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(12) United States Design Patent (10) Patent No.:

Watanabe

54) HIGH-FREQUENCY HEATING COIL FOR METAL WORKPIECES

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(73) Assignee: Fuji Electronics Industry Co., Ltd.

(JP)

(**) Term: 14 Years

(21) Appl. No.: 29/132,812

(22) Filed: Nov. 16, 2000

(30) Foreign Application Priority Data

Oc	t. 2, 2000	(JP)	2000-027857
(51)	LOC (7)	Cl	23-03
(52)	U.S. Cl.		D23/417

(56) References Cited

U.S. PATENT DOCUMENTS

3,585,337 A	* 6/1971	Rudd 219/67
3,708,645 A	* 1/1973	Osborn 219/602
4,237,359 A	* 12/1980	Roth 219/651
4,482,793 A	* 11/1984	Lewis
4,492,840 A	* 1/1985	Lex

4,577,081 A	* 3/1986	Balzer 219/654
4,619,717 A	* 10/1986	Balzer et al 219/610

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Jul. 2, 2002

6,097,012 A	*	8/2000	Shiozuka	•••••	219/602
FOREIGN PATENT DOCUMENTS					

JP	04-255690	9/1992	H05B/6/38

^{*} cited by examiner

Primary Examiner—Mitchell Siegel

(45) Date of Patent:

(74) Attorney, Agent, or Firm—Kilyk & Bowersox, P.L.L.C.

(57) CLAIM

The ornamental design for a high-frequency heating coil for metal workpieces, substantially as shown and described.

DESCRIPTION

FIG. 1 is a plane view of the article.

FIG. 2 is a rear view of the article.

FIG. 3 is a plane view of the article.

FIG. 4 is a bottom and view of the article.

FIG. 5 is a left side view of the article.

FIG. 6 is a right side view of the article.

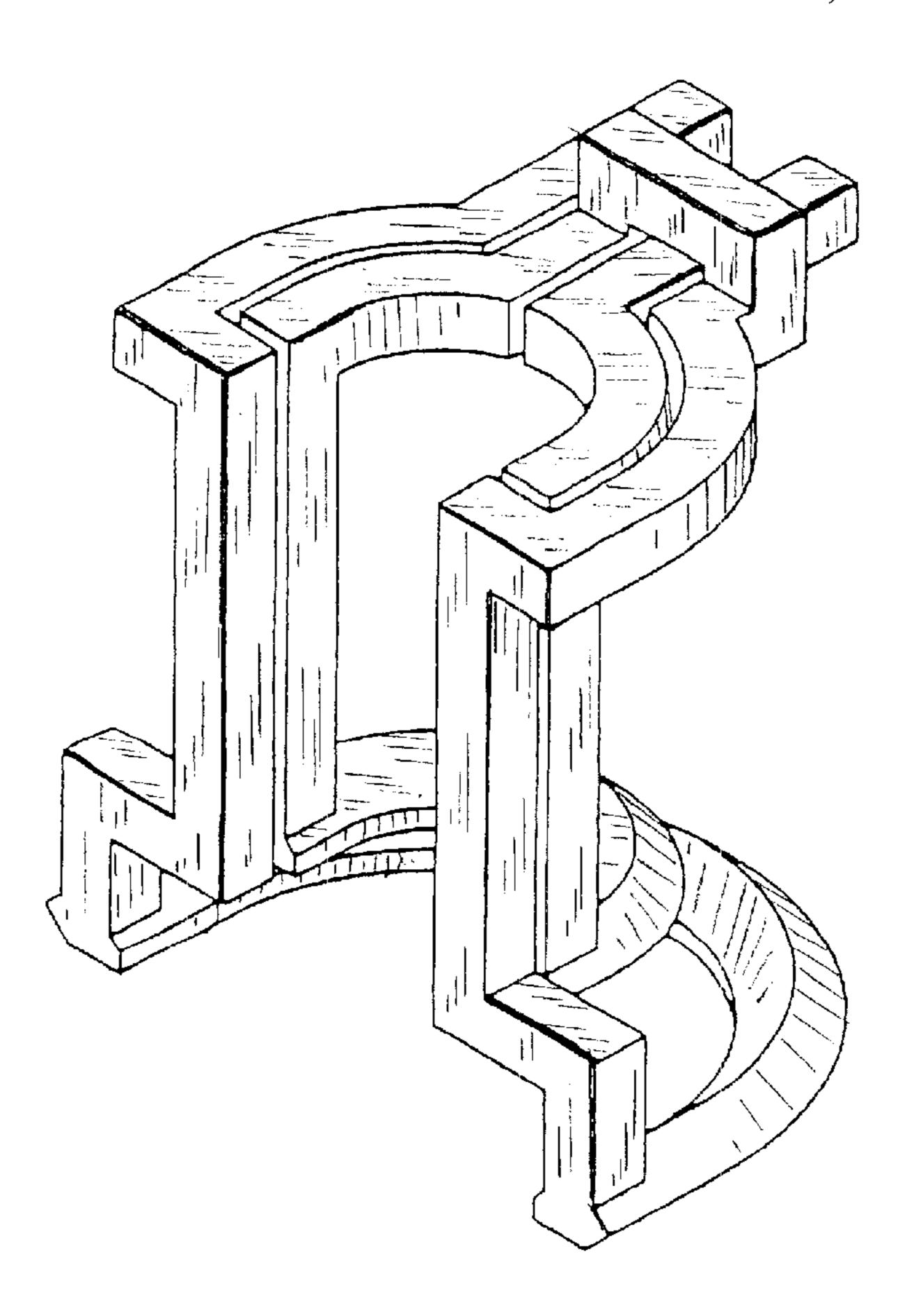
FIG. 7 is a sectional view taken on line A—A in FIG. 3.

