

Description

The present invention relates to hinges and especially to hinges for use in portable display systems.

GB-A-1267189 (Archenholtz) corresponds to the preamble of claim 1 and describes a hinge assembly comprising two hinged members, such as a door and door frame, having first and second parallel surfaces, connected together by flexible strips each attached to the first surface of one member and the second surface of the other, and vice versa.

The present invention provides a hinged structure comprising one or more hinges hinging two parts together so that they are parallel and closely adjacent, the or each hinge comprising two members each made of resiliently flexible strip material, each member being S-shaped, passing partially round each part and together with the other member forming a letter X or figure 8 configuration as seen in cross-section, characterised in that the parts round which the members partially pass are pole-like supports and in that respective tensioning means are provided fastening together the ends of the members alongside each support so that the members are tensioned round the supports.

The present invention also provides a hinged structure comprising one or more hinges hinging two parts together so that they are parallel and closely adjacent, the or each hinge comprising two members each made of resiliently flexible strip material, each member being of sinuous form, passing partially round each part and together with the other member forming a letter X or figure 8 configuration around the adjacent parts as seen in cross-section, characterised in that the parts round which the members partially pass are pole-like supports, in that three or more such supports are provided and are so hinged that respective pairs of supports are closely adjacent and parallel and in that respective tensioning means are provided fastening together the ends of the members alongside each end support so that the members are tensioned round the supports.

Although the or each hinge may comprise just the two strip members especially when used in conjunction with one or more identical hinges it is preferred if the hinge comprises at least three S-shaped or sinuous members, two of the members being of the same hand and one or more of the other members being of opposite hand and mounted between those two, each of the outer members of one hand forming the said letter X or figure 8 configuration with the or each of the members of the other hand as seen in a direction along the supports.

In a modification of the structure having a hinge comprising three or more strip members, the hinge is of generally Y — or tuning fork-like form when flat, each of the two arms of the hinge constituting the outer members of the aforesaid structure and the upright of the hinge constituting

the inner member(s) of that structure, the ends of the arms and the upright terminating alongside one of the supports where they are fastened together by the tensioning means tensioning the arms and upright round the supports.

The supports must not have any sharp edges which could damage the hinge members, but, subject to that the supports can be of virtually any, preferably rounded, form in cross-section; for example the supports can be D-shaped in cross-section with rounded corner edges. It is preferred, however, if each support is a substantially right-circular cylinder.

The diameters of the supports can, where necessary, be of a different diameter but it is preferred if their diameters are substantially the same.

Many different tensioning means can be used but it is preferred if those means comprise a pair of plates to which the ends of the members are attached and clamping means for clamping the plates together. The tensioning means can, for example, comprise screws and nuts or a clamping strip to clamp the plates in position.

Advantageously one or more of the supports has a recessed portion into which the or respective ends of the hinge members are pressed by the tensioning means.

In that case, the tensioning means may comprise a screw which passed through the ends of the hinge members and into the wall of the recessed portion of the support.

Each of the strips can be made from various materials as long as it is resiliently flexible and is sufficiently robust in use. Thus many plastics and/or fibrous materials and/or metal materials may be used but it is preferred if each strip is made of sprung steel or tempered steel.

Preferably, each hinge member is flat rather than S-shaped or sinuous prior to mounting on the supports. This allows the supports freely to be brought into, and to be self-maintained in any angular position relative to each other (as required, for example, in display systems). If, however, one requires a self-returning hinge mechanism (allowing the supports to be angularly displaced from, and automatically to return to and given relative position) the hinge members can be pre-shaped from sprung material for that purpose before mounting on the supports.

The present invention further provides a display system comprising a hinged structure according to the invention.

Each of the supports may form part of a rectangular framework for supporting display panels.

Preferably, each framework supports a pair of panels which are arranged in face-to-face relationship and have a gap between them. In this way it is possible to arrange the tensioning means (such as the plates) within the gap so that they are hidden from view.

Preferably, the display system further includes edging or capping strip members which are arranged along those parts of the framework

lying at right angles to the supports, the edging members serving to hold the aforesaid panels arranged in face-to-face relationship to the framework.

