US00D962297S

(12) United States Design Patent

Sullivan et al.

(10) Patent No.: US D962,297 S
(45) Date of Patent: ** Aug. 30, 2022

(54) **SIGNAL TRANSMISSION PIN FOR A PERFORATING GUN ASSEMBLY**

(71) Applicant: **XConnect, LLC**, Denver, CO (US)

(72) Inventors: **Shelby L. Sullivan**, Minot, ND (US); **Aaron Holmberg**, Omaha, NE (US); **Nicholas N. Kleinschmit**, Omaha, NE (US)

(73) Assignee: **XConnect, LLC**, Denver, CO (US)

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

(21) Appl. No.: **29/826,372**

(22) Filed: **Feb. 11, 2022**

Related U.S. Application Data

(62) Division of application No. 29/745,004, filed on Aug. 3, 2020, now Pat. No. Des. 950,611.

(51) **LOC (13) Cl.** **15-03**

(52) **U.S. Cl.**
USPC **D15/21**

(58) **Field of Classification Search**
USPC D15/21
CPC E21B 43/11; E21B 43/112; E21B 43/114; E21B 43/116; E21B 43/117; E21B 43/119; E21B 43/00; F42D 1/04; F42D 1/05; F42D 1/043
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

10,731,444	B2 *	8/2020	Wells	E21B 43/116
10,858,919	B2 *	12/2020	Anthony	E21B 43/119
10,914,145	B2 *	2/2021	Sullivan	E21B 43/117
11,078,763	B2 *	8/2021	Anthony	E21B 43/119
11,091,987	B1 *	8/2021	Benker	E21B 43/1185
2012/0199352	A1 *	8/2012	Lanclos	E21B 43/119 166/65.1

(Continued)

Primary Examiner — Mark A Goodwin

(74) *Attorney, Agent, or Firm* — Peter L. Brewer; Thrive IP

(57) **CLAIM**

The ornamental design for a signal transmission pin for a perforating gun assembly, as shown and described.

DESCRIPTION

FIG. **1** is a first perspective view of a signal transmission pin for a perforating gun assembly, showing our new design. The signal transmission pin is shown residing within a bulkhead.

FIG. **2** is a second perspective view of the signal transmission pin for a perforating gun assembly and bulkhead of FIG. **1**, shown from a different angle.

FIG. **3** is a front plan view of the signal transmission pin for a perforating gun assembly and bulkhead of FIG. **1**.

FIG. **4** is a rear plan view thereof.

FIG. **5** is a top plan view thereof.

FIG. **6** is a bottom plan view thereof.

FIG. **7** is a right side elevation view thereof.

FIG. **8** is a left side elevation view thereof.

FIG. **9** is a third perspective view of the signal transmission pin and bulkhead of FIGS. **1** and **2**. Here, the o-rings have been removed.