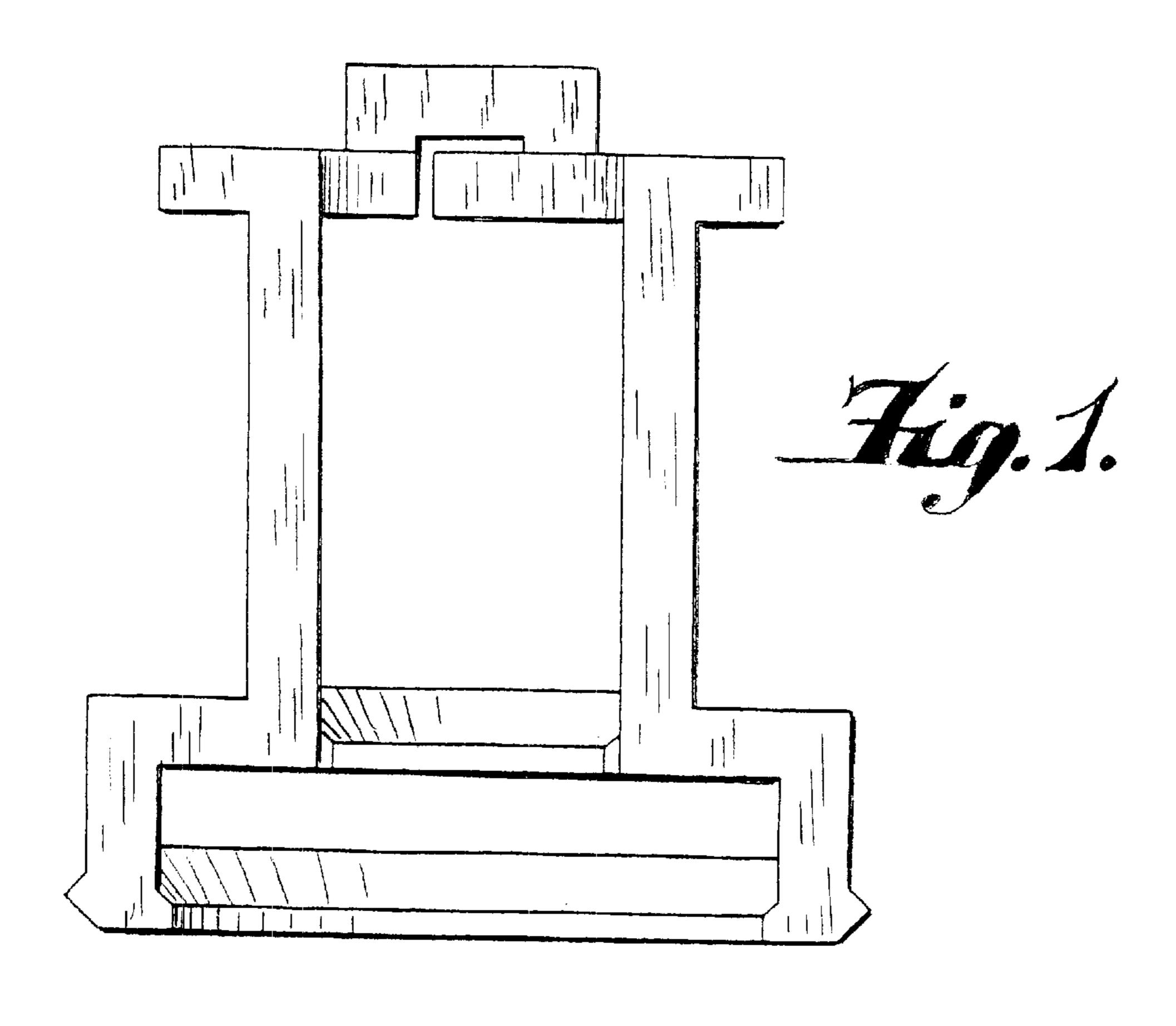
FIG. 8 is a perspective view of the article; and,

