Claims

1. A hydromill wheel (4) for excavating a trench in hard rock, the wheel (4) comprising:

- a drum (5) arranged to be rotated about its axis (A, B); and
- a plurality of single disc cutters (11) mounted on the periphery of the drum (5), the single disc cutter (11) having a rotatable single cutting disc (11) arranged to come in contact with and crush or cut the rock during excavation,

wherein the spacing of the projections of at least some of the cutting discs (11) on the drum axis (A, B) is 5 % to 70 % of the cutting disc diameter.

2. A hydromill wheel (4) according to claim 1, wherein the diameter of at least some of the cutting discs (11) is between 10 cm and 35 cm.

3. A hydromill wheel (4) according to claim 1 or 2, wherein the rotational axis of at least some of the cutting discs (11) is substantially parallel to the rotational axis (A, B) of the drum (5).

4. A hydromill wheel (4) according to any one of the preceding claims, wherein the rotational axis of at least some of the cutting discs (11) is not parallel to the rotational axis (A, B) of the drum (5).

5. A hydromill wheel (4) according to claim 3 or 4, wherein the angle between the rotational axis of at least some of the cutting discs (11) and the rotational axis (A, B) of the drum (5) is between 30 and 60 degrees.