (20, 21) der Glieder in Gestalt eines umgekehrten T's frei durchtreten zu lassen, und daß 10
 - Verriegelungsmittel (37-41) zur lösbaren Verriegelung von Ansätzen (30), die mit den elastischen Verbindungsmitteln (4) verbunden sind, in den Schenkeln (20, 21) vorgesehen sind. 25
2. Ständer nach Anspruch 1, **dadurch gekennzeichnet, daß** der nach aufwärts gerichtete Schenkel des Gliedes in Gestalt eines umgekehrten T's aus einem Hohlträger oder Rohrteil (20, 21) besteht, die eine Buchse bilden, und daß die elastischen Verbindungsmittel (4) einen Ansatz aufweisen, der in eine Buchse paßt, die von dem nach aufwärts gerichteten Schenkel (20, 21) des Gliedes in Gestalt eines umgekehrten T's gebildet ist. 30
3. Ständer nach Ansprüchen 1 bis 2, **dadurch gekennzeichnet, daß** die elastischen Verbindungsmittel (4) am Halteglied (3) für Mitteilungsausdrücke mittels eines Versteifungsrahmens (35, 36) angreifen. 40
4. Ständer nach Anspruch 3, **dadurch gekennzeichnet, daß** ein Versteifungsrahmen (35, 36) im wesentlichen Versteifungswinkelteile (36) umfaßt, die in den unteren Winkeln innerhalb des Profils des Haltegliedes (3) montiert und hierin eingeschlossen sind und über eine vorbestimmte Länge hinweg zu beiden Seiten der Winkelpunkte verlaufen. 50
5. Ständer nach Ansprüchen 1 bis 4, **dadurch gekennzeichnet, daß** die Verriegelungsmittel (37-41) aus einer Schnappverbindung zwischen den Buchsen (20, 21) und Zapfen (30) bestehen. 55
6. Ständer nach Ansprüchen 1 bis 5, **dadurch gekennzeichnet, daß** wenigstens ein Stützträger (5, 6) einen Satz räumlich getrennter Räder (9, 10) trägt, in welchem zu beiden Seiten des Rades (9, 10) die Achse jedes Rades (9, 10) über einen Befestigungsarm (7, 8) mit dem Stützträger (5, 6) verbunden ist.
7. Ständer nach Anspruch 6, **dadurch gekennzeichnet, daß** die Räder (9, 10) so montiert sind, daß sie wenigstens teilweise unter dem Ballasthalter (2) gelegen sind, und daß an der Unterseite des Ballasthalters (2) anschließende weitere Aussparungen (14, 15) zur wenigstens teilweisen Aufnahme der Räder (9, 10) vorgesehen sind.
8. Ständer nach Ansprüchen 1 bis 7, **dadurch gekennzeichnet, daß** wenigstens einer der Stützträger (5, 6) an wenigstens einer Seite mit einem teleskopierenden Ansatz versehen ist.
9. Ständer nach Anspruch 8, **dadurch gekennzeichnet, daß** wenigstens einer der Stützträger (5, 6) und/oder seine teleskopierenden Ansätze mit Blockierhilfen zum Blockieren des Ständers im Boden versehen sind.
10. Ständer nach Ansprüchen 1 bis 9, **dadurch gekennzeichnet, daß** wenigstens ein Stützträger (5, 6) wenigstens an den äußeren Enden mit Friktionsmaterial oder mit einem Friktionsprofil (26-29, 26'-29') versehen ist.

