



US00D780549S

(12) **United States Design Patent**  
**Zhang et al.**

(10) **Patent No.:** **US D780,549 S**

(45) **Date of Patent:** **\*\* Mar. 7, 2017**

(54) **BENCH VISE**

(71) Applicant: **LAIZHOU HONGYUAN BENCH VICE MANUFACTURE Co., Ltd.**,  
Laizhou, Shandong Province (CN)

(72) Inventors: **Zhiquan Zhang**, Laizhou (CN); **Tao Wang**, Laizhou (CN); **Shujun Zhao**, Laizhou (CN); **Xiaodong Wang**, Laizhou (CN); **Hetao Hou**, Laizhou (CN)

(73) Assignee: **LAIZHOU HONGYUAN BENCH VICE MANUFACTURE Co., Ltd.**,  
Laizhou, Shandong (CN)

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

(21) Appl. No.: **29/516,920**

(22) Filed: **Feb. 6, 2015**

(30) **Foreign Application Priority Data**

Sep. 19, 2014 (CN) ..... 2014 3 0349276

(51) **LOC (10) Cl.** ..... **08-05**

(52) **U.S. Cl.**  
USPC ..... **D8/74**

(58) **Field of Classification Search**  
USPC ..... D8/71-74, 394-399, 59; 248/63, 72, 248/74.1, 689, 124.2; 81/487, 385, 386, 81/388-390; 269/3, 4, 6, 143, 165, 240, 269/243, 246-249, 254 R, 147-149; 29/256, 257, 276; 408/103, 104-109  
CPC ..... B25B 1/00; B25B 5/00  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D131,498 S \* 3/1942 Vogl ..... D8/74  
D145,641 S 9/1946 Thompson  
D147,564 S \* 9/1947 Nelson ..... D8/74  
D154,001 S 5/1949 Vogl

D164,143 S 7/1951 Vogl  
D184,413 S \* 2/1959 Vogl ..... D8/74  
D213,727 S 4/1969 Barvineck et al.  
4,133,519 A 1/1979 Shin et al.  
D254,835 S 4/1980 Bass  
D282,143 S \* 1/1986 Tarquinio ..... D8/74  
D286,609 S \* 11/1986 Hickman ..... D8/74  
4,807,863 A 2/1989 Yang  
4,971,301 A 11/1990 Yang

(Continued)

*Primary Examiner* — David Muller

(74) *Attorney, Agent, or Firm* — Andrew W. Chu; Craft Chu PLLC

(57) **CLAIM**

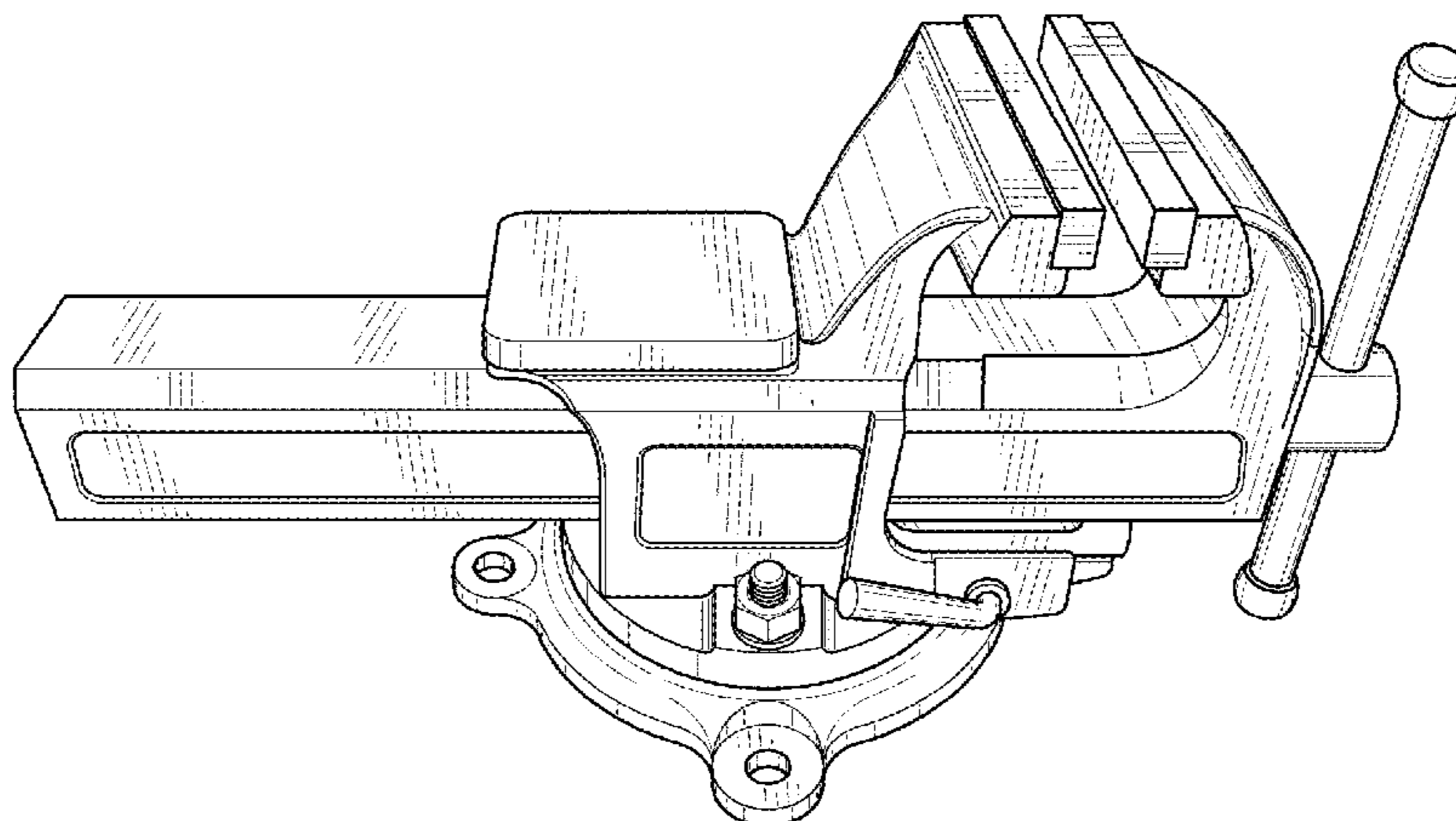
The ornamental design for a bench vise, as shown and described.

