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(12) United States Design Patent

Li

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(54) **ECCENTRIC SHAFT FOR A GRINDING MACHINE**

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

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(51) **LOC (12) Cl.** **15-09**

(52) **U.S. Cl.**
USPC **D15/138**

(58) **Field of Classification Search**
CPC B24B 23/03; B24B 55/102; B65G 27/08; F16C 3/18; F16H 29/22; Y10T 74/18344; Y10T 74/18552
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,050,733	A *	8/1962	Bach	B25C 7/00	125/40
3,426,616	A *	2/1969	Van Wiannden	F04B 9/045	74/570.2
4,237,659	A *	12/1980	Welsch	B24B 45/006	279/904
4,576,203	A *	3/1986	Boyer	F15B 13/043	137/625.63
4,599,922	A *	7/1986	Behnke	B65G 27/08	82/1.11
4,854,085	A *	8/1989	Huber	B24B 23/03	451/357
5,026,262	A *	6/1991	Baumann	F04C 18/0215	184/6.18
5,033,945	A *	7/1991	Kolb	F04C 18/0223	403/383
D320,148	S *	9/1991	Andrews	D8/70	
5,074,044	A *	12/1991	Duncan	B23D 59/006	125/13.01
D338,146	S *	8/1993	Gramera	D8/70	
D350,887	S *	9/1994	Sjolander	D8/70	
5,458,472	A *	10/1995	Kobayashi	F04C 29/0021	418/151
D365,113	S *	12/1995	Ronan	D15/140	
D378,655	S *	4/1997	Anderson	D8/70	
5,823,862	A *	10/1998	Heidelberger	B24B 23/03	451/344
6,206,771	B1 *	3/2001	Lehman	B24B 23/03	451/345
6,269,888	B1 *	8/2001	Schuda	B23Q 5/027	173/205
6,270,085	B1 *	8/2001	Chen	B25B 15/001	279/155

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Primary Examiner — Patricia A Palasik

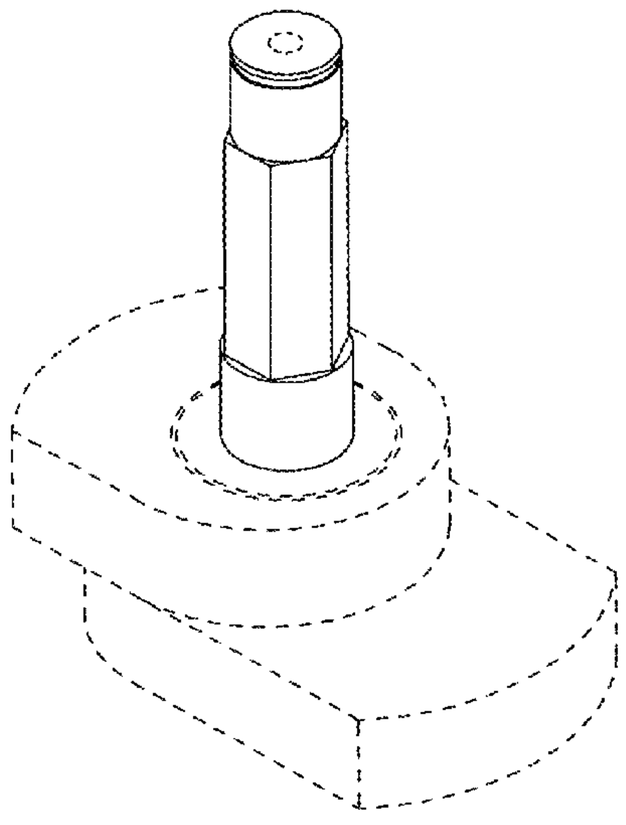
(57) **CLAIM**

The ornamental design for an eccentric shaft for a grinding machine, as shown and described.

DESCRIPTION

FIG. **1** is a perspective view of an eccentric shaft for a grinding machine showing my new design;
FIG. **2** is a front elevational view thereof;
FIG. **3** is a rear 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; and,
FIG. **7** is a perspective view showing the eccentric shaft in environmental structure.
The broken lines depict portions of the eccentric shaft that form no part of the claimed design.
The dot-dashed lines in FIG. **7** of the eccentric shaft for a grinding machine is for the purpose of illustrating environmental structure for the claimed design and form no part of the claimed design.

