



(12) **United States Design Patent**
Heck

(10) **Patent No.:** **US D1,073,752 S**
(45) **Date of Patent:** **** May 6, 2025**

(54) **TUBE NOTCHING APPARATUS**

FOREIGN PATENT DOCUMENTS

(71) Applicant: **Philip Heck**, Highland, MI (US)

CN 304723465 * 7/2018

(72) Inventor: **Philip Heck**, Highland, MI (US)

OTHER PUBLICATIONS

(73) Assignee: **Philip Heck**, Highland, MI (US)

Kaka Industrial RA-1 Manual Pipe Notcher, 1/4", 3/8", 1/2" (Inside diameter) Notcher Capacity, Light Weight, 90 Degree High Precision Steel Tube Notcher, Steel Tube and Pipe Notcher; KAKA Industrial Amazon.com; 19SEP2015; Acc 20JUN2024; URL:<https://www.amazon.com/dp/B015KO1JGG> (Year: 2015).*

(**) Term: **15 Years**

(Continued)

(21) Appl. No.: **29/847,708**

(22) Filed: **Jul. 27, 2022**

(51) **LOC (15) Cl.** **15-09**

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

USPC **D15/129; D8/60**

(58) **Field of Classification Search**

USPC D15/128, 129; D8/71, 51, 60, 98

CPC Y10S 83/917; Y10S 83/955; B23D 21/02;

B23D 21/00; B23D 21/10; G02B 6/566;

H02G 1/1217

See application file for complete search history.

Primary Examiner — Rachel A. Voorhies

Assistant Examiner — Benjamin D. Wannemacher

(74) *Attorney, Agent, or Firm* — Carrier, Shende & Associates P.C.; Fulchand P. Shende; Joseph P. Carrier

(57) **CLAIM**

The ornamental design for a tube notching apparatus as shown and described.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,686,044 A * 10/1928 Stott H02G 1/1295
30/265

2,064,539 A 12/1936 Hart

2,385,368 A * 9/1945 Montgomery H01B 7/36
30/91.2

2,388,698 A * 11/1945 Montgomery H02G 1/1229
30/91.2

2,761,211 A * 9/1956 Grant B23D 21/02
30/90.8

2,819,520 A * 1/1958 Eyles H02G 1/1217
81/9.4

3,005,369 A 10/1961 Koster

3,091,031 A * 5/1963 Grant H02G 1/1231
30/90.7

3,120,143 A * 2/1964 Kreider B23D 21/02
30/92

3,180,196 A 4/1965 Coulon et al.

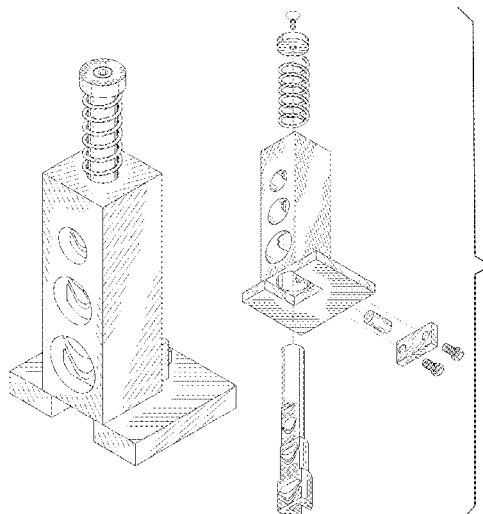
3,405,583 A 10/1968 Herzog

(Continued)

DESCRIPTION

FIG. 1 is a right side perspective view of my new, original and ornamental design for a tube notching apparatus; FIG. 2 is a front elevational view thereof; FIG. 3 is a back elevational view thereof; FIG. 4 is a left side elevational view thereof; FIG. 5 is a right side elevational view thereof; FIG. 6 is a top plan view thereof; FIG. 7 is a bottom plan view thereof; and, FIG. 8 is an exploded perspective view of an the tube notching apparatus, taken from a vantage point below and to the right thereof, the broken lines shown in FIG. 8 depict the path for assembly of the exploded components and forms no part of the claimed design.

