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AJ Boyle

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

UNIVERSITY OF ILLINOIS FOUNDATION, Plaintiff and Counterclaim Defendant, - v - BLONDER-TONGUE LABORATORIES, INC., Defendant and Counterclaimant, - v - JFD ELECTRONICS CORPORATION, Counterclaim Defendant.	)	Civil Action No. 66 C 567

FINDINGS OF FACT AND
CONCLUSIONS OF LAW
PROPOSED BY
BLONDER-TONGUE LABORATORIES, INC.

1. Plaintiff, University of Illinois Foundation, a non-profit corporation organized under the laws of the State of Illinois and having its place of business at Urbana, Illinois, is the owner of Isbell 3,210,767 and Mayes et al Re.25,740.

2. Defendant, Blonder-Tongue Laboratories, Inc., a New Jersey corporation having a principal place of business in Newark, New Jersey, voluntarily appeared in Illinois for the purpose of this suit, and is the owner of Blonder et al 3,259,904.

3. Counterclaim defendant, JFD Electronics Corporation, is a corporation organized under the laws of the State of New York and has a place of business in the Northern District of Illinois, and is the exclusive licensee of the Foundation under the Isbell and Mayes et al patents.

4. Isbell 3,210,767 is concerned with a log periodic dipole antenna having the dipole elements located in a coplanar configuration and with a phase reversal of the feeder line between successive dipoles.

5. Katzin 2,192,532 shows:

(a) An array of dipole elements in which the elements are of differing size from one end to the other;

(b) An array of dipole elements of different lengths arranged in a side-by-side relationship in a plane;

(c) A plurality of dipole elements, all differing lengths, continuously tapering in length from one end of the antenna to the other;

(d) An antenna in which the spacing between shorter elements is less than that between longer elements;

(e) An antenna which will respond to a band of frequencies, providing a high

response for a wide frequency range.

6. An article by DuHamel and Ore entitled "Logarithmically Periodic Antenna Designs," published on March 31, 1958, discusses the basic theory of log periodic antenna design and describes several non-coplanar log periodic dipole antennas. Trapezoidal toothed structures are shown in Figures 9, 10 and 12 and a triangular toothed structure is shown in Figure 15.

7. The CHANNEL MASTER K. O. Model 1023 Antenna has coplanar folded dipoles with a feedline transposed between adjacent dipoles. Adjacent dipoles vary in length and spacing with a scaling factor or τ less than 1.

8. Dipoles may have various shapes, including folded, triangular and rectangular shapes and still function generally in the same manner as a slender rod.

9. DuHamel and Ore 3,079,602, Figure 5, shows an antenna having triangular wire dipole elements connected with central conductors. DuHamel et al specifically states that the angle between the central conductors may be reduced to zero, a parallel condition. DuHamel et al further suggests that the dipoles can be made of any width.

10. Quarterly Report No. 2 of the University of Illinois Antenna Laboratory discloses the alleged invention of the Isbell patent:

(a) Quarterly Report No. 2 was available in the library of the Electrical Engineering Research Laboratory on April 30, 1959.

(b) Extra copies of Quarterly Report No. 2 were available to the public from the publications office of the Electrical Engineering Research Laboratory on April 30, 1959.

11. Mayes and Carrel Re.25,740 differs from Isbell 3,210,767 in that the dipole elements are bent forwardly at an angle between 62° and 114° rather than being colinear.

12. An angular relation of dipoles in an antenna, between 62° and 114°, is shown by Carter 1,974,387.

13. The angular relation of the dipoles was not conceived by the inventors but was suggested to Mayes by Mr. Turner of Wright Air Development Center.

14. The original patent, Mayes et al 3,108,280, was secured as a result of the filing by Mayes of an affidavit that he and Carrel had made the invention prior to a 1960 Isbell

publication showing the subject matter of the Isbell patent. This affidavit required the Patent Office Examiner to ignore Isbell's prior work in considering the Mayes et al claims.

