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**Dann Vs. Johnston**

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**SooperKanoon Citation** : sooperkanoon.com/104025

**Court** : US Supreme Court

**Decided On :** Mar-31-1976

**Appeal No.** : 425 U.S. 219

**Appellant** : Dann

**Respondent** : Johnston

**Judgement** :

Dann v. Johnston - 425 U.S. 219 (1976)
U.S. Supreme Court Dann v. Johnston, 425 U.S. 219 (1976)

**Dann v. Johnston**

**No. 74-1033**

**Argued December 9, 1975**

**Decided March 31, 1976**

**425 U.S. 219**

*CERTIORARI TO THE UNITED STATES COURT OF*

*CUSTOMS AND PATENT APPEALS*

## SYLLABUS

Respondent's "machine system for automatic record-keeping of bank checks and deposits," under which checks and deposits are customer-labeled with code categories which are "read," and then processed by a data processor, such as a programmable electronic digital computer, having data storage files and a control system, permitting a bank to furnish a customer with an individual and categorized breakdown of his transactions during the period in question, *held* unpatentable on grounds of obviousness. 35 U.S.C. 103. Pp. 425 U. S. 225 -230.

502 F.2d 765, reversed and remanded.

MARSHALL, J., delivered the opinion of the Court, in which all Members joined except BLACKMUN and STEVENS, JJ., who took no part in the consideration or decision of the case.

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MR. JUSTICE MARSHALL delivered the opinion of the Court.

Respondent has applied for a patent on what is described in his patent application as a "machine system for automatic record-keeping of bank checks and deposits." The system permits a bank to furnish a customer with subtotals of various categories of transactions completed in connection with the customer's single account, thus saving the customer the time and/or expense of conducting this bookkeeping himself. As respondent has noted, the

"invention is being sold as a computer program to banks and to other data processing companies so that they can perform these data processing services for depositors."

Brief for Respondent 19A; *Application of Johnston,* 502 F.2d 765 (CCPA 1974).

Petitioner and respondent, as well as various *amici,* have presented lengthy arguments addressed to the question of the general patentability of computer

programs. *Cf. Gottschalk v. Benson,* 409 U. S. 63 (1972). We find no need to treat that question in this case, however, because we conclude that, in any event, respondent's system is unpatentable on grounds of obviousness. 35 U.S.C. 103. Since the United States Court of Customs and Patent Appeals (CCPA) found respondent's system to be patentable, *Application of Johnston, supra,* the decision of that court is accordingly reversed.

I

While respondent's patent application pertains to the highly esoteric field of computer technology,

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the basic functioning of his invention is not difficult to comprehend. Under respondent's system, a bank customer labels each check that he writes with a numerical category code corresponding to the purpose for which the funds are being expended. For instance, "food expenditures" might be a category coded "123," "fuel expenditures" a category coded "124," and "rent" still another category coded "125." Similarly, on each deposit slip, the customer, again through a category code, indicates the source of the funds that he is depositing. When the checks and deposit slips are processed by the bank, the category codes are entered upon them in magnetic ink characters, just as, under existing procedures, the amount of the check or deposit is entered in such characters. Entries in magnetic ink allow the information associated with them to be "read" by special document-reading devices and then processed by data processors. On being read by such a device, the coded records of the customer's transactions are electronically stored in what respondent terms a "transaction file." Respondent's application describes the steps from this point as follows:

"To process the transaction file, the . . . system employs a data processor, such as a programmable electronic digital computer, having certain data storage files and a control system. In addition to the transaction file, a master record-keeping file is used to store all of the records required for each customer in accordance with the

customer's own chart of accounts. The latter is individually designed to the customer's needs and also constructed to cooperate with the control system in the processing of the customer's transactions. The control system directs the generation of periodic output

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reports for the customer which present the customer's transaction records in accordance with his own chart of accounts and desired accounting procedures."

Pet. for Cert. 4A-5A.

Thus, when the time comes for the bank customer's regular periodic statement to be rendered, the programmed computer sorts out the entries in the various categories and produces a statement which groups the entries according to category and which gives subtotals for each category. The customer can then quickly see how much he spent or received in any given category during the period in question. Moreover, according to respondent, the system can "[adapt] to whatever variations in ledger format a user may specify." Brief for Respondent 66.