Revendications

1. Statif à des fins de publicité et d'information, comprenant un cadre (1), un support de lest (2) ayant un ou plusieurs compartiments, un élément de support (3) pour des expressions de communication et des moyens de raccordement élastiques (4) montés entre ledit élément de support (3) et ledit cadre (1), **caractérisé en ce que**
- ledit cadre (1) est constitué essentiellement de deux éléments en forme de T renversés, chacun équipé d'une poutre horizontale (5, 6) et d'un pied orienté vers le haut, le pied (20, 21) étant raccordé de manière rigide à la poutre horizontale (5, 6).
 - le support de lest (2) est muni du côté inférieur de deux évidements parallèles et séparés l'un de l'autre (12, 13) formés pour recevoir les poutres horizontales (5, 6) des éléments en forme de T renversés et deux orifices traversants (18, 19) aux points centraux des évidements (12, 13) ou près de ces derniers et sensiblement perpendiculaires à ceux-ci pour laisser passer librement les pieds orientés vers le haut (20, 21) des éléments en forme de T renversés, et

- en ce que**
- des moyens de verrouillage (37, 41) sont prévus pour verrouiller des rallonges détachables (30) qui sont raccordées aux moyens de raccordement élastiques (4), dans les pieds (20, 21). 5
2. Statif selon la revendication 1, **caractérisé en ce que** le pied orienté vers le haut de l'élément en forme de T renversé est constitué d'une poutre ou partie de tube creuse (20, 21) formant une douille, et **en ce que** les moyens de raccordement élastiques (4) ont une rallonge (30) qui s'insère dans une douille formée par le pied orienté vers le haut (20, 21) de l'élément en forme de T renversé. 10 15
3. Statif selon les revendications 1 - 2, **caractérisé en ce que** les moyens de raccordement élastiques (4) viennent en prise avec l'élément de support (3) pour des expressions de communication au moyen d'un cadre de renfort (35, 36). 20
4. Statif selon la revendication 3, **caractérisé en ce qu'un** cadre de renfort (35, 36) comprenant essentiellement des pièces de renfort d'angle (36), ayant été montées dans les angles inférieurs à l'intérieur du profil de l'élément de support (3) et étant emprisonnées dedans et s'étendant sur une longueur prédéterminée des deux côtés des sommets des angles. 25 30
5. Statif selon les revendications 1 - 4, **caractérisé en ce que** le moyen de verrouillage (37 - 41) est constitué d'un assemblage à enclenchement entre les douilles (20, 21) et des broches (30). 35
6. Statif selon les revendications 1 - 5, **caractérisé en ce qu'au** moins une poutre de support (5, 6) porte un jeu de roues (9, 10) séparées l'une de l'autre, dans lesquelles des deux côtés de la roue (9, 10) l'arbre de chaque roue (9, 10) est raccordé à la poutre de support (5, 6) par un bras de fixation (7, 8). 40
7. Statif selon la revendication 6, **caractérisé en ce que** les roues (9, 10) ont été montées de telle manière qu'elles sont situées au moins partiellement en dessous du support de lest (2) et que d'autres évidements subséquents (14, 15) ont été prévus dans la partie inférieure dudit support de lest (2) pour recevoir les roues (9, 10) au moins partiellement. 45 50
8. Statif selon les revendications 1 - 7, **caractérisé en ce qu'au** moins une des poutres de support (5, 6) a au moins un côté muni d'une rallonge télescopique. 55
9. Statif selon la revendication 8, **caractérisé en ce qu'au** moins une des poutres de support (5, 6) et/ou des rallonges télescopiques de celles-ci sont munies d'auxiliaires de verrouillage pour verrouiller le statif dans le sol.
10. Statif selon les revendications 1 - 9, **caractérisé en ce qu'au** moins une poutre de support (5, 6) est munie au moins aux extrémités extérieures d'un matériau de friction ou d'un profil de friction (26 - 29, 26' - 29').

