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(12) **United States Design Patent** (10) **Patent No.:** **US D846,411 S**  
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(54) **METAL DETECTOR**

(71) Applicant: **SHANGHAI TYMEX INTERNATIONAL TRADE CO., LTD.**, Shanghai (CN)

(72) Inventor: **Yueling Zhang**, Shanghai (CN)

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

(21) Appl. No.: **29/635,106**

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(51) **LOC (11) Cl.** ..... **10-04**

(52) **U.S. Cl.**  
USPC ..... **D10/47**

(58) **Field of Classification Search**  
USPC ..... D10/47  
CPC ... G01V 3/00; G01V 3/02; G01V 3/04; G01V 3/06; G01V 3/08; G01V 3/081; G01V 3/082; G01V 3/083; G01V 2003/084; G01V 2003/085; G01V 2003/086; G01V 3/087; G01V 3/088; G01V 3/10; G01V 3/101; G01V 3/102; G01V 3/104; G01V 3/105; G01V 3/107; G01V 3/108; G01V 3/12; G01V 3/14; G01V 3/15; G01V 3/16; G01V 3/165; G01V 3/17; G01V 3/175; G01V 3/18; G01V 3/20; G01V 3/22; G01V 3/24; G01V 3/26; G01V 3/265; G01V 3/28; G01V 3/30; G01V 3/32; G01V 3/34; G01V 3/36; G01V 3/38; G01V 3/40

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D187,385 S *	3/1960	Sirovica .....	D10/103
D218,705 S *	9/1970	Doss .....	D10/47
8,842,035 B2 *	9/2014	Duvoisin .....	G01S 13/885 342/22
9,021,661 B2 *	5/2015	Andel .....	G01V 3/15 16/429
9,664,809 B2 *	5/2017	Fry .....	G01V 3/104
9,733,353 B1 *	8/2017	Carlson .....	G01S 13/885
9,864,089 B2 *	1/2018	Andel .....	G01V 3/15

