Claims

1. An input device for communication with a processor-based device, the input device comprising:

a housing;

a scroll wheel which is mounted on the housing in a manner so as to be rotatable about a first axis and so as to be partly exposed from the housing to be accessible by a user of the input device, and which comprises an arresting surface which extends circumferentially about the first axis;

a lever which is provided with first and second lever arms and which is mounted on the housing so as to be pivotable about a pivot axis which extends between the first and second lever arms, wherein a first free end portion of the first lever arm is configured to engage the arresting surface of the scroll wheel with an engagement force to arrest a rotation of the scroll wheel with a corresponding arresting force;

an auxiliary wheel which is mounted on the housing in a manner so as to be rotatable about a second axis and so as to be partly exposed from the housing to be accessible by the user; and

a motion converter connected to the auxiliary wheel as well as to a second free end portion of the second lever arm,

wherein the motion converter is configured to convert a rotational motion of the auxiliary wheel into a linear motion and to apply said linear motion to the second free end portion of the second lever arm so as to pivot the lever about the pivot axis to correspondingly adjust the engagement force exerted by the first free end portion of the first lever arm on the arresting surface of the scroll wheel, whereby the corresponding arresting force applied to the scroll wheel is correspondingly adjustable by rotation of the auxiliary wheel,

wherein the first axis, the second axis and the pivot axis are at least substantially parallel to each other.

2. The input device as claimed in claim 1, wherein a portion of the auxiliary wheel is exposed through an opening, and wherein the opening is in a recess of the housing.

3. The input device as claimed in claim 1, wherein the arresting surface of the scroll wheel comprises a plurality of serrations.

4. The input device as claimed in claim 3, wherein the first free end portion of the first lever arm comprises a finger configured to fit into a respective notch between respective two adjacent serrations of the plurality of serrations of the arresting surface.

5. The input device as claimed in claim 1, further comprising a biasing mechanism connected to the first lever arm to apply a biasing force on the first free end portion of the first lever arm so as to bias the first free end portion of the first lever arm towards the arresting surface of the scroll wheel to exert the engagement force by the first free end portion of the first lever arm on the arresting surface of the scroll wheel.

6. The input device as claimed in claim 5, wherein the motion converter is configured to apply the linear motion to the second free end portion of the second lever arm to pivot the lever about the pivot axis so as to correspondingly counter the biasing force exerted by the biasing mechanism on the first free end portion of the first lever arm to correspondingly adjust the engagement force exerted by the first free end portion of the first lever arm on the arresting surface of the scroll wheel. .

7. The input device as claimed in claim 5, wherein the biasing mechanism comprises a torsion spring.

8. The input device as claimed in claim 1, wherein the motion converter comprises an elongated member which is configured to be movable linearly along a longitudinal axis of the elongated member and which is connected to the second free

end portion of the second lever arm so as to apply the linear motion to the second free end portion of the second lever arm.

9. The input device as claimed in claim 8, wherein the motion converter comprises a nut and screw shaft mechanism, wherein the elongated member of the motion converter is connected to the screw shaft, and the nut of the motion converter is connected to the auxiliary wheel.

10. The input device as claimed in claim 8, wherein the motion converter comprises a rack and pinion mechanism, wherein the elongated member of the motion converter is connected to the rack, and the pinion of the motion converter is connected to the auxiliary wheel.

11. The input device as claimed in claim 8, wherein the motion converter comprises a crank and slider mechanism, wherein the elongated member of the motion converter is connected to the slider, and the crank of the motion converter is connected to the auxiliary wheel.

12. The input device as claimed in claim 1, wherein the lever comprises an elongated connection section which forms a pivot axle defining the pivot axis of the lever and via which the first and second lever arms are fixedly connected to each other, wherein the pivot axle extends at least substantially perpendicular to a respective longitudinal extension direction of both the first and second lever arms.

13. The input device as claimed in claim 12, wherein the elongated connection section comprises first and second section ends which are connected to a first connection end, opposite to the first free end portion, of the first lever arm and to a second connection end, opposite to the second free end portion, of the second lever arm, respectively.

14. An input device, comprising:

a housing;

a rotatable scroll wheel which is mounted on the housing so as to be partly exposed from the housing to be accessible by a user of the input device, and which comprises an arresting surface;

a lever which is provided with first and second lever arms that are pivotable, wherein a first free end portion of the first lever arm is configured to engage the arresting surface of the scroll wheel with an engagement force to arrest a rotation of the scroll wheel with a corresponding arresting force;

a rotatable auxiliary wheel which is mounted on the housing so as to be partly exposed from the housing to be accessible by the user; and

a motion converter connected to the auxiliary wheel as well as to a second free end portion of the second lever arm,

wherein the motion converter is configured to convert a rotational motion of the auxiliary wheel into a linear motion and to apply said linear motion to the second free end portion of the second lever arm so as to pivot the lever to correspondingly adjust the engagement force exerted by the first free end portion of the first lever arm on the arresting surface of the scroll wheel, whereby the corresponding arresting force applied to the scroll wheel is correspondingly adjustable by rotation of the auxiliary wheel,

wherein the motion converter comprises an elongated member which is configured to be movable linearly along a longitudinal axis of the elongated member and which is connected to the second free end portion of the second lever arm so as to apply the linear motion to the second free end portion of the second lever arm.

15. The input device as claimed in claim 14, wherein the motion converter comprises a nut and screw shaft mechanism, wherein the elongated member of the motion converter is connected to the screw shaft, and the nut of the motion converter is connected to the auxiliary wheel.

16. The input device as claimed in claim 14, wherein the motion converter comprises a rack and pinion mechanism, wherein the elongated member of the motion converter is connected to the rack, and the pinion of the motion converter is connected to the auxiliary wheel.

17. The input device as claimed in claim 14, wherein the motion converter comprises a crank and slider mechanism, wherein the elongated member of the motion converter is connected to the slider, and the crank of the motion converter is connected to the auxiliary wheel.

18. The input device as claimed in claim 14, wherein the arresting surface of the scroll wheel comprises a plurality of serrations, and wherein the first free end portion of the first lever arm comprises a finger configured to fit into a respective notch between respective two adjacent serrations of the plurality of serrations of the arresting surface.

19. The input device as claimed in claim 14, further comprising a biasing mechanism connected to the first lever arm to apply a biasing force on the first free end portion of the first lever arm so as to bias the first free end portion of the first lever arm towards the arresting surface of the scroll wheel to exert the engagement force by the first free end portion of the first lever arm on the arresting surface of the scroll wheel.

20. The input device as claimed in claim 19, wherein the motion converter is configured to apply the linear motion to the second free end portion of the second lever arm to pivot the lever about the pivot axis so as to correspondingly counter the biasing force exerted by the biasing mechanism on the first free end portion of the first lever arm to correspondingly adjust the engagement force exerted by the first free end portion of the first lever arm on the arresting surface of the scroll wheel.