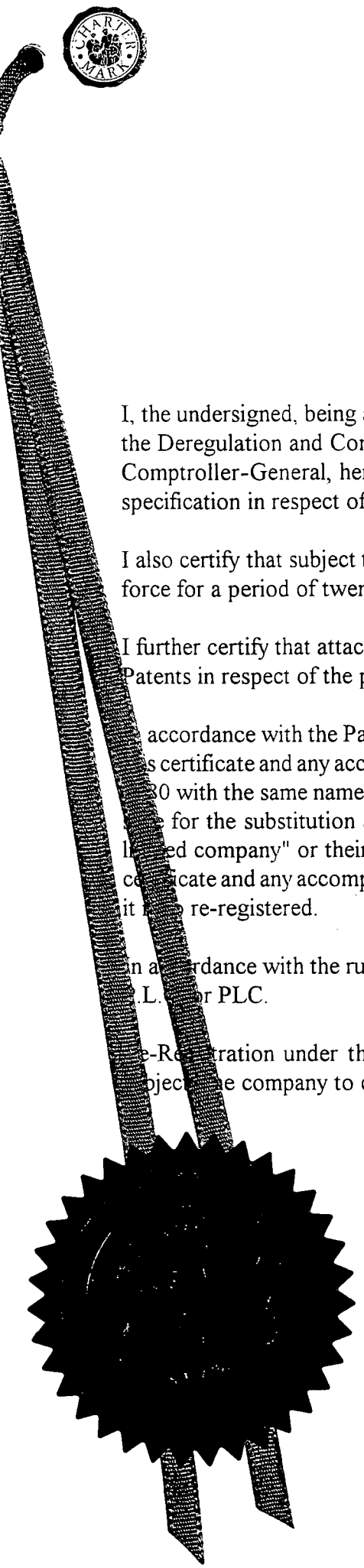

The Patent Office
Concept House
Cardiff Road
Newport
South Wales
NP10 8QQ

I, the undersigned, being an officer duly authorised in accordance with Section 74(1) and (4) of the Deregulation and Contracting Out Act 1994, to sign and issue certificates on behalf of the Comptroller-General, hereby certify that the attached document is a printed office copy of the specification in respect of which the patent was granted on the application identified therein.

I also certify that subject to the payment of the prescribed renewal fees, the patent will remain in force for a period of twenty years from the date of the filing of the application.

I further certify that attached hereto is a true copy of the entries made to date in the Register of Patents in respect of the patent which is in force.

In accordance with the Patents (Companies Re-registration) Rules 1982, if a company named in this certificate and any accompanying documents has been re-registered under the Companies Act 1980 with the same name as that with which it was registered immediately before re-registration save for the substitution as, or the inclusion as, the last part of the name of the words "public limited company" or their equivalents in Welsh, references to the name of the company in this certificate and any accompanying documents shall be treated as references to the name with which it was re-registered.

In accordance with the rules, the words "public limited company" may be replaced by p.l.c., plc, P.L.C. or PLC.

Re-Registration under the Companies Act does not constitute a new legal entity but merely subjects the company to certain additional company law rules.

Signed

Dated 16 January 2004

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JP 2000300314 A

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Other: **Online: EPODOC, JAPIO, WPI.**
updated as appropriate

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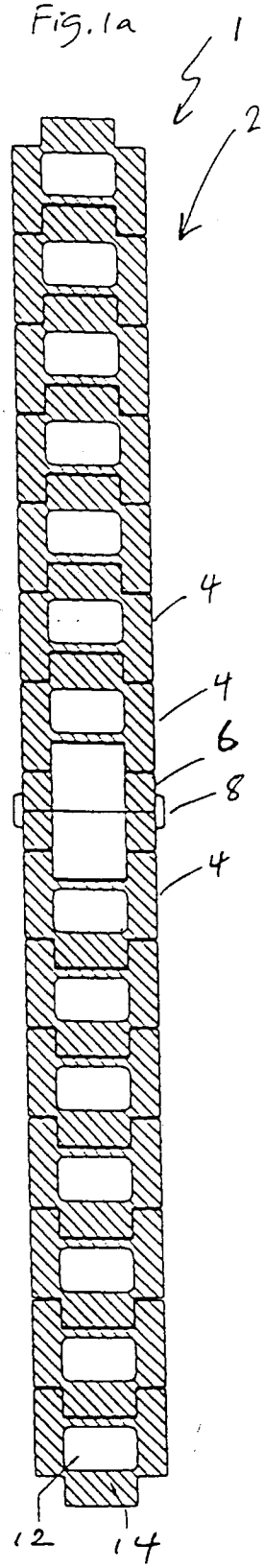
Commonwealth House,
1-19 New Oxford Street, LONDON,
WC1A 1LW, United Kingdom

2374516

Fig. 1a



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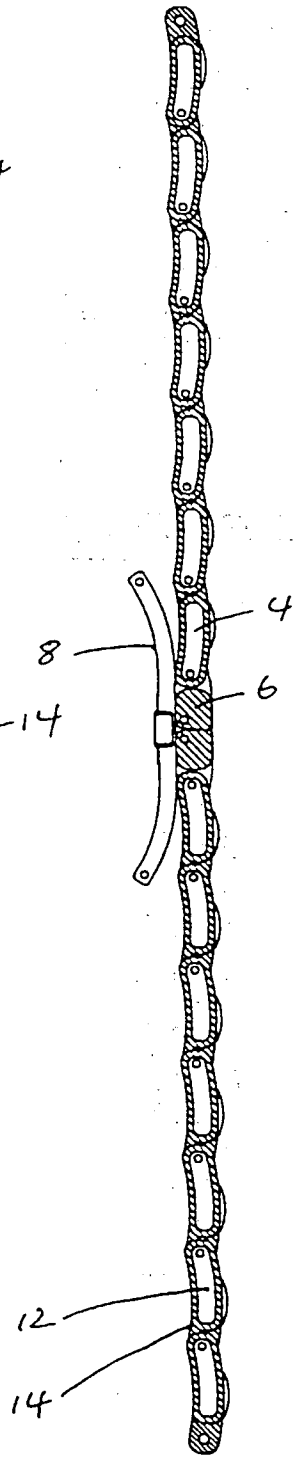

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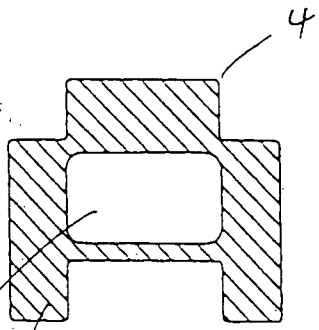

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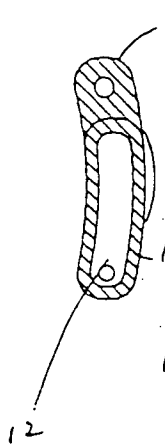


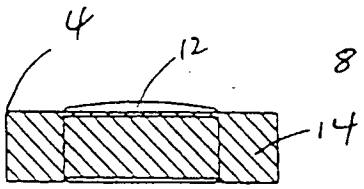


Fig. 2c

Fig. 3a

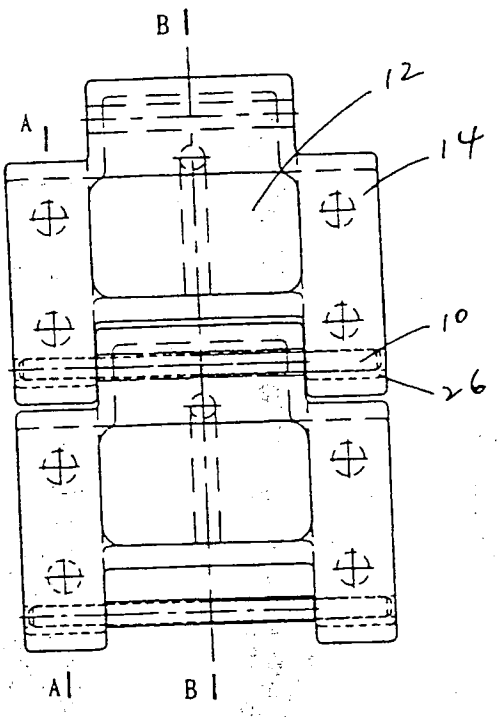
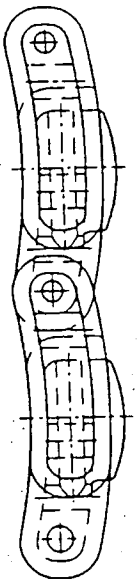
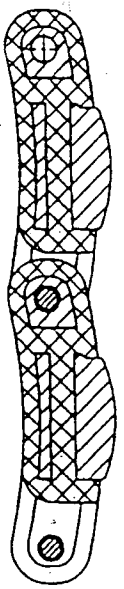


Fig. 3b





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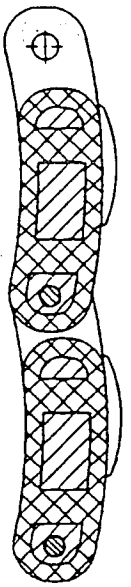
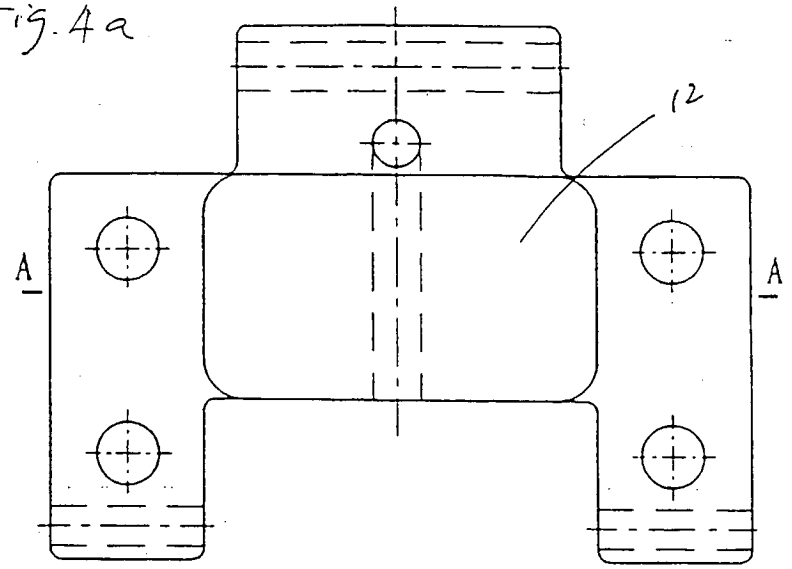


Fig. 3d

Fig. 4a



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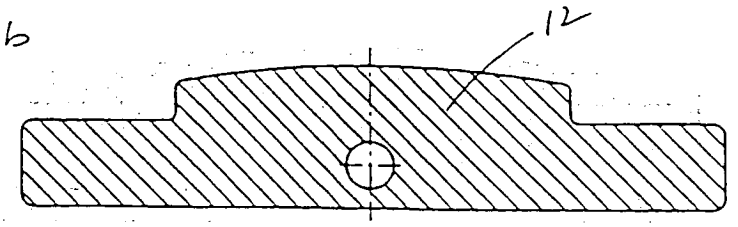

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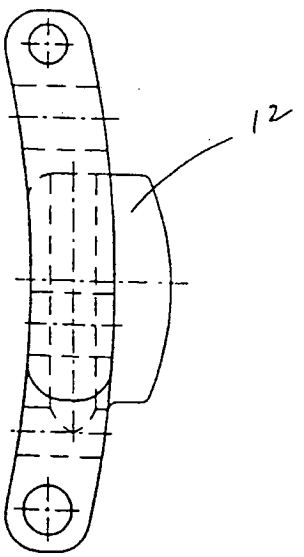

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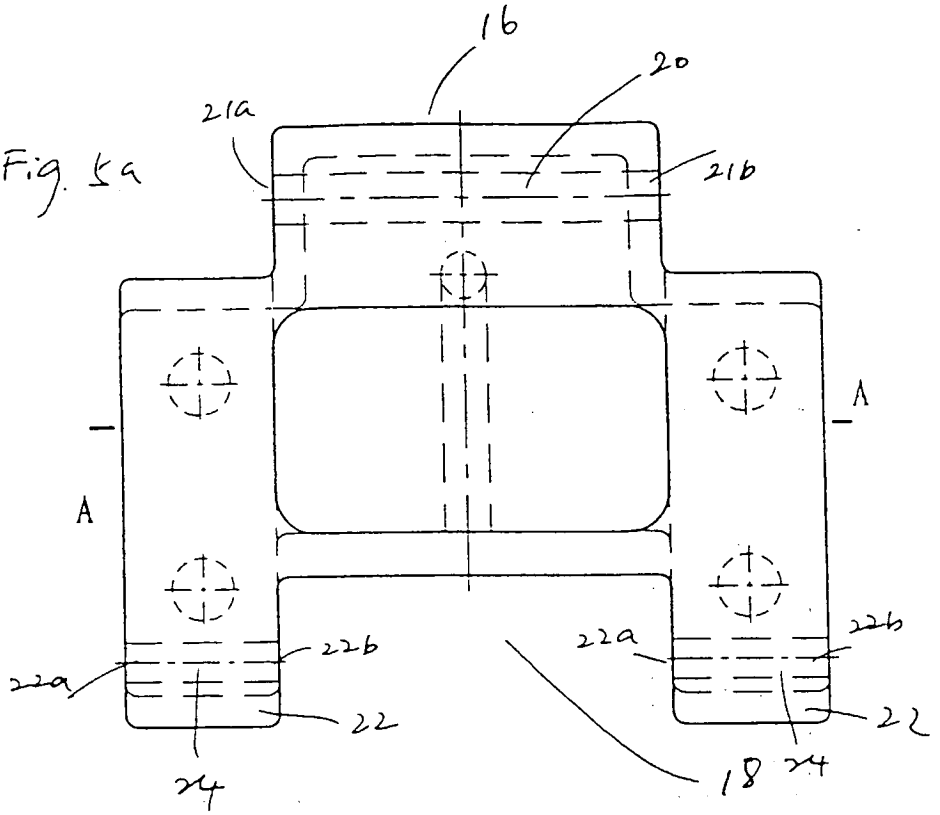

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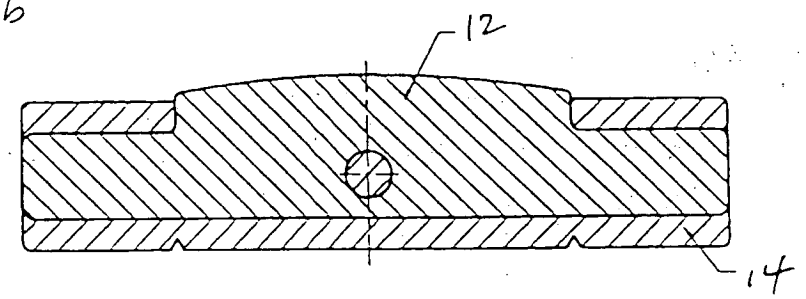

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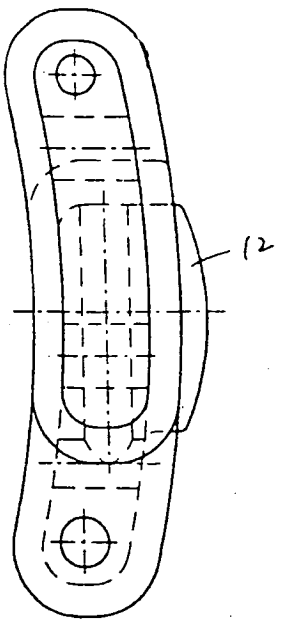

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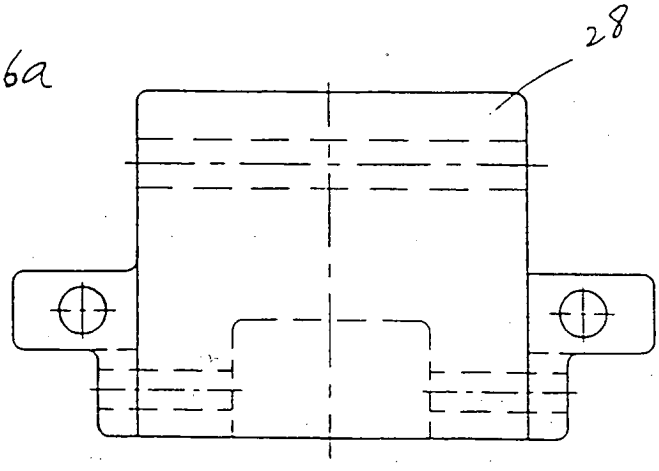


Fig. 6b

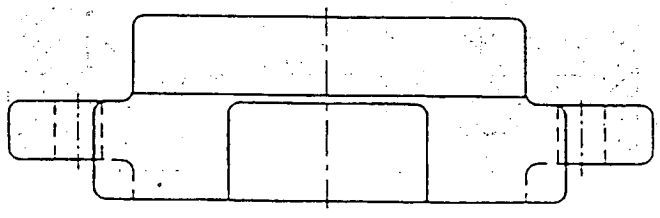
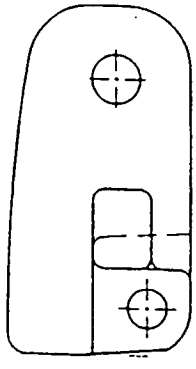


Fig. 6c



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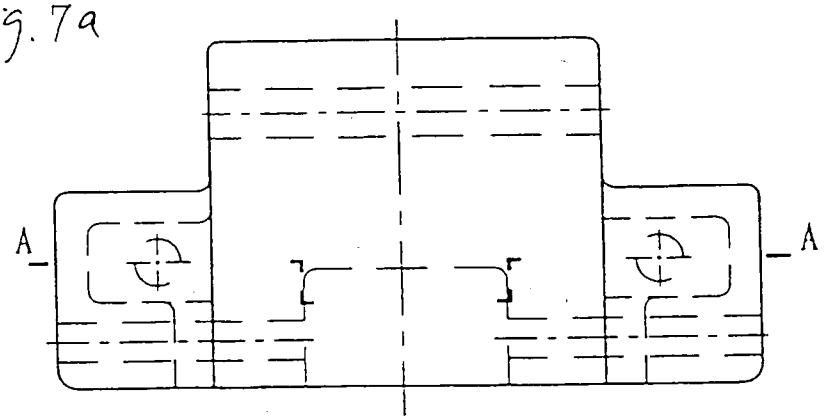

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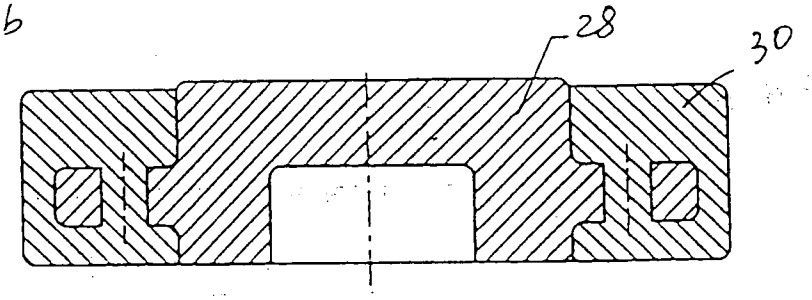

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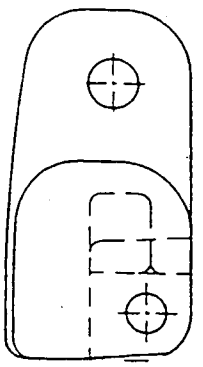
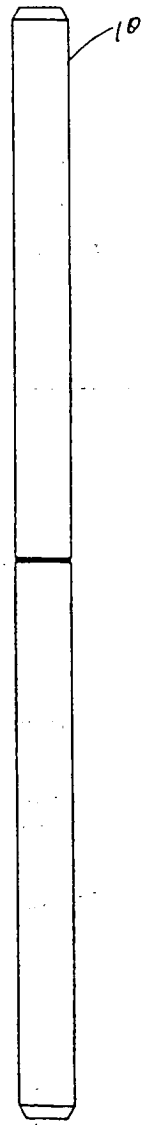