Advantageously, each edging strip is in the form of a channel-shaped member which is fastened to the framework so that its edge members hold respective panels in position. In this way removal of the edging strip enables each panel to be removed from the framework in a direction at right angles to the plane of that panel.

Preferably, the edging members have raised or recessed portions which are complementary in cross-section whereby two similar frameworks can be stacked one on the other in male-female arrangement. In this way, the frameworks can be suitably located one relative to the other and the supports of each framework may be joined together by suitable end connectors (for example, tubular in form) to provide a rigid connection between the frameworks.

Preferably, those parts of the framework lying at right angles to the supports are of channel-shaped form and are arranged to receive and clamp together the end portions of the said plates.

Hinge structures and a display system incorporating one of these structures, the structures and the display system being constructed in accordance with the invention, will now be described, by way of example, with reference to the accompanying drawings in which:—

Fig. 1 is a plan view of two hinge members for forming a hinge.

Fig. 2 is a perspective view of a part of a display system incorporating hinge members of the type shown in Fig. 1.

Fig. 3 diagrammatically shows the formation of the hinge members when used in the display system of Fig. 2 with support members omitted.

Fig. 4 is a perspective view of a modified hinged structure incorporating the hinge members shown in Fig. 1.

Fig. 5 is an end view of a modified hinged structure incorporating the hinge members shown in Fig. 1.

Fig. 6 is a perspective view of another hinged structure incorporating hinge members of the type shown in Fig. 1, with longer straps.

Fig. 7 is a plan view of a modified hinge member, and

Fig. 8 is a perspective view of a hinged structure incorporating a hinge member of the type shown in Fig. 7.

Referring to the accompanying drawing and first of all to Fig. 1 the hinge comprises two hinge members indicated generally at 1 and 2. The hinge member 1 comprises two parallel strips 3 and 4 each made of resiliently flexible strip material, preferably sprung stainless steel. Each of the strips 3 and 4 is flat and its ends are secured to two fastening plates 5 and 6, for example by welding. As will be seen from Fig. 1 each of the strips 3 and 4 is secured to the upper surface of the plate 5 and to the lower surface of the plate 6.

Similarly the hinge member 2 comprises two parallel flat strips 7 and 8, which are made from the same material as the strips 3 and 4 the ends of which are secured to fastening plates 9 and 10. As shown in Fig. 1 the strip members 7 and 8 are secured to the under-side of the plate 9 and to the upper-side of plate 10.

Fig. 2 illustrates part of a display system incorporating hinge members as shown in Fig. 1. Fig. 2 actually illustrates two hinges each using the hinge members of Fig. 1 and Fig. 3 diagrammatically illustrates the configuration of the hinge members of one of those hinges when used in the display system of Fig. 2, the support members being omitted from Fig. 3 in order more clearly to illustrate that configuration.

As will be seen from Fig. 3 the plates 5 and 9 and plates 6 and 10 are arranged in face-to-face relationship so that the ends of the strips attached to those plates lie between the plates. It will be evident from Fig. 3 that when the hinge is looked at in plan view each of the strips 3, 4, 7 and 8 is of generally S-shaped form. The strips 3 and 4 are of the same hand and the strips 7 and 8 are of the opposite hand and arranged between the strips 3 and 4. Further it will be evident from Fig. 3 that the strips 3 and 4 form, when looked at in plan view, with the strips 7 and 8 a figure 8-type configuration.

In order to arrange the strip members in the way shown in Fig. 3 it is necessary, first of all, to arrange the strips 7 and 8 between the strips 3 and 4 and parallel to them. This is simply achieved by passing one of the plates 9 or 10 through the gap between the strips 3 and 4 and then suitably arranging the plate 5 opposite the plate 9 and the plate 6 opposite the plate 10.

Referring now to Fig. 2 this illustrates, as mentioned previously, part of a display system using two hinges 11 and 12 each of which comprises the hinge members shown in Figs. 1 and 3. As will be seen from Fig. 2 each of the hinges 11 and 12 has been mounted on two cylindrical supports 13 and 14. The two support members are joined together by the hinges so that they are closely adjacent with their axes parallel.

Each of the hinges can be mounted on the supports by moving the opposed plates 5 and 9, or 6 and 10 apart so that the strip members can be drawn round the support until those plates are arranged in face-to-face relationship. The plates are then fastened together in a way which will be described later.

