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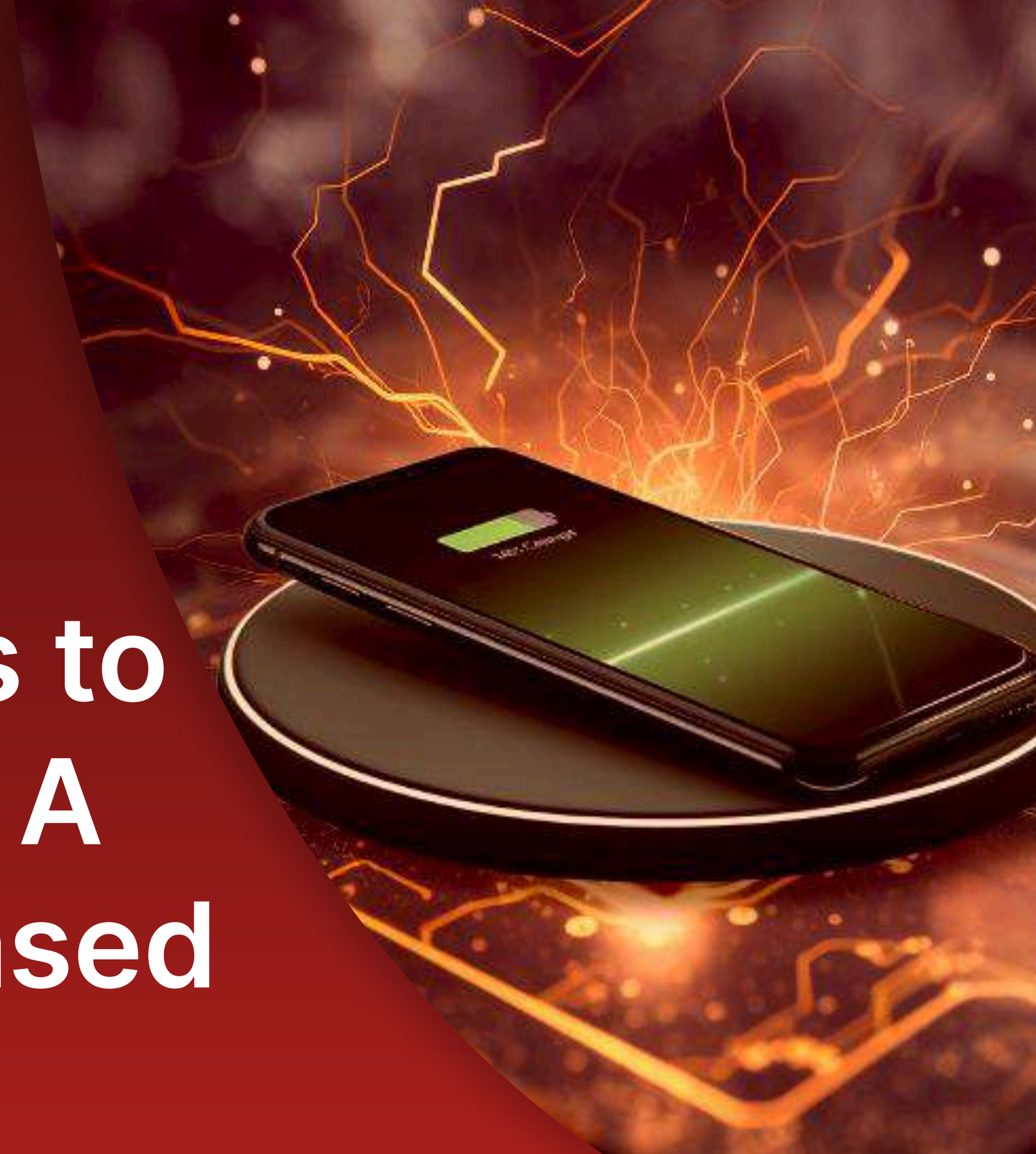
Creative Search Strategies to Invalidate A Circuit-based Patent



Case Study

Wissen Research's proven track record in Patent Litigation Support encouraged the client to approach us for conducting an invalidation search on a circuit-based patent.

