CLAIMS:

1. A reciprocating pencil sharpener comprising:

a stationary member ~~(30)~~;

a cutter ~~(20)~~ including a blade holder ~~(22)~~ and a blade ~~(23)~~ secured to the blade holder ~~(22)~~; and

a ratchet mechanism mounted between the stationary member ~~(30)~~ and the cutter ~~(20)~~, allowing the cutter ~~(20)~~ to rotate in a drive direction and preventing the cutter ~~(20)~~ from rotating in a non-drive direction relative to the stationary member ~~(30)~~, with the ratchet mechanism comprising:

a rotary member ~~(215)~~ mounted on the cutter ~~(20)~~; and

a brake member ~~(33)~~ mounted on the stationary member ~~(30)~~ and disposed around the rotary member ~~(215)~~.

2. The reciprocating pencil sharpener as claimed in claim 1, wherein

the rotary member ~~(215)~~ of the ratchet mechanism has a plurality of pawls ~~(2151)~~ extending outwardly from a periphery thereof; and

the brake member ~~(33)~~ of the ratchet mechanism has internal ratchet teeth ~~(331)~~ which the pawls ~~(2151)~~ of the rotary member ~~(215)~~ selectively engage.

3. The reciprocating pencil sharpener as claimed in claim 1, wherein

the rotary member ~~(215A)~~ of the ratchet mechanism has external ratchet teeth ~~(2151A)~~; and

the brake member ~~(33A)~~ of the ratchet mechanism has a plurality of pawls ~~(331A)~~ extending inwardly from an inner surface thereof and adapted to selectively engage the external ratchet teeth ~~(2151A)~~ of the rotary member ~~(215A)~~.

4. The reciprocating pencil sharpener as claimed in claim 1, wherein

the rotary member ~~(215B)~~ of the ratchet mechanism is a ring; and

the brake member ~~(33B)~~ of the ratchet mechanism has internal ratchet teeth ~~(331B)~~, and at least one roller ~~(2151B)~~ is received between the internal ratchet

teeth (331B) and the rotary member (215B) and contacts the internal ratchet teeth (331B) and an outer surface of the rotary member (215B).

5. The reciprocating pencil sharpener as claimed in claim 1, wherein

the rotary member (215C) of the ratchet mechanism has external ratchet teeth (2150C); and

the brake member (33C) of the ratchet mechanism is a ring, and at least one roller (2151C) is received between the external ratchet teeth (2150C) of the rotary member (215C) and the brake member (33C) and contacts the external ratchet teeth (2150C) of the rotary member (215C) and an inner surface of the brake member (33C).

6. The reciprocating pencil sharpener as claimed in any claim of claims 1 to 5, wherein

the stationary member (30) includes a mounting hole (31) formed therein; and

the cutter (20) includes at least one locking tab (213) extending from a top thereof and mounted through the mounting hole (31) of the stationary member (30), each of the at least one locking tab (213) having a hook (214) extending from a distal end thereof to engage an edge of the mounting hole (31) of the stationary member (30).

7. The reciprocating pencil sharpener as claimed in any one of claims 1-6 further comprising a shavings receptacle (10) including an open top and a closed bottom, the stationary member (30) mounted in the shavings receptacle (10) and the cutter (20) rotatably disposed in the shavings receptacle (10).

8. The reciprocating pencil sharpener as claimed in claim 7 further comprising an adjustment mechanism (50B) including

a driven member (51B) mounted in the shavings receptacle (10B) for axial

movement and having a rod (~~511B~~) mounted through the shavings receptacle (~~10B~~); and

a block (~~52B~~) mounted on a top end of the rod (~~511B~~) of the driven member (~~51B~~) and moved axially in a bottom of the blade holder (~~22B~~).

9. The reciprocating pencil sharpener as claimed in claim 8, wherein

the shavings receptacle (~~10B~~) includes

a through hole (~~13B~~) formed through the closed bottom of the shavings receptacle (~~10B~~) and the rod (~~511B~~) of the driven member (~~51B~~) of the adjustment mechanism (~~50B~~) mounted through the through hole (~~13B~~) of the shavings receptacle (~~10B~~); and

a plurality of connecting tabs (~~14B~~) extending from a lower surface of the closed bottom of the shavings receptacle (~~10B~~) around the through hole (~~13B~~);

the driven member (~~51B~~) of the adjustment mechanism (~~50B~~) has a plurality of positioning tabs (~~512B~~) extending from a bottom end of the rod (~~511B~~), located outside of the shavings receptacle (~~10B~~) and having thread portions (~~513B~~), and each positioning tab (~~512B~~) is disposed between two adjacent sides of two adjacent connecting tabs (~~14B~~) of the shavings receptacle (~~10B~~); and

the adjustment mechanism (~~50B~~) further includes a rotary nut (~~53B~~) mounted around the positioning tabs (~~512B~~) of the driven member (~~51B~~) and the connecting tabs (~~14B~~) of the shavings receptacle (~~10B~~) and having a threaded hole (~~531B~~) screwed onto the thread portions (~~513B~~) of the positioning tabs (~~512B~~) of the driven member (~~51B~~).