In further description of the control system that is used in the invention, respondent's application recites that it is made up of a general control and a master control. The general control directs the processing operations common to most customers and is in the form of a software computer program, *i.e.,* a program that is meant to be used in a general purpose digital computer. The master control, directing the operations that vary on an individual basis with each customer, is in the form of a separate sequence of records for each customer containing suitable machine instruction mechanisms along with the customer's financial data. Respondent's application sets out a flow chart of a program compatible with an IBM 1400 computer which would effectuate his system.

II

Under respondent's invention, then, a general purpose computer is programmed to provide bank customers with an individualized and categorized breakdown of their

transactions during the period in question.

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After reviewing respondent's patent application, the patent examiner rejected all the claims therein. He found that respondent's claims were invalid as being anticipated by the prior art, 35 U.S.C. 102, and as not "particularly pointing out and distinctly claiming" what respondent was urging to be his invention. 112.

Respondent appealed to the Patent and Trademark Office Board of Appeals. The Board rejected respondent's application on several grounds. It found first that, under 112, the application was indefinite, and did not distinctly enough claim what respondent was urging to be his invention. It also concluded that respondent's claims were invalid under 101 because they claimed nonstatutory subject matter. According to the Board, computer-related inventions which extend "beyond the field of technology . . . are nonstatutory," Pet. for Cert. 31A. *See Application of Foster,* 58 C.C.P.A. (Pat.) 1001, 1004, 438 F.2d 1011, 1015 (1971); *Application of Musgrave,* 57 C.C.P.A. (Pat.) 1352, 431 F.2d 882 (1970), and respondent's claims were viewed to be "nontechnological." Finally, respondent's claims were rejected on grounds of obviousness. 35 U.S.C. 103. The Board found that respondent's claims were obvious variations of established uses of digital computers in banking and obvious variations of an invention, developed for use in business organizations, that had already been patented. Dirks, U.S. Patent No. 3,343,133.

The CCPA, in a 3-2 ruling, reversed the decision of the Board and held respondent's invention to be patentable. The court began by distinguishing its view of respondent's invention as a " *record-keeping machine* system for financial accounts'" from the Board's rather negative view of the claims as going solely to the "`relationship of

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a bank and its customers.'" 502 F.2d at 770 (emphasis in CCPA opinion). As such, the CCPA held, respondent's system was "clearly within the `technological arts,'" *id.* at 771, and was therefore statutory subject matter under 35 U.S.C. 101. Moreover, the court held that respondent's claims were narrowly enough drawn and sufficiently detailed to pass muster under the definiteness requirements of 112. Dealing with the final area of the Board's rejection, the CCPA found that neither established banking practice nor the Dirks patent rendered respondent's system "obvious to one of ordinary skill in the art who did not have [respondent's] specification before him." 502 F.2d at 772.

In order to hold respondent's invention to be patentable, the CCPA also found it necessary to distinguish this Court's decision in *Gottschalk v. Benson,* 409 U. S. 63 (1972), handed down some 13 months subsequent to the Board's ruling in the instant case. In *Benson,* the respondent sought to patent as a "new and useful process," 35 U.S.C. 101, "a method of programming a general purpose digital computer to convert signals from binary-coded decimal form into pure binary form." 409 U.S. at 409 U. S. 65 . As we observed: "The claims were not limited to any particular art or technology, to any particular apparatus or machinery, or to any particular end use." *Id.* at 64. Our limited holding, *id.* at 409 U. S. 71 , was that respondent's method was not a patentable "process" as that term is defined in 35 U.S.C. 100(b). [ Footnote 1 ]

The Solicitor of the Patent Office argued before the CCPA that *Benson's* holding of nonpatentability as to the computer program in that case was controlling here.

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However, the CCPA concluded that, while *Benson* involved a claim as to the patentability of a "process," respondent in this case was advancing claims as to the patentability of an "apparatus" or "machine" which did not involve discoveries so abstract as to be unpatentable:

"'The issue considered by the Supreme Court in *Benson* was a narrow one, namely, is a formula for converting binary coded decimal numerals into pure binary

numerals by a series of mathematical calculations a patentable *process* ?' (Emphasis added.) [Quoting *In re Christensen,* 478 F.2d 1392, 1394 (CCPA 1973).]"

