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(12) **United States Design Patent** (10) **Patent No.:** **US D462,247 S**  
**Hackman** (45) **Date of Patent:** **\*\* Sep. 3, 2002**

(54) **TOGGLE ACTUATED SHEET METAL END SHEAR**

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(\*\*) Term: **14 Years**

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(51) **LOC (7) Cl.** ..... **08-05**

(52) **U.S. Cl.** ..... **D8/52**

(58) **Field of Search** ..... D8/52, 98, 99,  
D8/22, 55; 81/363, 367-371, 418-426.5;  
30/229, 252, 262, 254; 7/157

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(57) **CLAIM**

The ornamental design for a toggle actuated sheet metal end shear, as shown and described.

**DESCRIPTION**

The toggle actuated sheet metal and end shear will produce cuts at an angle to cuts made by sheet metal snips. The said shear is used to cut the blind end, holding the tab between

the two snip cuts, leaving a notch in the sheet metal. The sheet metal is placed between the shear blade and the anvil. The shear blade passes along the fixed anvil in response to squeezing the lever. The blade is angled so the shearing action takes place sequentially along the anvil edge.

FIG. 1 is a left side perspective view of the toggle actuated sheet metal end shear in the open position, showing the movable shear blade with its compound angle, and the anvil above said blade on the left, with the lever and the adjustment screw shown on the right;

FIG. 2 is a left side view of the toggle actuated sheet metal end shear in the open position, showing the movable cutting blade and the anvil on the left with the open lever shown on the right;

FIG. 3 is a left side view of the toggle actuated sheet metal end shear in the closed position, showing the movable cutting blade overlapping the anvil on the left and the adjustment screw and the closed lever shown on the right; FIG. 4 is a top view thereof;

FIG. 5 is a front view thereof, in the open position showing the movable cutting blade, the compound shear and rake angles, and the straight anvil above the said blade;

FIG. 6 is a front view thereof, in the partially closed position, showing the said shear blade partially overlapping said anvil;

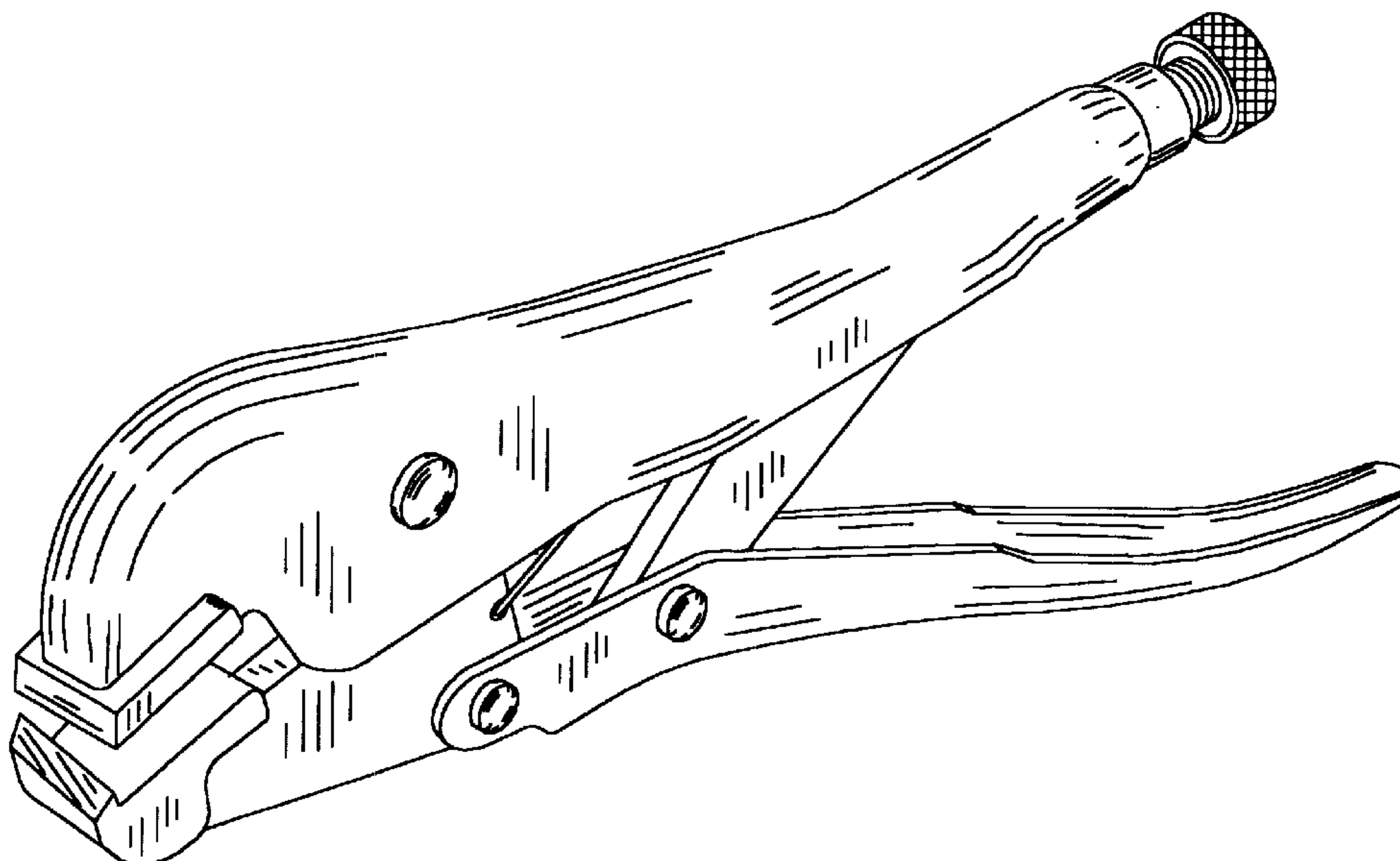
FIG. 7 is a rear view thereof, in the partially closed position, showing the adjustment screw head near the center and the end view of the handle portion of the lever below the said screw head at the bottom of the view;

