

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte

HEINZ MUELLER,
CLAUS-PETER HEROLD and
STEPHAN VON TAPAVICZA

Appeal No. 2001-2079
Application No. 09/308,400

ON BRIEF

Before OWENS, WALTZ and LIEBERMAN, Administrative Patent Judges.

LIEBERMAN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the decision of the examiner refusing to allow claims 13 through 35, which are all the claims pending in this

application.¹

THE INVENTION

The invention is directed to a water-based drilling fluid comprising a fatty alcohol based additive. The drilling fluid is free from both a vegetable oil and an emulsifier. Additional limitations are described in the following illustrative claim.

THE CLAIM

Claim 13 is illustrative of appellants' invention and is reproduced below.

13. A water-based drilling fluid comprising:

- a) 0.5 to 5 percent by weight of a fatty alcohol-based additive comprising linear or branched monohydric fatty alcohol having at least 12 carbon atoms; and
- b) water and wherein the water-based drilling fluid is free of both a vegetable oil and an emulsifier.

THE REJECTION

Claims 13 through 35 stand rejected under 35 U. S. C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

¹An amendment after final filed September 25, 2000 was denied entry.

OPINION

We have carefully considered all of the arguments advanced by the appellants and the examiner and agree with the examiner that the rejection of the claims under § 112, first paragraph is well founded. Accordingly, we affirm the rejection.

As an initial matter, the appellants state that, “[t]he claims stand or fall together.” See Brief, page 2. Accordingly, we select claim 13, the sole independent claim as representative of the claimed subject matter and limit our consideration thereto. See 37 CFR § 1.192(7)(2000).

The Rejection under § 112

In a rejection under the first paragraph of 35 U.S.C. § 112, it is sufficient if the originally filed disclosure would have conveyed to one of ordinary skill in the art that the appellants had possession of the concept of what is now claimed. In re Anderson, 471 F.2d 1237, 1240-41, 176 USPQ 331, 333 (CCPA 1973). There is no requirement that the language of the claimed subject matter be present in the specification in ipsisima verba.

It is the appellants’ position that, “none of the examples recited in Appellant’s specification involve use of either a vegetable oil or an emulsifier. Moreover, nowhere within the four corners of the specification is the use of either of these two compounds suggested.” See Brief, page 3. We disagree.

The invention as claimed is directed to a water based drilling fluid comprising a fatty alcohol. In addition, other components may be present in the drilling fluid including, “a carboxylic acid ester.” See claims 21 through 33. Express support for the additional ingredient, i.e., carboxylic acid ester is found throughout the specification. See page 3, lines 22-24. In particular, the specification states that, “[i]n the case of the polyhydric alcohols, triglycerides, more particularly triglycerides of natural origin, can be of particular importance.” See page 8, lines 6-8 and claim 33.

It is well known that glycerides of natural origin are inclusive of and directed to vegetable oil.¹ Accordingly, both the disclosed and claimed subject matter unequivocally provide for the presence of vegetable oil in the water-based drilling fluid.

As to the presence of an emulsifier, the specification does not use the term “emulsifier” in haec verba. The specification does state, however, with respect to the esters present in the oil drilling mud, “[i]t will readily be appreciated in this connection that esters which contain corresponding long-chain hydrocarbon radicals not only in their fatty acid component, but also in their alcohol component are distinguished by particularly good and effect-enhancing lubricating properties. In addition, esters of the type discussed

¹See Organic Chemistry, Morrison and Boyd, Allyn and Bacon, Boston, (1959), pages 493-4. “In terms of everyday living, by far the most important esters are those occurring naturally in animal and vegetable fats. (Liquid fats are often referred to as oils.) Such materials as corn oil, coconut oil, cottonseed oil, palm oil, tallow, bacon grease and butter are made up largely of esters of carboxylic acids. These esters are derived from a single alcohol, glycerol HOCH₂CHOHCH₂OH, and hence are known as glycerides.”