\* cited by examiner

*Primary Examiner* — Antoine Duval Davis

(74) *Attorney, Agent, or Firm* — W&K IP

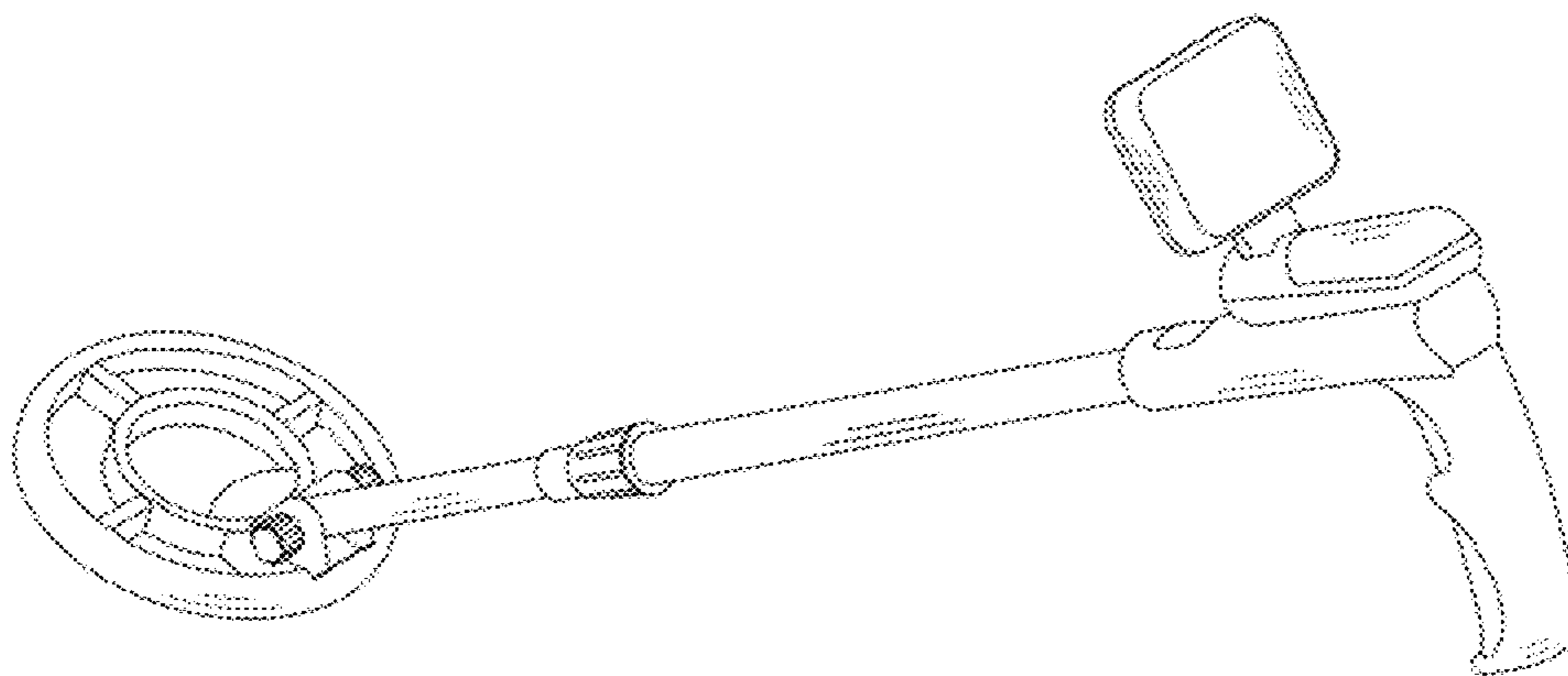
(57) **CLAIM**

The ornamental design for a metal detector, as shown and described.

**DESCRIPTION**

FIG. 1 is a front elevation view of a metal detector;  
FIG. 2 is a rear elevation view thereof;  
FIG. 3 is a left side elevation view thereof;  
FIG. 4 is a right side elevation view thereof;  
FIG. 5 is a top plan the view thereof;  
FIG. 6 is a bottom plan the view thereof; and,  
FIG. 7 is a perspective view thereof.