FIG. 8 is a right side view of the toggle actuated sheet metal end shear, in the open position, showing the movable cutting blade on the right and the lever protruding downward at the left;

FIG. 9 is a bottom view of the toggle actuated sheet metal end shear, of FIG. 3, in the closed position; and,

FIG. 10 is a left side view of an alternate embodiment of the toggle actuated sheet metal end shear of FIG. 3, showing an optional replaceable shear blade separation line.

**1 Claim, 3 Drawing Sheets**



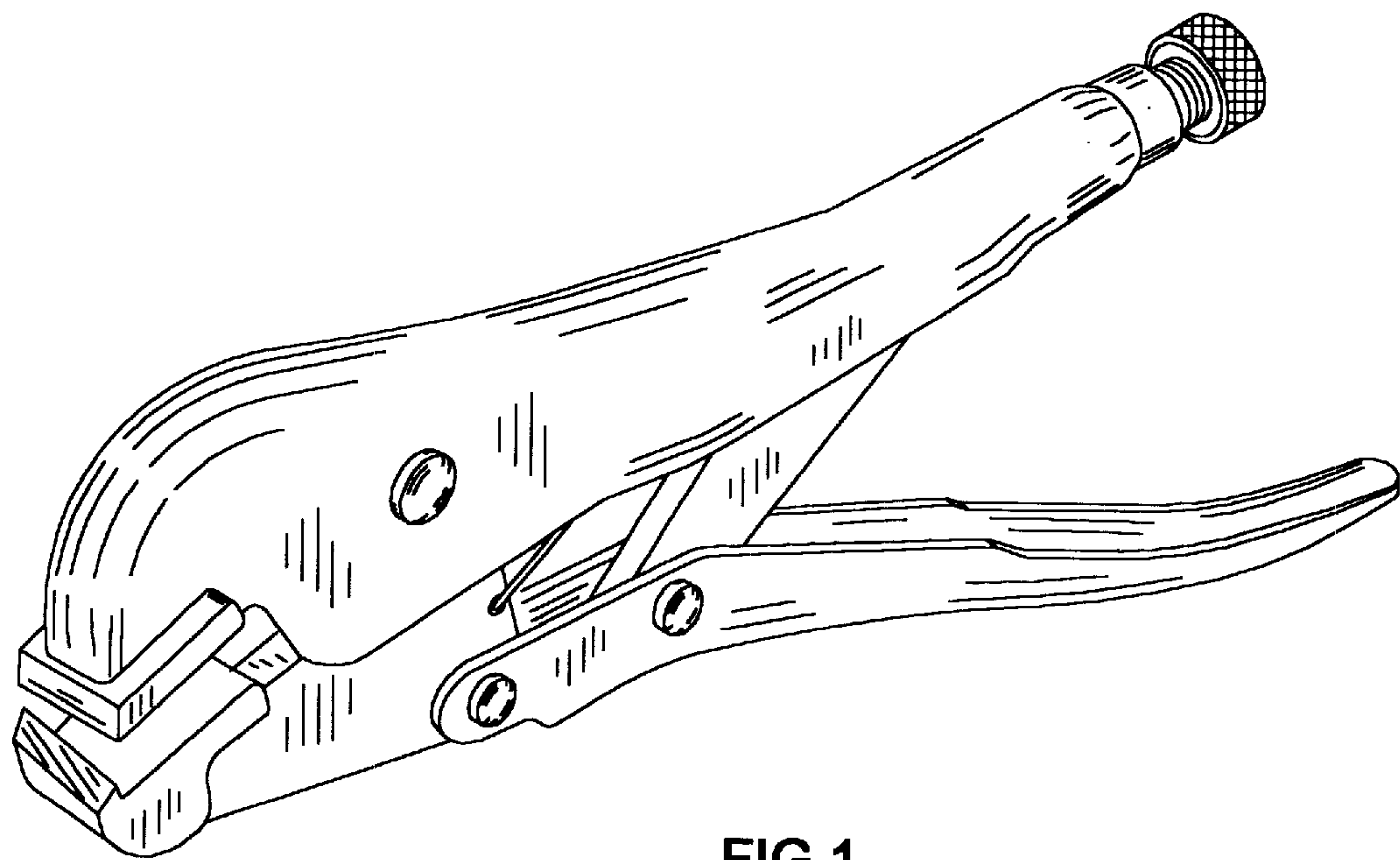


FIG 1

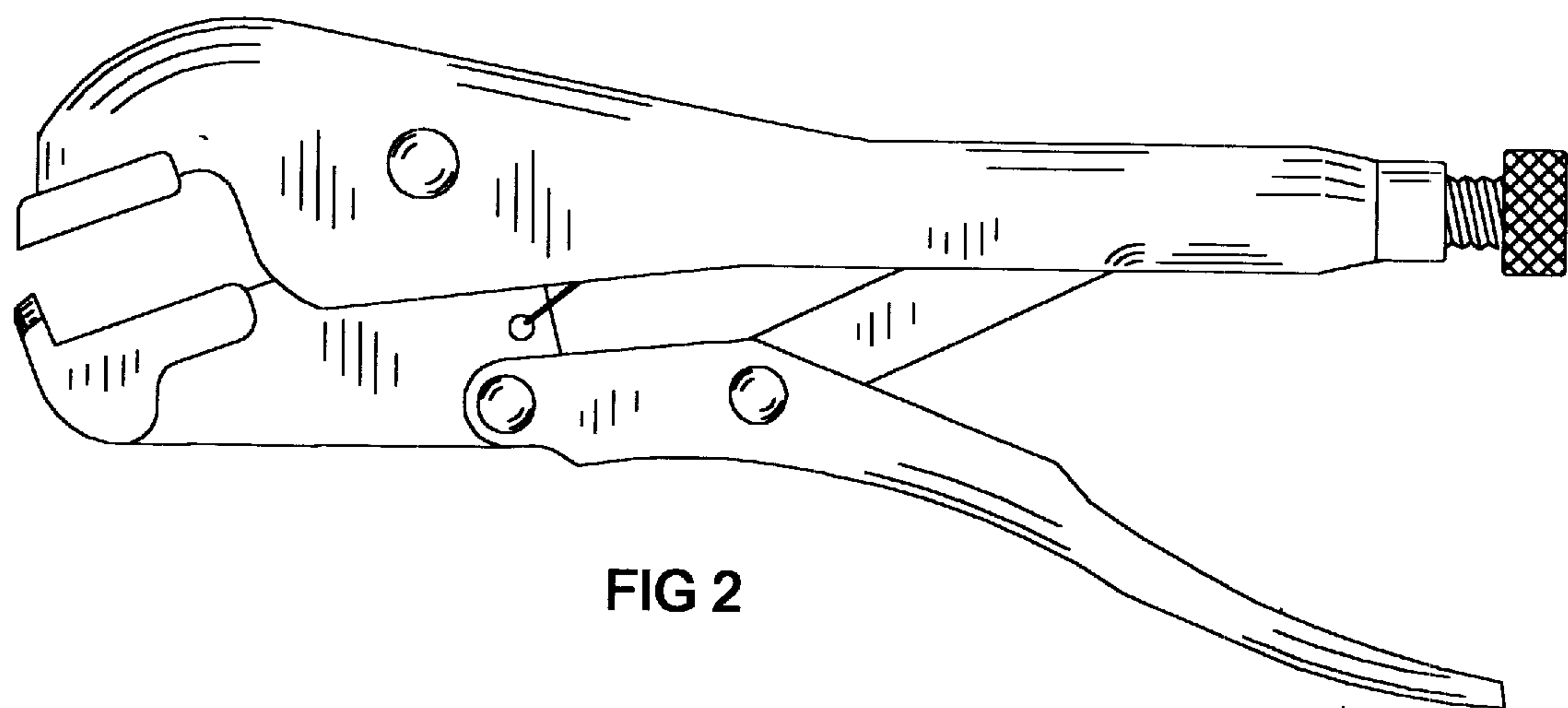


FIG 2

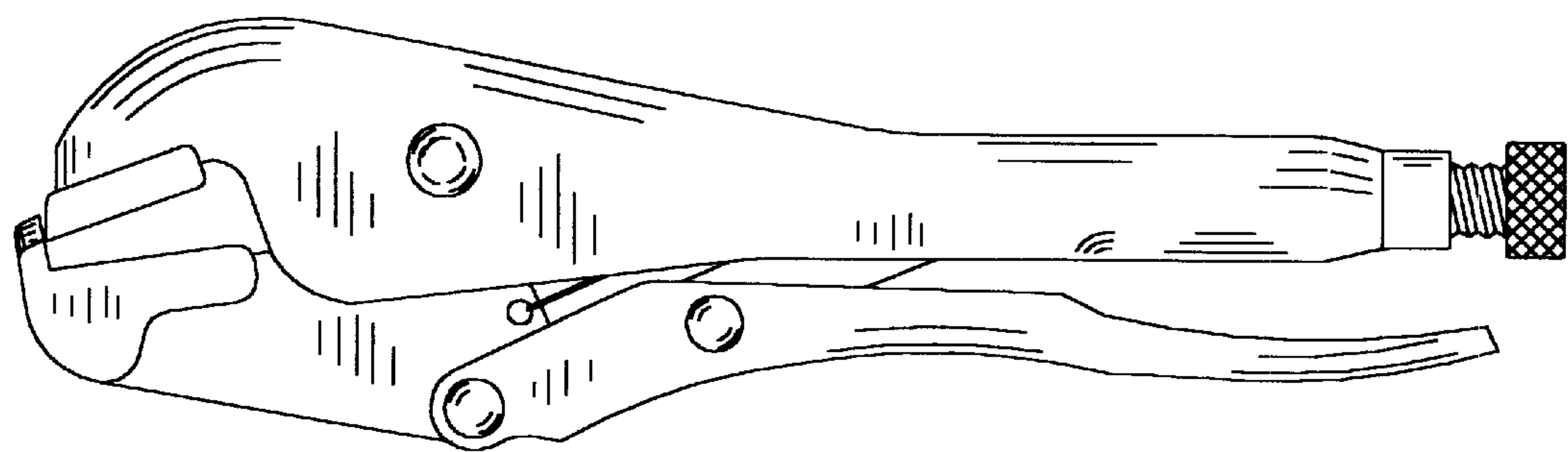


FIG 3

