



US00D820892S

(12) **United States Design Patent** (10) **Patent No.:** **US D820,892 S**
Sakaguchi et al. (45) **Date of Patent:** **** Jun. 19, 2018**

(54) **FLASK-LESS MOLDING MACHINE**

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(71) Applicant: **SINTOKOGIO, LTD.**, Nagoya-shi, Aichi (JP)

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(72) Inventors: **Koichi Sakaguchi**, Toyokawa (JP); **Katsuhito Sato**, Toyokawa (JP)

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(73) Assignee: **Sintokogio, Ltd.**, Nagoya-shi, Aichi (JP)

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

(Continued)

(21) Appl. No.: **29/583,633**

Primary Examiner — Ian Simmons
Assistant Examiner — Khawaja Anwar

(22) Filed: **Nov. 8, 2016**

(74) *Attorney, Agent, or Firm* — Leydig Voit & Mayer

(30) **Foreign Application Priority Data**

(57) **CLAIM**

May 17, 2016 (JP) 2016-010436

The ornamental design for a flask-less molding machine, as shown and described.

(51) **LOC (11) Cl.** **15-07**

DESCRIPTION

(52) **U.S. Cl.**

USPC **D15/136**

(58) **Field of Classification Search**

USPC D15/122, 135, 136, 137, 138, 141, 142, D15/199; D12/1, 2, 8; D8/313; D7/339-341, 348-349, 402-404

CPC B29C 45/0001; B29C 2043/3427; B29C 2043/3494; B29C 2045/0006; B29C 2045/0043; B29C 2045/0049; B29C 2045/14803; B29C 2945/76444; B29C 43/24; B29C 45/0005; B29C 45/0025; B29C 45/006; B29C 45/14311; B29C 45/14778; B29C 45/14811; B29C 45/14819; B29C 45/1657; B29C 45/1671;

(Continued)

FIG. 1 is a front perspective view of a flask-less molding machine of the present invention.

FIG. 2 is a rear perspective view of the flask-less molding machine of FIG. 1.

FIG. 3 is a front view of the flask-less molding machine of FIG. 1.

FIG. 4 is a rear view of the flask-less molding machine of FIG. 1.

FIG. 5 is a top plan view of the flask-less molding machine of FIG. 1.

FIG. 6 is a bottom view of the flask-less molding machine of FIG. 1.

FIG. 7 is a right side view of the flask-less molding machine of FIG. 1; and,

FIG. 8 is a left side view of the flask-less molding machine of FIG. 1.

The features shown in broken lines illustrate portions of the flask-less molding machine and form no part of the claimed design.

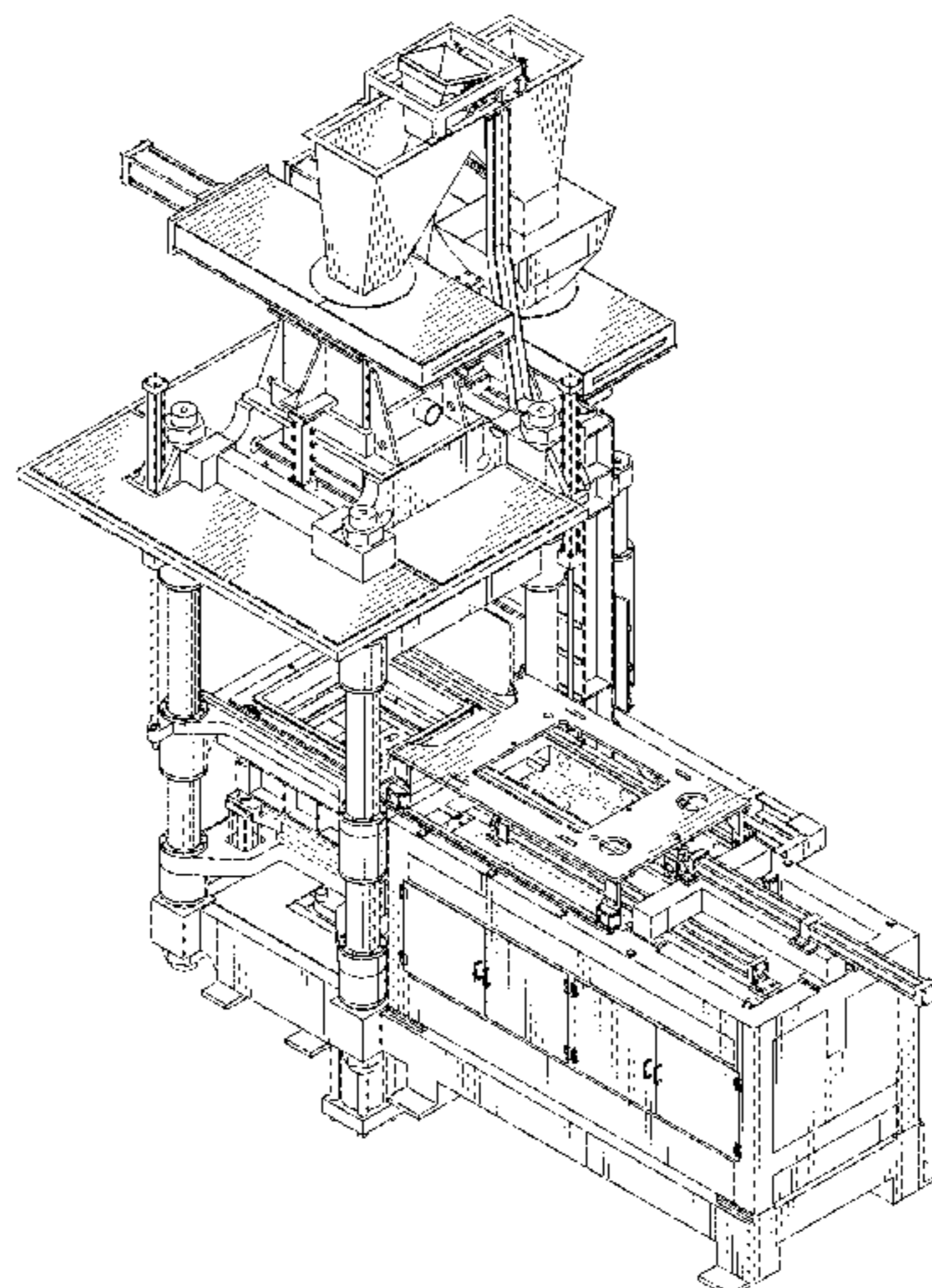
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1 Claim, 8 Drawing Sheets



