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(12) **United States Design Patent** (10) **Patent No.:** **US D511,377 S**  
**Erwan et al.** (45) **Date of Patent:** **\*\* Nov. 8, 2005**

(54) **INLET AIR FILTER HOOD MODULE FOR GAS TURBINE SYSTEMS**

FOREIGN PATENT DOCUMENTS

DE 43 21 382 C2 5/1995

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OTHER PUBLICATIONS

(73) Assignee: **Donaldson Company, Inc.**, Minneapolis, MN (US)

“Applications : Rural Environment,” *Pneumafil Gas Turbine Division*, <http://www.pneumafil.com/gt/app/rural.html>, 2 pages (Last printed Aug. 4, 2004).

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

“Applications : Urban Industrial Environment,” *Pneumafil Gas Turbine Division*, <http://www.pneumafil.com/gt/app/urban.html>, 3 pages (Last printed Aug. 4, 2004).

(21) Appl. No.: **29/173,343**

“Braden Systems For Gas Turbines,” *Braden Manufacturing LLC*, 1 page (©2000).

(22) Filed: **Dec. 26, 2002**

“Braden Systems For Gas Turbines,” *Braden Manufacturing LLC*, 11 pages (Date Unknown).

(30) **Foreign Application Priority Data**

*Camfil Farr Turbomachinery*, <http://www.camfilfarr-gt.com/principle.asp?lid=5>, 1 page (Last printed Aug. 4, 2004).

Jul. 1, 2002 (DE) ..... 402 05 468

“Composite-Filter™ System, Improves static air filter system performance,” *Donaldson Company, Inc.*, 4 pages (©1996).

(51) **LOC (8) Cl.** ..... **23-04**

(52) **U.S. Cl.** ..... **D23/393**

(58) **Field of Search** ..... D23/314, 328–329, D23/386–388, 392–393; 126/110 A, 285 R, 152 R, 160; 110/185–186, 217, 268, 287, 349; 454/224, 227, 283, 906; 429/67; 95/273; 62/304

(Continued)

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(56) **References Cited**

**CLAIM**

The ornamental design for an inlet air filter hood module for gas turbine systems, as shown and described.

**U.S. PATENT DOCUMENTS**

**DESCRIPTION**

D201,933 S *	8/1965	Ruggles	.....	D23/387
3,511,337 A	5/1970	Pease et al.		
3,698,509 A	10/1972	Fitting et al.		
5,140,819 A	8/1992	Napier et al.		
D346,855 S *	5/1994	Chiu	.....	D23/328
D382,549 S *	8/1997	Yoshimoto	.....	D23/388
5,709,529 A	1/1998	Parzych		
5,983,888 A *	11/1999	Anselmino et al.	.....	454/906
6,123,751 A	9/2000	Nelson et al.		
6,260,658 B1	7/2001	Darrell et al.		
6,308,702 B1 *	10/2001	Huyghe et al.	.....	236/11
6,368,386 B1	4/2002	Nelson et al.		
6,385,987 B2 *	5/2002	Schlom et al.	.....	62/304
6,599,344 B2	7/2003	Tokar et al.		
6,673,136 B2 *	1/2004	Gillingham et al.	.....	95/273
6,689,507 B1 *	2/2004	Tsutsumi et al.	.....	429/67

The hood may be found, for example, at the air admission inlet of a filter room or configuration, for filtering combustion air for gas turbines.