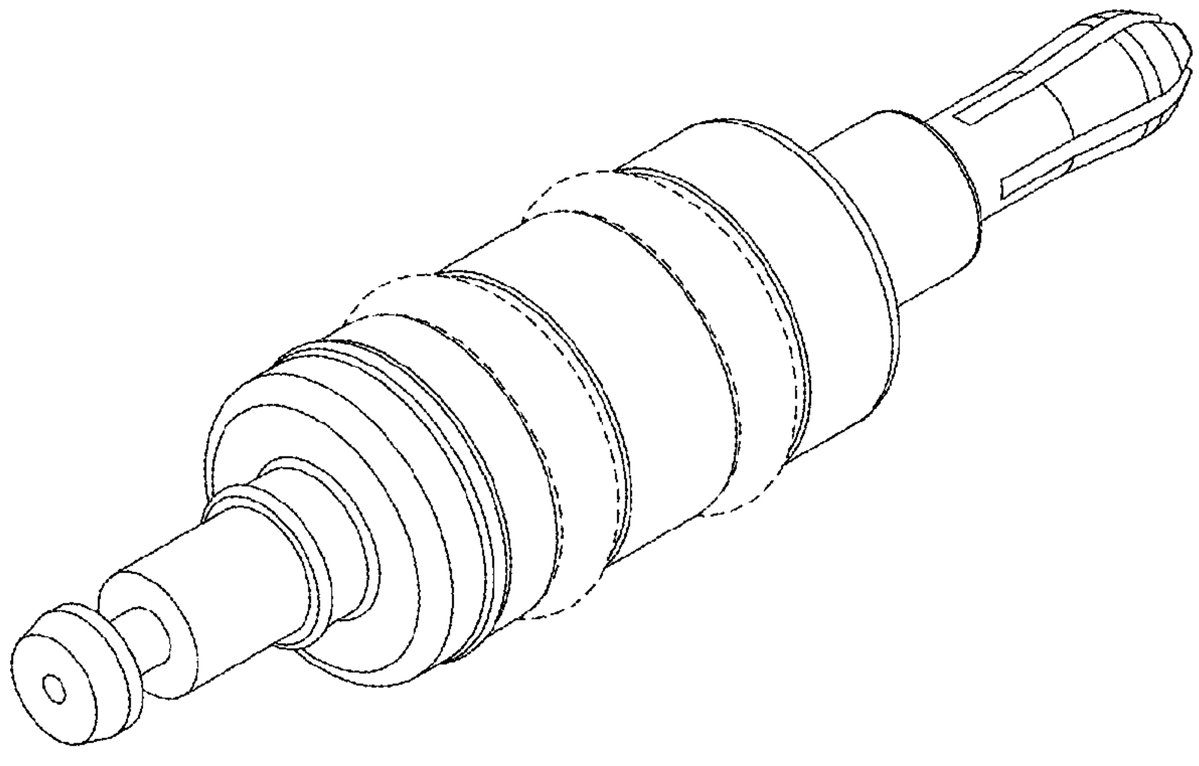
FIG. **10** is a fourth perspective view of the signal transmission pin for a perforating gun assembly and bulkhead of FIG. **9**, shown from a different angle

FIG. **11** is a front plan view of the signal transmission pin for a perforating gun assembly and bulkhead of FIGS. **1** and **2**, with o-rings attached; and,

FIG. **12** is a rear plan view of the signal transmission pin and bulkhead of FIG. **11**.

The broken lines in the drawings depict portions of the signal transmission pin for a perforating gun assembly that form no part of the claimed designs.

1 Claim, 5 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

2020/0217635 A1* 7/2020 Eitschberger F42D 1/05
2020/0308938 A1* 10/2020 Sullivan E21B 43/119

