



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

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(54) **HORIZONTAL DIRECTIONAL DRILL FRAME**
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(73) Assignee: **Roddie, Inc.**, Columbia Falls, MT (US)
(**) Term: **15 Years**
(21) Appl. No.: **29/573,641**

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(51) **LOC (12) Cl.** **15-09**
(52) **U.S. Cl.**
USPC **D15/141; D15/139**
(58) **Field of Classification Search**
USPC D8/14, 61; D10/46, 103, 104.1;
D15/122, 126, 130-132, 138-141
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,118,268 A * 11/1914 Coates B25H 1/0057
408/100
1,160,005 A * 11/1915 Snider B25H 1/0057
408/100

(Continued)

FOREIGN PATENT DOCUMENTS

CN 2011-K29288 * 7/2017
DE 2009-N85563 * 6/2009

OTHER PUBLICATIONS

Company Website: Mclaughlin <http://www.mclaughlinunderground.com/products/pit-launch-drill/>.

(Continued)

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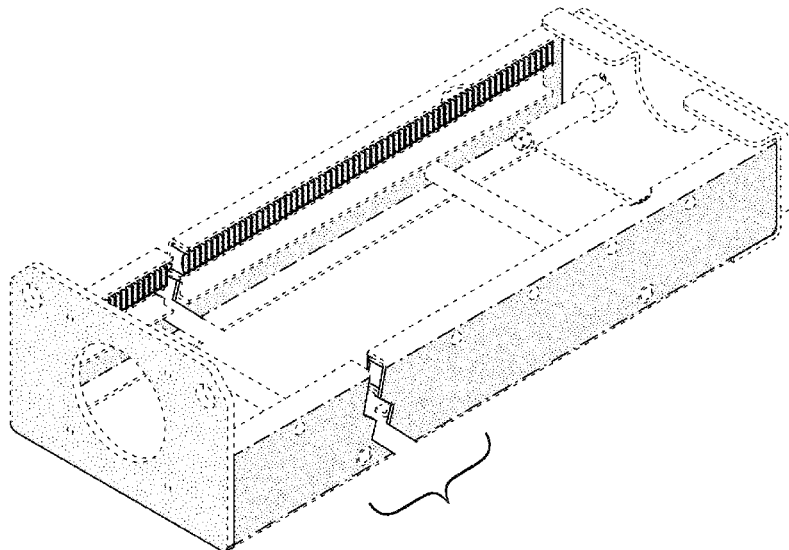
(57) **CLAIM**

The ornamental design for a horizontal directional drill frame, as shown and described.

DESCRIPTION

FIG. 1 is an isometric view shown from the front, right, top perspective, of a horizontal directional drill frame, in accordance with the present design;
FIG. 2 is an isometric view shown from the back, left, top perspective view thereof;
FIG. 3 is an isometric view shown from the front, left, bottom perspective view thereof
FIG. 4 is a top plan view thereof;
FIG. 5 is a bottom plan view thereof;
FIG. 6 is a left side elevation view thereof, with the right side being a substantially mirror image thereof;
FIG. 7 is a front elevation view thereof;
FIG. 8 is a back elevation view thereof; and,
FIG. 9 is an isometric view from the front, right, top perspective view, with a horizontal directional drill body embedded as environmental structure.
The broken lines show portions of a horizontal directional drill frame that form no part of the claimed design.
The dash-dot broken lines show the bounds of the claimed design, and form no part thereof.
The break lines seen in FIGS. 1-6, and 9 indicate a symbolic break in the length of the claimed design. Any portion that appears between the break lines form no part of the claimed design.
The stippling in the drawings are meant to show surface shading only, and does not convey a specific texture, material, or color, and forms no part of the claimed design.

1 Claim, 5 Drawing Sheets



(58) **Field of Classification Search**
 CPC .. B25H 1/0021; B25H 1/0057; Y10S 409/903
 See application file for complete search history.