Referring again to Fig. 2 of the drawings the two support members 13 and 14 form part of a rectangular framework only part of which is shown in that figure. The support 13 (or 14) is secured by two parallel frame members 15 and 16, one at each end of the support 13 (or 14) to another frame member which may be in the form of another cylindrical support. Display panels 17, 18 can be secured to the framework by channel shaped capping or edging members 19 and 20 the edges 21 of which clamp the panels against the members 15 and 16 when the edging strips 19

and 20 are secured to the frame members 15 and 16.

As will be evident from Fig. 2 the space between the panels 17 and 18 accommodates the plates 5 and 6, and 9 and 10 of the hinge members so that they are hidden from view.

Further, if, as described later, each of the edging strips 19 and 20 is releasably secured to the frame members 15 and 16 then, when each of those strips is removed, the panels 17 and 18 can be detached from the frame by movement in a direction at right-angles to the plane of those panels.

As will be clear from the lower portion of Fig. 2 the plates 5 and 9, and 6 and 10 are secured at one end by screws 22 and at the other end by means of the frame members 15 or 16. For that purpose each of the frame members 15 and 16 is of channel shaped form (in fact as illustrated both frame members are of H-section) the other end of the confronting plates 5 and 9, or 6 and 10 being clamped together by the parallel faces 23 of the frame members 15 and 16. In this way, fastening of the hinges to the support members 13, 14 is facilitated because the confronting plates can be held in the channels (defined by the faces 23) of the frame members 15, 16 and then the other end of those plates joined together by the screws 22. Rivets may be used instead of the screws 22.

Each of the edging members 19 and 20 is secured to the frame members 15 and 16 for example by screws (not shown) which enables the edging members to be removed when replacement of the panels 17 and 18 is required.

It will be further noted from Fig. 2 that the edging member 15 has a longitudinally extending U-shaped channel recess 24 whilst the edging member 20 has a longitudinally extending U-shaped channel projection 25. In this way it is possible to stack two similar display systems one on the other by bringing the U-shaped channels into male-female relationship. Tube connectors (not shown) may be used to join together the vertical supports of two support systems so that those systems are rigidly connected together.

Referring now to Figs. 4 and 5, these each illustrate methods of mounting the hinge members of the type shown in Fig. 1 onto the support members so that the fastening plates do not protruded outwardly. As shown to both Figs. 4 and 5 each of the support members 26 is provided with a longitudinally extending recessed portion 27 into which the plates 28 are received and then held in position by screws 29 passing through the plates and into the supports (see in particular Fig. 5). In the Fig. 4 construction the supports 26 are of generally right-circular cylindrical form whilst in Fig. 5 the supports are each of generally D-shape in cross-section.

As described and illustrated above the hinge members shown in Fig. 1 can be used to join together two supports. Such hinge members (as can the hinge member shown in Fig. 7, which will be described later) can be used to hinge together more than two supports and Fig. 6 illustrates

three supports 30 which have been hinged together in that way.

Figs. 7 and 8 illustrate a modified hinge member 31 which requires only two fastening plates. As can be seen from Fig. 7 the hinge member 31 is of generally tuning-fork like construction the two limbs 32 of which are equivalent to the strips 3 and 4 of the hinge member as shown in Fig. 1 and the upright comprising two strips 33 is equivalent to the two strips 7 and 8 of the hinge member shown in Fig. 1. Fig. 8 shows how the hinge members of Fig. 7 can be used to fasten together two cylindrical supports 34 the upright 33 having first been passed through the gap between the two limbs 32 or arms of the member and then the two plates 35 being brought together and fastened (in any of the ways described above), to tension the strips round the support members.

Each of the hinges described above comprises four resiliently flexible strips. In fact, only two strips of opposite hand are absolutely essential although it is preferred to have at least three strips, two of the same hand and one or more other strips being mounted between those two and being of opposite hand to those two.

Although the hinges have been described and illustrated above in connection with a display system it will be appreciated that they have other applications and they can be used wherever a hinged connection is required between two substantially cylindrical support members.