**DESCRIPTION**

FIG. 1 is an upper perspective view of the bench vise showing my design in an opened configuration.  
FIG. 2 is another upper perspective view thereof, in a closed configuration;  
FIG. 3 is a side elevation view thereof;  
FIG. 4 is an opposite side elevation view thereof;  
FIG. 5 is an end elevation view thereof;  
FIG. 6 is an opposite end elevation view thereof;  
FIG. 7 is a top plan view thereof; and,  
FIG. 8 is a bottom view thereof.

The broken line showing of parts of the drawings is included for the purpose of illustrating use and environment and forms no part of the claimed design.

**1 Claim, 4 Drawing Sheets**



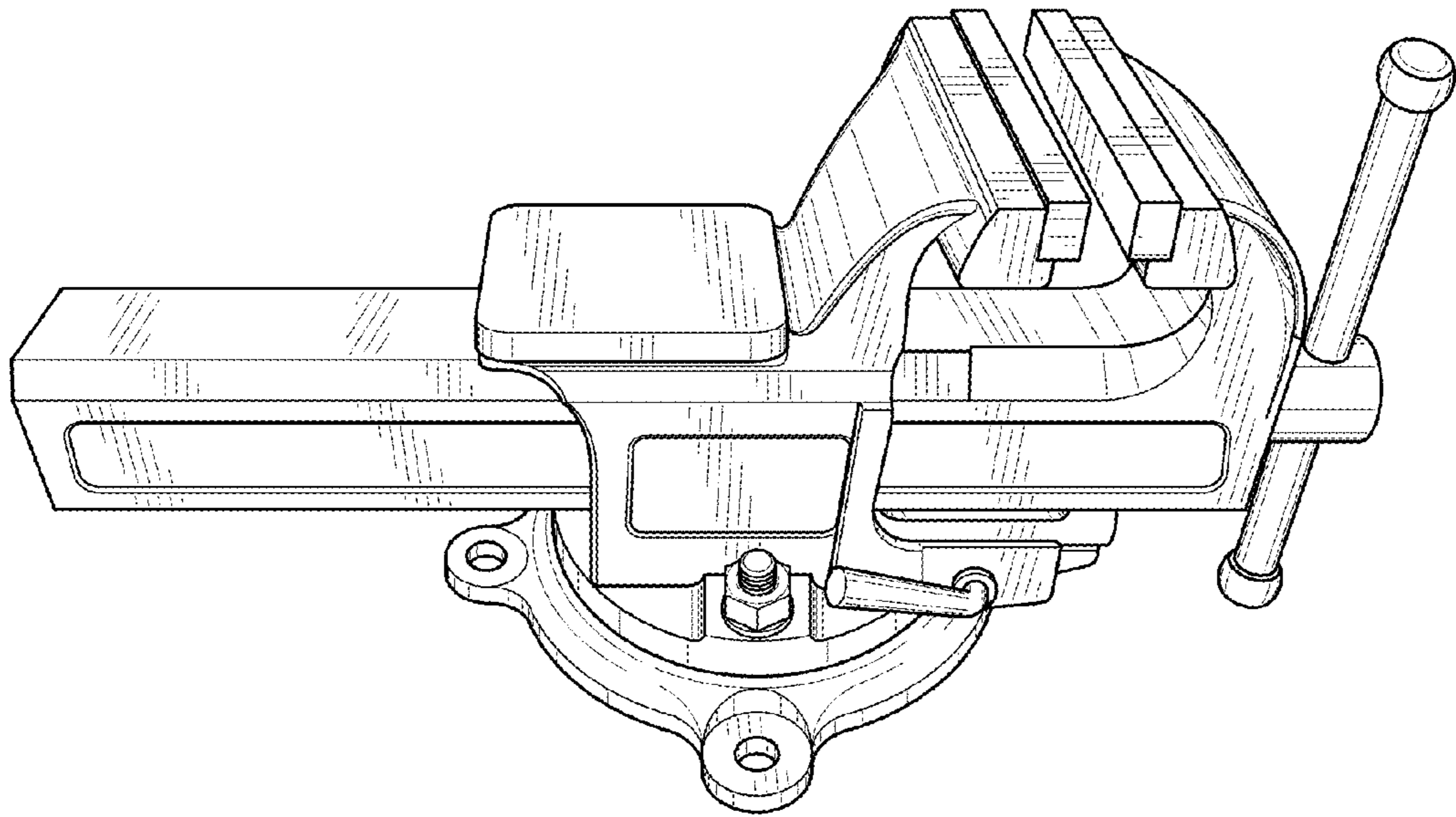
(56)