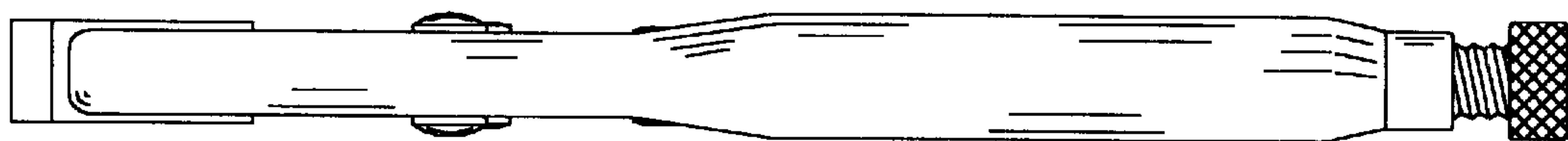


FIG 4

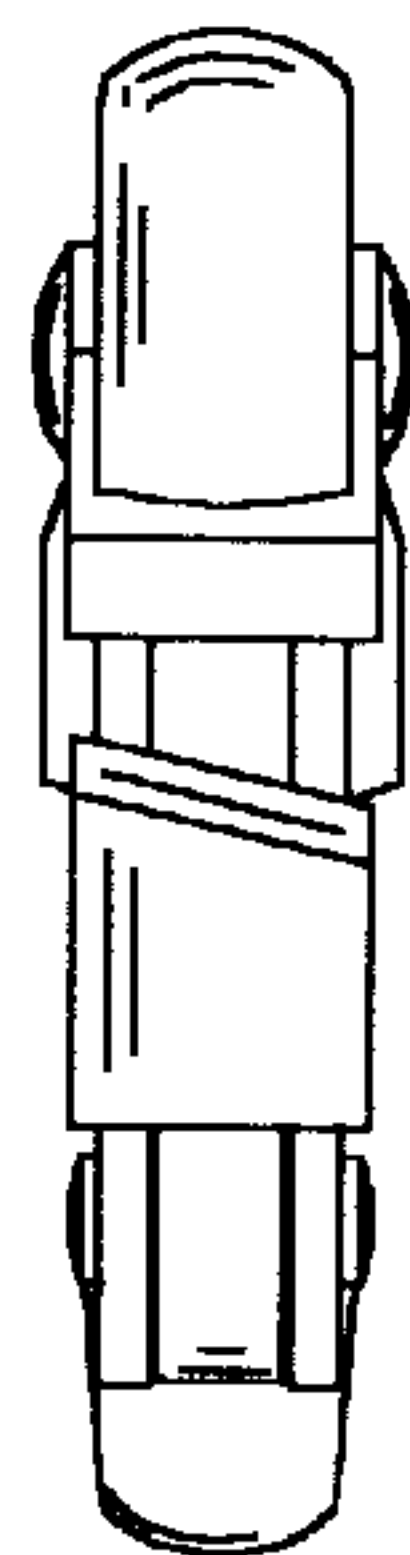


FIG 5

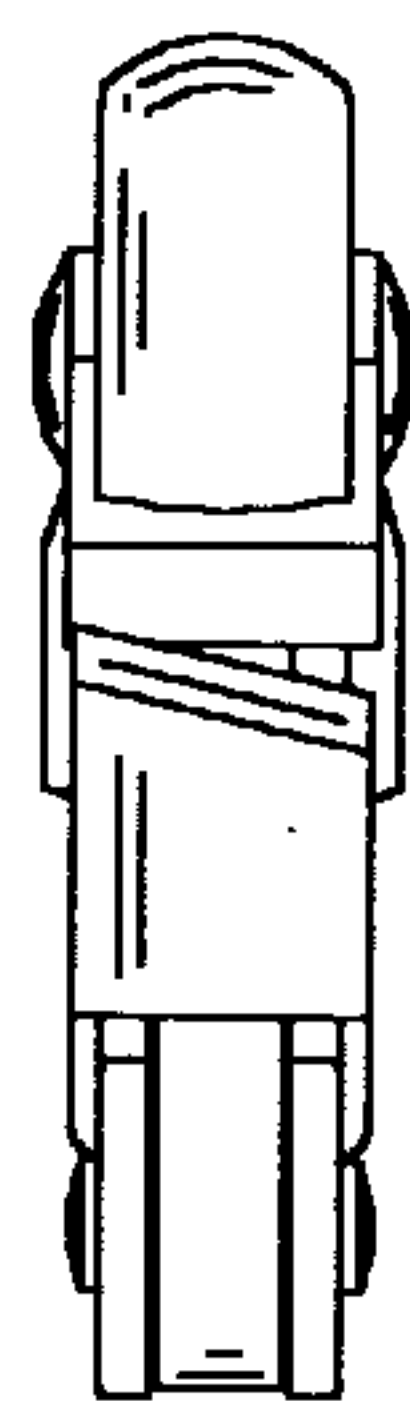


FIG 6

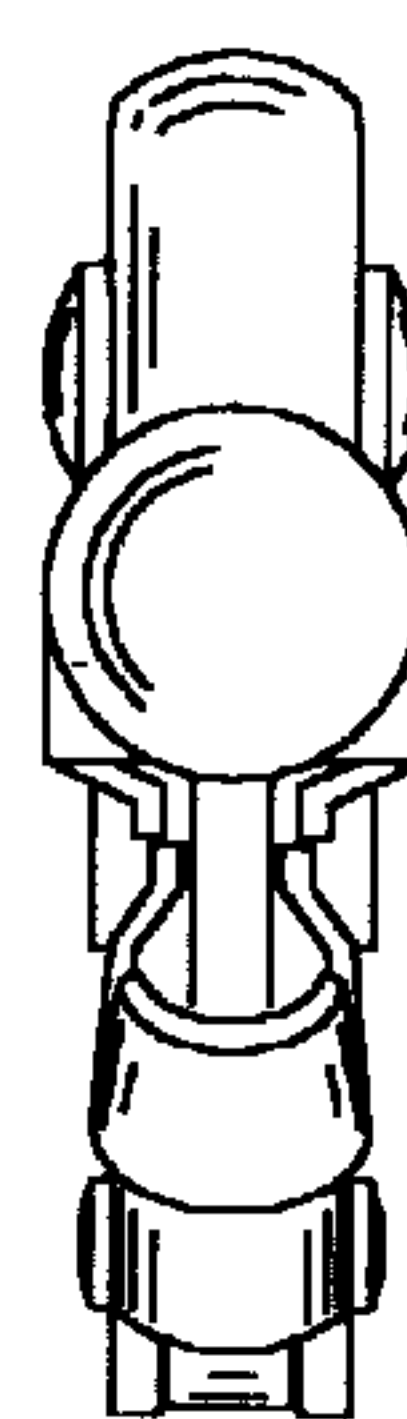