10. The reciprocating pencil sharpener as claimed in claim 7, wherein the shavings receptacle (~~10~~) includes a plurality of fins (~~12~~) extending inwardly from an internal surface of a tube wall thereof.

11. The reciprocating pencil sharpener as claimed in any one of claims 7-10 further

comprising a cover ~~(40)~~ covering the open top of the shavings receptacle ~~(10)~~, located above the stationary member ~~(30)~~ and including

a positioning hole ~~(41)~~ formed through the cover ~~(40)~~; and

a plurality of elastic pieces ~~(42)~~ extending from the cover ~~(40)~~ around the positioning hole ~~(41)~~.

12. The reciprocating pencil sharpener as claimed in any one of claims 7-11, wherein

the shavings receptacle ~~(10)~~ includes multiple notches ~~(11)~~ formed through a top section of a tube wall thereof; and

the stationary member ~~(30)~~ includes multiple wings ~~(32)~~ extending from a periphery thereof and received in the notches ~~(11)~~ of the shavings receptacle ~~(10)~~.

13. The reciprocating pencil sharpener as claimed in claim 11 further comprising a rubber sleeve ~~(60D)~~ detachably mounted on the cover ~~(40D)~~.

14. The reciprocating pencil sharpener as claimed in claim 13, wherein

the cover ~~(40D)~~ includes an annular channel ~~(44D)~~ formed in an upper surface thereof around the positioning hole ~~(41D)~~; and

the rubber sleeve ~~(60D)~~ includes an annular piece ~~(61D)~~ extending from a lower surface thereof and received in the annular channel ~~(44D)~~ of the cover ~~(40D)~~.

15. The reciprocating pencil sharpener as claimed in claim 13, wherein the rubber sleeve ~~(60E)~~ includes

a top end;

a bottom end;

a ball portion ~~(61E)~~ formed at the bottom end of the rubber sleeve ~~(60E)~~ and received in the positioning hole ~~(41E)~~ of the cover ~~(40E)~~, a diameter of the ball portion ~~(60E)~~ being not smaller than a diameter of the positioning hole ~~(41E)~~ of the cover ~~(40E)~~; and

an elongated recess (~~62E~~) formed in the top end of the rubber sleeve (~~60E~~).

16. The reciprocating pencil sharpener as claimed in claim 11, wherein

the shavings receptacle (~~10D~~) includes a step surface (~~11D~~) formed around an internal surface of a tube wall adjacent to the open top;

the stationary member (~~30D~~) includes

a rim abutting the step surface (~~11D~~) of the shavings receptacle (~~10D~~); and

multiple protrusions (~~32D~~) extending from an upper surface of the stationary member (~~30D~~); and

the cover (~~40D~~) includes multiple receiving parts (~~43D~~) formed on a lower surface thereof for receiving the protrusions (~~32D~~) of the stationary member (~~30D~~) so as to connect the cover (~~40D~~) to the stationary member (~~30D~~).

17. The reciprocating pencil sharpener as claimed in claim 16 further comprising a rubber sleeve (~~60D~~) detachably mounted on the cover (~~40D~~).

18. The reciprocating pencil sharpener as claimed in claim 17, wherein

the cover (~~40D~~) includes an annular channel (~~44D~~) formed in an upper surface thereof around the positioning hole (~~41D~~); and

the rubber sleeve (~~60D~~) includes an annular piece (~~61D~~) extending from a lower surface thereof and received in the annular channel (~~44D~~) of the cover (~~40D~~).

19. The reciprocating pencil sharpener as claimed in claim 17, wherein the rubber sleeve (~~60E~~) includes

a top end;

a bottom end;

a ball portion (~~61E~~) formed at the bottom end of the rubber sleeve (~~60E~~) and received in the positioning hole (~~41E~~) of the cover (~~40E~~), a diameter of the ball portion (~~61E~~) being not smaller than a diameter of the positioning hole (~~41E~~) of the

cover (~~40E~~); and

an elongated recess (~~62E~~) formed in the top end of the rubber sleeve (~~60E~~).

20. The reciprocating pencil sharpener as claimed in any claim of claims 1 to 5, wherein

the stationary member includes a mounting hole (~~31F~~) formed therein; and

the cutter (~~20F~~) includes at least one locking tab (~~224F~~) extending from a bottom thereof and mounted through the mounting hole (~~31F~~) of the stationary member, each of the at least one locking tab (~~224F~~) having a hook (~~225F~~) extending from a distal end thereof to engage an edge of the mounting hole (~~31F~~) of the stationary member.

21. The reciprocating pencil sharpener as claimed in claim 20, wherein

the stationary member includes

a base (~~30F~~);

a cover (~~32F~~) covering the base (~~30F~~); and

a chamber defined between the base (~~30F~~) and the cover (~~32F~~); and

the cutter (~~20F~~) is mounted in the chamber of the stationary member.