**References Cited**

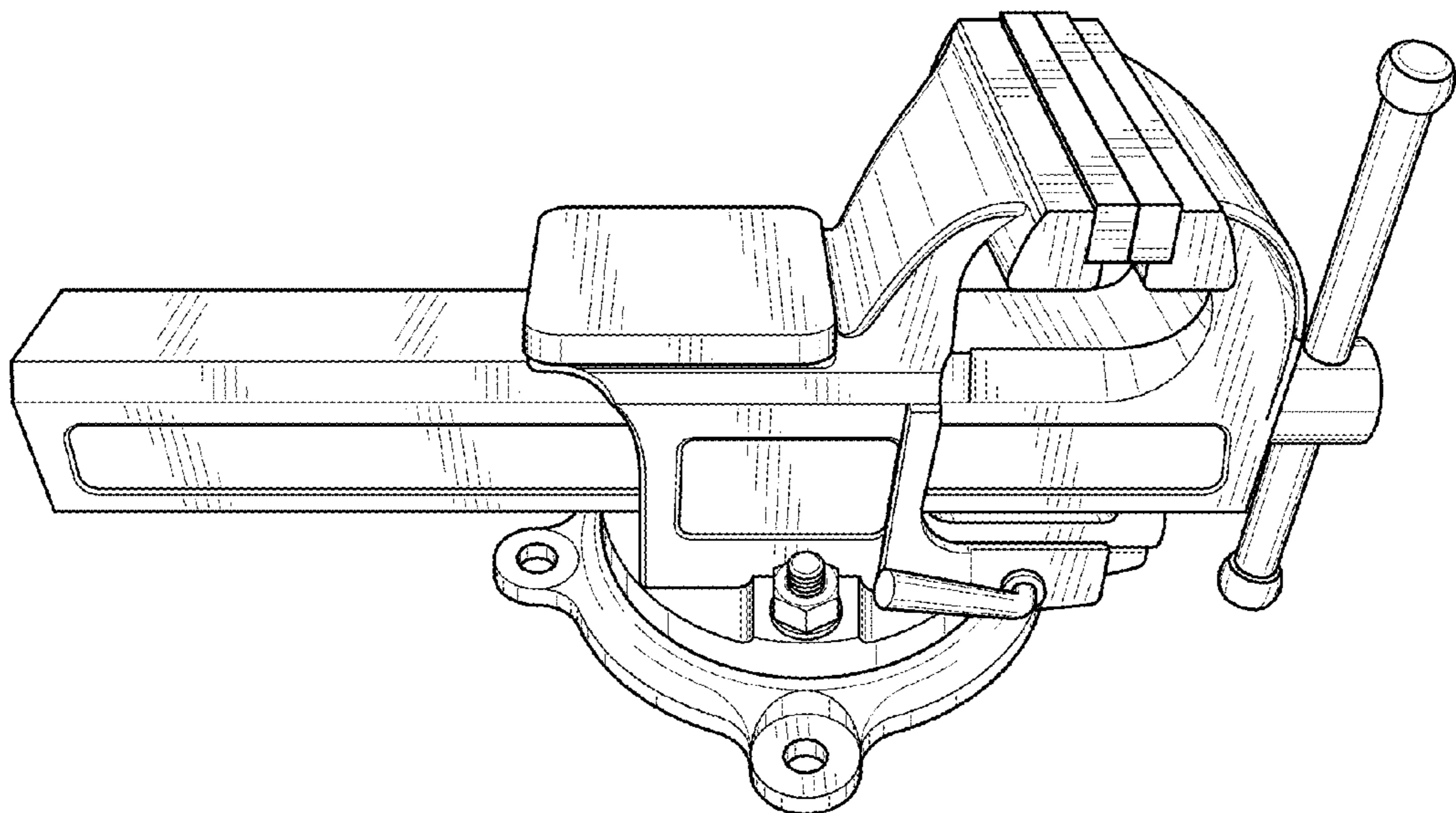
U.S. PATENT DOCUMENTS

D333,963	S	3/1993	Goodman	
5,282,392	A	2/1994	Fan et al.	
D471,070	S	3/2003	Howell	
D473,441	S	4/2003	Cross	
D484,018	S	12/2003	Boyer et al.	
D485,740	S	1/2004	Varzino et al.	
7,017,898	B2 *	3/2006	Varzino .....	B25B 1/22 269/246
D544,328	S *	6/2007	Ranieri .....	D8/72
7,677,141	B1	3/2010	Crew	
D680,843	S	4/2013	Onello et al.	
D699,539	S *	2/2014	Nieto .....	D8/74
D705,031	S *	5/2014	Zhang .....	D8/74
D707,096	S *	6/2014	Zhang .....	D8/74
D718,599	S *	12/2014	Durocher .....	D8/74

