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United States Patent [19]

Bunker et al.

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[54] **X-Y ROBOTIC MANIPULATOR**

[75] Inventors: **David Bunker; Duane Snider**, both of Burlington, Canada

[73] Assignee: **Dynovation Inc.**, Canada

[**] Term: **14 Years**

[21] Appl. No.: **35,784**

[22] Filed: **Mar. 7, 1995**

[30] **Foreign Application Priority Data**

Oct. 12, 1994 [CA] Canada 1994-2021

[52] U.S. Cl. **D15/199**

[58] Field of Search D15/199; 414/729-737, 414/749; 901/1-10, 16, 21, 27

[56] **References Cited**

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[57] **CLAIM**

The ornamental design for an X-Y robotic manipulator, as shown and described.

DESCRIPTION

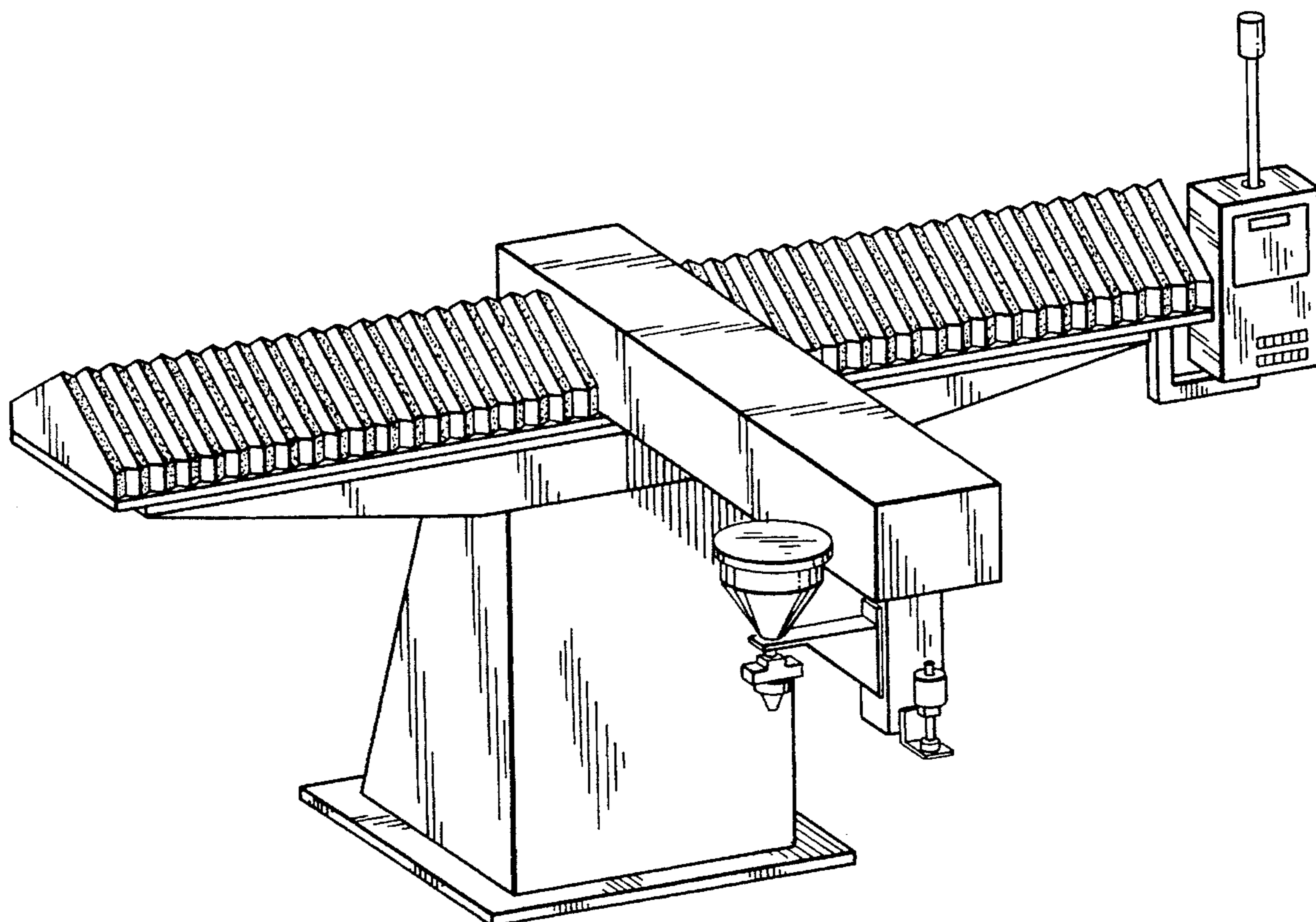
FIG. 1 is a perspective view looking toward the front of the X-Y robotic manipulator from above and to the left of a first embodiment of the design, the latter employing a single Y axis arm assembly;