If you've ever attempted to invalidate a circuit-based patent related to an inductive power transfer system for transferring power to an electrical device wirelessly, then you know that this is a daunting challenge. Let's understand the subject patent before examining the methods employed in invalidating the circuit-based patent.

About Subject Patent

- The subject patent is related to an inductive power transfer system for transferring power to an electrical device wirelessly.
- The system disclosed a circuit comprising an inductive power receiver, primary and secondary inductive coils, an inductive power outlet, a signal transmitter, and a regulator.
- File wrapper analysis to find the novelty and grounds on which the patent was granted.

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Summary

After gaining an in-depth understanding of the subject patent, I conducted an initial search to extract relevant keywords and classes from my subject patent. I ran a narrow string that yielded the most relevant keywords and classes.

Several search strategies were employed, including running the keyword string in different sections, such as the title, abstract, and description, and combining keywords with IPC/CPC classes.

This helped me identify good prior art references, and from these references, more relevant keywords and classes were identified, which helped me uncover the related prior art references.

Further, I conducted an assignee/inventor search and citation analysis of related and good references. These references disclosed an inductive power receiver and primary and secondary inductive coils. However, a few major elements describing the arrangement, such as a signal transmitter, a threshold value, and a regulator, were either missing or had different arrangements.

Invalidating electronic circuit patents is challenging, and the power circuit needs to be closely examined in relation to previously filed patent documents and product literature. Additionally, relying solely on simple keyword searches to identify relevant circuits can be virtually ineffective due to the vastness and complexity of the circuit landscape.

Challenges

- The patent consisted of three independent claims different from one another and had narrow claims. Finding an inductive power receiver, a primary and secondary inductive coil, and an inductive power outlet was easy.
- The challenge was to find an inductive power receiver that could send a perpetuation signal for the inductive power outlet when the power received lies within a permissible range of values. The perpetuation signal instructs the inductive power outlet to drive the primary inductive coil at the same power level.

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Approach To Find The Anticipatory Reference

While working on this circuit-based patent, I observed that the claim described a series of steps for transferring the power. It wasn't easy to find the prior art that could disclose the same series of steps using traditional search strategies. The keyword-based search logic failed, so I discussed the issue with our team.

After discussion, we broke down the claim into small fundamental elements and broadened our search by exploring non-patent literature (NPL) related to power transfer circuits. We also changed the search strategy and focused on using combinations of classes only.

