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(12) **United States Design Patent**
Tsuchiya

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(54) **LIGHT-EMITTING DIODE**

(75) Inventor: **Kosuke Tsuchiya**, Fujiyoshida (JP)

(73) Assignee: **Citizen Electronics Co., Ltd.**, Yamanashi (JP)

(*) Notice: This patent is subject to a terminal disclaimer.

(**) Term: **14 Years**

(21) Appl. No.: **29/318,853**

(22) Filed: **May 29, 2008**

(30) **Foreign Application Priority Data**

Nov. 29, 2007 (JP) D2007-032797

(51) **LOC (9) Cl.** **13-03**
(52) **U.S. Cl.** **D13/180**
(58) **Field of Classification Search** D13/180; D26/2; 257/79, 80, 81, 88, 89, 95, 98, 99, 257/100; 313/483, 498, 500; 362/555, 800
See application file for complete search history.

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Primary Examiner—Selina Sikder

(74) *Attorney, Agent, or Firm*—Browdy and Neimark, P.L.L.C.

(57) **CLAIM**

The ornamental design for a light-emitting diode, as shown and described herein.

DESCRIPTION

FIG. **1** is a perspective view of light-emitting diode in accordance with the present design, as viewed from front;

FIG. **2** is a perspective view thereof as viewed from below;

FIG. **3** is a front elevation view thereof;

FIG. **4** is a rear elevation view thereof;

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

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

FIG. **7** is a left side view thereof;

FIG. **8** is a right side view thereof; and,

FIG. **9** is a sectional view taken along line **9**—**9** in FIG. **5**.

The article is a surface-mount type light-emitting diode (LED) for illumination purpose. A light-emitting diode (LED) element is mounted on an upper surface of a rectangular parallelepiped-shaped substrate, and a reflecting frame disposed on the upper surface of the substrate includes an opening to accommodate the LED element. The LED element is surrounded by an inner surface of the reflecting frame at the opening and sealed with a light-transmitting resin filled in the opening of the reflecting frame.

Two terminals for electrical connection to a motherboard or an external substrate are provided on a bottom surface of the substrate at one end of the bottom surface.

The article is used as a light source for backlight units to illuminate liquid crystal displays and the like.