The hinges described and illustrated allow the axis of one support to be turned through more than 180° relative to the axis of the other support or its adjacent support and points on the supports themselves can be turned through more than 360° relative to each other. That movement is smooth, frictionless (consequently no lubricant is required), silent and relatively effortless and is achieved by a hinge which allows the two supports to be brought into close adjacency which is not possible with a conventional double hinge and which is more attractive in appearance than, and is less bulky than the conventional hinge.

Claims

1. A hinged structure-comprising one or more hinges hinging two parts together so that they are parallel and closely adjacent, the or each hinge (11, 12, 31) comprising two members (3, 4, 7, 8) each made of resiliently flexible strip material, each member being S-shaped, passing partially round each part and together with the other member forming a letter X or figure 8 configuration as seen in cross-section, characterised in that the parts round which the members partially pass are pole-like supports (13, 14, 26, 30, 34) and in that respective tensioning means (5, 6; 9, 10, 28, 29, 35) are provided fastening together the ends of the members alongside each support so that the members are tensioned round the supports.

2. A hinged structure comprising one or more

and 20 are secured to the frame members 15 and 16.

As will be evident from Fig. 2 the space between the panels 17 and 18 accommodates the plates 5 and 6, and 9 and 10 of the hinge members so that they are hidden from view.

Further, if, as described later, each of the edging strips 19 and 20 is releasably secured to the frame members 15 and 16 then, when each of those strips is removed, the panels 17 and 18 can be detached from the frame by movement in a direction at right-angles to the plane of those panels.

As will be clear from the lower portion of Fig. 2 the plates 5 and 9, and 6 and 10 are secured at one end by screws 22 and at the other end by means of the frame members 15 or 16. For that purpose each of the frame members 15 and 16 is of channel shaped form (in fact as illustrated both frame members are of H-section) the other end of the confronting plates 5 and 9, or 6 and 10 being clamped together by the parallel faces 23 of the frame members 15 and 16. In this way, fastening of the hinges to the support members 13, 14 is facilitated because the confronting plates can be held in the channels (defined by the faces 23) of the frame members 15, 16 and then the other end of those plates joined together by the screws 22. Rivets may be used instead of the screws 22.

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It will be further noted from Fig. 2 that the edging member 15 has a longitudinally extending U-shaped channel recess 24 whilst the edging member 20 has a longitudinally extending U-shaped channel projection 25. In this way it is possible to stack two similar display systems one on the other by bringing the U-shaped channels into male-female relationship. Tube connectors (not shown) may be used to join together the vertical supports of two support systems so that those systems are rigidly connected together.

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As described and illustrated above the hinge members shown in Fig. 1 can be used to join together two supports. Such hinge members (as can the hinge member shown in Fig. 7, which will be described later) can be used to hinge together more than two supports and Fig. 6 illustrates

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Each of the hinges described above comprises four resiliently flexible strips. In fact, only two strips of opposite hand are absolutely essential although it is preferred to have at least three strips, two of the same hand and one or more other strips being mounted between those two and being of opposite hand to those two.

Although the hinges have been described and illustrated above in connection with a display system it will be appreciated that they have other applications and they can be used wherever a hinged connection is required between two substantially cylindrical support members.

The hinges described and illustrated allow the axis of one support to be turned through more than 180° relative to the axis of the other support or its adjacent support and points on the supports themselves can be turned through more than 360° relative to each other. That movement is smooth, frictionless (consequently no lubricant is required), silent and relatively effortless and is achieved by a hinge which allows the two supports to be brought into close adjacency which is not possible with a conventional double hinge and which is more attractive in appearance than, and is less bulky than the conventional hinge.

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2. A hinged structure comprising one or more



hinges hinging two parts together so that they are parallel and closely adjacent, the or each hinge comprising two members each made of resiliently flexible strip material, each member being of sinuous form, passing partially round each part and together with the other member forming a letter X or figure 8 configuration around the adjacent parts as seen in cross-section, characterised in that the parts around which the members partially pass are pole-like supports, in that three or more such supports (30) are provided and are so hinged that respective pairs of supports are closely adjacent and parallel and in that respective tensioning means are provided fastening together the ends of the members alongside each end support so that the members are tensioned round the supports.