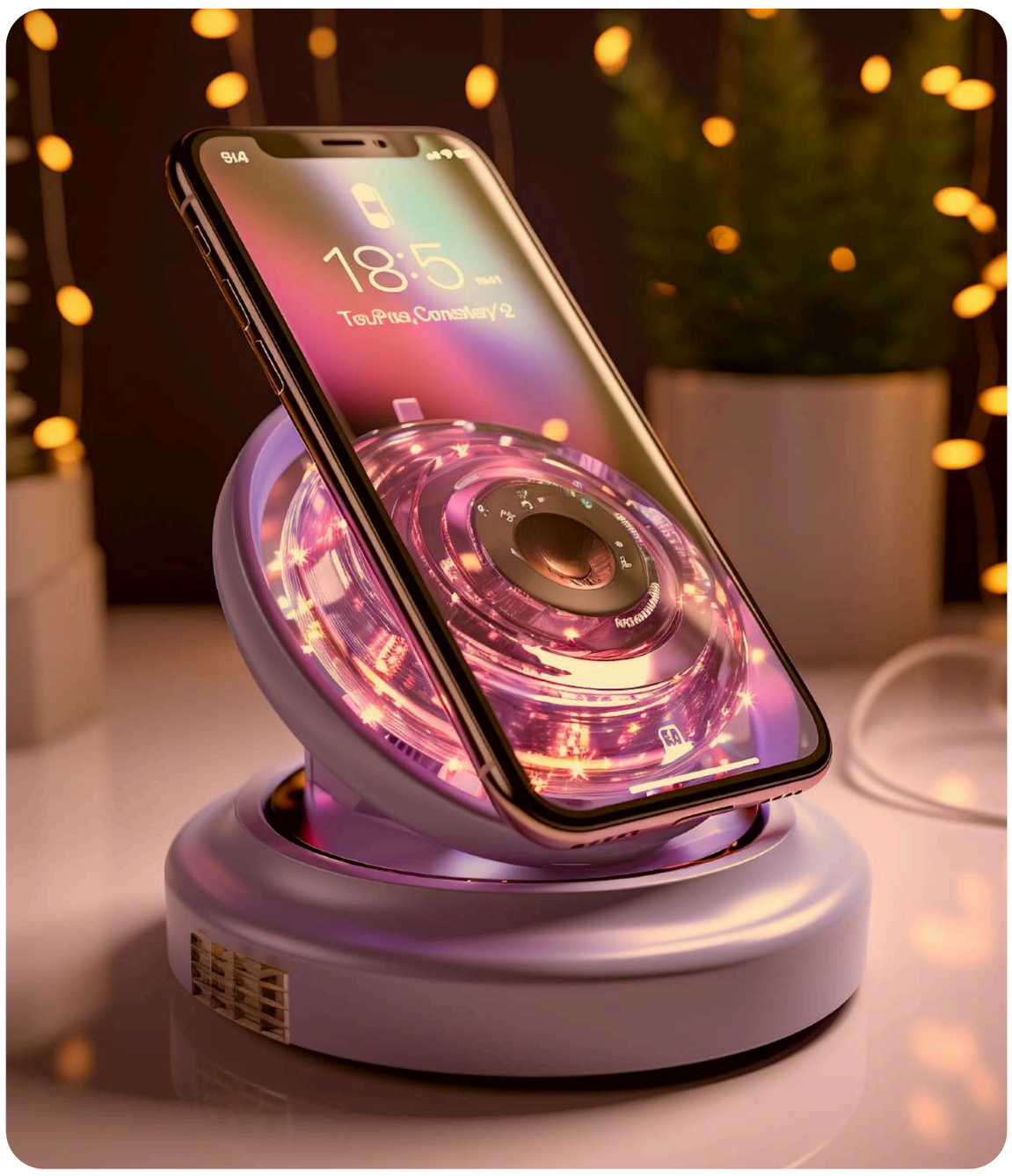
If the number of hits exceeded 500, the most relevant keywords were added. In addition, I compiled a list of companies that manufacture wireless chargers and then searched for affiliates of each company to obtain the results. With this approach, I found the anticipatory prior art reference to invalidate the subject patent.

Report

I prepared the claim charts of identified relevant prior arts with the proper searcher comments and summaries for each prior art. Further, I added relevant text mappings of additional references in the report that can prove obviousness/TSM (Teaching, Suggestion, or Motivation) and help the client make better arguments.

Feedback

I shared the search results with the client and got this response (over a call) – "Thank you, Manish, for your hard work. The results are promising!



Conclusion

As researchers, it's important to recognize that there are certain technologies where relying solely on keyword-based searches is ineffective in finding prior art. However, by creating a mental model and breaking down the problem, you can uncover hidden prior art that may not be easily discoverable through databases.

In our recent case, we encountered a circuit-related patent that required us to think outside the box and develop innovative strategies to find relevant prior art. By doing so, we uncovered an anticipatory result that ultimately helped us invalidate the patent.