(58) **Field of Classification Search**
CPC . B29C 45/1761; B29C 45/2708; B29C 45/40;
B29C 45/401; B29C 45/42; B29C 45/84;
B29C 47/0004; B29C 47/0021
See application file for complete search history.

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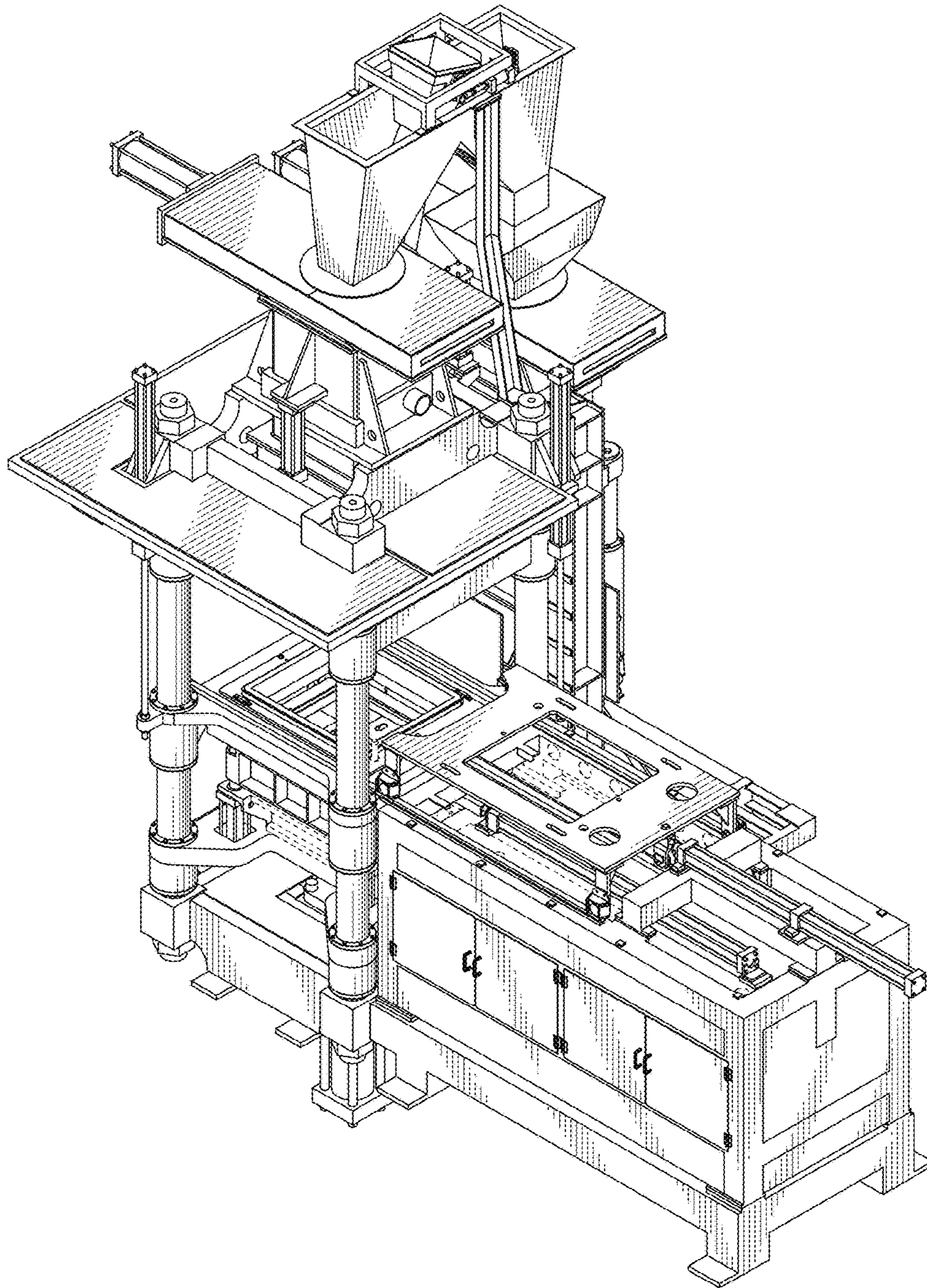