1 Claim, 5 Drawing Sheets

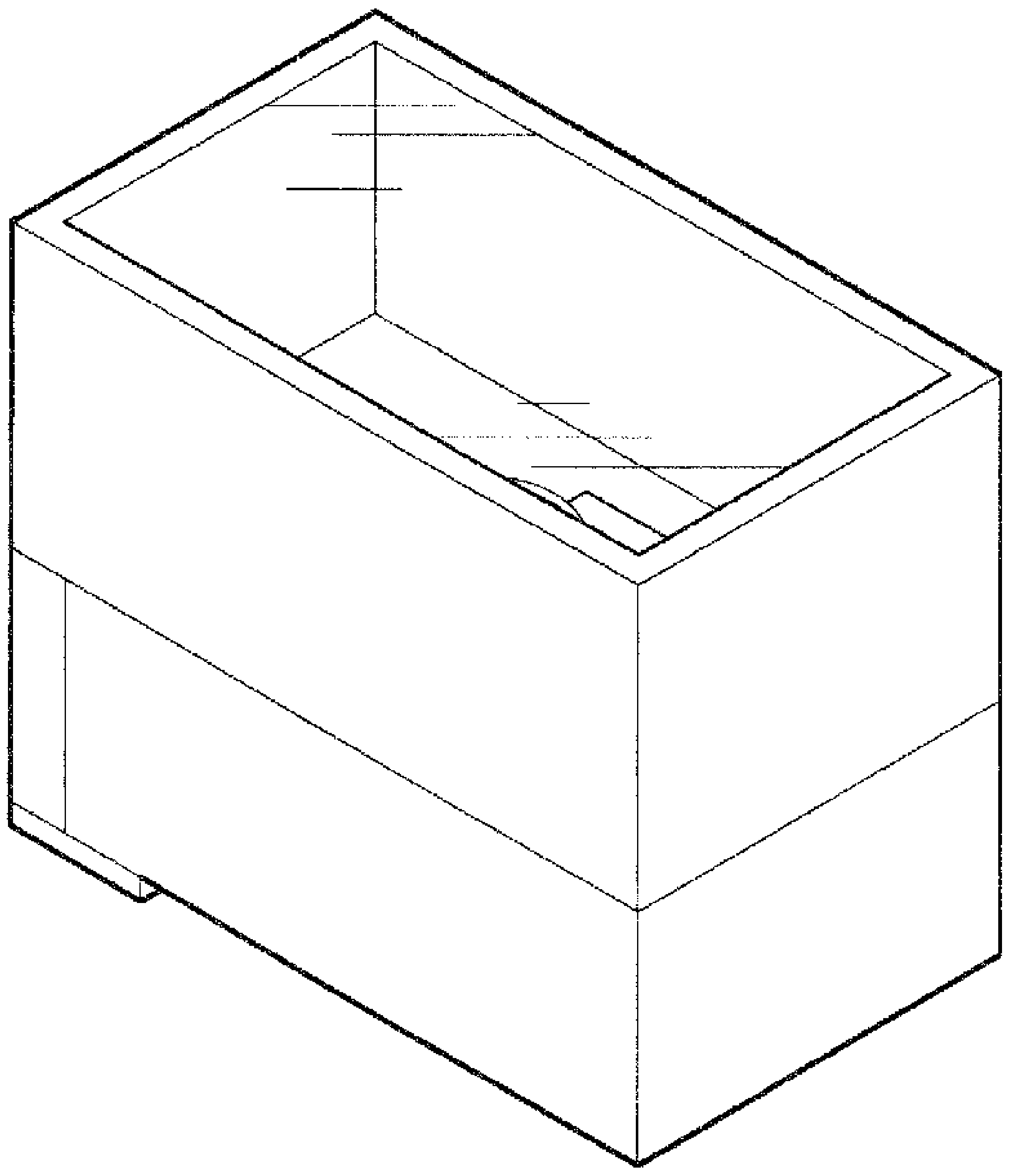

