



US00D395864S

United States Patent [19]

Stahlhut et al.

[11] Patent Number: Des. 395,864

[45] Date of Patent: **Jul. 7, 1998

[54] WINDSHIELD WIPER BLADE LARGE HOOK CONNECTOR SHIM

[75] Inventors: Alan Jeffrey Stahlhut, Valparaiso; William Arthur Powell, Winamac; James Patrick Witek, Michigan City; Richard Allen Herring, Granger, all of Ind.

[73] Assignee: Cooper Industries, Inc., Houston, Tex.

[**] Term: 14 Years

[21] Appl. No.: 65,147

[22] Filed: Jan. 22, 1997

[51] LOC (6) Cl. 12-16

[52] U.S. Cl. D12/220

[58] Field of Search D12/219, 220; 15/250.05-250.07, 250.31-250.33, 250.351-250.361, 250.38-250.43

[56] References Cited

U.S. PATENT DOCUMENTS

D. 353,358	12/1994	Lee	.....	D12/220
D. 357,891	5/1995	Lee	.....	D12/220
3,408,680	11/1968	Heller	.....	15/250.42
3,641,614	2/1972	Newsome	.....	15/250.32
3,942,212	3/1976	Steger et al.	.....	15/250.42
4,023,232	5/1977	Smithers	.....	15/250.32
4,127,912	12/1978	Deibel et al.	.....	15/250.42
4,179,766	12/1979	Weiler et al.	.....	15/250.32
4,290,164	9/1981	van den Berg	.....	15/250.32
4,296,521	10/1981	Mower	.....	15/250.32
4,343,062	8/1982	van den Berg	.....	15/250.32
4,443,907	4/1984	Chamberlain	.....	15/250.32
4,578,839	4/1986	Nishikawa	.....	15/250.32
4,878,263	11/1989	Raymond	.....	15/250.32
5,070,573	12/1991	Journee et al.	.....	15/250.32
5,084,933	2/1992	Buechele	.....	15/250.32
5,136,748	8/1992	Naruke et al.	.....	15/250.32
5,168,597	12/1992	Schon et al.	.....	15/250.32
5,289,608	3/1994	Kim	.....	15/250.32
5,332,328	7/1994	Yang	.....	403/154
5,392,487	2/1995	Yang	.....	15/250.32

(List continued on next page.)

FOREIGN PATENT DOCUMENTS

329515	8/1989	European Pat. Off.	.....	15/250.32
2377302	9/1978	France	.....	15/250.32
3222891	12/1983	Germany	.....	15/250.32
611563	6/1979	Switzerland	.....	15/250.32

OTHER PUBLICATIONS

Cooper Industries, Anco Division, "Heavy Duty Premium Wiper Blades—Removal". No. G86024 no date.

Cooper Industries, Anco Division, "Removal and Installation Instructions—Anco Medium and Heavy Duty Windshield Wiper Arms" no date.

Cooper Industries, Anco Division, "Anco Instructions—Removal—25-16-25-24, 31-17, 31-19, 90-16-90-22A." No. 85360A no date.

Cooper Industries, Anco Division, "Anco Instructions—Installation—20-11, 33-18." No. 85374 (1995).

Cooper Industries, Anco Division, "Anco Instructions—Removal—22-18, 25-12-25-15, 31-12." No. 85357A no date.

Cooper Industries, Anco Division, "Adapter Kit #2—Installation—TY-16313." No. G86027 no date.

(List continued on next page.)

Primary Examiner—James Gandy

Assistant Examiner—Stacia Sinuik

Attorney, Agent, or Firm—Fish & Richardson P.C.

