

[54] TOOL SHIFTER FOR A ROBOT FOR USE IN  
A MATERIAL HANDLING

[75] Inventor: Ingmar Arvidsson, Kristianstad,  
Sweden

[73] Assignee: Tollo Systems AB, Kristianstad,  
Sweden

[\*\*] Term: 14 Years

[21] Appl. No.: 272,681

[22] Filed: Nov. 17, 1988

[30] Foreign Application Priority Data

May 30, 1988 [SE] Sweden ..... 88-1325  
[52] U.S. Cl. .... D34/28  
[58] Field of Search ..... D34/28; 901/29, 28

[56] References Cited  
U.S. PATENT DOCUMENTS

3,543,910 12/1970 Devol et al. .... 901/29  
4,600,355 7/1986 Johnson ..... 901/28

Primary Examiner—Kay H. Chin  
Attorney, Agent, or Firm—Ladas & Parry

[57] CLAIM

The ornamental design for a tool shifter for a robot for  
use in a material handling, as shown and described.

DESCRIPTION

FIG. 1 is a top and right side perspective view of a tool  
shifter for a robot for use in a material handling showing  
my new design;

FIG. 2 is a bottom and left side perspective view  
thereof;

FIG. 3 is a top perspective view thereof, showing the  
tool shifter with planar component removed;

FIG. 4 is a bottom perspective view of FIG. 3;

FIG. 5 is a top perspective view of the removed planar  
component thereof; and

FIG. 6 is a bottom perspective of FIG. 5.

