B. The Isbell Patent is Invalid for Obviousness.

The Foundation plaintiff seeks to answer defendants' brief on this issue by, first, setting forth alleged "findings" by the District Court. Each of those alleged findings requires ~~brief preliminary~~ comment to insure that it will not be grossly misunderstood.

Contrary to the Foundation's assertion, THE DISTRICT COURT DID NOT FIND THAT--

> "1. At the time of the invention [of the Isbell patent in suit] it could not be predicted which, if any, log periodic structures would operate in a frequency independent manner."

The difference between the above-quoted alleged finding and what the District Court actually said must be recognized and understood before the issue of invalidity of the Isbell patent for obviousness can be intelligently evaluated.

Contrary to what might be inferred from the above-quoted alleged finding (which the District Court did not make) there were a number of successful log-periodic antennas prior to the invention of the Isbell patent in suit. These are described and depicted in the DuHamel and Ore article, and, as that article discloses, the operation of those prior, known, log-periodic antennas and how their operation varied with changes in design parameters was well known and predictable at the time of the Isbell invention.* Moreover, the DuHamel and Ore patent (DX 14) contains additional disclosure

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* The earliest established date of Isbell's invention is an indefinite one during early 1959. The DuHamel and Ore article carries a publication date of March 31, 1958, and the work described therein must have covered a substantially earlier period of time.

regarding the same class of log-periodic antennas described in the DuHamel and Ore article, including an amplified description of the effects of numerous changes in the designs of such antennas. To assert that the results of changing any of the details of that class of log-periodic antennas could not have been predicted from the work that had been done with them is absurd on its face.

What the DuHamel and Ore article clearly meant by stating (App. 826) that "no theory has been established which even predicts the types of structures which will give frequency independent operation" (emphasis added) is that one could not then have predicted with certainty what additional undisclosed types of log-periodic structures would "give frequency independent operation."

The main point to be driven home by the foregoing discussion is that the District Court correctly stated, but misunderstood what it derived from the DuHamel and Ore article and summarized in its decision (paragraph bridging App. 826-827). The Foundation's brief, in misstating what the District Court said in that regard (as pointed out above), would further distort the true picture by making it appear that nothing in this field could be predicted, even as a likely probability, let alone with certainty. There is no rational basis in the record or in anything found by the District Court for such an absurd conclusion.

As a result of the District Court's failure to understand the true meaning and limitations of its own findings, and by confusing "predictability" with "obviousness" under Sec. 103 of the statute

as explained in our prior brief (D. Br. 13-14), the District Court first acquired an incorrect impression of what was unpredictable. Then, ignoring the distinction between predictability and obviousness, the District Court committed a clear error of law in holding that what it conceived to be unpredictable with certainty (despite the obviousness of trying and a reasonable expectation of success) was unobvious under Sec. 103 of the statute.

Further contributing to the District Court's misunderstanding of the matter of unpredictability is its ~~clear~~ reliance upon hearsay as proof of the unpredictability, ~~on which it relied.~~ Referring to the DuHamel and Ore article, the District Court stated--

> "but the paper, by its own statement, proves that 'no theory has been established which even predicts the types of structures which will give frequency independent operation.'" (Emphasis added)

The ~~DuHamel and Ore~~ mere fact of publication is, ~~of course, prior art for all that it discloses and suggests,~~ but it does not prove the truth of anything which it stated ~~as a fact~~. ~~What~~ is ~~so stated is~~ pure hearsay, ~~beyond any possible argument,~~ and the ~~very~~ language used by the District Court demonstrates that it accepted such hearsay ~~evidence~~ as establishing its next conclusion, to wit--

> "It cannot be said that this article taught a method of designing log-periodic antennas which would predictably operate with frequency independence,***"

~~from which.~~ In the same sentence, the District Court concluded that "the Isbell patent was not obvious after its [the article's] publication." No clearer case of an error of law by relying upon hearsay evidence in deciding the ultimate question of obviousness can be imagined.