1 Claim, 5 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

6,312,322	B1 *	11/2001	Chang	B24B 23/03 451/344
6,315,060	B1 *	11/2001	Schuda	B23Q 5/027 173/115
6,637,755	B2 *	10/2003	Chen	B25B 15/001 279/22
6,854,742	B2 *	2/2005	Salyer	A61B 17/1666 279/145
2002/0197940	A1 *	12/2002	Catalfamo	B24B 23/03 451/344
2006/0111217	A1 *	5/2006	Wen	B62M 11/04 475/207
2007/0152408	A1 *	7/2007	Peters	B23B 31/005 279/143
2009/0239451	A1 *	9/2009	Geiser	B24B 23/03 451/58
2010/0180719	A1 *	7/2010	Schraer	B62D 17/00 74/567
2011/0067510	A1 *	3/2011	Peng	B06B 1/164 74/87
2011/0136420	A1 *	6/2011	Chen	B23Q 11/0046 451/488
2012/0152043	A1 *	6/2012	Wen	F16H 29/22 74/61
2012/0227520	A1 *	9/2012	Keith	B23Q 11/0035 74/86
2017/0043440	A1 *	2/2017	Schelling	B23Q 3/00
2017/0077585	A1 *	3/2017	Oxford	H01Q 1/1257