"[T]he instant claims in *apparatus* form do not claim or encompass a law of nature, a mathematical formula, or an algorithm."

502 F.2d at 771 (emphasis in CCPA opinion). Having disposed of the Board's rejections and having distinguished *Benson* to its satisfaction, the court held respondent's invention to be patentable. The Commissioner of Patents sought review in this Court, and we granted certiorari. 421 U.S. 962 (1975). We hold that respondent's invention was obvious under 35 U.S.C. 103, and therefore reverse.

III

As a judicial test, "invention" -- *i.e.,* "an exercise of the inventive faculty," *McClain v. Ortmayer,* 141 U. S. 419 , 141 U. S. 427 (1891) -- has long been regarded as an absolute prerequisite to patentability. *See, e.g., Keystone Driller Co. v. Northwest Engineering Corp.,* 294 U. S. 42 (1935); *Sharp v. Stamping Co.,* 103 U. S. 250 (1880); *Hotchkiss v. Greenwood,* 11 How. 248 (1851). However, it was only in 1952 that Congress, in the interest of "uniformity and definiteness," articulated the requirement in a statute,

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framing it as a requirement of "nonobviousness." [ Footnote 2 ] Section 103 of the Patent Act of 1952, 35 U.S.C. 103, provides in full:

"A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made."

This Court treated the scope of 103 in detail in *Graham v. John Deere Co.,* 383 U. S. 1 (1966). There, we held that 103 "was not intended by Congress to change the general level of patentable invention," but was meant

"merely as a codification of judicial precedents . . . with congressional directions that inquiries into the obviousness of the subject matter sought to be patented are a prerequisite to patentability."

*Id.* at 383 U. S. 17 . While recognizing the inevitability of difficulty in making the determination in some cases, we also set out in *Graham, supra,* the central factors relevant to any inquiry into obviousness: "the scope and content of the prior art," the "differences between the prior art and the claims at issue," and "the level of ordinary skill in the pertinent art." *Ibid.* Guided by these factors, we proceed to an inquiry into the obviousness of respondent's system.

As noted, *supra* at 425 U. S. 223 , the Patent and Trademark Office Board of Appeals relied on two elements in the prior art in reaching its conclusion that respondent's

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system was obvious. We find both to be highly significant. The first was the nature of the current use of data processing equipment and computer programs in the banking industry. As respondent's application itself observes, that use is extensive:

"Automatic data processing equipments employing digital computers have been developed for the handling of much of the record-keeping operations involved in a banking system. The checks and deposit slips are automatically processed by forming those items as machine-readable records. . . . With such machine systems, most of the extensive data handling required in a bank can be performed automatically."

Pet. for Cert. 3A.

It is through the use of such data processing equipment that periodic statements are ordinarily given to a bank customer on each of the several accounts that he

may have at a given bank. Under respondent's system, what might previously have been separate accounts are treated as a single account, and the customer can see on a single statement the status and progress of each of his "subaccounts." Respondent's "category code" scheme, *see supra* at 425 U. S. 221 , is, we think, closely analogous to a bank's offering its customers multiple accounts from which to choose for making a deposit or writing a check. Indeed, as noted by the Board, the addition of a category number, varying with the nature of the transaction, to the end of a bank customer's regular account number, creates, "in effect, a series of different and distinct account numbers. . . ." Pet. for Cert. 34A. Moreover, we note that banks have long segregated debits attributable to service charges within any given separate account, and have rendered their customers subtotals for those charges.

The utilization of automatic data processing equipment in the traditional separate account system is, of course,

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somewhat different from the system encompassed by respondent's invention. As the CCPA noted, respondent's invention does something other than "provide a customer with . . . a summary sheet consisting of net totals of plural separate accounts which a customer may have at a bank." 502 F.2d at 771. However, it must be remembered that the "obviousness" test of 103 is not one which turns on whether an invention is equivalent to some element in the prior art, but rather whether the difference between the prior art and the subject matter in question "is a difference sufficient to render the claimed subject matter unobvious to one skilled in the applicable art. . . ." *Id.* at 772 (Markey, C.J., dissenting).