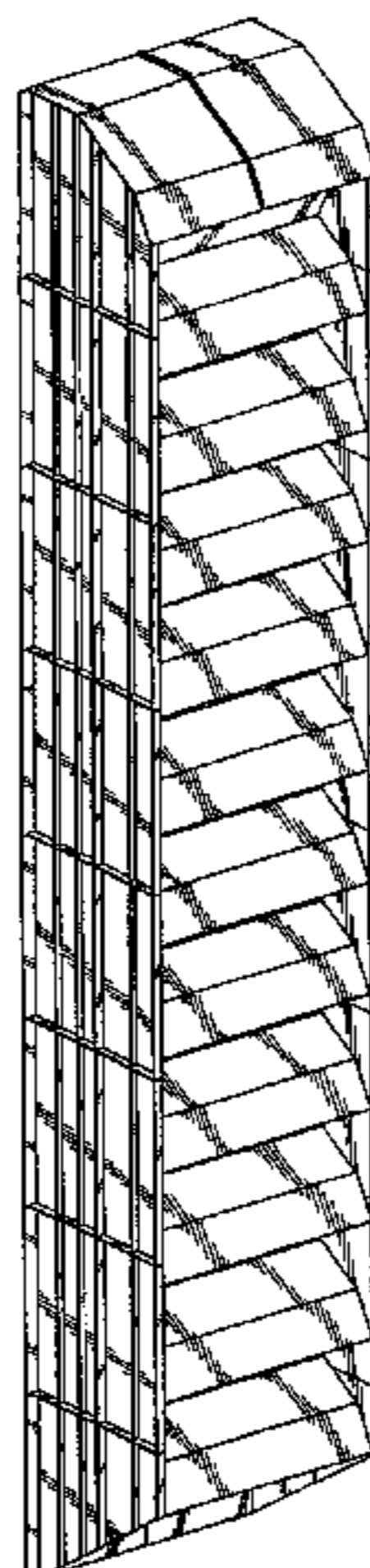
FIG. 1 is a top left perspective view of an inlet air filter hood module showing our new design, illustrated in a bank of seven modules, wherein the other six modules are shown in dashed lines;

FIG. 2 is a greatly enlarged perspective view of the inlet air filter hood module of FIG. 1; and,

FIG. 3 is an enlarged front elevation view of the bank of hood modules of FIG. 1.

The broken line showing of like modules is for illustrative purposes only and forms no part of the claimed design.

**1 Claim, 3 Drawing Sheets**



## OTHER PUBLICATIONS

Composite-Filter™ Systems (CFS) 2-Stage Static Inlet Air Filtration System for Gas Turbines, *Donaldson Company, Inc.*, 6 pages (©2000).

“Cooling Inlet Air Improves Turbine Output, Choose Evaporative Cooler or Chiller Coils to Create Higher Mass-Flow Rate,” *Donaldson Company, Inc.*, 4 pages (©2001).

“Donaldson GDX Self-Cleaning Inlet Air Filter for Gas Turbines,” *Donaldson Company, Inc.*, 1 page (Jun. 2003).

“Dual Inlet GDS Static Air Filter for Operating Airflows 9,000 –79,000 cfm / 255 –2237 m<sup>3</sup>/min,” *Donaldson Company, Inc.*, 8 pages (©2002).

“Filter Houses,” *Braden Manufacturing, LLC*, [http://www.braden.com/Braden/gas\\_turbine/inlets/filter\\_houses/filter\\_house.htm](http://www.braden.com/Braden/gas_turbine/inlets/filter_houses/filter_house.htm), 2 pages (Last printed Aug. 4, 2004).

“Filtration Solutions for Gas Turbines, Technological innovation combined with global manufacturing & distribution,” *Donaldson Company, Inc.*, 4 pages (©2000).

“Filtration Solutions for Gas Turbines, Technological innovation combined with global manufacturing & distribution,” *Donaldson Company, Inc.*, 4 pages (©2002).

“Fog Cooling System,” *Braden Manufacturing, LLC*, [http://www.braden.com/Braden/gas\\_turbine/FogCooling/fog-coolingsystem.htm](http://www.braden.com/Braden/gas_turbine/FogCooling/fog-coolingsystem.htm), 1 page (Last printed Aug. 4 2004).

“Gas Turbine Inlet Air Treatment Systems,” *Braden Manufacturing, LLC*, 12 pages (©2000).