* cited by examiner

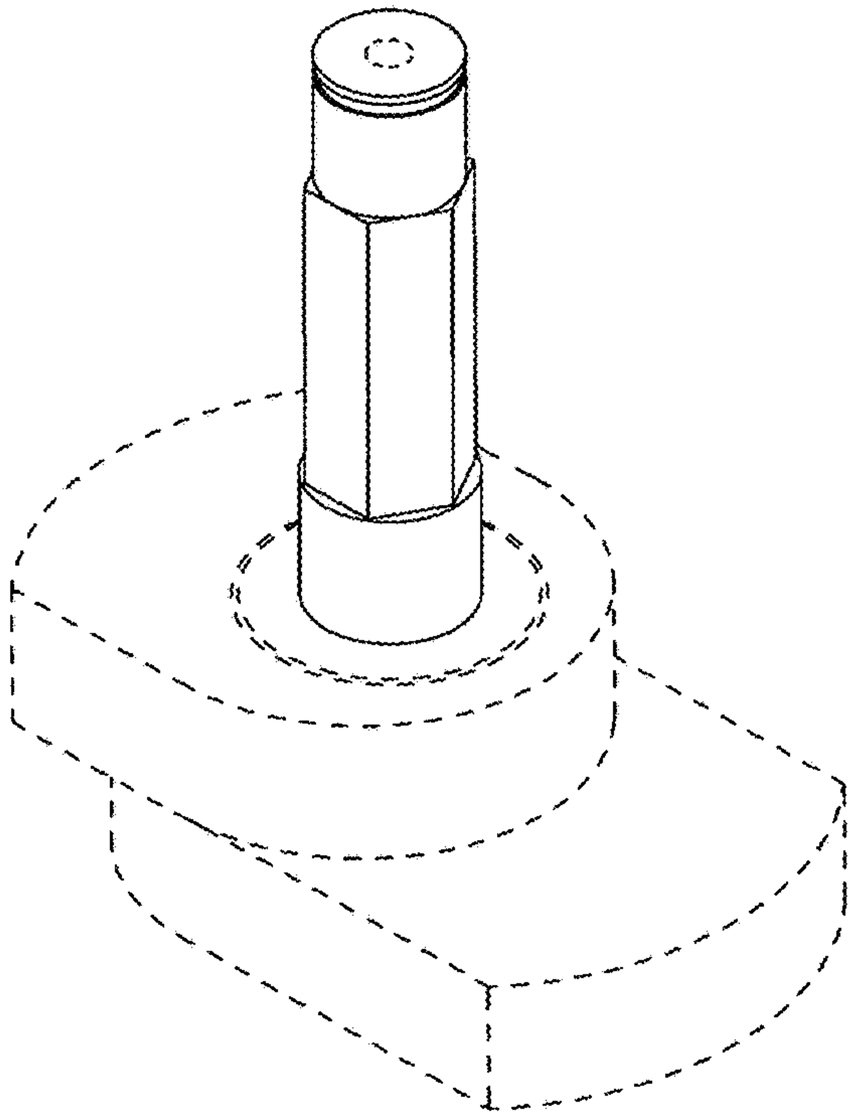


FIG. 1

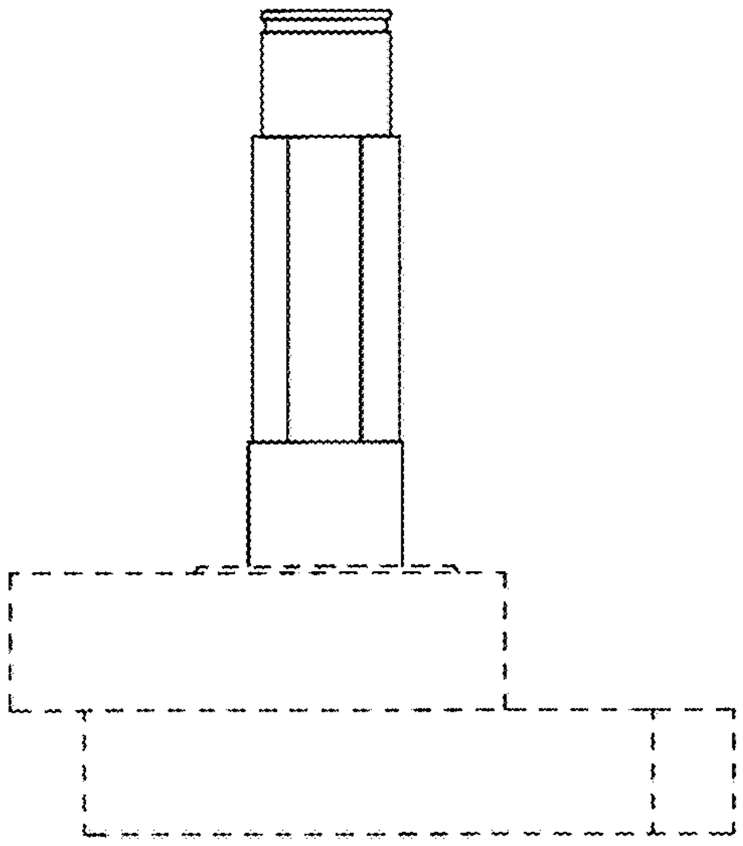


FIG. 2