* cited by examiner

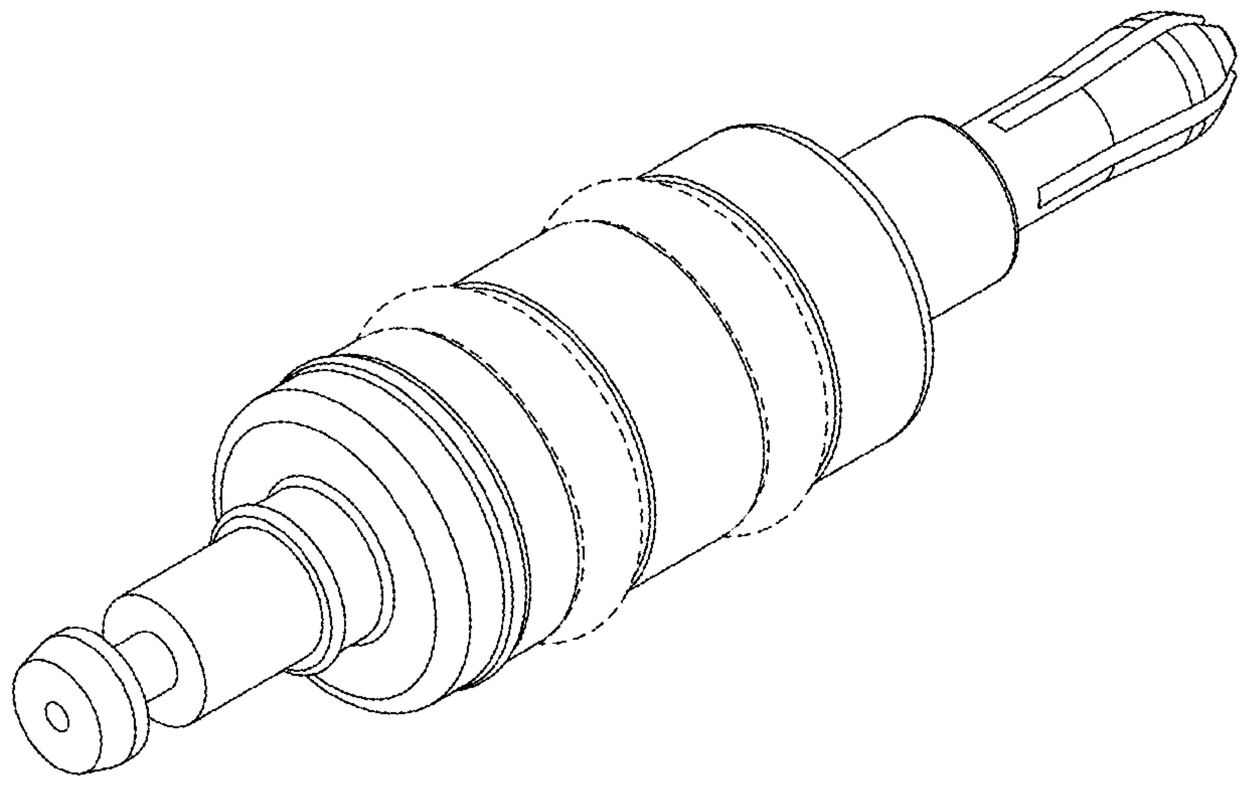


FIG. 1

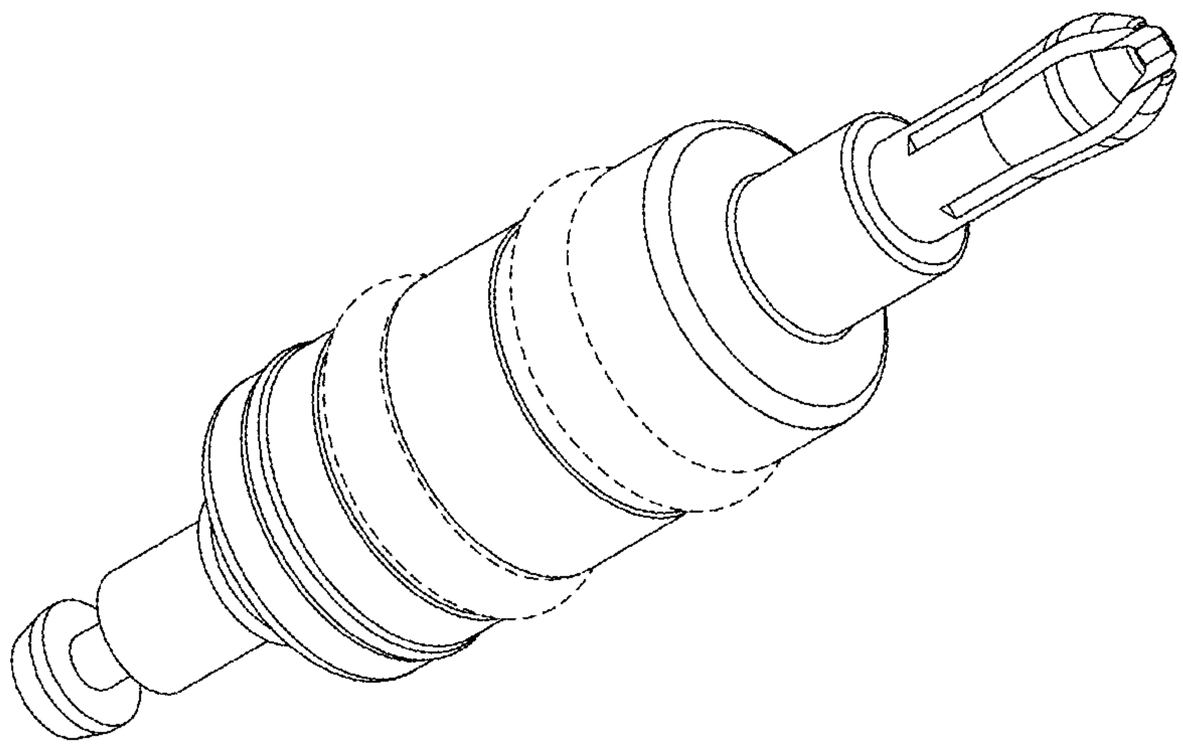