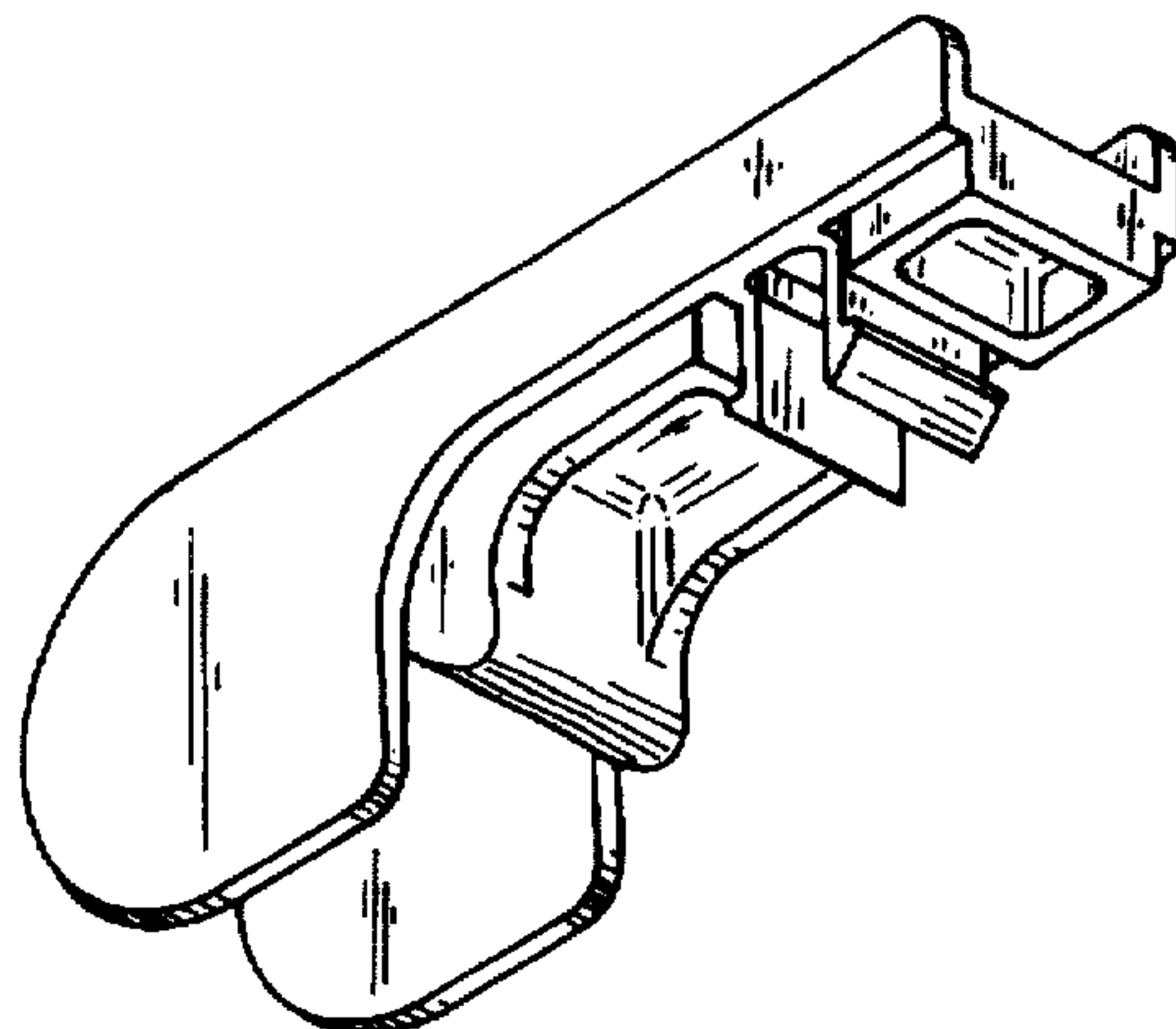
[57] CLAIM

The ornamental design for a windshield wiper blade large hook connector shim, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a windshield wiper blade large hook connector shim showing our new design; FIG. 2 is an enlarged side elevation view thereof; FIG. 3 is an enlarged side elevation view thereof, opposite that shown in FIG. 2; FIG. 4 is an enlarged front elevation view thereof; FIG. 5 is an enlarged rear elevation view thereof; FIG. 6 is an enlarged top plan view thereof; and, FIG. 7 is an enlarged bottom plan view thereof.