FIG. 1

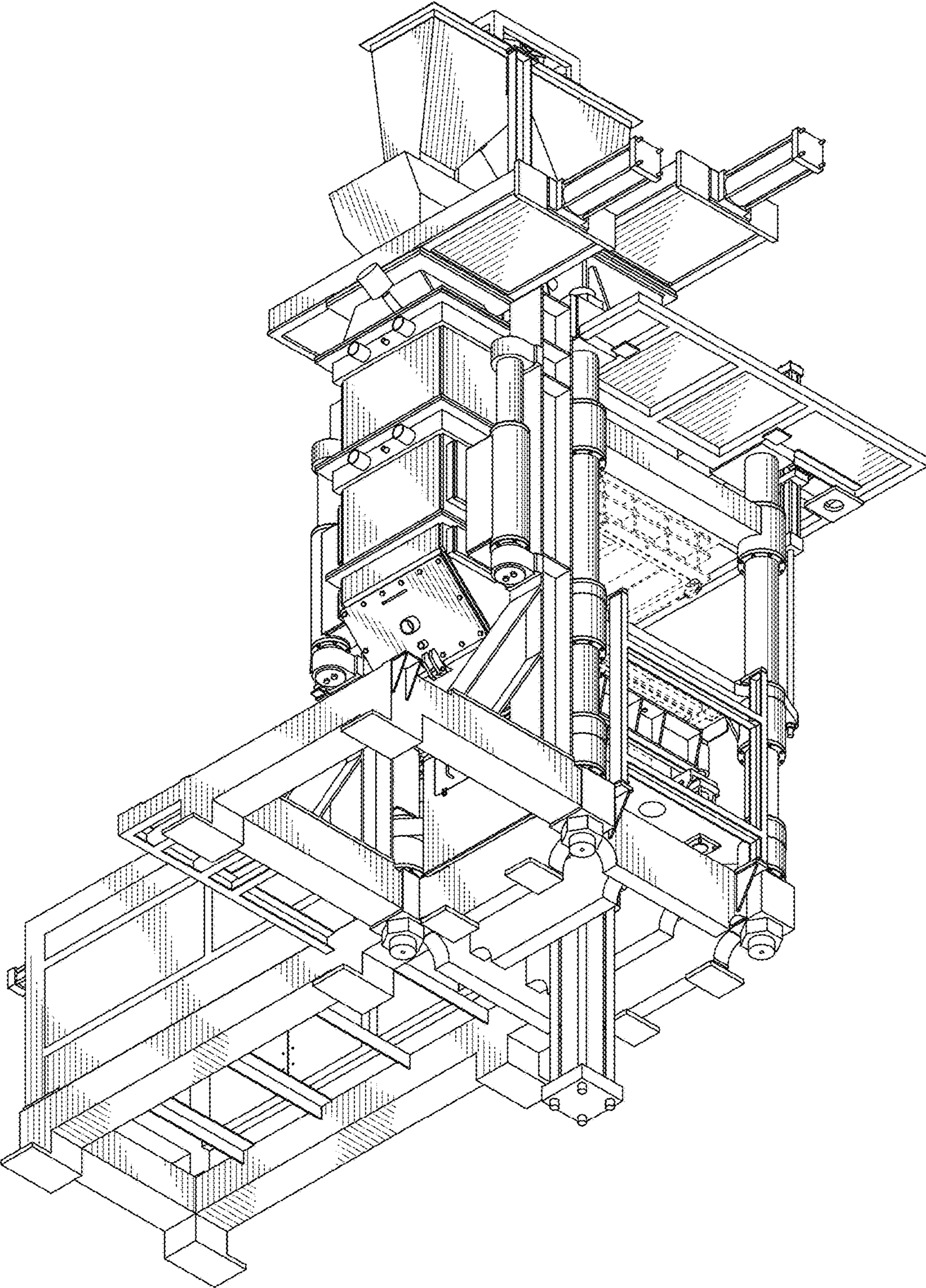


FIG. 2