FIG 7

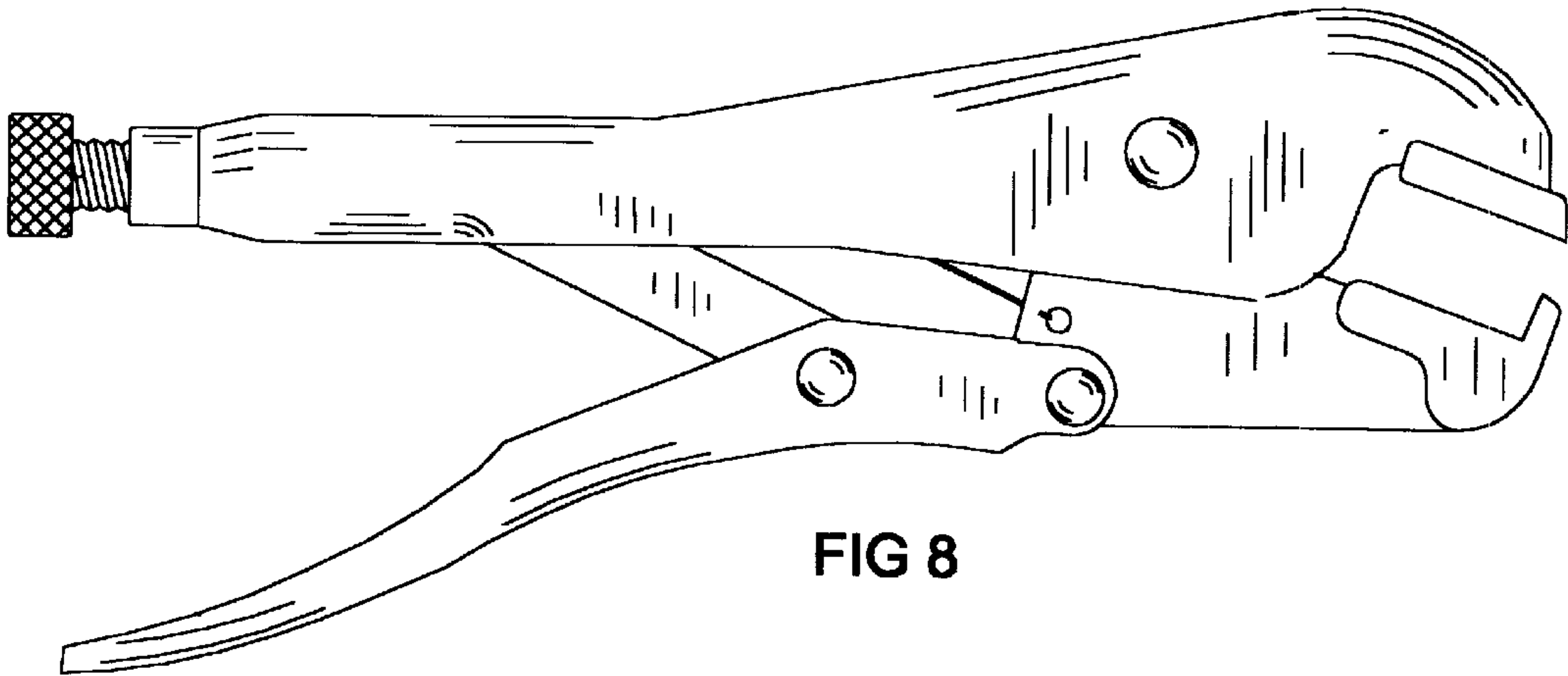


FIG 8

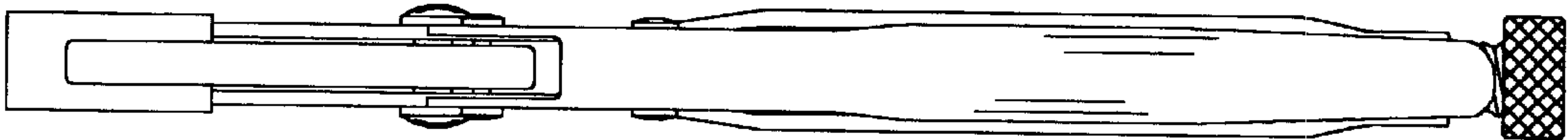


FIG 9

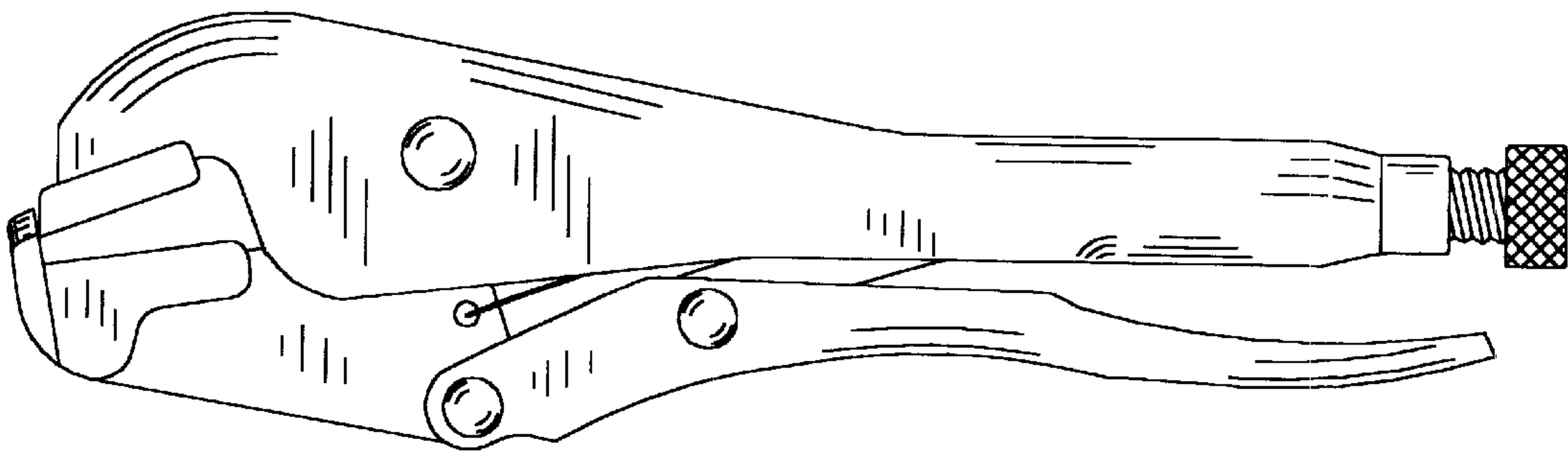


FIG 10