1 Claim, 2 Drawing Sheets



U.S. PATENT DOCUMENTS

- | | | | |
|-----------|--------|------|-----------|
| 5,435,041 | 7/1995 | Ho | 15/250.32 |
| 5,606,765 | 3/1997 | Ding | 15/250.32 |
| 5,611,103 | 3/1997 | Lee | 15/250.32 |
| 5,618,124 | 4/1997 | Chen | 403/3 |
| 5,632,059 | 5/1997 | Lee | 15/250.32 |
- Cooper Industries, Anco Division, "Heavy Duty Premium Wiper Blades—Installation," No. G86034 no date.
- Cooper Industries, Anco Division, "Instructions—Removal—Installation—N-16R—N-21R" (1994).
- Cooper Industries, Anco Division, "Anco Instructions—Removal—Pin In Arm—Hookslot Arm," No. G85441 no date.
- Cooper Industries, Anco Division, "Anco Instructions—Installation—25-16-24-24, 31-17, 31-19, 90-16-90-22A," No. 85360A no date.
- Cooper Industries, Anco Division, "Instructions—T Series—Removal—Installation," No. 86001 (1995).
- Cooper Industries, Anco Division, "Instructions—U15R—U24R—Removal—Installation," No. G85370B (1995).
- Cooper Industries, Anco Division, "Anco Instructions—29-16-29-24, 30-15-35-18—Removal," No. 85359 no date.
- Cooper Industries, Anco Division, "Installation—17" and 18" Blade, 20" Blade," No. 85320 no date.
- Cooper Industries, Anco Division, "Anco Instructions—N-22R & N-24R—Removal," No. 85372A no date.
- Cooper Industries, Anco Division, "Anco Instructions—Removal—Pin in Arm—Hookslot Arm," No. G85441.
- Cooper Industries, Anco Division, "Rainy Day Instructions—RDB16—RDB19—Removal," No. 85393 no date.
- Cooper Industries, Anco Division, "Rainy Day Instructions—Removal—Installation—Anco Advantage & TRICO, Tridon, Bosch II," No. 85363 (1994).
- Cooper Industries, Anco Division, "Pantograph Arms—1/4-28, Screw Shaft Arm—1/2 Inch and 5/8 Inch Serrated Drum Shaft Arm—Universal Adjustable Wiper Arms," No. 94121 (Mar. 1992).
- Cooper Industries, Anco Division, "Anco Instructions—Removal—20-11, 33-18," No. 85374 no date.
- Cooper Industries, Anco Division, "Anco Instructions—Installation—22-18, 25-12-25-15, 31-12," No. 85357A (1995).
- Cooper Industries, Anco Division, "Anco Instructions—Removal—22-18, 22-20, 25-12-25-15, 31-12," No. 85357B no date.
- Cooper Industries, Anco Division, "Anco Instructions—Installation—22-18, 22-20, 25-12-25-15, 31-12," No. 85357B no date.
- Cooper Industries, Anco Division, "Anco Instructions—Installation—29-16-29-24, 30-15-30-18," No. 85359 no date.
- Cooper Industries, Anco Division, "Instructions—N Series—Removal—Installation," No. 86000 (1994).
- Cooper Industries, Anco Division, "Instructions—11-13-11-22—Removal—Installation," No. 85365A (1994).
- Cooper Industries, Anco Division, "Installation—Audi, Saturn, Bosch, N-22R" (1994).
- Cooper Industries, Anco Division, "Rainy Day Instructions—Installation—RDB16—RDB19," No. 85393 (1994).
- "Installation," No. V-5912-44 no date.
- Cooper Industries, Anco Division, "Heavy Duty Premium Wiper Blades—Installation—25-17, 31-17, 31-19, 90-17, 90-19," No. G86024 no date.
- Instructions for blade collar, straight arm, hook slot (7 or 9 mm), straight arm with screws, female arm (no pin), and male arm with 1/4" pin no date.
- Instructions for male arm with 3/16" diameter pin, straight arm, hook slot (7 or 9 mm), straight arm screws, female arm (no pin), and male arm with 1/4" pin no date.
- NAPA Windshield Products, instructions for removal and installation of wiper blades, No. 5674-6 (1993) (U.S. Pat. No. 4,127,912).
- Instructions for installation of small side pin attachment, large side pin attachment and hook attachment to World Class™ wiper blades no date.
- Tridon, instruction sheet regarding U.S. Pat. Nos. 3,942,212 and 3,408,680 no date.
- Tridon, instructions for All Season™ 15"-18"/380-460mm and 17"/430mm wiper blades no date.
- Instructions for AEROFOIL wiper blades, #3083024 no date.
- NAPA Windshield Products, removal and installation instructions for 16" wiper blades, No. 5673-6 (Mar. 1993) (U.S. Pat. No. 4,127,912).
- Instructions for 21"/540 mm-24"/610mm wiper blades no date.
- Lifetime Automotive Products, Tripledge™ Lifetime Wipers removal and installation instructions for hook arm, side saddle arm, pin arm and bayonet arm wiper blades no date.
- Removal and installation instructions for wiper blades, No. V-5912-27 (Nov. 1992).
- Removal instructions for wiper blades, No. V-6000-5 no date.
- Removal instructions for wiper blades, No. V-5912-27 no date.
- Instructions for installation of small side pin attachment, large side pin attachment and hook attachment to World Class™ wiper blades no date.
- Lifetime Automotive Products, Tripledge™ All Season Premium Silicone Wipers removal and installation instructions for side saddle arm, bayonet arm, pin arm and hook arm wiper blades no date.
- Instructions for installation of wiper blades onto wiper arm, No. V-6000-4 no date.
- Robert Bosch GmbH, instructions for installation of wiper blades no date.