Fig. 1

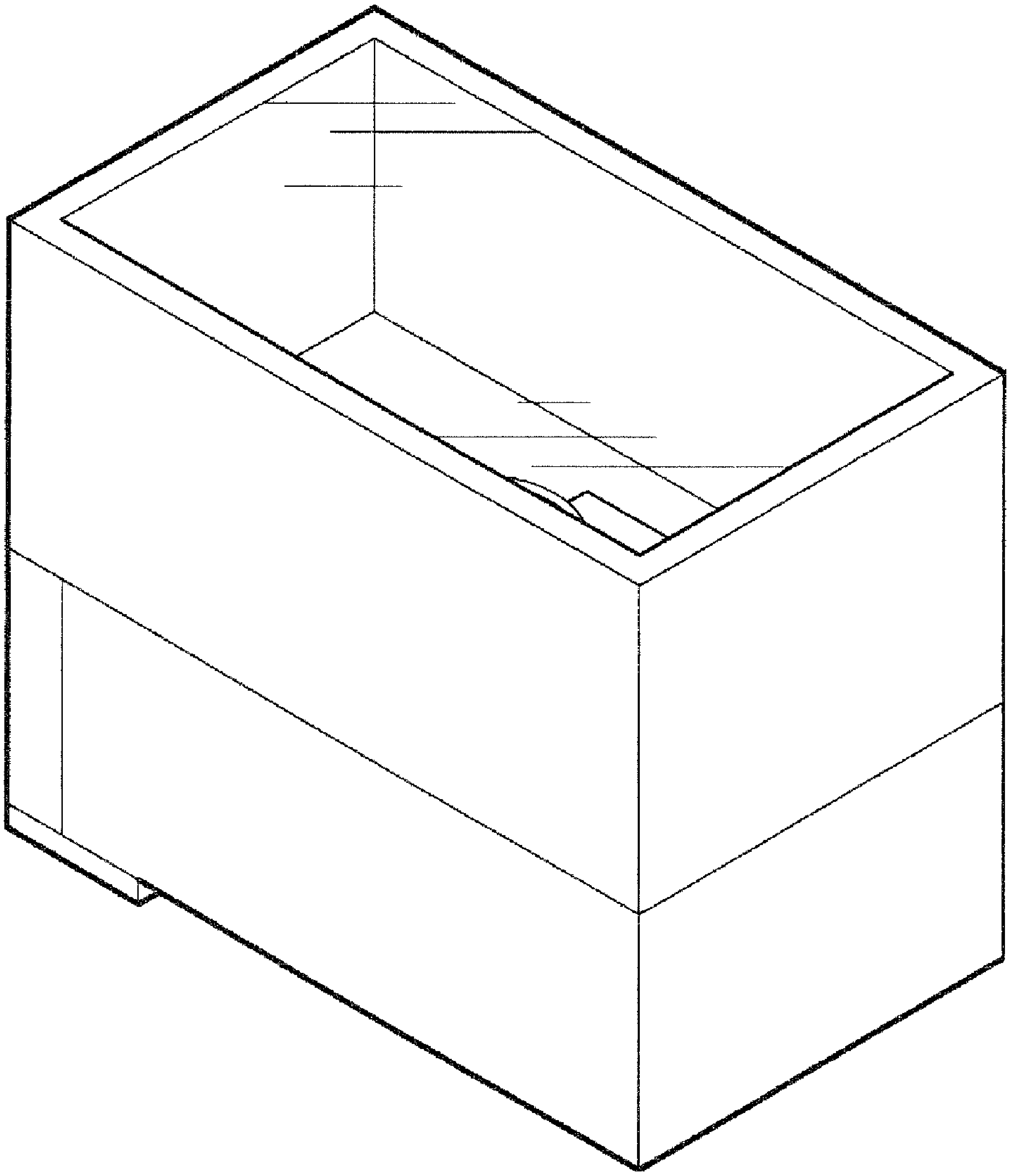

Fig. 2