FIG. 2

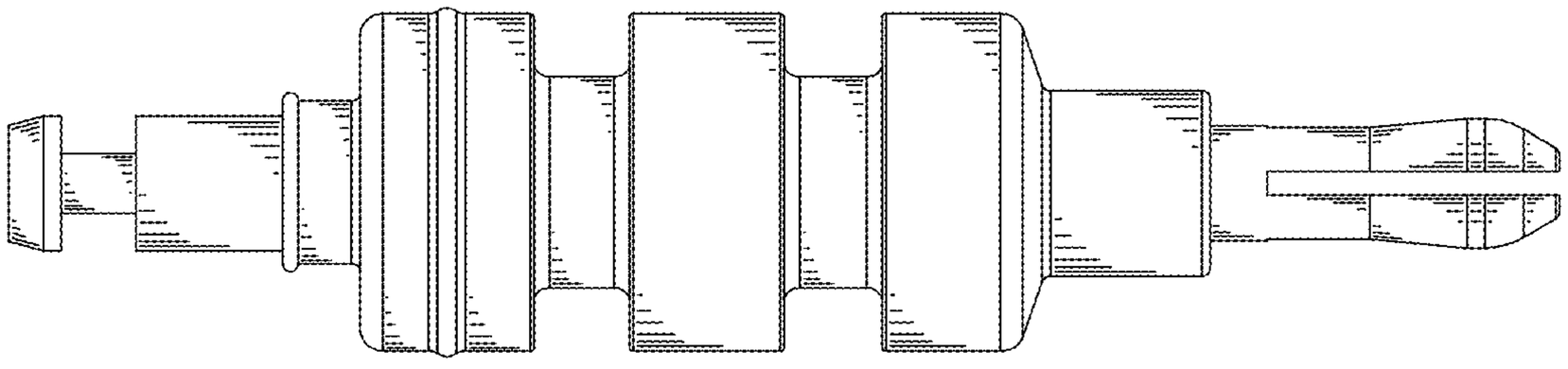


FIG. 3

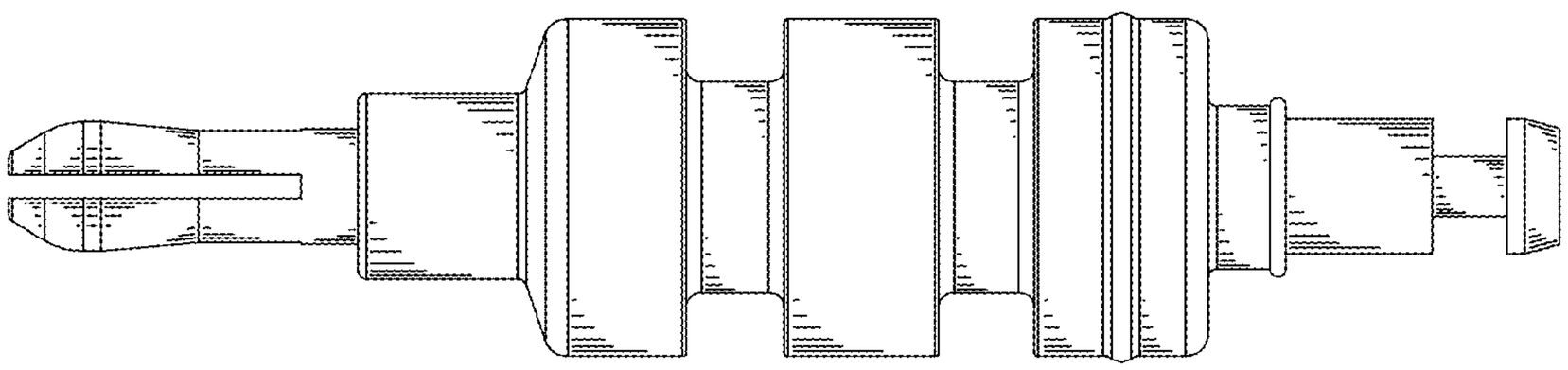