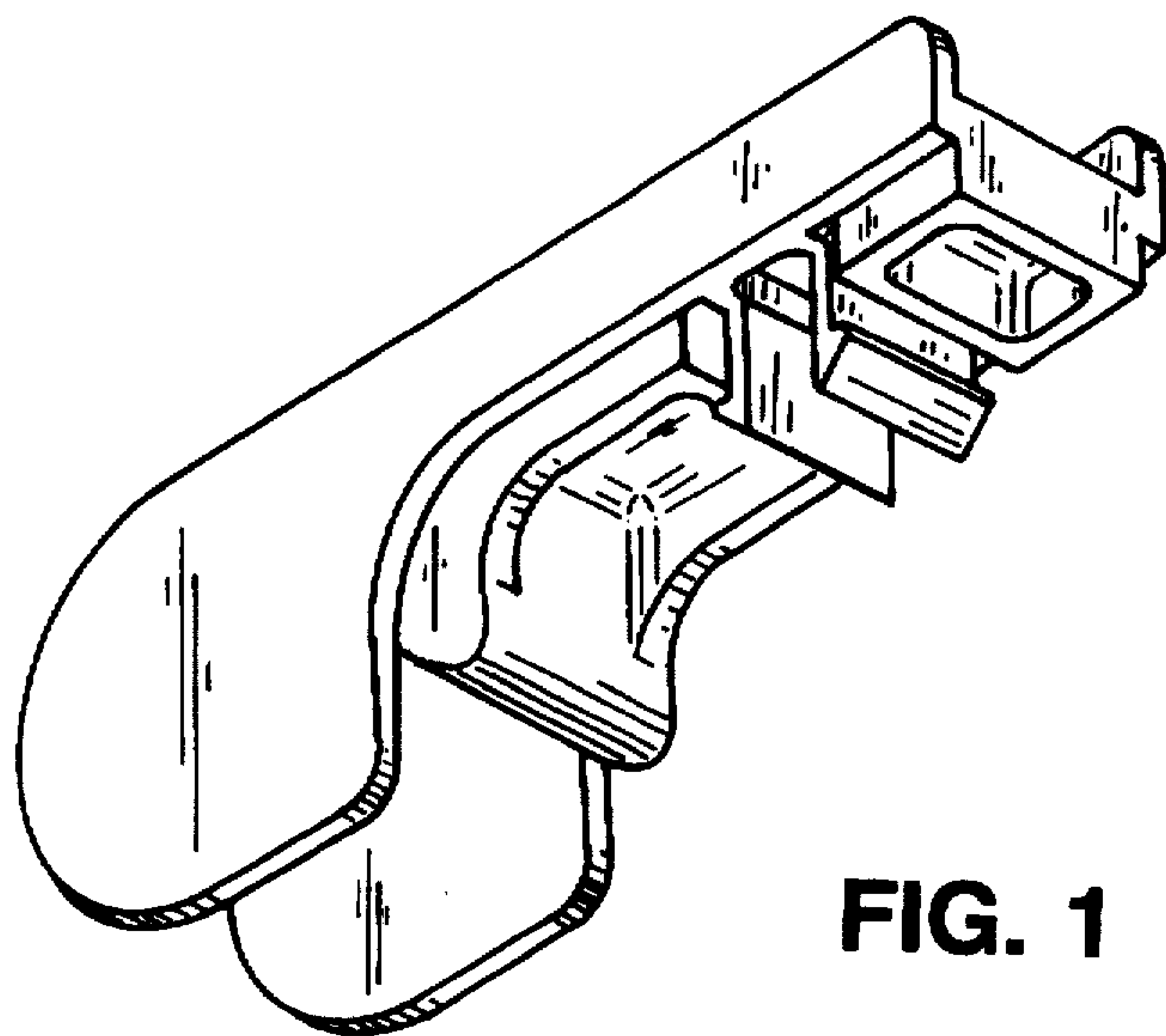


FIG. 1