Fig. 8



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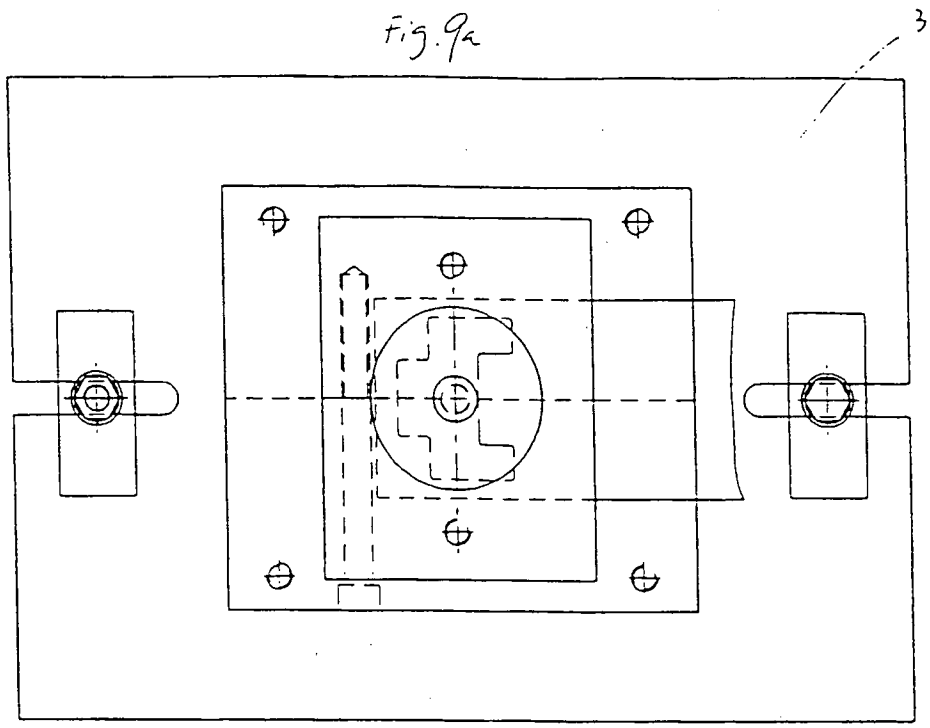

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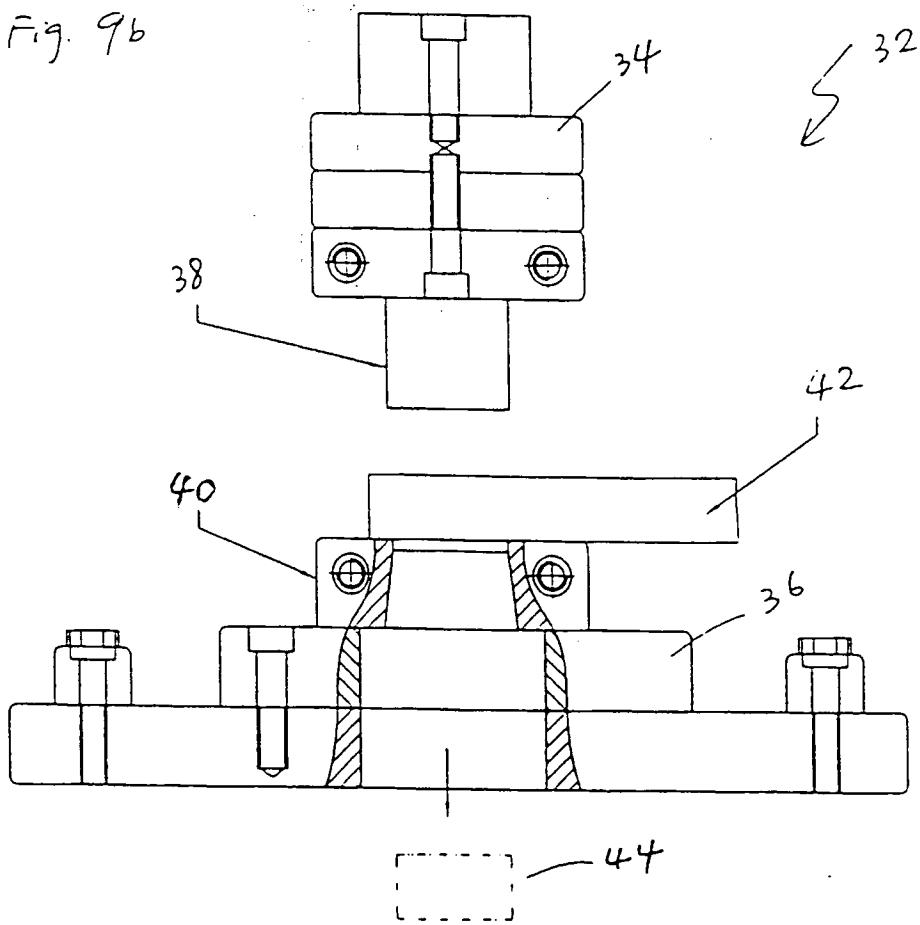

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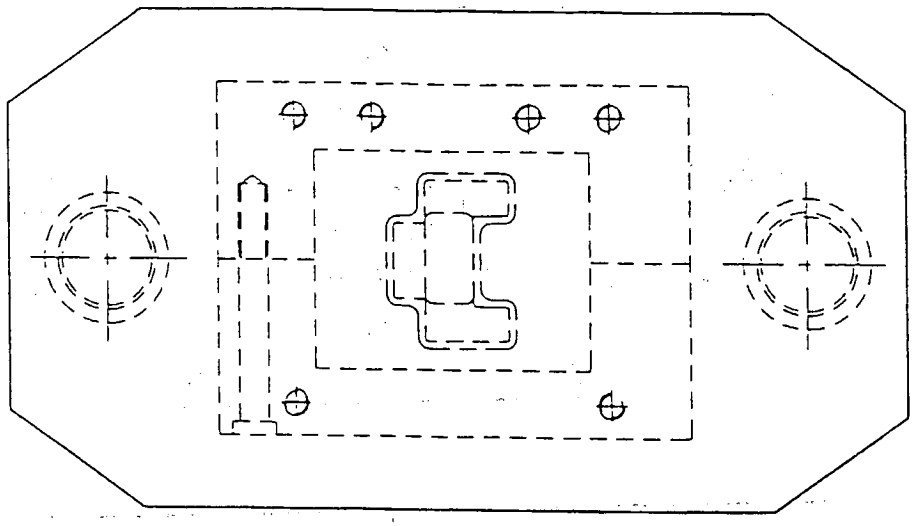

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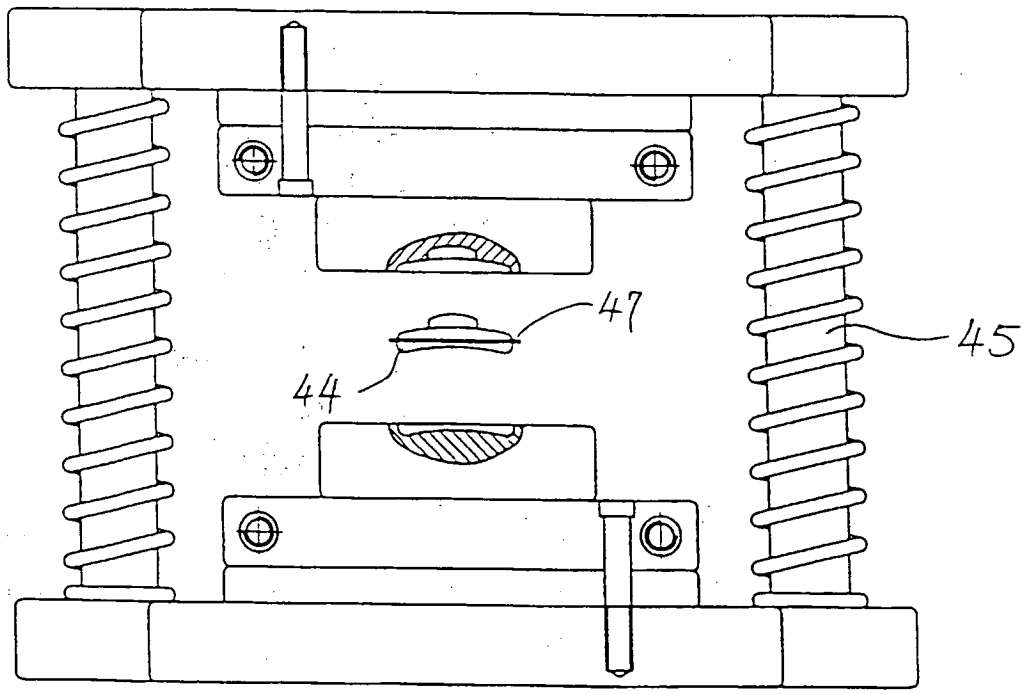

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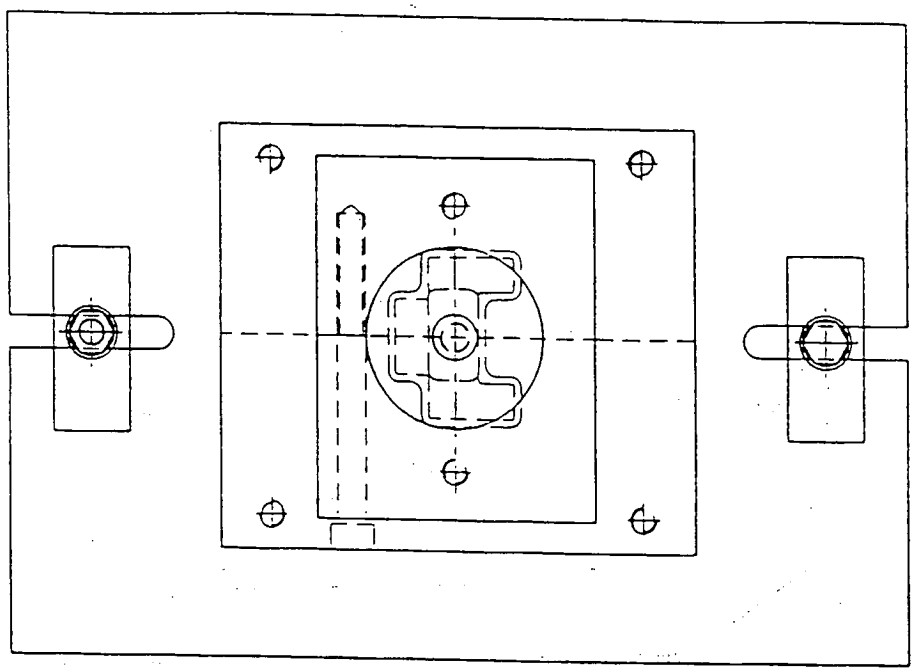
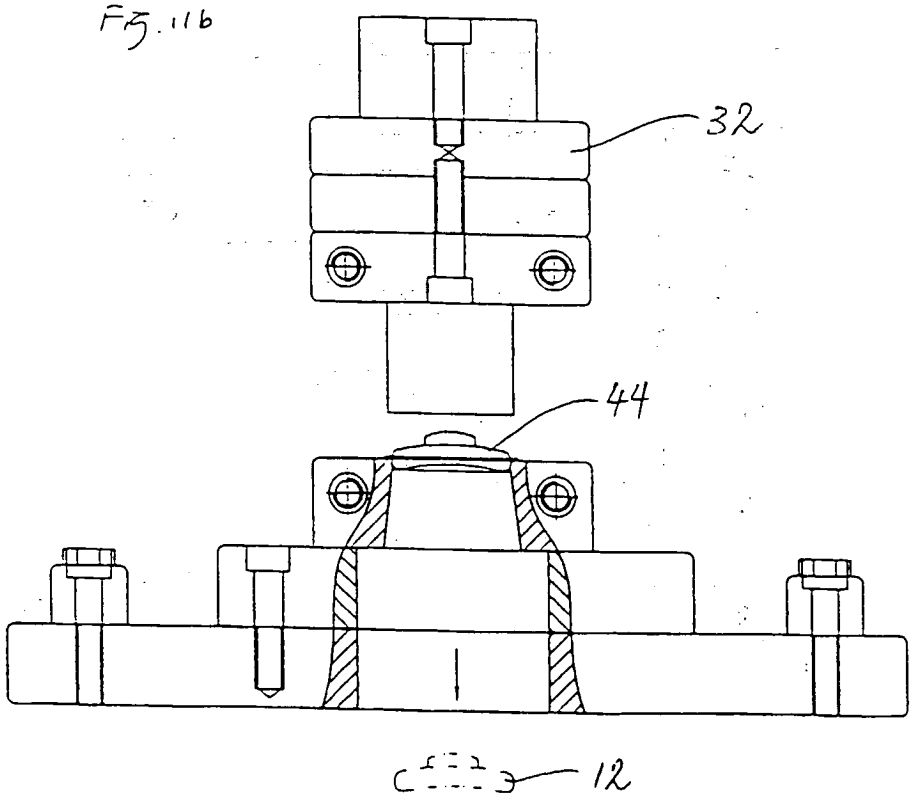


Fig. 11b



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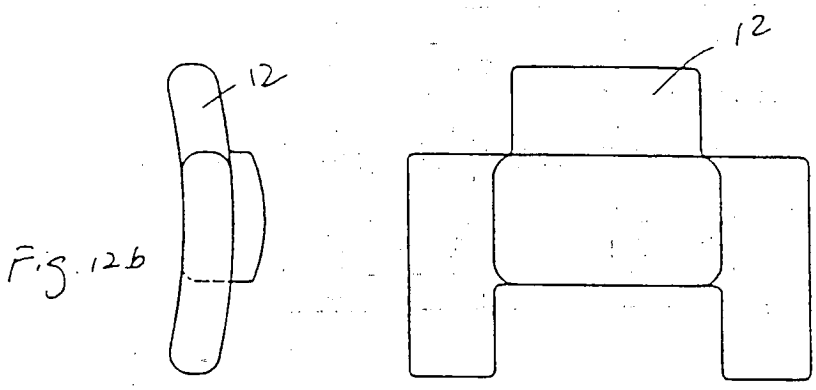
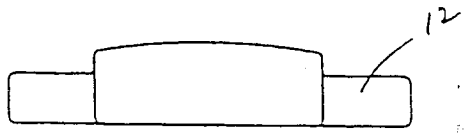


Fig. 12b

Fig. 12c



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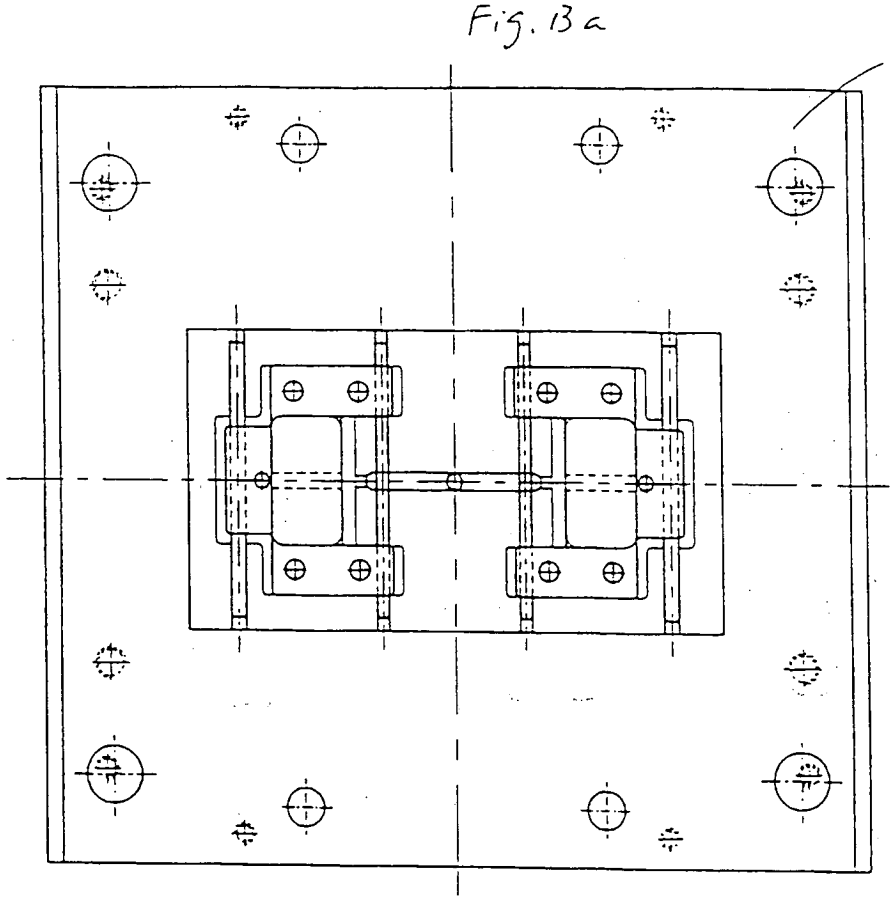

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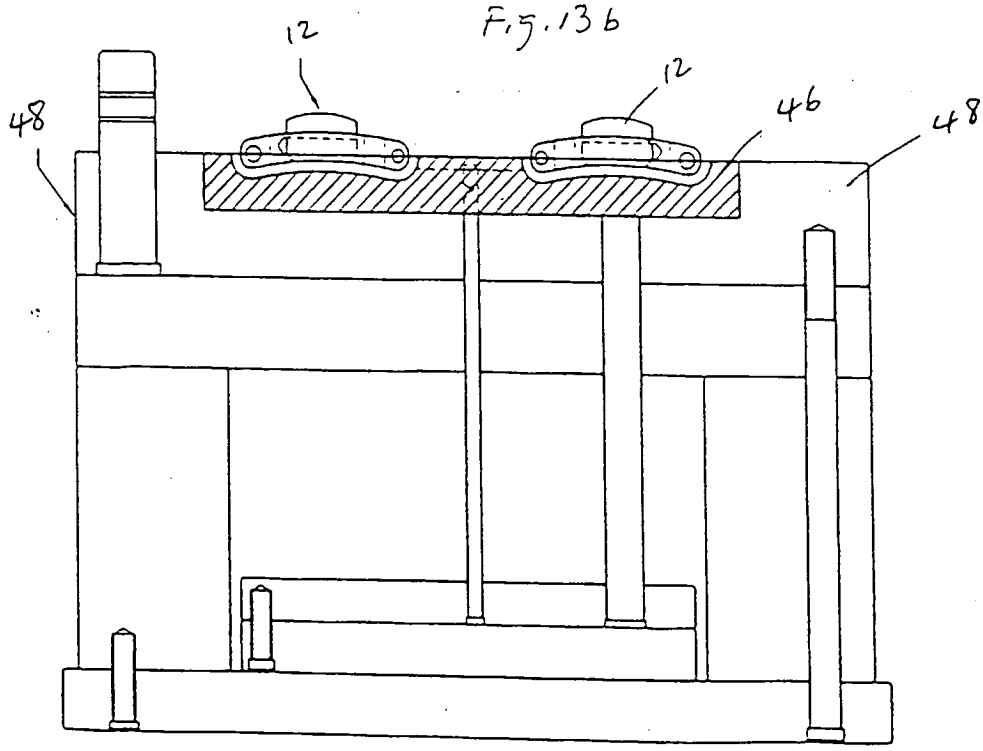

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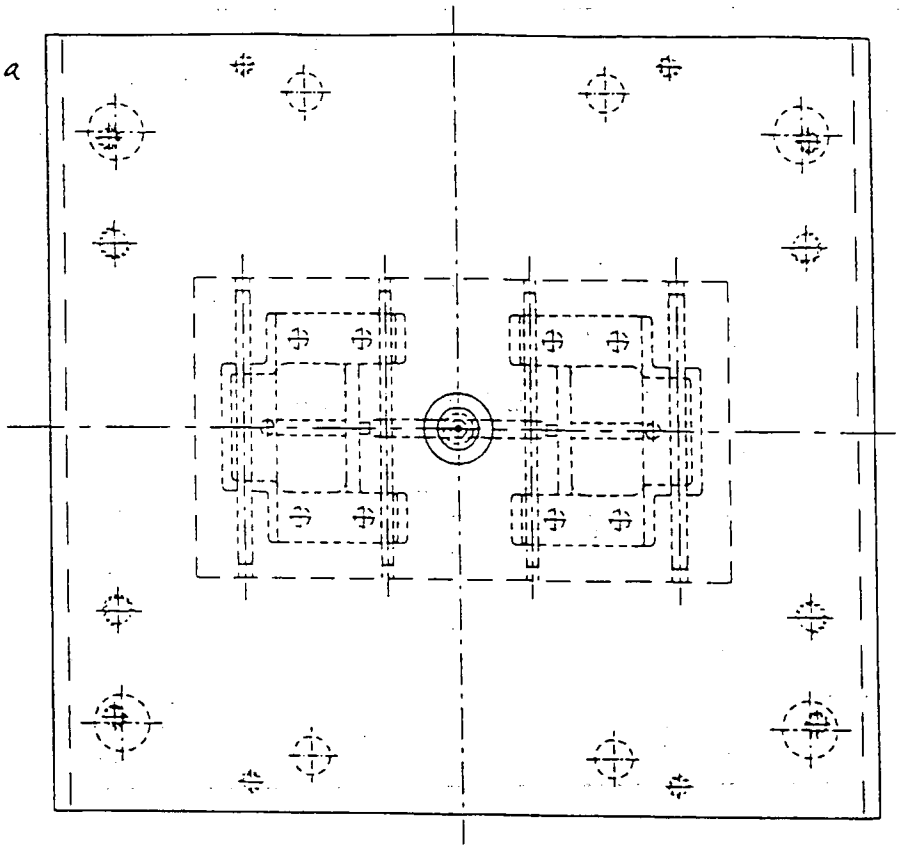