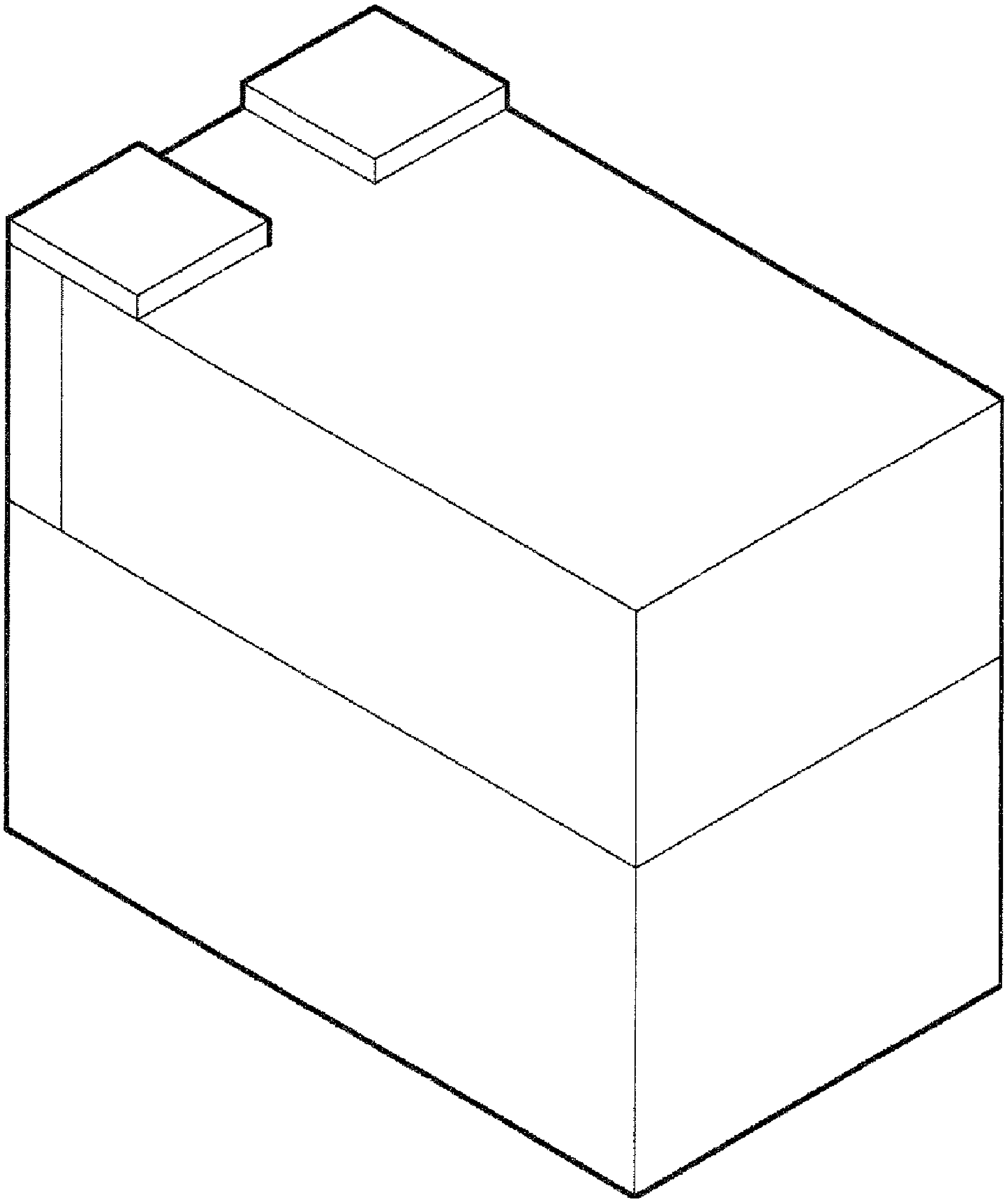

Fig. 3

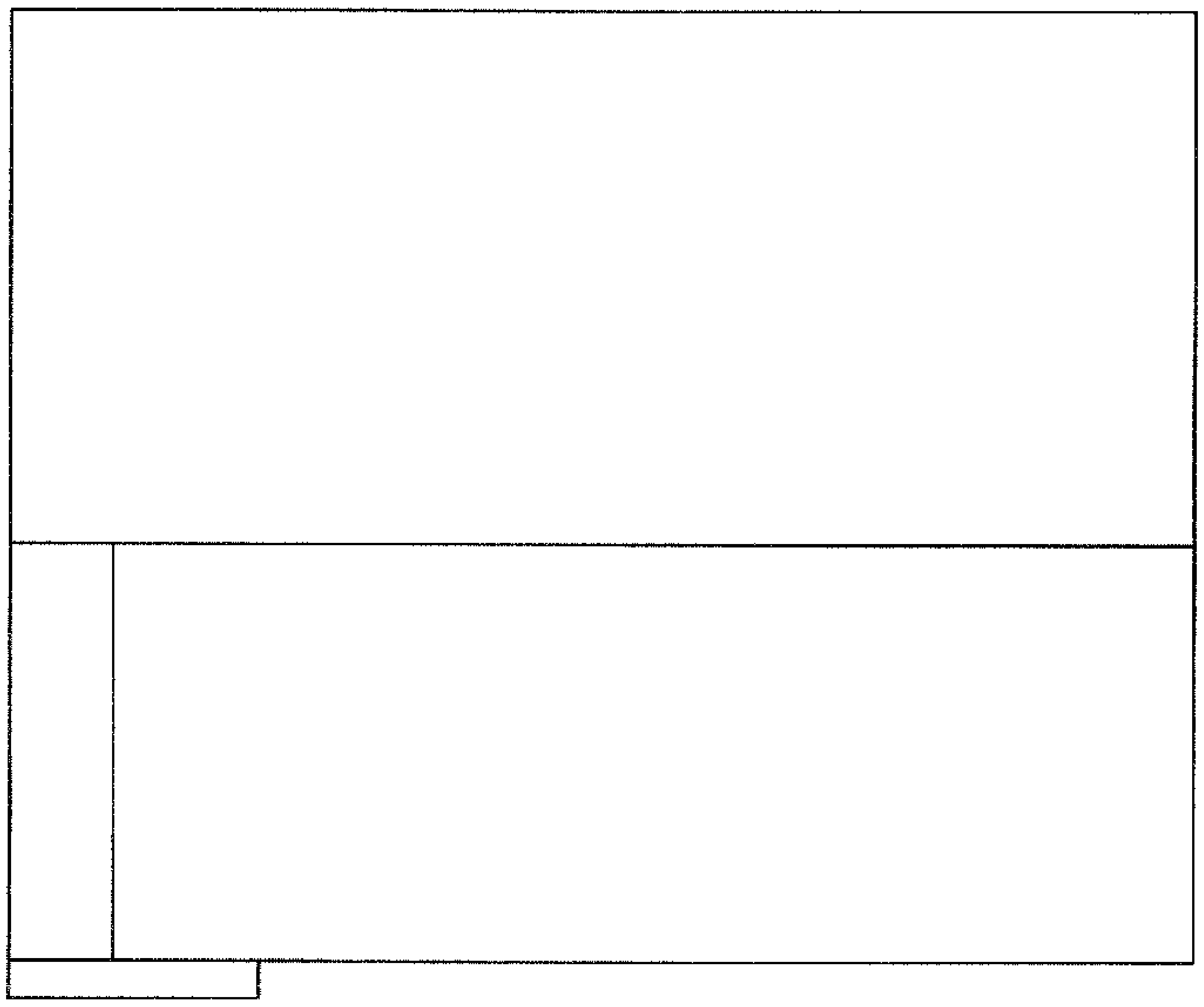

