

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte PATRICK J. TARZWELL

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Appeal No. 95-2623  
Application 08/084,623<sup>1</sup>

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ON BRIEF

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Before THOMAS, HAIRSTON and JERRY SMITH, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

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<sup>1</sup> Application for patent filed July 1, 1993.

Appeal No. 95-2623  
Application 08/084,623

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-7 and 9-26, which constitute all the claims remaining in the application. The examiner has indicated that claims 1-21 are now allowed [answer, page 1]. We construe this to mean that claims 1-7 and 9-21 are now allowed since claim 8 has been cancelled. Accordingly, this appeal is now directed only to claims 22-26.

The disclosed invention pertains to a resilient electrical connector for use as a measuring probe with integrated circuits. Specifically, the probe has a barrel with an electrically conductive plunger therein. A helical spring within the barrel is connected at one end to the barrel and at the other end to the plunger. The remaining claims on appeal are directed to the helical spring portion of the disclosed invention.

Representative claim 22 is reproduced as follows:

22. A spring for a resilient connector having an outside diameter of less than 0.01 inches, said spring comprising:

a tube having a predetermined length between a first end and a second end and having a helical cut along a predetermined portion of said length;

Appeal No. 95-2623  
Application 08/084,623

wherein said helical cut has a predetermined width and a predetermined number of turns and wherein the spacing of said turns and said width are in a predetermined ratio.

The examiner relies on the following references:

Kahn et al. (Kahn)	3,179,087	Apr. 20, 1965
Latorre et al. (Latorre)	4,826,143	May 02, 1989
Kazama	5,004,977	Apr. 02, 1991

Claims 22-26 stand rejected under 35 U.S.C. § 103. As evidence of obviousness the examiner offers Kazama and Kahn with respect to claim 22, and adds Latorre with respect to claims 23-26.

Rather than repeat the arguments of appellant or the examiner, we make reference to the brief and the answer for the respective details thereof.

#### OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellant's arguments set forth in the brief along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

Appeal No. 95-2623  
Application 08/084,623

It is our view, after consideration of the record before us, that the collective evidence relied upon and the level of skill in the particular art would have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 22-26. Accordingly, we affirm.

As a general proposition in an appeal involving a rejection under 35 U.S.C. § 103, an examiner is under a burden to make out a prima facie case of obviousness. If that burden is met, the burden of going forward then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

With respect to independent claim 22, it is the position of the examiner that the collective teachings of

Appeal No. 95-2623  
Application 08/084,623

Kazama and Kahn teach everything in claim 22 except for the diameter of the spring being less than 0.01 inches. The examiner asserts that absent criticality, the dimensions of a spring are an obvious design choice [answer, page 3].

Therefore, the examiner concludes that the spring of claim 22 would have been obvious to the artisan in view of the applied references.

Appellant argues that it would not have been obvious to substitute the Kahn tubular spring for the helical wire spring of Kazama because the patents are from non-analogous arts, and the Kazama patent does not discuss the problems in the probe art which could be solved by a tubular spring [brief, page 4]. Our first observation is that claim 22 simply recites a spring, and has nothing to do with the probe art or the problems associated with the probe art. Thus, appellant's arguments are not commensurate in scope with the claimed invention. For a claim having the breadth of claim 22, we are of the view that any teaching of a spring is in an analogous art to the claimed invention.

Appellant argues that the helical spring of Kahn is molded and not cut as required by the claims [brief, page 6].

Appeal No. 95-2623  
Application 08/084,623

Claim 22 is an article claim in which the spring is recited as having a helical cut. In our view, this recitation describes a physical property of the spring and not the manner in which the spring is manufactured. There is no evidence on this record that the plastic helical spring of Kahn would have any different properties from a cut helical spring. The artisan would expect that two identically appearing springs would be exactly the same regardless of the method of manufacture. Therefore, we agree with the examiner that appellant has not demonstrated that a spring having a helical cut is any different from an identical helical spring which has been molded.