9,816,320 B1 * 11/2017 Herrick E21B 7/04
 D815,671 S * 4/2018 Terabe D15/135
 D819,709 S * 6/2018 Hunt D15/138
 2017/0183911 A1 * 6/2017 Herrick E21B 7/022

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,600,911 A * 9/1926 Tatton B25H 1/0057
 408/101
 D279,477 S * 7/1985 Mittleman D15/139
 D283,712 S * 5/1986 Mittleman D15/139
 D320,027 S * 9/1991 Mintz D15/138
 6,481,510 B1 * 11/2002 Desmarais E21B 7/02
 173/185
 D687,473 S * 8/2013 Edwards D15/141
 D698,377 S * 1/2014 McGaughy D15/141
 D746,537 S * 12/2015 Kuo D34/38
 D749,775 S * 2/2016 Provitola D26/118
 D796,562 S * 9/2017 lu D15/138

OTHER PUBLICATIONS

On-line Marketing Brochure: McLaughlin McL-10, by Mclaughlin Group, Inc. 2006 Perimeter Road, Greenville, SC 29605 <http://www.mclaughlinunderground.com/wp-content/uploads/2013/08/McL-10-Lit.pdf>.
 Manual: McLaughlin McL-10 Manual, pp. 1-13, by Mclaughlin Group, Inc. 2006 Perimeter Road, Greenville, SC 29605.
 Company Website: Powr Mole <http://powermole.com/index.html>.
 POW-R Mole PD-4, PD-6 Directional Drills—marketing brochure by Pow-r Devices, Inc., 1400 Commerce Pkwy, Lancaster, NY 14086.