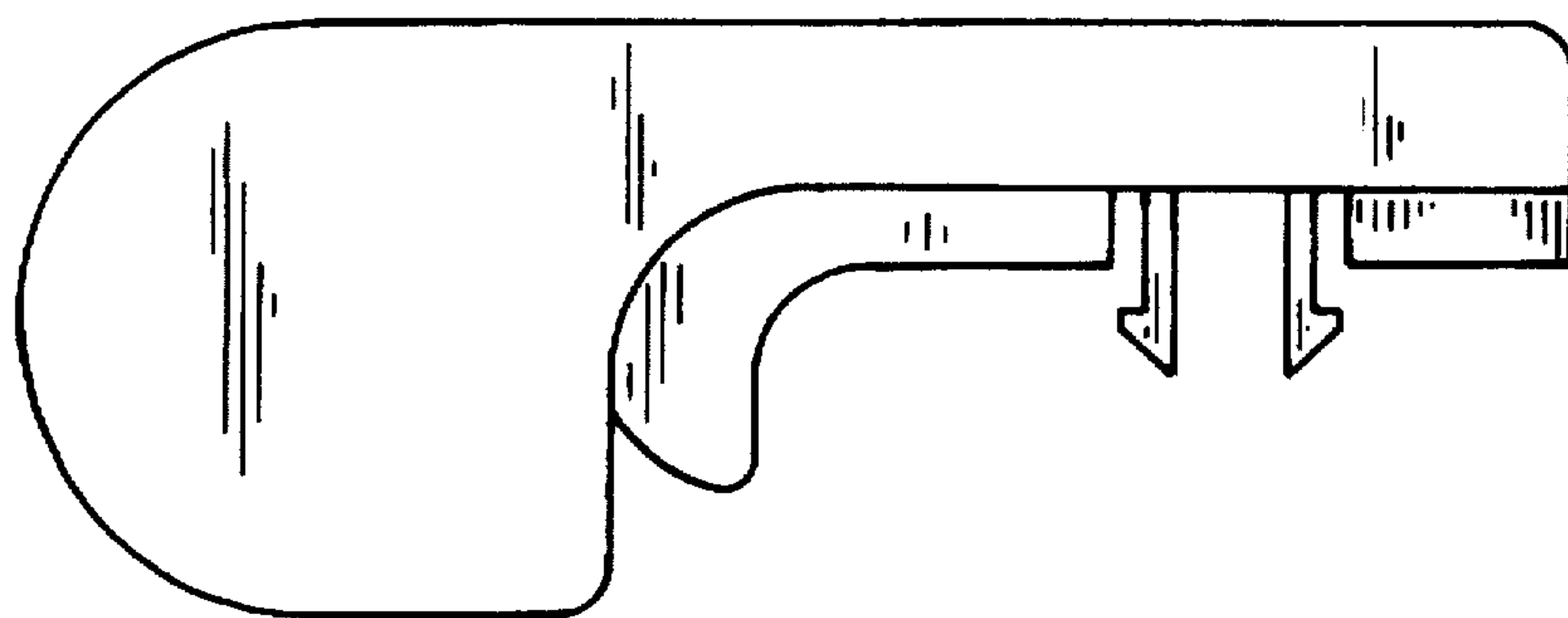


FIG. 2

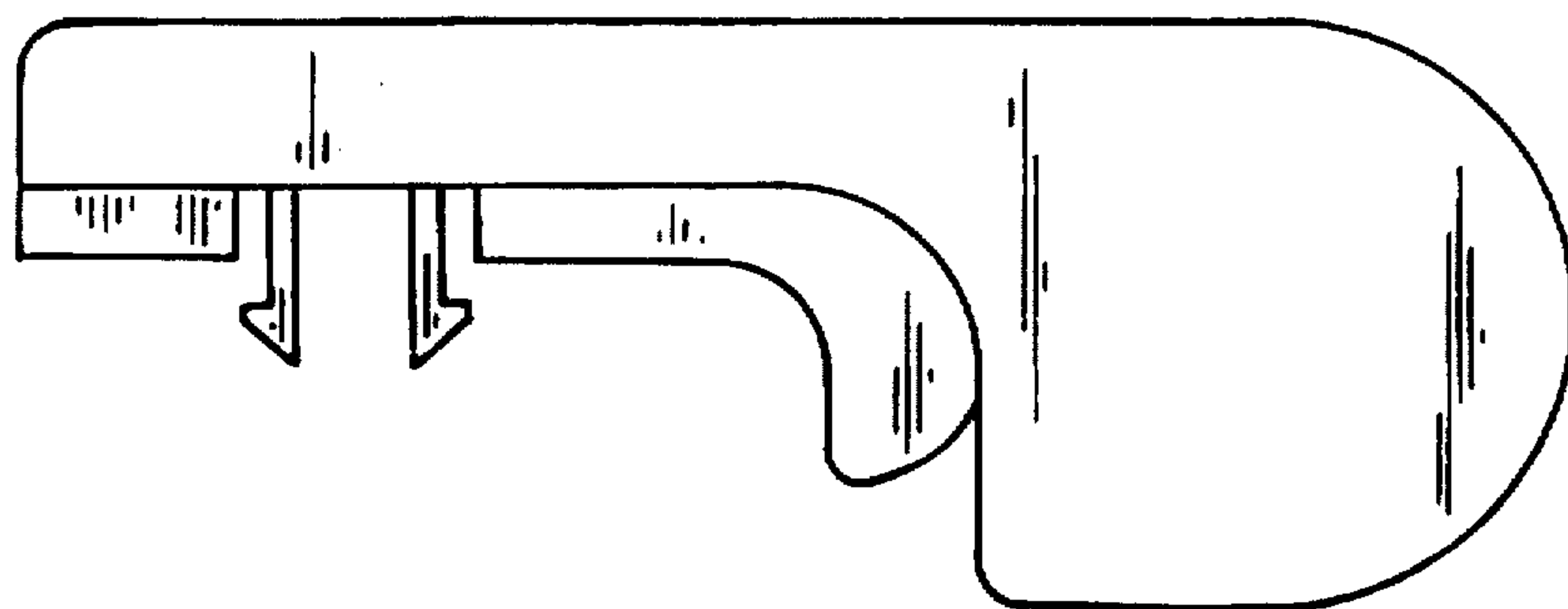