15. At the time of signing and filing the affidavit, Mayes knew that he and Carrel did not do their work prior to Isbell. Mayes also knew of earlier publications of Isbell, i.e., the Antenna Laboratory Quarterly Report No. 2 and the Antenna Laboratory Technical Report 39, which he could not antedate but which he did not call to the attention of the Patent Office Examiner.

16. The Mayes et al reissue application was filed with a request for narrowed claims and at a later date broader claims were added.

17. The Blonder-Tongue DART and ARROW antennas have nonplanar dipoles arranged in planes spaced apart vertically a distance less than the average spacing of the dipoles and less than a wavelength at the frequency of operation.

18. The dipoles of the Blonder-Tongue antennas are neither coplanar nor substantially coplanar.

19. JFD advertised the log periodic antenna widely in technical and commercial publications. The JFD advertisements listed patents which did not cover the antennas sold by JFD or illustrated in the advertisements.

20. JFD advertisements and technical articles exaggerated the performance characteristics of its antennas.

21. JFD advertisements and technical articles exploited the name of the University of Illinois Foundation.

22. JFD advertisements and technical articles exaggerated the scope of the Foundation log periodic antenna patents.

23. JFD advertisements misrepresented the JFD antennas as being developed by the University of Illinois or the University of Illinois Antenna Laboratory.

24. JFD advertisements misrepresented the relationship of Prof. Paul Mayes to the JFD laboratory.

25. JFD mismarked its antennas with patent numbers it knew were not applicable.

26. The University of Illinois Foundation permitted JFD to continue use of false and misleading advertisements for many months although it had the right to approve or disapprove JFD advertising. The University of Illinois Foundation forced JFD to modify its advertising program only after it had received complaints concerning the advertising.

27. The University of Illinois Foundation sued Blonder-Tongue in the Northern District of Illinois knowing

that Blonder-Tongue had no place of business here and that the Court did not have jurisdiction.

28. Although knowing the lack of basis for the suit, the Foundation issued a news release concerning the suit shortly after it was filed. The news release of the University of Illinois Foundation was distributed by JFD to Blonder-Tongue customers.

29. Blonder-Tongue customers were threatened by JFD with a suit for infringement by the Foundation.

30. Since the filing of the suit by the Foundation against Blonder-Tongue, JFD has hired from Blonder-Tongue the following:

(a) Jerome Balish, Antenna Marketing Manager;

(b) Abraham Schenfeld, Project Engineer, Home Products, and coinventor of Blonder-Tongue patent 3,259,904, in suit;

(c) Edward O. Elissandro, Project Engineer in charge of Master Television and Equipment;

(d) Robert Mannkedic, Laboratory Assistant;

(e) Graham Sisson, West Coast Sales Representative.

31. JFD and Blonder-Tongue market competitive lines of UHF converters and television signal amplifiers.

32. JFD and Blonder-Tongue sell television antennas, UHF converters and television signal amplifiers to the same customers.

33. JFD threatened customers of Blonder-Tongue with suit if they handled log periodic antennas other than those of JFD.

34. JFD tried to force customers to handle only JFD antennas and the unpatented converters and amplifier rather than competitive products of others.

34a. Blonder-Tongue suffered a loss of sales of antennas and other products it would otherwise have sold, by reason of the acts of unfair competition and restraint of trade (including false or misleading advertising, false patent marking, and threats of suit) by counterdefendant JFD with the cooperation of plaintiff, University of Illinois Foundation.

35. Blonder et al patent 3,259,904 is concerned with a log periodic dipole antenna having two sets of dipoles fixed to longitudinal conductors or booms in vertically spaced planes, fed by a parallel wire transmission

line held in fixed relation to the dipole elements and booms.

36. Prior log periodic antennas have used either a coaxial cable feed extending through one of the antenna booms from the rear or a mechanically complicated crossed feed harness. After the Blonder-Tongue DART antenna was placed on the market using the simple construction and feed of the Blonder et al patent, JFD adopted the Blonder-Tongue construction.