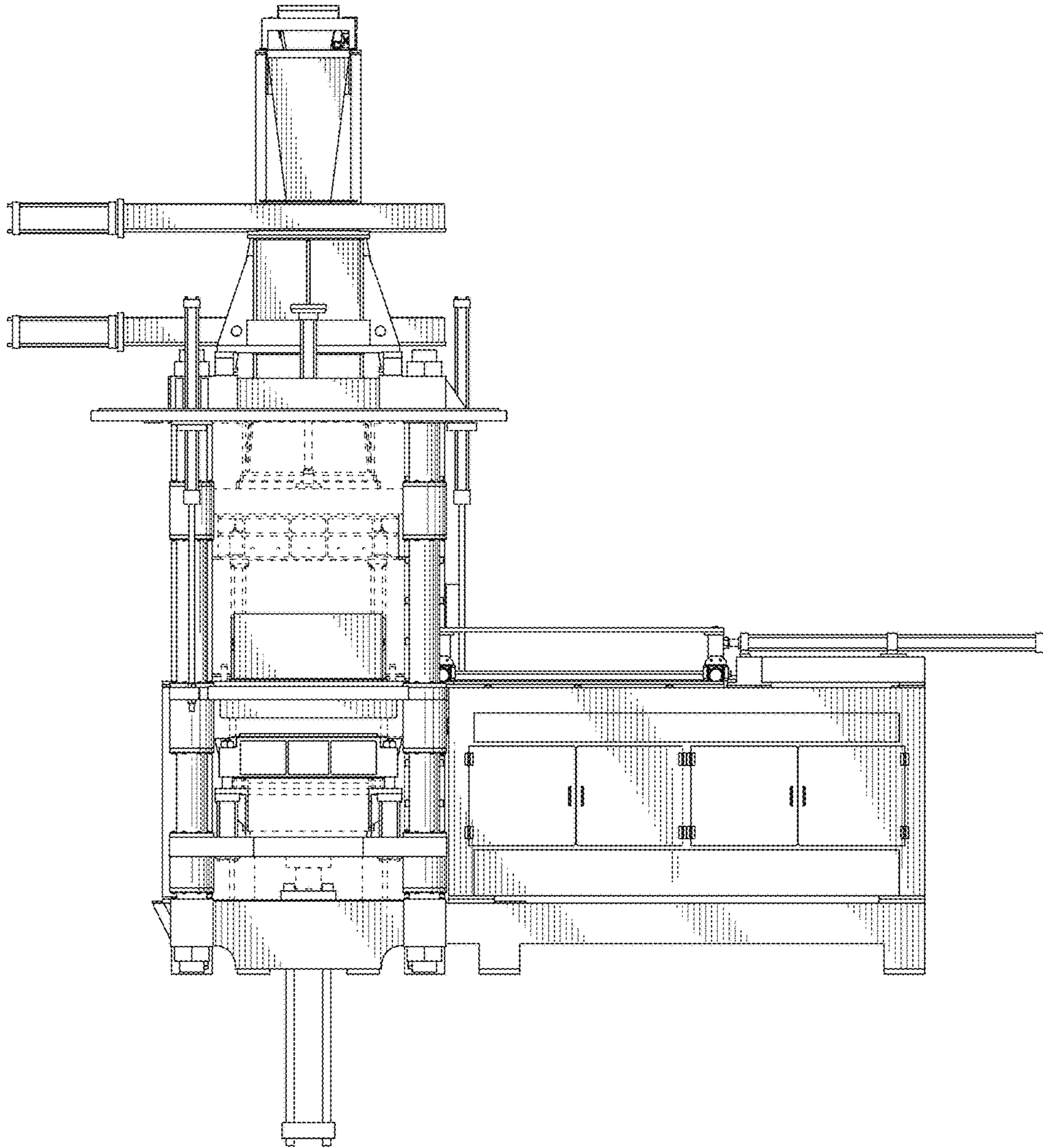


FIG. 3

