

ABSTRACT

[Object] To provide a diameter expansion drill bit capable of giving the degree of freedom to the shape of a formed diameter expansion portion with a simple structure.

[Solution Means] A diameter expansion drill bit 10 used to expand the diameter of a part of a prepared hole H bored in a frame A by grinding includes: a cutting-blade portion 21 that has a plurality of separate cutting-blade portions 22; a cutting-blade holding portion 23 that slidably holds the plurality of separate cutting-blade portions 22 in a radial direction; and a shank portion 12 that supports the cutting-blade holding portion 23. The plurality of separate cutting-blade portions 22 is arranged in a peripheral direction and arranged over a plurality of stages in a shaft direction, and the plurality of separate cutting-blade portions 22 of the respective stages is caused to slide by a centrifugal force resulting from rotation so as to spread to an outside in the radial direction with respect to the cutting-blade holding portion 23.