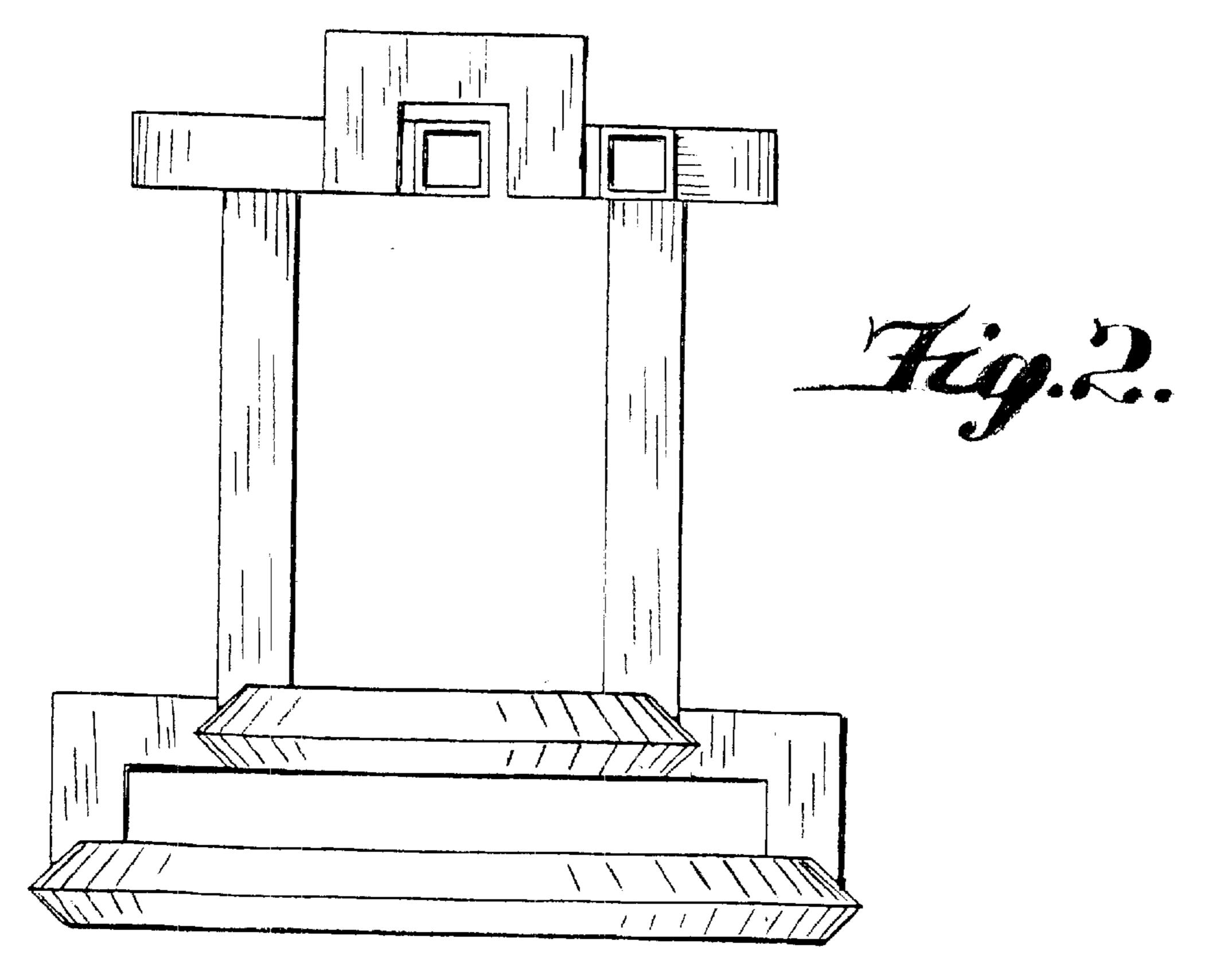
FIG. 9 is a perspective view of the article in use.

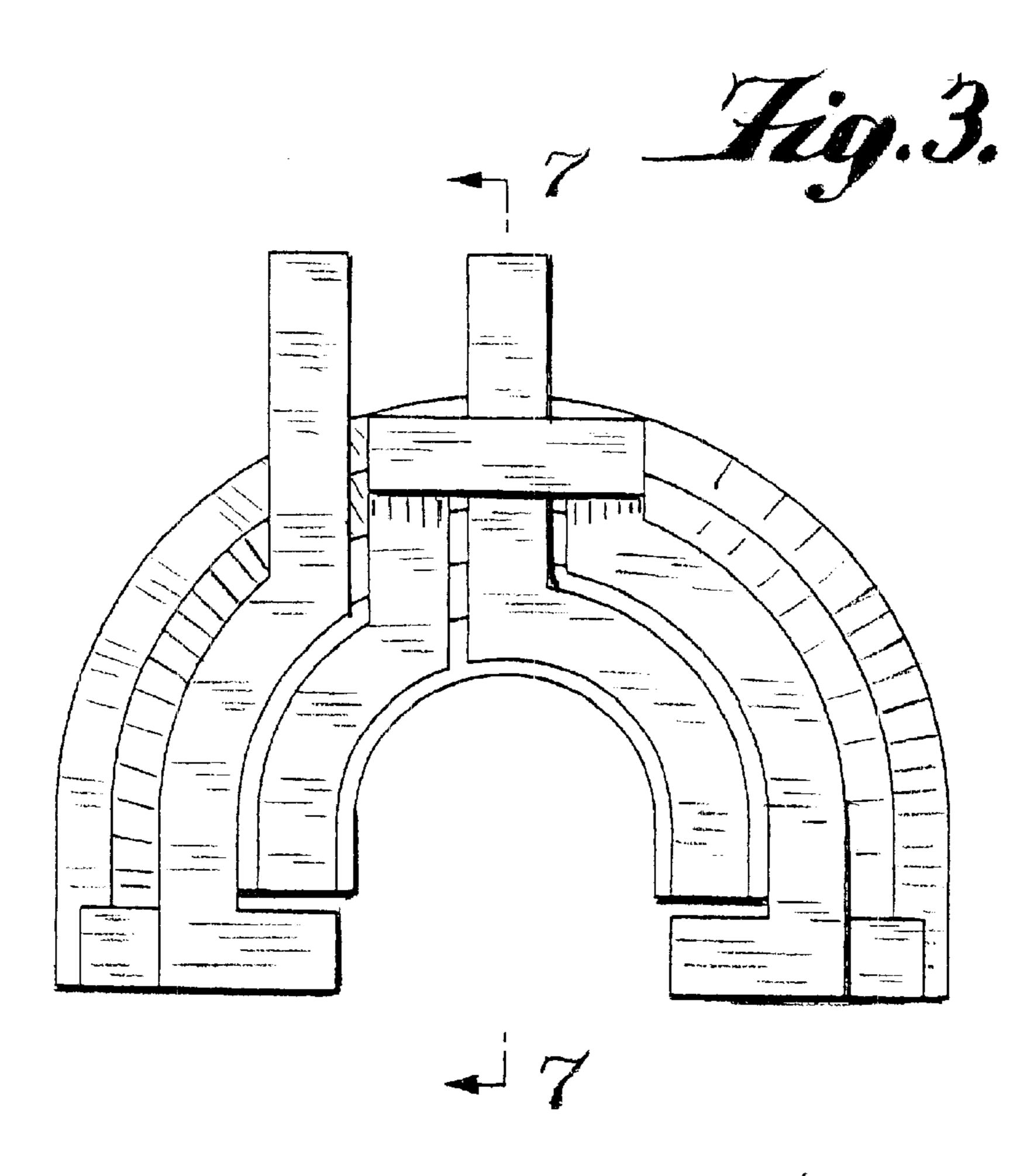
As shown in FIG. 9, the article is a high-frequency heating coil for heating a 2-tier metal workpiece at high frequency.