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

3,410,168 A 11/1968 Feitshans
 3,988,826 A * 11/1976 Heikkala B26B 25/005
 30/90.9
 4,025,998 A * 5/1977 Eppler H02G 1/005
 29/745
 4,123,189 A * 10/1978 Ferlise B23B 5/00
 408/54
 4,247,234 A * 1/1981 Hoffman B23D 21/10
 30/95
 4,356,630 A * 11/1982 David H02G 1/1295
 30/90.6
 4,380,256 A * 4/1983 Peterpaul H02G 1/1295
 140/106
 4,656,893 A * 4/1987 Hudson H02G 1/126
 81/9.51
 4,674,183 A * 6/1987 Ducret H02G 1/005
 30/90.1
 4,799,406 A * 1/1989 Diaz-De-Guerenu-
 Aguirrebeitia H02G 1/1224
 30/90.1
 4,986,154 A 1/1991 Vernacchio
 5,202,543 A * 4/1993 Yoshimura B23D 21/02
 29/890.148
 5,295,421 A * 3/1994 Mansfield G02B 6/4498
 30/90.1
 5,964,137 A 10/1999 Jung
 6,427,331 B1 * 8/2002 Tarpill H02G 1/1217
 30/91.2
 D505,056 S * 5/2005 Tarpill D8/51
 7,040,020 B2 * 5/2006 Malet H02G 1/1217
 30/90.1

9,608,416 B2 * 3/2017 Zhang H02G 1/1221
 9,819,161 B2 * 11/2017 Scirbona H02G 1/1217
 9,923,347 B2 * 3/2018 Puchalska H02G 1/1217
 10,401,569 B2 * 9/2019 Scirbona G02B 6/566
 10,459,185 B2 * 10/2019 Eisele G02B 6/4497
 10,471,622 B2 * 11/2019 Volzer B43L 23/08
 11,485,031 B2 * 11/2022 Waymire A47J 17/00
 11,493,722 B2 * 11/2022 Denton G02B 6/245
 D1,002,320 S * 10/2023 Shearer D8/71
 2004/0226421 A1 11/2004 Kelley
 2006/0242838 A1 * 11/2006 Larkin H02G 1/1217
 30/90.4
 2011/0010945 A1 * 1/2011 Delafosse H02G 1/126
 83/435
 2015/0114072 A1 * 4/2015 Baudy B60N 2/818
 72/370.04
 2017/0304903 A1 * 10/2017 Smith B26D 3/28
 2018/0095222 A1 * 4/2018 Scirbona G02B 6/245
 2021/0237295 A1 * 8/2021 Eisele G02B 6/566
 2023/0321736 A1 * 10/2023 Warren B23D 21/02

OTHER PUBLICATIONS

HHIP 8600-4046 1-1/16"-1-1/16" Tube Notcher; HHIP; Amazon.com; Jul. 11, 2023; Acc Jun. 20, 2024; URL: <https://www.amazon.com/HHIP-8600-4046-1-1-16-Notcher/dp/B01ADBOXTO> (Year: 2013).*

Hydraulic RA-BF Tube Pipe Notcher 1-7/8 Inch (48mm), 2-3/8 Inch (60mm) Notcher Capacity, 90 Degree High Precision Steel Tube Notcher Hydraulic Power; PreAsion; Amazon.com; May 20, 2022; Acc Jun. 20, 2024; URL: <https://www.amazon.com/dp/BOB1V13JD4 /> (Year: 2022).*

