



US 20070093754A1

(19) **United States**

(12) **Patent Application Publication**  
**Mogensen et al.**

(10) **Pub. No.: US 2007/0093754 A1**

(43) **Pub. Date: Apr. 26, 2007**

(54) **INVISIBLE NEEDLE**

**Publication Classification**

(76) Inventors: **Lasse W. Mogensen, Soborg (DK);  
Orla Mathiasen, Soro (DK)**

(51) **Int. Cl.**  
*A61M 5/178* (2006.01)  
*A61M 5/00* (2006.01)  
*A61M 25/00* (2006.01)  
(52) **U.S. Cl.** ..... **604/164.01; 604/181; 604/164.12;  
604/264**

Correspondence Address:  
**BRINKS HOFER GILSON & LIONE**  
**P.O. BOX 10395**  
**CHICAGO, IL 60610 (US)**

(57) **ABSTRACT**

The invention relates to an inserter for an infusion set for intermittent or continuous administration of a therapeutical substance, such as e.g. insulin. The inserter comprises a needle hub comprising an insertion needle and two spring units assuring automatic insertion and automatic retraction of the insertion needle.

(21) Appl. No.: **11/519,137**

(22) Filed: **Sep. 11, 2006**

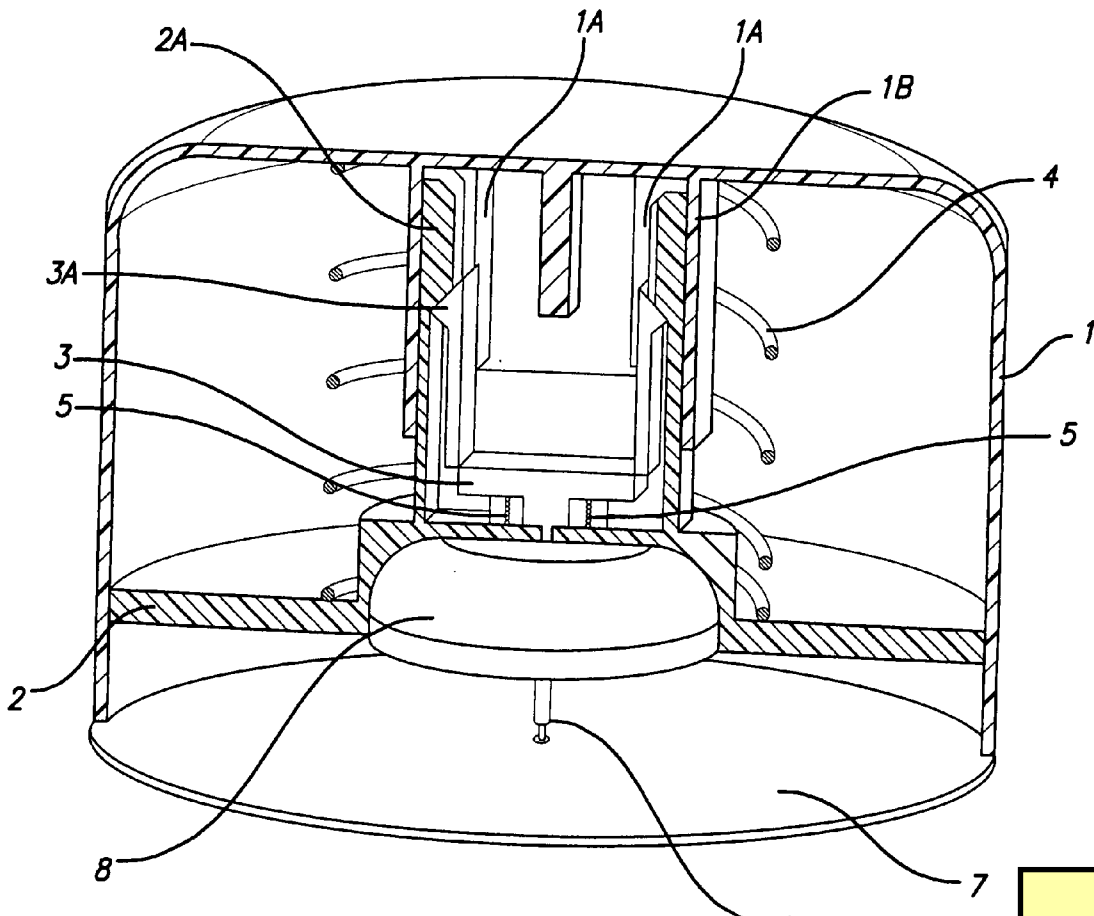
**Related U.S. Application Data**

(60) Provisional application No. 60/716,222, filed on Sep. 12, 2005.