FIG. 3

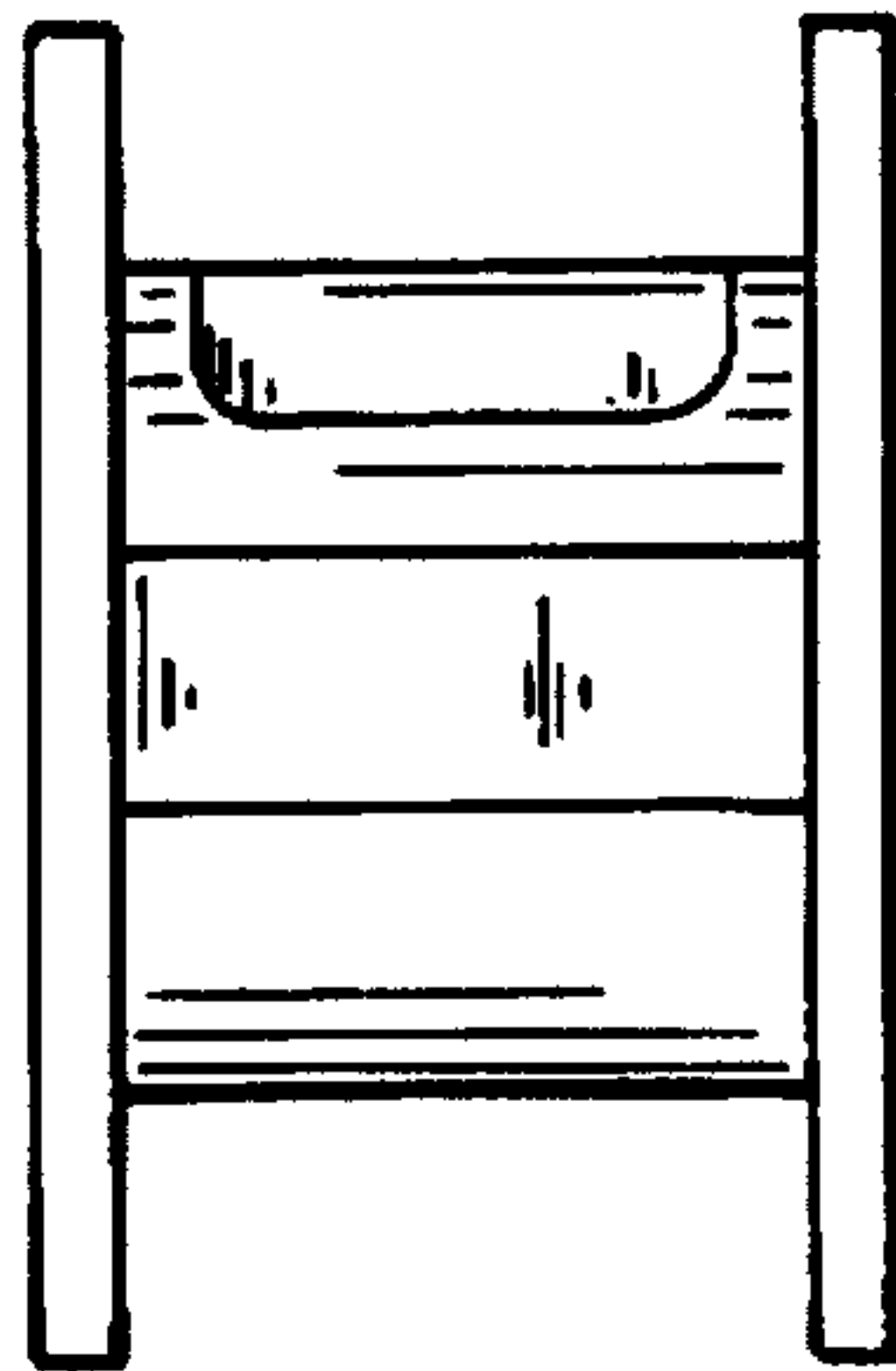


FIG. 5

