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U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

Trademark Trial and Appeal Board

In re Digirad Corporation[1]

Serial No. 74/569,856

Henri J. A. Charmasson, Esq. for applicant.

Charles L. Jenkins, Jr., Trademark Examining Attorney, Law Office 105 (Thomas G. Howell, Managing Attorney).

Before Sams, Seeherman and Walters, Administrative Trademark Judges.

Opinion by Walters, Administrative Trademark Judge:

Aurora Technologies Corporation has filed a trademark application to register the mark DIGIRAD for "solid state gamma radiation sensors, signal processors and display apparatus for use in medical isotopic tracing and medical nuclear imaging."[2]

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[1] Digirad Corporation is the current owner of record of this application. The application was filed originally by Aurora Technologies Corporation.

[2] Serial No. 74/569,856, in International Class 10, filed September 6, 1994, based on an allegation of a bona fide intention to use the mark in commerce.

The Trademark Examining Attorney has finally refused registration under Section 2(d) of the Trademark Act, 15 U.S.C. 1052(d), on the ground that applicant's mark so resembles the mark DIGIRAY and design, shown below, previously registered for, in pertinent part, "electronic digital x-ray system comprised of an x-ray scanning beam tube and detector for medical use" and "computer software for use with an electronic digital x-ray system,"[3] that, if used on or in connection with applicant's goods, it would be likely to cause confusion or mistake or to deceive.

[3] Registration Nos. 1,755,982 and 1,753,717, issued March 2, 1993, and February 23, 1993, respectively, to Digiray Corporation. Both registrations are cited by the Examining Attorney in his refusal. The goods identified in the two registrations are nearly identical and, with respect to Registration No. 1,753,717, identical goods are repeated, in part, and classified in both International Classes 9 and 10. Registration No. 1,755,982 specifies "electronic digital x-ray system comprised of an x-ray scanning beam tube and detector for medical use" in International Class 10; and "electrical digital x-ray system comprised of an x-ray scanning beam tube and detector for industrial use, particularly inspection of aircraft and space shuttle structure, welds and braces, inspection of electronic circuit boards, and food and beverage containers; computer software for use with an electronic digital x-ray system" in International Class 9. Registration No. 1,753,717 specifies "electronic digital x-ray system comprised of an x-ray scanning beam tube and detector for industrial use, particularly inspection of aircraft and space shuttle structure, welds and braces, inspection of electronic circuit boards, and food and beverage containers; computer software for use with an electronic digital x-ray system" in International Class 9; and "electronic digital x-ray system comprised of an x-ray scanning beam tube and detector for medical use; computer software for use with an electronic digital x-ray system" in International Class 10.

Applicant has appealed. Both applicant and the Examining Attorney have filed briefs, but an oral hearing was not requested. We reverse the refusal to register.

In the analysis of likelihood of confusion in this case, key considerations are the similarities between the marks, the similarities between the goods, the channels of trade and the sophistication of the purchasers.

Considering, first, the goods, the Examining Attorney contends that both parties' products are within the general category of medical diagnostic equipment and are used to diagnose diseases and abnormalities in the human body; that nuclear imaging and x-ray equipment may be used together or in lieu of one another; that consumers of medical diagnostic equipment may buy both nuclear imaging and x-ray equipment; and that nuclear imaging and x-ray equipment are commonly sold together and, often, under a single mark. In support of his position, the Examining Attorney submitted copies of third-party registrations and excerpts of articles from the LEXIS/NEXIS database.

Applicant argues that x-ray and nuclear imaging equipment are different, noting that x-ray equipment of the type produced by registrant produces a negative photographic style image and is primarily used to depict structural anatomy rather than physiological functions; and that medical imaging equipment of the type identified in this application is designed to detect and interpret gamma radiations emitted by isotopic tracers injected or infused into a patient's body and that images produced by this means "are typically produced on graphical displays, and depict the accumulation of the tracers which reveal physiological function." Applicant concedes that there is "a marginal customer overlap when customers are defined as those buying medical diagnostic equipment," but contends that "this overlap is inconsequential in view of the complexity and cost of the goods and the buyers' sophistication."