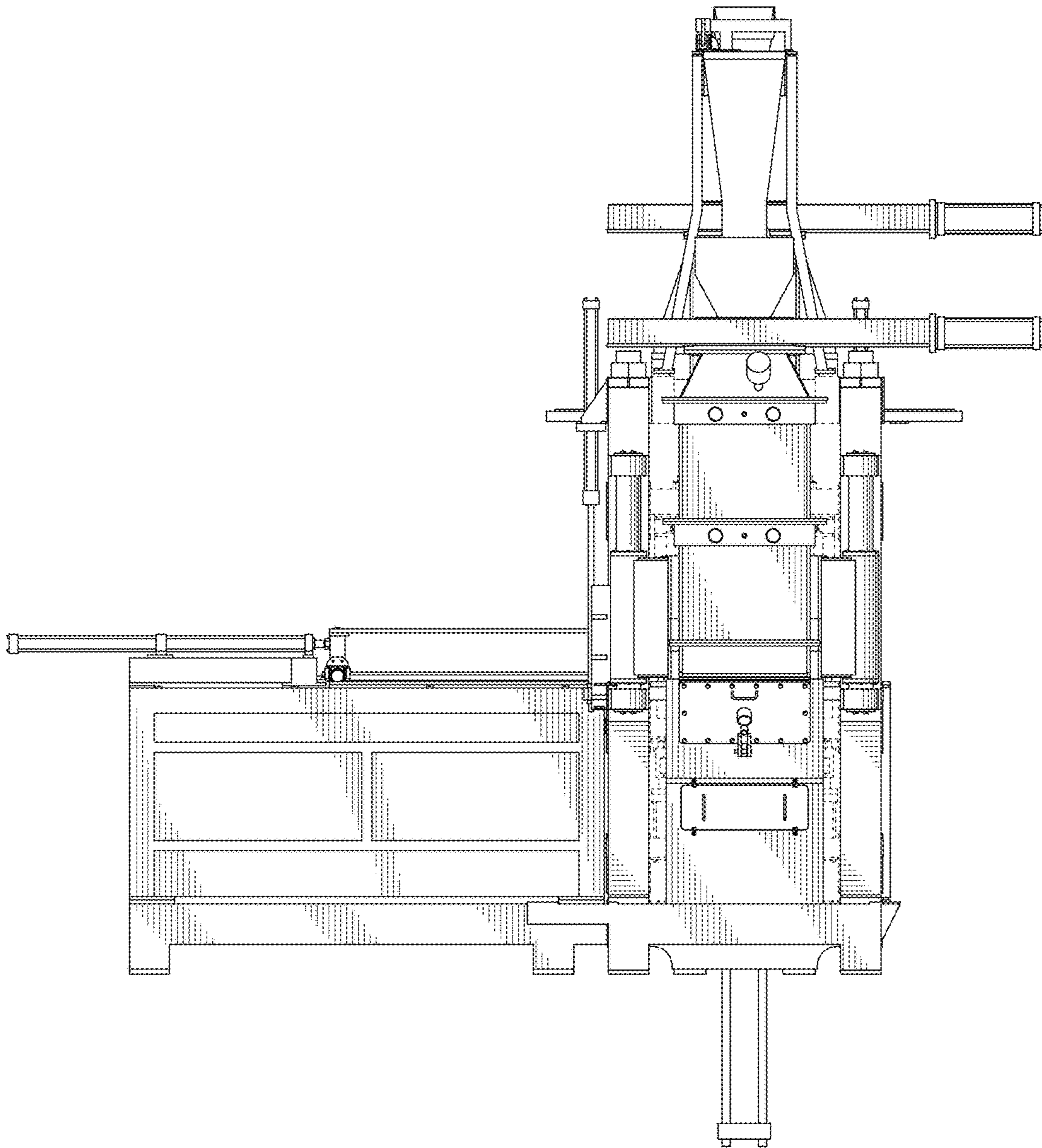


FIG. 4

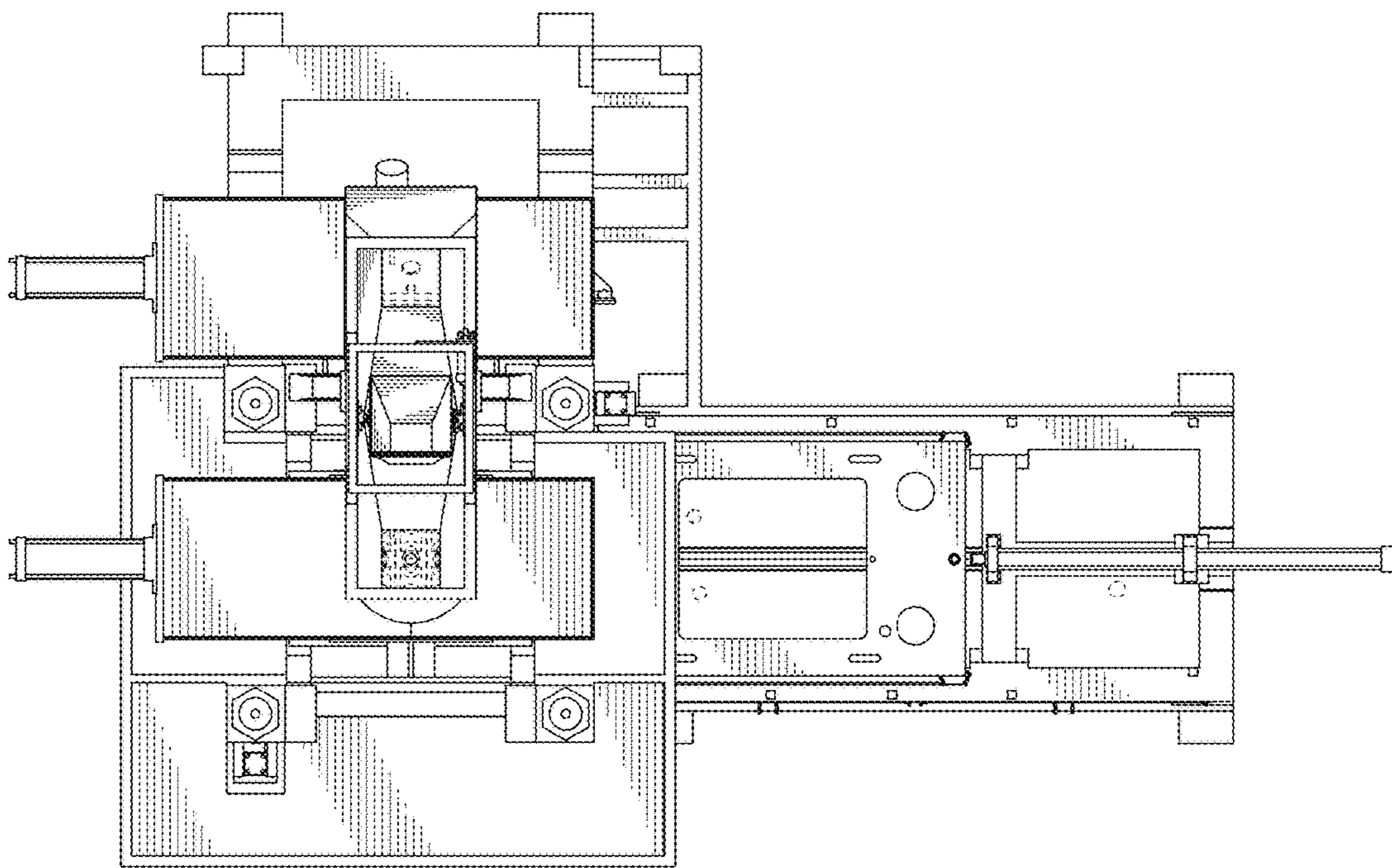


