

# United States Patent [19]

Wingo, Jr. et al.

[11] Patent Number: 5,035,009

[45] Date of Patent: Jul. 30, 1991

[54] PROTECTIVE HELMET AND LINER

[75] Inventors: James C. Wingo, Jr., Stafford, Tex.; Nelson Kraemer, Mt. Prospect, Ill.

[73] Assignee: Riddell, Inc., Chicago, Ill.

[21] Appl. No.: 589,387

[22] Filed: Sep. 27, 1990

[51] Int. Cl.<sup>5</sup> ..... A42B 3/00

[52] U.S. Cl. .... 2/414; 2/425

[58] Field of Search ..... 2/410, 411, 414, 422, 2/425, 190, 181/126

[56] References Cited

U.S. PATENT DOCUMENTS

3,055,013	9/1962	Aileo	2/414
3,153,792	10/1964	Marietta	2/414
3,364,499	1/1968	Kwoka	2/414
3,609,764	10/1971	Morgan	2/414
3,673,609	7/1972	DeSimone	2/414
3,882,547	5/1975	Morgan	2/414

4,133,055	1/1979	Zebuhr	2/411
4,345,338	8/1982	Frieder, Jr. et al.	2/414
4,432,099	2/1984	Grick et al.	2/414
4,566,137	1/1986	Gooding	2/425
4,627,114	12/1986	Mitchell	2/414

FOREIGN PATENT DOCUMENTS

346608	12/1989	European Pat. Off.	2/411
3337599	4/1985	Fed. Rep. of Germany	2/410