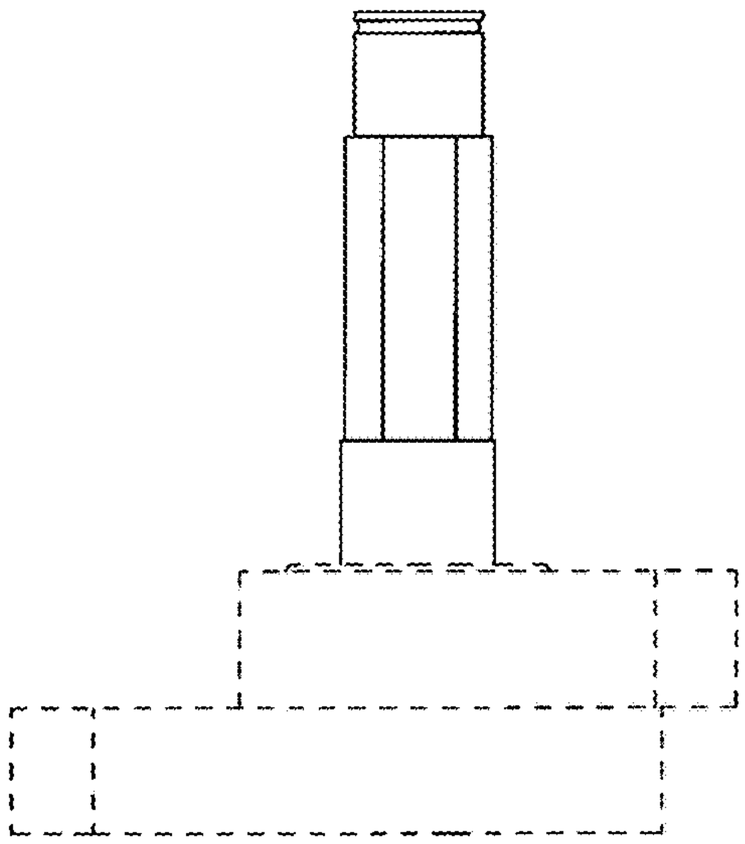


FIG. 3

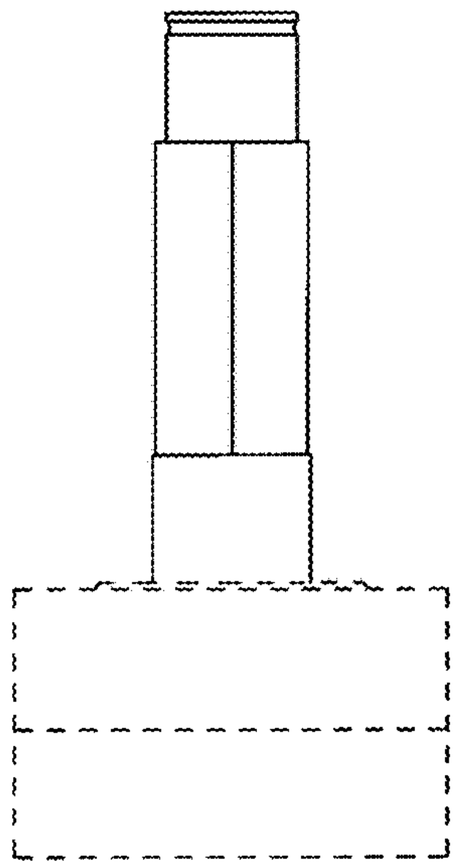


FIG. 4

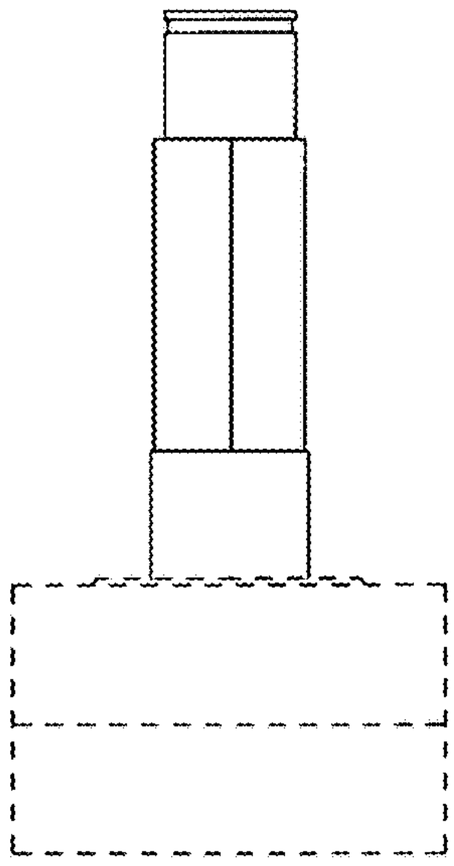