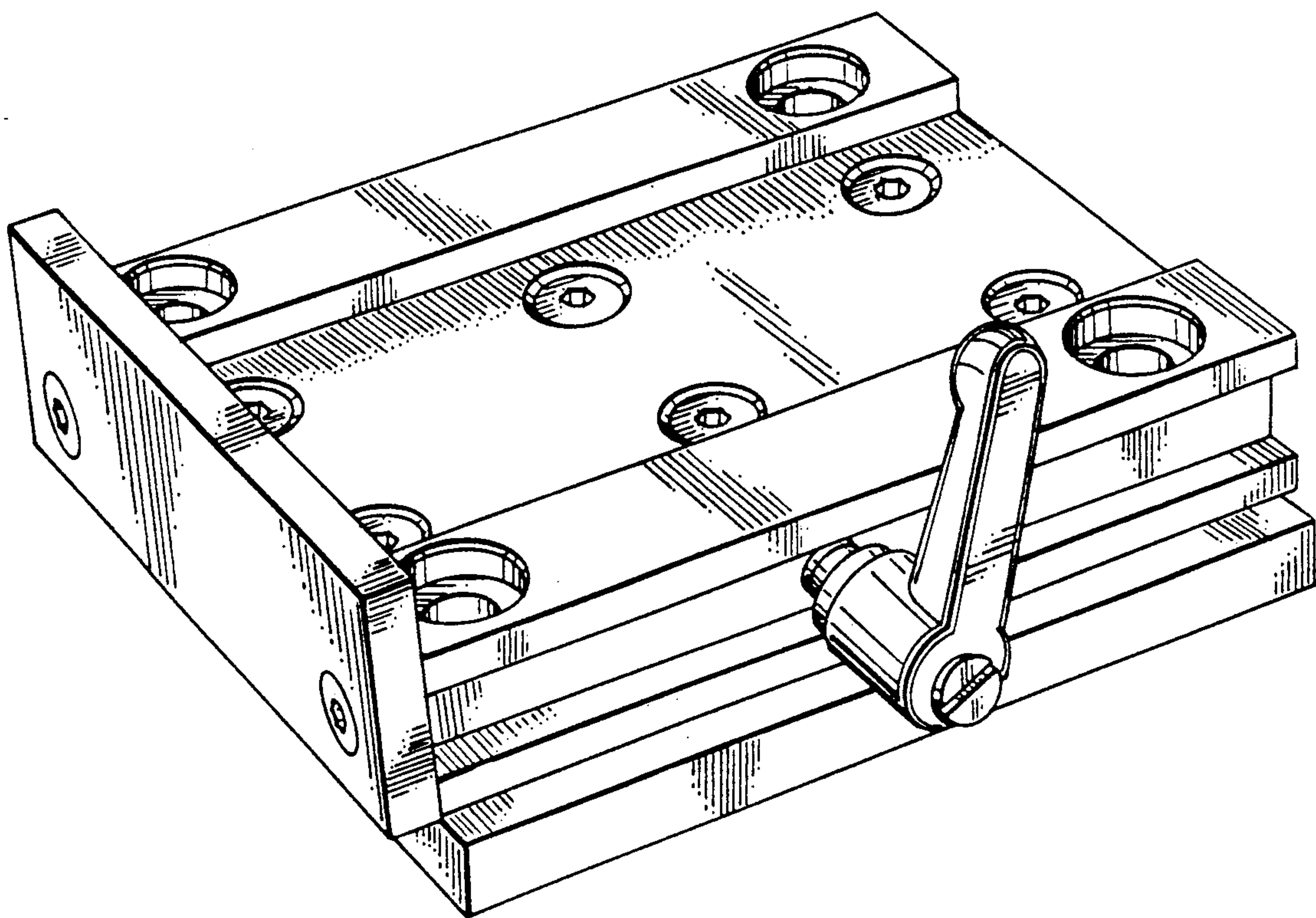


FIG. 1