* cited by examiner

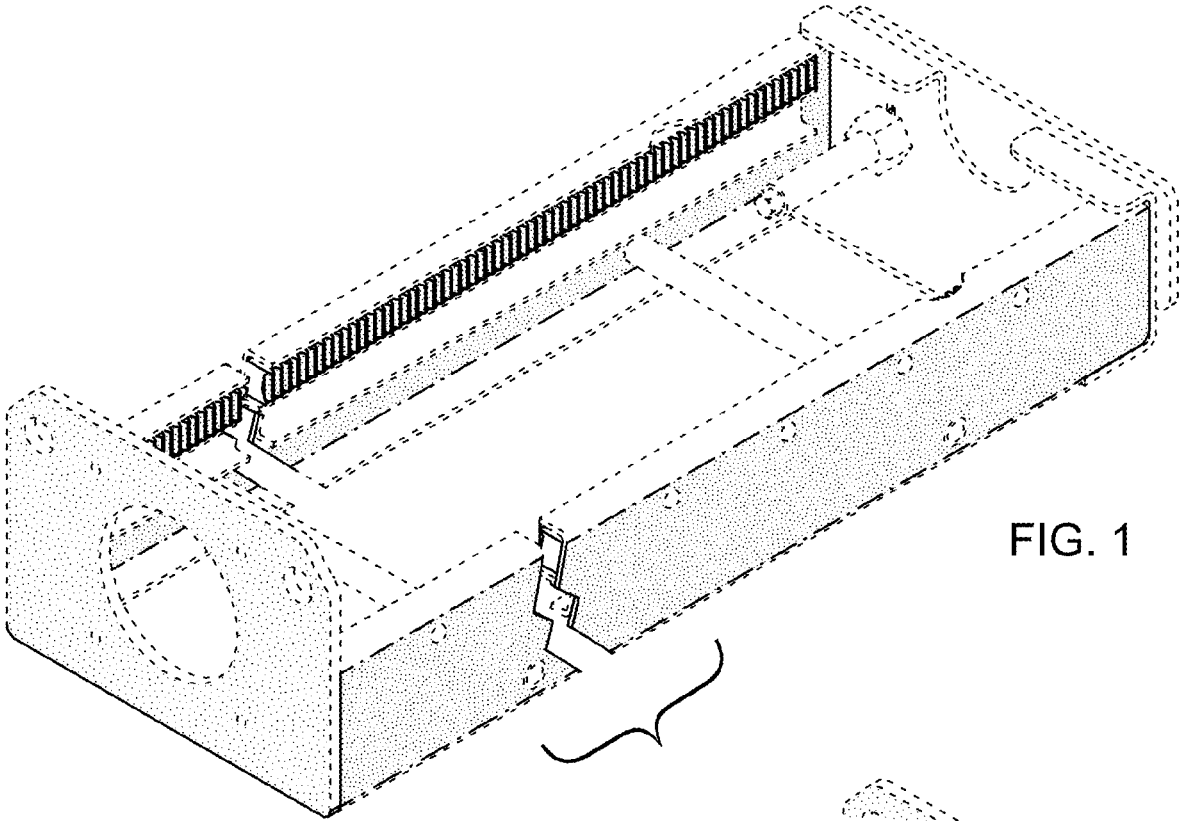


FIG. 1