“GDS Filtration System, Advanced Static Inlet Air Filter System for Large Gas Turbines,” *Donaldson Company, Inc.*, 4 pages (Rev Feb. 2001).

GDX™ Pulse Cleaning Filter System, Reliable filter performance in a variety of environments, *Donaldson Company, Inc.*, 4 pages (©1996).

GDX Self-Cleaning Filter System, *Donaldson Company, Inc.*, 4 pages (©2000).

“GDX Self-Cleaning Filter System,” *Donaldson Company, Inc.*, 4 pages (©2000).

“It’s Always the Right Climate for Donaldson Gas Turbine Air Filtration,” *Donaldson Company, Inc.*, 4 pages (Rev May 1998).

“Landbased Systems –Pulsejet Systems,” *Camfil Farr Turbomachinery*, <http://www.camfilfarr-gt.com/default.asp?ulid=42&lid=12>, 2 pages (Last printed Aug. 4, 2004).

“Landbased Systems –Static Systems,” *Camfil Farr Turbomachinery*, <http://www.camfilfarr-gt.com/default.asp?ulid=41&lid=12>, 1 page (Last printed Aug. 4, 2004).

“Pressurized Fog Cooling Systems For Gas Turbines,” *Braden Manufacturing*, 4 pages (©2001).

Spider-Web® Filter Media, *Donaldson Company, Inc.*, 4 pages (©1994).

“Systems Components:Static Filter,” *Pneumafil Gas Turbine Division*, <http://www.pneumafil.com/gt/sc/static.html>, 3 pages (Last printed Aug. 4, 2004).

“Turbine Inlet Air Retrofit, Conversions, Modifications, Upgrades,” *Donaldson Company, Inc.*, 8 pages (Rev Sep. 2003).