FIG. 2 is a left side elevation view of the first embodiment; FIG. 3 is a right side elevation view of the first embodiment; FIG. 4 is a rear elevation view of the first embodiment; FIG. 5 is a side elevation view of a second embodiment of the design;

FIG. 6 is a front elevation view of the second embodiment; FIG. 7 is a perspective view as in FIG. 1 of the second embodiment wherein the X and Y arm assemblies have been rotated relative to the base about a vertical axis; and,

FIG. 8 is a perspective view as in FIG. 1 of a third embodiment of the design, the latter being essentially the same as the first embodiment except for the addition of a second Y axis arm assembly.

1 Claim, 8 Drawing Sheets



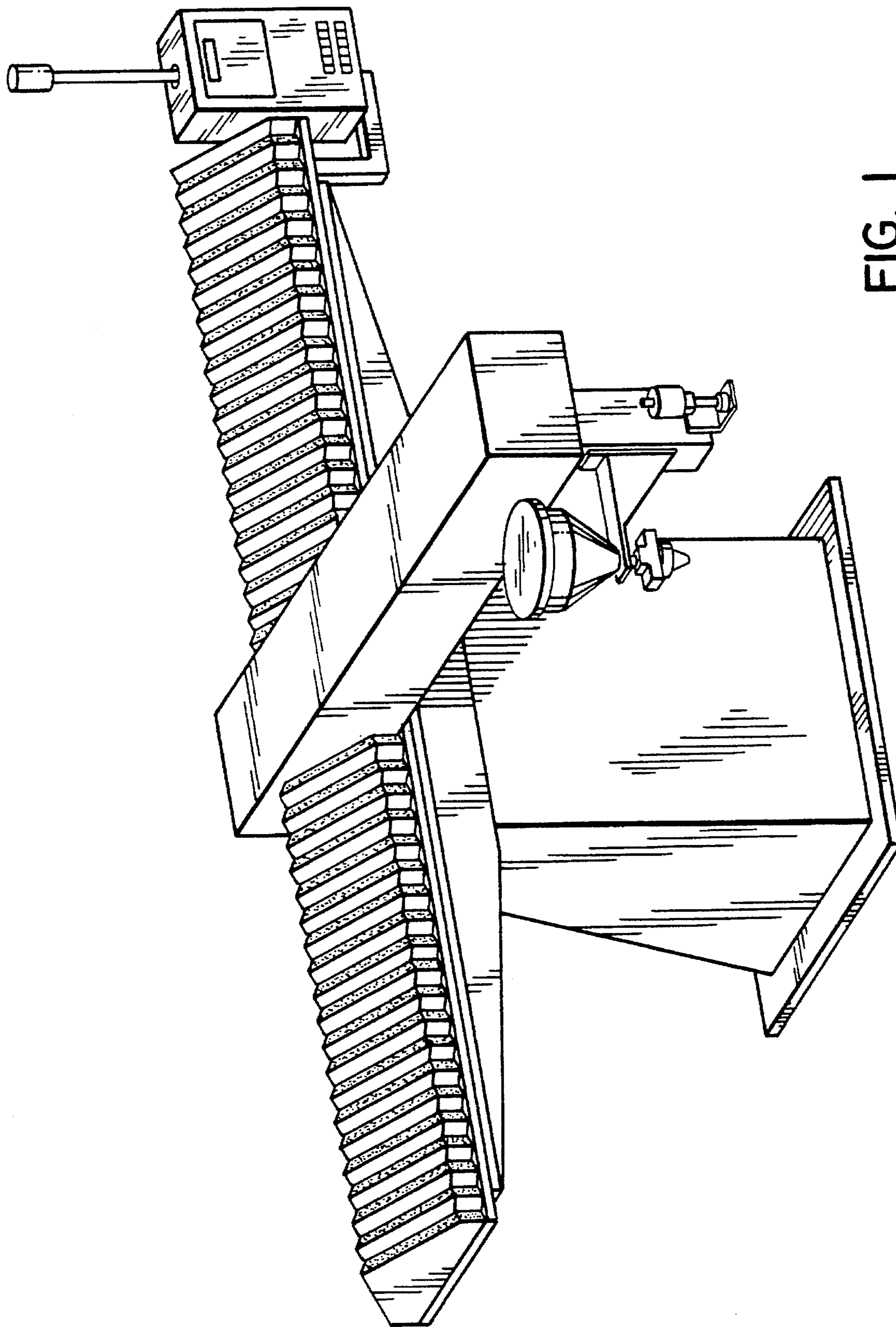


FIG. 1

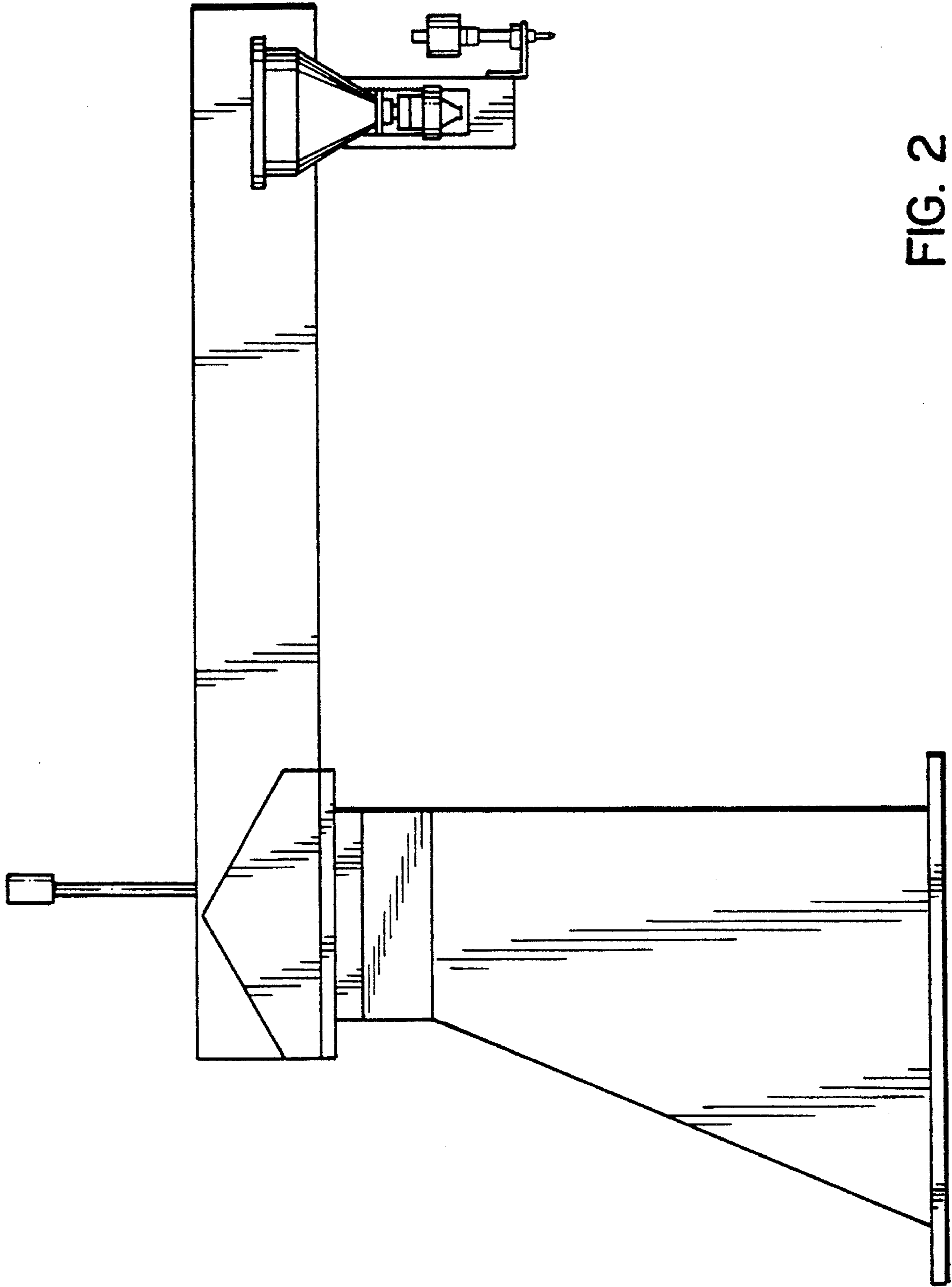