37. The prior art relied on by JFD in its defense against the Blonder-Tongue patent is less pertinent than the prior art cited by the patent Examiner, which included both the Isbell and Mayes et al patents here in suit.

38. No prior art shows dipoles mounted on vertically spaced booms with a parallel wire feeder connected at the front end and held in fixed position with respect to the booms and dipole elements.

39. The antennas of JFD have:

(a) A pair of rigid longitudinal conductors held spaced a predetermined vertical distance apart;

(b) First and second pluralities of dipole elements lying in corresponding first and second vertically spaced horizontal planes containing the conductor, the dipole elements extending from opposite sides of and transversely at an angle to each conductor at successive points thereon with dipole elements connected to one conductor extending in opposed direction to the corresponding dipole elements of the other conductor, the length of the

dipole elements successively increasing from one end of the conductor;

(c) Means for connecting a parallel wire transmission line to one end of the conductor;

(d) Rigid insulating means securing the connecting means mechanically in spaced apart relation and connected with means for supporting the transmission line near the one end;

(e) Means for mounting the antenna at a region of the antenna remote from the one end;

(f) Further rigid insulating means for securing the longitudinal conductor mechanically in rigid spaced apart relation near the mounting region;

(g) A vertical distance between the two conductors less than the distances between the points of connection of the dipole elements and less than the wavelengths of the band of operation of the antenna.

CONCLUSIONS

1. Isbell patent 3,210,767 is invalid because:

   (a) The alleged invention of Isbell is obvious in view of Katzin, the K. O. antennas and the DuHamel and Ore article;

   (b) The alleged invention of Isbell is anticipated by the K. O. antenna;

   (c) The alleged invention of Isbell is anticipated by the DuHamel et al patent 3,079,602;

   (d) The alleged invention of Isbell was disclosed in a printed publication more than one year prior to the filing of the Isbell application.

2. Mayes and Carrel patent 3,108,280 is invalid because:

   (a) The alleged invention of Mayes et al is obvious in view of the prior work of Isbell, and Carter patent 1,974,387;

   (b) The alleged invention of Mayes et al was not conceived by the inventors but was suggested by Mr. Turner;

   (c) The original Mayes and Carrel patent was secured by a fraud on the Patent Office.

3. The Blonder-Tongue DART and ARROW antennas do not infringe the Isbell or Mayes et al patents.

4. JFD has unfairly competed with Blonder-Tongue in the following respect:

(a) By the use of false and misleading advertisements;

(b) By the use of false patent marking;

(c) By threats to customers;

(d) By tie-in sales of unpatented products with the patented log periodic antennas;

(e) By hiring away key Blonder-Tongue employees.

5. The acts of unfair competition of JFD amount to a violation of the antitrust law.

6. The University of Illinois Foundation by direct and indirect participation with JFD has unfairly competed with Blonder-Tongue and is also guilty of violation of the antitrust laws.

7. False patent marking, intentional or grossly negligent misrepresentation of the scope of patents and the application of patent numbers to unpatented products are per se illegal, requiring no affirmative proof of damage.

8. Blonder-Tongue was damaged, through loss of sales, by the acts of JFD and the University of Illinois Foundation.

9. Blonder et al patent 3,259,904 is valid and has been infringed by JFD and the University of Illinois Foundation.

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Judge, U. S. District Court

_____, 1968.

CERTIFICATE OF SERVICE

I hereby certify that one copy of the foregoing FINDINGS OF FACT AND CONCLUSIONS OF LAW PROPOSED BY BLONDER-TONGUE LABORATORIES, INC. has been mailed by first class mail this 19th day of April, 1968, to each of the following:

Merriam, Marshall, Shapiro & Klose
Attorneys for Plaintiff
30 West Monroe Street
Chicago, Illinois 60603

Silverman and Cass
Attorneys for Counterclaim Defendant
105 West Adams Street
Chicago, Illinois 60603

/s/ Richard S. Phillips