Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOHAN VAN HUNSEL
and
PAUL MORTELMANS

Appeal No. 2000-1860
Application No. 08/679,243

HEARD: MARCH 5, 2002

Before OWENS, LIEBERMAN, and JEFFREY T. SMITH, Administrative Patent Judges.

LIEBERMAN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the rejection of the examiner refusing to allow claims 1 through 7 and 9, which are all the claims pending in this application.

THE INVENTION

The invention is directed to a concentrated dampening solution used in a

lithographic printing process. The solution has a pH of 3 to 6 and comprises a water soluble organic solvent, a phosphate salt and a modified silica transparent pigment having specified characteristics. Additional limitations are provided in the following illustrative claim.

THE CLAIM

Claims 1 is illustrative of appellants' invention and is reproduced below:

> 1. A concentrated dampening solution for use in a lithographic printing process having a pH between 3 and 6 and comprising a water-soluble organic solvent, a phosphate salt in an amount, expressed as NaH_2PO_4 between 4 and 30 g/l and a transparent pigment, characterized in that said transparent pigment is a modified silica in which the silica particles have a number average size of 0.003 to 0.100 Fm and in which the silica particles are coated with chemically combined atoms of an amphoteric metal which forms an insoluble silicate at a pH between 5 and 12, said metal atoms being chemically bound through oxygen atoms to silicon atoms in the surface of said particles, and the amount of said metal being such that: Gram atoms M/ Gram atoms Si = A/1250 to A/250000 where M is the metal and A is the surface area of the particles of the silica sol expressed in m^2/g.

THE REFERENCE OF RECORD

As evidence of obviousness, the examiner relies upon the following reference:

Kinderman et al. (Kinderman)	4,530,721	Jul. 23, 1985

THE REJECTION

Claims 1 through 7 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kinderman.

OPINION

We have carefully considered all of the arguments advanced by the appellants and the examiner and agree with the appellants that the rejection of the claims under § 103(a) is not well founded. Accordingly, we reverse this rejection.

Rejections under 35 U.S.C. § 103(a)

"[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability." See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The examiner relies upon a reference to Kinderman to reject the claimed subject matter and establish a prima facie case of obviousness. The premise of the rejection is that with respect to colloidal aluminum modified silica particles, these particles appear to be those claimed. See Answer, page 3. Furthermore, with respect to the phosphate ion requirements of the claimed subject matter, the examiner states that, "[t]he taught amounts are not given in terms of g nor g/l, but the taught amount appear[s] to overlap the claimed ranges." Id. We conclude that neither hypothesis is sufficient to meet the requirements of the claimed subject matter nor establish a prima facie case of obviousness.

Kinderman is directed to a lithographic fountain concentrate comprising colloidal silica, a defined polyacrylic acid and phosphate ion. See column 1, lines 5-8 and 59-61. The appellants fail to argue any distinction between a fountain concentrate and a dampening solution. Accordingly, we treat the fountain solution as a dampening solution. See Brief, page 6.

We find that Kinderman discloses a solution having a pH of from about 3.5 to 5.5 which is described as a suitable range for printing. See column 2, lines 24-26. We find that the colloidal silica is described as a suspension containing for example thirty percent by weight silica in water. See column 2, lines 33-35. We find that the particular silica utilized is "Ludox AM" silica a 30% solid colloidal silica solution, available from DuPont Chemical. See Example 1 in column 3. There is however, no statement in the Kinderman reference that any of the specific characteristics required by the claimed subject matter are present in the colloidal silica of the reference. Thus, the requisite particle size, amphoteric metal silicate pH characteristics, chemical structure, or amounts are absent from the disclosure of Kinderman.

The examiner has stated in the Office action of 11/19/1997 (Paper No. 7) that, "[a]pplicants argue that the reference does not teach silica particles having an amphoteric metal chemically bonded to the particles through oxygen atoms. Ludox AM, which is taught by the reference, are silica particles having aluminum, an amphoteric metal, chemically bonded to the particles through oxygen atoms produced by the method of US Patent 2,892,797." Significantly, however, the aforesaid reference is not of record before us. Furthermore, the examiner has not stated which portions of the reference are relied upon or how they teach that the Ludox AM of the Kinderman reference has the requisite characteristics required by the claimed subject matter. We have considered U.S. Patent No. 2,892,797, incorporated by reference in the specification before us. See

specification, page 6. We find that the reference discloses silica sol modified with a metalate and forming an insoluble silicate at a pH between 5 and 12 as required by the claimed subject matter. See column 1, lines 15-20 and column 2, lines 66-69 which additionally discloses amphoteric metals. We find that the structure is disclosed at column 3, lines 20-32. We find that the specific ratio of gram atoms of metal to silicon required by the claimed subject matter is disclosed at column 3, lines 44-45. We further find that the initial colloidal silica sol utilized is sold commercially as "Ludox." This colloidal sol is described as the starting material to which aluminum ions are subsequently introduced. See Examples 1 and 3. In addition, there is no disclosure of "Ludox AM" utilized in the Kinderman reference. Accordingly, on the record before us, there is nothing to show that Ludox AM of the Kinderman reference possesses either the requisite amphoteric material or any or all of the characteristics of the product produced under U. S. Patent No. 2,892,797, issued more than 40 years ago.

As a further deficiency, although the pH range disclosed by Kinderman overlaps that of the claimed subject matter, the phosphate ion present is disclosed as being present in an amount of about 0.1 percent by weight. See column 2, lines 40-45 and claim 3. Significantly, we find that Example 1 discloses the presence of a phosphate ion in the form of phosphoric acid present in the amount of 0.1 parts by weight in conjunction with 1.0 normal lithium hydroxide, LiOH. A casual calculation of the phosphoric acid content indicates that it is present in an amount of 0.11 parts per hundred or

approximately 1.1 g/1000 grams or 1.1 g/l. This amount is substantially different that the requirements of the claimed subject matter of, "a phosphate salt in an amount, expressed as NaH_2PO_4 between 4 and 30 g/l." See claim 1. Moreover, the disclosure of Kinderman fails to disclose the presence of NaH_2PO_4 required by the claimed subject matter as stated by the appellants at the Oral Hearing.

Based upon the above findings and analysis, we conclude that the examiner has failed to establish a prima facie case of obviousness with respect to the claimed subject matter. Based upon the above analysis, we have determined that the examiner's legal conclusion of obviousness is not supported by the facts. "Where the legal conclusion [of obviousness] is not supported by [the] facts[,] it cannot stand." In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968), reh'g denied, 390 U.S. 1000 (1968).

As the examiner has failed to establish a prima facie case of obviousness, there is no need for us to consider the unexpected and superior results at pages 24-27 of the specification.

DECISION

The rejection of claims1 through 13 under 35 U.S.C. § 103(a) as being unpatentable over Kinderman is reversed.

The decision of the examiner is reversed.

REVERSED

TERRY J. OWENS)
Administrative Patent Judge)
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) BOARD OF PATENT
PAUL LIEBERMAN
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Administrative Patent Judge) AND
) INTERFERENCES
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