Primary Examiner—Werner H. Schroeder

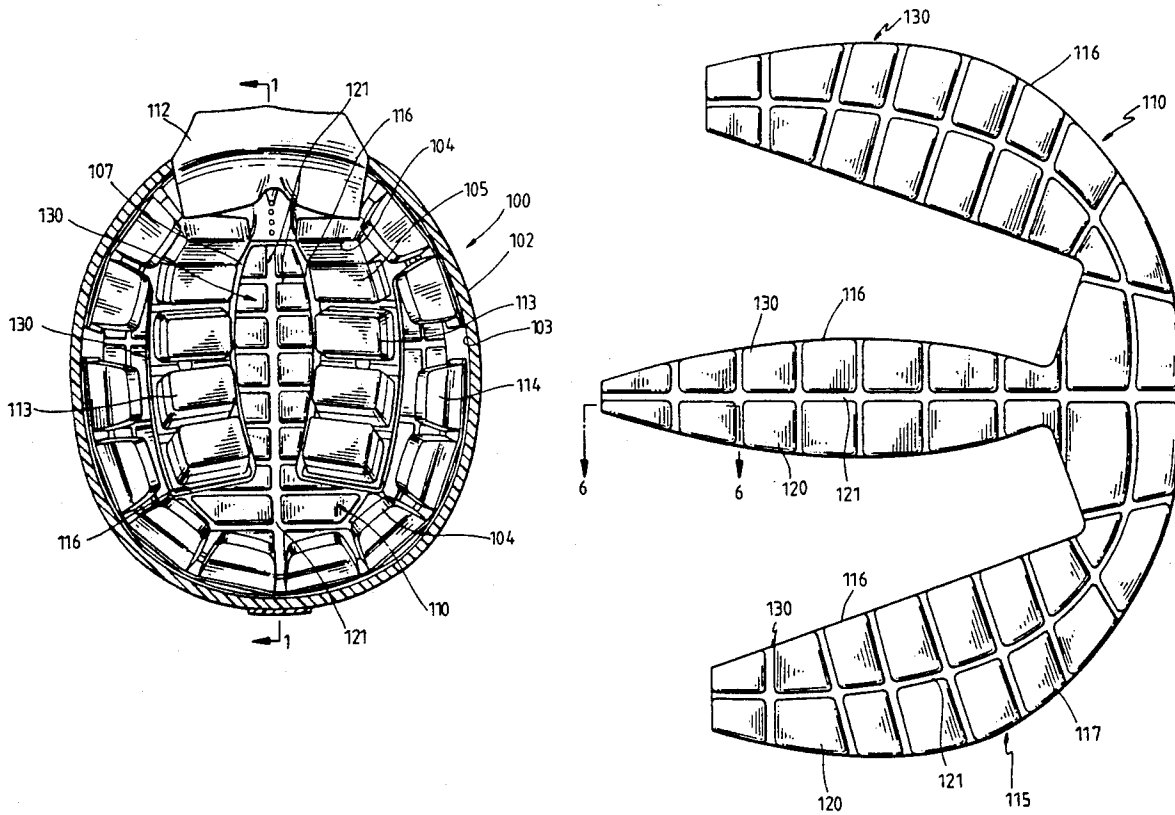
Assistant Examiner—Michael A. Neas