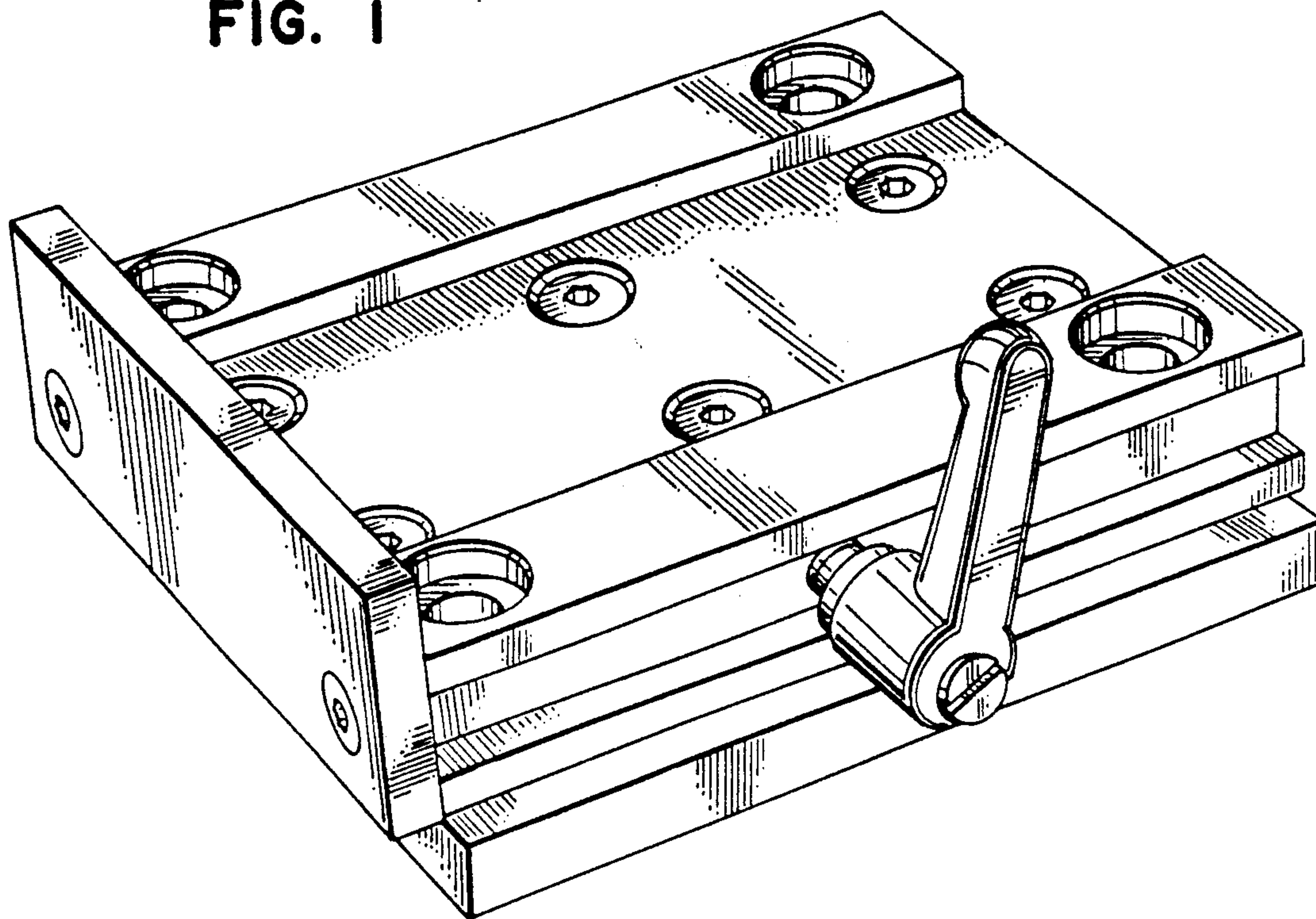


FIG. 2

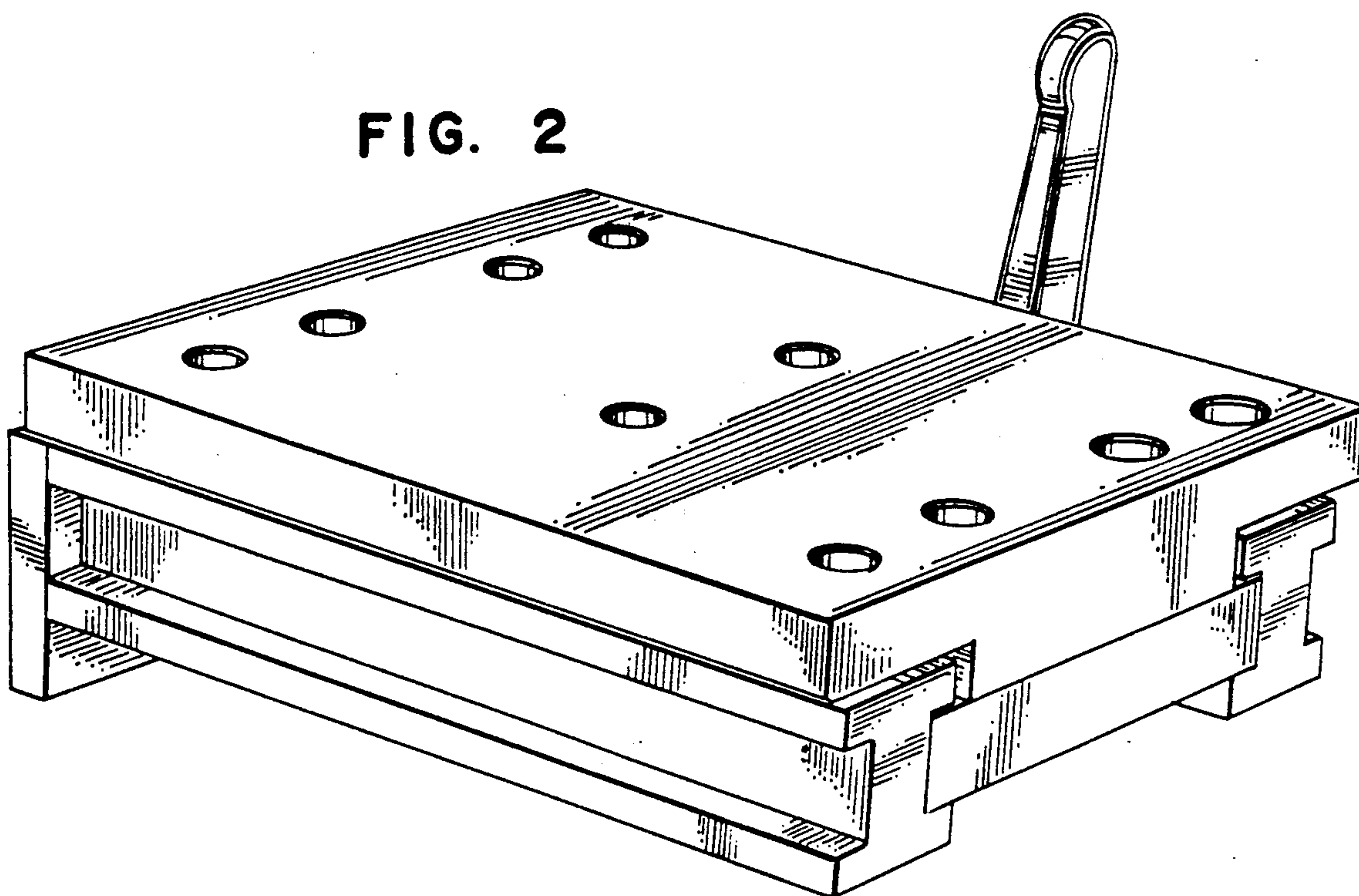