\* cited by examiner



*FIG. 1*



*FIG. 2*

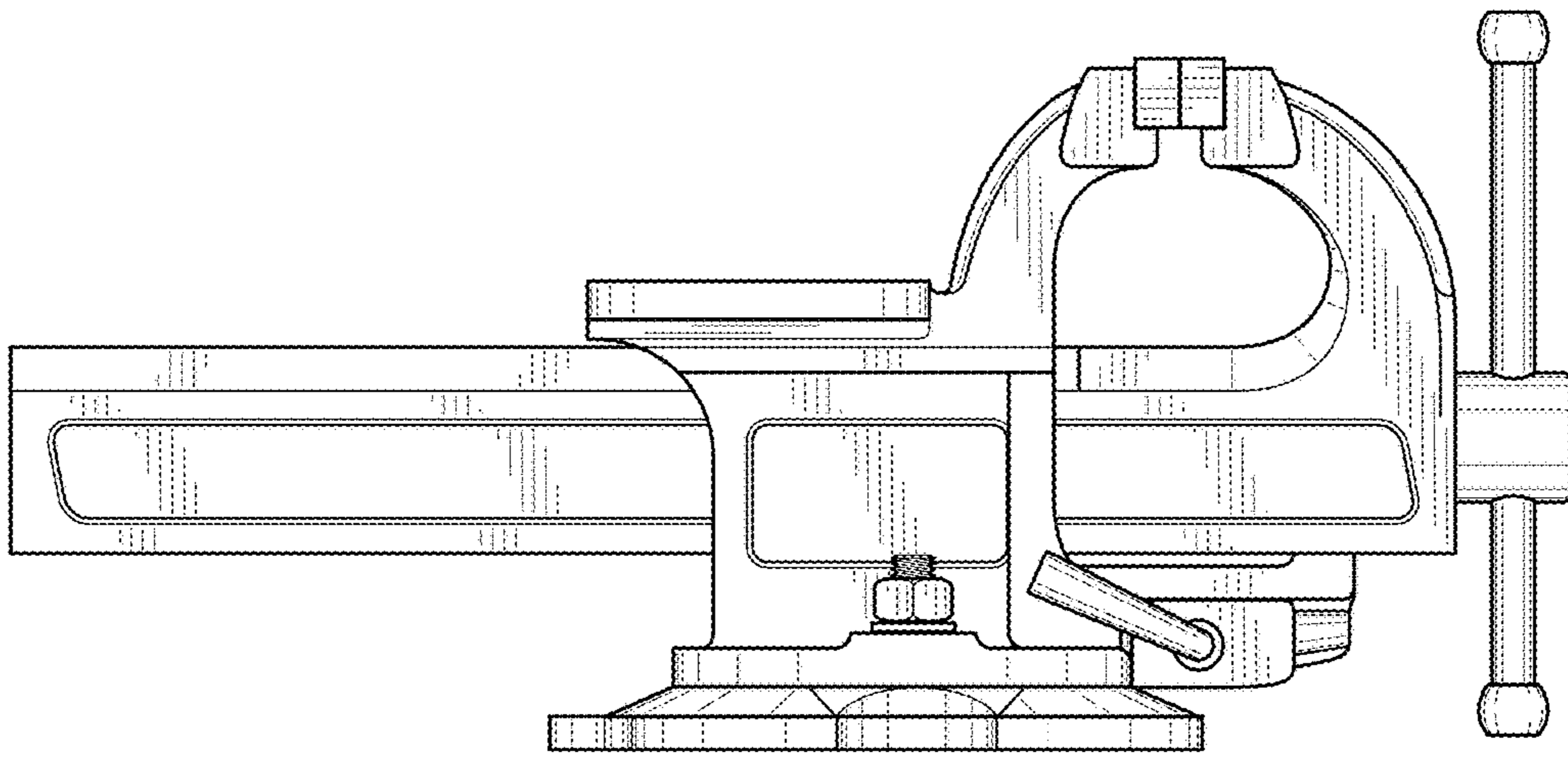