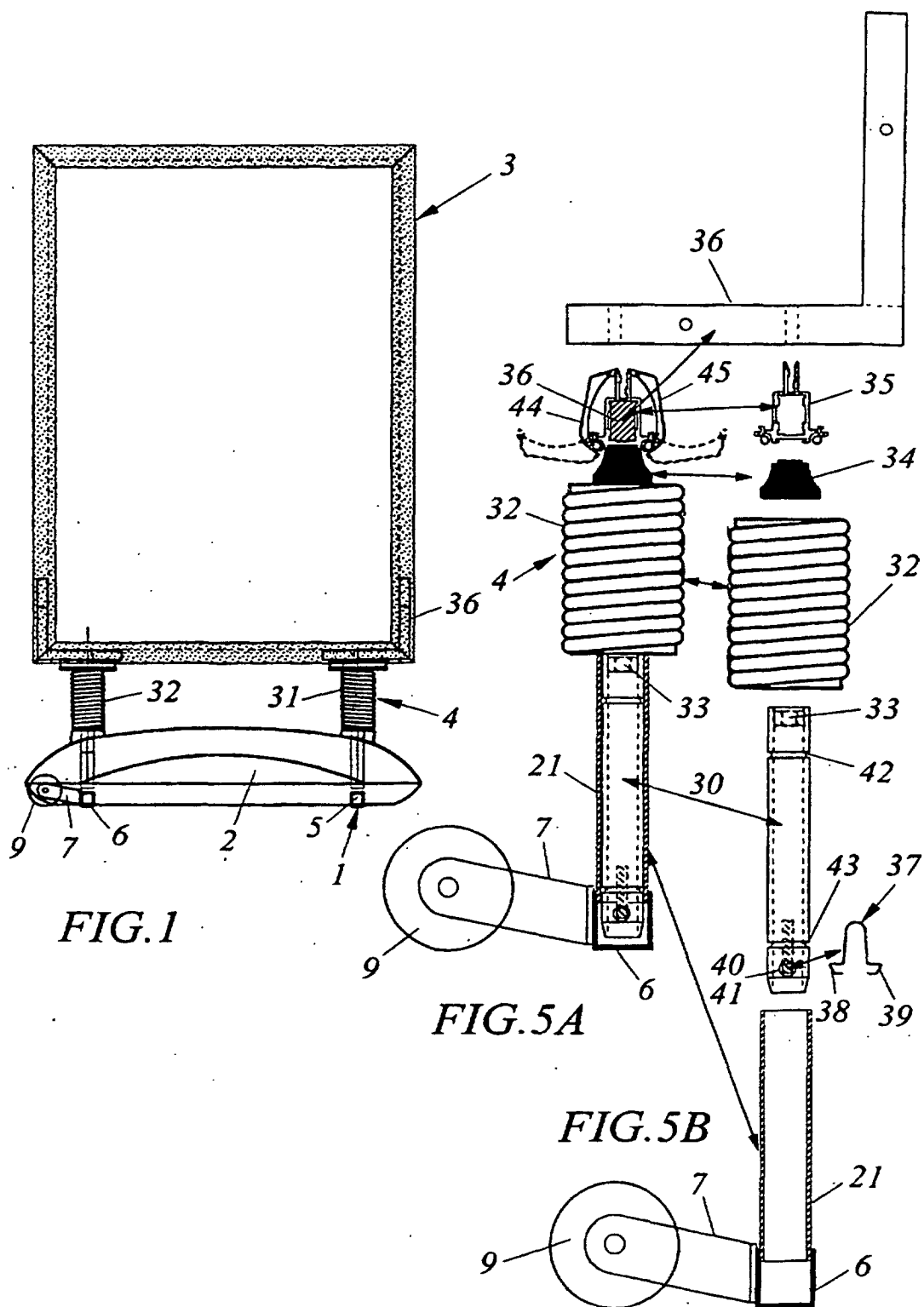


FIG.2A

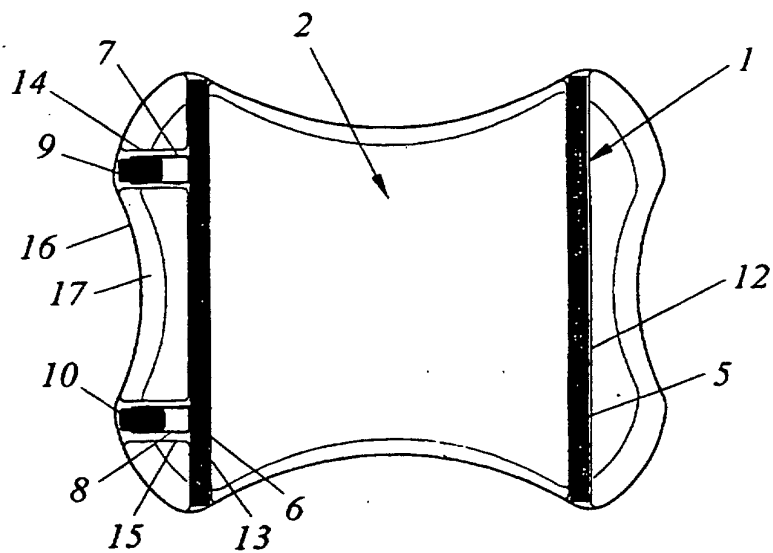


FIG.2B

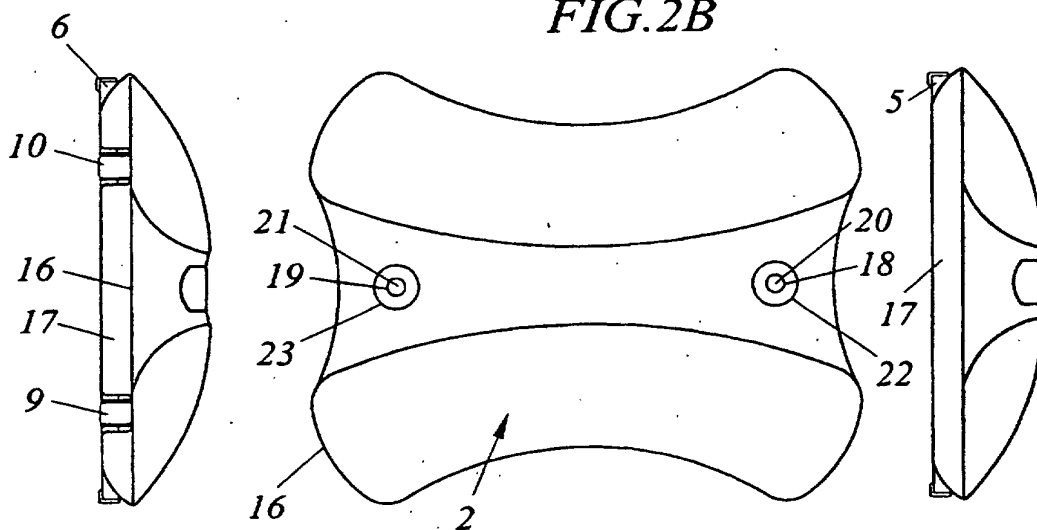


FIG.2D

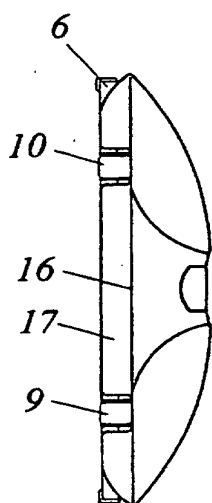


FIG.2C

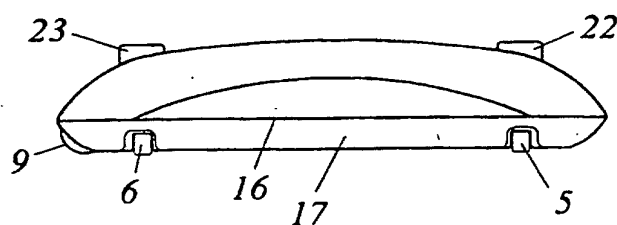


FIG.2E