**1 Claim, 3 Drawing Sheets**



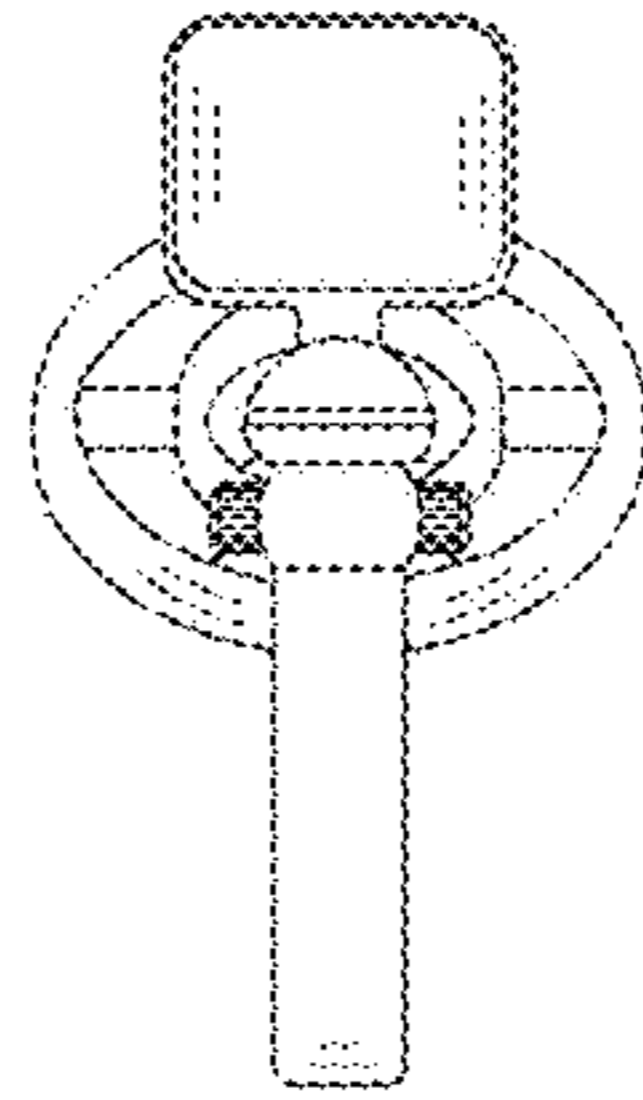


Fig. 1