FIG. 3

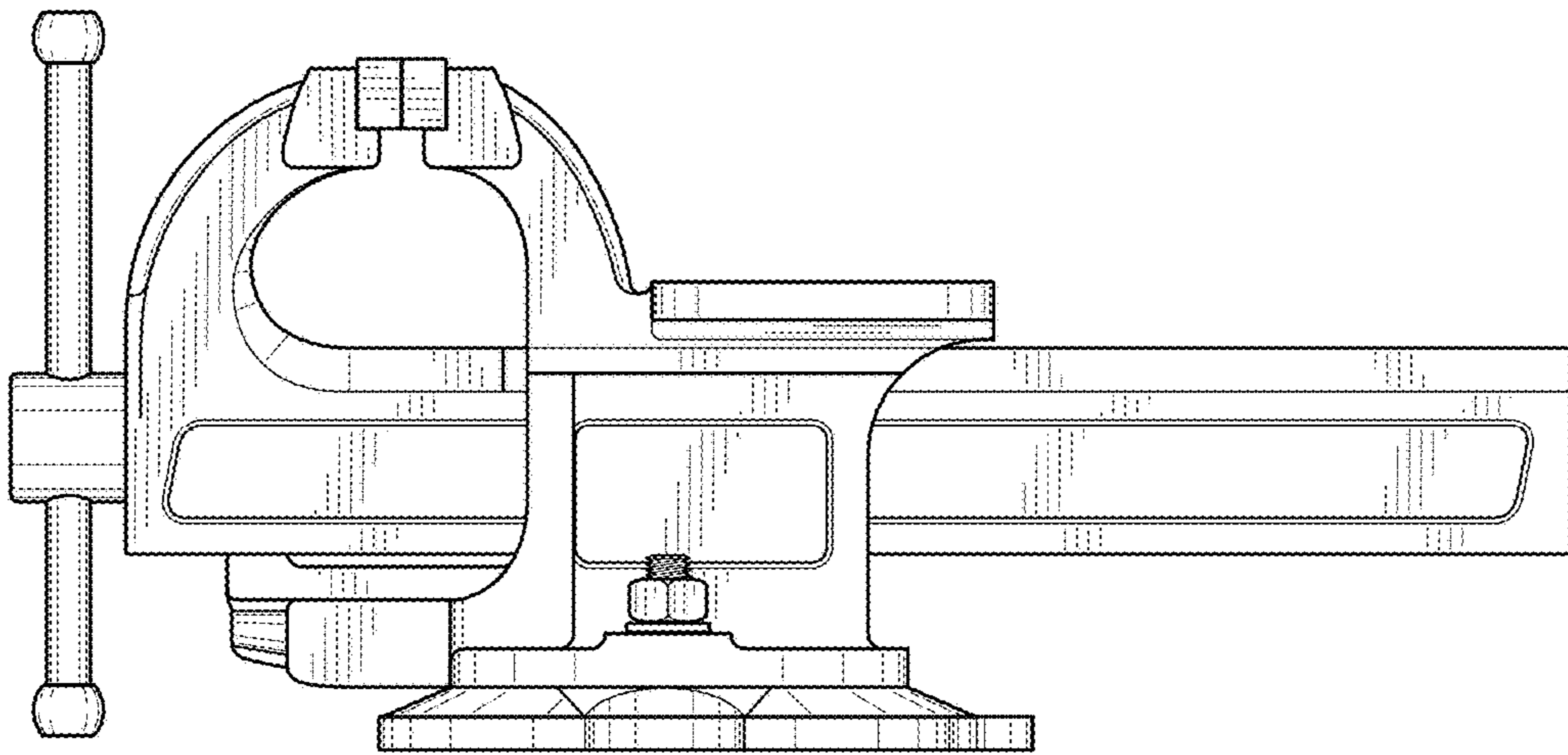