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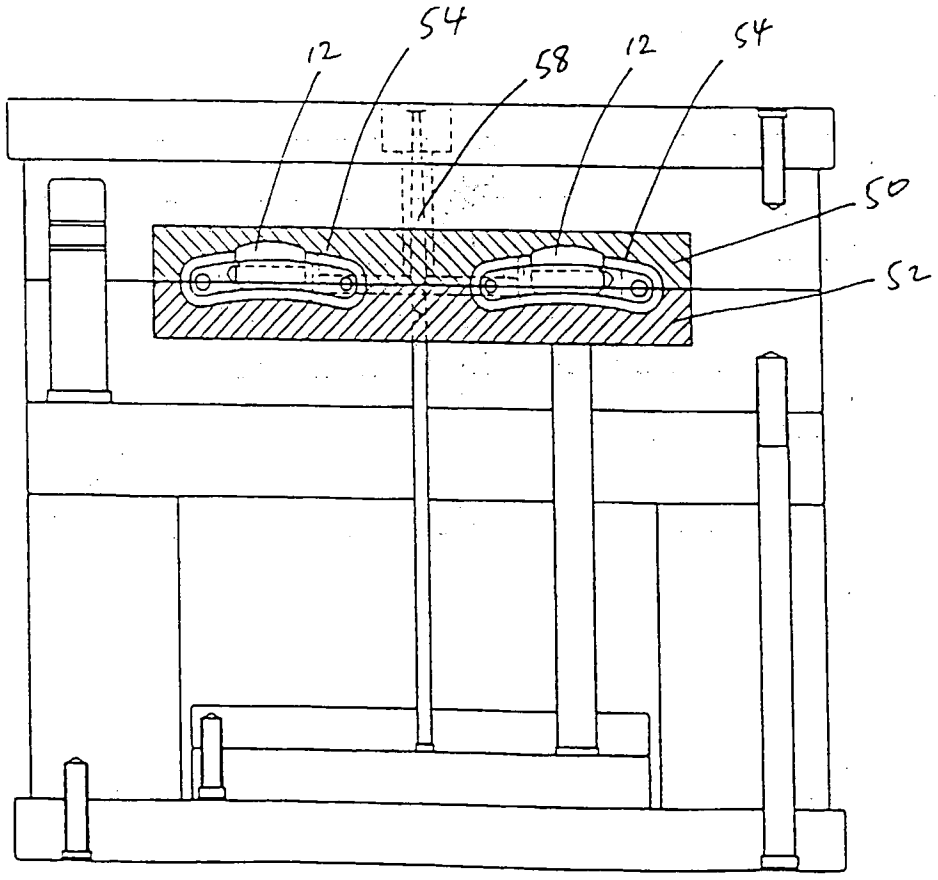

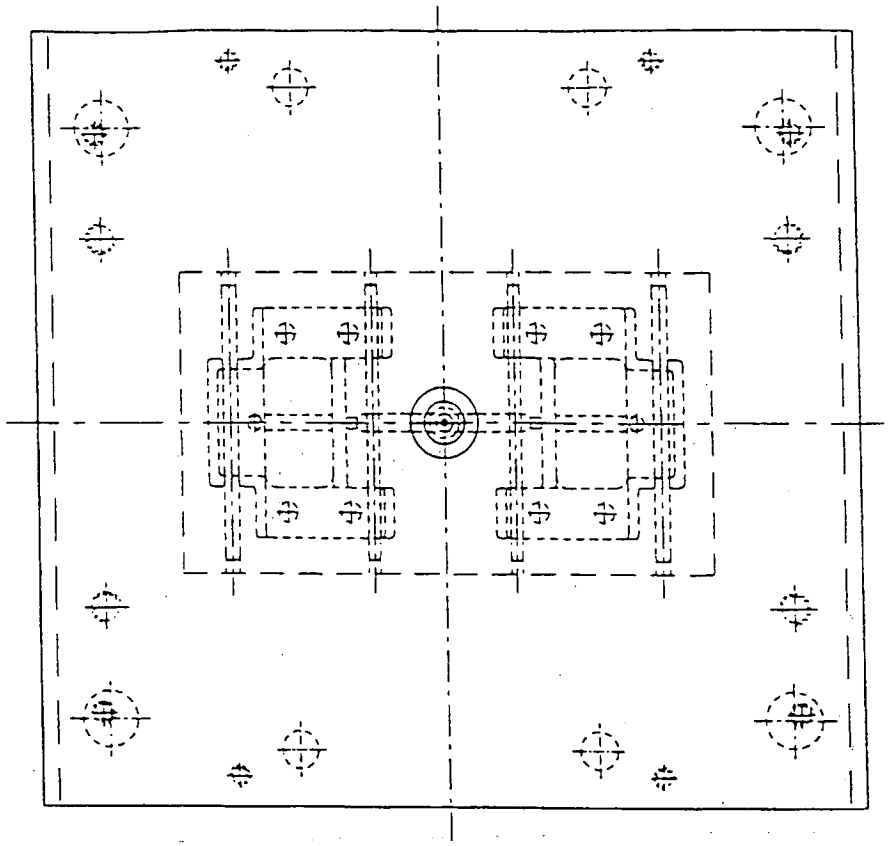

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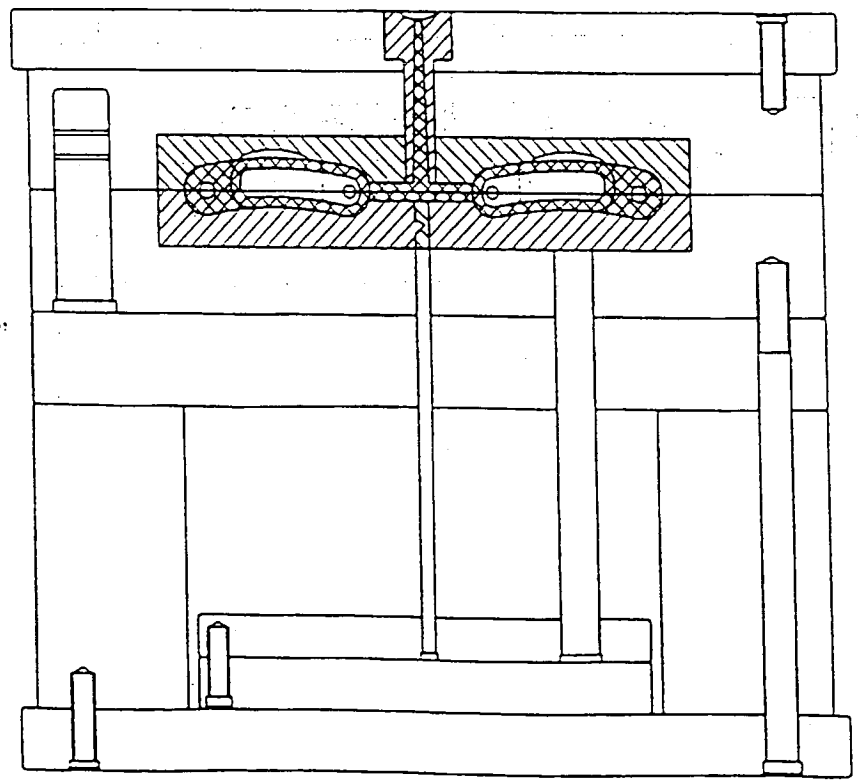
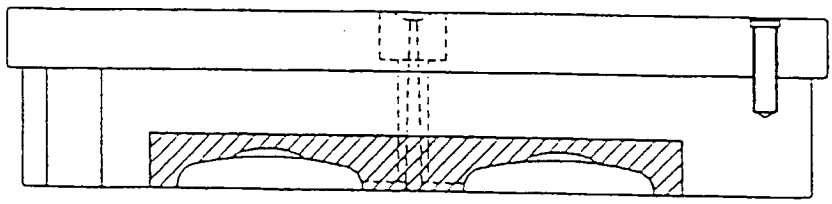


Fig. 15b

Fig. 16a



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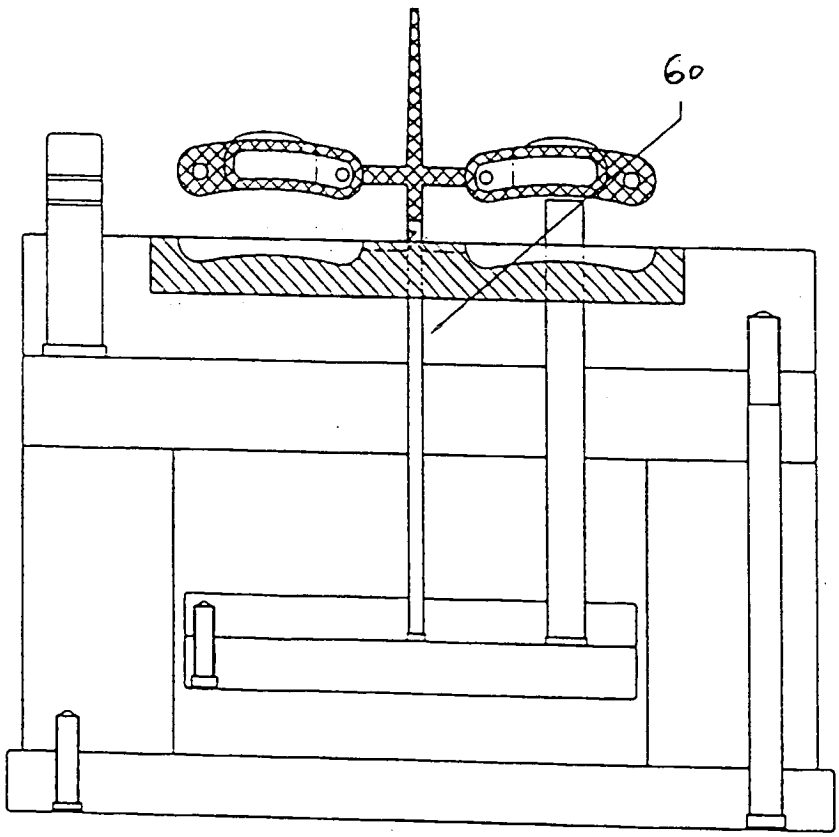

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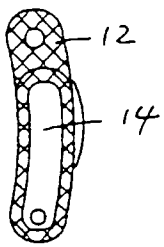

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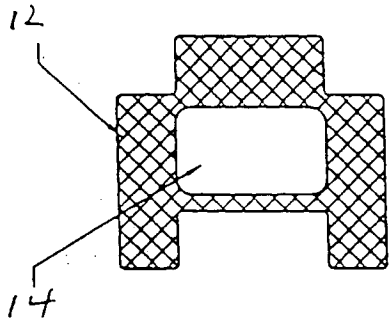


Fig. 17c

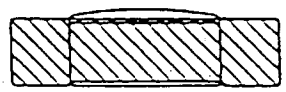
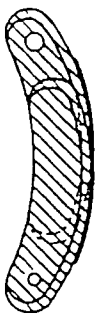


Fig. 18d



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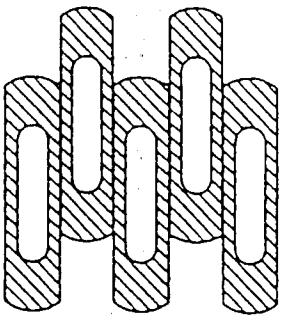
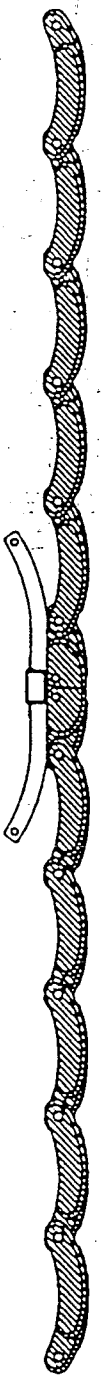


Fig. 18b



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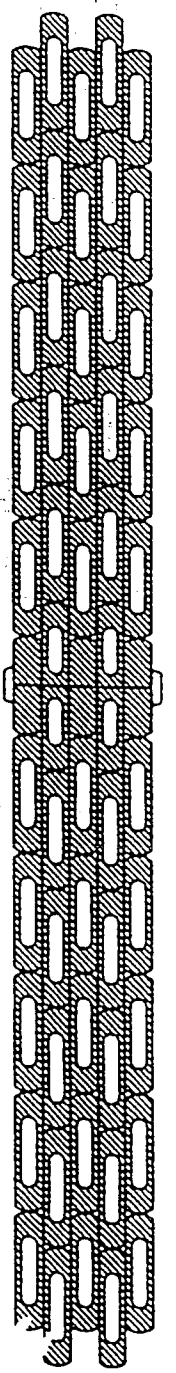

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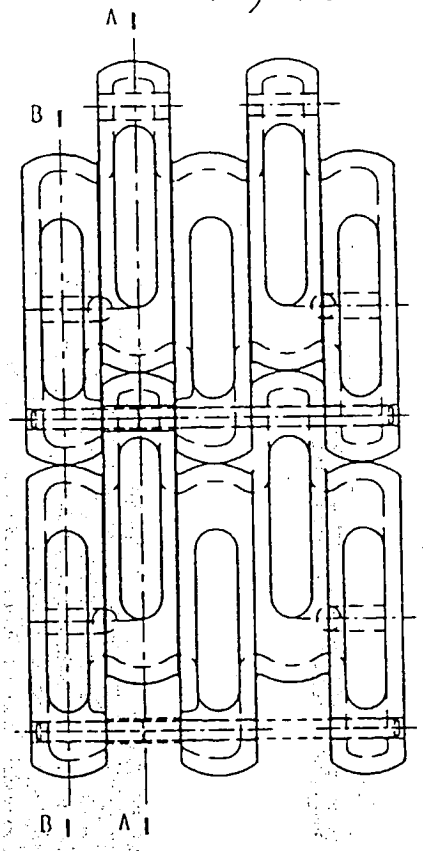

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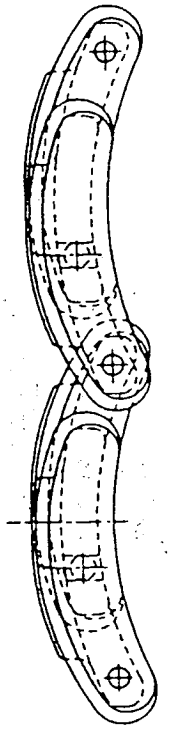
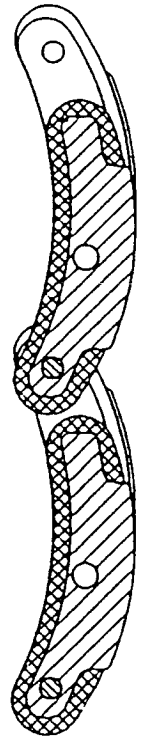




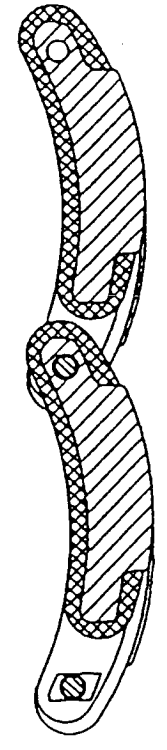
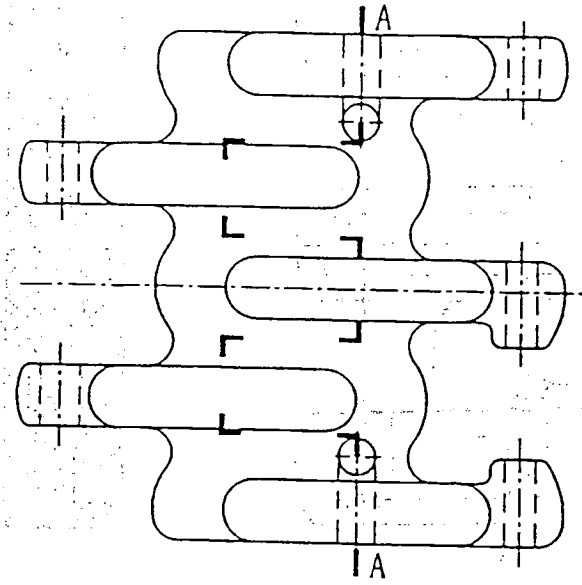


Fig.19c

Fig.19d

Fig. 20a



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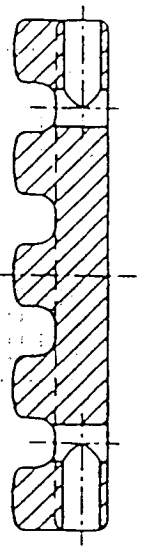


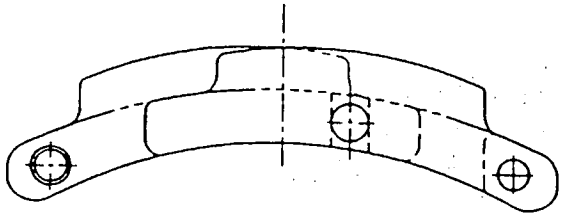


Fig. 20c

Fig. 21a

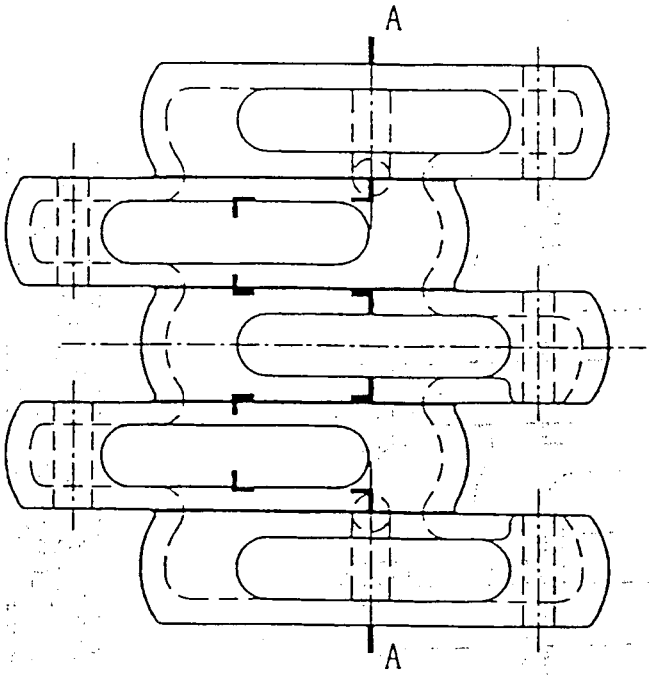
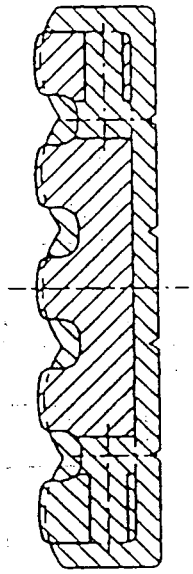


Fig. 21b



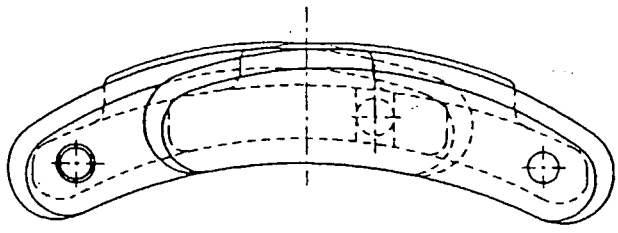


Fig. 21c

Fig. 22a

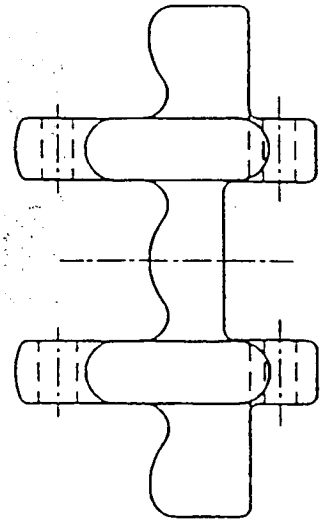


Fig. 22b

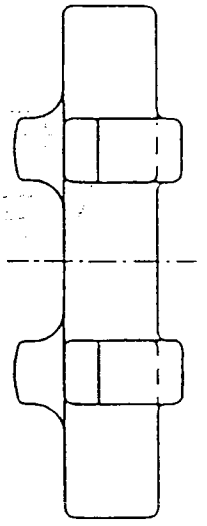


Fig. 22c

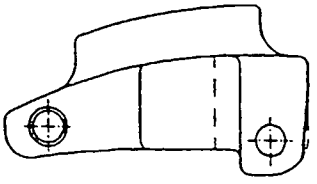


Fig. 23a

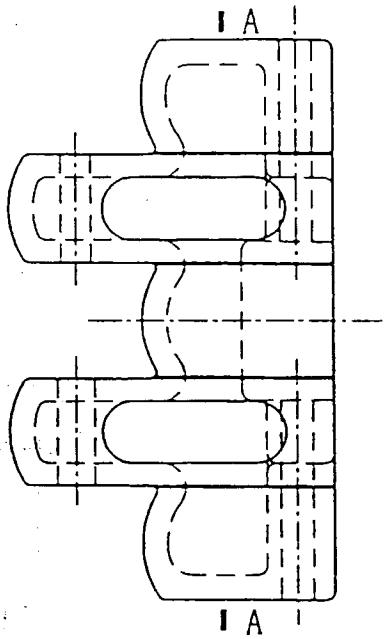
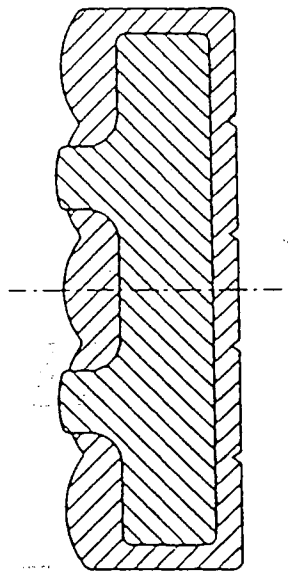