Fig. 4

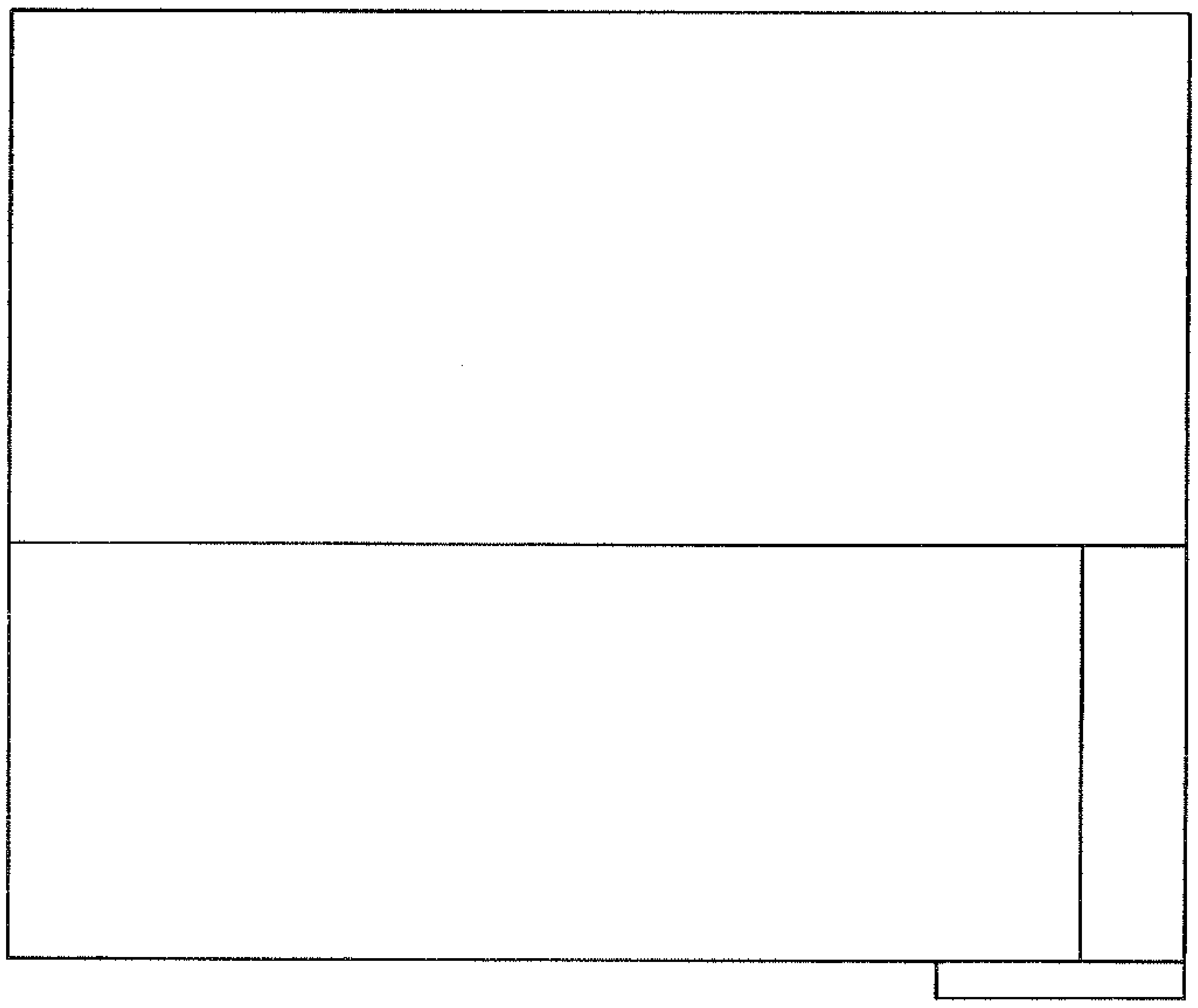