Appellant argues that "[t]he Examiner's rejection is based upon the premise that a person shall not be entitled to a patent unless criticality is shown" and this is "contrary to statute" [brief, page 7]. As we noted above, the burden is initially on the examiner to establish a prima facie case of obviousness. If that burden is met, obviousness is determined on the relative persuasiveness of all the arguments and the evidence.

Appeal No. 95-2623  
Application 08/084,623

We note that the springs of Kazama and Kahn are very similar in appearance. Both springs use a "helical cut" in the middle with the ends being less resilient. In Kahn the ends are part of a tube whereas in Kajama the ends are tightly wound around a tube. The effect is basically the same. Thus, the artisan would have appreciated that a spring, as broadly recited in claim 22, has applications as diverse as a spring for a writing instrument and a spring for a contact probe. Although the spring in Kahn is clearly much larger than 0.01 inches, the spring in Kajama is within the same order of magnitude as the claimed spring. Since the prior art evidences that a spring having a helical cut has a wide variety of uses, we agree with the examiner that the artisan would select the size of the spring based upon the environment in which it will be used. In other words, the record in this case supports the examiner's position as being reasonable and establishing a prima facie case of obviousness for a spring as broadly recited in claim 22. Thus, even though appellant is correct that he is not initially required to show criticality of the dimensions, the burden of going forward has been shifted in this case, and appellant must present a persuasive

Appeal No. 95-2623  
Application 08/084,623

argument or evidence that the examiner has erred. Appellant has not presented any evidence or arguments as to why the examiner's prima facie case should not be persuasive with respect to the invention as recited in claim 22.

Appellant argues that it is not obvious to simply make a spring smaller because "simply making a spring smaller will not produce a spring having the appropriate characteristics, e.g. stiffness, for a probe" [brief, page 8]. As we noted above, however, claim 22 recites nothing about a probe so that the spring of claim 22 is not required to meet any "appropriate characteristics." The only question is whether a spring of the claimed size would have been obvious to the artisan, and we agree with the examiner that it would have been prima facie obvious to make a helical spring of the size recited in claim 22.

In summary, we agree with the examiner that the invention as broadly recited in claim 22 would have been obvious to the artisan in view of the applied references and the prima facie case of obviousness established by the examiner. Since appellant has not persuaded us of error in the examiner's position, we sustain the rejection of claim 22.

Appeal No. 95-2623  
Application 08/084,623

Dependent claims 23-26 recite that the spring is metal, glass, quartz and plastic, respectively. The examiner notes that Kahn teaches a spring made from plastic. The examiner asserts that Latorre would have suggested to the artisan that the spring of Kahn could be made from any of the claimed materials as a matter of obvious design choice absent a showing of criticality [answer, page 3]. Appellant argues that Latorre does not relate to the art of testing semiconductor devices, however, as we noted above, the relevant art for these claims is the art of springs in general. Thus, all arts which teach springs are available for consideration by the artisan.

Appellant also again argues the question of criticality as discussed above. For purposes of considering the obviousness of the invention as recited in claims 23-26, we again agree with the examiner that a prima facie case of obviousness has been established. Kahn teaches a plastic helical spring and also discusses the fact that metal springs were used in the prior art. Latorre specifically teaches a quartz spring. A spring, by definition, is simply an elastic device which has the property of regaining its original shape

Appeal No. 95-2623  
Application 08/084,623

after being compressed or extended. The artisan would have recognized that any elastic material can be used as a spring under certain circumstances. The artisan would also be familiar with the fact that glass is a known elastic material. Thus, since the artisan would know that metal, glass, quartz and plastic are all elastic materials and, therefore, would have broad application as springs, the invention as broadly recited in claims 23-26 would have been obvious to the artisan for reasons noted by the examiner.

Since the examiner has established a prima facie case of the obviousness of claims 23-26, and since appellant has presented no evidence or arguments which demonstrate error in the examiner's position, we sustain the rejection of claims 23-26.

In conclusion, we have sustained both of the examiner's rejections of claims 22-26. Accordingly, the decision of the examiner rejecting claims 22-26 is affirmed.

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

AFFIRMED

Appeal No. 95-2623  
Application 08/084,623

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Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
KENNETH W. HAIRSTON	)	)
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