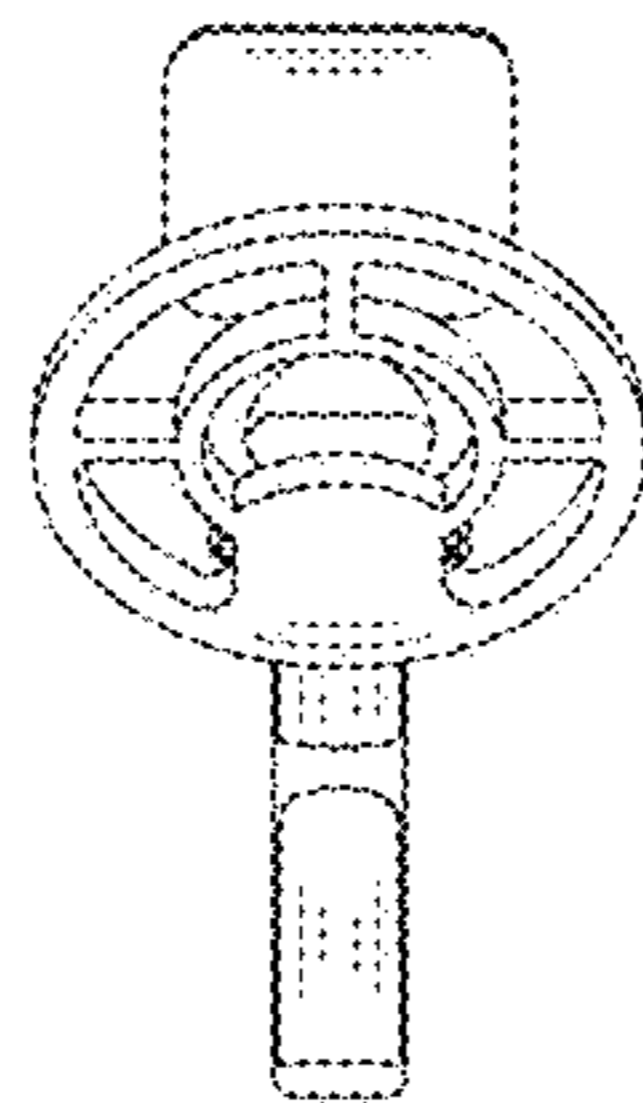


Fig. 2

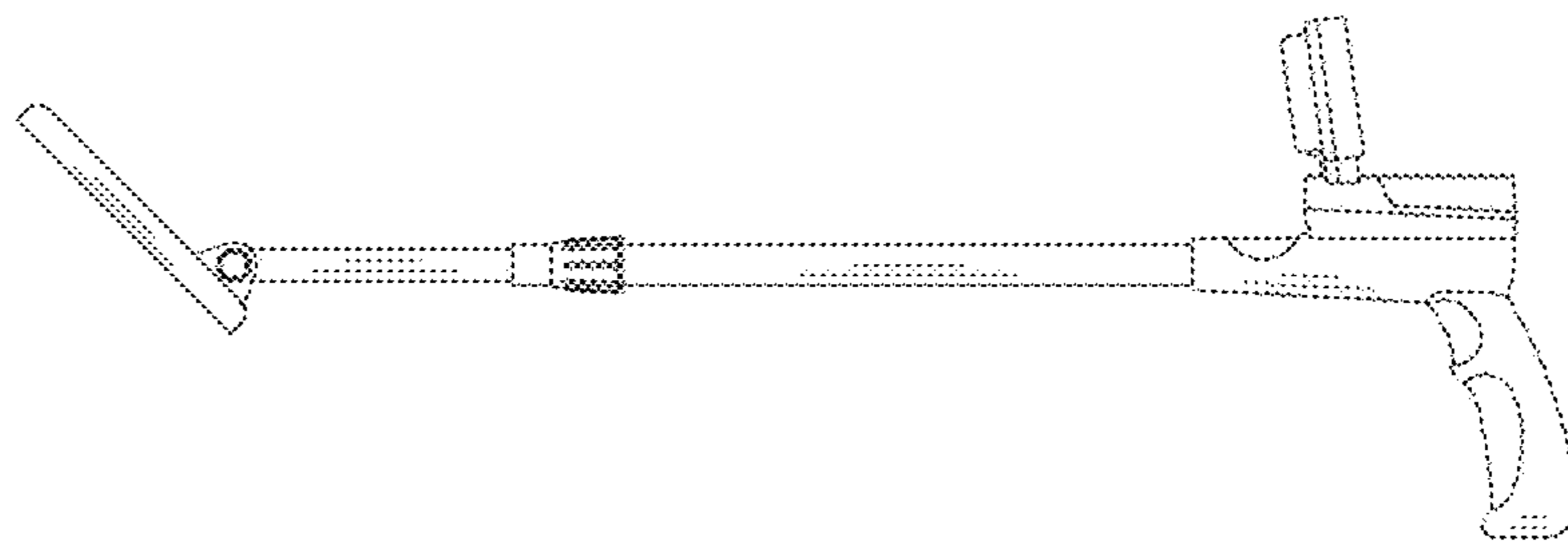


Fig. 3