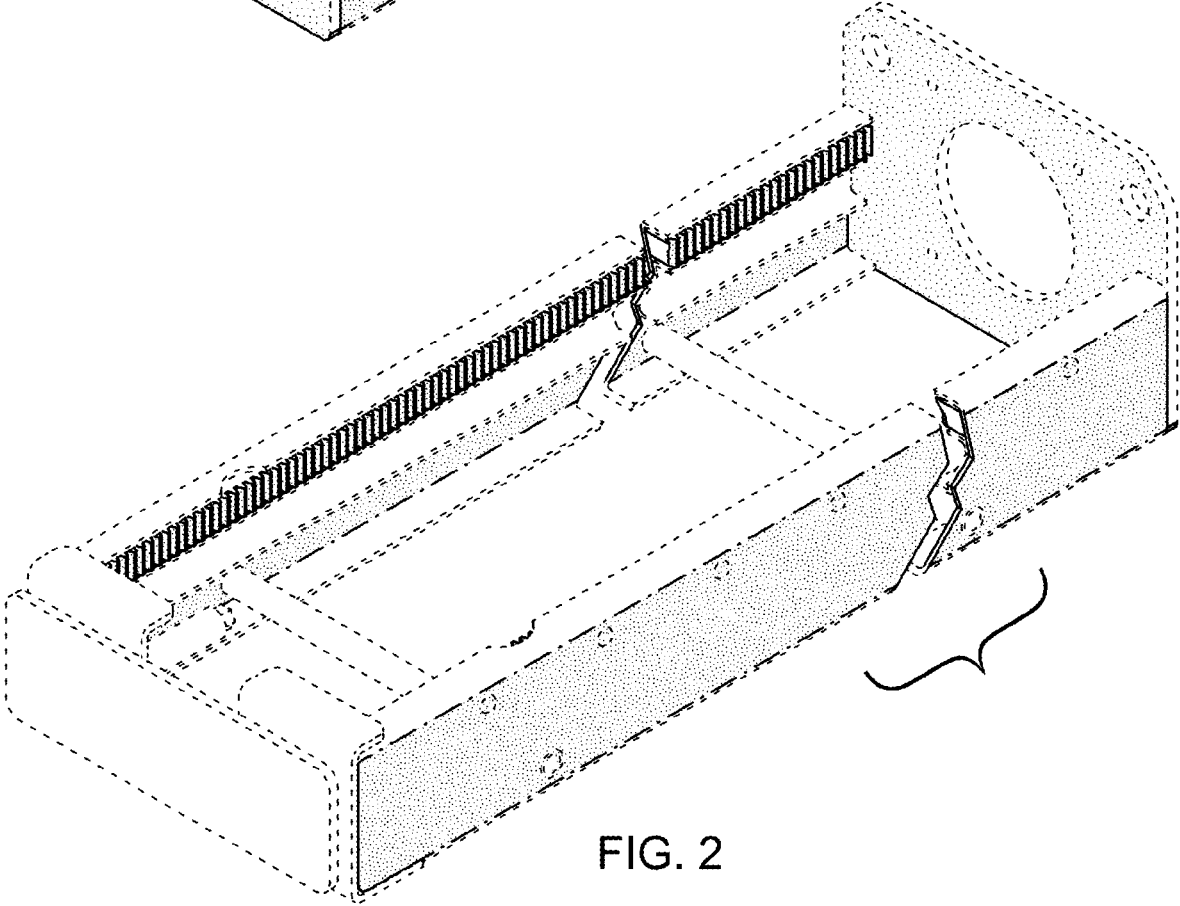
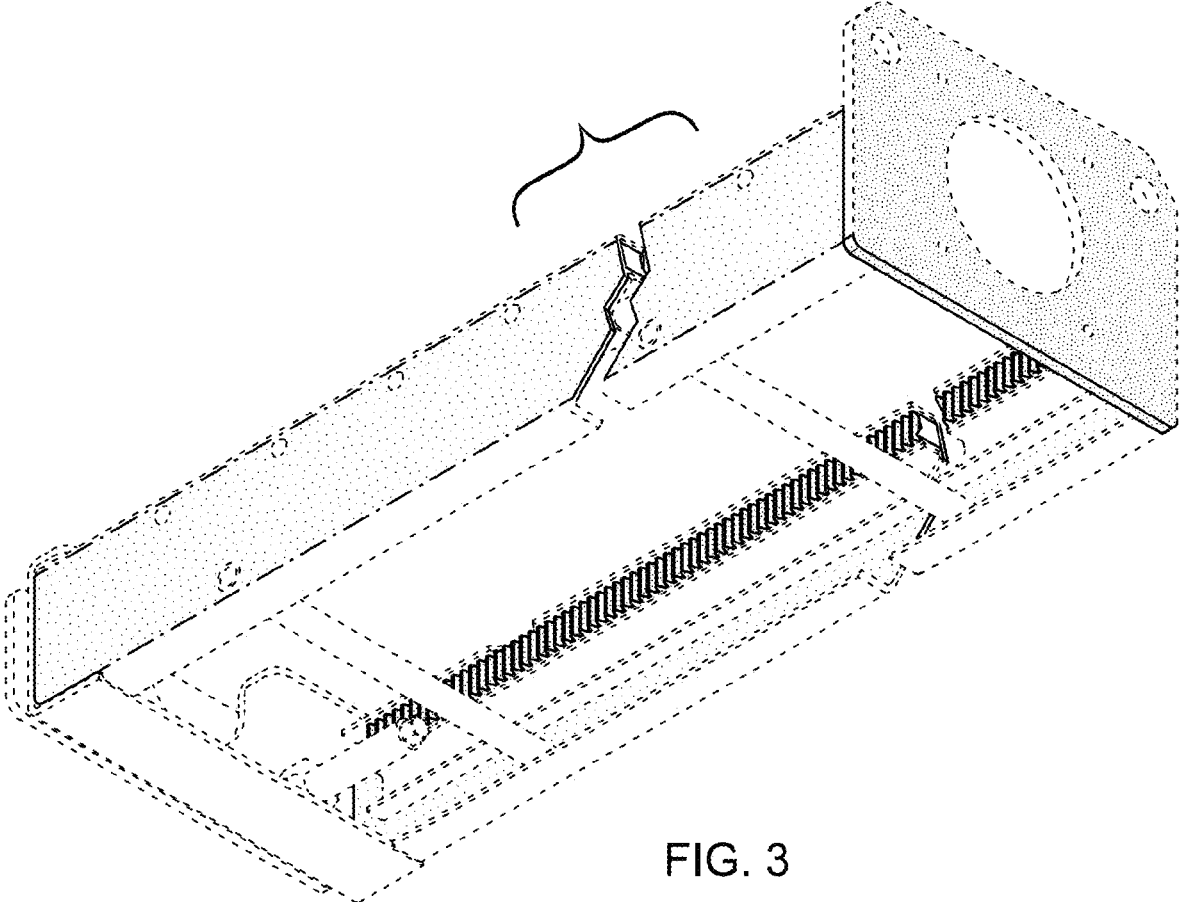