Fig. 5

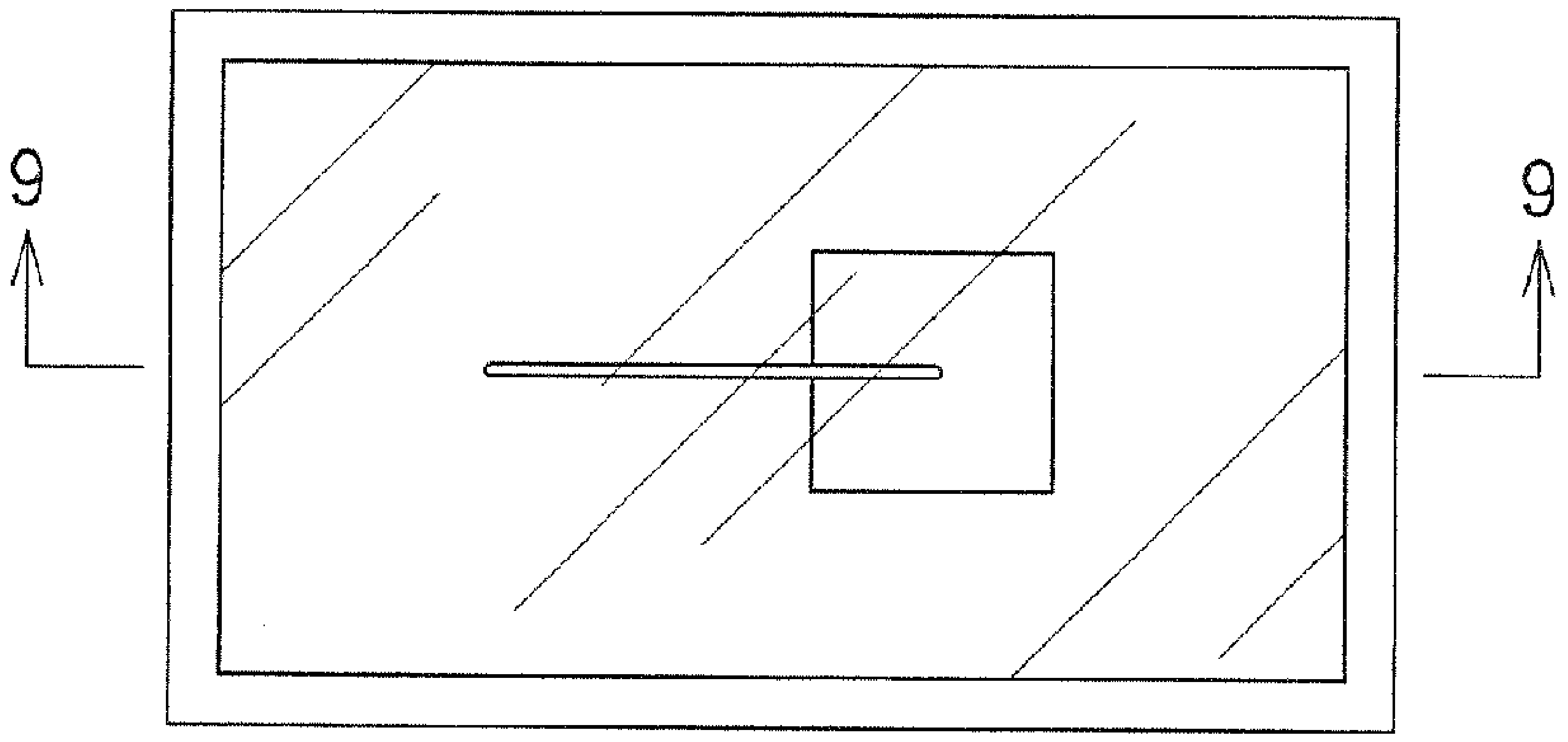

Fig. 6