The Court then proceeded to refer generally to "much evidence in the record" that "establishes that the design of successful log-periodic antennas was recognized by the art itself to be unpredictable." Unless by "the art itself" the District Court was referring only to the testimony at the trial of Mayes and DuHamel on the subject of predictability, it can categorically be said that there is no evidence of any such broad recognition of unpredictability "by the art itself." The District Court identified no such evidence and, except for the testimony of Mayes and DuHamel, no such evidence exists anywhere in the record.

As for the testimony of Mayes and DuHamel on this question of predictability, two important considerations must be emphasized. First, both Mayes and DuHamel have a financial interest in the royalty income from the Isbell patent in suit (App. 259, 359), and could hardly be expected to testify without some inherent bias. Second, the gist of the testimony on predictability by both Mayes and DuHamel was essentially that log-periodic structures that were distinctly different from those previously tried and found to be successful could not be predicted with certainty to have frequency independent characteristics. Neither of them testified that the particular step taken by Isbell from the several forms of antennas illustrated in the DuHamel and Ore patent (DX 14), with the angle psi (ψ) equal to zero, to the antenna illustrated in Fig. 2 of the Isbell patent in suit was not an obvious step to take or that one skilled in the art would not have expected the latter form of antenna

to be reasonably close to frequency independent in its operating characteristics. Much less did either Mayes or DuHamel say anything to indicate that the taking of such a step was not clearly suggested by the prior art or that there would not have been a reasonable expectancy that a successful antenna would result.*

Referring to the Foundation's second allegation as to what was found by the District Court, the Foundation's brief sets forth the following:

> "2. Dr. DuHamel, an expert in the field and the co-inventor in one of the main references relied upon by Blonder-Tongue (DX-14), attempted to construct an antenna with the characteristics exhibited by Isbell's and failed, and moreover was surprised to learn that such a structure worked."

That is essentially what the District Court found (App. 827), but, as before, the statement is likely to be grossly misunderstood if not explained in the context of Dr. DuHamel's testimony. The finding in question contains a reasonably accurate condensation of DuHamel's testimony, but does so incompletely and out of context so as to completely distort its clear meaning.

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* Mayes testified that the DuHamel patent (DX-14), alone, contained no teaching of taking this step by reducing the width of the teeth to zero (App. 402-403). He did not say anything about the obviousness of reducing the tooth width to near zero in view of other prior art, such as the K.O. antenna and the Katzin patent (DX __ and __) relied upon by the Eighth Circuit decisions holding the Isbell patent invalid.

DuHamel's testimony regarding the antenna he attempted to construct with the characteristics exhibited by Isbell's (App. 336-340) referred to an antenna that DuHamel constructed after, not before learning of Isbell's invention. The attempt was one of obtaining comparable performance from "a smaller mechanical structure for the same low frequency limit of operation" (App. 340). Thus, what he was seeking to do was to find a small structure that would do the same job as Isbell's large structure -- obviously an entirely different problem than the one with which we are concerned. The result, though accurately stated by the District Court and by the Foundation, logically has no bearing whatsoever on the obviousness of the step taken by Isbell from the log-periodic antennas of the prior art.

Referring to DuHamel's testimony that he was "surprised to learn" that Isbell's antenna worked, again, the District Court's statement is accurate, but incomplete and out of context. DuHamel's testimony (App. 347) was that--

> "At first I was somewhat surprised that they [Isbell's antennas] worked, but after thinking more about it and thinking back, then I was not surprised. At first I was surprised that it did work." (Emphasis added)

Neither the District Court nor the Foundation's brief mentions DuHamel's statement that, after thinking more about it and thinking back, he was not surprised. Looking at the entire statement by DuHamel in the light of his preceding explanation of why he had not thought of Isbell's invention before Isbell (App. 343-347), the answer is evident. His thinking was so restricted by the design principles

he was working on at the time that he, as one individual, failed to see what was obvious in view of other prior art (with which he was not necessarily familiar).

In this latter connection, the third alleged finding by the District Court referred to in the Foundation's brief also misrepresents the District Court's decision. THE DISTRICT COURT MADE NO FINDING THAT:

> "3. None of the prior art references cited by defendant teaches or suggests, alone or in combination, a log-periodic array employing simple dipoles."