3. A hinged structure as claimed in Claim 1 or Claim 2, in which the hinge comprises at least three S-shaped or sinuous members, two of the members (3, 4) being of the same hand and one or more of the other members (7, 8) being of opposite hand and mounted between those two, each of the outer members of one hand forming the said letter X or figure 8 configuration with the or each of the members of the other hand as seen in a direction along the supports.

4. A modification of the hinged structure as claimed in Claim 3, wherein the hinge (31) is of generally Y- or tuning fork-like form when flat, each of the two arms (32) of the hinge constituting the outer members of Claim 3 and the upright (33) of the hinge constituting the inner member(s) of Claim 3, and wherein the ends of the arms and the upright terminate alongside one of the supports where they are fastened together by the tensioning means (35) tensioning the arms and the upright round the supports.

5. A hinged structure as claimed in any one of Claims 1 to 4, in which each or at least one of the supports is a substantially right-circular cylinder (13, 14, 30, 34).

6. A hinged structure as claimed in any one of Claims 1 to 5, in which the diameters of the supports are the same.

7. A hinged structure as claimed in any one of Claims 1 to 6, in which the or each tensioning means comprises a pair of plates (5, 6, 9, 10, 28, 29, 35) to which the ends of the members are attached and clamping (22, 29) means for clamping the plates together.

8. A hinged structure as claimed in any one of Claims 1 to 7, in which one or two of the supports has a recessed portion (27) into which the or respective ends of the hinge members are pressed by the tensioning means.

9. A hinged structure as claimed in Claim 8, in which the tensioning means comprises a screw (29) which passes through the ends of the hinge members and into the wall of the recessed portion of the support.

10. A hinged structure as claimed in any one of Claims 1 to 9, in which each hinge member is made of metal.

11. A hinged structure as claimed in any one of

Claims 1 to 10, in which each hinge is made of sprung steel.

12. A hinged structure as claimed in any one of Claims 1 to 11, in which each hinge member is flat rather than S-shaped or sinuous prior to mounting on the supports.

13. A display system comprising a hinged structure as claimed in any one of Claims 1 to 12.

14. A display system as claimed in Claim 13, in which each of the supports (13, 14) forms part of a rectangular framework for supporting display panels (17, 18).

15. A display system as claimed in Claim 14, in which each framework supports a pair of panels which are arranged in face-to-face relationship and have a gap between them.

16. A display system as claimed in Claim 15, in which the system further includes edging or capping strip members (19, 20) which are arranged along those parts of the framework lying at right-angles to the supports, the edging members serving to hold the aforesaid panels (17, 18) arranged in face-to-face relationship to the framework.

17. A display system as claimed in claim 16, in which each edging strip (19, 20) is in the form of a channel-shaped member which is fastened to the framework so that its edge portions hold respective panels in position.

18. A display system as claimed in Claim 16 or Claim 17, in which the edging members have raised or recessed portions (24, 25) which are complementary in cross-section whereby two similar frameworks can be stacked one on the other in male-female engagement.

19. A display system as claimed in Claim 18, in which the supports of each framework are joined together by end connectors.

20. A display system as claimed in any one of Claims 14 to 19 when appendant to Claim 7, wherein those parts of the framework (15, 16) lying at right angles to the supports are of channel-shaped form and are arranged to receive and clamp together the end portions of the said plates.

Patentansprüche

1. Scharnieraufbau mit einem oder mehreren Scharnieren, die zwei Teile so gelenkig miteinander verbinden, daß sie parallel und nahe beieinander liegen, wobei das oder jedes Scharnier (11, 12, 31) zwei Glieder (3, 4, 7, 8) enthält, von denen jedes aus einem elastischen, biegsamen Streifenmaterial besteht, wobei jedes Glied S-förmig ausgebildet ist, teilweise rund um jeden Teil verläuft und im Schnitt gesehen zusammen mit dem anderen Glied die Form des Buchstabens X oder der Ziffer 8 bildet, dadurch gekennzeichnet, daß die Teile, um die Glieder teilweise verlaufen, stangenartige Halterungen (13, 14, 26, 30, 34) sind, und daß entsprechende Spanneinrichtungen (5, 6, 9, 10, 28, 29, 35) vorgesehen sind, mit denen die Enden der Glieder längs jeder Halterung so zusammengehalten werden, daß die Glieder rund um die Halterungen gespannt sind.