* cited by examiner

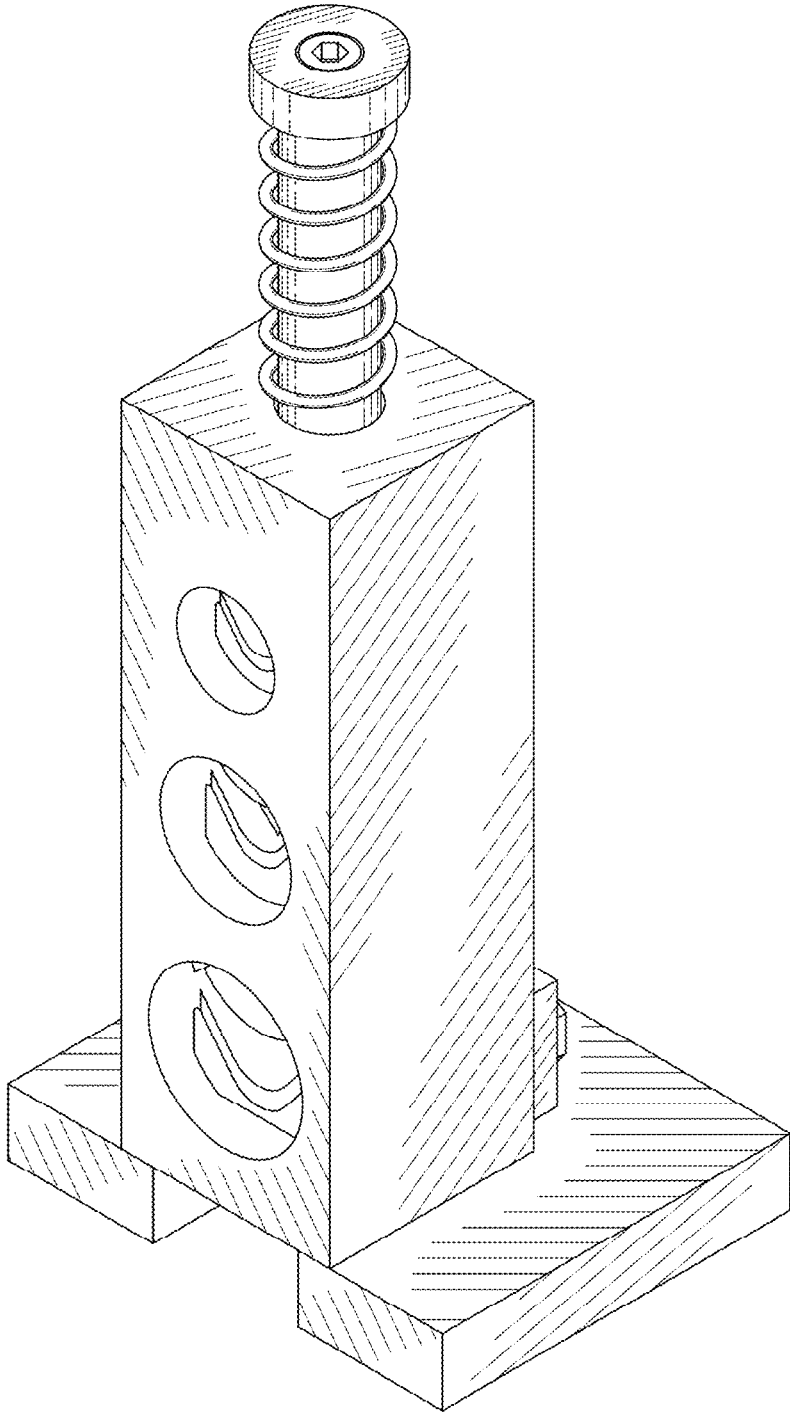


FIG. 1

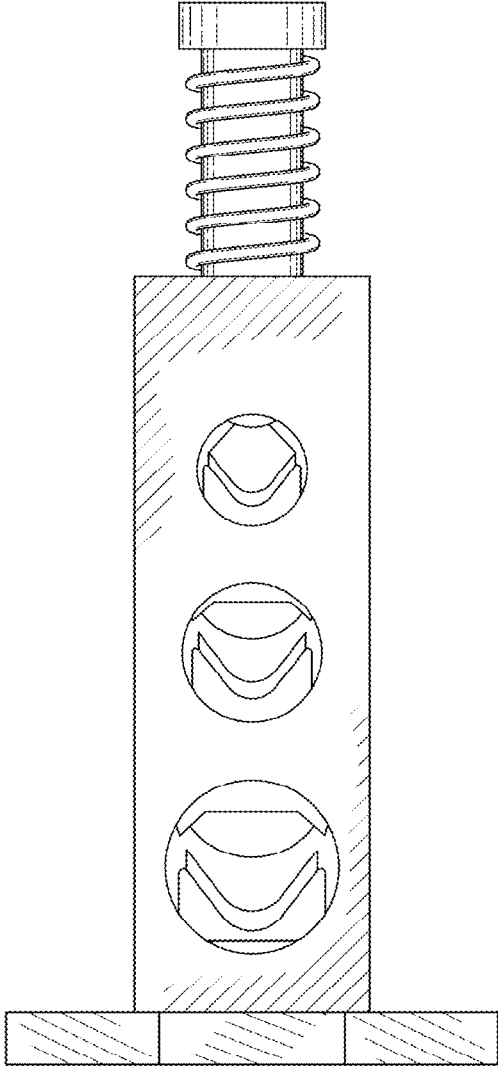