The main thrust of the District Court's decision in this regard is that, regardless of prior art disclosures, Isbell's invention was unobvious because the results were not predictable with certainty. It is manifestly an error of law to hold a patent valid on such a ground, as further explained below.

[This may be the place to answer page 9 to middle of page 10 of the Foundation's brief re "predictability. For help in this regard, I have attached the pertinent portion of Winegard's brief opposing certiorari, which was in turn based on my prior law search and memorandum.]

VALIDITY OF PATENTS OF THE FOUNDATION PLAINTIFF

On the matter of validity of the Isbell and Mayes et al. patents in suit, the prior briefs of defendant, Blonder-Tongue, and of the Foundation plaintiff have presented only a few issues for decision on appeal. However, as to each of those issues, both the facts and the specific questions presented for decision on appeal have been well disguised by the brief of the Foundation plaintiff and require clarification. In clarifying those issues, the errors committed by the District Court will be made manifest.

THE ISBELL PATENT

A. The "Invention" Was Published More Than a Year Before the Patent Application Filing Date in Contravention of 35 U.S.C. 102(b).

The question of "publication" involves a Quarterly Engineering Report No. 2 (D. Ex. ___) which the Foundation concedes was "printed and delivered by the printer to the publications office* on April 30, 1959" (App. 828). That date (a Thursday), was more than a year before Isbell's filing date of May 3, 1960. In seeking to dispose of this issue in a page and a half (P. Br. 6-7), the brief of the Foundation plaintiff so distorts and misrepresents both the facts and the District Court's decision that both require restatement.

In its so-called "brief resume" of the undisputed facts, the Foundation actually acknowledged only the mere delivery of the report to the publications office on April 30, 1959. In arguing

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* Publications Office, Electrical Engineering Department, University of Illinois.

that this did not amount to "publication," it asserted, first, that there is "no evidence of any act of publication nor of any intent to publish" up to the mailing of copies on May 5, 1959, to the organizations on a distribution list, as required by the project sponsor. It then sought to reinforce this argument with a misstatement of Lawler's ambiguous testimony regarding an alleged department policy with respect to disturbing reports.* Finally, the Foundation concluded its argument with a statement that the District Court found the report in question not to have been "received" by a library, nor "filed" in a library, nor made accessible to the public before the critical date. The District Court made no such findings.

Significantly, the Foundation's argument was not the basis upon which the District Court decided there had been no publication prior to May 3, 1959. In the course of its discussion of this issue, the District Court found all of the facts enumerated on pages 9-10 of defendant's prior brief, most of which the Foundation fails to mention. This included finding what the District Court described as "the rather remote possibility that a person knowing of the report might have asked for it and obtained a copy" on April 30, 1959.** Those findings were correct except for the legally immaterial conclusion that the last-mentioned possibility was "rather remote," for which that court made no supporting fact finding and for which there is no rational basis in the evidence.

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* Discussed in detail below, but apparently not relied upon by the District Court.

** Is the possibility not remote that a person, knowing of any book, might ask for it and obtain a copy of it from a particular library within three days after it was received and physically available there?

What the District Court erroneously decided, as a conclusion of law, was that the availability of the document "was not sufficiently 'public' in nature" to constitute "publication" under the patent act. Aside from its misunderstanding of the applicable law as explained in our prior brief (D. Br. 11-12), the District Court simply ignored and made no findings on the facts from which the public nature of the document could be judged.

Moreover, consistently with the facts which the District Court did find, and contrary to what the Foundation argued (P. Br. 7), the report in question was received by a library and was made available to the public before the critical date of May 3, 1959. To demonstrate this in contradiction of the Foundation brief requires a review of the pertinent testimony, not for the purpose of contradicting anything found as a fact by the Court, but to supply what it failed to find and demonstrate the unfounded character of the Foundation's argument.