FIG. 5

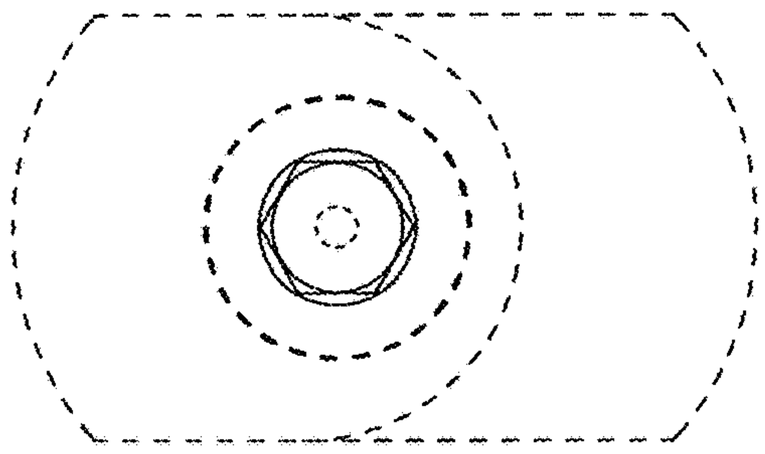


FIG. 6

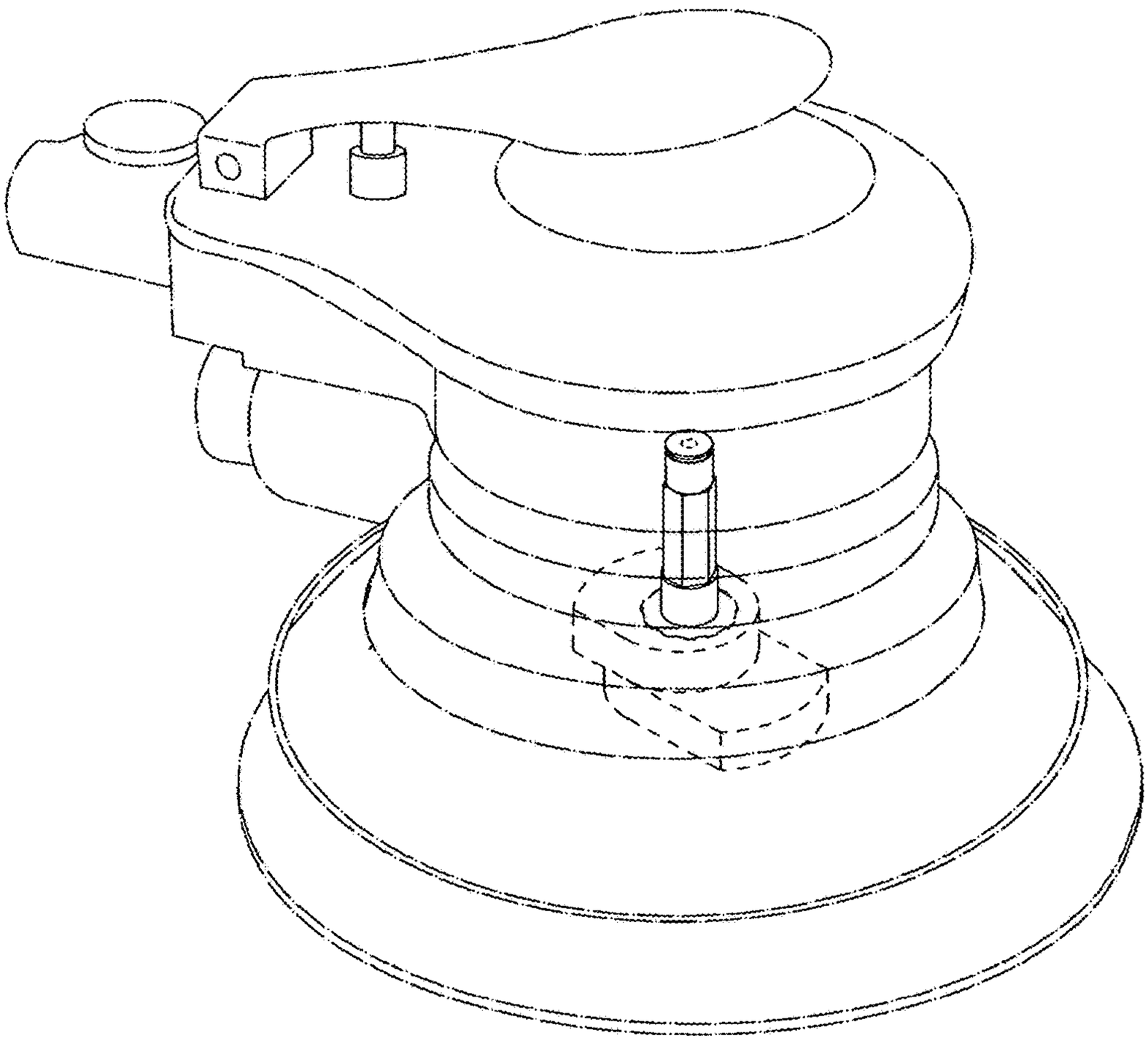


FIG. 7