collided with the display screen of the liquid-crystal display device **34**, drop impact analysis was made to find acceleration in the direction of drop produced in the liquid-crystal display device **34**. In FIG. **2**, ch**1** to ch**5** indicate the measuring positions of acceleration G.

FIG. **3**A is a graph showing a history of acceleration in the prior art structure. FIG. **3**B is a graph showing a history of acceleration in the above-described structure. The abscissa axis indicates time and the ordinate axis indicates acceleration. In both of the graphs, similar trends were measured at ch**1** to ch**5**. It is clear that acceleration is lower in the structure of the embodiment shown in FIG. **3**B.

The result of the comparison has shown that changing the conventional structure in FIG. **3**A to the structure of the embodiment in FIG. **3**B makes it possible to almost halve the maximum value of the acceleration and therefore alleviate the impact against the liquid-crystal display device **34** remarkably.

In the portable information apparatus **10**, of the left and right hinge members **40**, **50**, only the hinge member **40** is screwed to the liquid-crystal display device **34** and the projecting parts **35***a*, **35***b* provided on the liquid-crystal display device **34** are guided and inserted into the holes **53***a*, **55***a* in the hinge member **50**. Therefore, when the second body **30** is manufactured by combining the two types of hinge parts, the assembly tolerance of the parts can be absorbed.

The projecting tongue **32***a* is provided on each of the right and left inner side faces of the cover housing **32** in such a manner that the tongue is formed as a part of the cover housing **32**. The tongues **32***a* are designed to be covered by the concave sections **44***d*, **54***d* formed at the top of the trapezoid of the top sections **44***b*, **54***b* of the hinge members **40**, **50**. This prevents the hinge members **40**, **50** and liquid-crystal display device **34** from separating from and coming off the cover housing **32**.

Furthermore, the ribs provided on the cover housing **32** restrict the displacement of the free tips of the hinge members **40**, **50** in the longitudinal direction of the hinge members **40**, **50**. This enables both of the screwed places and the places locked by the ribs to receive impact, when the display section drops vertically toward the display screen. Consequently, the impact on the screwed places is alleviated, which prevents the screwed places from being damaged.

As described above, in the portable information apparatus **10** according to the first embodiment, the hinge members **40**, **50** enable the liquid-crystal display device **34** not only to be used as means for being mounted in the cover housing **32** but also to add the function of withstanding external vibration or impact.

FIG. **4** schematically shows a second embodiment of the present invention. In the second embodiment, a hinge member **60** is used in place of the hinge members **40**, **50**. The hinge member **60** includes a fixed member **61** screwed to the cover housing **32** by means of a male screw S and an extended member **62** which is formed integrally with the fixed member **61** and provided along the spacing between the side face of the liquid-crystal display device **34** and the inner wall Q of the cover housing **32**.

The extended member **62** is composed of a first flat plate section **63** provided so as to make close contact with the right side face **34***c* of the liquid-crystal display device **34**, a first curved section **64**, a second flat plate section **65**, a second curved section **66**, and a third flat plate section **67**. Specifically, in the second embodiment, the spring force of the hinge member **60** is produced in such a manner that the force is distributed to the first and second curved sections **64**, **66** according to the number of the curved sections. That is, the larger the number of curved sections, the higher the rigidity of the hinge member **60** against drop impact, since more springs are arranged in parallel. When a dropping height is large, or when the mass of the liquid-crystal display device **34** is large, high rigidity is required. In contrast, when the dropping height is small, or when the mass of the liquid-crystal display device **34** is small, low rigidity is required, because too high rigidity does not provide a suitable spring characteristic. That is, when a uniform curve is given to the hinge member **60**, the number of curved sections has only to be determined according to the required rigidity.

FIG. **5** schematically shows a third embodiment of the present invention. In the third embodiment, a hinge member **70** is used in place of the hinge members **40**, **50**.

The hinge member **70** includes a fixed member **71** screwed to the cover housing **32** by means of a male screw S and an extended member **72** which is formed integrally with the fixed member **71** and provided along the spacing between the side face of the liquid-crystal display device **34** and the inner wall Q of the cover housing **32**.

The extended member **72** is composed of a first flat plate section **73** provided so as to make close contact with the right side face **34***c* of the liquid-crystal display device **34**, a first curved section **74**, a second flat plate section **75** provided so as to make close contact with the right side face **34***c* of the liquid-crystal display device **34**, a second curved section **76**, and a third flat plate section **77** provided so as to make close contact with the right side face **34***c* of the liquid-crystal display device **34**.

In the third embodiment, it is assumed that, when the portable information apparatus **10** drops, there are two cases: one case where the apparatus **10** falls from a small height (that is, the hinge with a low rigidity is required) and the other case where the apparatus **10** falls from a large height (that is, the hinge with a high rigidity is required).

Under this assumption, a first and a second curved section **74**, **76** differing in size are formed in the hinge member **60** as shown in FIG. **5**. When the dropping height is small, the second curved section **76** functions as a spring. When the dropping height is large, the second curved section **76**, together with the first curved section **74**, functions as a spring. As a result, the rigidity of the hinge member **70** can be changed according to the dropping height. Of course, the number of types of curved sections the single hinge member **70** has is not limited to two and further the number of curved sections is not limited to two. In the ridge sections of the curved sections of the hinge member **70**, the steeper their slope, the higher the rigidity of the spring. For example, the slope of the second curved section **76** is made steeper than that of the first curved section **74**. This makes the rigidity of the spring of the second curved section **76** higher.

FIG. **6** schematically shows a fourth embodiment of the present invention. In the fourth embodiment, a hinge member **80** is used in place of the hinge members **40**, **50**.

While in the first to third embodiments, a trapezoid curved section has been formed, a trapezoid curved section is not formed in the hinge member **80**. Specifically, the hinge member **80** includes a fixed member **81** screwed to the cover housing **32** by means of a male screw S and an extended member **82** which is formed integrally with the fixed member **81** and provided along the spacing between the side face of the liquid-crystal display device **34** and the inner wall Q of the cover housing **32**.