FIG. 5

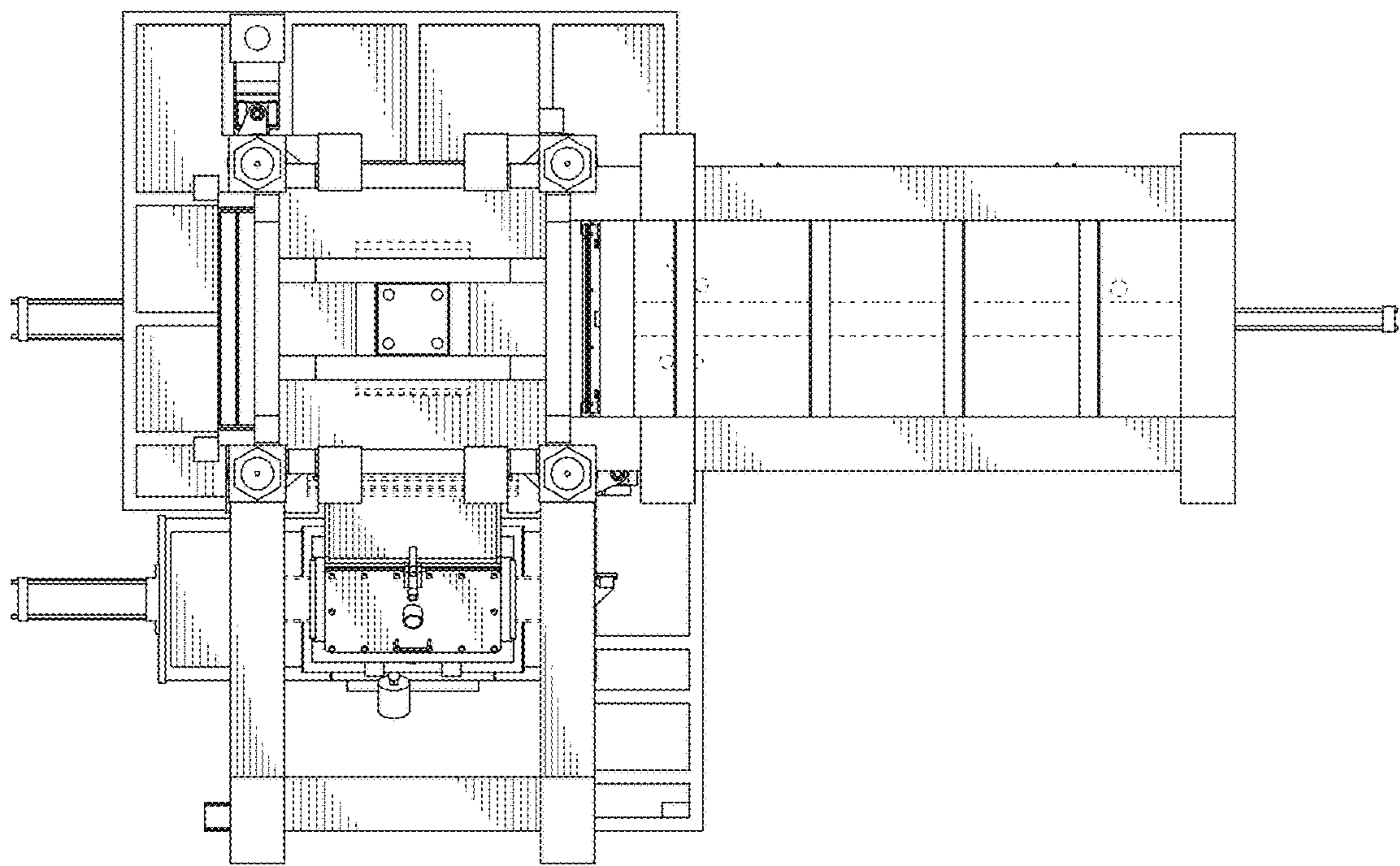


