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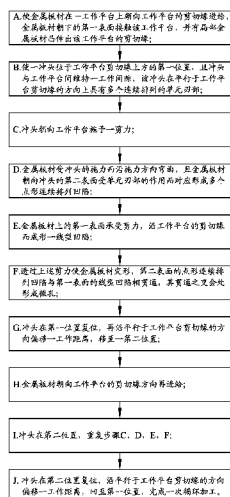
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(54) Title: METHOD OF MAKING MICRO-HOLES ON METAL PLATE

(54) 发明名称: 在金属板材制作微孔的方法



A. A metal plate is fed toward a shearing edge of a workbench, a downward-facing first surface of said metal plate being in contact with said workbench, and a portion of the metal plate extending beyond said shearing edge;
B. A punching head having a plurality of unit edges arranged in rows in a direction parallel to the shearing edge of the workbench is positioned in a first position above said shearing edge, with a working space left between the punching head and the workbench;
C. The punching head exerts a shearing force upon the workbench;
D. The metal plate bends under the force of the punching head in the direction of the force exertion, and a plurality of spot-shaped cavities are formed by said unit edges on a second surface of the metal plate that faces the punching head;
E. The first surface of the metal plate bears the shearing force and a linear groove is formed along the shearing edge of the workbench;
F. Said shearing force deforms the metal plate, so that the spot-shaped cavities arranged in rows penetrate to the linear groove of the first surface, thereby forming micro-holes at the punching points;
G. The punching head returns to the first position, then moves by a working distance in a direction parallel to the shearing edge of the workbench to a second position;
H. The metal plate is again fed toward the shearing edge of the workbench;
I. With the punching head at the second position, steps C, D, E, and F are repeated;
J. The punching head returns to the second position, then moves by a working distance back to the first position parallel to the shearing edge of the workbench, thereby completing a processing cycle.

图1 /Fig.1

(57) Abstract: A method of making micro-holes on a metal plate includes: A. feeding a metal plate on a workbench (1) forward to extend beyond a shearing edge (11); B. locating a punching head (3) at a first position (Y1), and keeping a working space (S) between said punching head (3) and the workbench (1); C. the punching head (3) exerts a shearing force towards the workbench (1); D. the metal plate is bent by the shearing force, and a plurality of spot-shaped cavities (4) arranged in rows are formed on a second surface (22); E. the first surface (21) of the metal plate bears the shearing force and a linear groove (5) is formed on said first surface (21); F. the shearing force deforms the metal plate, causing the spot-shaped cavities (4) arranged in rows to communicate with the linear groove (5), thus forming micro-holes (6); G. the punching head (3) returns to the first position, and moves a working distance (T) to a second position (Y2); H. the metal plate is fed forward again; I. the punching head (3) repeats steps C, D, E, F at the second position (Y2); J. the punching head (3) returns to the second position, then moves to the first position (Y1), thus completing a processing cycle. The method can produce a maximum of micro-holes on a certain area of a metal plate, which can be used as a sound gobo with an enhanced sound-absorption rate.

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