

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 31

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

Ex parte GALE W. MILLER and CHARLES W. GAY

---

Appeal No. 96-0918  
Application 08/059,017<sup>1</sup>

---

ON BRIEF

---

Before CALVERT, STAAB and NASE, Administrative Patent Judges.  
STAAB, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the examiner's final rejection of

---

<sup>1</sup> Application for patent filed May 5, 1993. According to the appellant, the application is a continuation of Application 07/760,358, filed September 16, 1991, now abandoned.

Appeal No. 96-0918  
Application 08/059,017

claims 23 to 25, 27 to 31, 33 and 34. Claims 10, 12 and 14 to 17 have been allowed. Claims 18 to 21, the only other remaining

claims in the application, have been withdrawn from further consideration under 37 CFR § 1.142(b) as not being readable on the elected invention.

Appellants' invention pertains to a device for cleaning surgical instruments. The subject matter before us on appeal is illustrated by reference to representative claim 23, a copy of which is found in an appendix to appellants' brief.<sup>2</sup>

The references of record relied upon by the examiner in support of the rejections are:

Larson	2,250,112	Jul. 22, 1941
Nordgren	3,107,665	Oct. 22, 1963
Racioppi	4,945,598	Aug. 7, 1990
Wechsler (United Kingdom)	515,233	Jun. 13, 1938

Claims 23 to 25, 27, 29 to 31 and 33 stand rejected under

---

<sup>2</sup> In each of the independent claims on appeal, the height of certain bristles is said to be "of the order of" one-tenth of an inch. Consistent with the original disclosure (page 8, line 22), we interpret same to mean "approximately" one-tenth of an inch.

Appeal No. 96-0918  
Application 08/059,017

35 U.S.C. § 103 as being unpatentable over Wechsler in view of Larson and Racioppi.

Claims 28 and 34 stand rejected under 35 U.S.C. § 103 as being unpatentable over Wechsler in view of Larson and Racioppi as applied in the rejection of claim 23 et al., and further in view of Nordgren.

#### *OPINION*

According to appellants' specification, the bristles of the disclosed cleaning device can act to clean surgical instruments in several ways. For example, a surgical instrument can be dragged or pushed across the bristles or rotated within the bristles to clear the exposed surfaces of the instrument. Also, the interior of a suction tube can be cleaned by moving the tube vertically up and down over bristles which enter the tube to dislodge coagulum or the like. Emphasis in the specification is placed on forming each bristle to have a non-circular cross-section and one or more vertical sharp edges. The sharp edges are said to act to facilitate the scraping action of the bristles and the non-

circular cross-section is said to be advantageous since it allows air to pass around the bristles while inside a suction tube, thus enhancing the cleaning action (specification, page 4). This feature of appellants' invention is reflected in the language of the independent claims on appeal which calls for "each of said bristles being of a non-circular cross-section and having a longitudinal axis, each of said bristles further having at least one edge extending parallel to said axis."

Appellants' specification also states that the device allows for convenient one-hand use because it can be mounted to a convenient nearby surface such as an operating room drape, a surgeon's gown, or even a surgeon's wrist. This is reflected in the requirement of the independent claims calling for "attachment means secured to said base [of the cleaning device] for releasably attaching said base to a surface."

Wechsler, the examiner's primary reference in each of the rejections, pertains to a clothes brush especially suitable for removing mud splashes (page 1, lines 10 to 15). Wechsler apparently commended itself to the examiner's attention because of its showing of providing the brush with bristles of different lengths. As explained on page 4, lines 25 to 33,

Appeal No. 96-0918  
Application 08/059,017

[o]wing to the different lengths of the bristles, the short bristles are harder than the long bristles and therefore in brushing, for example, clothes, the brushing may be started by using the short bristles to remove mud, and may be finished with the long bristles to remove the last traces of dust.

Wechsler is silent as to the cross-sectional shape of the bristles.

Larson pertains to a hair brush. The bristles of Larson's hair brush are of diamond or triangular cross-sectional shape to provide relatively sharp edges along their length. As explained on page 2, left column, lines 52 to 62,

the hair filaments 15 will pass in a more or less wavy or zig-zag line between adjacent bristles, and in somewhat snubbed relation to the latter as indicated in Figs. 5 and 6, and consequently, the bristle edges will be drawn along the hair filaments with a strong frictional contact therewith, whereby said filaments will not only be thoroughly scraped, so as to assure efficient removal of dirt particles and encrustations therefrom, but also so as to be subjected to a flattening action.

Racioppi pertains to a brush-like device for cleaning razors, and includes a suction cup 21 for securing the device to a wall surface.