FIG. 6

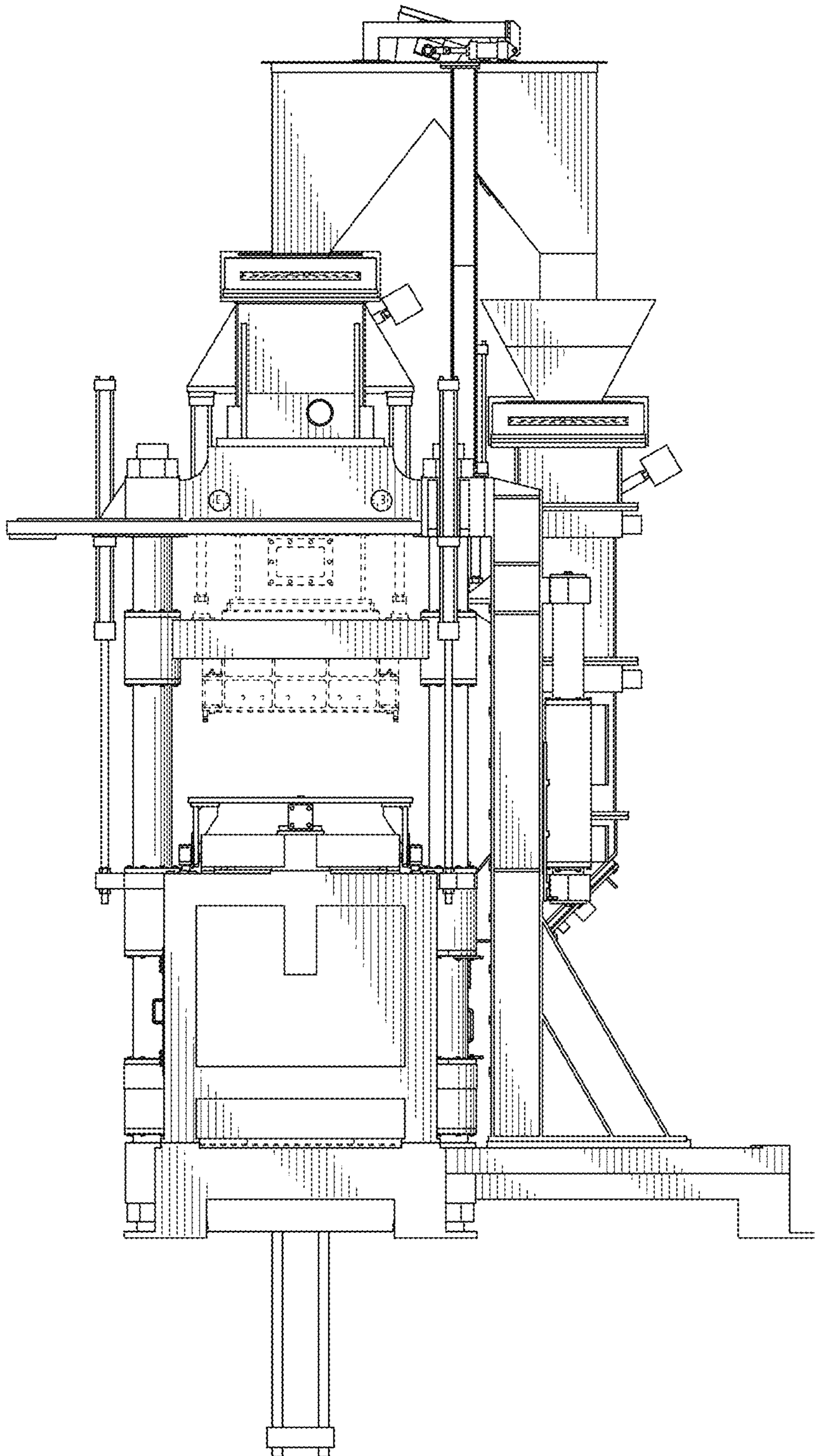