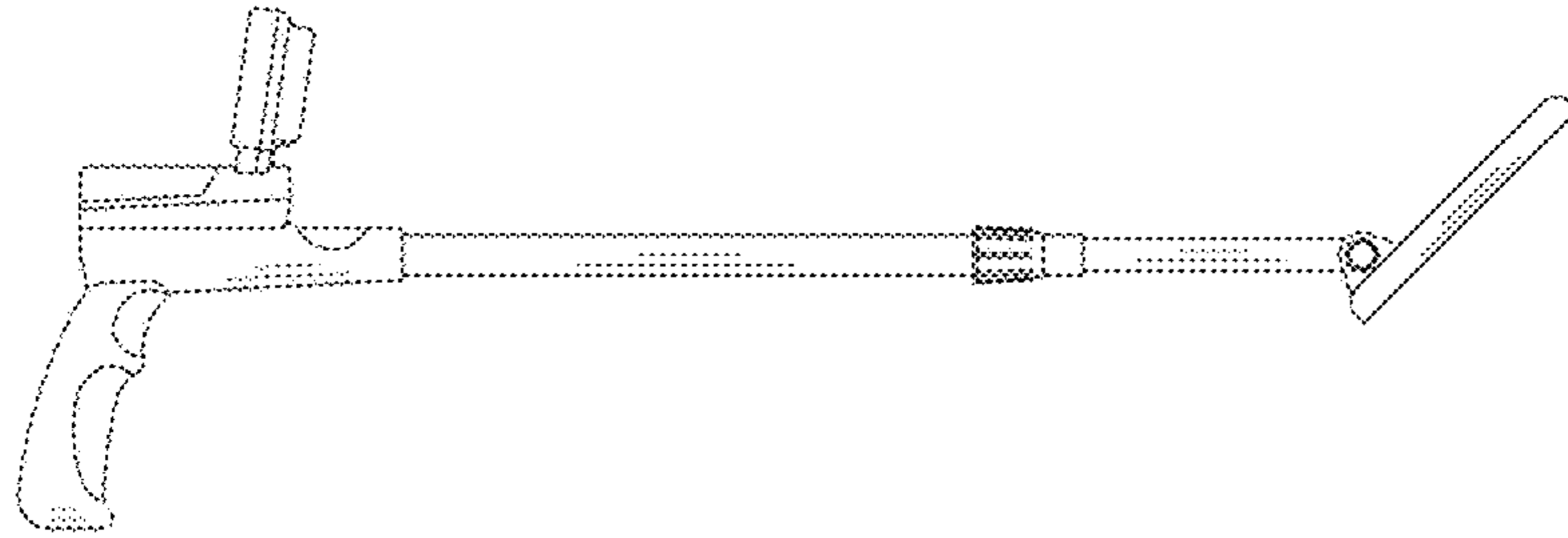


Fig. 4

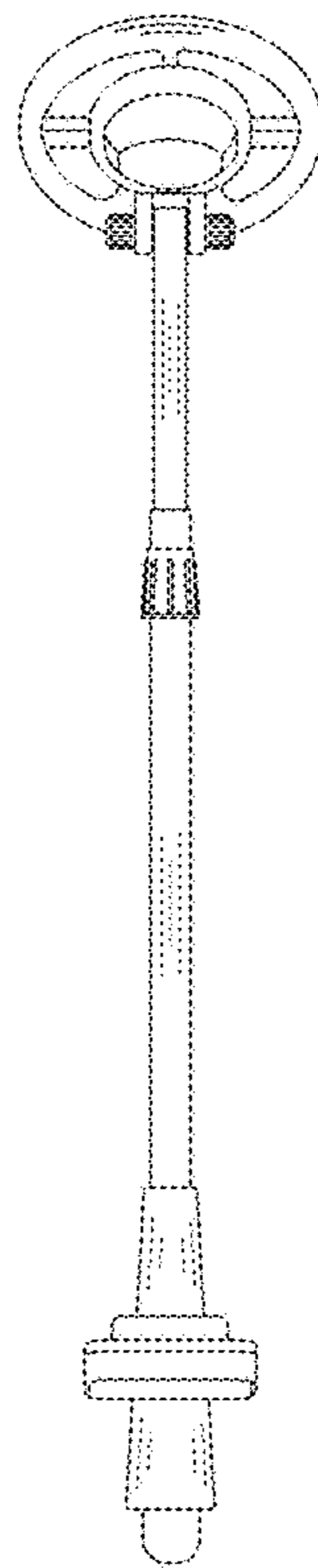


Fig. 5