FIG. 2

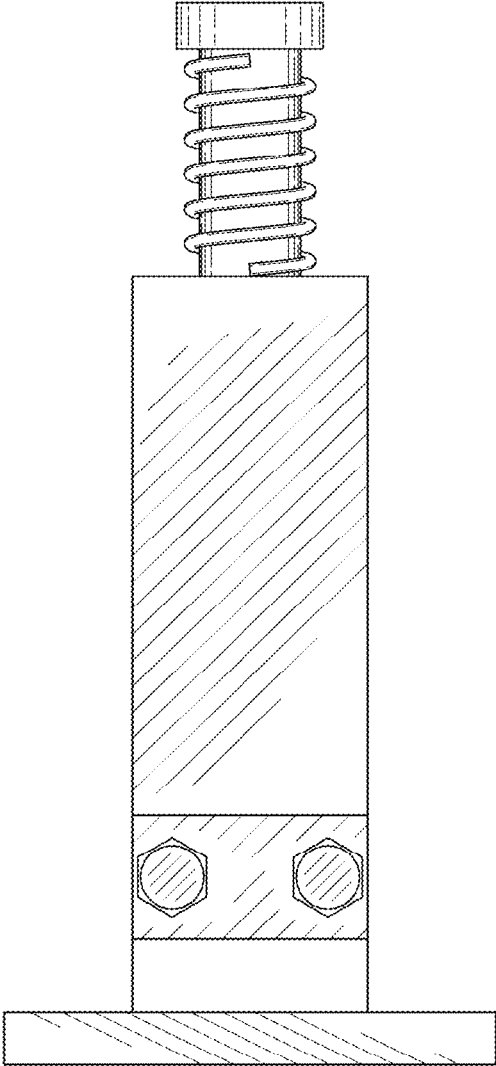


FIG. 3

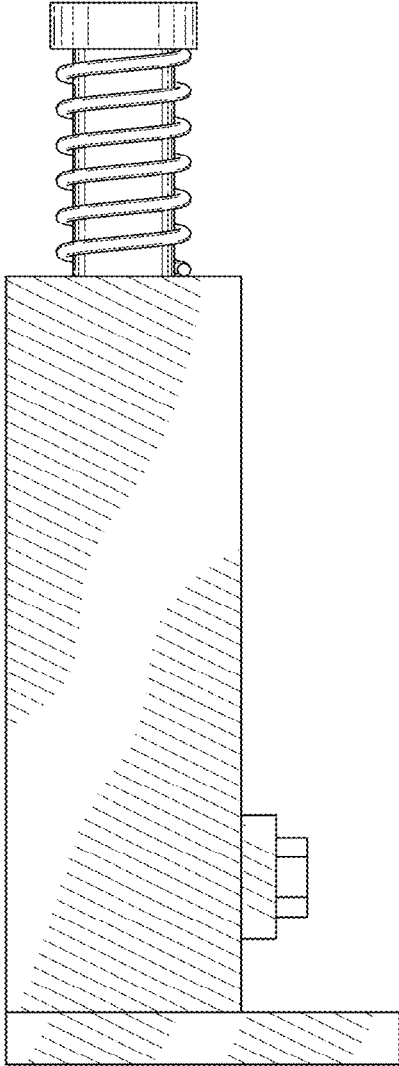


