What is claimed is:

1. A drill bit used to form a hole by machining a portion to be processed of a workpiece material by means of drilling while a lubricant material for assisting machining process is in contact with the portion to be processed, the drill bit comprising:

at least one cutting edge; and

a face positioned in a vicinity of the cutting edge, wherein:

on the face, a recess exhibiting a prescribed planar shape is provided;

when the portion to be processed is machined by means of drilling to form a hole, the lubricant material for assisting machining process is held on the recess;

the recess is set to have a maximum depth of 0.05 mm or more and 0.15 mm or less;

the recess is a substantially linear groove formed substantially parallel to the cutting edge;

a dimension between the cutting edge and the groove is set to be 0.25 mm or more and 0.43 mm or less; and

the groove is set to have an average width of 0.23 mm or more and 0.30 mm or less.

2. The drill bit according to claim 1, wherein:

the face includes a leading flank adjacent to the cutting edge; and

the recess is provided on the leading flank.

3. The drill bit according to claim 1 or 2, wherein:

the face includes a leading flank adjacent to the cutting edge and a trailing flank adjacent to the leading flank; and

the recess is provided on the trailing flank.

4. A hole formation method comprising:

a hole formation step of machining a portion to be processed of a workpiece material by means of drilling to form a hole while a lubricant material for assisting machining process is in contact with at least one of a drill bit and the portion to be processed,

wherein, in the hole formation step, the drill bit according to any one of claims 1 to 3 is used.

5. The hole formation method according to claim 4, wherein the lubricant material for assisting machining process has a sheet shape.

6. The hole formation method according to claim 4 or 5, wherein:

the workpiece material has a thickness of 1.0 mm or more; and

a hole formed in the hole formation step has a diameter of 3.0 mm or more.

7. The hole formation method according to any one of claims 4 to 6, wherein the workpiece material is a difficult-to-machining metal material.

8. The hole formation method according to any one of claims 4 to 6, wherein the workpiece material is a fiber-reinforced composite material.

9. The hole formation method according to any one of claims 4 to 6, wherein the workpiece material is a material in which a difficult-to-machining metal material is in close contact with a fiber-reinforced composite material.

10. The hole formation method according to claim 7 or 9, wherein the difficult-to-machining metal material is any one material selected from the group consisting of a titanium alloy, an aluminum alloy, a magnesium alloy, a low alloy steel, a stainless steel, and a heat-resistant alloy.

11. The hole formation method according to claim 7 or 9, wherein the difficult-to-machining metal material is a Ti-6Al-4V titanium alloy.