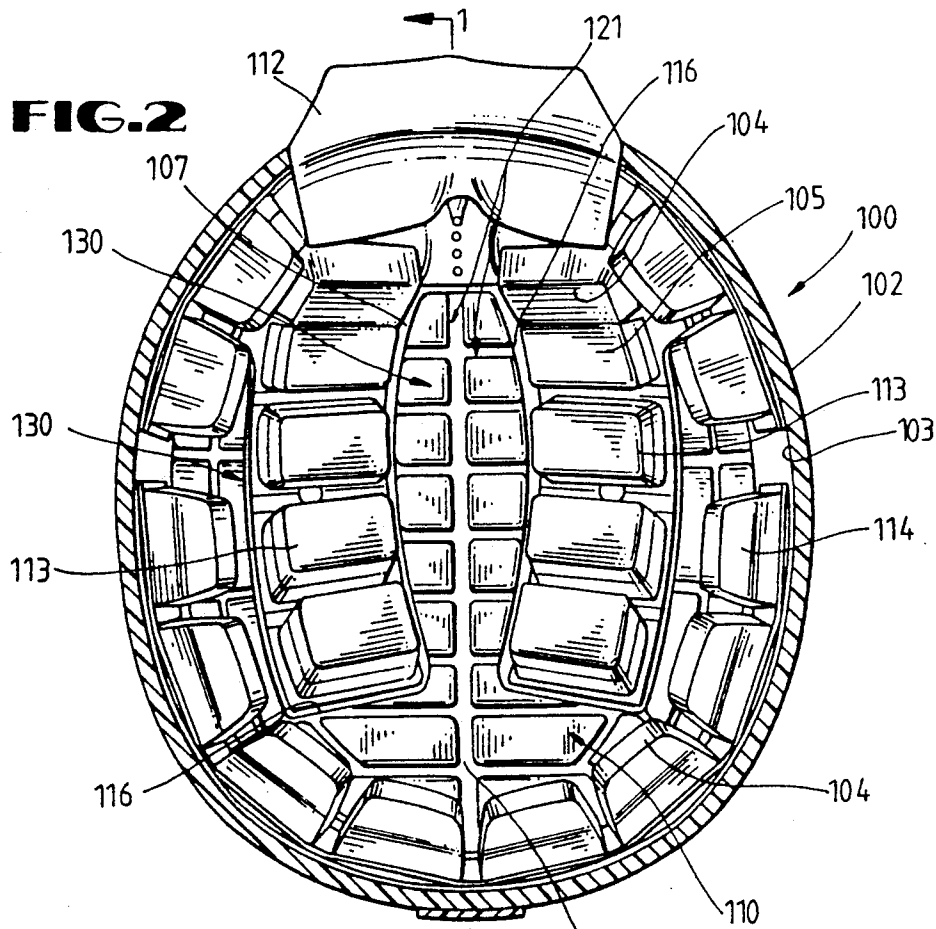
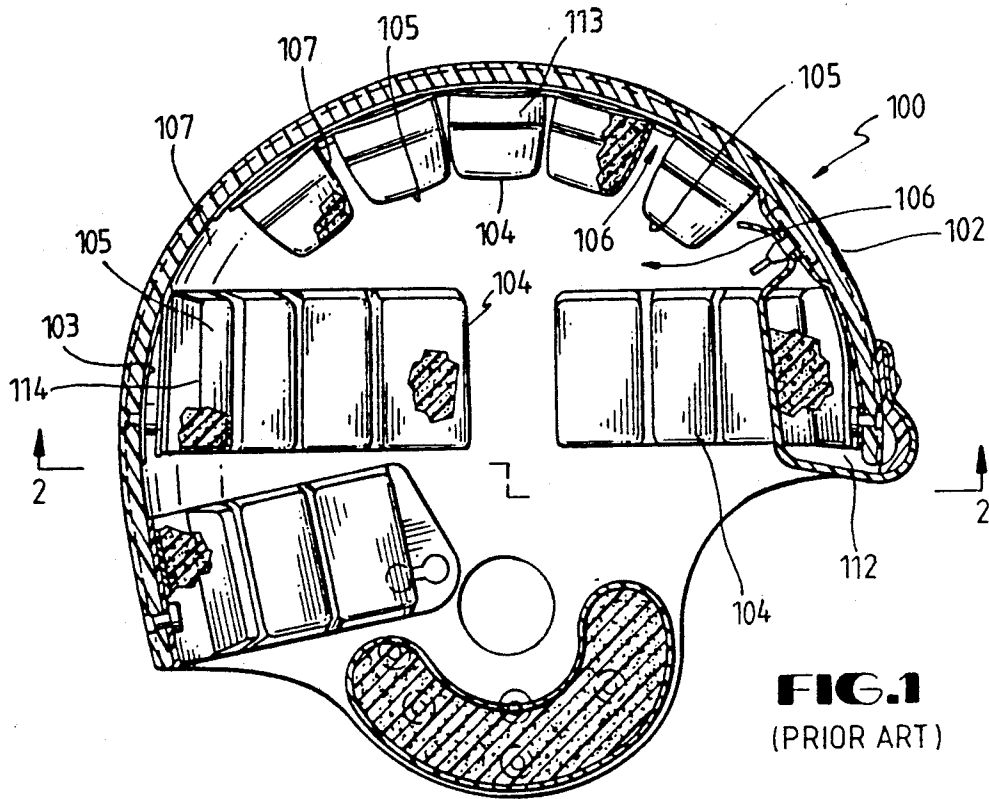
Attorney, Agent, or Firm—Ben D. Tobor