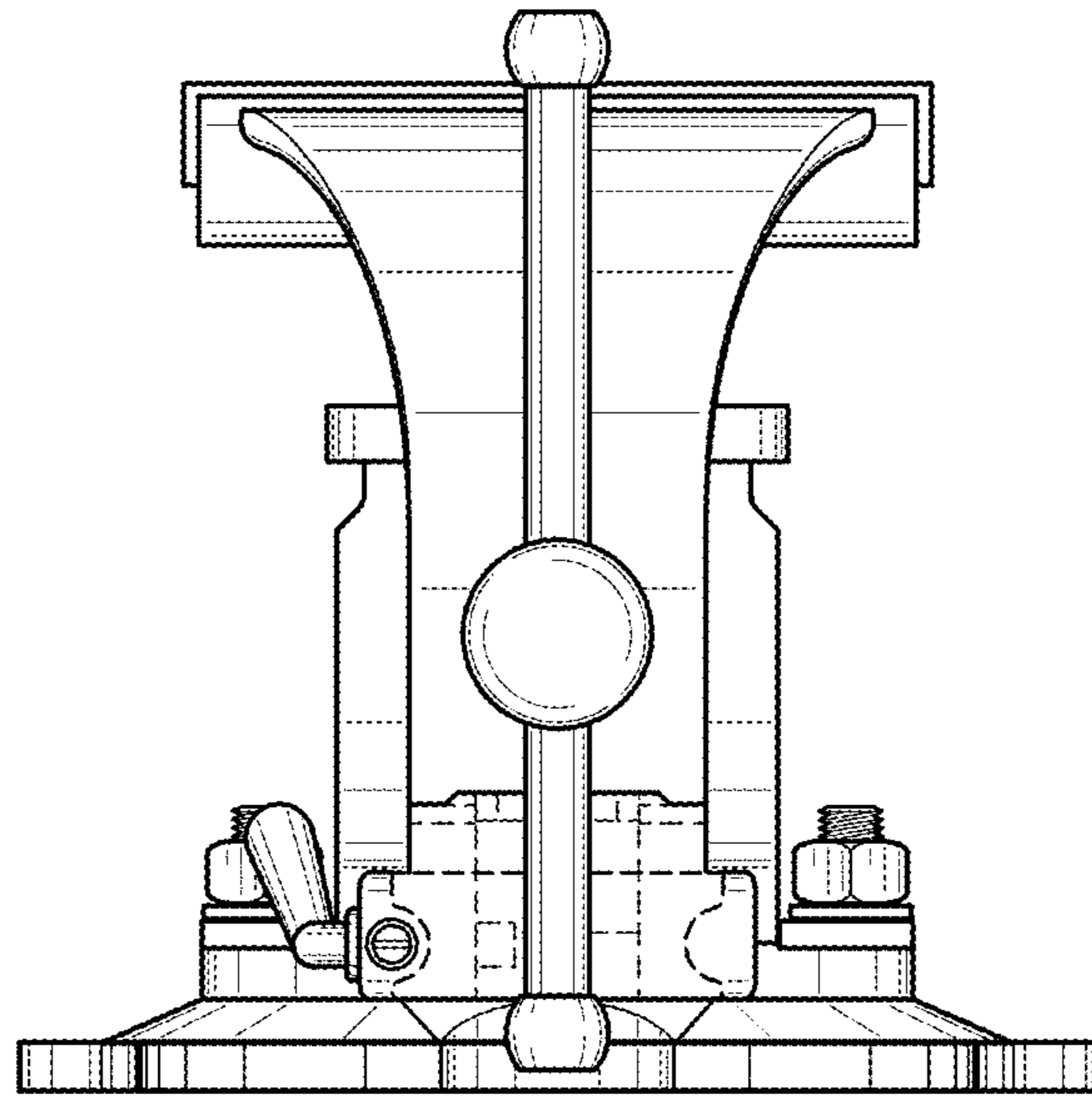
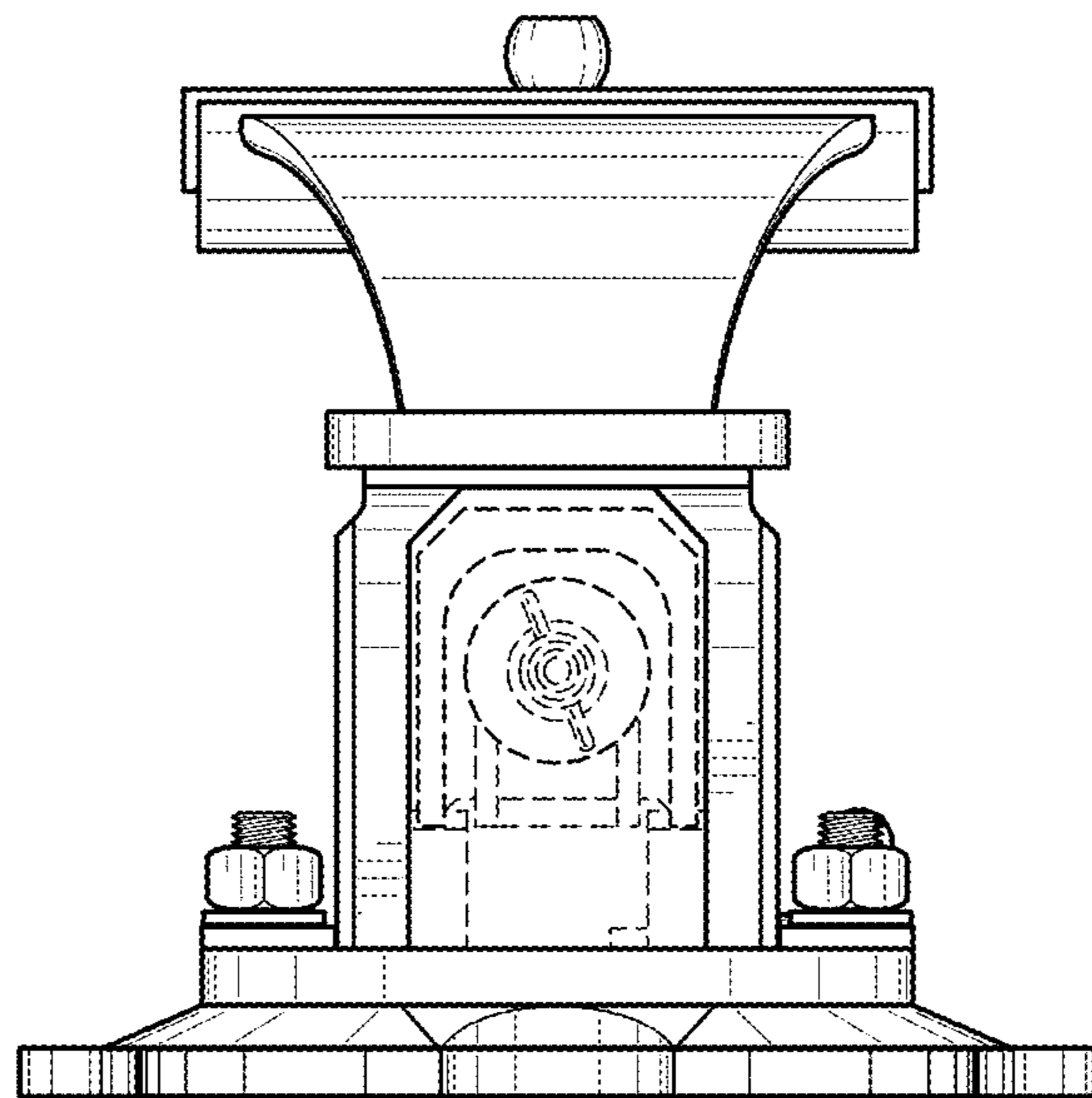