FIG. 3

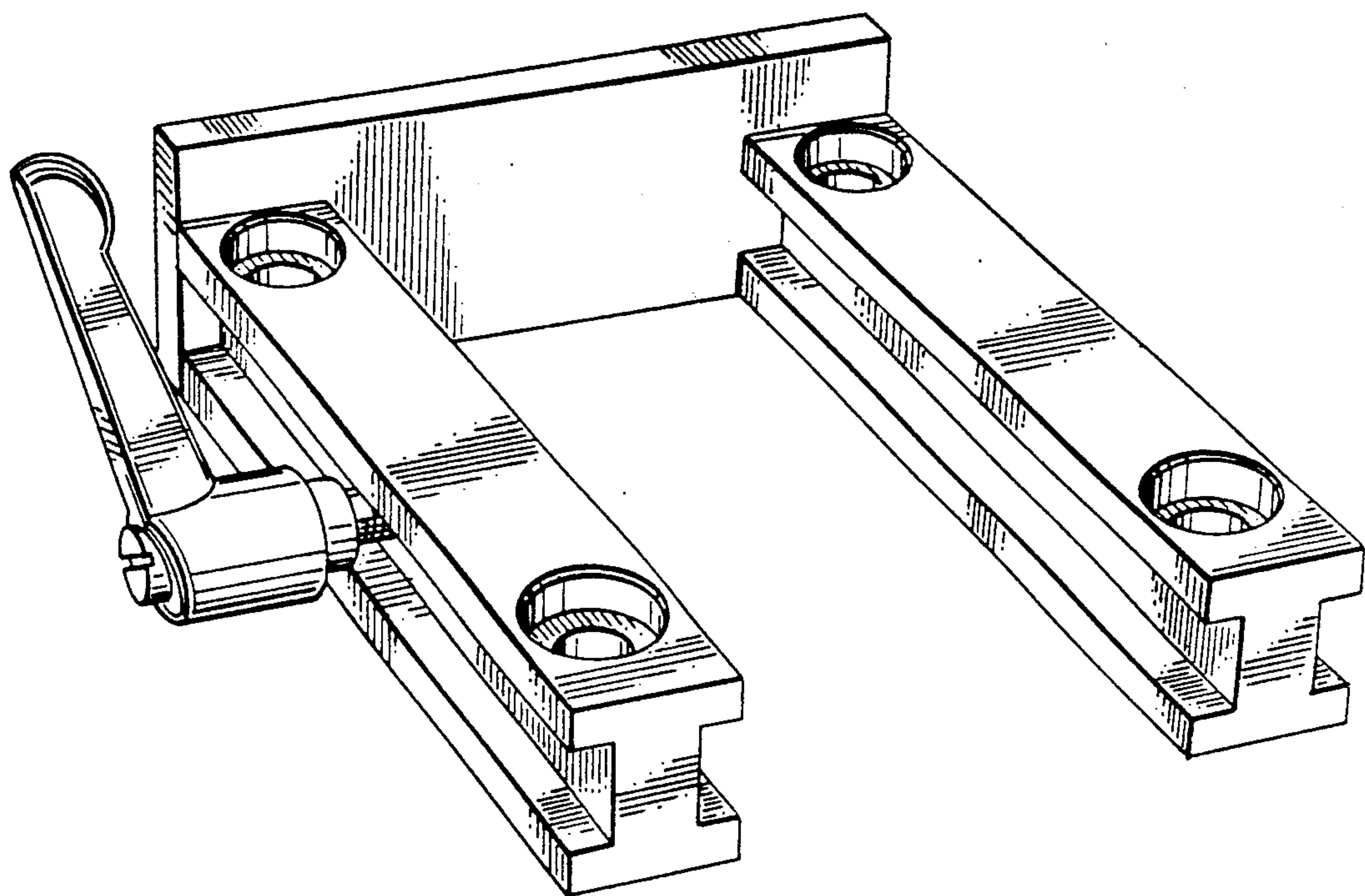