Fig. 23b



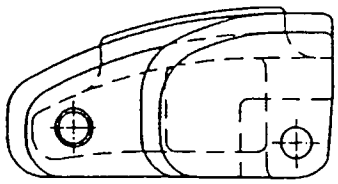


Fig. 23c

Fig. 24a

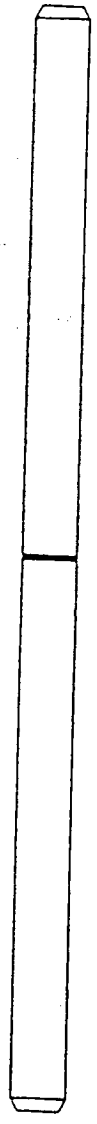


Fig. 24b

Fig.25a

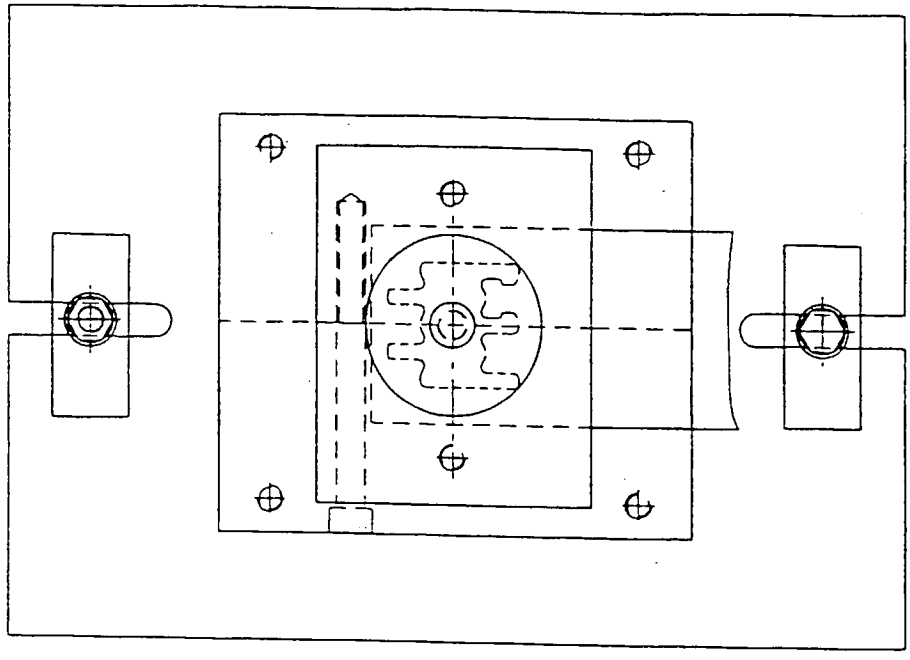


Fig.25b

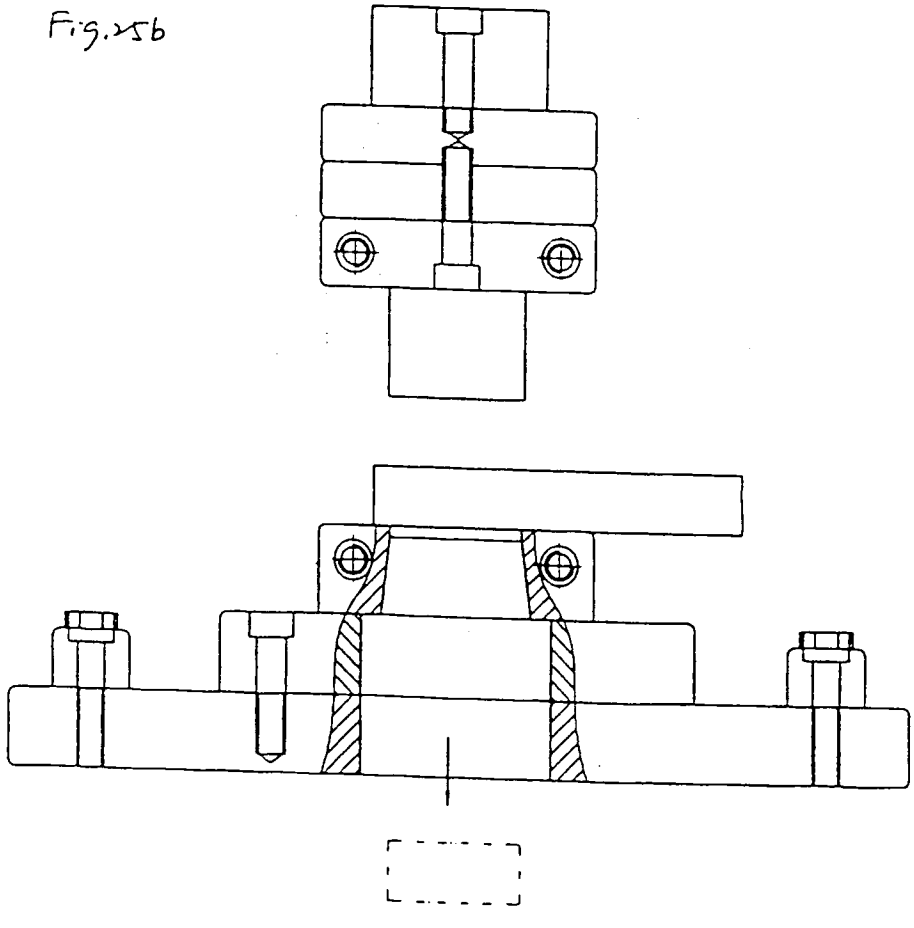


Fig. 26a

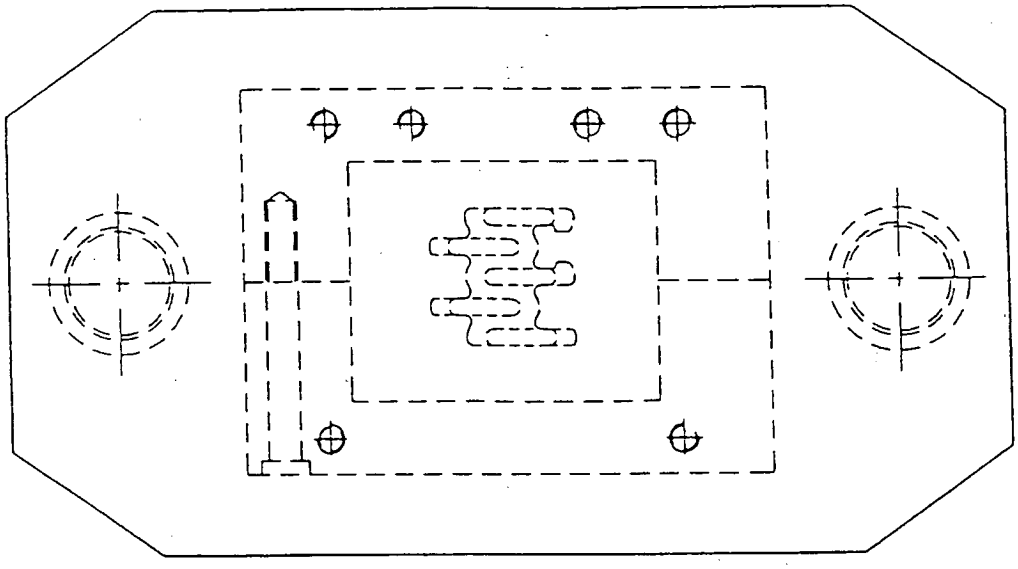


Fig. 26b

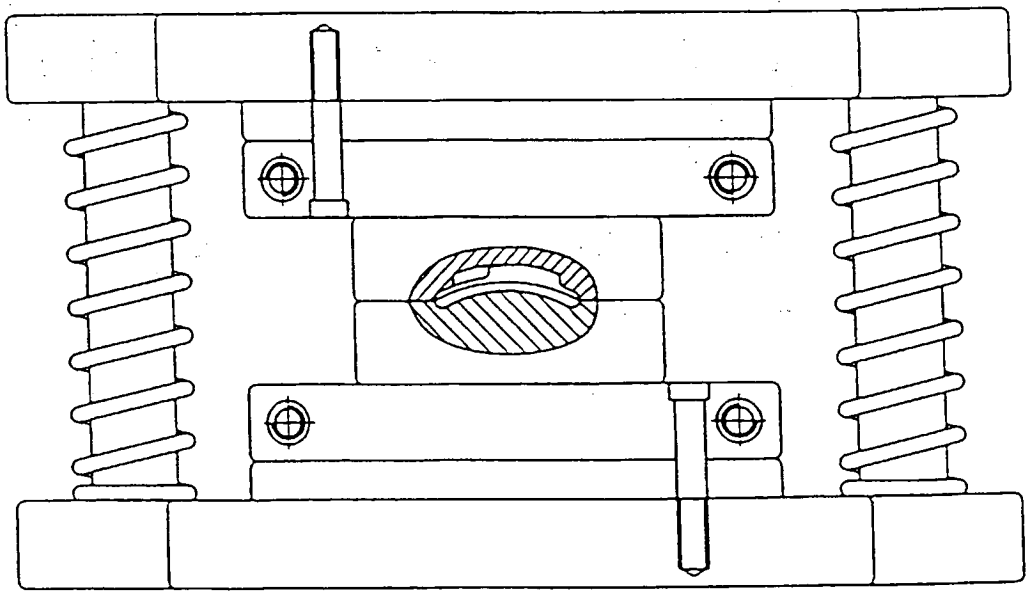


Fig.27a

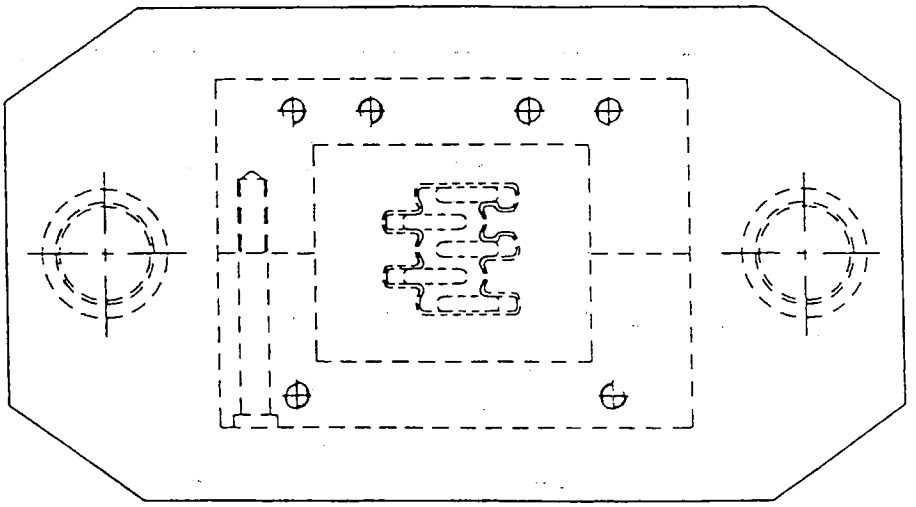


Fig.27b

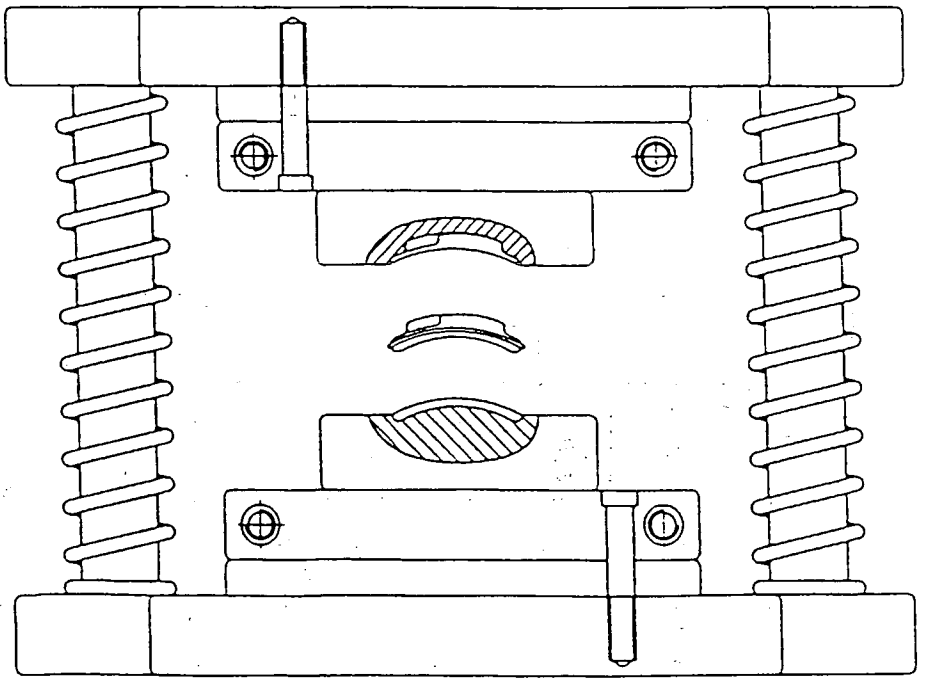


Fig. 28a

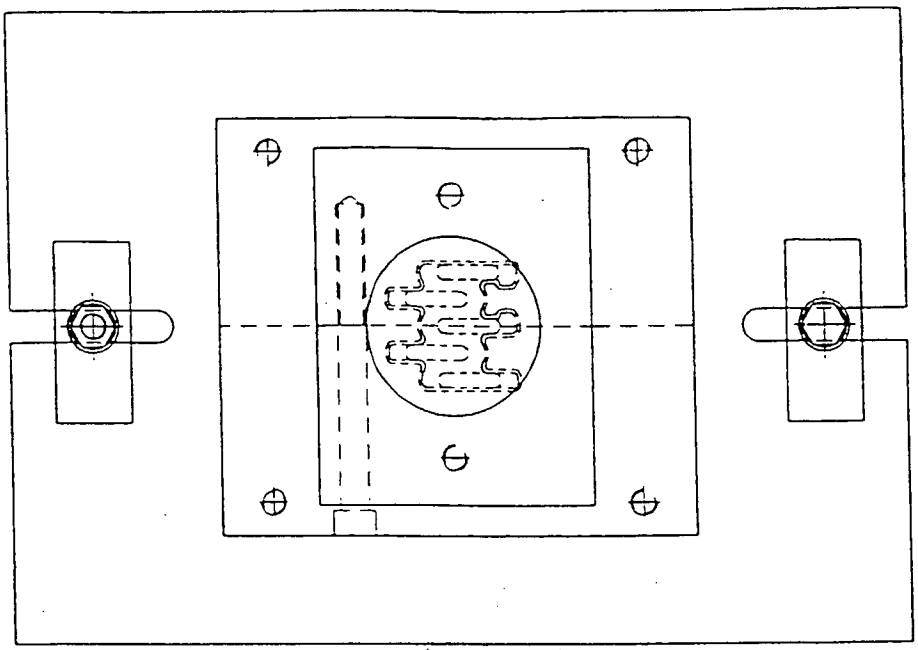


Fig. 28b

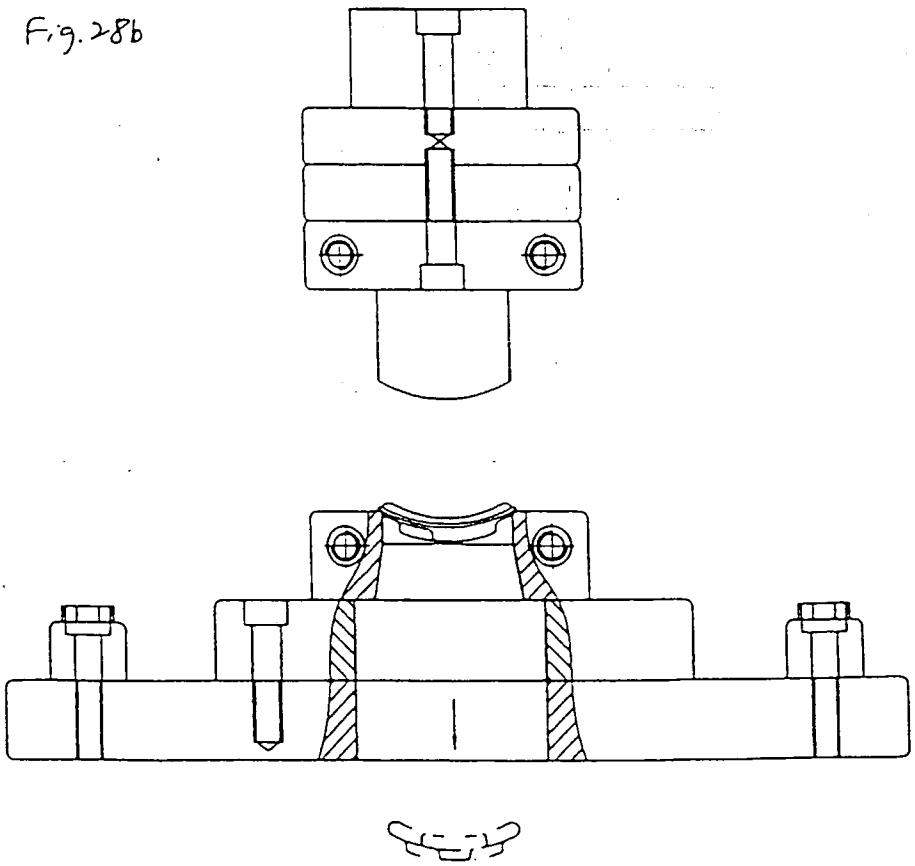


Fig. 29a

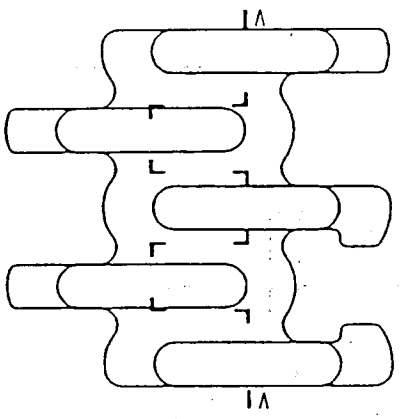


Fig. 29b

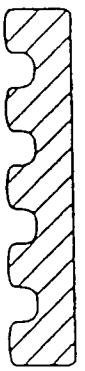


Fig. 29c

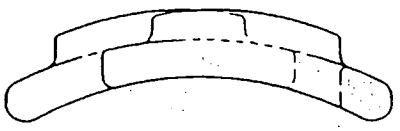


Fig. 30a

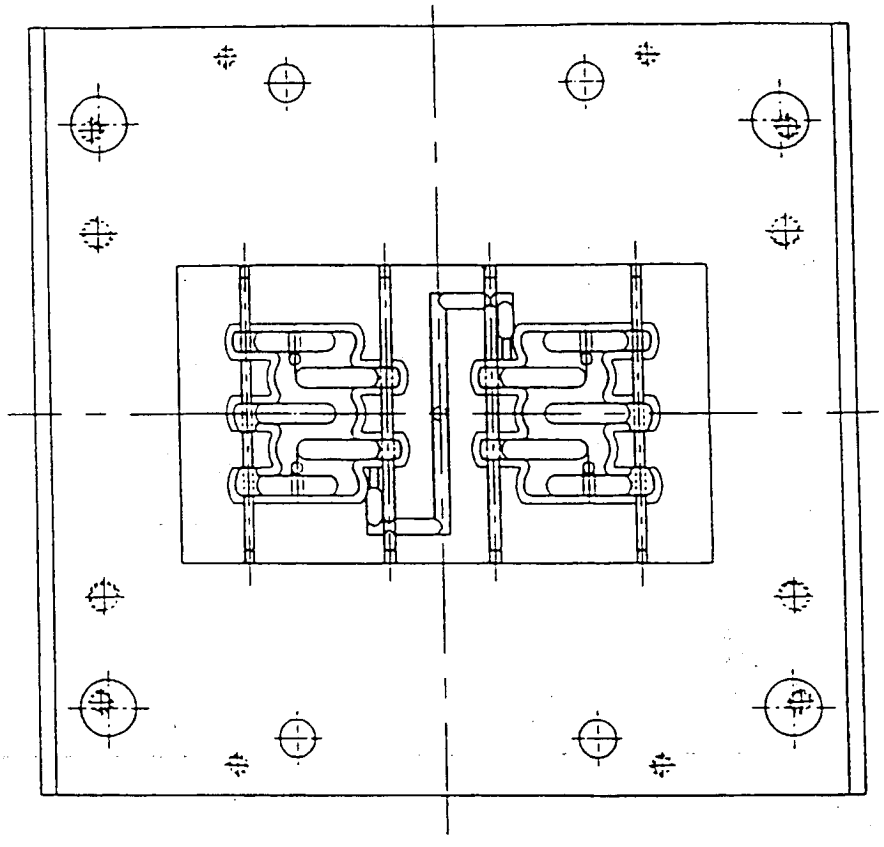


Fig. 30b

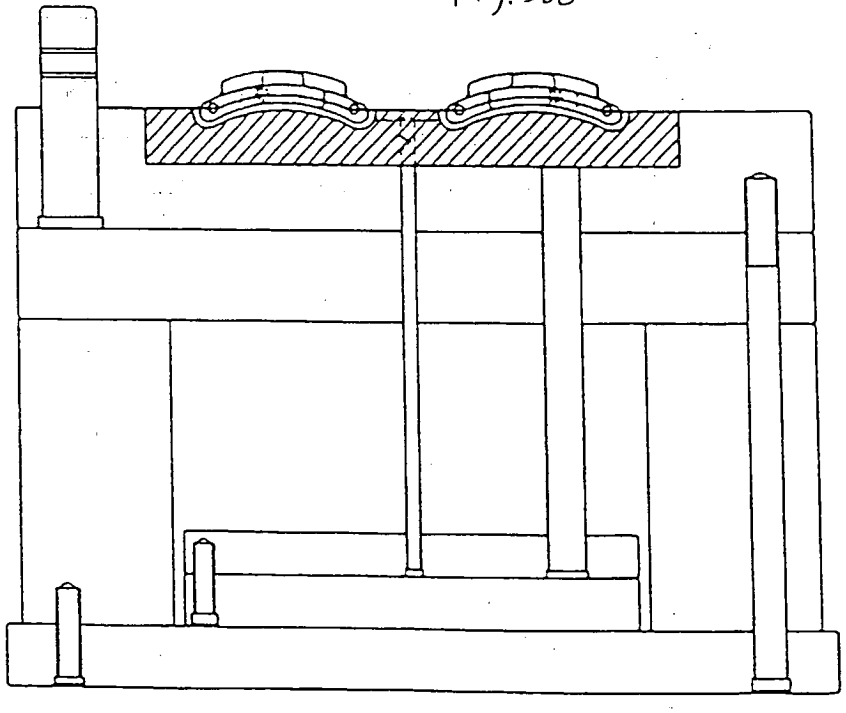


Fig. 31a

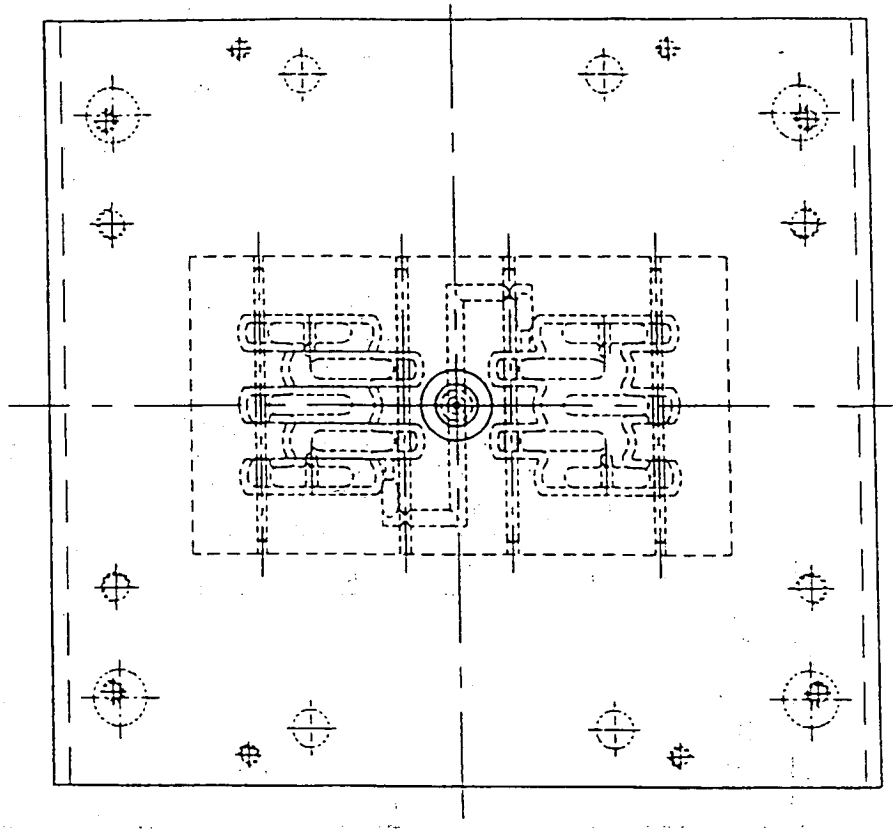