FIG. 4





*FIG. 5*



*FIG. 6*

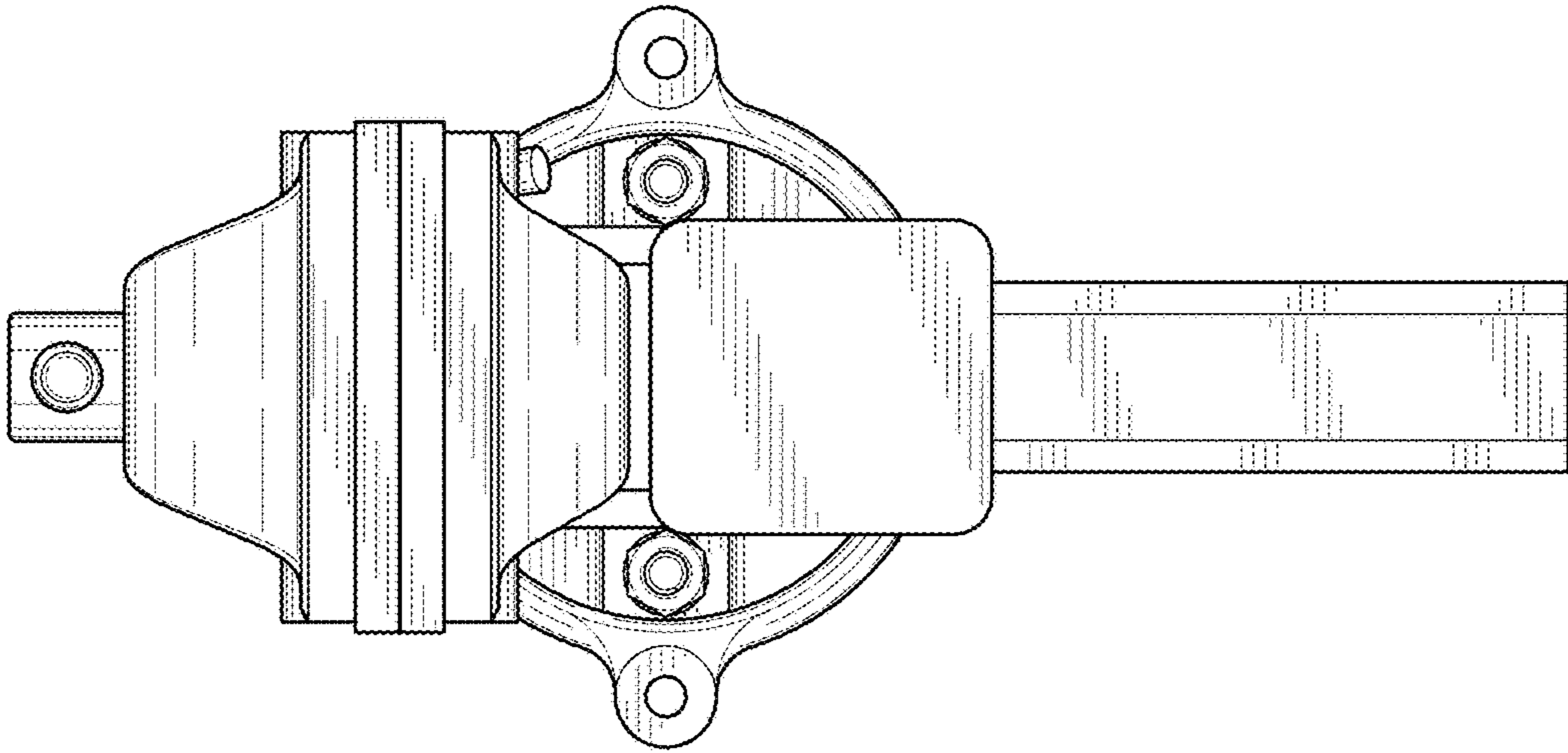