FIG. 4

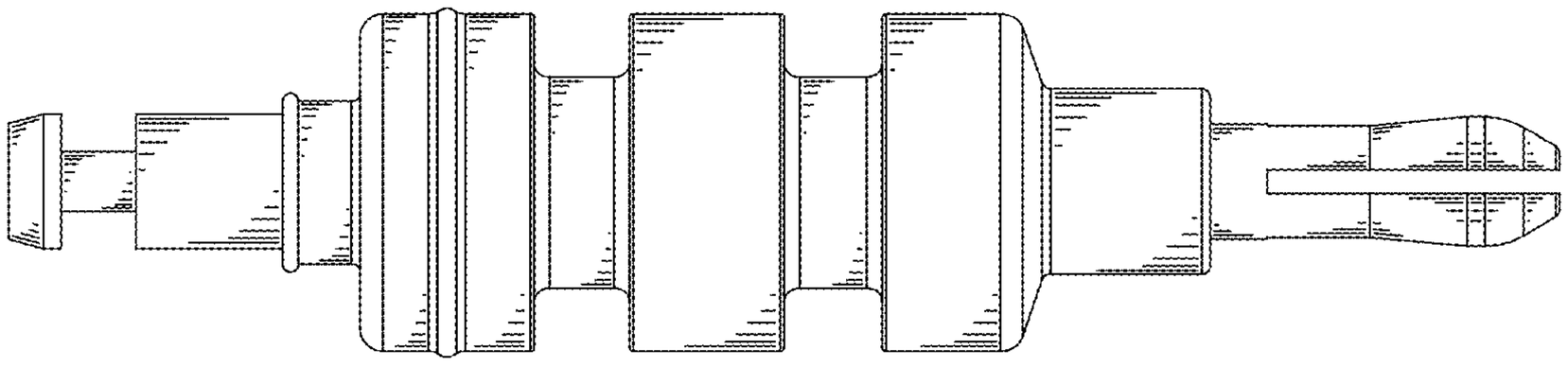


FIG. 5

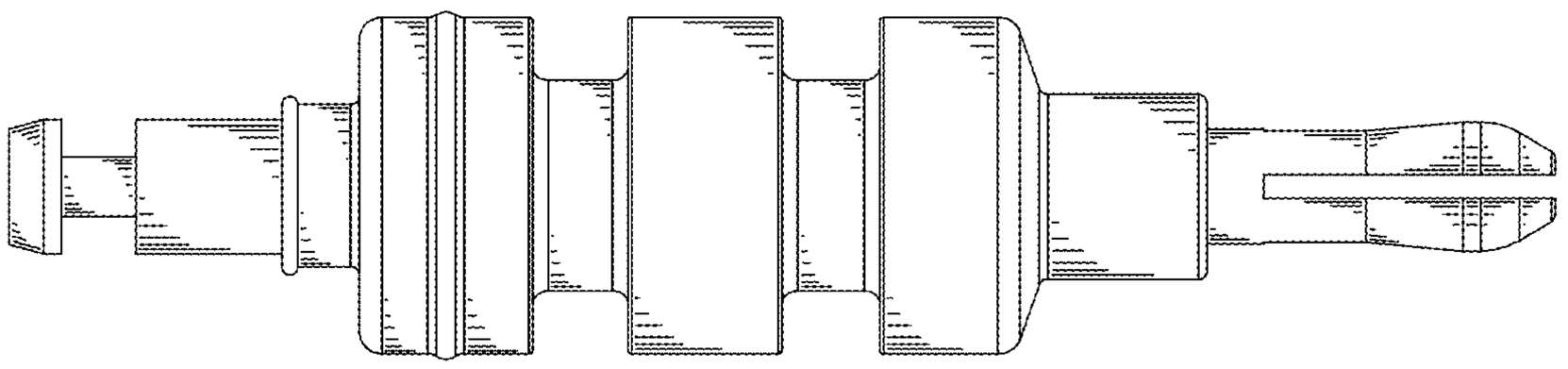