**Foreign Application Priority Data**

Sep. 12, 2005 (EP)..... EP 05 197 774.8

The inserter comprises a housing (1), a carrier body (2) carrying an infusion part (8), a needle hub (3), a first moving unit (4) bringing the carrier body (2) to a forward position and a second moving unit (5) bringing the carrier body (2) to a retracted position. The inserter is characterized in that it has means for activation which should be activated at least once in order to bring the carrier body (2) from a retracted to a forward position, and back from the forward to the retracted position.



**DEXCOM  
EXHIBIT 1031**

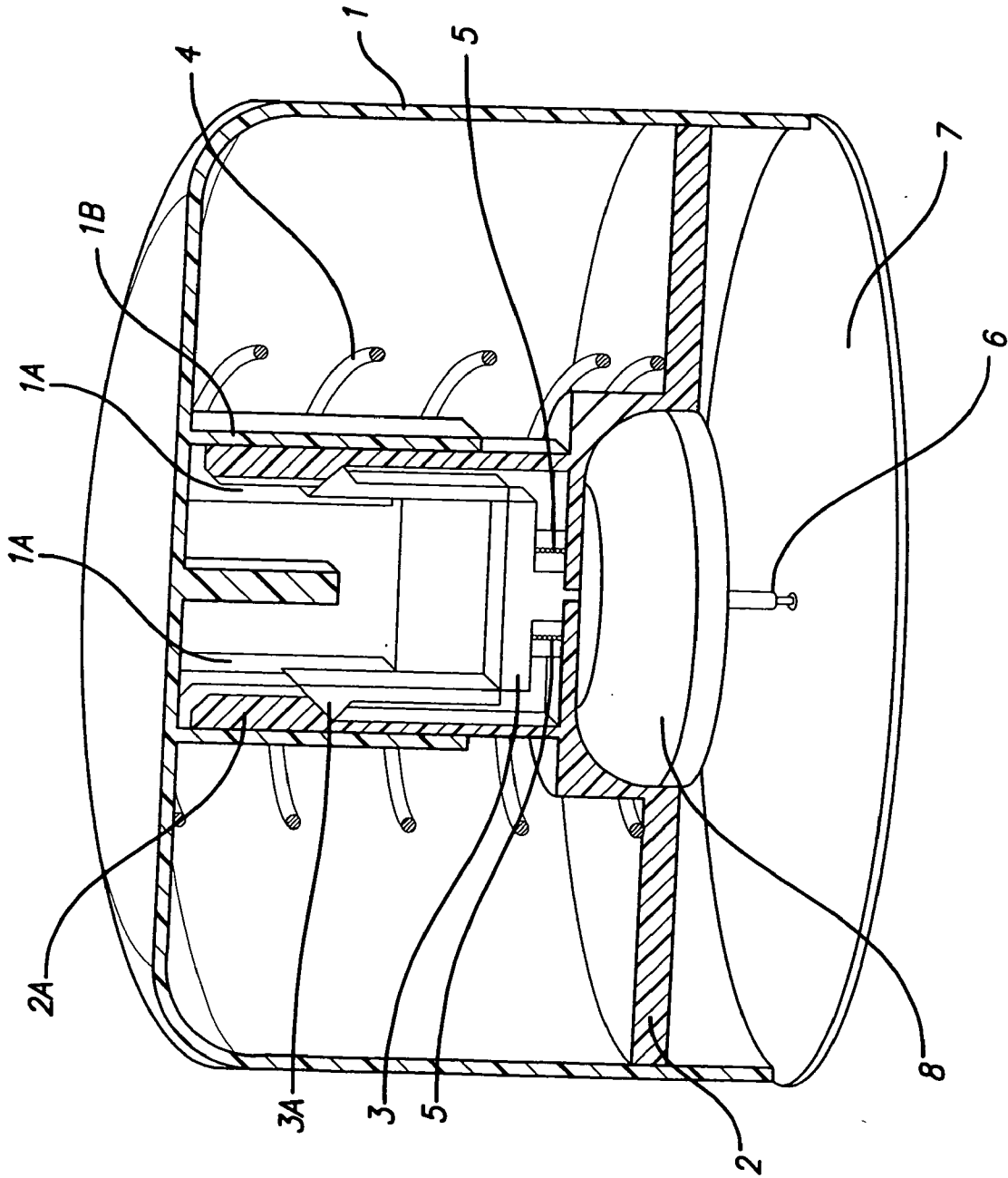