FIG. 2



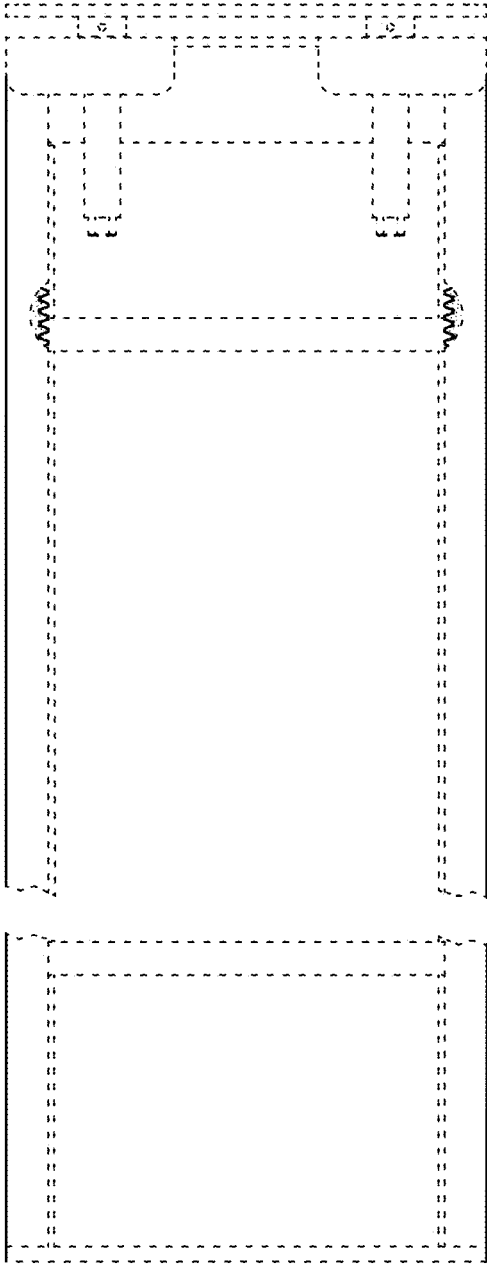


FIG. 4

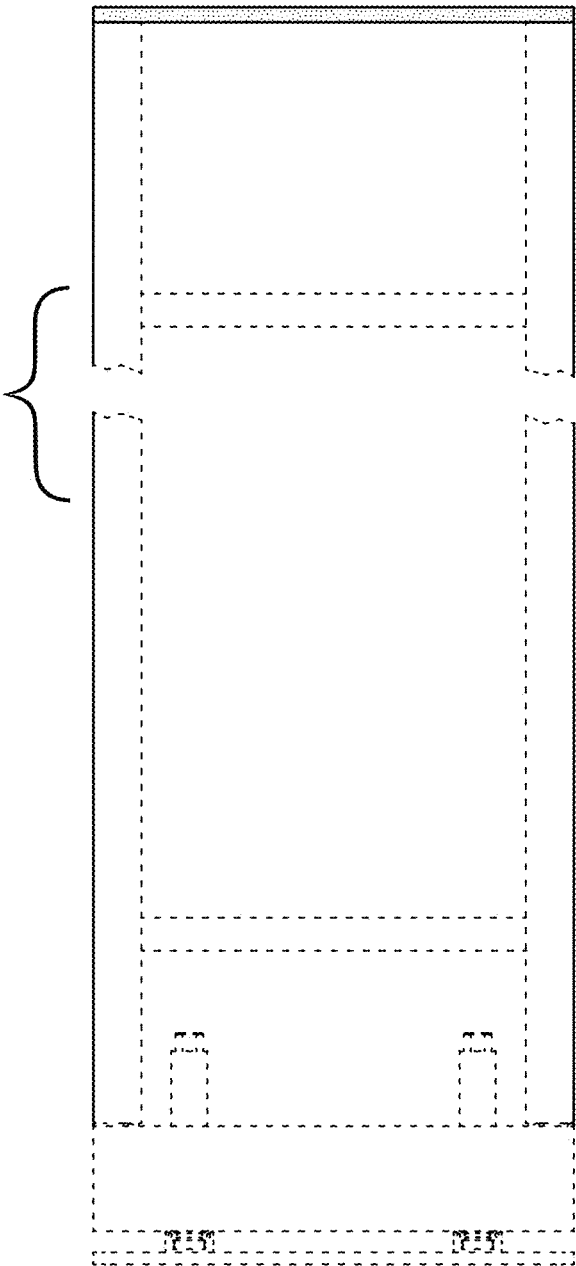


FIG. 5

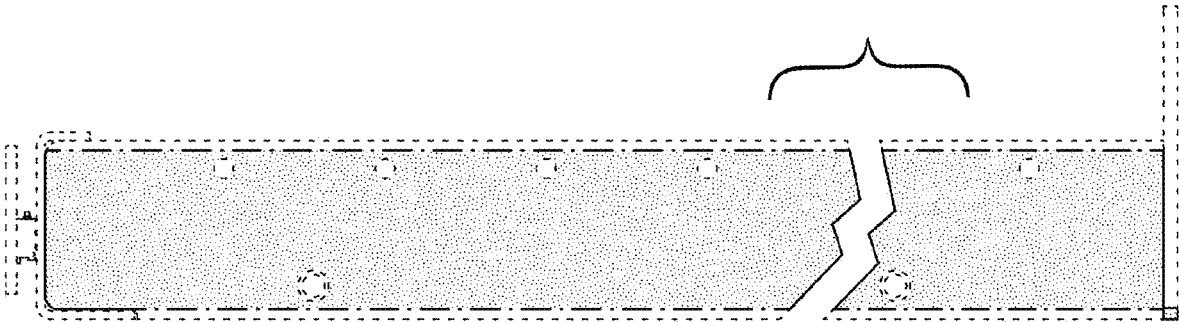