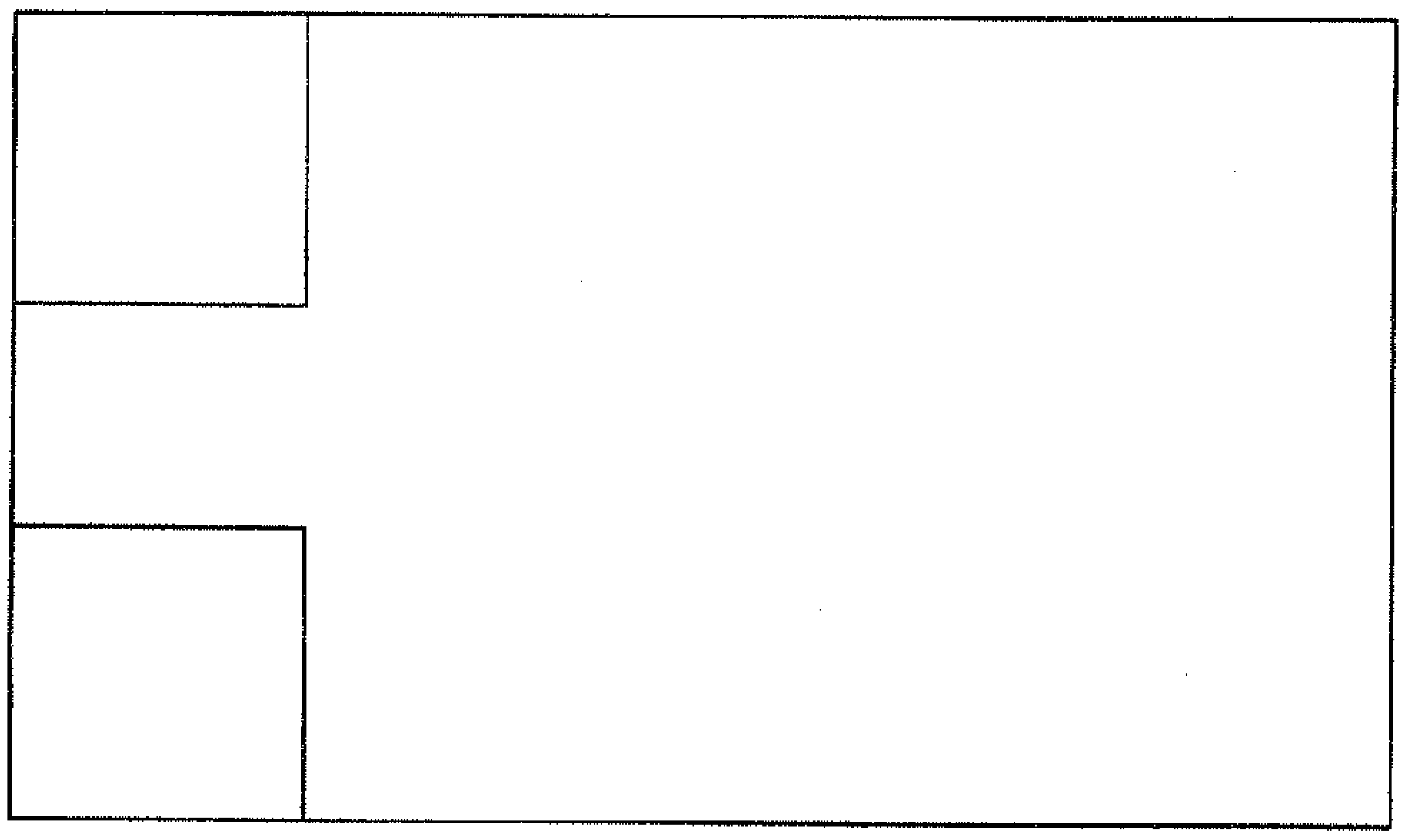

Fig. 7

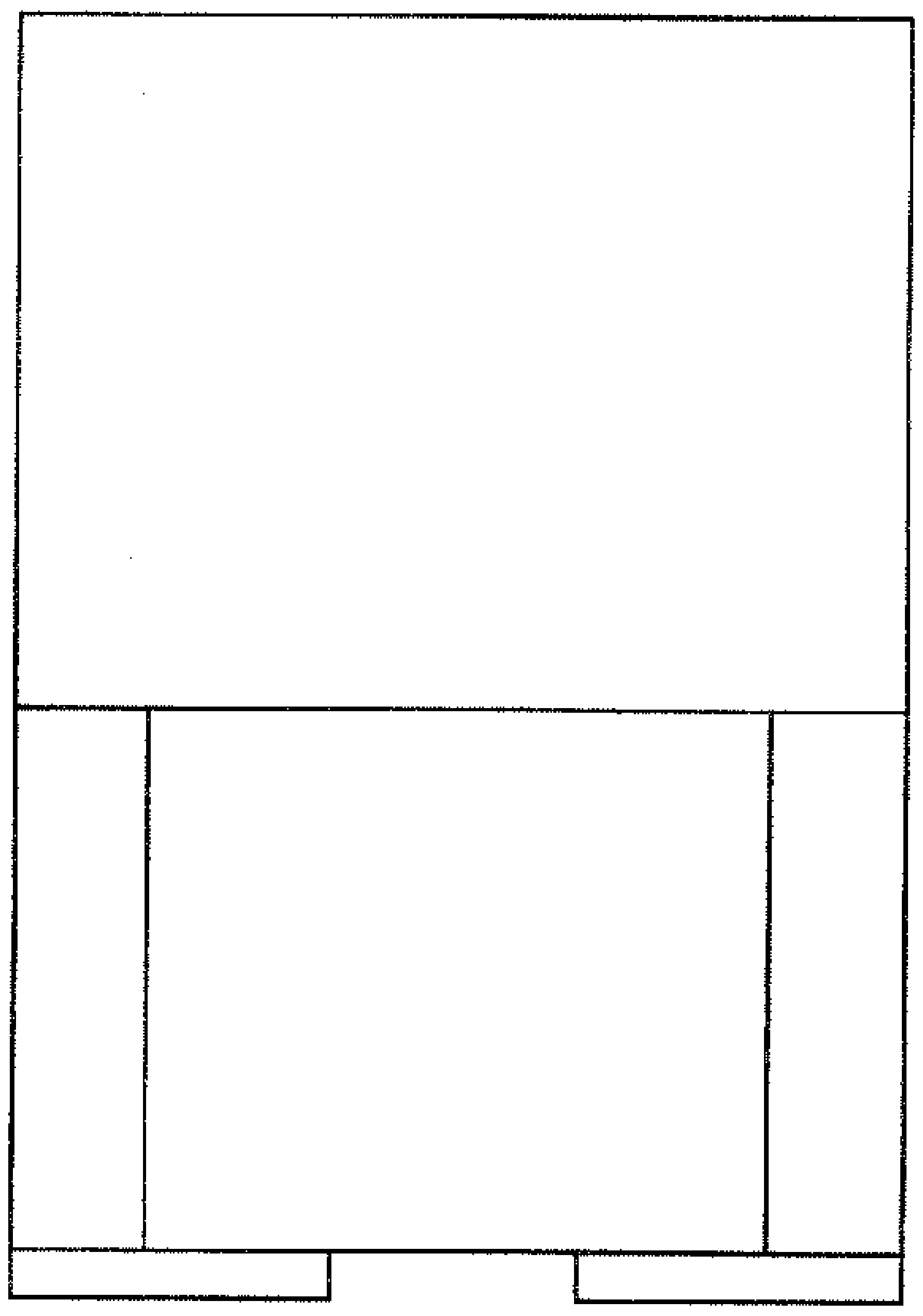

