IN THE CLAIMS

What is claimed is:

1. A heat sink assembly, comprising

a first heat sink having a top portion, a bottom portion, and a plurality of fins extending between the top portion and the bottom portion, the bottom portion having at least one tooth for receiving air, the first heat sink having at least one mechanism for receiving a fastener;

a second heat sink having a top portion, a bottom portion, and a plurality of fins extending between the top portion and the bottom portion, the bottom portion having at least one fastener configured to engage the at least one mechanism of the first heat sink;

a casing disposed over the first heat sink and the second heat sink, the casing having a top portion and a bottom portion, the bottom portion having at least one vent for receiving air and the top portion having at least one vent for releasing air; and

a base, wherein the first heat sink is affixed to the base;

wherein air is received through at least one of the at least one tooth of the first heat sink or the at least one vent of the bottom portion of the casing and wherein air flows upwardly through the plurality of fins of the first heat sink and the second heat sink and heat is absorbed by the plurality of fins, wherein the air flows to the top portion of the casing and through the at least one vent of the casing for releasing air to cool a desired electrical component, and at least one thermal pad disposed between at least one of a printed circuit board (PCB board) and the first heat sink or the PCB board and the second heat sink for absorbing heat as air passes through the plurality of fins of the first heat sink and the second heat sink.

2. The heat sink assembly of claim 1, wherein the first heat sink includes at least one hook extending outwardly from the top portion of the first heat sink.

3. The heat sink assembly of claim 2, further comprising:

a PCB board having at least one aperture for receiving the at least one hook extending outwardly from the top portion of the first heat sink.

4. The heat sink assembly of claim 3, wherein the PCB board is disposed between the first heat sink and the second heat sink.

5. The heat sink assembly of claim 2, wherein the at least one hook comprises additional hooks.

6. The heat sink assembly of claim 1, wherein the at least one tooth comprises additional teeth.

7. The heat sink assembly of claim 1, wherein the at least one tooth has a saw-tooth shape.

8. The heat sink assembly of claim 1, further comprising:

a weight insert disposed on the base to support the heat sink assembly.

9. A heat sink assembly, comprising

a heat sink having a top portion, a bottom portion, and a plurality of fins extending upwardly between the top portion and the bottom portion, the bottom portion having at least one tooth for receiving air;

a casing disposed over the heat sink, the casing having a top portion and a bottom portion, the bottom portion having at least one vent for receiving air and the top portion having at least one vent for releasing air;

wherein air is received through at least one of the at least one tooth of the heat sink or the at least one vent of the bottom portion of the casing and wherein air flows upwardly through the plurality of fins of the heat sink and heat is absorbed by the plurality of fins, wherein the air flows to the top portion of the casing and through the at least one vent for releasing air to cool a desired electrical component, and at least one thermal pad disposed between at least one of printed circuit board (PCB board) and the heat sink for absorbing heat as air passes through the plurality of fins of the heat sink.

10. The heat sink assembly of claim 9, wherein the heat sink includes a first heat sink portion and a second heat sink portion.

11. The heat sink assembly of claim 10, wherein the casing includes a first casing portion and a second casing portion.

12. The heat sink assembly of claim 10, wherein the plurality of fins is made of a thermal conductive material.

13. A method of utilizing a heat sink assembly, comprising:

providing a first heat sink having a top portion, a bottom portion, at least one mechanism for receiving a locking mechanism, and a plurality of fins extending between the top portion and the bottom portion, the bottom portion having at least one tooth for receiving air,

providing a casing disposed over the first heat sink, the casing having a top portion and a bottom portion, the bottom portion having at least one vent for receiving air and the top portion having at least one vent for releasing air;

wherein the first heat sink assembly is configured to receive air through one of the at least one vent of the bottom portion of the casing and the at least one tooth of the bottom portion of the first heat sink, and wherein air flows upwardly through the plurality of fins of the heat sink to the top portion of the casing and through the at least one vent of the casing to cool a desired electrical component; and

a second heat sink having at least one locking mechanism for affixing the second heat sink to the first heat sink.

14. The method of claim 13, wherein the first heat sink has at least one hook extending upwardly from the top portion of the first heat sink.

15. The method of claim 14, further comprising:

a PCB board having at least one aperture for receiving the at least one hook of the first heat sink.

16. The method of claim 15, further comprising:

assembling the heat sink assembly by placing the at least one hook of the first heat sink through the at least one aperture of the PCB board.

17. The method of claim 16, wherein assembling the heat sink includes engaging the at least one locking mechanism of the second heat sink with the at least one mechanism for receiving the locking mechanism of the first heat sink to affix the first heat sink to the second heat sink.