“We see in Table 17.3 that each fat is made up of glycerides derived from many different carboxylic acids. The proportions of the various acids vary from fat to fat; each fat has its characteristic composition, which does not differ widely from sample to sample.”

here change through partial hydrolysis into the essential active component - described at the beginning - of the lubricants used in accordance with the invention. Besides the fatty acids released which are converted into their salts in the normally basic water-based drilling fluid, the free fatty alcohols and hence the essential lubricant component according to the invention are formed." See specification, page 7, lines 8-17.

It is well known that fatty acid salts formed in accordance with the disclosure in the specification are emulsifiers.² Based upon the above findings and analysis, we conclude that the specification and claims are directed to both the presence of emulsifiers and vegetable oils. Accordingly, not only is there no basis for the limitation, "free of both a vegetable oil

²See Organic Chemistry, Morrison and Boyd, Allyn and Bacon, Boston, (1959), pages 493, 495 and 496. "The making of soap is one of the oldest of chemical syntheses. (It is not nearly so old, of course as the production of ethyl alcohol; man's desire for cleanliness is much newer than his desire for intoxication.) When the German tribesmen of Caesar's time boiled goat tallow with potash leached from the ashes of wood fires, they were carrying out the same chemical reaction as the one carried out on a tremendous scale by, modern soap manufacturers: *hydrolysis of glycerides*.

[Reaction Omitted]

Ordinary soap today is simply a mixture of sodium salts of long-chain fatty acids. It is a mixture because the fat from which it is made is a mixture, and for washing our hands or our clothes a mixture is just as good as a single pure salt. Soap may vary in composition and method of processing: if made from olive oil it is *Castile soap*; alcohol can be added to make it transparent; air can be beaten in to make it float; perfumes, dyes and germicides can be added; if a potassium salt (instead of a sodium salt) it is *soft soap*. Chemically, however, soap remains pretty much the same and does its job in the same way.

The cleansing action of a soap is an extremely complicated matter, but we can get some idea of the factors involved from the following simplified picture. A soap molecule has a polar end $-\text{COO}^-\text{Na}^+$, and a non-polar end, the long chain of 12 to 18 carbons; the polar end is water-soluble, the non-polar end is oil soluble. Ordinary oil droplets in contact with water tend to coalesce so that there is an oil layer and a water layer; but the presence of soap changes this. The non-polar ends of soap molecules dissolve in the oil droplet, leaving the carboxylate ends projecting into the surrounding water layer (Figure 17.1). [Figure omitted]. Due to the presence of the negatively charged carboxylate groups, each oil droplet is surrounded by an ionic atmosphere. Repulsion between similar charges keeps the oil droplets from coalescing and a stable emulsion of oil in water is thus obtained. Soap cleans by emulsifying the fat and grease that make up and contain dirt. As we shall see, this emulsifying, and hence cleansing, property is not limited to carboxylic acids, but is possessed by any molecule containing a large non-polar portion and a polar portion (Sec. 17.26)."

and an emulsifier," the limitation inserted by the appellants is expressly contrary to the content of the claimed subject matter. Based upon the above consideration, we conclude that the originally filed disclosure would not have conveyed to one of ordinary skill in the art that appellants had possession of the concepts of "free of both a vegetable oil and an emulsifier." See Ex parte Parks, 30 USPQ2d 1234, 1236-37 (Bd. Pat. App. & Int. 1993); Ex Parte Grasselli, 231 USPQ 393, 394 (Bd. App. 1983). "Despite appellants' arguments to the contrary, we agree with the examiner's position of record that the negative limitations recited in the present claims, which did not appear in the specification as filed, introduce new concepts and violate the description requirement of the first paragraph of 35 U.S.C. 112." Accordingly, the rejection is sustained.

DECISION

The rejection of claims 13 through 35 under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention is affirmed.

The decision of the examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. §1.136(a).

AFFIRMED

TERRY J. OWENS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
THOMAS A. WALTZ)	APPEALS
Administrative Patent Judge)	AND
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