[57] ABSTRACT

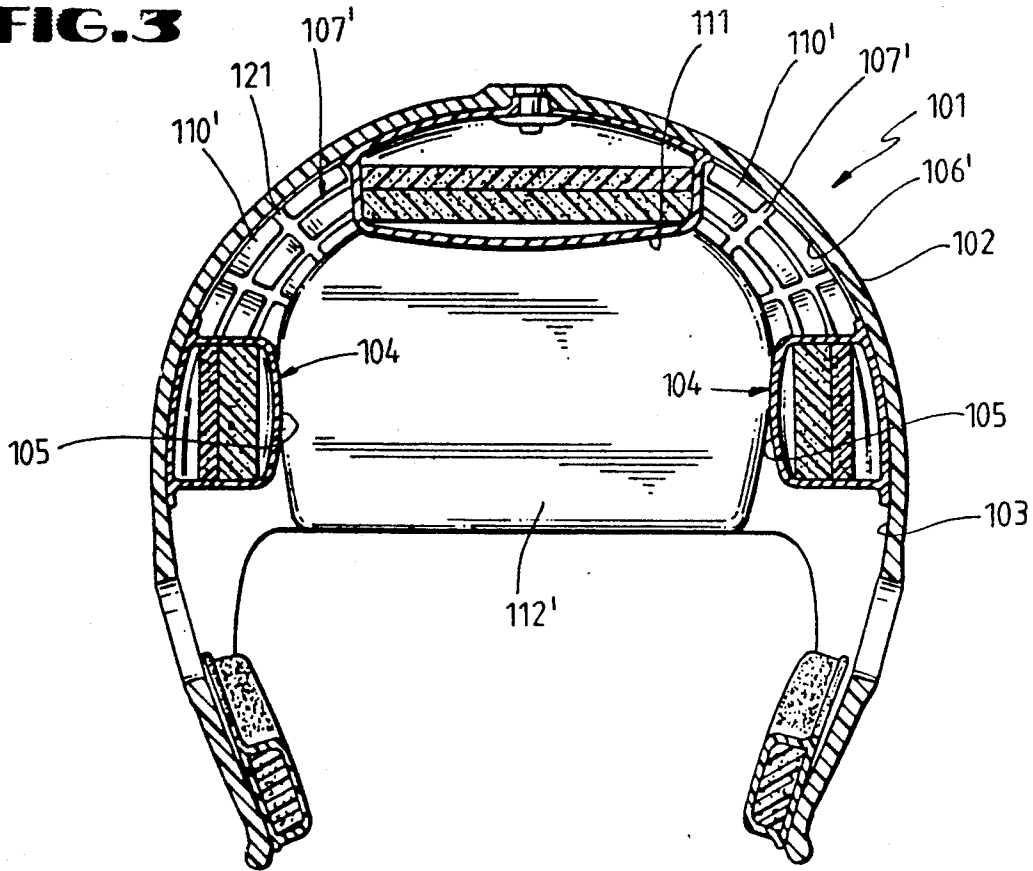
A protective helmet and liner therefor includes a sheet of sound deadening material which fits between impact force absorbing pad structures disposed on the interior of the protective helmet.