FIG. 4

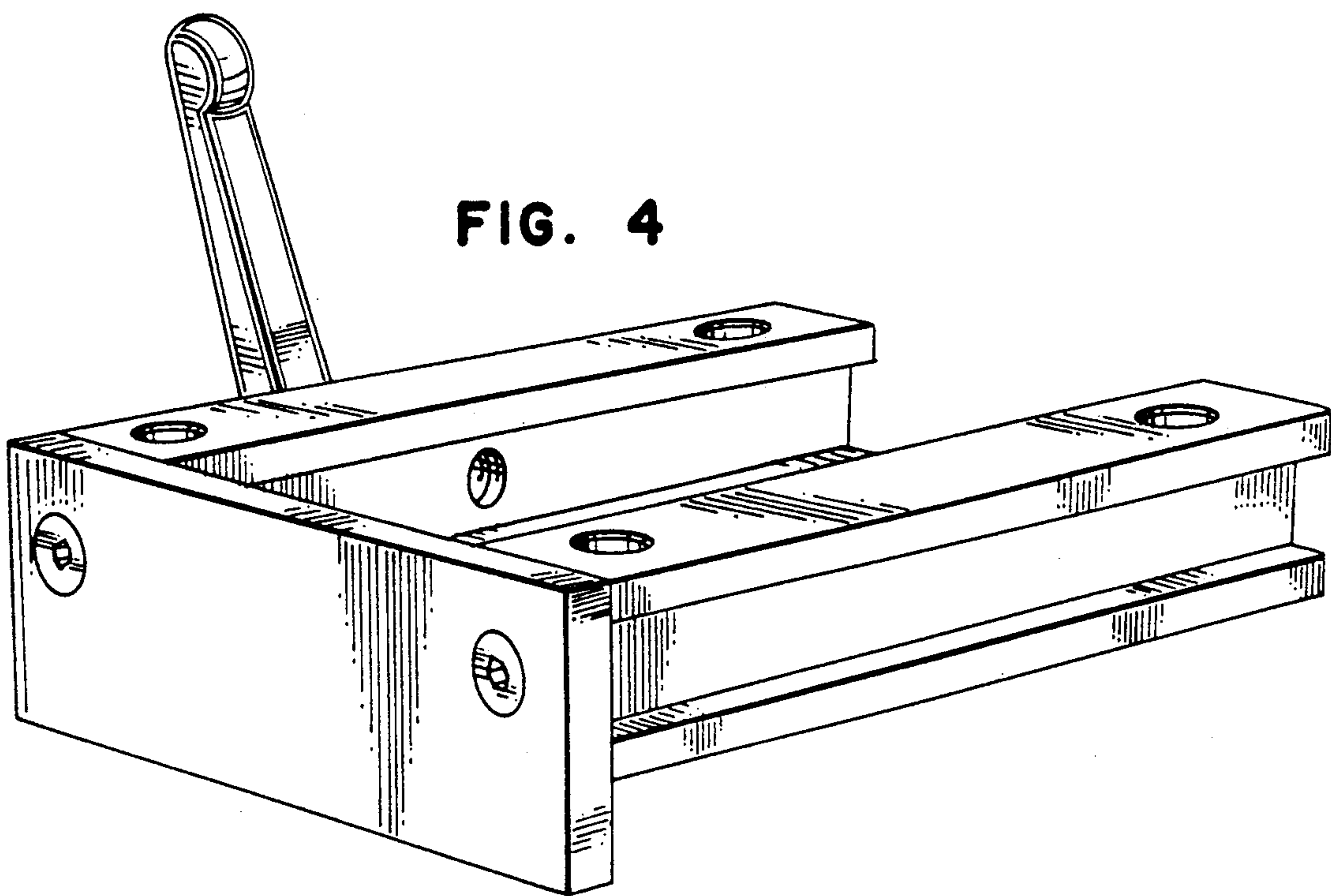