\* cited by examiner



FIG. 1

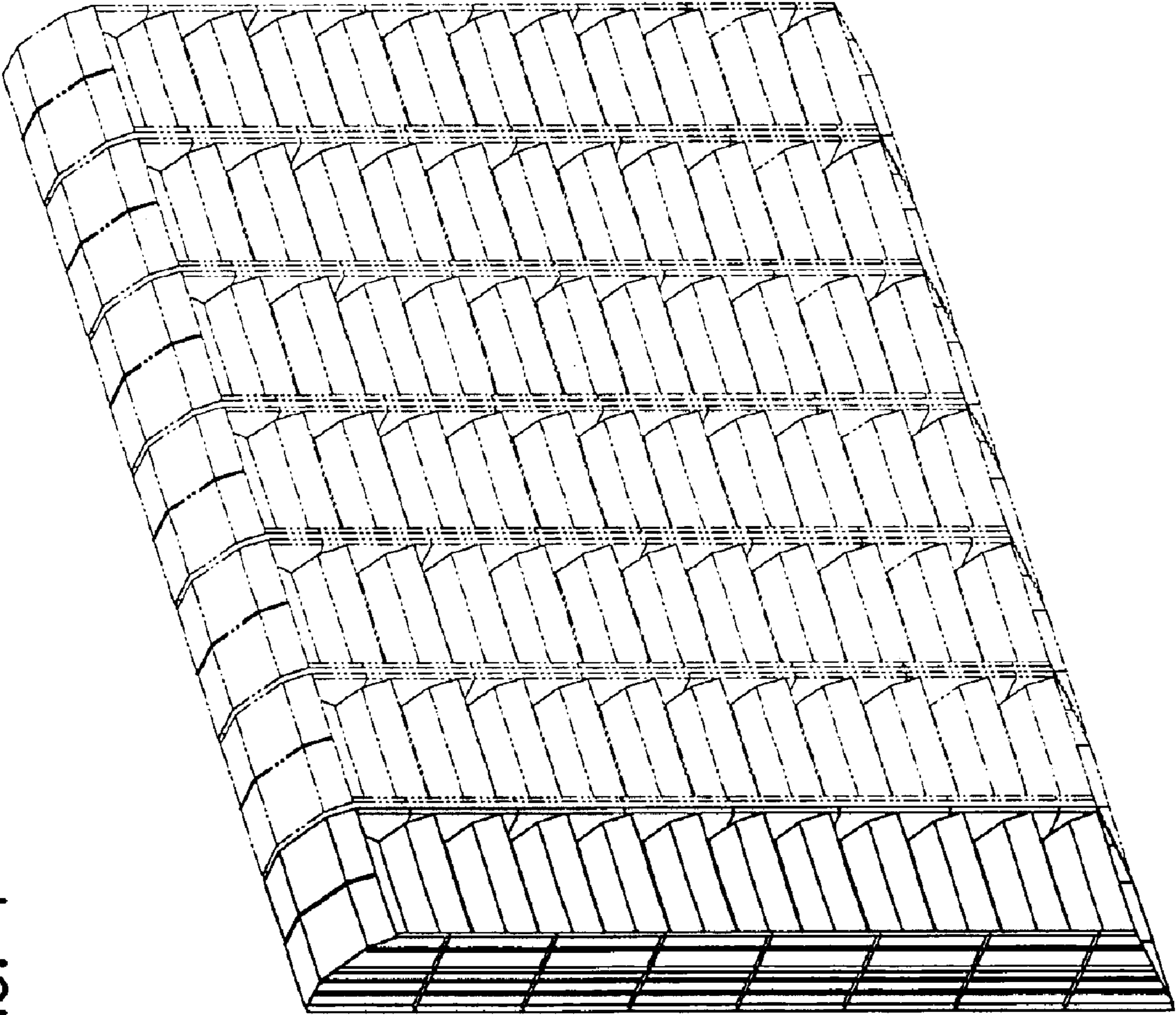
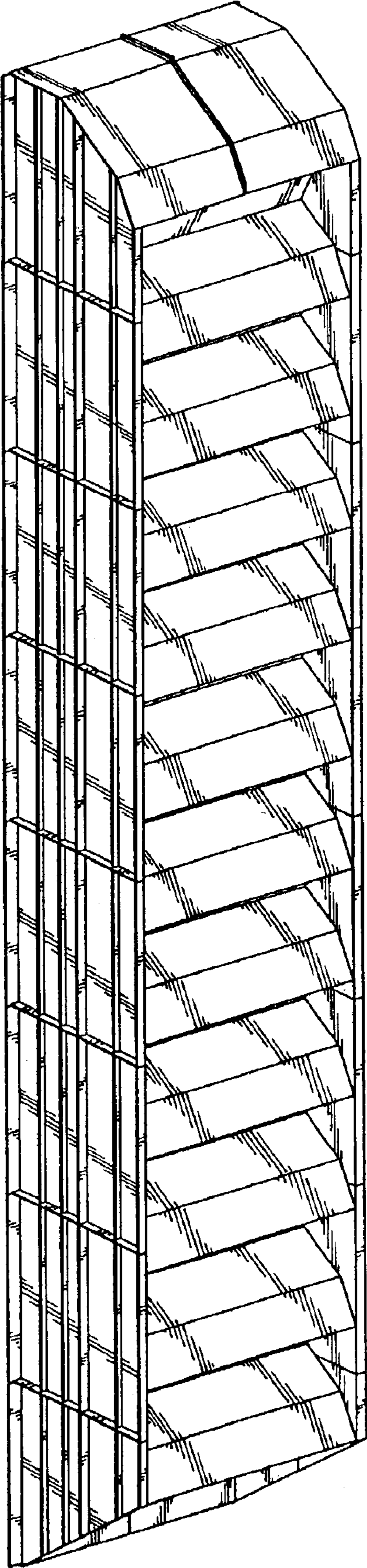


