**Claim Arrangement:**

1. Saw blade insert and method and means of sharpening same (US 20100011933 A1)

Brief Description:

This invention relates to a saw blade insert and method and means of sharpening or dressing same.

It is well known in the art of sawing to apply a hard material (e.g. steelite tungsten) insert to the tip of a saw tooth. The saw tooth can be on a circular saw blade or a band saw. The purpose of the tip is to provide a hard, long lasting tip, which results in increased intervals between sharpening of the blade.

With the foregoing and other factors in mind, my objective has been to come up with innovations in the saw tip design, saw design and sharpening of saw tips.

To this end, I have devised a saw blade insert which broadly can be said to include a body of hard material adapted to be fixable to an edge of a gullet of a saw blade, the hard material tip having a concave surface which in use is forward facing relative to the cutting direction of the saw blade.

In one form of the invention the concave surface is of curved cross-section.

In a second form of the invention the concave surface is of angular cross-section. The angular cross-section can be substantially “U” shaped or substantially “V” shape. The “U” or “V” shape can be of shallow configuration.

In a preferred form of the Invention the forward facing surface of the insert is of curved profile. The curvature of profile is preferably arcuate with the radius of curvature substantially that of a sharpening wheel.

I have also devised a saw blade, which can be broadly defined as including a plurality of inserts as defined in the first broad aspect stated above.

Preferably the saw blade is a circular saw blade. In a preferred form of the invention when in the form of a circular saw blade, the saw blade includes a plurality of sweep openings, each having a sharpenable hard material insert.

In one form of the invention the, or some of the sweep openings are located at the peripheral edge of the saw blade.

The sweep openings can be open to the peripheral edge of the saw blade.

Claims:

1. A saw blade insert which includes a body of hard material adapted to be fixable to an edge of a gullet of a saw blade, the hard material tip having a concave surface which, in use, is forward facing relative to the cutting direction of the saw blade.

2. The insert of claim 1 wherein the concave surface is of curved cross-section.

3. The insert of claim 1 wherein the concave surface is of angular cross-section of a substantially “U” shape or substantially “V” shape in a shallow configuration.

4. The insert of claim 3 wherein the included angle of the angular cross-section lies in the range of substantially 120° to 160°.

5. The insert of claim 4 wherein the included angle is substantially 140°.

6. The insert of claim 4 or 5 wherein the angular cross-section is formed by flat surfaces that incline inwardly from opposite sides of the body and meet in a flat or curved floor.

7. The insert of any one of claims 1 to 6 wherein the forward facing surface of the insert is of curved profile.

8. The insert of claim 6 wherein the curvature of profile is arcuate and substantially the radius of curvature of a sharpening wheel.

9. A saw blade which includes a plurality of inserts as claimed in any one of claims 1 to

10. The saw blade of claim 9 wherein the gullet is curved.

11. The saw blade of claim 9 wherein the gullet is of a generally part circular configuration.

12. The saw blade of claim 9, 10 or 11 wherein the saw blade is in the form of a circular saw blade.

13. The saw blade of any one of claims 9 to 12 wherein it includes a plurality of sweep openings, each having a sharpenable hard material insert.

14. The saw blade of claim 13 wherein the, or some of the sweep openings are located at the peripheral edge of the saw blade.

15. The saw blade of claim 13 wherein the sweep openings open to the peripheral edge of the saw blade.