FIG. 6

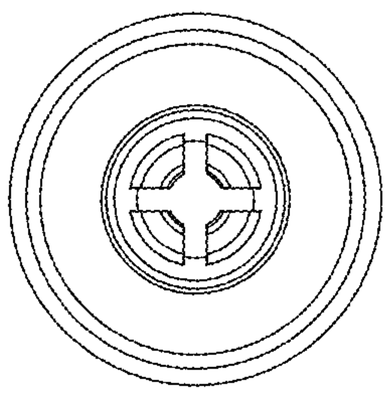


FIG. 7

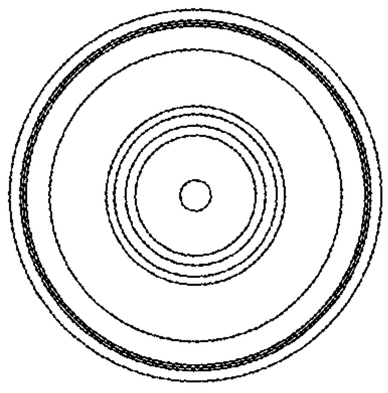


FIG. 8

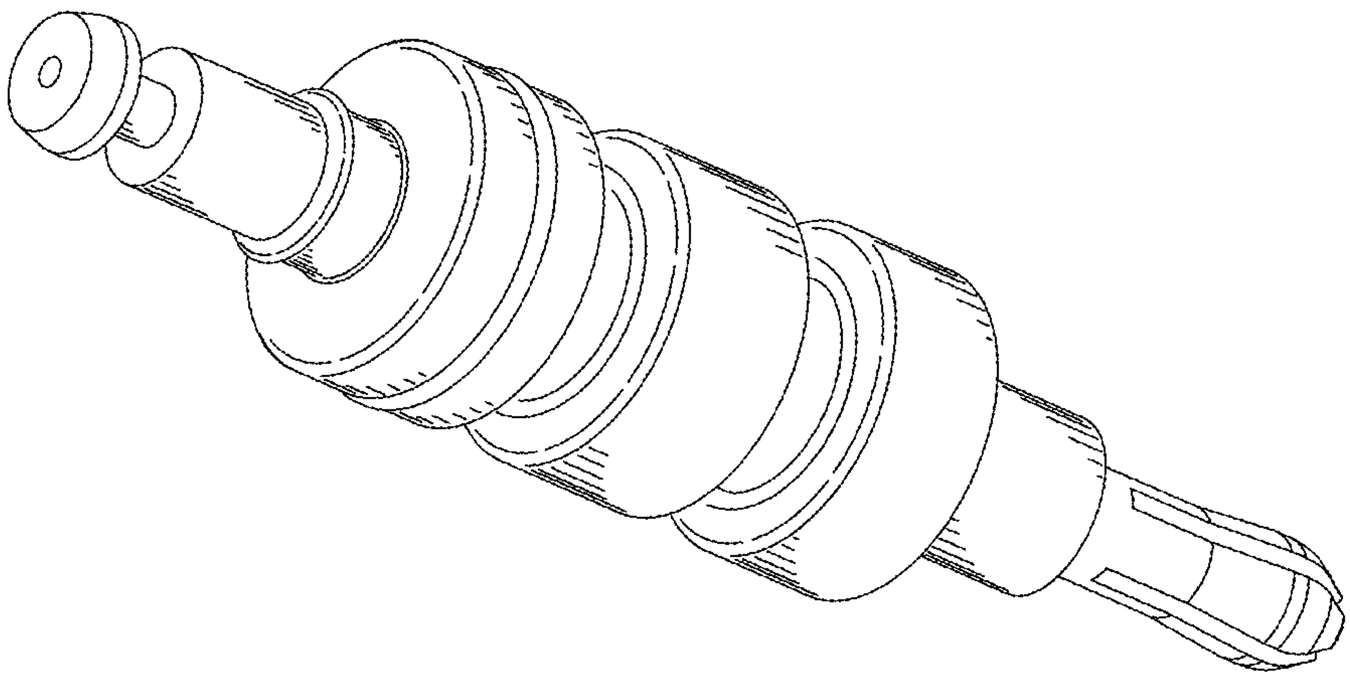


FIG. 9

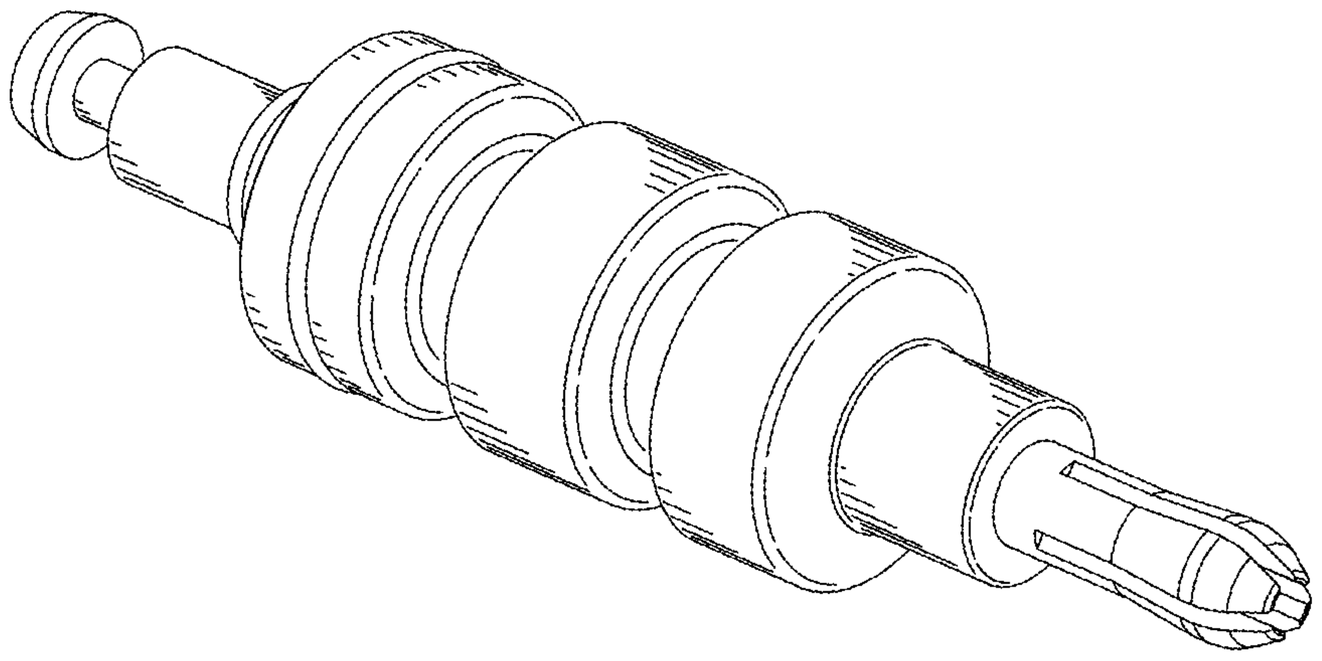


FIG. 10