In support of its position, applicant submitted the declarations of Clinton Lingren, applicant's corporate secretary, and William L. Washburn, a medical doctor specializing in nuclear medicine and applicant's medical director. Mr. Lingren states that applicant develops, manufactures and markets gamma radiation imaging systems used in nuclear diagnostic medicine[4]; that the DIGIRAD

[4] Applicant indicates that while the goods herein are awaiting FDA approval, applicant has been in this field of business for several years.

product line consists essentially of a solid-state, digital gamma camera and peripheral equipment, and associated gamma radiation detectors addressed to the nuclear diagnostic medicine market; that the field of diagnostic imaging is small and revolves around a highly advanced technology; that applicant is one of only eight companies worldwide that manufactures such equipment; that individual DIGIRAD gamma detectors are sold for $25,000 apiece; that the DIGIRAD solid-state, digital imaging system costs from $250,000 to $500,000, or more; that such systems are ordered by physicians and directors of diagnostic imaging departments of major hospitals; that such systems are custom-designed to meet the needs of the buyer and that extensive discussions and negotiations are necessary due to both the complexity of the technology and the high cost of the equipment; and that sales of applicant's equipment are usually accompanied by on-site training for physicians and technologists. Mr. Lingren states that, on the other hand, x-ray equipment is a routine purchase, made by an institution's purchasing agent; and that such equipment is purchased "off the shelf" or from catalogs.

Dr. Washburn states that "nuclear medicine is a clinical specialty in which gamma radiations emitted from within the patient's body, following the intravenous or oral administration of a radioactive labeled drug, are detected

using special imaging cameras that form images of the radioisotopes uptake and distribution so that these can be interpreted by physicians"; that this technology is "one of the most sophisticated and useful diagnostic methods available to study changes in physiology and organ function associated with conditions such as heart disease and cancer"; that, unlike x-ray, nuclear medicine is not an imaging specialty intended to depict anatomy; that diagnostic x-ray imaging requires its own specialized equipment and involves "the use of externally generated x-ray beams that pass through the body" whereas nuclear imaging involves "the emission of gamma radiation from within the body, requires its own federal or state (radioisotope) license, and utilizes its own special technique and equipment"; that "there are different competence requirements for Specialty Board certification for physicians who practice Nuclear Medicine as distinct from Diagnostic Radiology"; that "due to the cost and sophistication of nuclear imaging systems, purchase decisions always require the participation of physicians, Nuclear Medicine practitioners and department directors"; that applicant has a well-established reputation as a pioneer and leader in the design and implementation of digital solid-state nuclear medical devices, but that the particular product herein is awaiting FDA approval; and that

nuclear medicine imaging systems are marketed to physician specialists in Nuclear Medicine, whereas diagnostic x-ray equipment is marketed to specialists in Radiology.

In view of the factual statements made in the declarations of Mr. Lingren and Dr. Washburn, and not contradicted by the Examining Attorney's evidence, we conclude that x-ray imaging and nuclear imaging utilize distinctly different technologies and involve different medical specialties; that nuclear imaging equipment is highly complex as well as quite expensive; that the purchasers of such equipment, doctors and directors of hospital diagnostic imaging departments, are very knowledgeable with respect to these goods; and that such purchases, which involve extensive discussions between seller and buyer, are taken with great care and consideration. While the record contains limited evidence pertaining to the expense of x-ray imaging equipment and the channels of trade therefor, it is clear that Radiology is a distinct medical specialty involving the use of x-ray imaging equipment for diagnosis and monitoring of disease and/or injury; that x-ray imaging involves the use of specialized and substantial equipment; and that such equipment is marketed to specialists in Radiology. Although applicant states that the purchase of such equipment may be "routine" and made by an institution's purchasing agent "off

the shelf or from catalogs," we assume that such equipment is substantial in both size and technical complexity and, thus, is not inexpensive and that, as these products are marketed to Radiology specialists, the purchasing decision is made by knowledgeable individuals after careful consideration.

In the analogous case of *Astra Pharmaceutical Products, Inc. v. Beckman Instruments, Inc*., 718 F.2d 1201, 220 USPQ 786, 790 (1st Cir. 1983), both parties marketed and sold goods under the mark ASTRA to the same purchasing institutions - large hospitals. Opposer sold, primarily, local anesthetics, cardiovascular medicines and prefilled syringes to hospital pharmacists and anesthesiologists, whereas applicant sold a highly technical and large blood analyzing machine to specialists in hospital chemistry laboratories. The court stated:

> If likelihood of confusion exists, it must be based on the confusion of some relevant person; i.e., a customer or purchaser. And there is always less likelihood of confusion where goods are expensive and purchased after careful consideration.