Fig. 31b

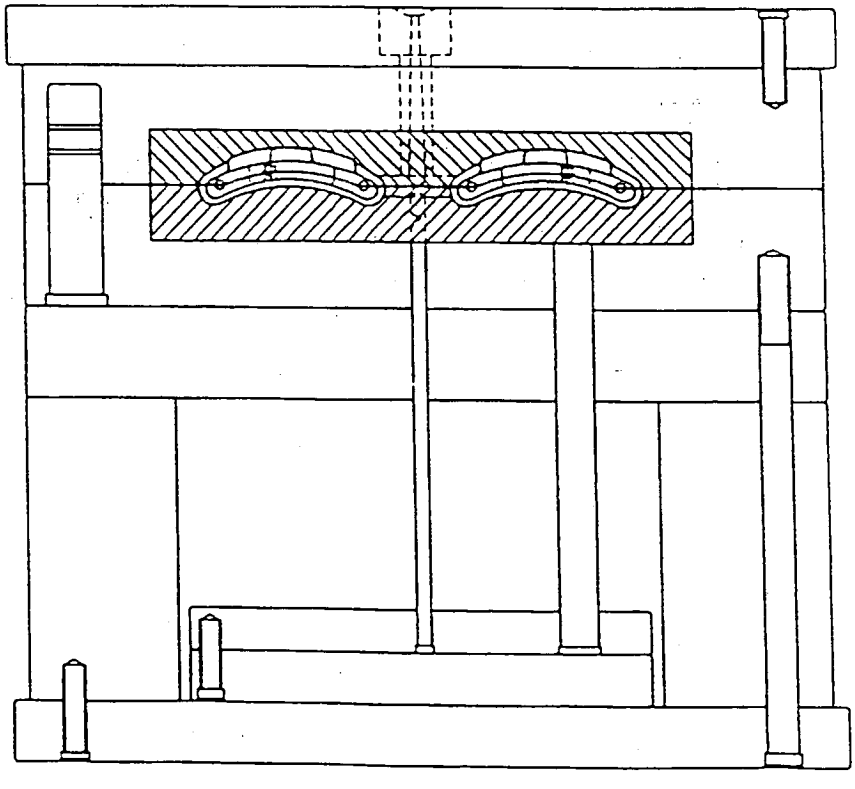


Fig. 32a

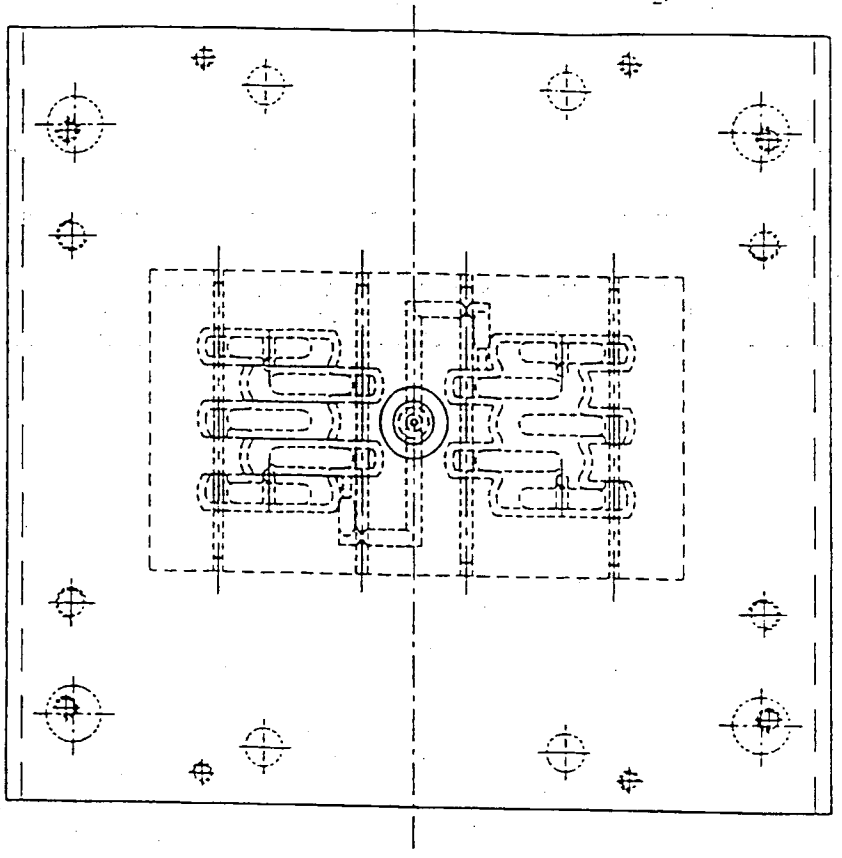


Fig. 32b

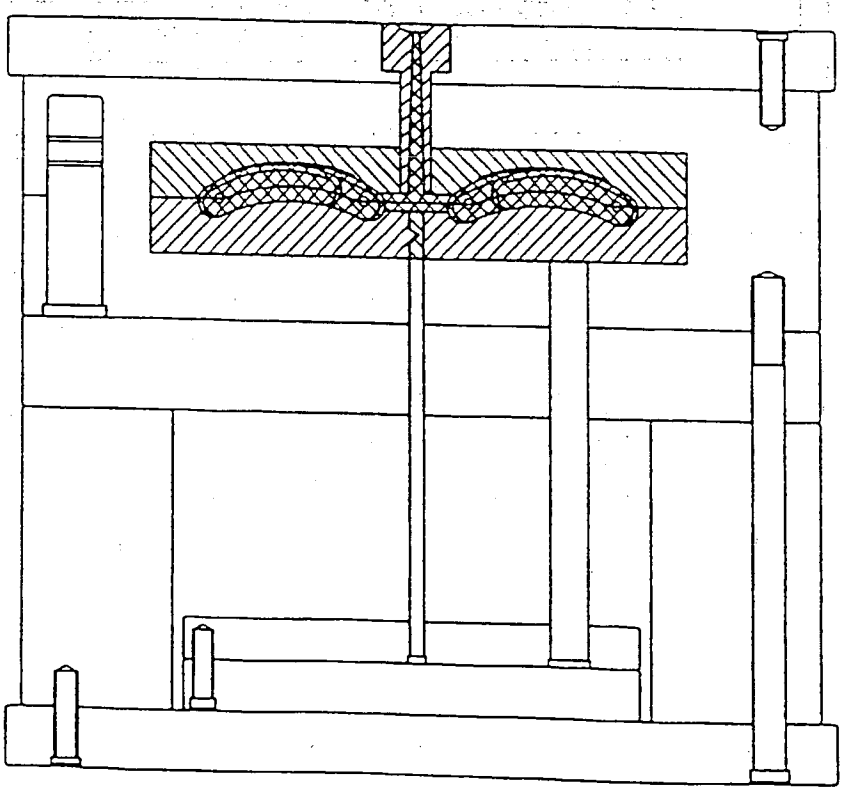


Fig. 33a

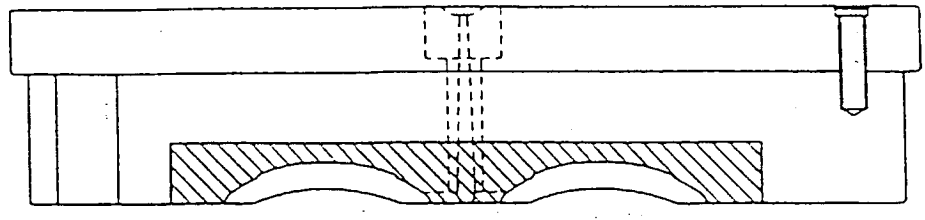


Fig. 33b

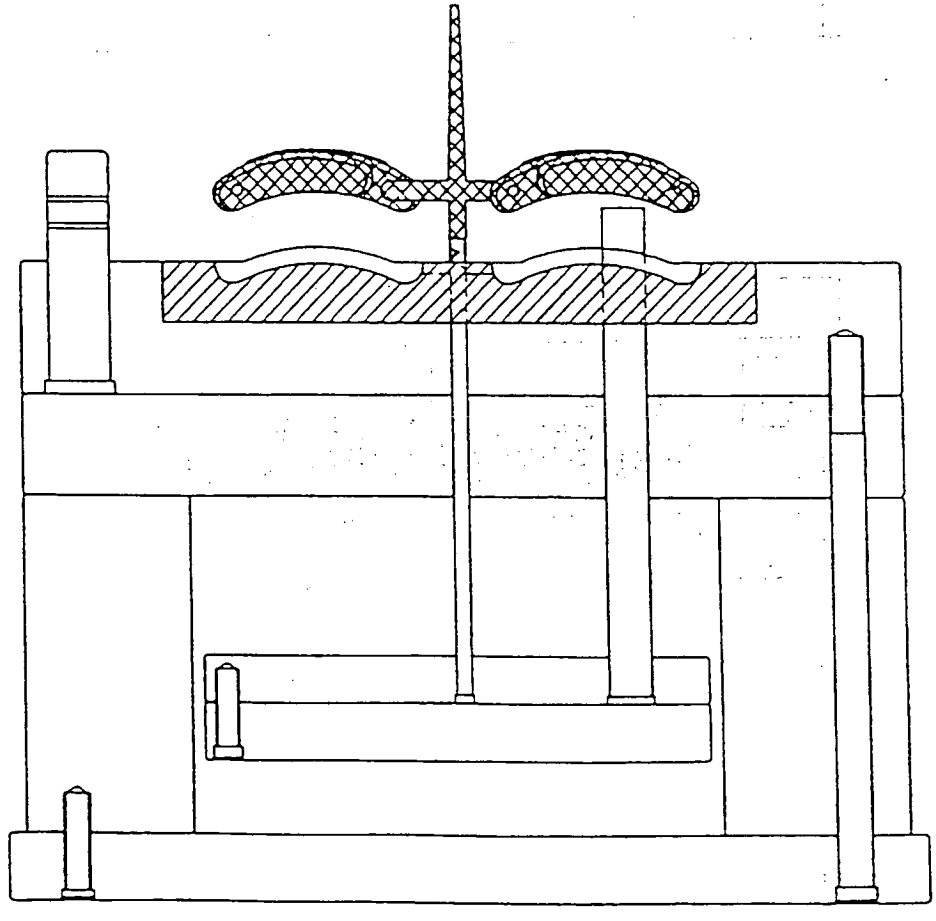


Fig. 34a

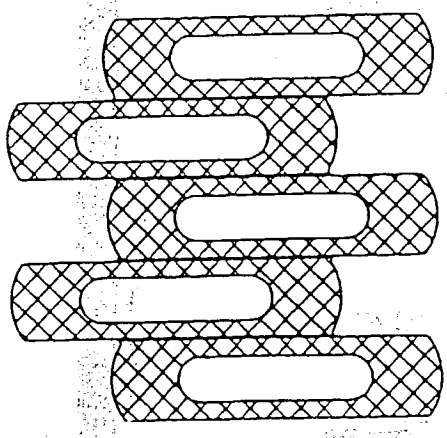
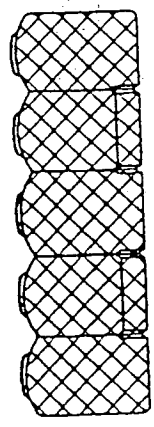


Fig. 34b



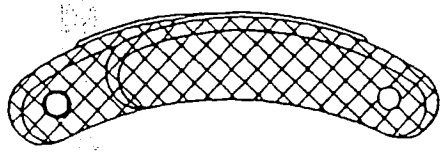


Fig. 34c

Fig. 35b

Fig. 35a

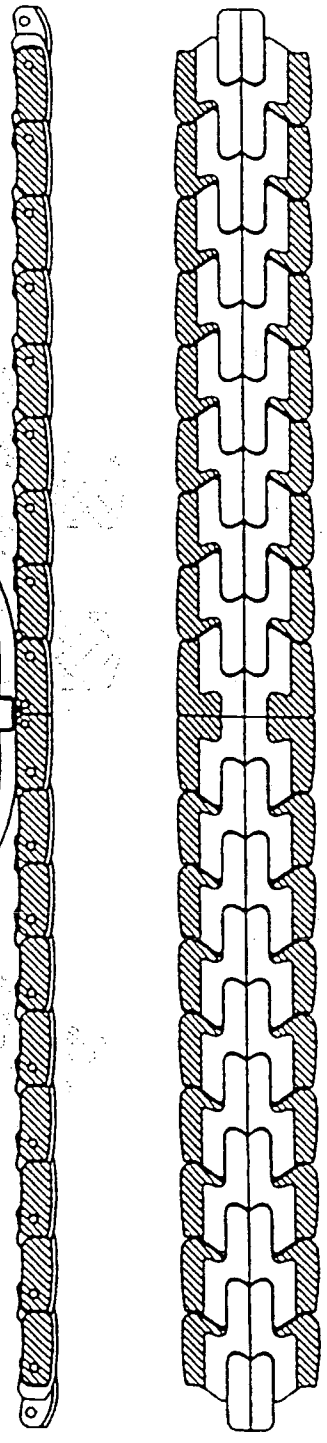


Fig. 35c

Fig. 35d

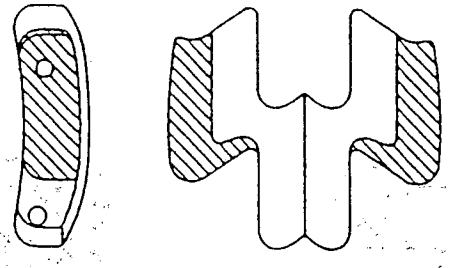


Fig. 35e

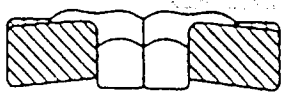


Fig. 36a

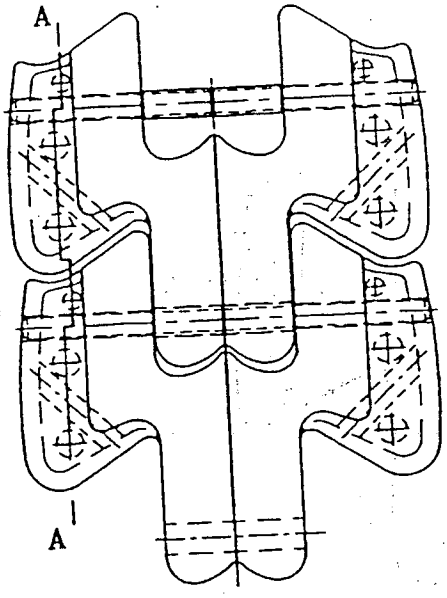


Fig. 36b

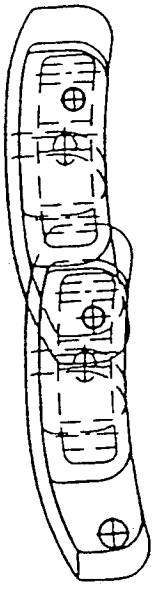


Fig. 36c

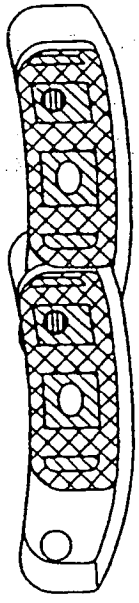


Fig.37a

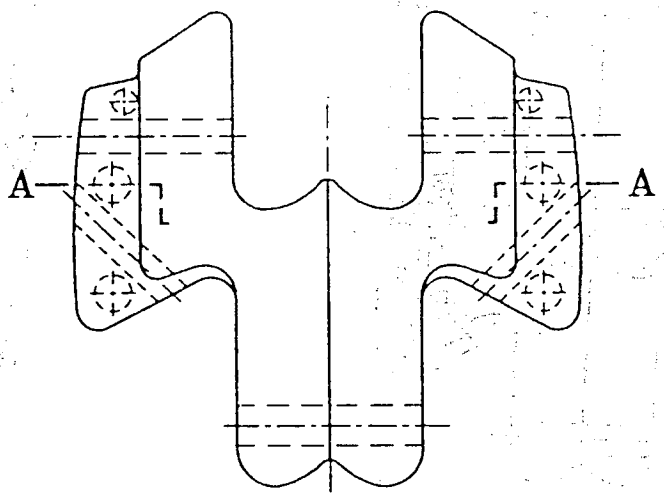
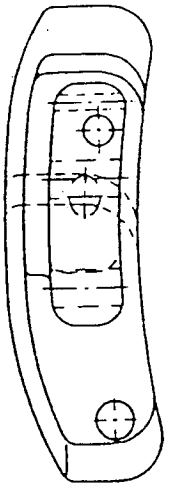