In rejecting the claims, the examiner contends that it would have been obvious to one of ordinary skill in the art to

Appeal No. 96-0918  
Application 08/059,017

modify the bristles of Wechsler to be of triangular cross-section having at least one edge extending parallel to the bristle's longitudinal axis in view of Larson's teachings, and to provide means for releasably attaching the brush to a surface in view of Racioppi's teachings, "in order to produce a disposable brush having bristles that may dislodge unwanted material from a surface" (answer, page 4). The examiner further explains:

Though [Larson] is used to clean hair, it still discloses that it is old and known to provide brushes with non-circular cross sectional bristles in order to provide a scraping action which is highly effective to remove adhering dirt particles from a surface. It would be obvious . . . to modify the bristles of Wechsler to be non-circular as suggested by Larson in order to provide a highly effective scraping action on any surface to remove dirt particles. As to the means for securing the base of the brush to a surface, the Racioppi reference also discloses a brush, this one used to clean razors including bristles and a base and a suction means (21) provided on the base for keeping the brush stationary. . . . It would have been obvious . . . to provide to the brush of Wechsler a suction device as suggested by Racioppi or any other type of securing means in order to selectively secure the brush at a desired position or location. [Answer, pages 6-7.]

We will not sustain this rejection.

The mere fact that the prior art structure of Wechsler

*could* be modified as proposed by the examiner does not make such modifications obvious unless the prior art suggests the desirability of doing so. *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). The brushes of Wechsler and Larson would be viewed by one of ordinary skill in the art as differing fundamentally in the way they clean. The scraping action of Larson's bristles is predicated on the ability of the bristles to *penetrate into* and move along the sides of the individual hair filaments such that the hair filaments *pass between* adjacent bristles (page 1, left column, lines 12-16; page 2, left column, lines 51-58). In contrast, one of ordinary skill in the art would view the brush of Wechsler as being designed to merely remove mud spatters from the *surface* of clothing. The artisan would reasonably infer as much from Wechsler's disclosure because the brush thereof is said to be for removing hardened or dried mud splashes (page 1, lines 22-28) or light dust (page 3, lines 33-34) from clothing, and because of the lack of any disclosure, teaching, or suggestion in Wechsler that the bristles should penetrate to any significant extent into the fibers of the clothing in

order to remove dirt.<sup>3</sup> As such, there would appear to be no reason from providing bristles in Wechsler that have sharp edges in order to bring about the sort of scraping action provided by Larson's bristles, apart from a hindsight reading of what these references teach. The examiner's reliance on Racioppi for a suggestion that it would have been obvious to releasably mount Wechsler's clothes brush to a support surface also is not well taken. In that Wechsler's brush is obviously designed to be held in the hand when in use, there would appear to be no cogent reason for releasably mounting it to a support surface in use, as we understand the examiner to be proposing. In short, when we put aside the appellants' disclosure and concentrate only on the teachings of Wechsler, Larson and Racioppi, it is clear to us that the ordinarily skilled artisan would not have combined these reference teachings in a manner that would have resulted in the subject matter of claims 23 and/or 29, the two independent claims on

---

<sup>3</sup> We appreciate that it might possibly be argued that Wechsler's brush could be used to remove mud splashes from clothes having a soft or fuzzy surface such that the bristles would inherently penetrate into the fibers. In our view, this would amount to a hindsight analysis of Wechsler's disclosure rather than on anything fairly taught by that reference.

Appeal No. 96-0918  
Application 08/059,017

appeal here.

In light of the foregoing, we conclude that the teachings of Wechsler, Larson and Racioppi do not establish a prima facie

case of obviousness of the subject matter of claims 23 to 25, 27, 29 to 31 and 33.

The Nordgren reference applied in the rejection of claims 28 and 34 does not render obvious what we have found to be lacking in Wechsler, Larson and/or Racioppi. Therefore, a prima facie case of obviousness with respect to the subject matter of claims 28 and 34 also has not been established.

In view of the above, it is unnecessary for us to consider appellants' evidence of nonobviousness, i.e., the declaration of co-inventor Gale W. Miller, filed March 9, 1994.

The decision of the examiner is reversed.

**REVERSED**

Appeal No. 96-0918  
Application 08/059,017

IAN A. CALVERT	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
LAWRENCE J. STAAB	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
JEFFREY V. NASE	)	
Administrative Patent Judge	)	

LJS/pgg  
Herbert C. Brinkman  
Wood, Herron & Evans  
2700 Carew Tower  
Cincinnati, OH 45202