Noting that similarity of trade channels or overlap of customers is not established simply because both parties conduct business in the same field and sell their products to the same institution, the court found the purchasing institution, a hospital, not to be the relevant purchaser as

it "is composed of separate departments with diverse purchasing requirements, which, in effect, constitute different markets for the parties' respective goods." (*id.* at 791.) In view of the differences in markets, the level of sophistication of the purchasers and the cost of the products, the court concluded that there was "no likelihood of confusion of relevant purchasers."

The Federal Circuit, our primary reviewing court, came to a similar conclusion in *Electronic Design & Sales, Inc. v. Electronic Data Systems Corp.*, 954 F.2d 713, 21 USPQ2d 1388 (Fed. Cir. 1992). In that case, the court reversed the Board's finding of likelihood of confusion between opposer's registered mark EDS for computer programming services in, *inter alia*, the medical field and applicant's mark E.D.S. for power supplies and battery chargers, a majority of which are incorporated into medical instruments which are sold under other manufacturers' marks. Following the reasoning in *Astra*, the court found no likelihood of confusion in view of the differences in the relevant purchasers and trade channels, the sophistication of the relevant purchasers, and the care with which both parties' goods are purchased.

Applying the principles enunciated in *Astra* and *EDS* to the case before us, we find that facts enumerated herein regarding the differences in the relevant purchasers of the parties' goods, the sophistication of those purchasers, the

care with which the products are purchased, and the expense thereof, mitigate against a finding that the goods of the parties are related, despite the fact that both x-ray imaging and nuclear imaging are medical diagnostic technologies,[5] as applicant admits; that both technologies involve use of a form of radiation; and that both x-ray and nuclear imaging may be performed on a patient during the diagnosis and/or treatment of that patient's illness or injury.[6]

The Examining Attorney's evidence of third-party registrations does not persuade us that the goods involved herein are related. Third-party registrations which cover a number of differing goods and/or services, and which are based on use in commerce, may have some probative value to

[5] The evidence submitted by the Examining Attorney includes the following excerpts:

"Abbott formed two strategic alliances in the $1.5 billion U.S. diagnostic imaging market which includes x-ray/CT, MRI, ultrasound and nuclear imaging modalities." *Biotech Financial Reports*, September 1, 1996.

"Mediq's core business is now renting life-support and critical care medical equipment to hospitals and other health-care providers. The company provides portable x-ray, nuclear-imaging and ultrasound equipment to medical centers." *Philadelphia Business Journal*, March 17, 1995.

[6] The evidence submitted by the Examining Attorney includes the following excerpts:

"To check for reflux, the doctor may do x-rays, ultrasound and/or nuclear imaging studies." *The Ethnic Newswatch*, March 27, 1996.

"Techniques commonly used to detect bone infection - x-rays and nuclear imaging techniques such as technetium bone scans or gallium scans – cannot differentiate between neuropathic osteoarthropathy (Charcot foot) and osteomyelitis." *Clinical Diabetes*, May, 1992.

the extent that they may serve to suggest that such goods or services are of a type which may emanate from a single source. *See In re Albert Trostel & Sons Co.*, 29 USPQ2d 1783 (TTAB 1993); *In re Mucky Duck Mustard Co. Inc.*, 6 USPQ2d 1467 (TTAB 1988). However, of the thirty-four registrations submitted, not a single one includes both parties' goods identified herein. The vast majority of the submitted registrations pertain exclusively to x-ray equipment.[7] It is unclear to what extent the goods identified in several of the registrations are the same as or similar to either applicant's or registrant's goods herein and, thus, we do not find these registrations to be useful to our analysis.[8] Finally, of the few registrations that contain reference to both x-ray imaging equipment and nuclear imaging equipment, it is not clear on this record to what extent the goods or services therein, and their channels of trade, are similar to the goods herein and their respective channels of trade.[9]

[7] The term "imaging" is used in this record in connection with both x-ray technology and nuclear medicine. Thus, those registrations referring to "x-ray imaging" or to "medical imaging" as part of a list of goods pertaining to x-ray do not appear to be evidence of registrations including goods of the type identified in the application herein. See, for example, Registrations Nos. 1,292,045; 1,570,689; and 1,581,185.

[8] See, for example, Registrations Nos. 1,524,233; and 1,837,590.

[9] See, for example, Registration No. 1,428,267 which pertains to such a broad range of goods, from mechanisms measuring blood flow to patient gowns and slippers, that it does not show that all of these goods are necessarily related; and Registration No. 1,796,128, which pertains to technician services and, similarly, does not show that the equipment operated by the technicians emanates from the same source.