FIG. 1

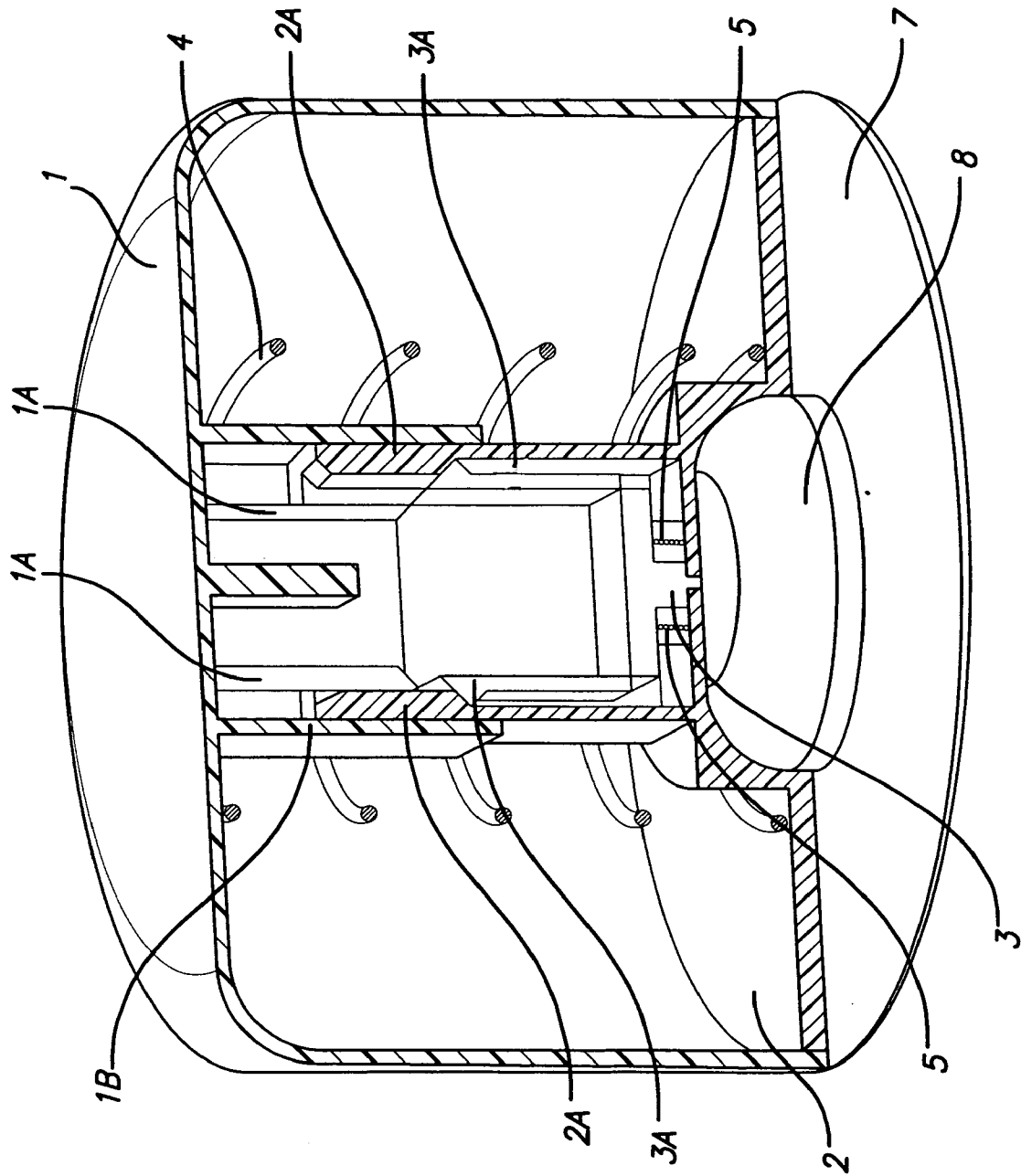


FIG. 2

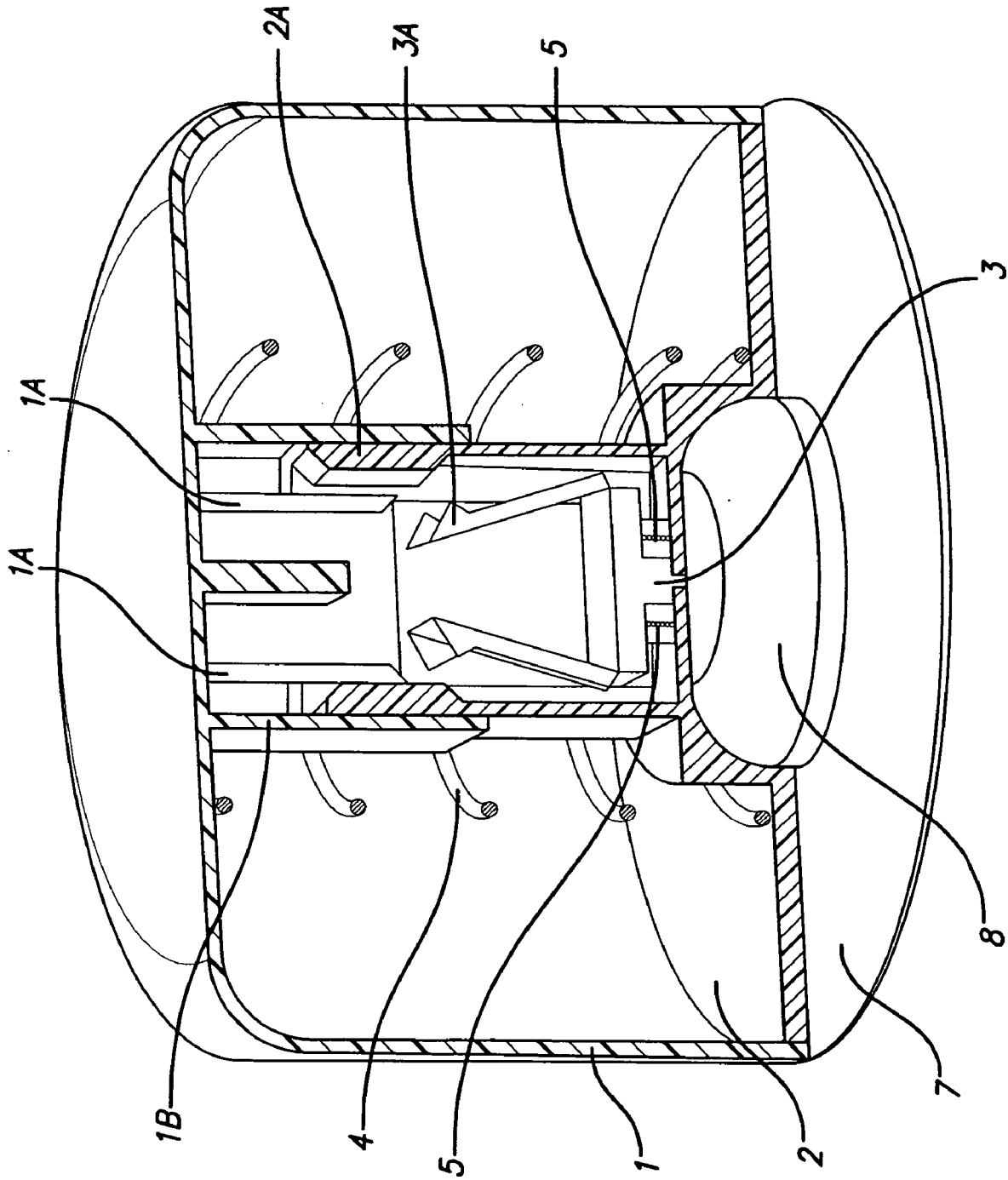


FIG. 3

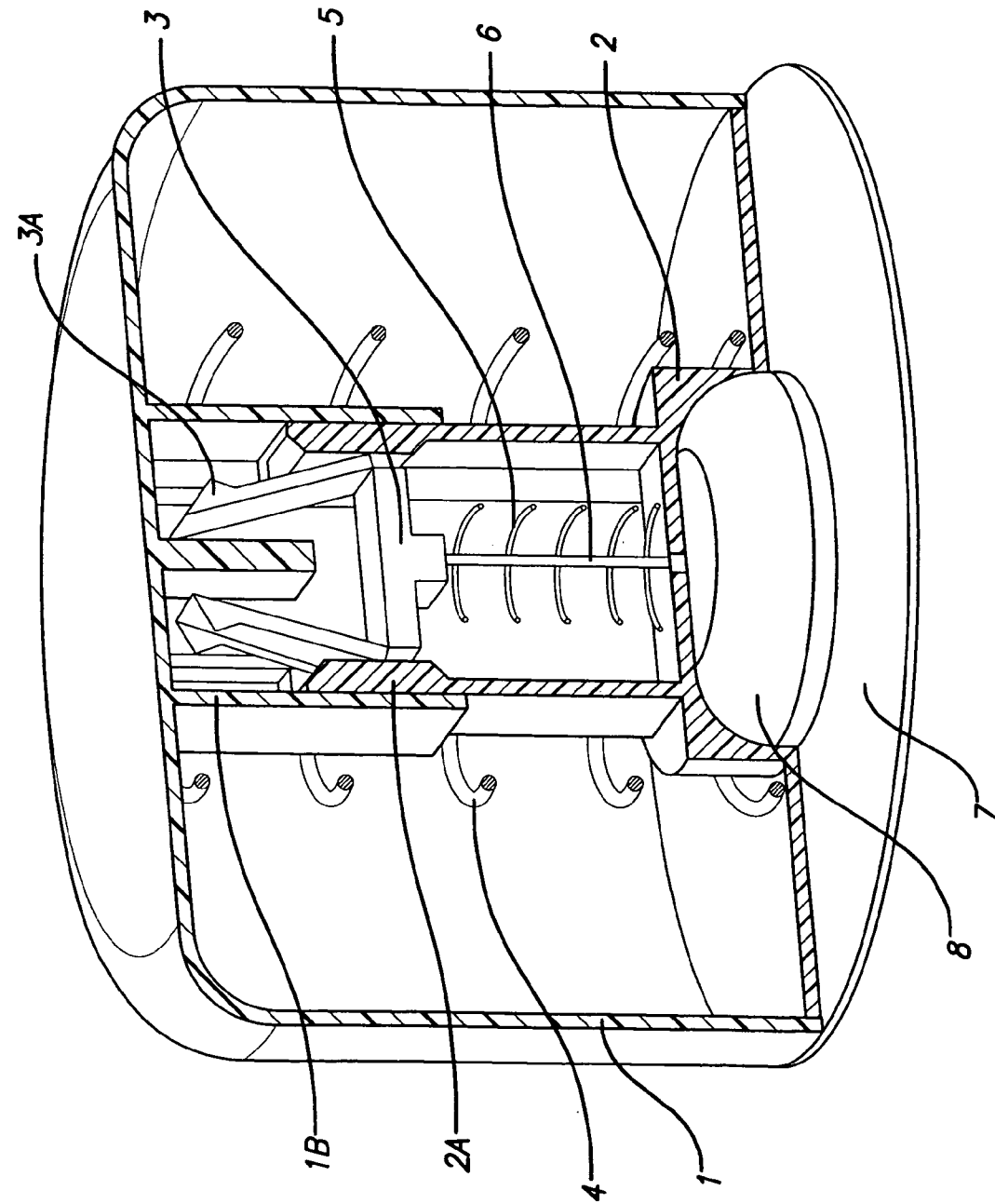


FIG. 4

# 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.