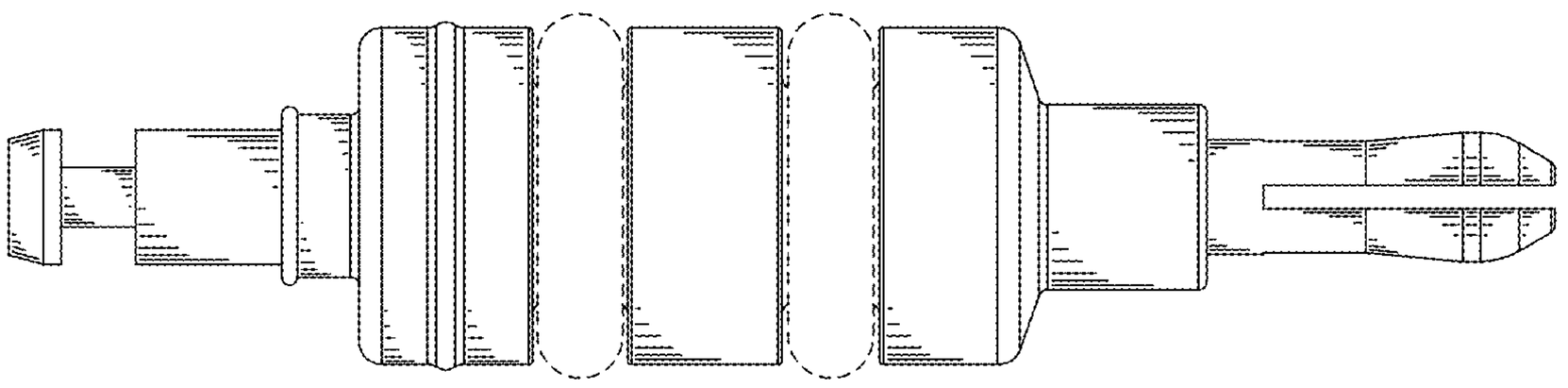


FIG. 11

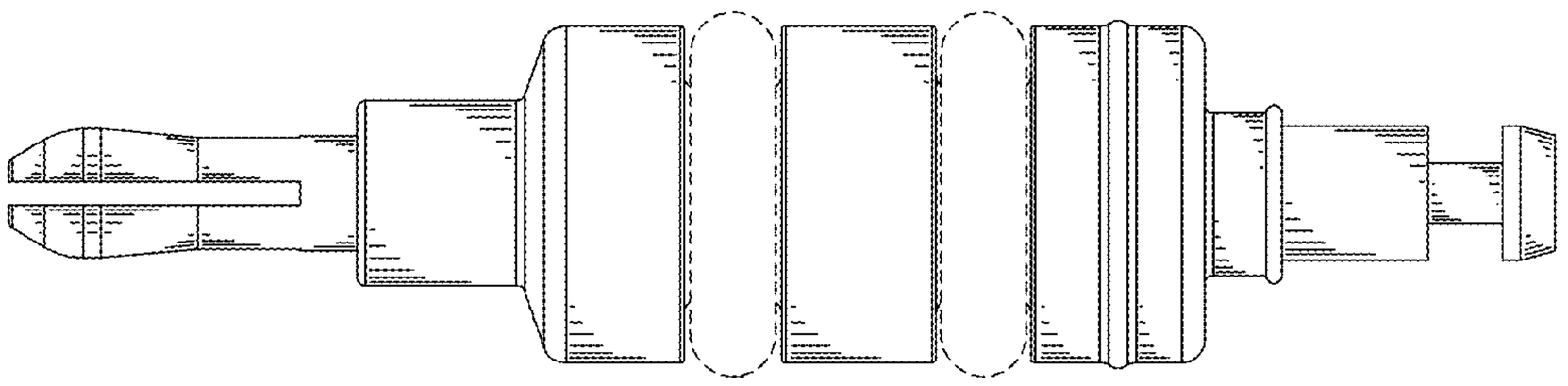


FIG. 12