FIG. 2

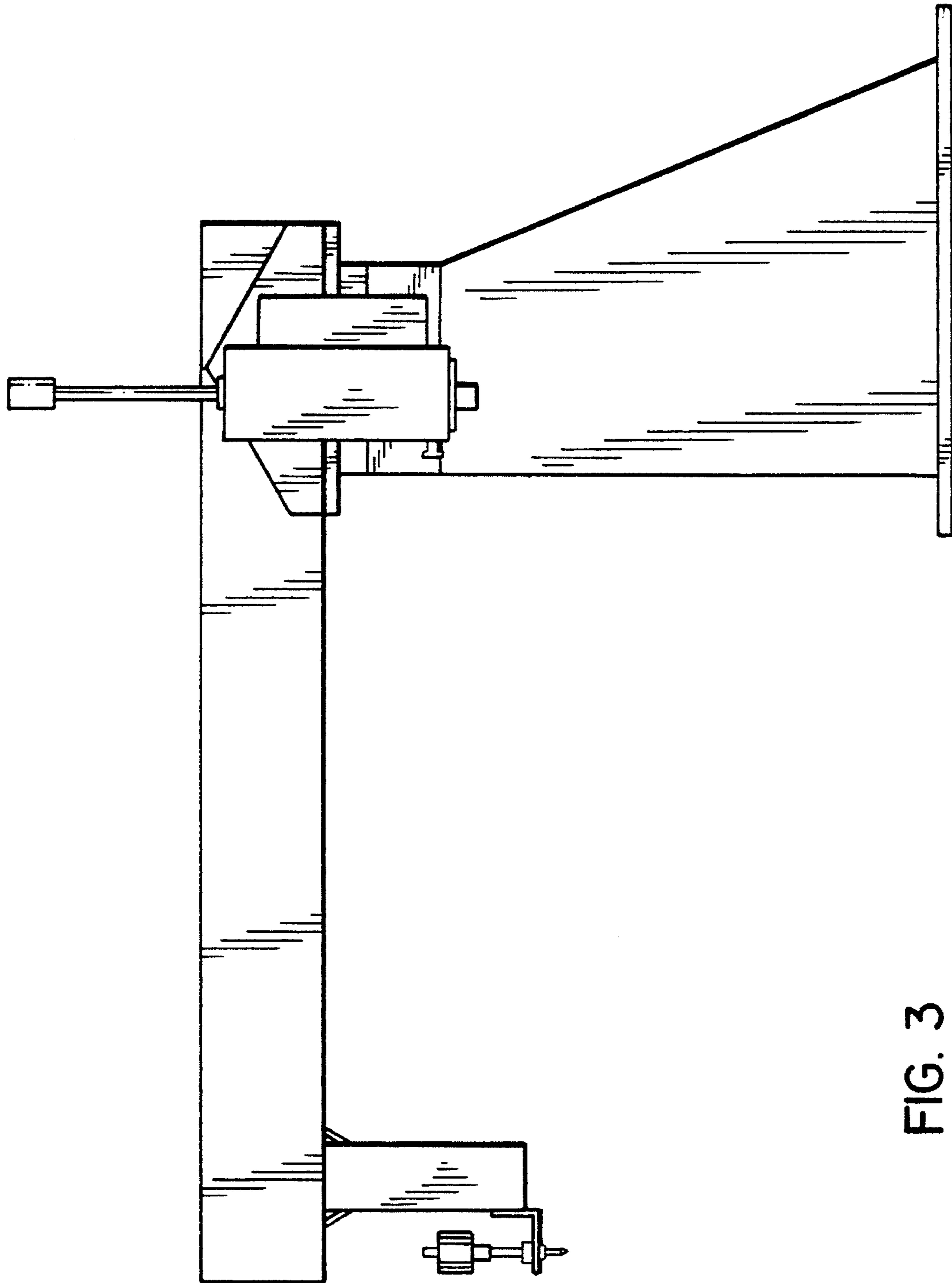


FIG. 3

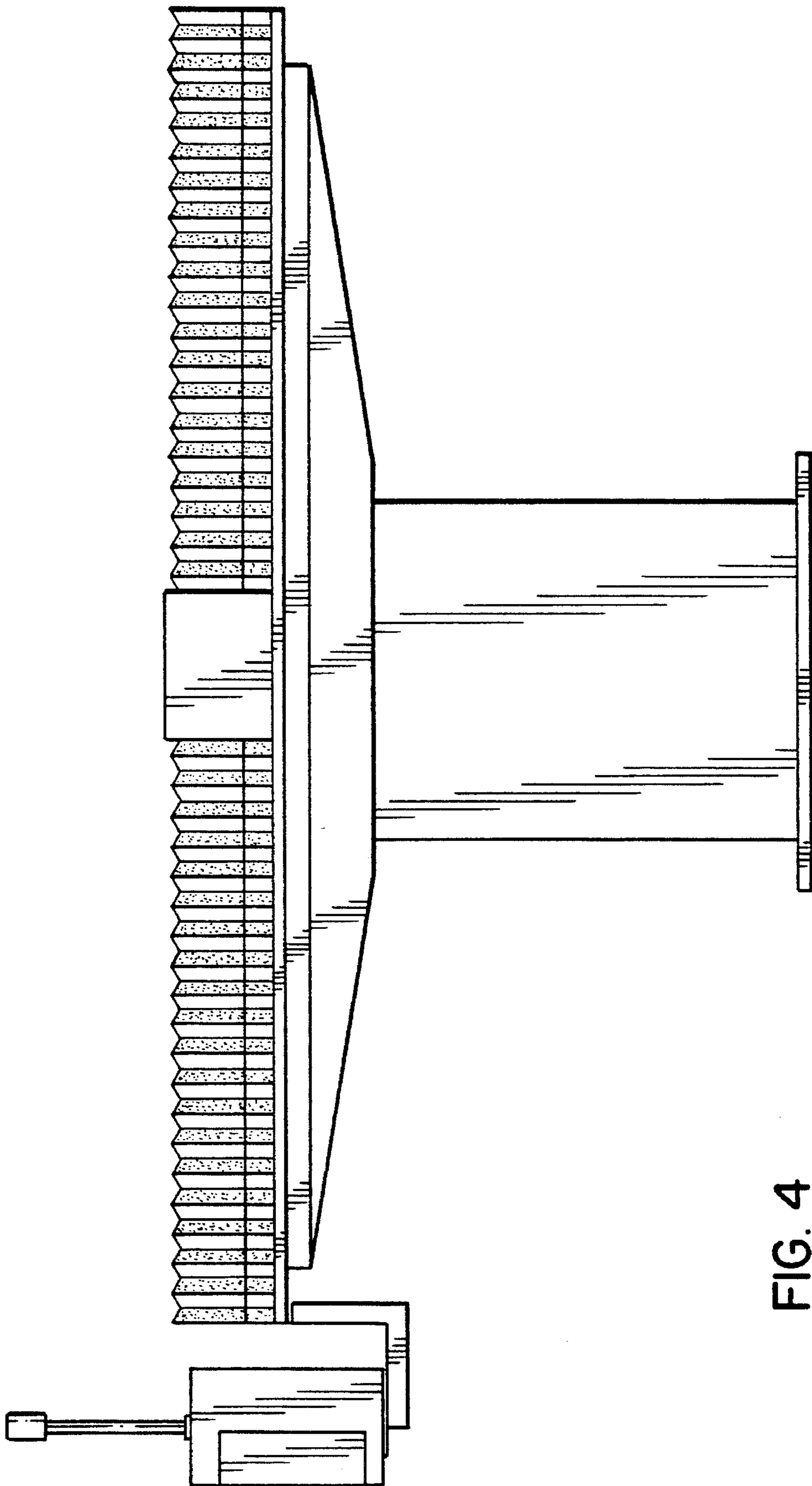


FIG. 4

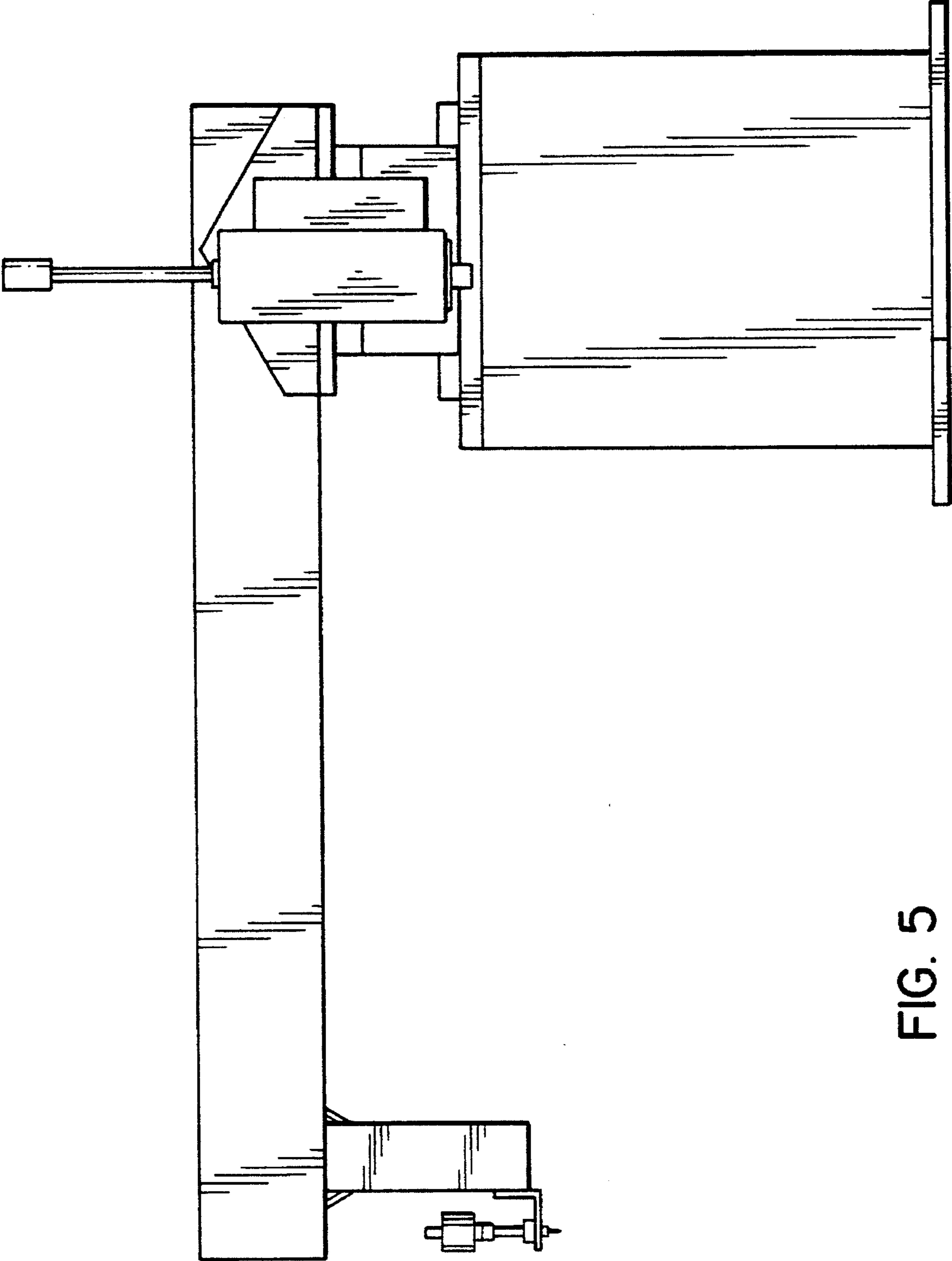