Fig.37b



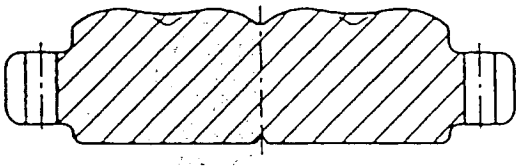


Fig.37c

Fig. 38a

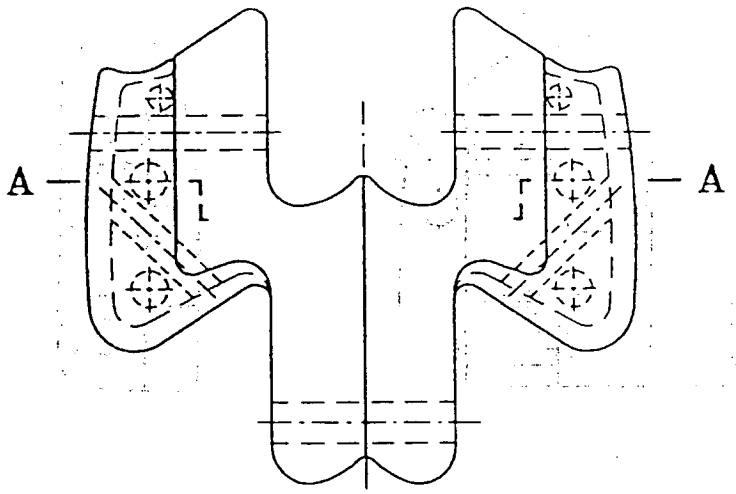
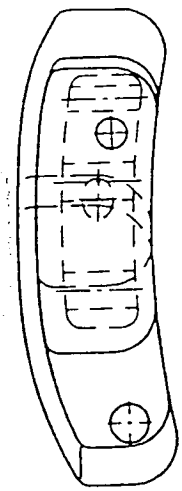


Fig. 38b



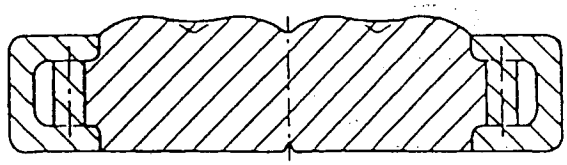


Fig. 38c

Fig. 39 a

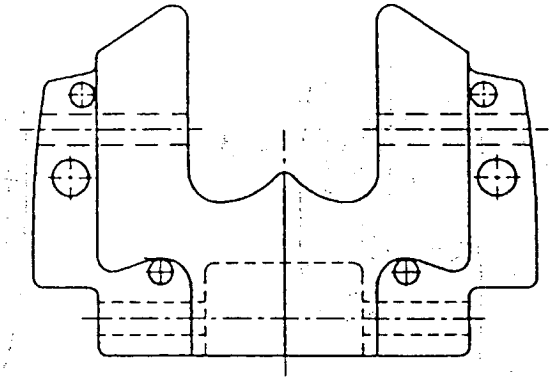


Fig. 39 c

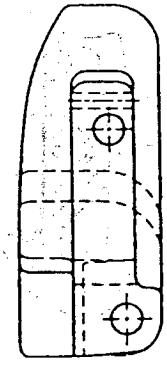


Fig. 39 b

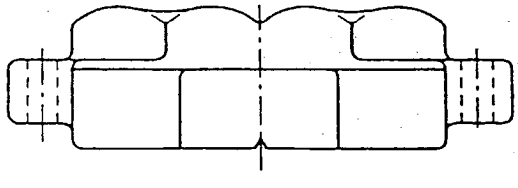


Fig.40a

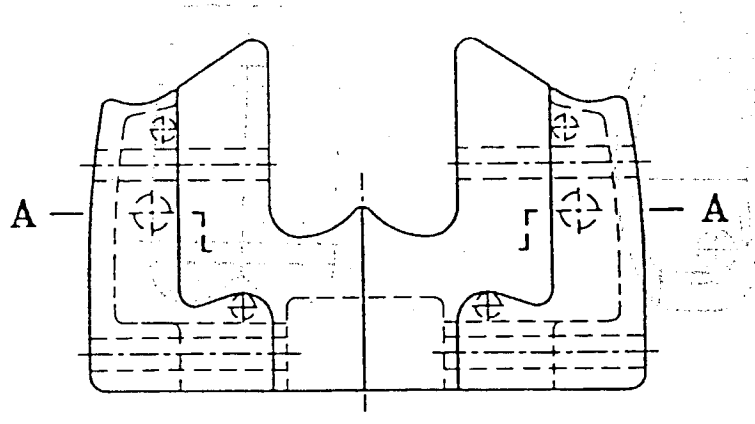


Fig.40c

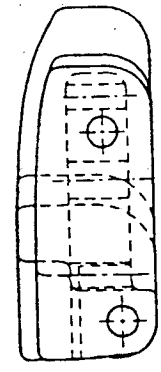


Fig.40b

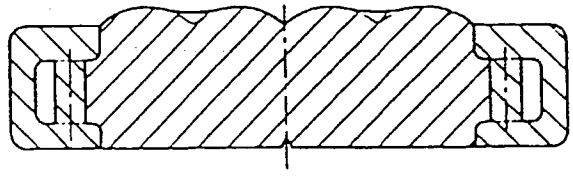


Fig. 41b

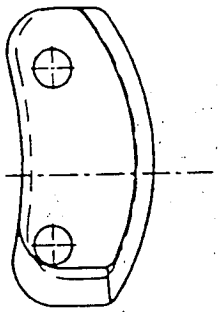


Fig. 41a

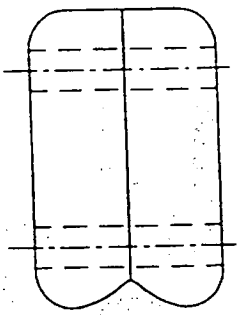


Fig. 41c

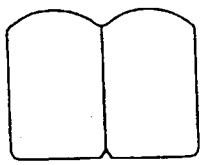


Fig. 42

Fig 43a

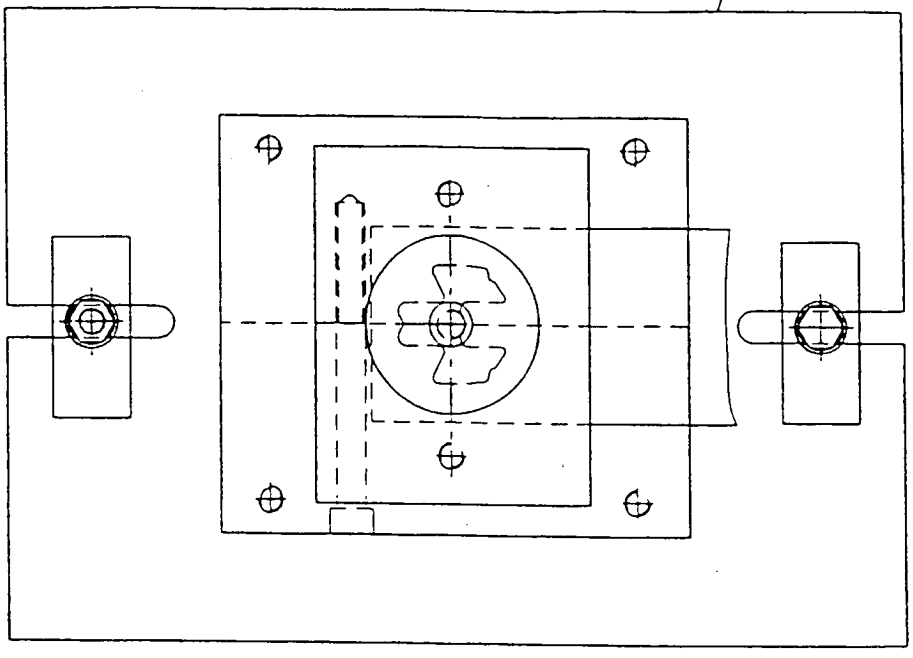


Fig. 43b

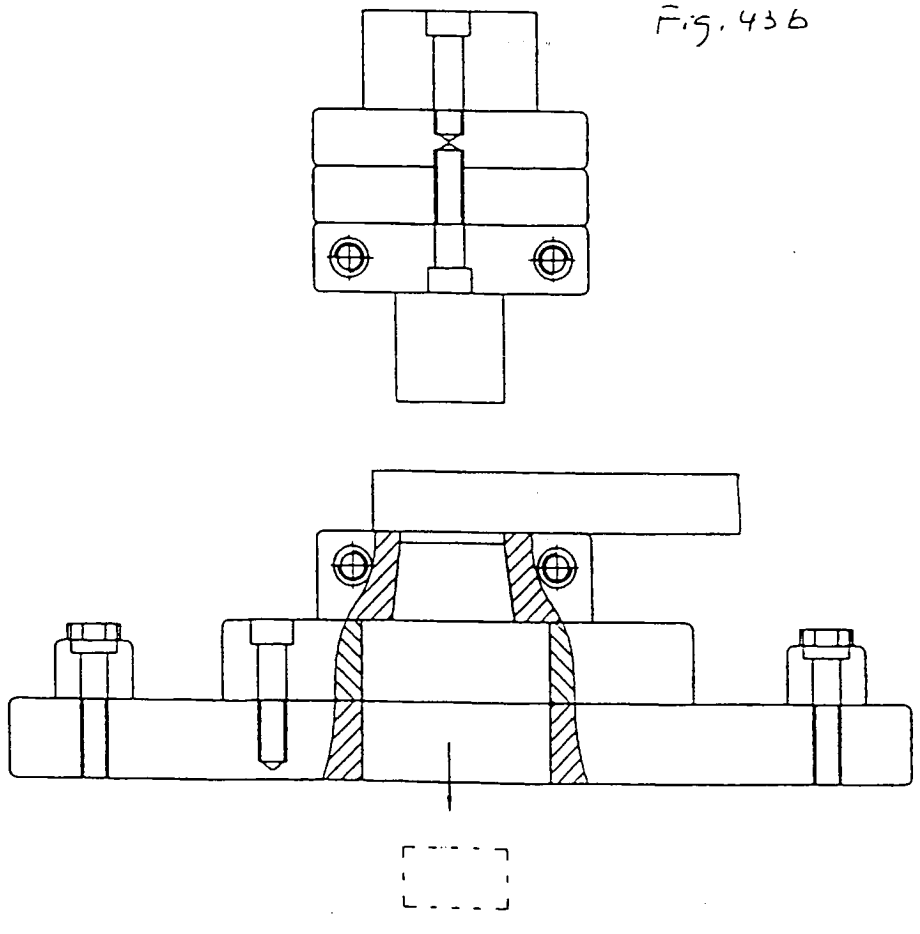


Fig. 44a

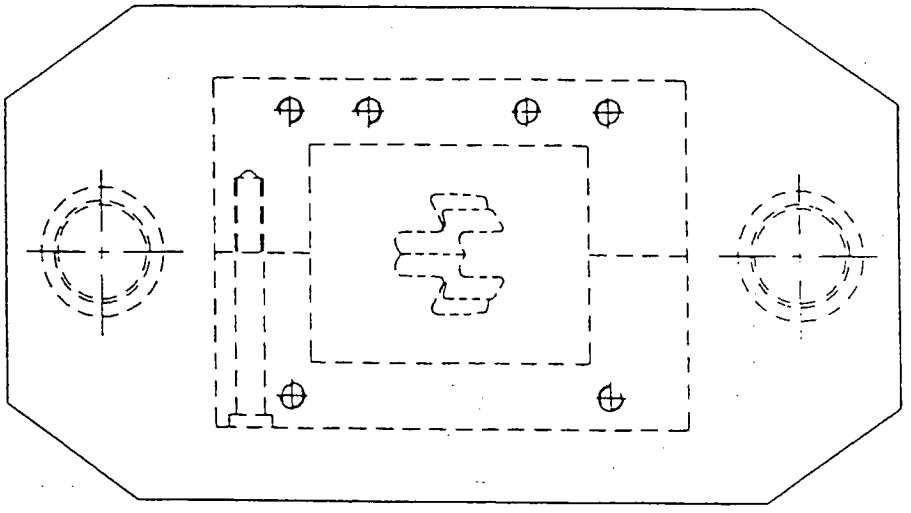


Fig. 44b

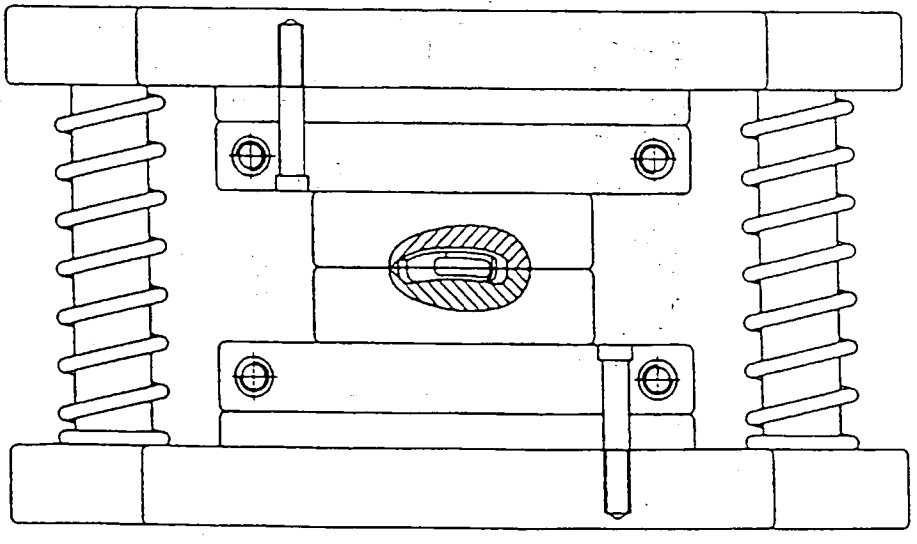


Fig. 45a

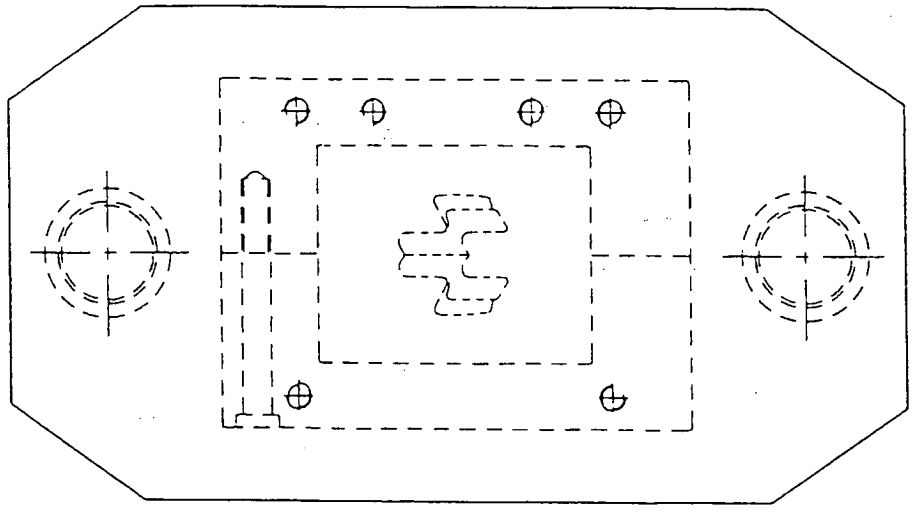


Fig. 45b

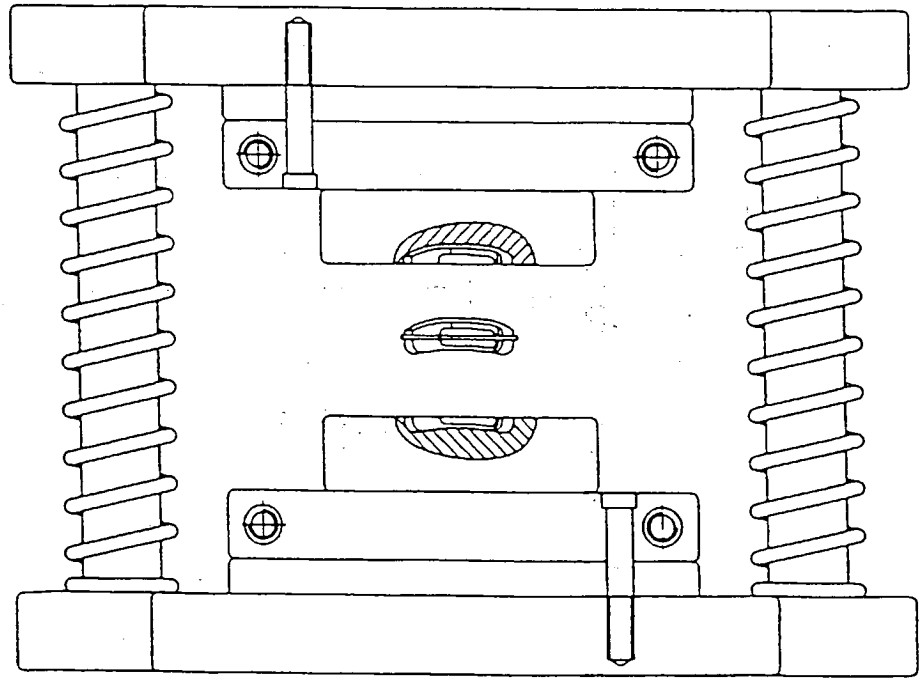


Fig. 46a

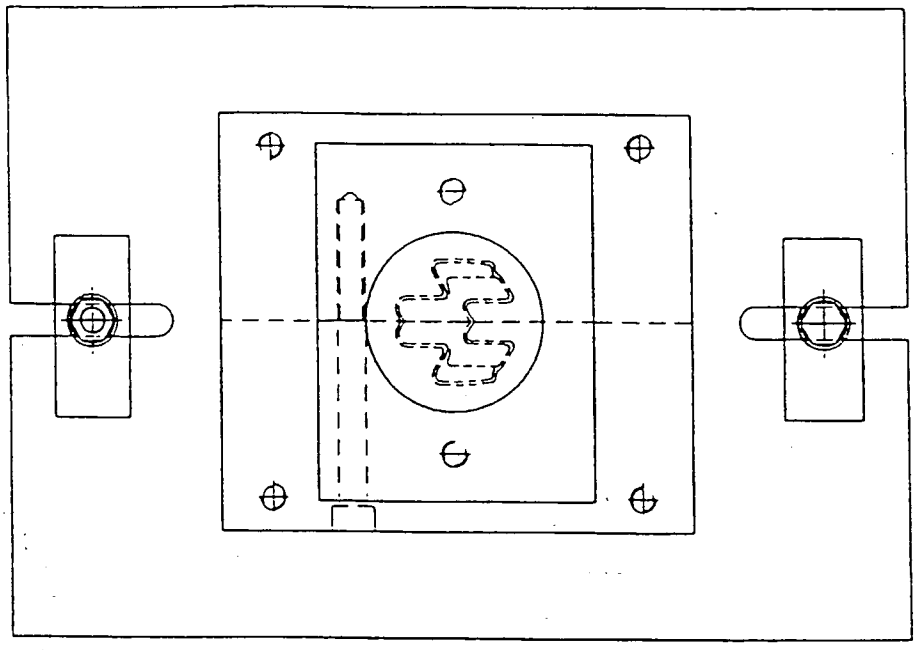


Fig. 46b

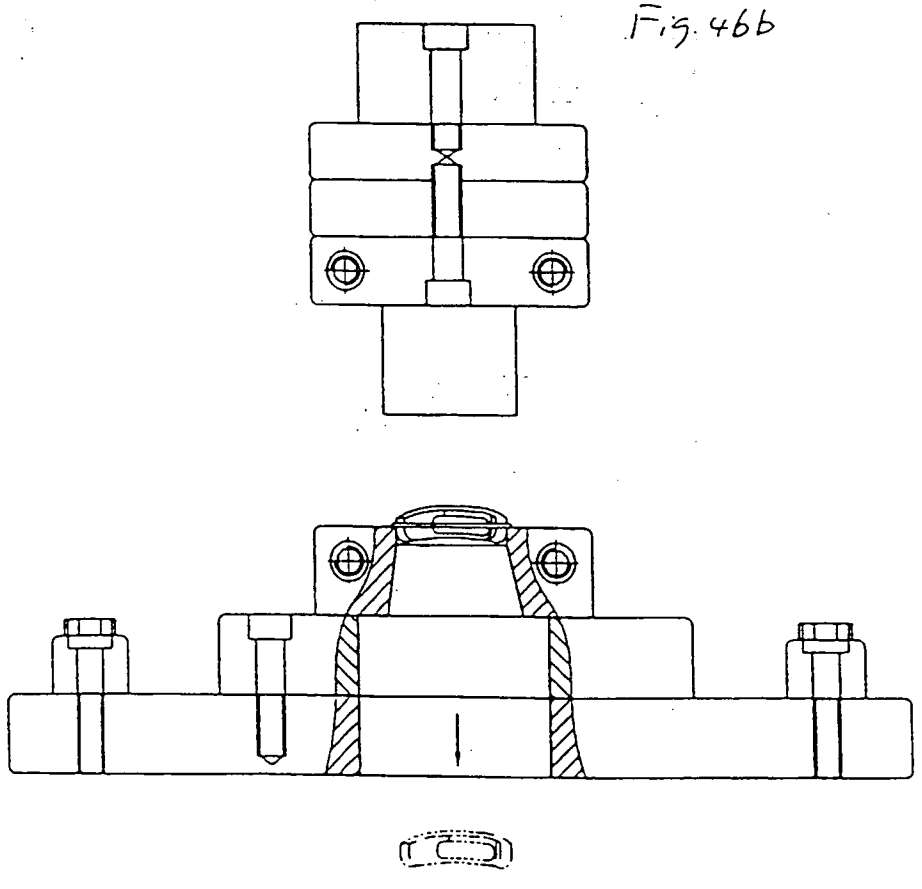


Fig. 46c

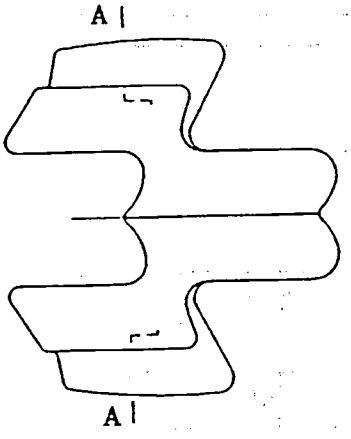
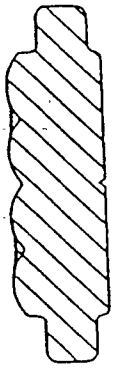