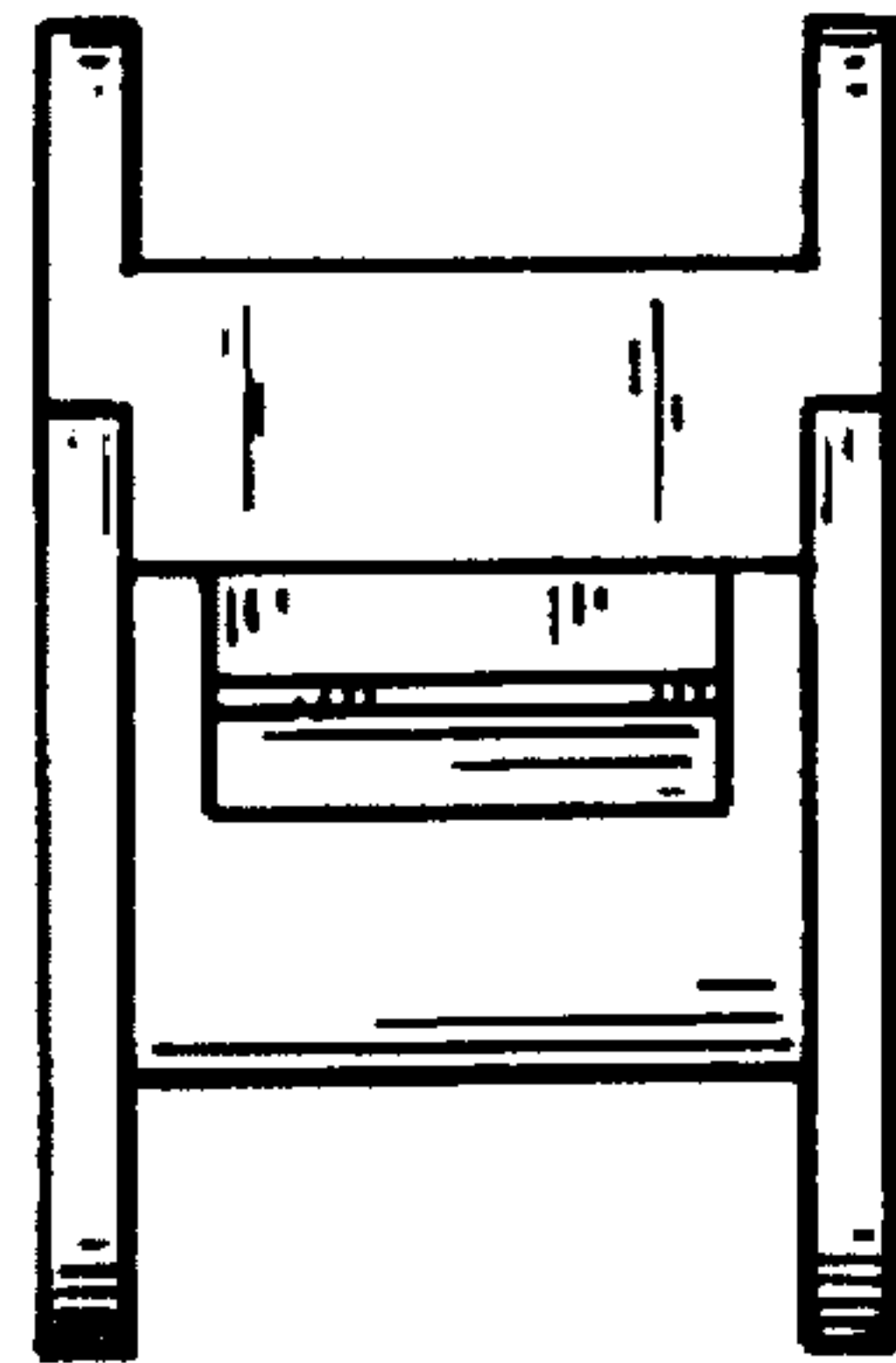


FIG. 4

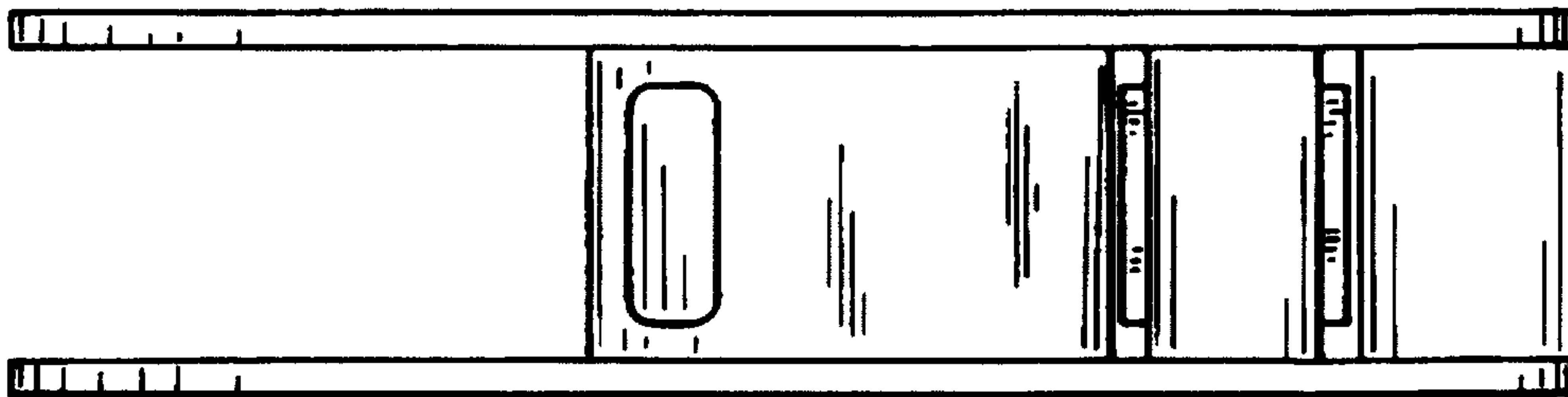