FIG. 5

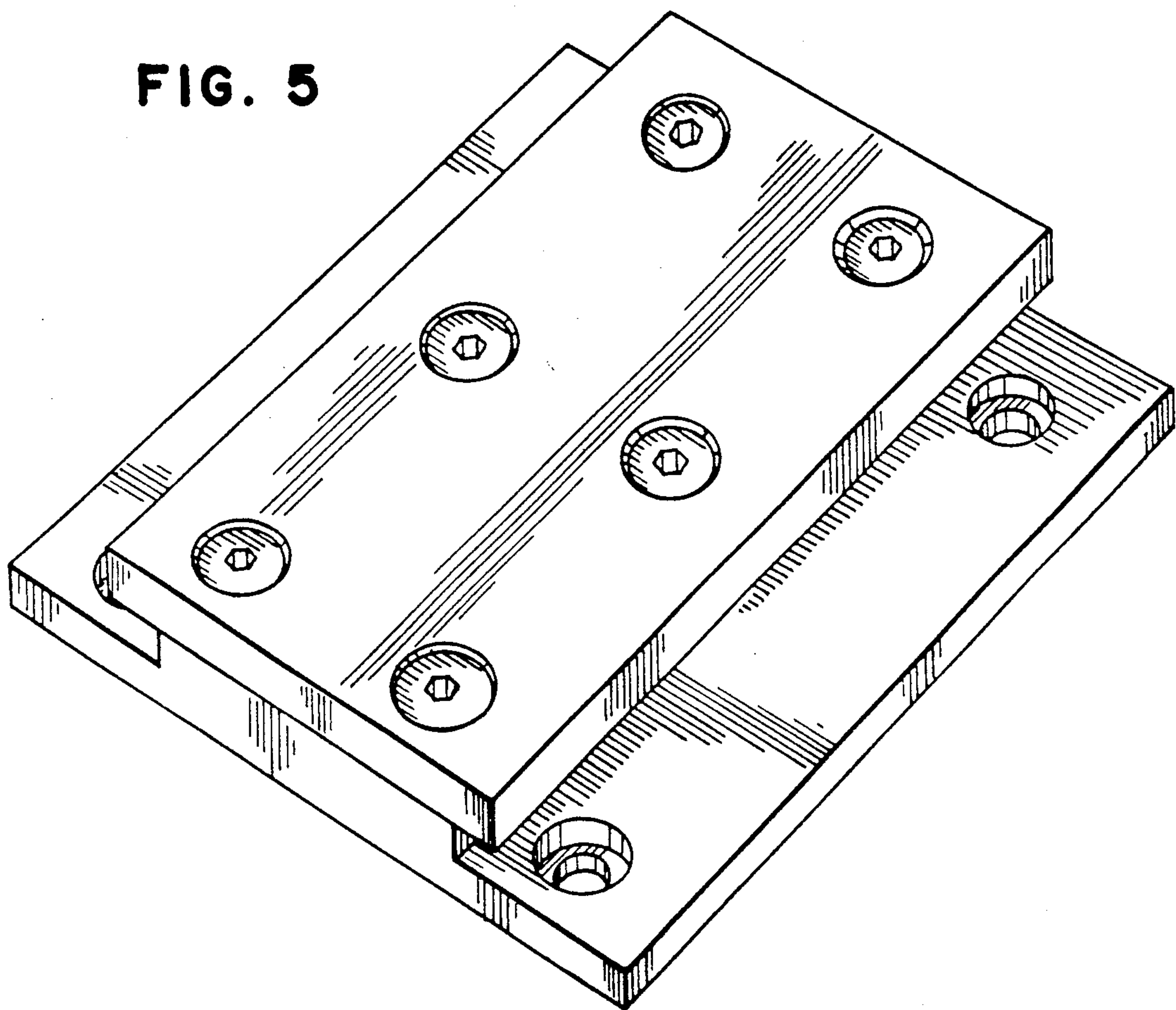


FIG. 6