Fig. 46d



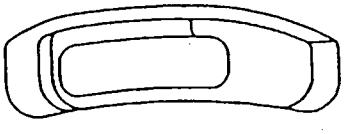


Fig. 46e

Fig. 47a

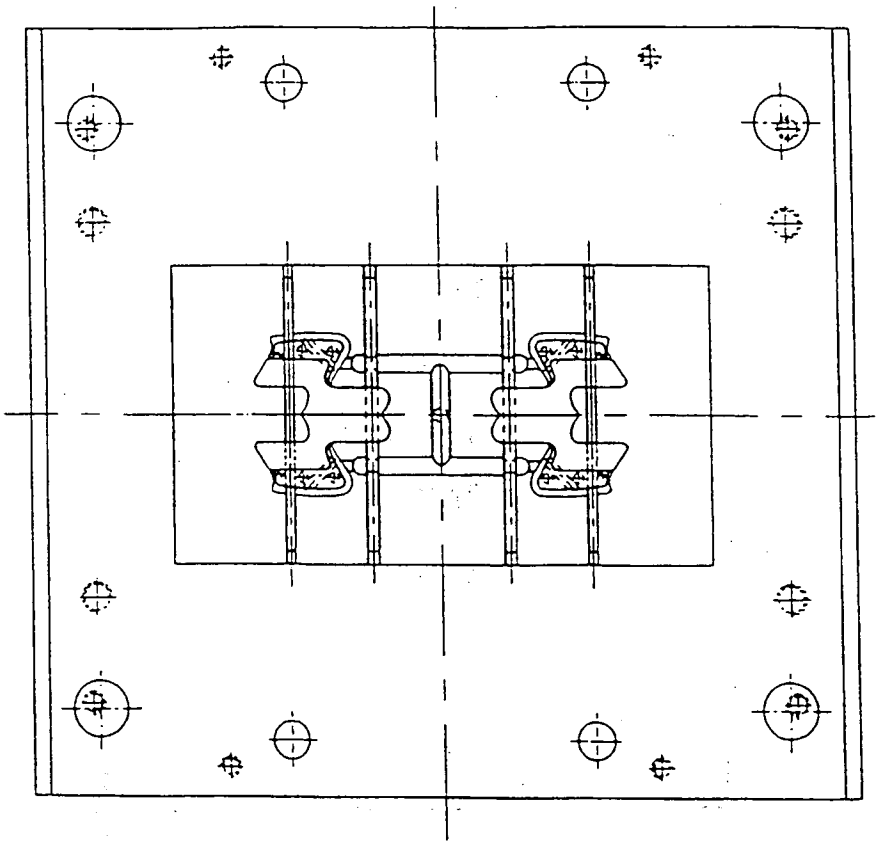
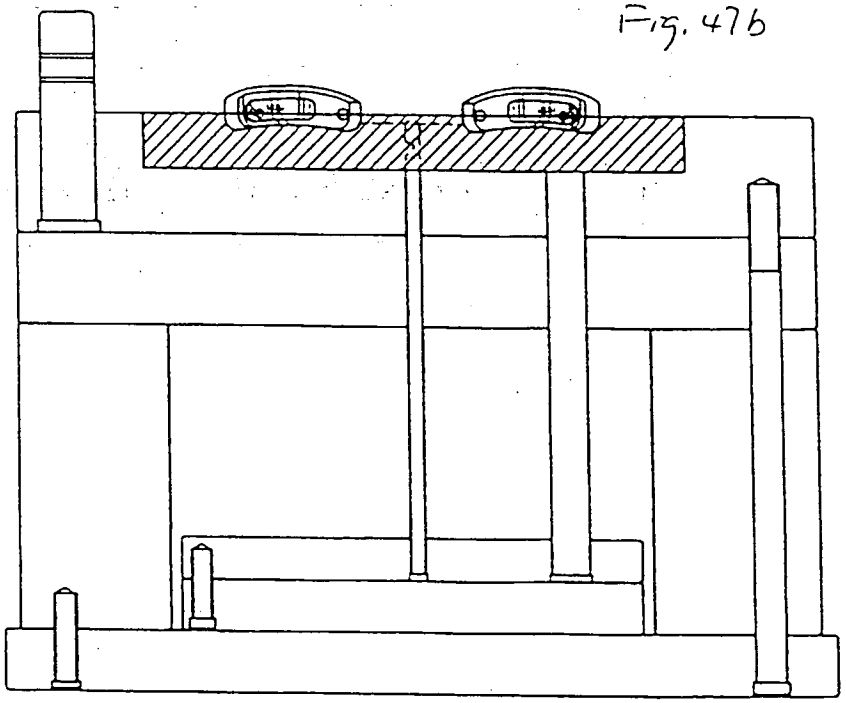


Fig. 47b



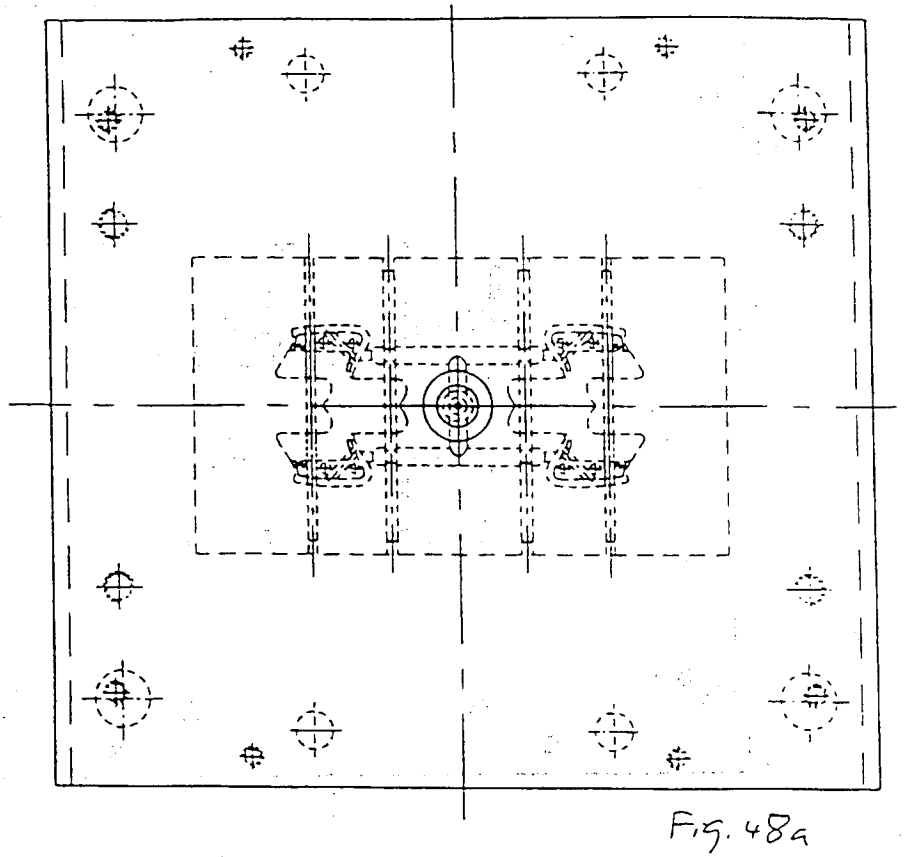
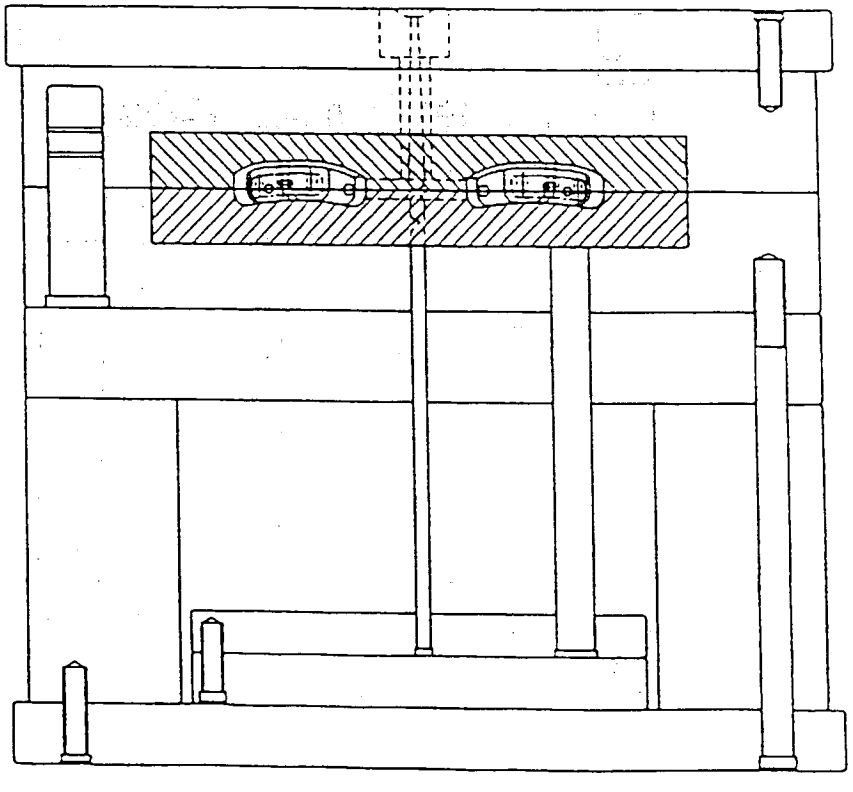


Fig. 48a

Fig. 48b



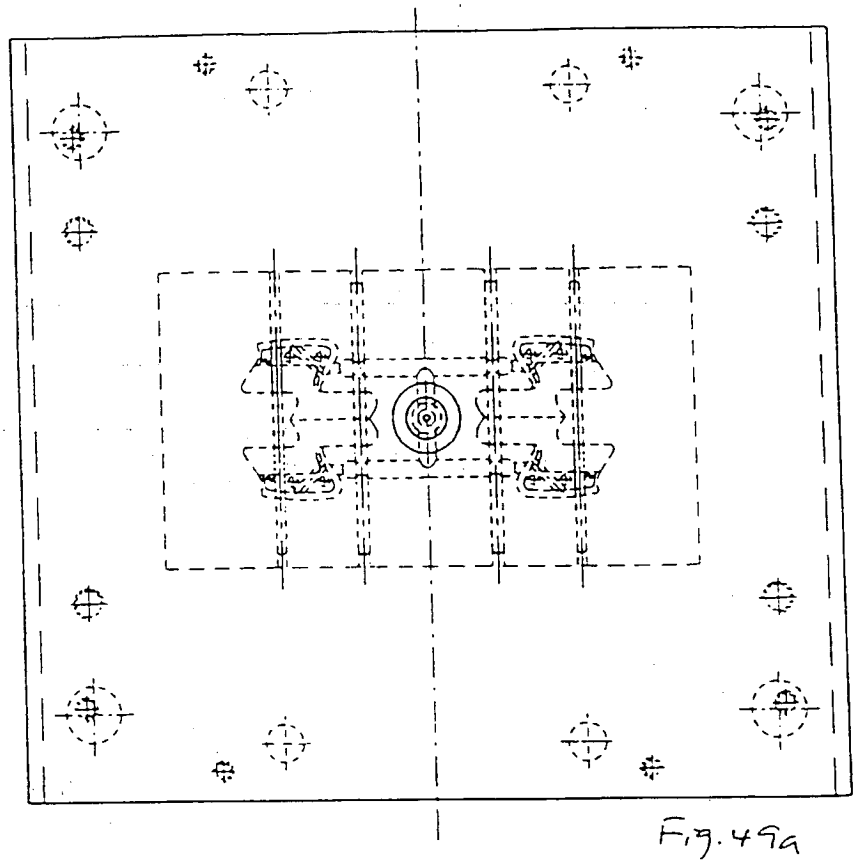


Fig. 49a

Fig. 49b

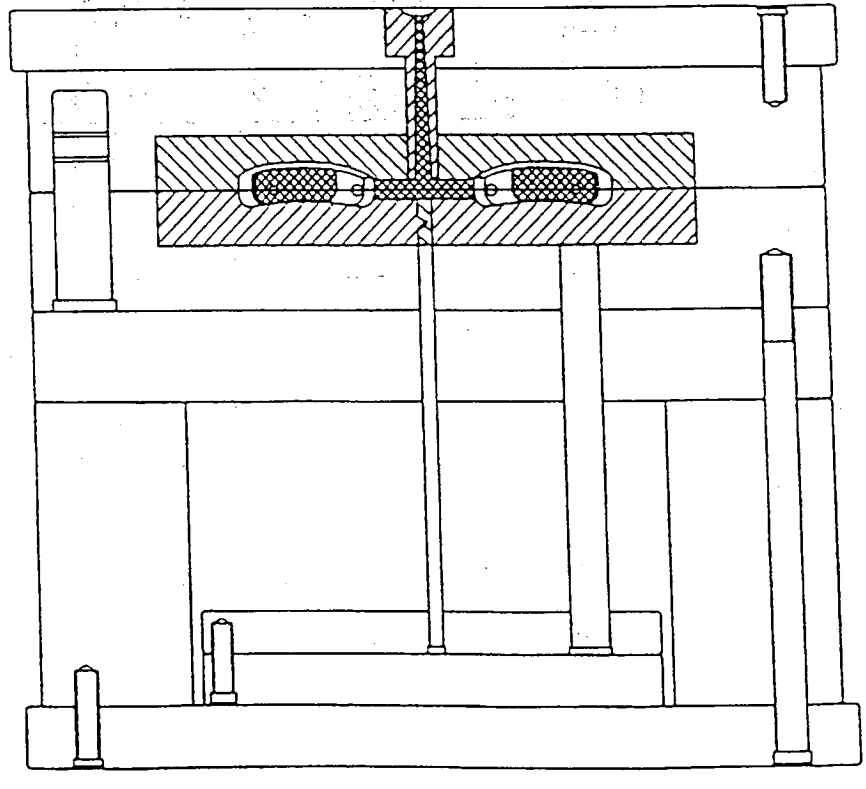


Fig. 50a

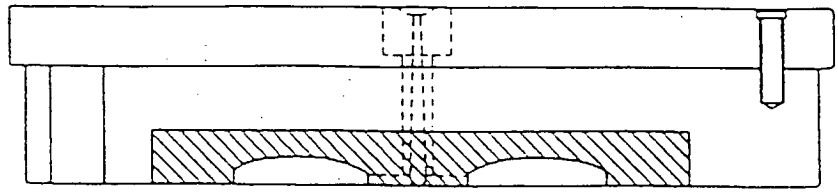


Fig. 50b

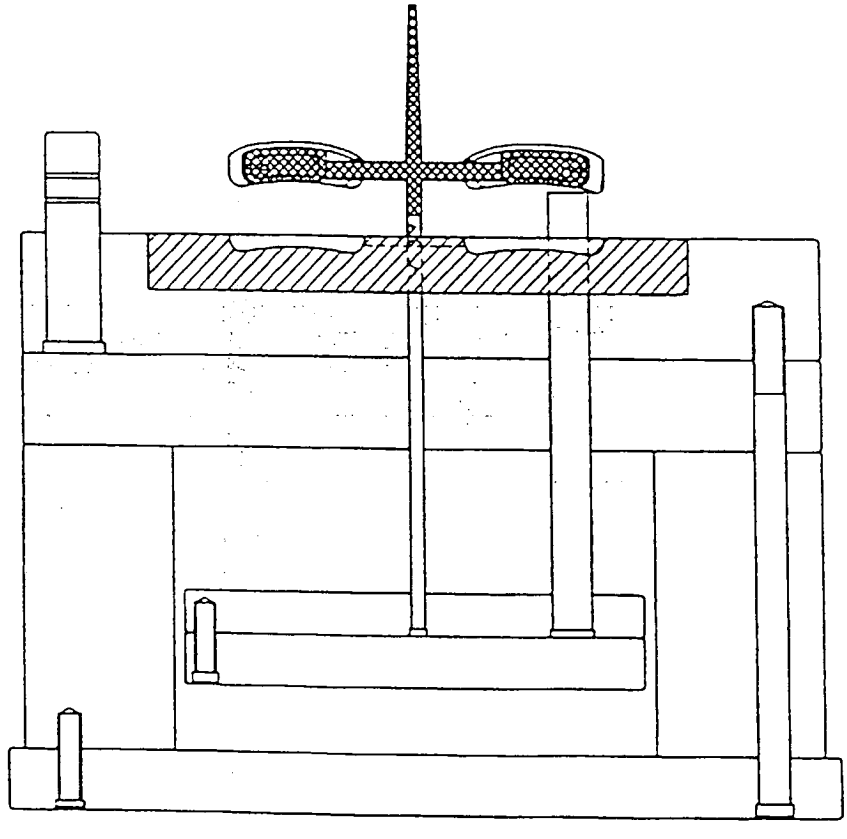


Fig. 51a

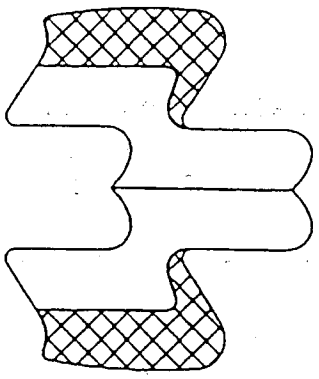


Fig. 51b

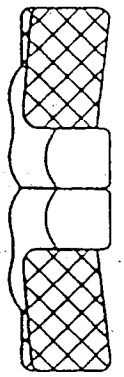
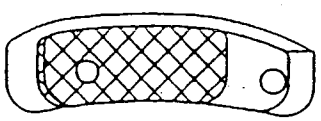


Fig. 51c



BAND FOR TIMEPIECE AND METHOD OF MANUFACTURING SAME

The present invention relates to a band for a timepiece and in particular a wristband for a watch.

There are a variety of watches equipped with different types of wristbands. The wristbands may be made predominantly of a single material selected from a variety of materials such as metal.

It is an object of the present invention to provide a band for a timepiece which is relatively light, durable and aesthetic, or at least to provide a useful alternative to the public.