There is no need to make the obviousness determination in this case turn solely on the nature of the current use of data processing and computer programming in the banking industry. For, as noted, the Board pointed to a second factor -- a patent issued to Gerhard Dirks -- which also supports a conclusion of obviousness. The Dirks patent discloses a complex automatic data processing system using a programmed digital computer for use in a large business

organization. Under the system, transaction and balance files can be kept and updated for each department of the organization. The Dirks system allows a breakdown within each department of various areas, *e.g.,* of different types of expenses. Moreover, the system is sufficiently flexible to provide additional breakdowns of "sub-areas" within the areas, and can record and store specially designated information regarding each of any department's transactions. Thus, for instance, under the Dirks system, the disbursing office of a corporation can continually be kept apprised of the precise level and nature of the corporation's disbursements within various areas or, as the Dirks patent terms them, "Item Groups."

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Again, as was the case with the prior art within the banking industry, the Dirks invention is not equivalent to respondent's system. However, the departments of the business organization and the areas or "Item Groups" under the Dirks system are closely analogous to the bank customers and category number designations respectively under respondent's system. And each shares a similar capacity to provide breakdowns within its "Item Groups" or category numbers. While the Dirks invention is not designed specifically for application to the banking industry, many of its characteristics and capabilities are similar to those of respondent's system. *Cf. Graham,* 383 U.S. at 383 U. S. 35 .

In making the determination of "obviousness," it is important to remember that the criterion is measured not in terms of what would be obvious to a layman, but rather what would be obvious to one "reasonably skilled in [the applicable] art." *Id.* at 383 U. S. 37 . In the context of the subject matter of the instant case, it can be assumed that such a hypothetical person would have been aware both of the nature of the extensive use of data processing systems in the banking industry and of the system encompassed in the Dirks patent. While computer technology is an exploding one, "[i]t is but an evenhanded application to require that those persons granted the benefit of a patent monopoly be charged with an awareness" of that technology. *Id.* at 383 U. S. 19 .

Assuming such an awareness, respondent's system would, we think, have been obvious to one "reasonably skilled in [the applicable] art." There may be differences between respondent's invention and the state of the prior art. Respondent makes much of his system's ability to allow "a large number of small users to get the benefit of large-scale electronic computer equipment and still continue to use their individual ledger format and

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bookkeeping methods." Brief for Respondent 65. It may be that that ability is not possessed to the same extent either by existing machine systems in the banking industry or by the Dirks system. [ Footnote 3 ] But the mere existence of differences between the prior art and an invention does not establish the invention's nonobviousness. The gap between the prior art and respondent's system is simply not so great as to render the system nonobvious to one reasonably skilled in the art. [ Footnote 4 ]

Accordingly, we reverse the Court of Customs and Patent Appeals and remand this case to that court for further proceedings consistent with this opinion.

*So ordered.*

MR. JUSTICE BLACKMUN and MR. JUSTICE STEVENS took no part in the consideration or decision of this case.

[ Footnote 1 ]

"The term 'process' means process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material."

35 U.S.C. 100(b).

[ Footnote 2 ]

S.Rep. No.1979, 82d Cong., 2d Sess., 6 (1952); H.R.Rep. No.1923, 82d Cong., 2d Sess., 7 (1952).

[ Footnote 3 ]

The Dirks patent does allow

"the departments or other organizational users [ *i.e.,* the analogues to bank customers under respondent's invention, to] retain their authority over operative file systems,"

and indicates that "[p]rogramming is very easy, and different programs are very easily coordinated."

[ Footnote 4 ]

While "commercial success without invention will not make patentability," *A&P; Tea Co. v. Supereмarket Corp.,* 340 U. S. 147 , 340 U. S. 153 (1950), we did indicate in *Graham v. John Deere Co.,* 383 U. S. 1 (1966), that "secondary considerations [such] as commercial success, long felt but unsolved needs, [and] failure of others" may be relevant in a determination of obviousness. *Id.* at 383 U. S. 17 . Respondent does not contend, nor can we conclude, that any of these secondary considerations offer any substantial support for his claims of nonobviousness.

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