2. Scharnieraufbau mit einem oder mehreren Scharnieren, die zwei Teile so gelenkig miteinander verbinden, daß sie parallel und nahe beieinander liegen, wobei das oder jedes Scharnier zwei Glieder enthält, von denen jedes aus einem elastischen, biegsamen Streifenmaterial besteht, wobei jedes Glied sinusförmig ausgebildet ist, teilweise rund um jeden Teil verläuft und im Schnitt gesehen zusammen mit dem anderen Glied die Form des Buchstabels χ oder der Ziffer 8 bildet, dadurch gekennzeichnet, daß die Teile, um die die Glieder teilweise verlaufen, stangenartige Halterungen sind, daß drei oder mehr derartige Halterungen (30) vorgesehen und so gelenkig verbunden sind, daß entsprechende Paare von Halterungen nahe beieinander und parallel liegen, und daß entsprechende Spanneinrichtungen vorgesehen sind, mit denen die Enden der Glieder längs jeder Endhalterung so zusammengehalten werden, daß die Glieder rund um die Halterungen gespannt werden.

3. Scharnieraufbau gemäß Anspruch 1 oder 2, wobei Scharnier zumindest drei S-förmige oder sinusförmige Glieder besitzt, wobei zwei Glieder (3; 4) eine Form besitzen und ein oder mehrere der anderen Glieder (7, 8) die entgegengesetzte Form besitzen und zwischen den beiden Gliedern befestigt sind, wobei jedes der äußeren Glieder von der einen Form mit dem oder jedem der Glieder der anderen Form den Buchstaben χ oder die Zahl 8 bildet, wenn man entlang der Halterungen blickt.

4. Abart des Scharnieraufbaus gemäß Anspruch 3, wobei das Scharnier (31), in der Abwicklung in allgemeinen Y-förmig oder in Form einer Stimmgabel ausgebildet ist, wobei jeder der beiden Arme (32) des Scharniers die äußeren Glieder des Anspruchs 3 bildet und der Fuß (33) des Scharniers das (die) innere(n) Glied(er) des Anspruchs 3 bildet, und wobei die Enden der Arme sowie der Fuß längs einer Halterung enden, wo sie von der Spanneinrichtung (35) zusammengehalten werden, die die Arme und den Fuß um die Halterungen spannt.

5. Scharnieraufbau gemäß jedem der Ansprüche 1 bis 4, wobei jede der zumindest einen Halterung ein im wesentlichen kreisförmiger Zylinder (13, 14, 30, 34) ist.

6. Scharnieraufbau gemäß jedem der Ansprüche 1 bis 5, wobei die Durchmesser der Halterungen gleich sind.

7. Scharnieraufbau gemäß jedem der Ansprüche 1 bis 6, wobei die oder jede Spanneinrichtung ein Paar von Platten (5, 6, 9, 10, 28, 29, 35) enthält, an denen die Enden der Glieder angebracht sind, sowie eine Klemmeinrichtung (22, 29) enthält, um die Platten zusammenzuklemmen.

8. Scharnieraufbau gemäß jedem der Ansprüche 1 bis 7, wobei eine oder zwei Halterungen einen eingeschnittenen Teil (27) besitzen, in den von der Spanneinrichtung das oder die entsprechenden Enden der Scharnierglieder gedrückt werden.

9. Scharnieraufbau gemäß Anspruch 8, wobei

die Spanneinrichtung eine Schraube (29) besitzt, die durch Enden der Scharnierglieder und in die Wand des eingeschnittenen Teils der Halterung verläuft.

10. Scharnieraufbau gemäß jedem der Ansprüche 1 bis 9, wobei jedes Scharnierglied aus Metall gefertigt ist.

11. Scharnieraufbau gemäß jedem der Ansprüche 1 bis 10, wobei jedes Scharnier aus Federstahl gefertigt ist.

12. Scharnieraufbau gemäß jedem der Ansprüche 1 bis 11, wobei jedes Scharnierglied vor der Befestigung auf den Halterungen eher flach als S-förmig oder sinusförmig ausgebildet ist.