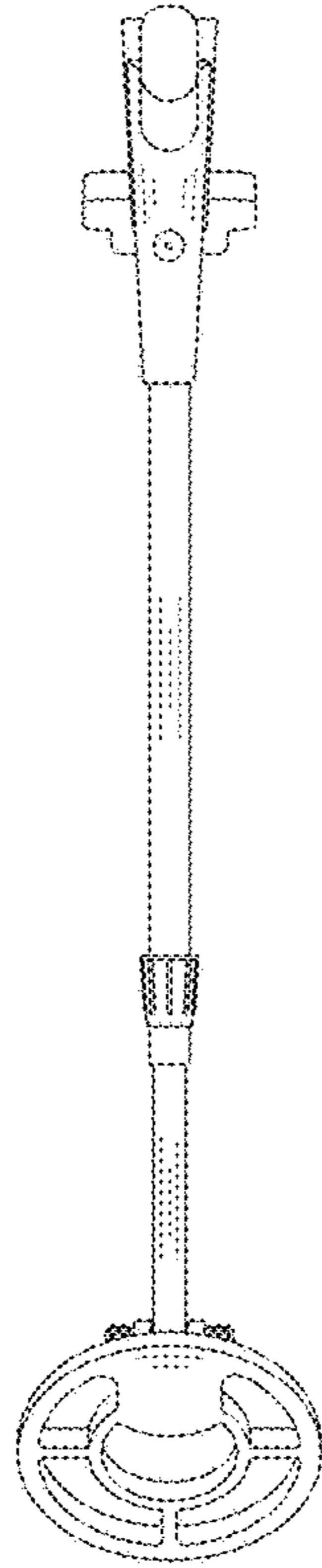


Fig. 6

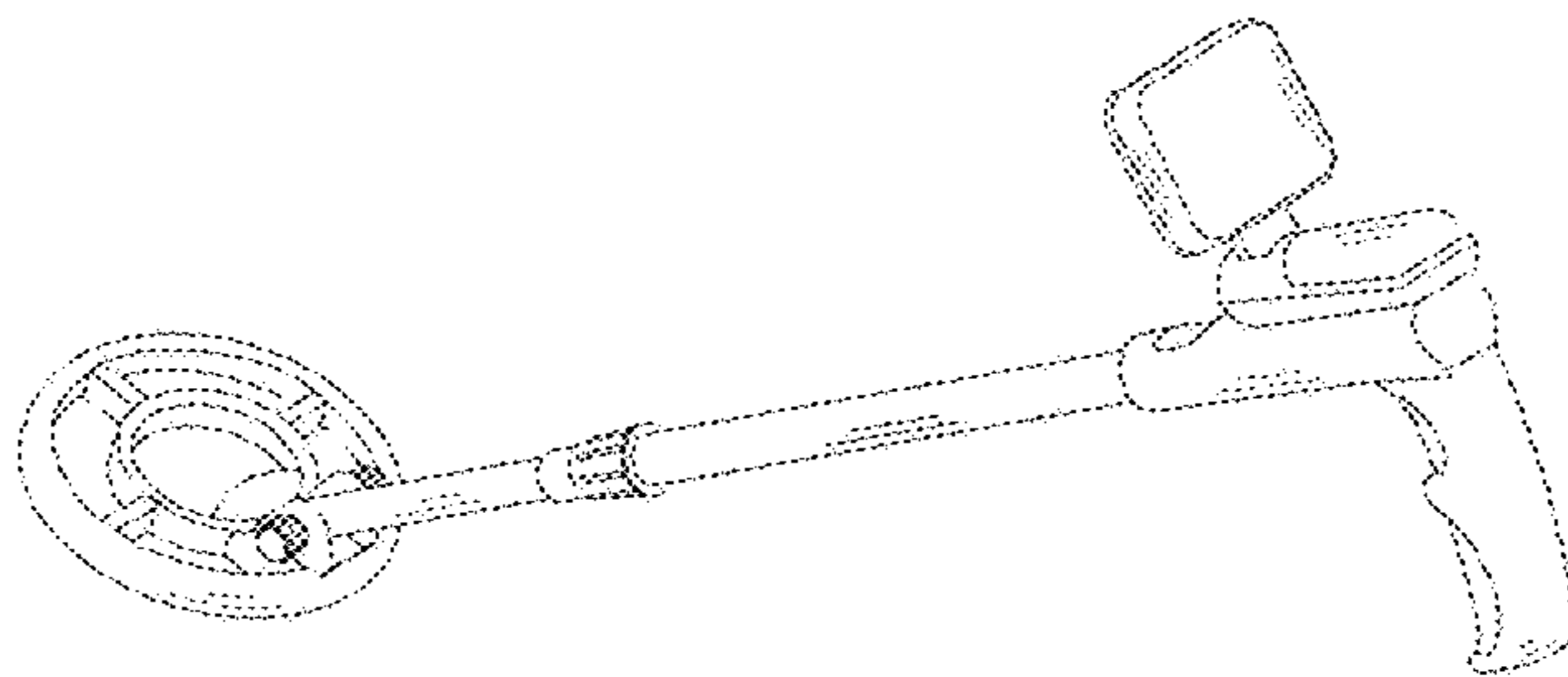


Fig. 7