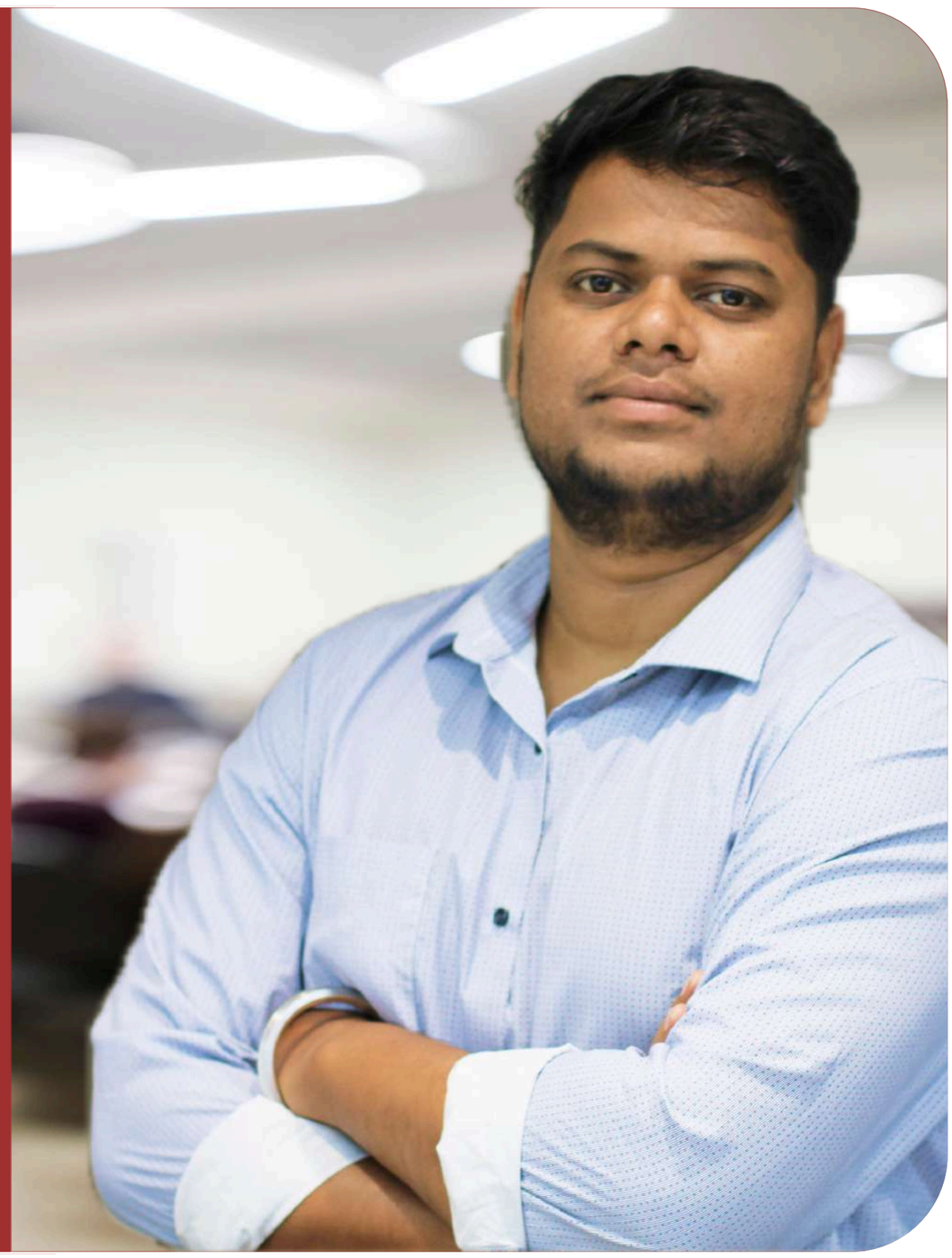
This experience highlights the importance of creative problem-solving and the value of continuously learning and adapting to new challenges in patent research.

Tip

- Relying solely on keywords may not yield relevant references. In such cases, we extract relevant classes from the subject patent and examine them individually.
- It is imperative to identify competitors related to the subject invention and compile a list to conduct an assignee search.
- Finding similar circuits can be challenging, thus necessitating a comparison between the workings of the circuit and prior art circuits.

Expert

He is a prominent tech analyst with over 5 years of experience and a keen interest in pioneering technologies such as 3D Printing, IoT, 4G/5G, Wi-Fi, Blockchain technology and smart electronics. Spearheading various IP projects, he conducts comprehensive tasks ranging from novelty searches to infringement analyses, showcasing his proficiency in navigating complex technological landscapes. Holding a degree in Electronics and Communication from Punjabi University Patiala (Punjab), Manish possesses a solid foundation in engineering, which further bolsters his expertise in the field.



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