FIG. 6

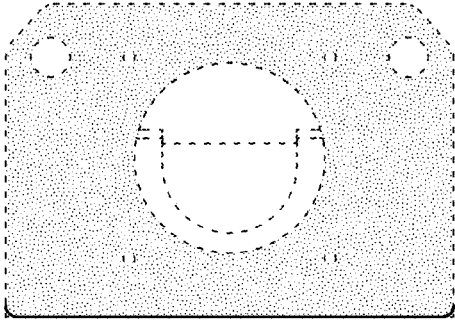


FIG. 7

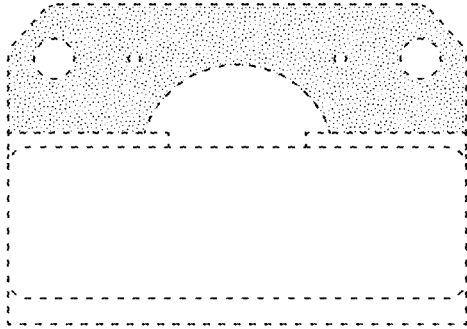


FIG. 8

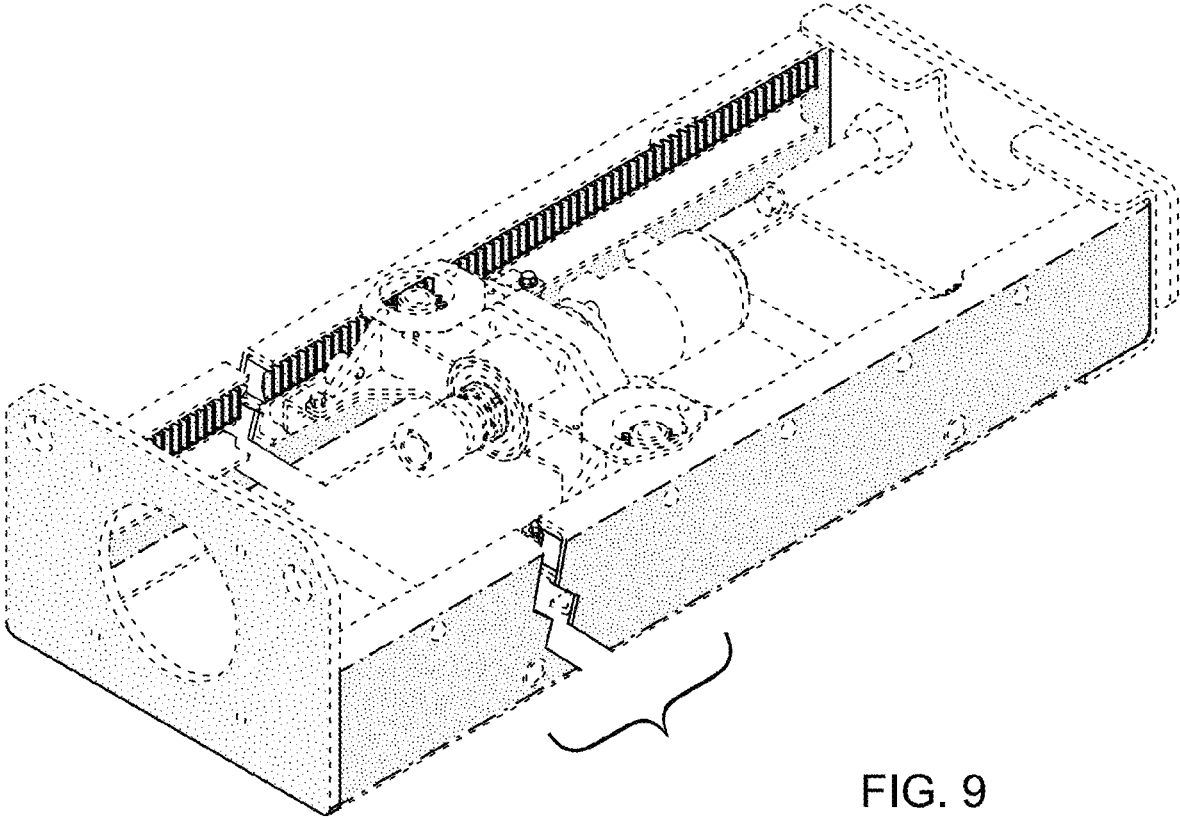


FIG. 9