1 Claim, 7 Drawing Sheets

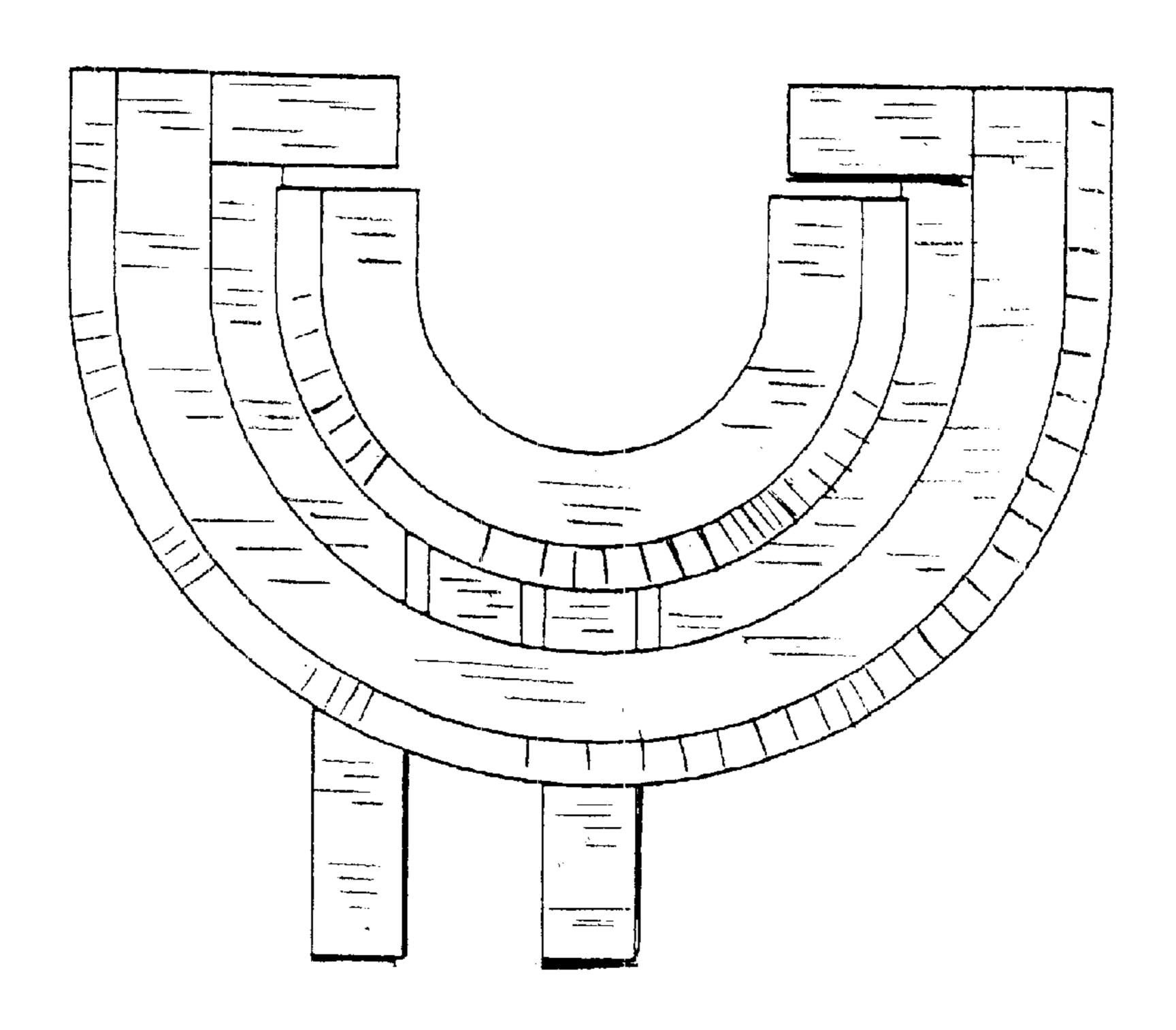