20 Claims, 4 Drawing Sheets

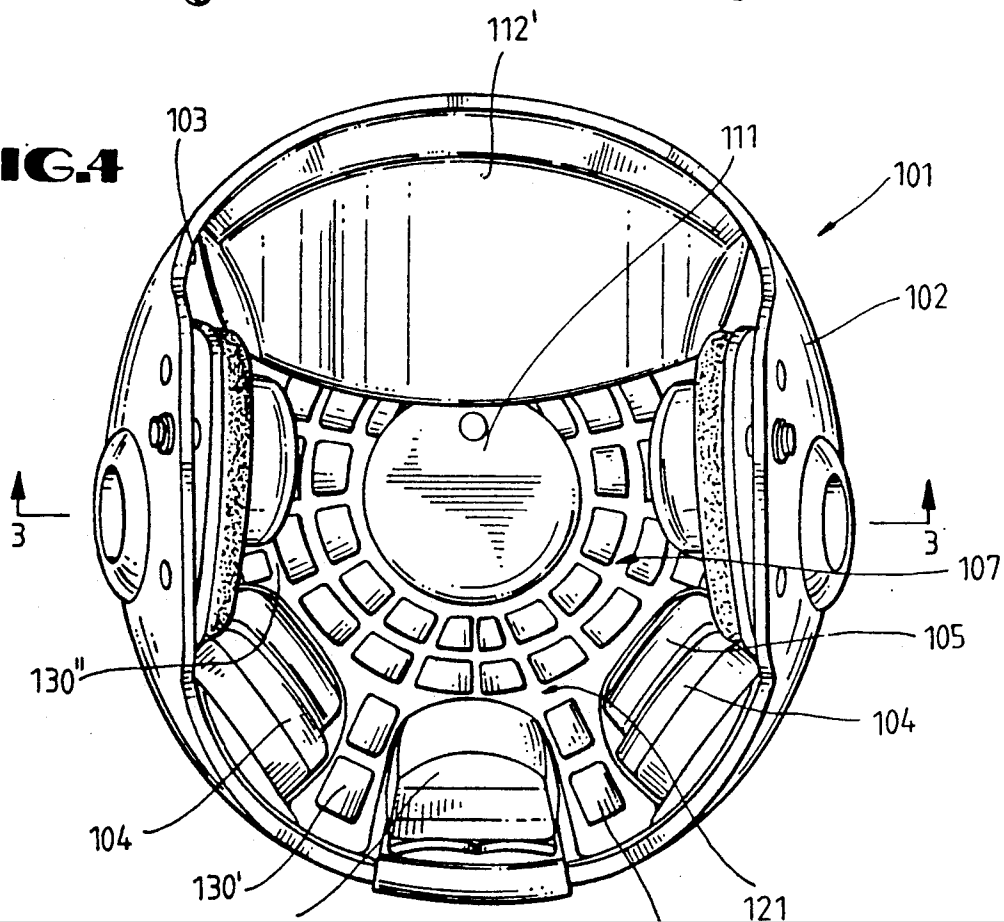


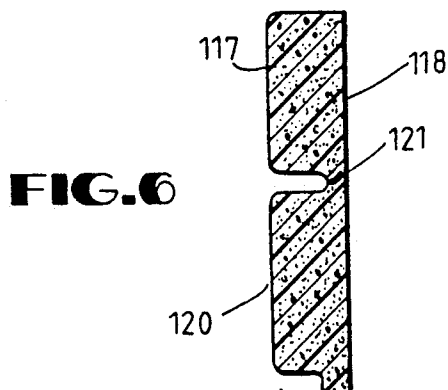
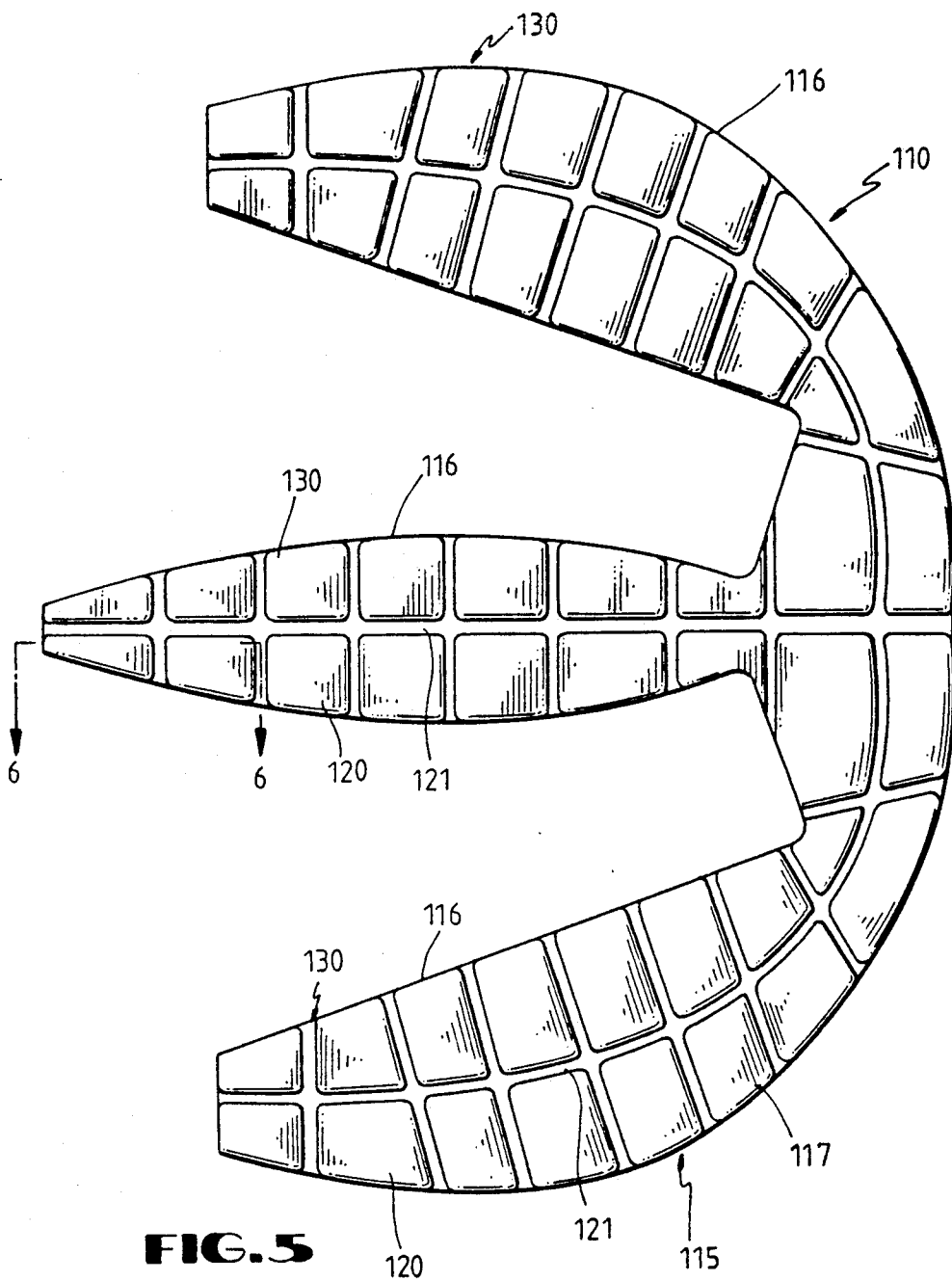


