Paper No. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ALBERTO VACCA
and MARINO ROSSI

Appeal No. 94-4172
Application 08/001,854[1]

ON BRIEF

Before JOHN D. SMITH, GARRIS and WALTZ, Administrative Patent Judges.

GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the final rejection of claims 1 through 3 and 5 through 9 which are all of the claims remaining in the application.

The subject matter on appeal relates to an infrared sensitive photographic element comprising an opaque film support,

[1] Application for patent filed January 8, 1993.

an infrared sensitive silver halide emulsion layer and a hydrophilic colloid protective layer. The protective layer comprises colloidal silica having an average particle size lower than 15 nanometers wherein the colloidal silica is present at a coverage of from 20 to 70 grams per 100 grams of the hydrophilic colloid in the protective layer. According to the appellants' specification, this colloidal silica improves exposure latitude and maximum optical density. The appealed subject matter is adequately illustrated by independent claim 1 which reads as follows:

> 1. An infrared sensitive photographic element comprising an opaque film support, an infrared sensitized silver halide emulsion layer and a hydrophilic colloid protective layer on one side of the film support, characterized in that the protective layer comprises colloidal silica having an average particle size lower than 15 nanometers wherein the colloidal silica is present at a coverage of from 20 to 70 grams per 100 grams of the hydrophilic colloid in the protective layer.

The references relied upon by the examiner as evidence of obviousness are:

Parton et al. (Parton)	4,975,362	Dec. 4, 1990
Muenter et al. (Muenter)	5,013,642	May 7, 1991
Inoue et al. (Inoue)	5,108,872	Apr. 28, 1992

All of the claims on appeal stand rejected under 35 USC § 103 as being unpatentable over Inoue in view of Muenter or

Parton.

For the reasons set forth below, we cannot sustain this rejection.

In Example 1, Inoue discloses a photographic material or element comprising a polyester support, an infrared sensitive silver halide emulsion layer and a hydrophilic colloid upper protective layer which includes 0.6 g/m^2 of gelatin and 70 mg/m^2 of colloidal silica having a particle diameter of 10 to 20 mμ as a matting agent (see lines 37 through 46 in column 31). The examiner has stated (and the appellants do not argue otherwise) that the aforementioned quantity of colloidal silica in patentee's example results in a coverage equal to 12 grams of colloidal silica per 100 grams of gelatin hydrophilic colloid. Thus, appealed claim 1 differs from the Inoue example by requiring (1) an opaque film support (versus patentee's polyester support), (2) an average silica particle size lower than 15 nanometers (versus patentee's disclosure of 10 to 20 nanometers) and (3) a colloidal silica coverage of from 20 to 70 grams per 100 grams of hydrophilic colloid (versus patentee's coverage of 12 grams colloidal silica per 100 grams hydrophilic colloid).

With the respect to difference (3), the examiner contends

that

> "Inoue et al place no limits on the amount of colloidal silica to be used in their protective layers and thus the exact amount for any application becomes an ordinary design variable subject to ordinary optimization procedures using the value exemplified as a starting point" (Answer, page 6).

Implicit in this contention is the belief that such "optimization" of the colloidal silica amount to be used in patentee's protective layer would yield a coverage value within the here claimed range. The record before us contains no evidence to support this belief.

It is significant that the appellants and Inoue use colloidal silica in their respective protective layers for different reasons. As previously indicated, the appellants use colloidal silica in order to improve maximum optical density and exposure latitude. On the other hand, patentee uses colloidal silica as a matting agent (see lines 39 through 41 in column 31) in order to prevent sticking (see lines 19 through 23 in column 21). Because the appellants and Inoue use colloidal silica for different reasons, it cannot be assumed that the amount necessary

to achieve patentees' objective would correspond to the amount necessary to achieve the appellants' different objective. Further, we find nothing and the examiner points to nothing in the applied references which evinces that the amount of colloidal silica needed as a matting agent in order to prevent sticking as desired by Inoue would correspond to any of the coverage values embraced by the appellants' claimed range. For all we know, an artisan with ordinary skill would have considered coverage values of the type here claimed to be far in excess of the colloidal silica amount needed to achieve patentee's sticking-prevention objective.

In short, to reach the minimum coverage value claimed by the appellants, it would be necessary to increase the colloidal silica amount used in the protective layer of Inoue's Example 1 by almost 70%. This is far in excess of the amount exemplified by patentee, and no evidence has been proffered by the examiner to show that such an increase would have been the consequence of optimizing Inoue's colloidal silica parameter in order to achieve his sticking-prevention objective. See In re Sebek, 465 F.2d 904, 907, 175 USPQ 93, 95 (CCPA 1972). It follows that we cannot sustain the examiner's § 103 rejection of claims 1 through 3 and 5 through 9 as being unpatentable over Inoue in view of Muenter

or Parton.

The decision of the examiner is reversed.

REVERSED

JOHN D. SMITH Administrative Patent Judge	)
BRADLEY R. GARRIS Administrative Patent Judge	) BOARD OF PATENT) APPEALS AND) INTERFERENCES
THOMAS WALTZ Administrative Patent Judge	)

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