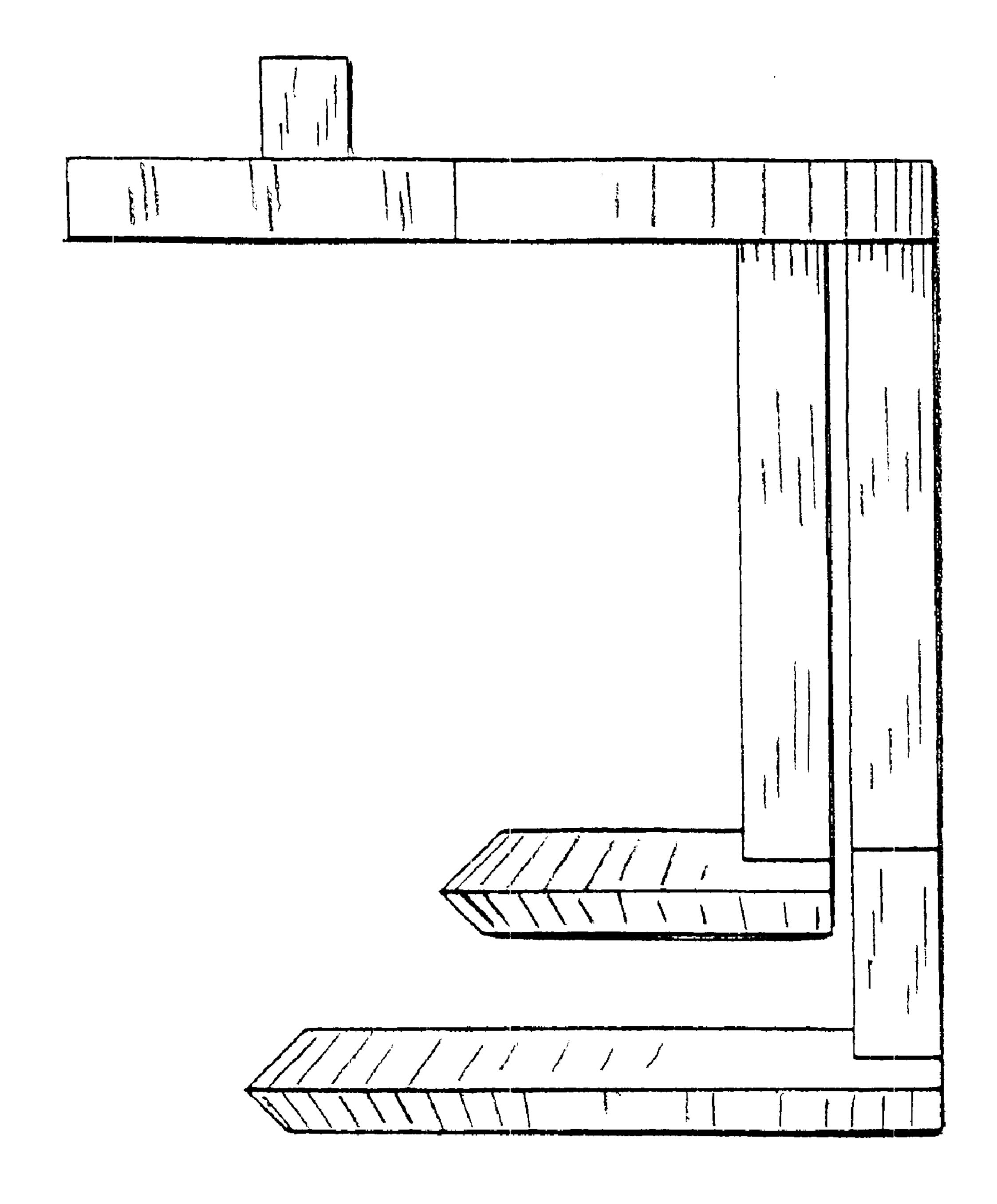




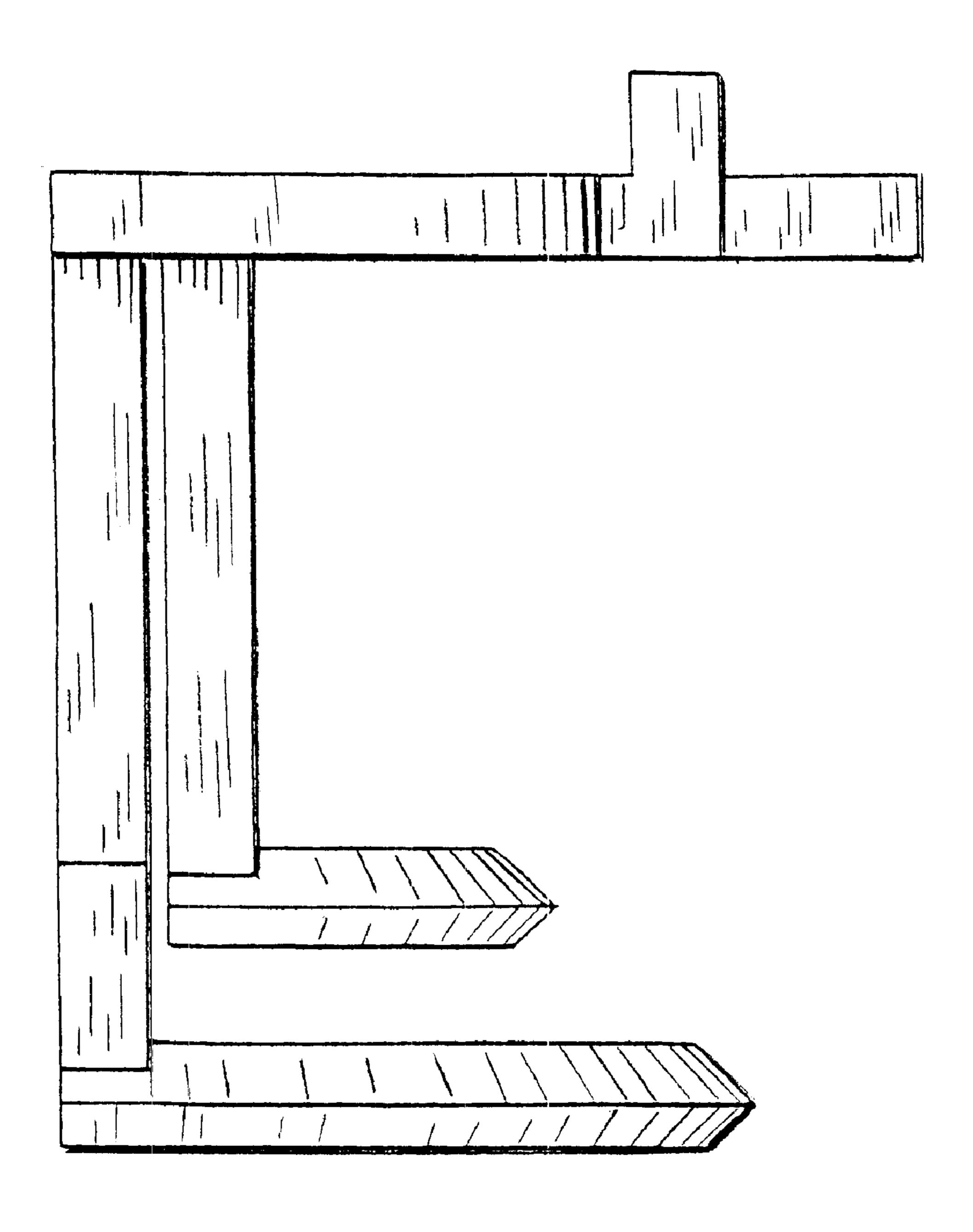


Hig. A.





14.5.