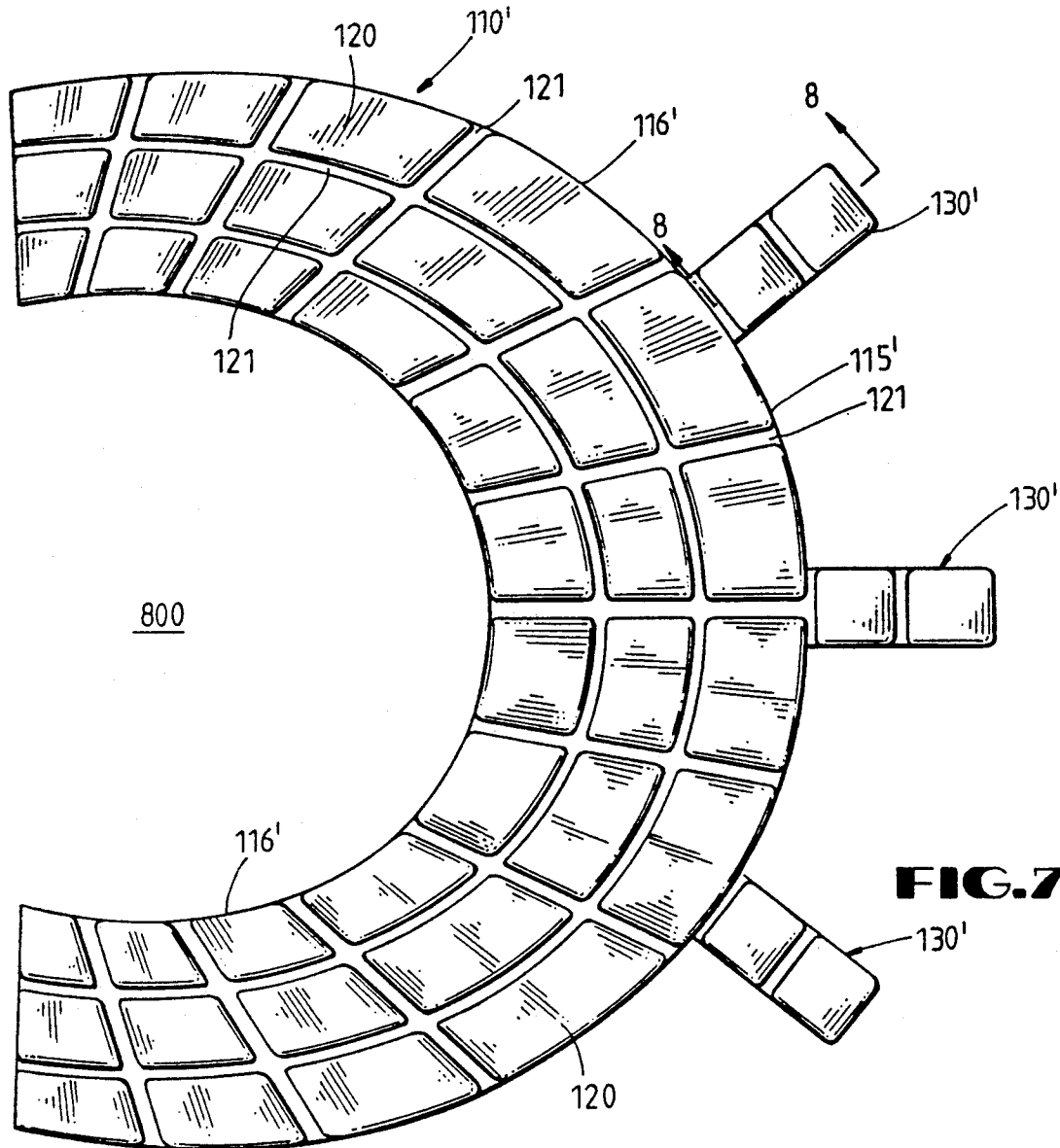
**FIG. 3**



**FIG. 4**

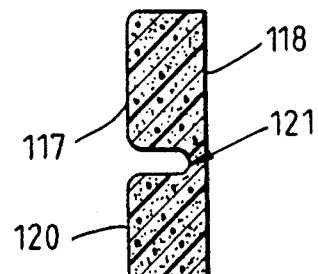






**FIG. 7**

**FIG. 8**



# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.