FIG. 2



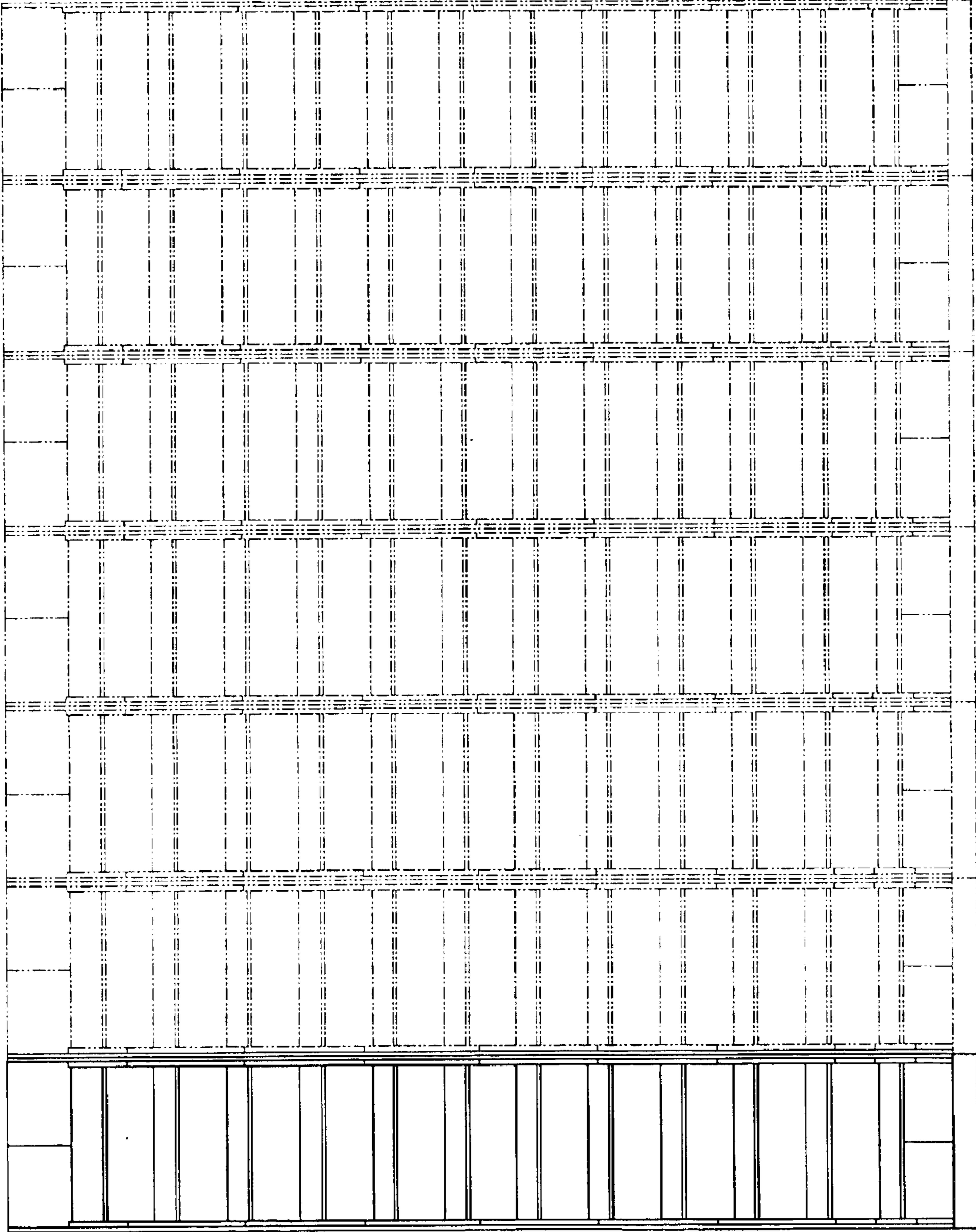


FIG. 3