FIG. 6

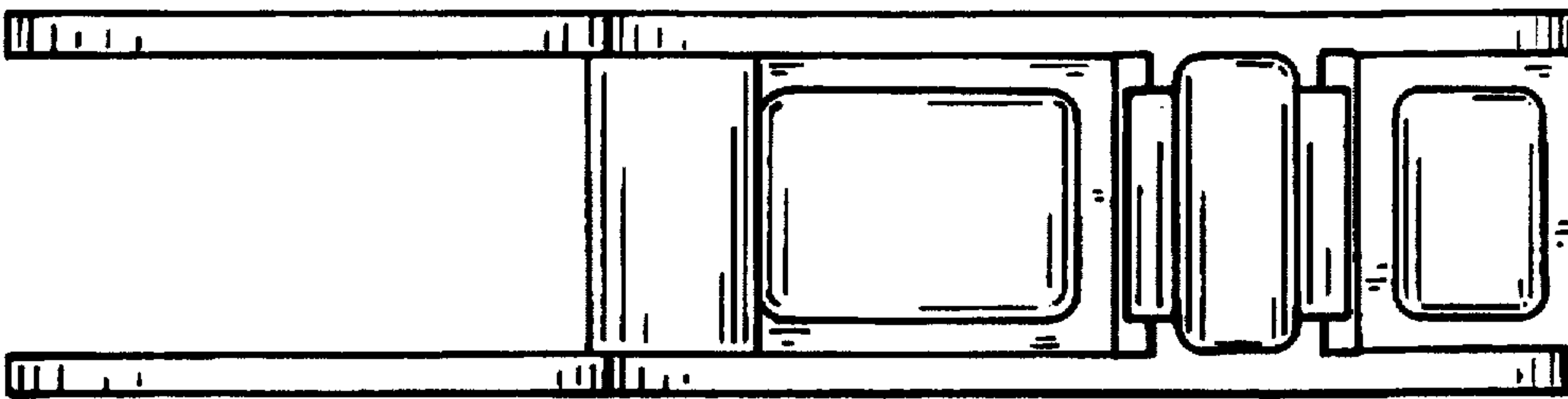


FIG. 7