FIG. 5

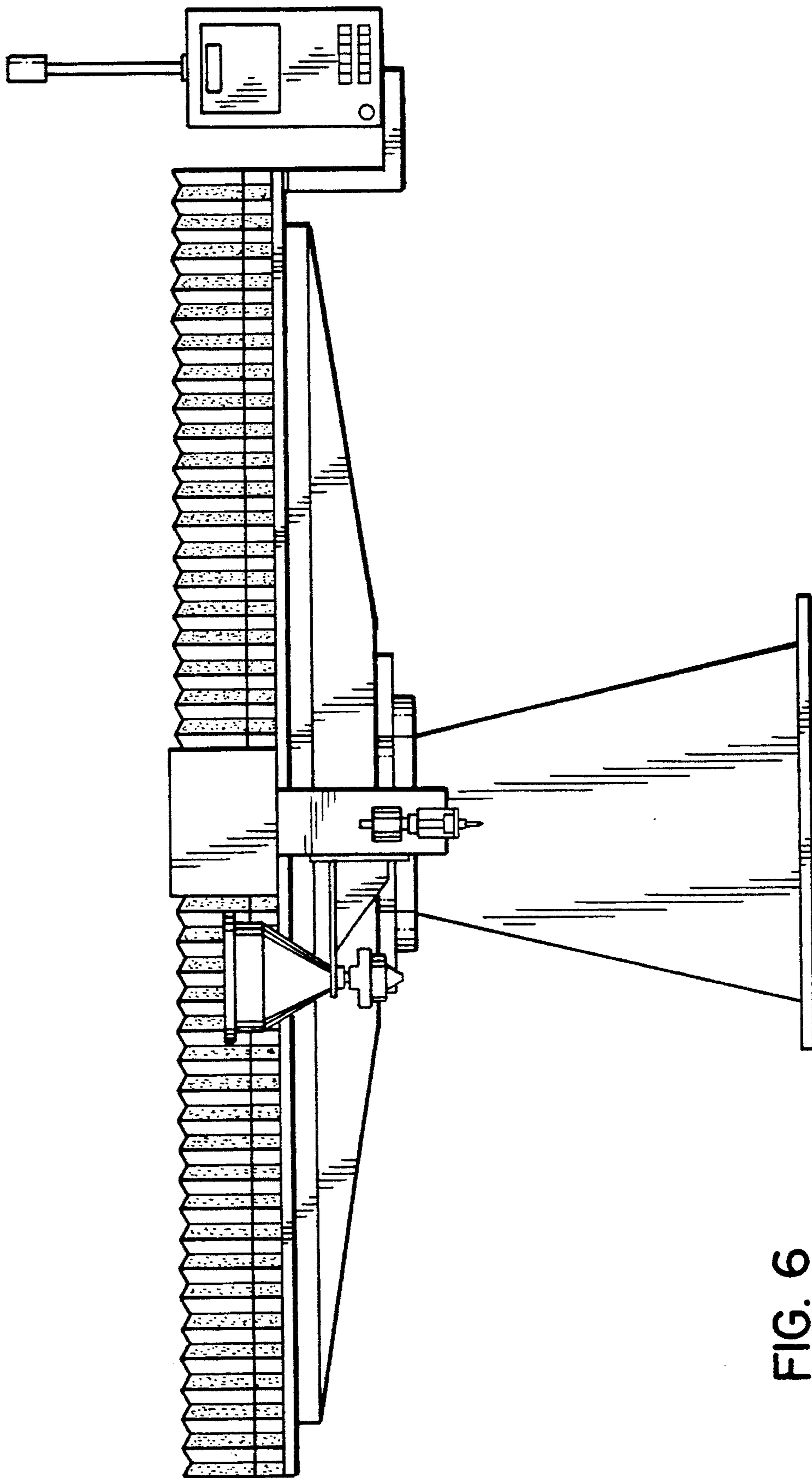


FIG. 6

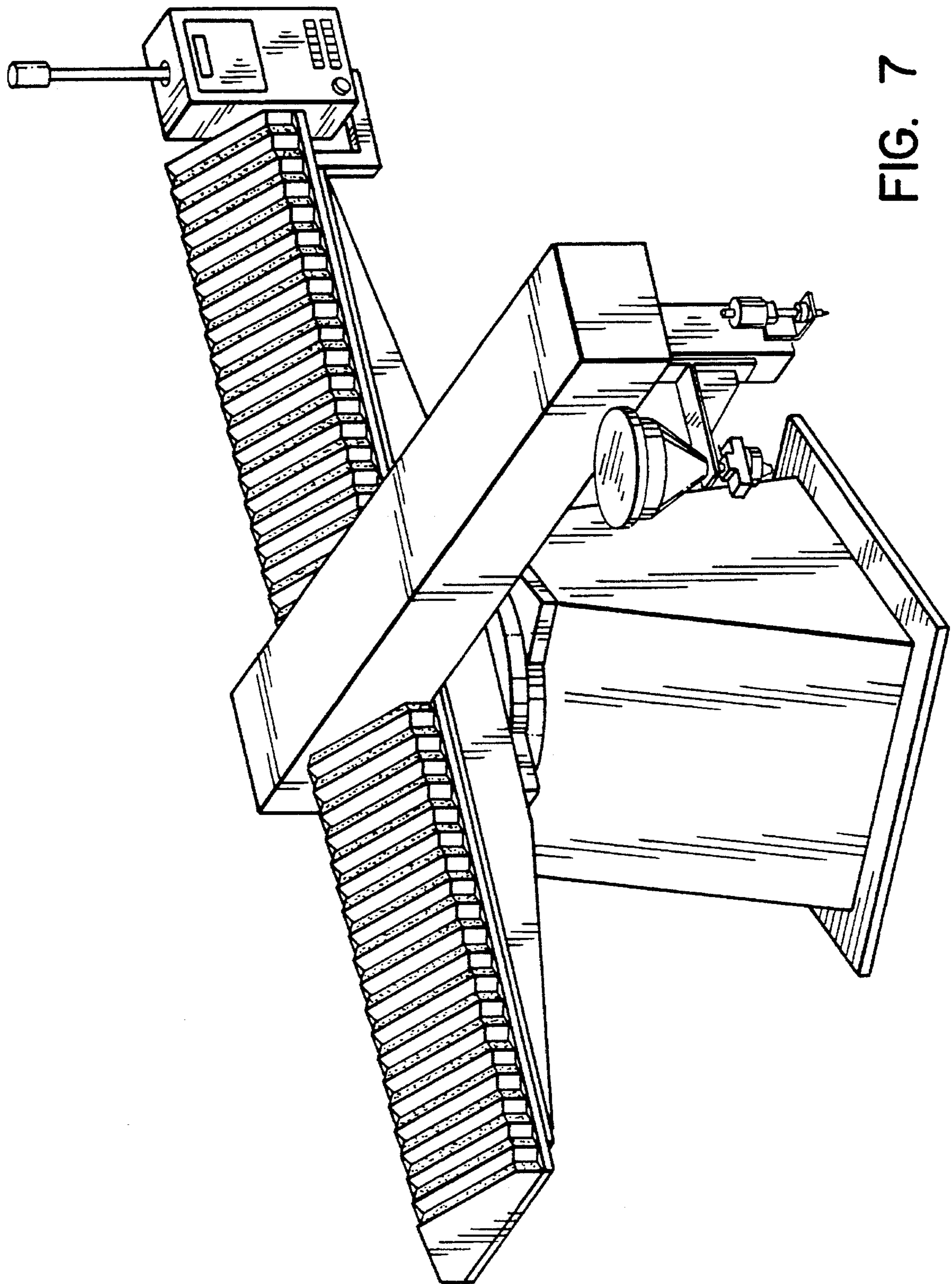


FIG. 7

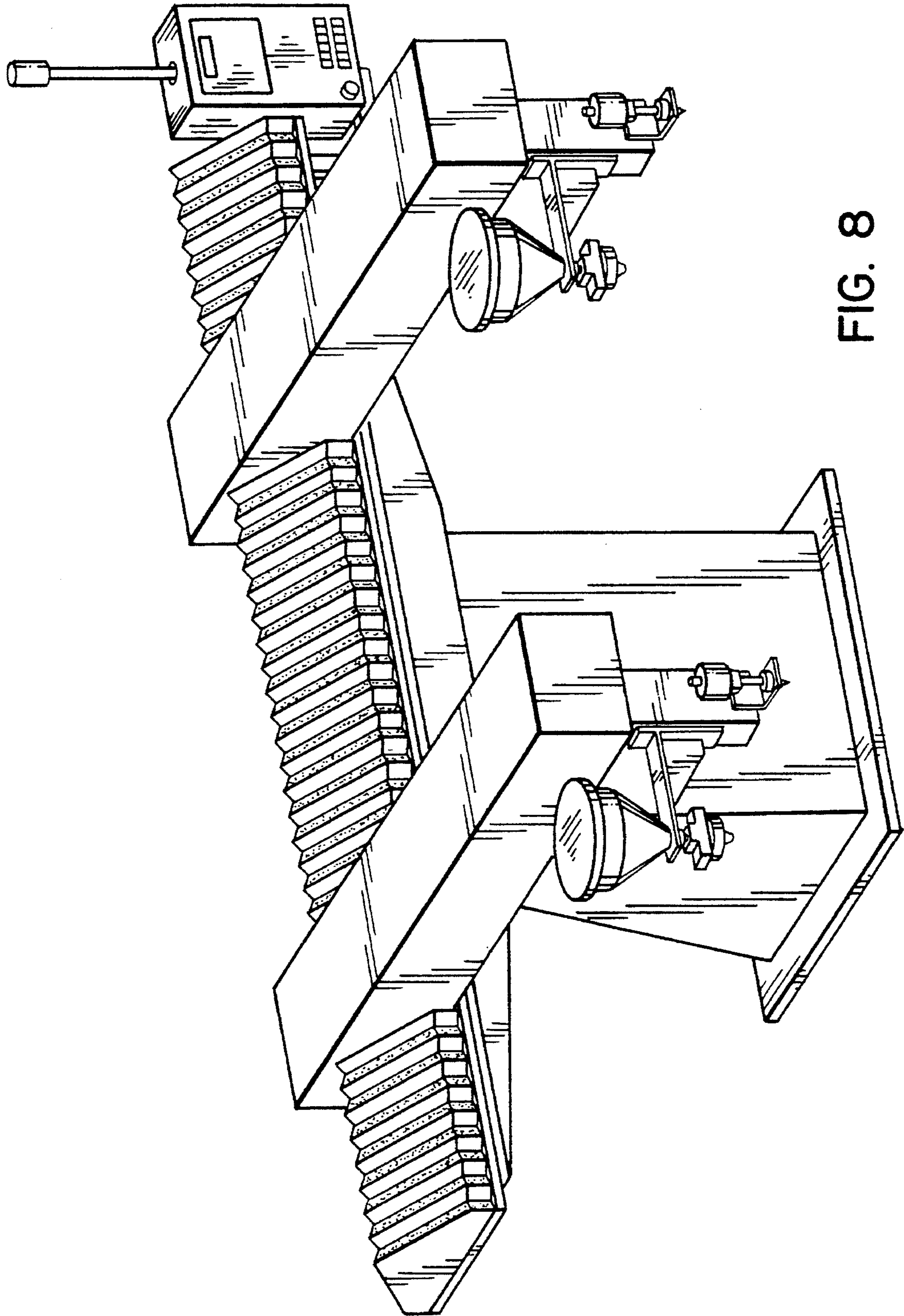


FIG. 8