FIG. 7

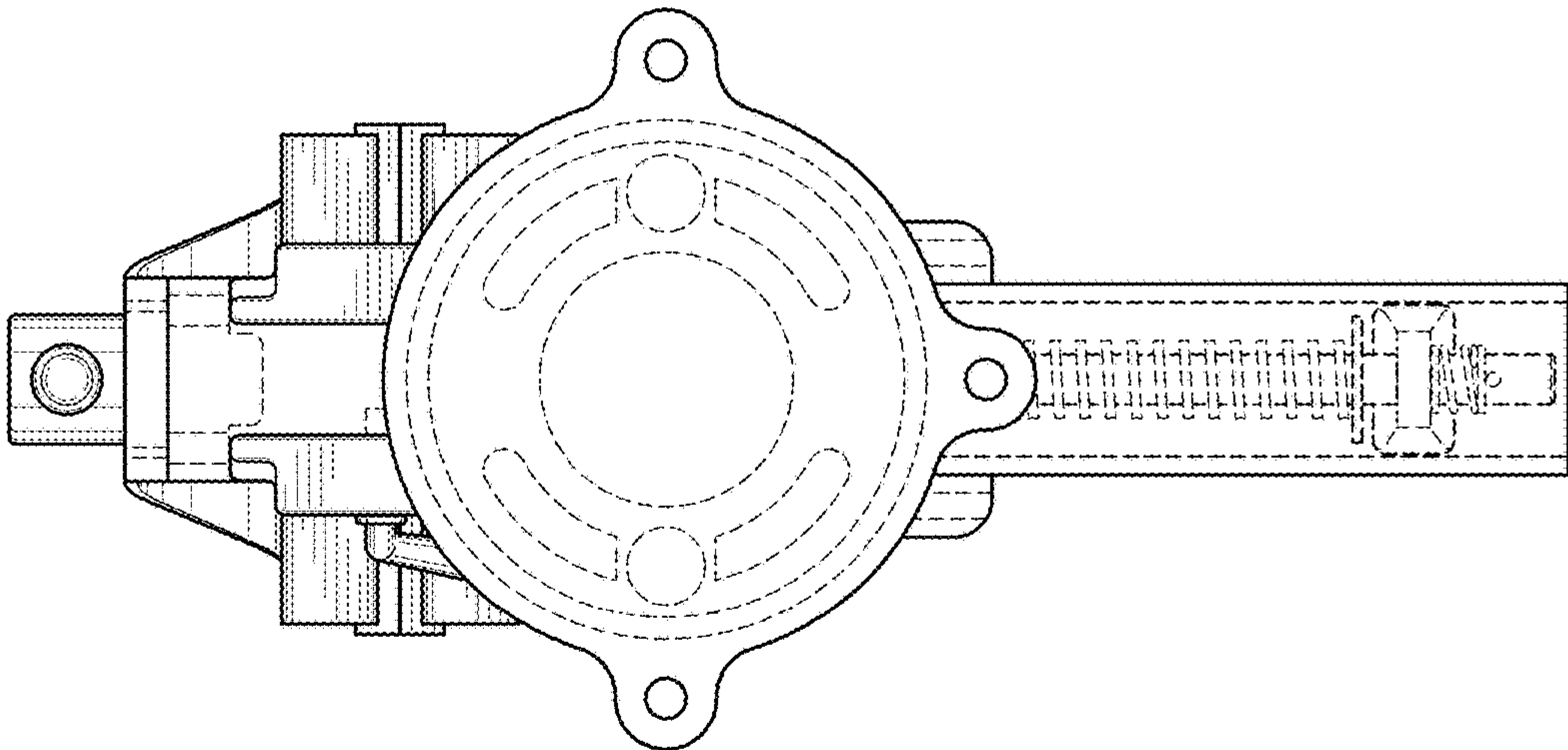


FIG. 8