Let us start with the testimony of the Foundation's witness, Lawler, who was business manager of the Electrical Engineering Department and Miss Johnson's immediate supervisor (App. 461). After confirming much of Miss Johnson's testimony (App. 462-465) and explaining various irrelevant matters (App. 466-468), Lawler denied any knowledge that the Local Library in his department, in charge of Miss Johnson, was called anything but a "Reading Room" (App. 468-469), apparently seeking to draw some obscure distinction between a library and a reading room where books are stored for both reference and borrowing. However, that no such distinction is warranted is demonstrated by an exhibit H-4 stipulated with and attached to Miss Johnson's testimony (D. Ex. 22, p. 206). That document, from the official records of Lawler's own department, included the "Local Library" as one of the

required recipients of copies of reports like the one with which we are here concerned (App. 206-207).

The part of Lawler's testimony on which the Foundation primarily relies relates to the alleged department policy (mentioned above) regarding the distribution of reports (App. 465-466). Without saying when such policy existed or over what period of time, Lawler testified ambiguously on this point and only as follows:

> "Quarterly reports normally were restricted in their distribution. Distribution had to be made, first of all, in accordance with the distribution list which the contractor would supply." [Emphasis added]

Not only did Lawler fail to say that such a policy existed during the critical time in the spring of 1959, but it is not even clear that his words "first of all" meant first in point of time, rather than first in order of importance, and he referred to no documentary evidence of the existence of any such policy or requirement. Perhaps of greater importance, he said nothing about Miss Johnson's being advised of any restriction on the distribution of such reports, or that she ever observed any priority as to who might receive such reports; and Miss Johnson denied knowledge of any such restriction (D. Ex. 22, pp. 199-200, 204-205).

Most important of all is Lawler's testimony on cross-examination as follows:

> "Q. Who, Mr. Lawler, had more detailed information with regard to the availability of and dates of publication of the Quarterly Reports, Defendant's Exhibits 7 and 8, you or Miss Marjorie Johnson?
>
> "A. She would probably have more detailed information on them, yes."

Clearly, by Lawler's own admission, it was not he, but Miss Johnson who could speak with authority "with regard to the availability of and dates of publication of the Quarterly Reports" with which we are here concerned. That admission by Lawler was even more explicitly confirmed by Miss Johnson, as follows:

> "Q Miss Johnson, you indicated under examination by Mr. Marshall that a Mr. Lawler was your supervisor, is that correct?
>
> "A Yes.
>
> "Q Was Mr. Lawler advised, or was he involved in any of the actual work of typing of these reports?
>
> "A No.
>
> "Q Was he involved in the printing or the arrangements for printing of any of these reports?
>
> "A No.
>
> "Q Was he involved in the distribution or arranging for distribution of any of these reports?
>
> "A No.
>
> "Q This was your responsibility?
>
> "A Yes." [D. Ex. 22, p. 235]

That should dispose of the quoted testimony of Lawler and explain why it was totally ignored in the District Court's decision.

The only other testimony to be considered is the stipulated testimony of Miss Johnson, on which the District Court must have exclusively relied in deciding the issue of publication of D. Ex. ____. Let us now turn to the parts of that uncontradicted testimony, which the District Court apparently overlooked but had no reason to question.

Miss Johnson made it abundantly clear that the publications office and Local Library were one and the same, the operations of each supplementing the operations of the other in making reports available not only to persons within the university, but to interested persons outside the university, as well. In that regard, she testified as follows:

> "Q (By Mr. Kulie) Did you frequently receive requests from persons within the University and by others for copies of these reports?
>
> "A Yes.
>
> "Q And were these requests responded to by delivery of copies of reports to the extent they were available?
>
> "A As long as we were fairly sure that it was a responsible party making the request, yes.
>
> "Q If I were to have come to your office and asked for the report, would there be any restriction on delivery of the report to me?
>
> "A Probably not, if you identified yourself as an attorney for a company, but we did not, of course, allow them for undergraduate students, who really wanted nothing more than scratch paper."[D. Ex. 22, p. 201]

Summarizing Miss Johnson's detailed testimony regarding the character and function of the Local Library, how it was operated, and who used it (D. Ex. 22, pp. 202-204), the Local Library was located about 200 to 300 feet down the hall from the publications office, on the same floor; reports from university research groups and from elsewhere in the country, generally, were available in this library, where they were stored in locked file cabinets which were opened on request of interested parties for access to their contents; subject only to such precautions against loss, the contents of that local library were available generally to the public during normal business hours.