FIG. 4

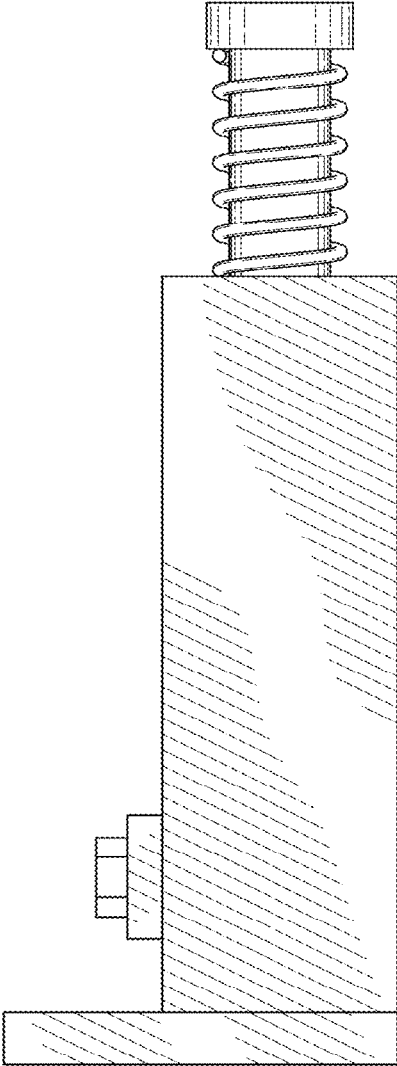


FIG. 5

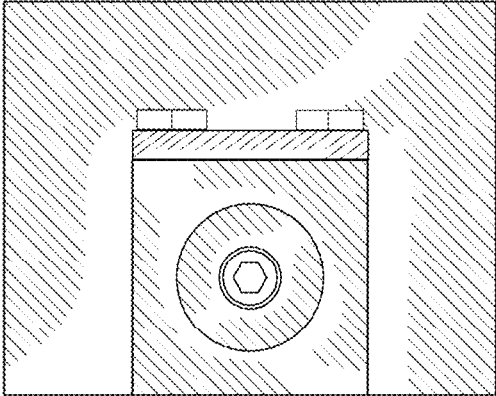


