user initiation so that the mobile station can be laid on a desk or other such flat surface and stay in the extended configuration.

[0058] **FIG. 5** shows an example of a frame provided to support the keyboard. The frame comprises three sets of folding support bars **52**. Each set has four support bars which pivot about pivots **56** at both ends. The support bars **52** of each set are maintained in a parallel configuration with corresponding support bars **52** in the other sets. The support bars **52** mechanically connect the battery housing element **12** with the lower storage element **10**. The mechanism further comprises three intermediate bars **58**, which connect the three sets together. The intermediate bars **58** force corresponding support bars **52** from each set to stay parallel when the mobile station is extended or retracted. In an embodiment in which the support bars **52** comprise conductive material, they can be used electrically to couple the keyboard and battery housing elements **10** and **12**. Alternatively, one of these sets can support an electrical lead coupling these elements. A similar frame arrangement can be used to support the display **15**.

[0059] **FIG. 6** shows a front view of the mobile station in a partially extended mode. The battery housing element **12** and the electronics housing element **13** are provided with a stop mechanism. The stop mechanism uses a stud **62** provided on the upper storing element **11**.

[0060] **FIG. 7** shows a cross section of the view of the mobile station in **FIG. 6** along the line A-A'. This embodiment has three fixed opening angles. On a wall facing towards the upper storage element **11**, the electronics housing element **13** has a recess **74** on its side at its lower end, close to the hinge **18**.. The recess has a form of a sector of approximately 45 degrees. The hinged end of the electronics housing element forms the first straight side or radius of the sector.

[0061] The battery housing element **12** has a wall that faces towards the lower storage element **10**. This wall has an extending flange **72**. The flange is basically an extension of the wall going beyond the end of the battery housing element **12**. The flange has a sector shape in side view. The flange has an arc extending from the lower side of the battery housing element. The arc extends over an angle of about 60 degrees and terminates at a straight side connecting the arc to the upper side of the battery housing element. The narrow apex of the flange is thus towards the hinge. The flange is aligned in proportion to the hinge so that it enters the recess when the mobile station is opened about the hinges. At a certain first opening angle, the flange fills the entire recess and a leading edge **73** meets the end **77** of the recess.

[0062] In order to provide two different opening angles, there is a stop **76**. The stop is an extension of the wall of the electronics housing element **13**, which faces towards the upper storage element. The stop follows the plane of this wall and extends a few millimetres over the recess **74**. The stop and the flange are both aligned to the level of the outer surfaces of the electronics housing element **13** and battery housing element **12**. In other words, the stop **76** and the flange **72** occupy a common plane. The flange has two configurations, a relaxed and a bent configuration. In the bent configuration, the flange is slightly bent sideways. The recess is dimensioned deeply enough so that there is space behind the stop for the flange to slide, when the flange is in the bent configuration.

[0063] There are three abutment surfaces. The flange **72** has the first abutment surface **73** that is its leading edge. This surface prevents further opening of the mobile station beyond a certain opening angle. The recess **74** has an inner wall (the second direct wall of the sector) defining the second abutment surface **77**, which defines the first opening angle. This first opening angle defines the maximum opening angle when the mobile station is being used as a telephone. The stop **76** provides a third abutment surface which faces roughly towards the hinged end of the electronics housing element. When the mobile station is being used as a data terminal that is in the extracted configuration, the stud **62** is far from the flange, the flange moves along the plane of the side walls of the battery and electronics housing elements, and at a certain point engages with the stop.

[0064] The operation of the stop mechanism will now be described referring to **FIGS. 6, 7** and **8**. The flange **72** has a relaxed configuration in which it is not pressed upon by the stud **62**. This is shown in **FIG. 6**. In this configuration, when the flange engages the stop **76**, further opening movement is prevented, and thus the maximum opening angle for the data terminal mode is defined. Additionally, the flange has a compressed configuration, in which the stud **62** presses the flange **72** into the recess. This happens when the mobile station is set into the telephone mode, that is the upper storage element **11** is brought next to the electronics housing element **13**. In this compressed configuration, the first abutment surface **73** of the flange **72** can avoid the stop **76**, and the flange slides through the gap. Thus, the mobile station can open until the flange is fully received by the recess **74**, that is until the first abutment surface **73** engages the third abutment surface **77** of the recess. When the abutment surfaces are in contact, the battery housing element **12** and the electronics housing element **13** are stopped from opening any further.

[0065] The present invention provides several advantages over the prior art. A mobile station according to the invention occupies in its transportation mode a fraction of its fully opened size. In addition, it also has an intermediate configuration provided to enable the mobile station to be used for telephony. The invention can be applied to mobile telephones, personal digital assistants and small laptop computers to provide a screen of a presentation size. Alternatively it can be used for interactive posters in exhibitions, electronic games, user interfaces of various types of home and business electronics like hi-fi-sets, car audio systems, and multimedia devices used, for example, in aeroplanes.

[0066] This paper presents the implementation and embodiments of the invention with the help of examples. It is obvious to a person skilled in the art, that the invention is not restricted to details of the embodiments presented above, and that the invention can be implemented in another embodiment without deviating from the characteristics of the invention. The invention was here described using the most complex embodiment as an example, but naturally the invention can also be implemented in a device comprising merely a retracting keyboard without neither display properties nor mobile telephone functionality etc. Thus, the presented embodiments should be considered illustrative, but not restricting. Hence, the possibilities of implementing and using the invention are only restricted by the enclosed patent claims. Consequently, the various options of imple-