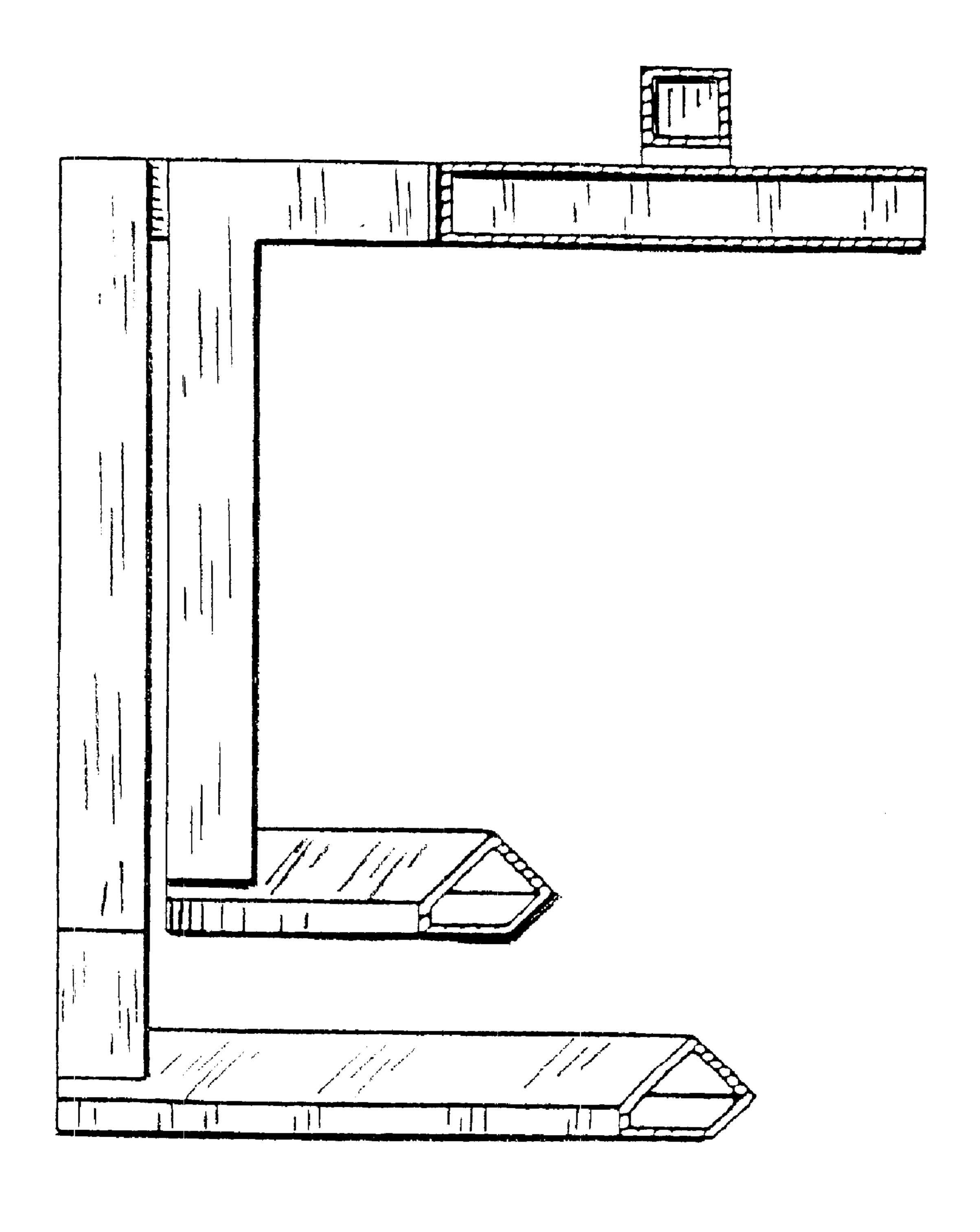
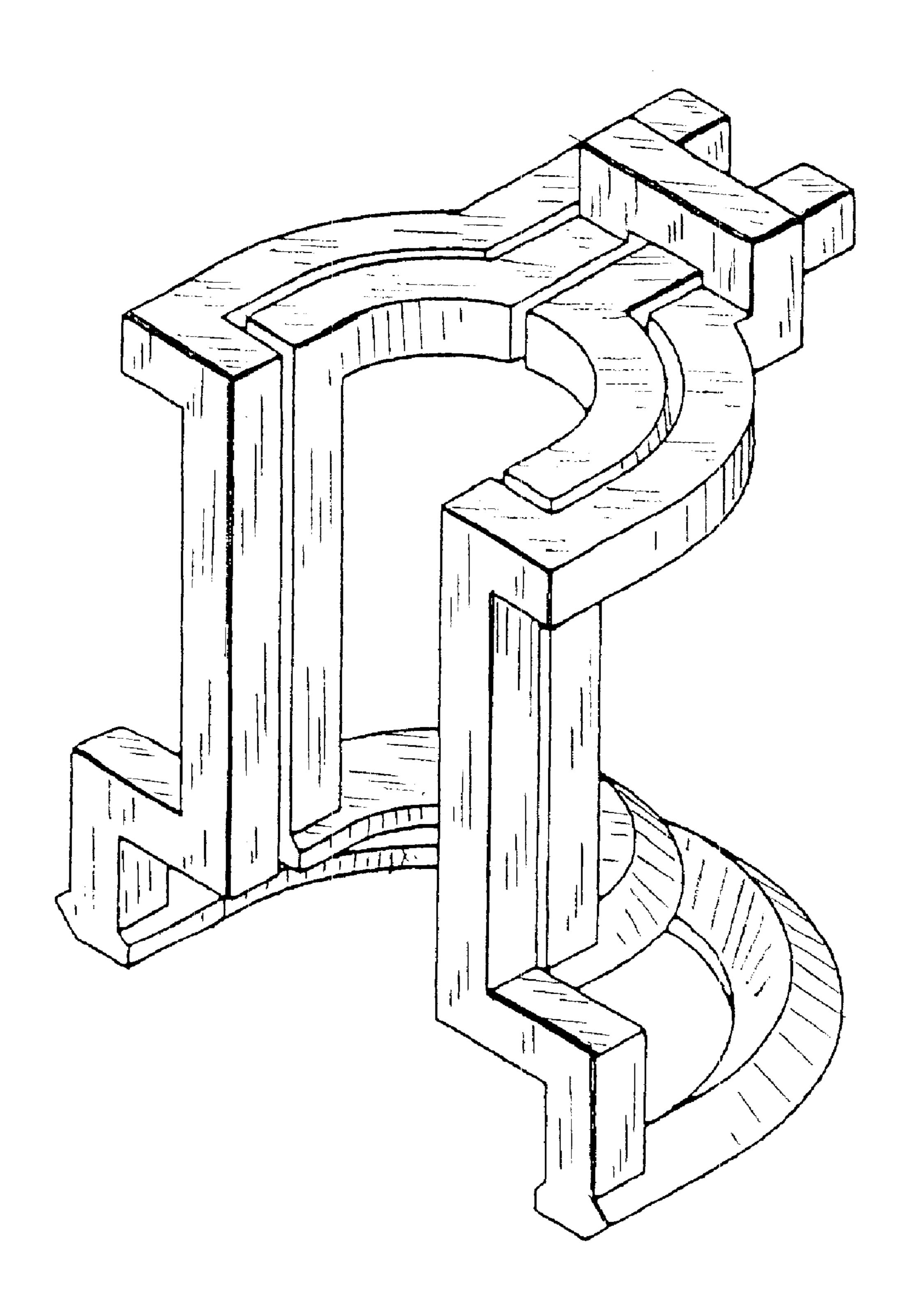
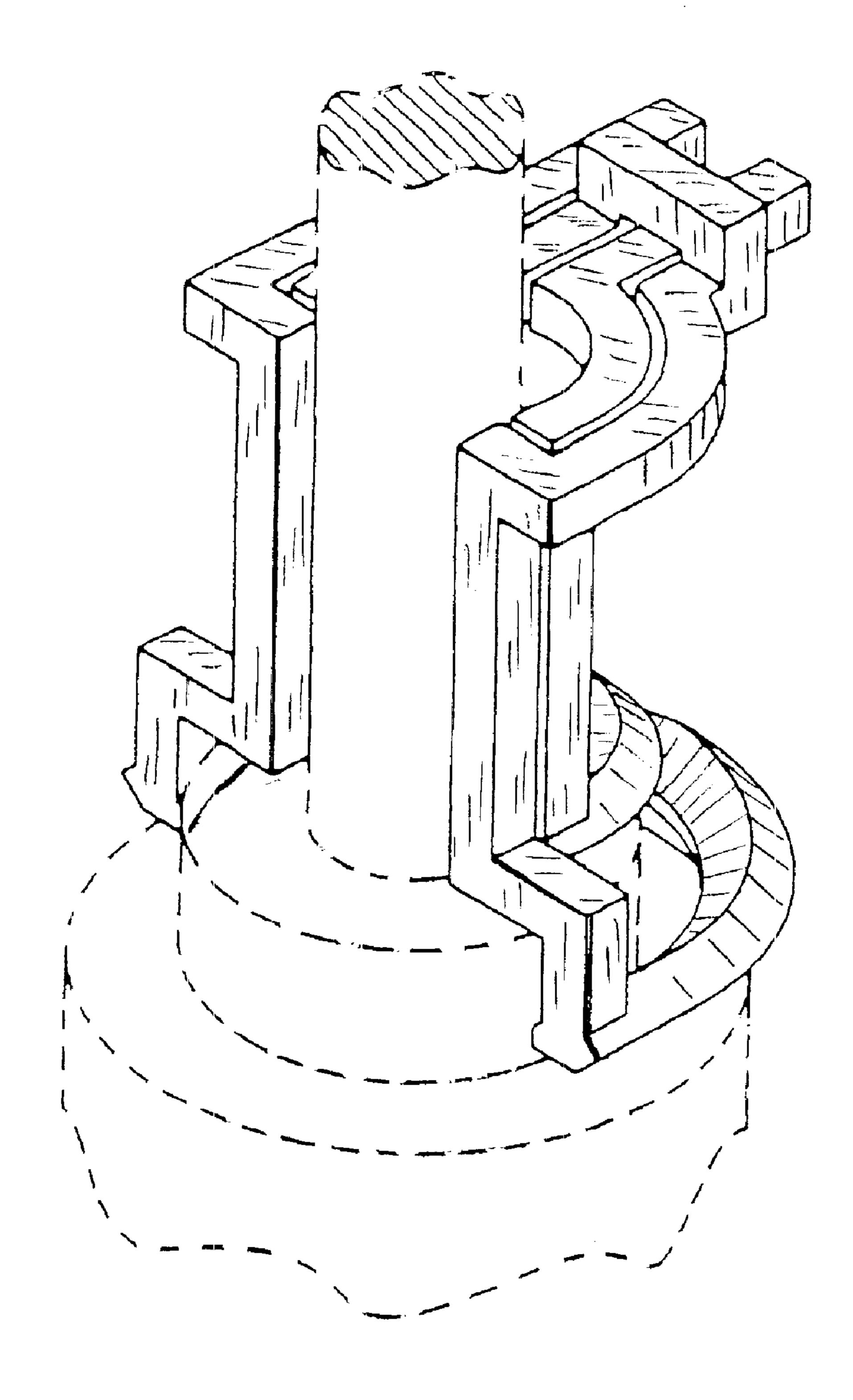


Fig. 7.



Hig. 8.



Hy.9.

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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DATED : July 2, 2002 INVENTOR(S) : Hiyoshi Watanabe

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Drawings,

Please delete the description of Fig. 7 and insert the following: -- FIG. 7 is a cross sectional view taken on line 7-7 of figure 3. --

Please delete "As shown in FIG. 9, the article is a high-frequency heating coil for heating a 2-tier metal workpiece at high frequency." and insert the following -- The broken line showing of the fragmented 2-tier metal workpiece at high frequency is shown for illustrative purposes only and forms no part of the claimed design. --

Signed and Sealed this

Twenty-second Day of October, 2002

Attest:

JAMES E. ROGAN

Director of the United States Patent and Trademark Office

Attesting Officer