13. Anzeigesystem mit einem Scharnieraufbau gemäß jedem der Ansprüche 1 bis 12.

14. Anzeigesystem gemäß Anspruch 13, wobei jede Halterung (13, 14) ein Teil eines rechteckigen Rahmens ist, um Anzeigetafeln (17, 18) zu halten.

15. Anzeigesystem gemäß Anspruch 14, wobei jeder Rahmen ein Paar von Tafeln trägt, die einander gegenüber angeordnet sind, wobei sich zwischen ihnen ein Spalt befindet.

16. Anzeigesystem gemäß Anspruch 15, wobei das System weite Kanten- oder Abdeckstreifenglieder (19, 20) aufweist, die längs jenen Teilen des Rahmens angeordnet sind, die senkrecht zu den Halterungen liegen, wobei die Kantenglieder dazu dienen, um die Tafeln (17, 18) zu halten, die einander gegenüberliegend am Rahmen angeordnet sind.

17. Anzeigesystem gemäß Anspruch 16, wobei jeder Kantenstreifen (19, 20) ein kanalförmiges Glied ist, das am Rahmen so angebracht wird, daß seine Kantenteile entsprechende Tafeln in ihrer Stellung halten.

18. Anzeigesystem gemäß Anspruch 16 oder 17, wobei die Kantenglieder erhabene oder eingeschnittene Teile (24, 25) besitzen, die einen komplementären Querschnitt aufweisen, wodurch zwei gleiche Rahmen übereinander gestapelt werden können, wobei sie miteinander im Eingriff stehen.

19. Anzeigesystem gemäß Anspruch 18, wobei die Halterungen eines jeden Rahmens durch Endverbinder miteinander verbunden werden.

20. Anzeigesystem gemäß jedem der Ansprüche 14 bis 19, falls zum Anspruch 7 beigefügt, wobei jene Teile des Rahmens (15, 16), die senkrecht zu den Halterungen liegen, kanalartig ausgebildet und so angeordnet sind, daß sie die Endteile der Platten aufnehmen und zusammenklemmen.

Revendications

1. Une structure articulée comprenant une ou plusieurs charnières articulant deux parties entre elles de telle sorte qu'elles soient parallèles et intimement adjacentes, la ou chaque charnière (11, 12, 31) comprenant deux éléments (3, 4, 7, 8) chacun constitué d'un matériau en bande flexible résilient, chaque élément étant en forme de S et entourant partiellement chaque partie et constituant avec l'autre élément une configuration ayant une section en forme de la lettre X ou du



chiffre 8, caractérisée in ce que les parties autour desquelles passent partiellement les éléments sont des supports analogues à des poteaux (13, 14, 26, 30, 34) et en ce que des moyens de tension respectifs (5, 6, 9, 10, 28, 29, 35) sont prévus pour rassembler les extrémités des éléments le long de chaque support de telle sorte que les éléments soient tendus autour des supports.

2. Une structure articulée comprenant une ou plusieurs charnières articulant deux parties entre elles de telle sorte qu'elles soient parallèles et intimement adjacentes, la ou chaque charnière comprenant deux éléments chacun constitué d'un matériau en bande flexible résilient, chaque élément ayant une forme sinueuse et entourant partiellement chaque partie et formant avec l'autre élément une configuration ayant une section en forme de la lettre X ou du chiffre 8 autour des parties adjacentes, caractérisée en ce que les parties autour desquelles passent partiellement les éléments sont des supports analogues à des poteaux et en ce que trois ou plus de ces supports (30) sont prévus et sont articulés de telle sorte que les paires respectives de supports soient intimement adjacentes et parallèles et en ce que des moyens de tension respectifs sont prévus pour rassembler les extrémités des éléments le long de chaque support d'extrémité, de telle sorte que les éléments soient tendus autour des supports.

3. Une structure articulée selon l'une quelconque des revendications 1 et 2, caractérisée en ce que la charnière comprend au moins trois éléments sinueux ou en forme de S, deux des éléments (3, 4) étant du même côté et un ou plus des autres éléments (7, 8) étant de l'autre côté et montés entre ces deux autres chacun des éléments extérieurs d'un côté formant ladite configuration ayant la forme de la lettre X ou du chiffre 8 avec le ou chacun des éléments de l'autre côté, vus dans le sens de la longueur des supports.