It is a further object of the present invention to provide a method of manufacturing such a band.

According to a first aspect of the present invention, there is provided a band for a timepiece (e.g. watch) comprising a plurality of inter-connected links, at least one said link including a first portion made at least principally of a metallic material and a second portion made at least principally of a polymeric material, and fixedly secured

thereto and molded thereover by injection molding, wherein the polymeric material is selected from the group consisting thermoplastic polyurethane, thermoplastic elastomer, acrylonitrile butadiene styrene and polycarbonate.

According to a second aspect of the present invention, there is provided a method of manufacturing a band for a timepiece, comprising the steps of (a) positioning a link element made at least principally of a metal in a mould of a molding machine, (b) injecting a polymeric material into a cavity of said mould whereby said polymeric material envelopes at least part of said link element, wherein said polymeric material is selected from the group consisting of thermoplastic polyurethane, thermoplastic elastomer, acrylonitrile butadiene styrene and polycarbonate, (c) allowing said injected polymeric material to solidify whereby said link element and said solidified polymeric material together form a link, (d) releasing said link from said mould, and (e) connecting a plurality of said links.

A surface of the first portion may be exposed to the environment. In the event that the first portion is made of stainless steel having a metallic and/or shiny

appearance, the exposed surface of the first portion and the second portion together produce an unusual aesthetic appearance.

Suitably, the links are inter-connected by at least a pin.

Advantageously, protrusions and/or recesses may be provided at at least one end of the links allowing connection of the links with each other. Two of the links adjacent to each other may be connected at the protrusions and recesses. In particular, the links may provide a plurality of apertures at the protrusion and recesses. More particularly, the pin may connect the links at the apertures. Two of the links which are adjacent to each other may be pivotably movable relative to each other.

The link element may be made principally of stainless steel.

Suitably, the band may comprise means for adjusting the length of the band.

Advantageously, after the step of releasing the link from the mould, a surface of the metallic member may be exposed

to the environment. Similarly, after the same step, a surface of the metallic member is protected by the polymeric material. A band formed of a plurality of the links may thus provide an appearance having alternating and/or combining exposed surfaces of the metallic members and the solidified polymeric material.

The invention will now be described by way of example only, with reference to the accompanying drawings, in which:-

Fig. 1a is a top view showing a band for a timepiece according to a first embodiment of the present invention, generally formed of a plurality of first and second links;

Fig. 1b is a side view of the band shown in Fig. 1a;

Fig. 2a is a top view of two of the first links shown in Fig. 1a;

Fig. 2b is a side view of the first links shown in Fig. 2a;

Fig. 2c is an end view of the first links shown in Fig. 2a;

Fig. 3a is a top view of two of the first links shown in Fig. 1a connected with each other;

Fig. 3b is a side view of the two first links shown in Fig. 3a;

Fig. 3c is a cross-section view of the two first links taken along line B-B of Fig. 3a;

Fig. 3d is a cross-section view of the two first links taken along line A-A of Fig. 3a;

Fig. 4a is a top view of an interior portion of the first link shown in Fig. 2a;

Fig. 4b is a cross-section view of the interior portion of the first link taken along line A-A of Fig. 4a;

Fig. 4c is a side view of the interior portion of the first link shown in Fig. 4a;

Fig. 5a is an alternative top view of the first link shown in Fig. 2a incorporating the interior portion shown in Fig. 4a;

Fig. 5b is a cross-section view of the first link taken along line A-A of Fig. 5a;

Fig. 5c is a side view of the first link shown in Fig. 5a;

Fig. 6a is a top view of an interior portion of one of the second links of the band shown in Fig. 1a;

Fig. 6b is an end view of the interior portion of the second link shown in Fig. 6a;

Fig. 6c is a side view of the interior portion of the second link shown in Fig. 6a;

Fig. 7a is a top view of the second link incorporating the interior portion shown in Fig. 6a;

Fig. 7b is a cross-section view of the second link taken along line A-A of Fig. 7a;

Fig. 7c is a side view of the second link shown in Fig. 7a;

Fig. 8 is a side view of a pin of the band shown in Fig. 1a;

Figs. 9a to 11b show a series of steps for producing the interior portion of the first link shown in Figs. 4a to 4c;

Figs. 12a to 12c are different views of the interior portion of the first link produced from the steps illustrated in Figs. 9a to 11b;

Figs. 13a to 16b show a series of steps for moulding an exterior portion onto the interior portion of the first link shown in Figs. 12a to 12c;

Fig. 17a is a top view of the finished first link produced from the steps illustrated in Figs. 13a to 16b;

Fig. 17b is a side view of the finished first link shown in Fig. 17a;

Fig. 17c is an end view of the finished first link shown in Fig. 17a;

Fig. 18a is a top view showing a band for a timepiece according to a second embodiment of the present invention, generally formed of a plurality of third and fourth links;

Fig. 18b is a side view of the band shown in Fig. 18a;

Fig. 18c is a top view of one of the third links shown in Fig. 18a;

Fig. 18d is a side view of the third link shown in Fig. 18c;

Fig. 19a is a top view of two of the third links shown in Fig. 18a connected with each other,

Fig. 19b is a side view of the two third links shown in Fig. 19a,

Fig. 19c is a cross-section view of the third links taken along line B-B of Fig. 19a;

Fig. 19d is a cross-section view of the two third links taken along line A-A of Fig. 19a;

Fig. 20a is a top view of an interior portion of the third link shown in Fig. 18c;

Fig. 20b is a cross-section view of the interior portion of the third link taken along line A-A of Fig. 20a;

Fig. 20c is a side view of the interior portion of the third link shown in Fig. 20a;

Fig. 21a is an alternative top view of the third link shown in Fig. 18c incorporating the interior portion shown in Fig. 20a;

Fig. 21b is a cross-section view of the third link taken along line A-A of Fig. 21a;

Fig. 21c is a side view of the third link shown in Fig. 21a;

Fig. 22a is a top view of an interior portion of one of the fourth links of the band shown in Fig. 18a;

Fig. 22b is an end view of the interior portion of the fourth link shown in Fig. 22a;

Fig. 22c is a side view of the interior portion of the fourth link shown in Fig. 22a;

Fig. 23a is a top view of the fourth link incorporating the interior portion shown in Fig. 22a;

Fig. 23b is a cross-section view of the fourth link taken along line A-A of Fig. 23a;

Fig. 23c is a side view of the fourth link shown in Fig. 23a;

Figs. 24a and 24b are side views of two pins which may be used in the band shown in Fig. 18a;

Figs. 25a to 28b show a series of steps for producing the interior portion of the third link shown in Figs. 20a to 20c;

Figs. 29a to 29c are different views of the interior portion of the third link produced from the steps illustrated in Figs. 25a to 28b;

Figs. 30a to 33b show a series of steps for moulding an exterior portion onto the interior portion of the third link shown in Figs. 29a to 29c;

Fig. 34a is a top view of the finished third link produced from the steps illustrated in Figs. 30a to 33b;

Fig. 34b is an end view of the finished third link shown in Fig. 34a;

Fig. 34c is a side view of the finished third link shown in Fig. 34a;

Fig. 35a is a top view showing a band for a timepiece according to a third embodiment of the present invention, generally formed of a plurality of fifth, sixth and seventh links;

Fig. 35b is a side view of the band shown in Fig. 35a;

Fig. 35c is a top view of one of the fifth links shown in Fig. 35a;

Fig. 35d is a side view of the fifth link shown in Fig. 35c;

Fig. 35e is an end view of the fifth link shown in Fig. 35c;

Fig. 36a is a top view of two of the fifth links shown in Fig. 35a connected with each other,

Fig. 36b is a side view of the two fifth links shown in Fig. 36a;

Fig. 36c is a cross-section view of the two fifth links taken along line A-A of Fig. 36a;

Fig. 37a is a top view of the interior portion of the fifth link shown in Fig. 35c;

Fig. 37b is a side view of the interior portion of the fifth link shown in Fig. 37a;

Fig. 37c is a cross-section view of the interior portion of the fifth link taken along line A-A of Fig. 37a;

Fig. 38a is an alternative top view of the fifth link shown in Fig. 35c incorporating the interior portion shown in Fig. 37a;

Fig. 38b is a side view of the fifth link shown in Fig. 38a;

Fig. 38c is a cross-section view of the fifth link taken along line A-A of Fig. 38a;

Fig. 39a is a top view of an interior portion of one of the sixth links of the band shown in Fig. 35a;

Fig. 39b is an end view of the interior portion of the sixth link shown in Fig. 39a;

Fig. 39c is a side view of the interior portion of the sixth link shown in Fig. 39a;

Fig. 40a is a top view of the sixth link incorporating the interior portion shown in Fig. 39a;

Fig. 40b is a cross-section view of the sixth link taken along line A-A of Fig. 40a;

Fig. 40c is a side view of the sixth link shown in Fig. 40a;

Fig. 41a is a top view of one of the seventh links of the band shown in Fig. 35a;

Fig. 41b is a side view of the seventh link shown in Fig. 41a;

Fig. 41c is an end view of the seventh link shown in Fig. 41a;

Fig. 42 is a side view of a pin of the band shown in Fig. 35a;

Figs. 43a to 46b show a series of steps for producing the interior portion of the fifth link shown in Figs. 37a to 37c;

Figs. 46c to 46e are different views of the interior portion of the fifth link produced from the steps illustrated in Figs. 43a to 46b;

Figs. 47a to 50b show a series of steps for moulding the exterior portion onto the interior portion of the fifth link shown in Figs. 46c to 46e;

Fig. 51a is a top view of the finished fifth link produced from the steps illustrated in Figs. 47a to 50b;

Fig. 51b is an end view of the finished fifth link of Fig. 51a; and

Fig. 51c is another side view of the finished fifth link shown in Fig. 51a.

A first embodiment of a wristband for a watch and a method of manufacture thereof according to the present invention are shown in Figs. 1a to 17c, and the wristband is generally designated as 1. Referring firstly to Fig. 1a, a body 2 of the wristband 1 comprises a plurality of link members 4, 6 and a fastener 8. The fastener 8 may be used for adjusting

the length of the wristband 1, thus enabling a watch (not shown) with which the wristband 1 is engaged to be worn by a user. Two types of link members (4, 6) are used in this embodiment. The first-type of the link members 4, which is shown in Figs. 2a to 2c, constitutes the majority of the body 2 of the wristband 1. The second-type link members 6 are arranged on opposite sides of and immediately adjacent to the fastener 8.

The link members 4, 6 and the fastener 8 are connected together by connecting means, such as pins 10 as shown in Fig. 8.

Figs. 2a to 2c show, respectively, the top, side and end views of the first-type link member 4. Figs. 3a and 3b show the top and side views of two of the first-type link members 4 connected together. Figs. 3c and 3d show the cross-section views of the two first-type link members 4 taken along lines B-B and A-A of Fig. 3a respectively. The first-type link members 4 are connected by the pins 10 whereby each of these first-type link members 4 may pivotably move relative to the adjacent link member (4 and/or 6).

Referring to Figs. 1a to 3d, each link member 4 generally comprises an inner (or interior) portion 12 (or link element) and an outer (or exterior) portion 14. Fig. 4a shows a top view of the inner portion 12 of the first-type link member 4. Fig. 4b shows a cross section view of the inner portion of the link member 4 and Fig. 4c shows a side view of the inner portion of the same link member 4. The inner portion 12 is made principally of stainless steel although other suitable metallic material may also be used. Figs. 5a to 5c show the first-type link member 4 including both the inner portion 12 shown in Fig. 4a and an outer portion 14. The outer portion 14 is made of a polymeric material, e.g. thermoplastic polyurethane, thermoplastic elastomer, acrylonitrile butadiene styrene or polycarbonate.

Turning specifically to Fig. 5a, a tongue-shaped protrusion 16 is provided on one end of the link member 4 and a recess 18 sandwiched by two legs 22 is provided on the opposite end thereof whereby the protrusion 16 of the link member 4 is engageable with a recess 18 of its adjacent link member 4 arranged therebelow. Such an arrangement is shown more clearly in Figs. 3a to 3d. A channel 20 with two apertures 21a, 21b on its ends thereof is provided within the protrusion 16 and arranged from left to right thereof and

such is illustrated by the dashed lines at numeral 20. A further channel 24, also with two apertures 22a, 22b at its ends (and such is illustrated by the dashed lines at numerals 24), is provided within each of the legs 22, whereby when the protrusion 16 of the link member 4 is received within the recess 18 of its adjacent link member 4, the channel 20 of the protrusion 16 of the link member 4 and the channels 24 of the legs 22 of its adjacent link member 4 are aligned to form a continuous channel 26 through which the pin 10 may be inserted. Referring to Figs. 3a to 3d, the pin 10 serves as means for connecting two adjacent link members 4. The pin 10 is sized and shaped to fit tightly in the channel 26.

Fig. 6a shows a top view of an inner portion 28 of the second-type link member 6 used in the first embodiment. Figs. 6b and 6c are respectively end view and side view of the inner portion 28. Fig. 7a shows a top view of the second-type link member 6 incorporating the inner portion 28 and an outer portion 30. Similar to the first-type link members 4, the inner portion 28 of the second-type link member 6 is made principally of stainless steel and the outer portion 30 is made of a polymeric material.

Figs. 9a to 11b show the process of manufacturing the inner portion 12 of the first-type link member 4. The process firstly involves the use of a conventional cutting/punching machine. Figs. 9a and 9b show the top view and a side view respectively of such a punching machine 32. The punching machine 32 comprises a presser 34 and a station 36. The presser 34 includes an upper mould 38 while the station 36 includes a lower mould 40. During the cutting process, a steel plate 42 is firstly inserted between the upper and lower moulds 38, 40, after which the presser 34 is pressed down causing the upper mould 38 to stamp onto the lower mould 40 through the steel plate 42. A steel blank 44 is thereby cut out and removed from the steel plate 42. The steel blank 44 thus produced has a shape roughly corresponding to the overall shape of the inner portion 12 of the link member 4.

The steel blank 44 is then subject to a pressing step which is shown in Figs. 10a and 10b. In this step, the steel blank 44 is pressed and deformed by a conventional pressing machine 45 to a desired shape and curvature. If the shape of the resultant inner portion is relatively complicated, it may be necessary to press the steel blank 44 more than once, to ensure that the required shape is formed.

Usually, burr 47 will be formed after the pressing step. In this case, the pressed blank 44 will then be again processed by the punching machine 32 (see Figs. 11a and 11b) to cut off the burr 47. An inner portion 12 of the link member 4 is produced, as shown in dashed line in Fig. 11b. The inner portion 12 produced after the above steps will possess the required shape, dimension and surface. In Fig. 12a, the top view of the inner portion 12 of the link member 4 produced by the above steps is shown. Figs. 12b and 12c show a side view and an end view of the same inner portion 12.

After the inner portion 12 is produced, it is positioned in a mould 46 of an injection-moulding machine 48 as shown in Figs. 13a and 13b. The mould 46 comprises an upper member 50 and a lower member 52 (as shown in Fig. 14b) which together define a cavity 54 in which the inner portion 12 is housed. The mould 46 defining the cavity 54 is sized and shaped with the desired characteristics to produce the link member 4. After the inner portion 12 is properly positioned in the lower member 52 of the mould 46, the upper member 50 of the mould 46 will move downward to engage with the lower member 52, defining the cavity 54 described above. A suitable fluid polymeric material, e.g. thermoplastic

polyurethane, thermoplastic elastomer, acrylonitrile butadiene styrene or polycarbonate, is then injected into the cavity 54. A channel 58 is provided in the upper member 50 through which the polymeric material is injected into the mould cavity 54. Once the injection is completed, the inner portion 12 is at least partially enveloped in and/or moulded over with the polymeric material. The polymeric material is then allowed to cool down and solidify so that the inner portion 12 and an outer portion 14 formed of the solidified polymeric material are fixedly secured together and become one continuous piece. The inner portion 12, which has been coated with a jacket of the polymeric material, is then released by being pushed upwardly away from the mould by a push pin 60 as shown in Fig. 16b. In Figs. 13a to 16b, two inner portions 12 are moulded with the polymeric material together. After being released from the mould 46, the jacketed inner portions are subject to trimming to remove the unnecessary polymeric material and polishing to provide a finished appearance of the link member 4, a top view, a side view and an end view thereof are shown in Figs. 17a to 17c.

The second-type link members 6 are produced using the same method as illustrated above.

The finished link members 4, 6 produced according to the steps described above and the fastener 8 may then be assembled together by the pins 10. The novel wristband 1 made in accordance with the present invention provides an unusual aesthetic appearance. Surfaces of the exposed inner portion 12 (of each link member 4), which is made principally of stainless steel, provide metallic appearance. The stainless steel may be electroplated with a material having a gold or silver color. Various color additives may be added to the polymeric material before injection moulding and the outer portion 14 of the link members may thus have such color. As can be seen, a band made according to the present invention is capable of having a very wide combination of colors from the exposed surfaces of the metallic inner portion, and the polymeric jacket allows the design of many different patterns or ornament. It is to be noted that the exposed surface of the inner portion of each of link members 4, 6 includes an exposed top surface and side surfaces as shown in Figs. 17a to 17c. The shape of the inner portion 12 may be designed so that different combinations of surfaces may be exposed after the moulding step.

Second and third embodiments of a wristband for a watch and a method of manufacture thereof according to the present invention are shown in Figs. 18a to 34c and Figs. 35a to 51c respectively. In these two embodiments, construction of its link members, wristbands and method of manufacture thereof are generally similar to that of the first embodiment as explained above and illustrated in Figs. 1a to 17c and are therefore not repeated here. However, it is to be noted that the link members in each of the second and third embodiments are of different shapes and dimensions and the exposed surfaces of the inner portion of the link members are different. In the second embodiment, the wristband shown therein is formed of third and fourth link members together with a fastener and pins. In the third embodiment, the wristband shown therein is formed of fifth, sixth and seventh link members together with a fastener and pins. As a result, the overall appearance of the wristbands in these two embodiments produces a different aesthetic appearance.

Although the invention described above show three embodiments, it is envisaged that wristbands with a variety of patterns may be produced with surfaces having different combinations of metallic and polymeric regions.

Claims

1. A band for a timepiece comprising a plurality of inter-connected links, at least one said link including a first portion made at least principally of a metallic material and a second portion made at least principally of a polymeric material and fixedly secured thereto and molded thereover by injection molding, wherein said polymeric material is selected from the group consisting of thermoplastic polyurethane, thermoplastic elastomer, acrylonitrile butadiene styrene and polycarbonate.

2. A band according to Claim 1 wherein said first portion is at least partially enveloped by said second portion.

3. A band according to any preceding claim wherein said links are inter-connected by at least a pin.

4. A band according to any preceding claim wherein protrusions and/or recesses are provided at at least

one end of said links allowing connection of said links with each other.

5. A band according to Claim 4 wherein two of said adjacent links are connected at said protrusions and recesses.

6. A band according to Claim 4 wherein said links provide a plurality of apertures at said protrusions and recesses.

7. A band according to Claim 6 wherein said pin connects said links at said apertures.

8. A band according to any preceding claim wherein two said links which are adjacent to each other are pivotably movable relative to each other.

9. A band according to any preceding claim wherein said metallic material is stainless steel.

10. A band according to any preceding claim comprising means for adjusting the length of said band.

11. A method of manufacturing a band for a timepiece comprising the steps of:-

(a) positioning a link element made at least principally of a metal in a mould of a molding machine;

(b) injecting a polymeric material into a cavity of said mould whereby said polymeric material envelopes at least part of said link element, wherein said polymeric material is selected from the group consisting of thermoplastic polyurethane, thermoplastic elastomer, acrylonitrile butadiene styrene and polycarbonate;

(c) allowing said injected polymeric material to solidify whereby said link element and said solidified polymeric material together form a link;

(d) releasing said link from said mould; and

(e) connecting a plurality of said links.

12. A method according to Claim 11 wherein said link element is made at least principally of stainless steel.

13. A method according to Claim 11 or 12 wherein said plurality of links are connected by pins.

14. A method according to Claim 11 wherein after said step (d), at least part of said link element is exposed to the environment.

15. A method according to Claim 11 wherein after said step (d), at least part of said link element is protected by said polymeric material.

16. A method according to Claim 11 wherein said link element is formed by the following steps:

(f) cutting a blank from a plate or slab made at least principally of said metal; and

(g) pressing said blank.

17. A method according to Claim 16 wherein said blank is cut from said plate or slab by a punching machine.

18. A method according to Claim 16 or 17 wherein said blank is pressed by a pressing machine.

19. A method according to Claim 17 or 18 wherein, after said step (g), said pressed blank is processed at least a second time by a or said punching machine.

20. A band for a timepiece substantially as hereinbefore described and as illustrated with reference to the accompanying drawings.

21. A method of manufacturing a band for a timepiece substantially as hereinbefore described and as illustrated with reference to the accompanying drawings.

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