With regard to the time that reports became available in the Local Library as library references, Miss Johnson first made it clear that reports might not be physically placed in the cabinet in that library for a week or two after being received from the printer, depending upon the availability of help to fill out library cards and mark the documents with a recorded library number (D. Ex. 22, p. 204). However, she then made it clear that reports could be obtained from the publications office and from her as librarian of the Local Library as soon as they had been received from the printer (D. Ex. 22, pp. 204-205). This was emphasized by repeated further questions and answers by Miss Johnson as follows:

> "Q And you previously indicated that when materials were delivered from the printer to your office, they were available for distribution on the date they were delivered to your office?
>
> "A Yes.
>
> "Q With the extra copies of this material that you had printed, and I specifically refer to Quarterly Report No. 2, would it have been available in your office for distribution upon request on the date it was delivered in your office?
>
> "A Yes.
>
> "Q If I had come to your office on April 30th, the date indicated on that requisition document, and requested a copy of Report No. 2, would I have been likely to have been delivered a copy?
>
> "A Very likely.
>
> "Q Would you say then, Miss Johnson, that Quarterly Engineering Report No. 2 was available in your office on April 30th, 1959 to the same extent as any other publication or report was available in your office either as a library reference or as an extra copy?

"A To my knowledge, yes.

"Q So that, to this extent, you would not distinguish the availability of this Report No. 2 from any other similar report then in your office?

"A No." [D. Ex. 22, pp. 216-217]

****

"Q Now, Miss Johnson, having seen that document, H-11, I again ask you whether in your opinion quarterly engineering report No. 2 was available in your office on April 30, 1959 to the same extent as any other publication or report was available in your office, either as a library reference or as an extra copy?

"A In my opinion, yes.

"Q This report, you wouldn't distinguish it then as to the availability of this report No. 2 from any other similar report then in your office?

"A No, I wouldn't." [D. Ex. 22, p. 240]

****

"Q Miss Johnson, whether these documents were in brown wrappers, on the desk, on a shelf, on the floor, were they available as a library reference on the date that they were received in your office?

"A Yes." [D. Ex. 22, p. 243]

The stipulated testimony of Miss Johnson reviewed above is the only probative evidence from which the District Court could have drawn a conclusion as to the availability of Quarterly Engineering Report No. 2 more than a year before Isbell's filing date or as to the "public nature" of that availability. It admits of no possible conclusion other than that any interested person could have obtained a library copy of that report for reference or borrowing and would have been given an extra copy as early as

April 30, 1959, merely for the asking; that both the library in question and the publications office as a source of free copies were commonly used by members of the public as well as by university students and personnel; and that, therefore, the report must be deemed to have been available by April 30, 1959 to any interested member of the public.

Since the mere deposit of a single copy in a library, "even a very small or a highly specialized library" was acknowledged by the District Court to constitute "publication" within the meaning of the Patent Act [citing Hamilton Laboratories, Inc. v. Massengill, 111 F.2d 584 (6th Cir. 1940)], the District Court clearly erred in holding that the availability of the report in question in this case "was not sufficiently 'public' in nature." Moreover, in this case, give-away copies were available from a recognized source (the publications office) as well as reference or loan copies being available in the Local Library which that office maintained ~~for the Electrical Engineering Laboratory of the university~~.

Since the library receipt date of a publication is the controlling date, not the date when a publication is bound or indexed by the library [John Crossley & Sons v. Hogg, 83 Fed. 488 (Cir. Ct., D. Mass., 1897; Gulliksen v. Halberg v. Edgerton v. Scott, 75 USPQ 252 (Pat. Off. Bd. App., 1937)], the Foundation defendant is also clearly wrong in asserting that the report in question "was not 'available' to the public prior to its distribution date," and that

"it was neither 'received' by a library nor 'filed' in a library" before the critical date. On these authorities and those cited in defendant's prior brief (pp. 11-12), it is respectfully submitted that the District Court erred in not finding the Isbell patent invalid because of publication of the invention thereof more than one year prior to the application for the patent.