4. Une variante de la structure articulée selon la revendication 3, caractérisée en ce que la charnière (31) se présente sous la forme générale d'un Y ou analogue à une fourchette de réglage lorsqu'elle est à plat, chacun des deux bras (32) de la charnière constituant les éléments extérieurs selon la revendication 3 et le montant (33) de la charnière constituant le(s) élément(s) intérieurs selon la revendication 3, les extrémités des bras et le montant se terminant le long de l'un des supports où ils sont attachés par des moyens de tension (35) tendant les bras et le montant autour des supports.

5. Une structure articulée selon l'une quelconque des revendications 1 et 4, caractérisée en ce que chacun ou au moins un des supports est un cylindre circulaire essentiellement rectiligne (13, 14, 30, 34).

6. Une structure articulée selon l'une quelconque des revendications 1 à 5, caractérisée en ce que les diamètres des supports sont identiques.

7. Une structure articulée selon l'une quelconque des revendications 1 à 6, caractérisée en ce que le ou chacun des moyens de tension comprennent une paire de plaques (5, 6, 9, 10, 28, 29,

35) auxquelles les extrémités des éléments sont attachés et des moyens de serrage (22, 29) pour bloquer les plaques entre elles.

8. Une structure articulée selon l'une quelconque des revendications 1 à 7, caractérisée en ce que un ou deux des supports présentent une partie évidée (27) dans laquelle la ou les extrémités respectives des éléments de charnière sont comprimées par les moyens de tension.

9. Une structure articulée selon la revendication 8, caractérisée en ce que les moyens de tension comprennent une vis (29) qui traverse les extrémités des éléments de charnière et la paroi de la partie évidée du support.

10. Une structure articulée selon l'une quelconque des revendications 1 à 9, caractérisée en ce que chaque élément de charnière est en métal.

11. Une structure articulée selon l'une quelconque des revendications 1 à 10, caractérisée en ce que chaque charnière est en acier à ressort.

12. Une structure articulée selon l'une quelconque des revendications 1 à 11, caractérisée en ce que chaque élément de charnière est plat plutôt que sous une forme sinueuse ou en S avant d'être monté sur les supports.

13. Un système de présentoir comprenant une structure articulée selon l'une quelconque des revendications 1 à 12.

14. Un système de présentoir selon la revendication 13, caractérisé en ce que chacun des supports (13, 14) fait partie d'un bâti rectangulaire pour supporter des panneaux de présentoir (17, 18).

15. Un système de présentoir selon la revendication 14, caractérisé en ce que chaque bâti supporte une paire de panneaux qui sont disposés face à face et présente un intervalle entre eux.

16. Un système de présentoir selon la revendication 15, caractérisé en ce qu'il comporte en outre des éléments d'angle ou de chapeautage sous forme de bandes (19, 20) qui sont disposés le long de ces parties du bâti s'étendant à angles droits par rapport aux supports, les éléments d'angle servant à maintenir lesdits panneaux (17, 18) disposés face à face par rapport au bâti.

17. Un système de présentoir selon la revendication 16, caractérisé en ce que chaque bande d'angle (19, 20) se présente comme un élément en forme de U qui est relié au bâti de telle sorte que ses bords maintiennent les panneaux respectifs en place.

18. Un système de présentoir selon l'une quelconque des revendications 16 et 17, caractérisé en ce que les éléments d'angle présentent des parties en creux ou en saillie (24, 25) dont les sections transversales sont complémentaires de telle sorte que deux bâtis analogues puissent être stockés l'un sur l'autre suivant une disposition mâle-femelle.

19. Un système de présentoir selon la revendication 18, caractérisé en ce que les supports de chaque bâti sont réunis entre eux par des connexions d'extrémités.

20. Un système de présentoir selon l'une quel-



conque des revendications 14 à 19, lorsqu'elles dépendant de la revendication 7, caractérisé en ce que ces parties du bâti (15, 16) s'étendant à angles

droits par rapport aux supports sont en forme de U et sont destinées à recevoir et à serrer ensemble les parties d'extrémités desdites plaques.

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8



* C L M S *