FIG. 7

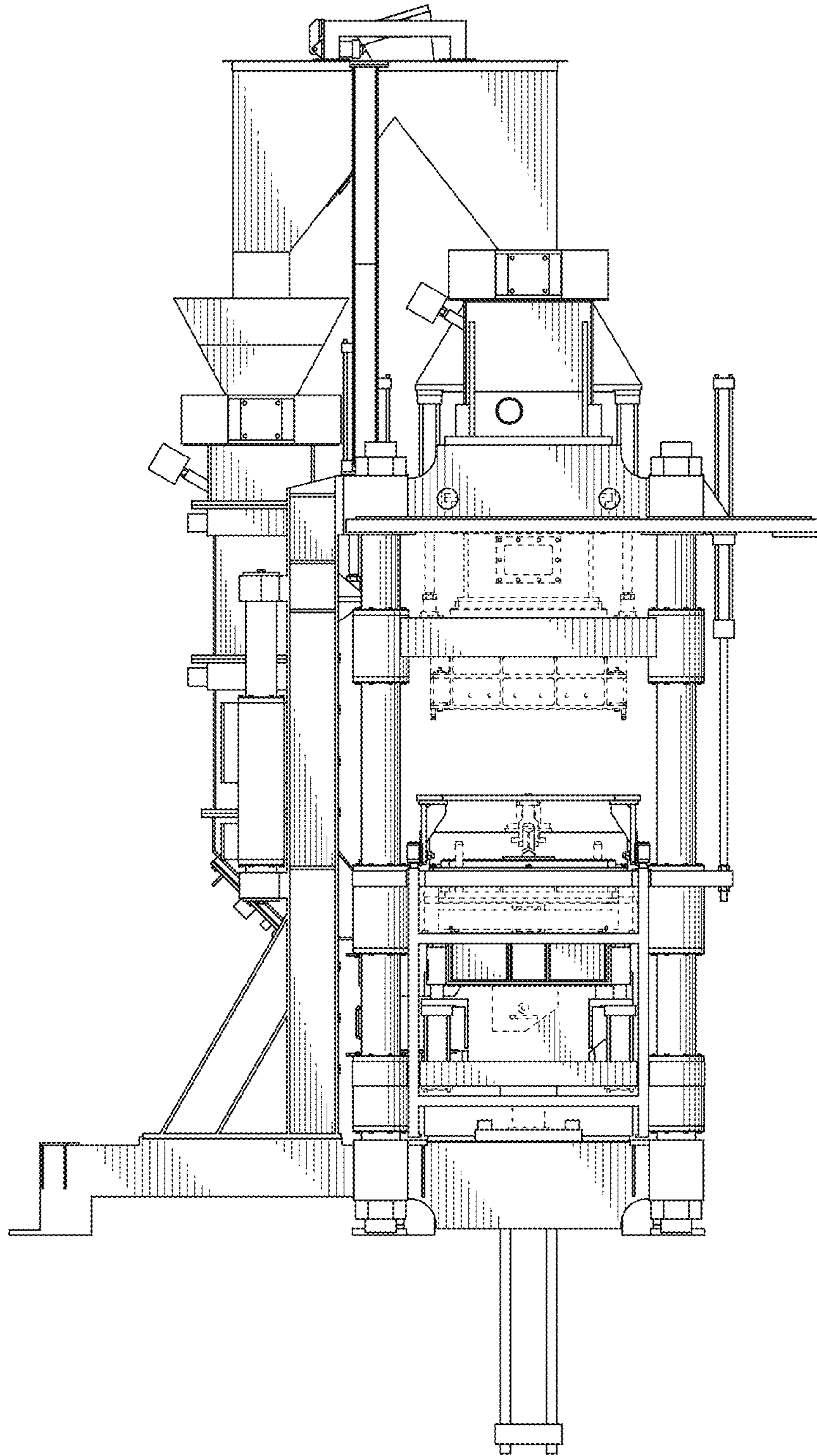


FIG. 8