Fig. 8

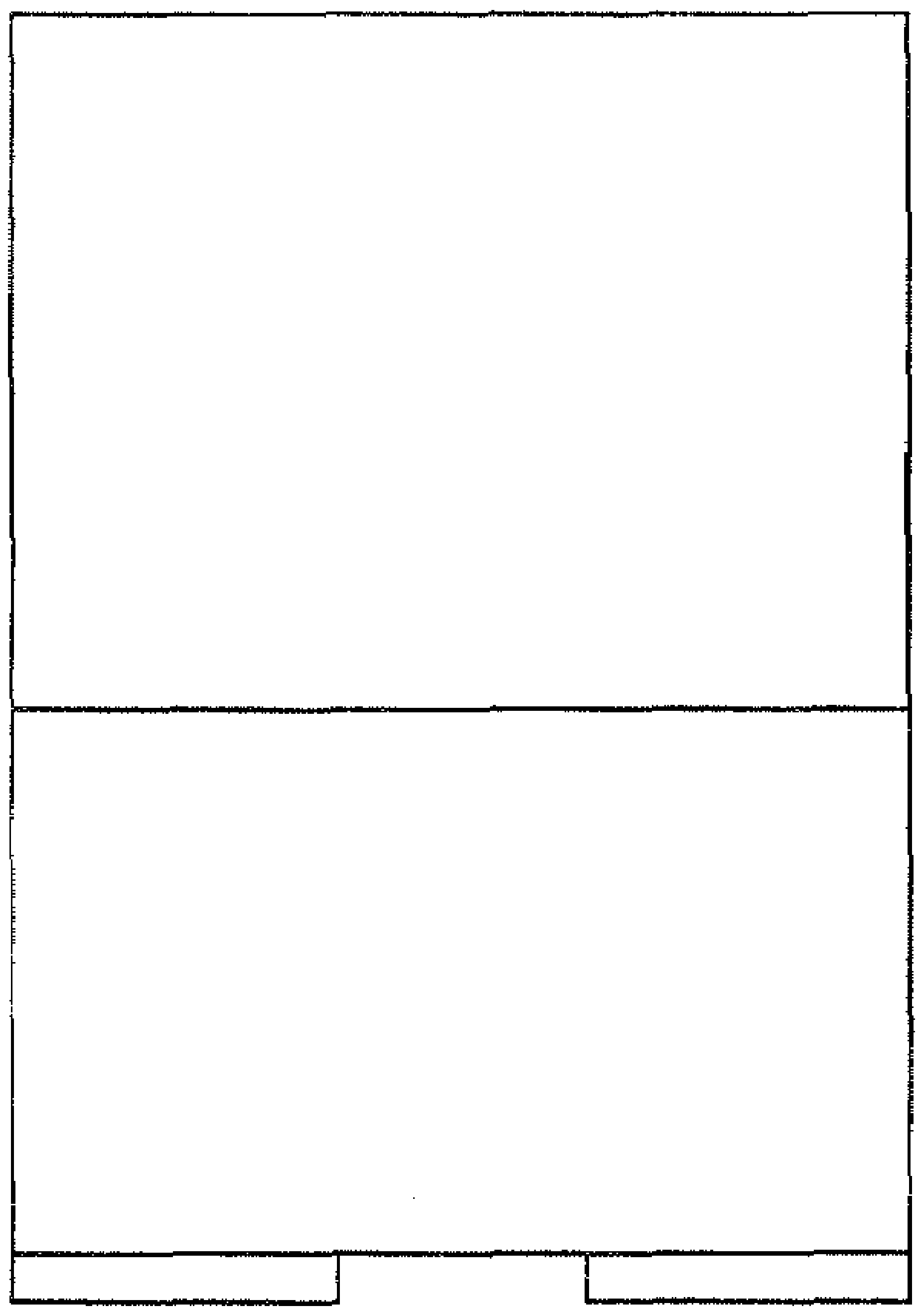

Fig. 9