Thus, we conclude that the Examining Attorney has not established that applicant's and registrant's identified goods are sufficiently related that, if sold under the identical or similar marks, confusion is likely.

Turning to the marks, the Examining Attorney contends that "the only visible difference between the two marks is the letter 'd' at the end of applicant's mark and the letter 'y' and the design in the registrant's mark"; that the marks are similar in meaning as both contain the prefix "digi" which connotes "digital"[10] and as the suffixes "rad"[11] and "ray"[12] both pertain to radiation; and, thus, that applicant's and registrant's marks create similar commercial impressions.

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[10] "Digital" is defined in *The Random House Dictionary of the English Language*, unabridged (2d ed. 1987), as "*7. computers*: involving or using numerical digits expressed in a scale of notation to represent discretely all variables occurring in a problem. *8.* of or pertaining to, or using, numerical calculations."

[11] "Rad" is defined in *Webster's Third New International Dictionary* (1976), as "a unit of absorbed dose of ionizing radiation equal to an energy of 100 ergs per gram of irradiated material." While applicant is correct that, as noted in *The Random House Dictionary of the English Language*, unabridged (2d ed. 1987), "rad" has a slang definition of "fine; wonderful [by shortening *radical*]," we feel certain that, in connection with the goods in this case, the first definition would be the connotation of the term "rad" for relevant purchasers.

[12] In connection with registrant's goods, the term "ray" is likely to be perceived as referring to "x-ray." "X-ray" is defined, in part, in *Webster's Third New International Dictionary* (1976) as "1. any of the electromagnetic radiations having the nature of visible life but a wavelength approximately between 0.1 and 100 angstroms . . ." The term "ray" is defined as "1.b. a beam of light or other radiant energy of small cross section or infinitesimal cross section." c. a geometrical line normal to the wave front in which radiation (as heat or light) is propagated. d. a stream of material particles all traveling in the same line (as in radioactive phenomena). e. a specific or limited portion of the total radiation."

Applicant agrees that the marks differ by only one letter and that the prefix "digi" means "digital." However, applicant contends that the prefix "digi" is "so ubiquitous in the electronic equipment field that it adds very little distinctiveness to the marks"[13]; and that the marks are sufficiently distinguished by the suffixes "rad" and "ray," which differ significantly in pronunciation and meaning.

As applicant does not discuss the design portion of registrant's mark, we presume that applicant agrees, as do we, with the Examining Attorney's position that the word portion of registrant's mark is dominant. While we also agree with the Examining Attorney's contention that DIGIRAY and DIGIRAD are visually similar, we find that the connotations of RAY and RAD are not similar, particularly when considered in connection with the goods herein. Clearly, in connection with registrant's goods which pertain, in pertinent part, to the medical field of Radiology, RAY is likely to connote "x-ray," which is a particular type of radiation. RAD, in connection with applicant's goods, which, according to applicant, pertain to the field of Nuclear Medicine, is likely to connote a unit of measure of radiation. Thus, while both RAY and RAD

[13] Applicant has submitted no evidence in support of this statement and, thus, we cannot conclude that "digi" is a weak term as applied to either of the parties' goods. To the extent that "digi" may be understood as a form of the word "digital" as that word is defined herein, the term "digi" may be considered suggestive of the technical nature of the goods

pertain, generally, to radiation, according to the record applicant's goods do not encompass x-ray equipment nor does the technology involved in applicant's goods involve x-ray. Thus, RAY is merely descriptive in connection with registrant's goods but not in connection with applicant's goods. We find it likely that the knowledgeable purchasers of the parties' goods, who are also likely to be knowledgeable about the distinctions between the fields of Radiology and Nuclear Medicine, will be acutely aware of the differences in connotation between the terms RAY and RAD and, thus, will easily distinguish between the marks DIGIRAY and DIGIRAD based upon the connotations of RAY and RAD in connection with the parties' respective goods.

In conclusion, we find the Examining Attorney has not established that a likelihood of confusion exists between applicant's and registrant's marks in connection with their respective goods in view of the dissimilarities between the marks, the goods, and the channels of trade; the high level of sophistication of the purchasers; and the expense of applicant's goods and the care involved in the purchase thereof.

herein which rely, in all likelihood, on automated mathematical calculations for their functioning.

Decision: The refusal under Section 2(d) of the Act is reversed.

J. D. Sams

E. J. Seeherman

C. E. Walters
Administrative Trademark Judges,
Trademark Trial and Appeal Board