FIG. 6

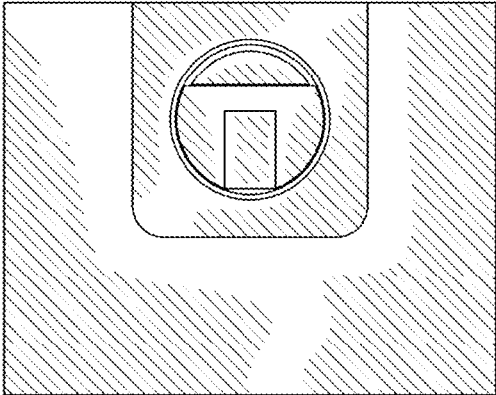


FIG. 7

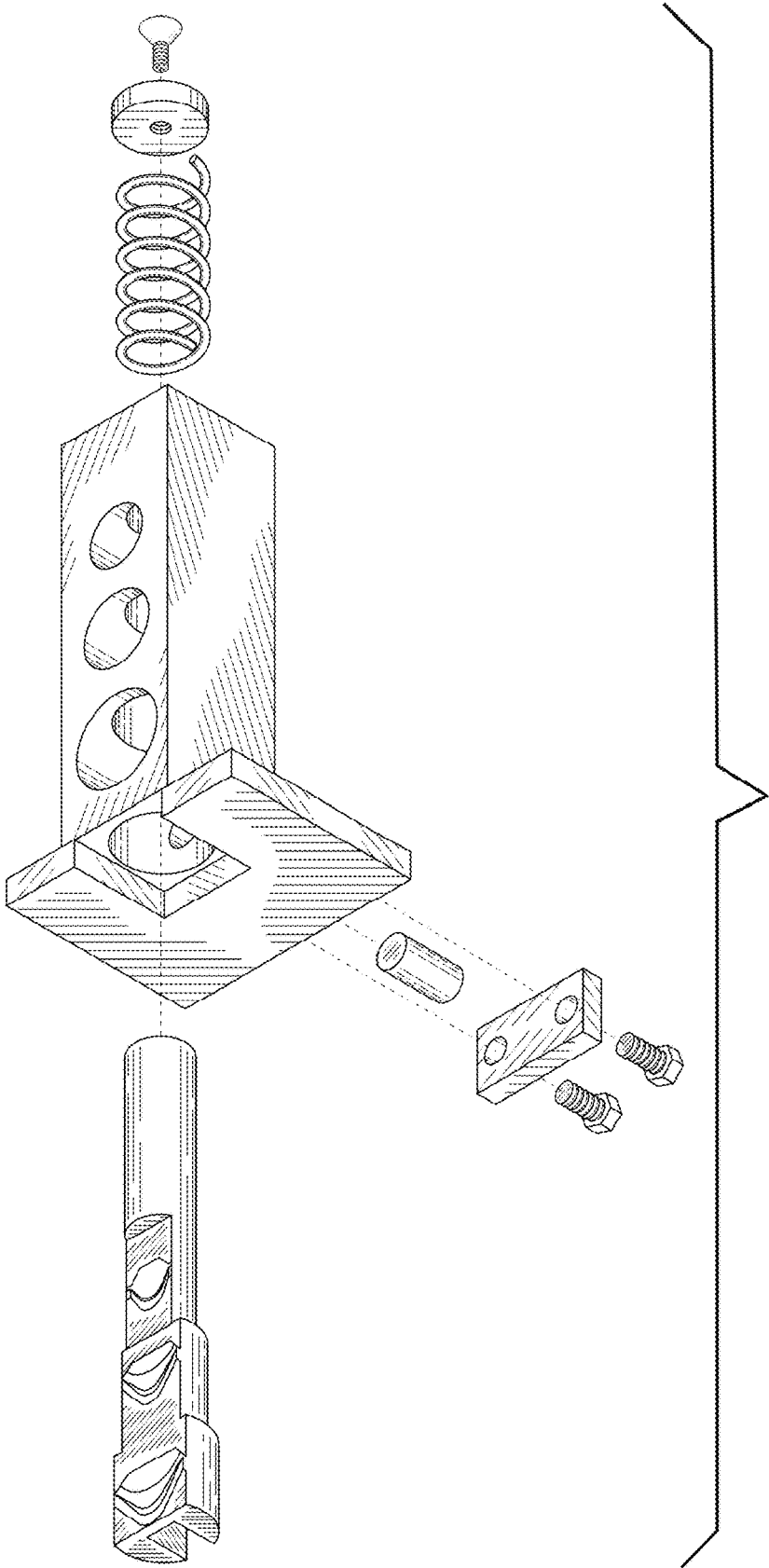


FIG. 8