

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CATERPILLAR INC.,
Petitioner,

v.

MILLER UK LIMITED,
Patent Owner.

Case IPR2015-00433
Patent 7,914,226 B2

Before HYUN J. JUNG, SCOTT A. DANIELS, and
MITCHELL G. WEATHERLY, *Administrative Patent Judges*.

WEATHERLY, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a); 37 C.F.R. § 42.73

I. INTRODUCTION

A. Background

Caterpillar Inc. (“Caterpillar”) filed a Petition (Paper 2, “Pet.”) to institute an *inter partes* review of claims 1, 3, 4, 6, 8, and 9 (the “challenged claims”) of U.S. Patent No. 7,914,226 B2 (Ex. 1001, “the ’226 patent”). 35 U.S.C. § 311. Miller UK Limited (“Miller”) timely filed a Preliminary Response. Paper 5. Neither party identified any proceedings as being

related to this case. Pet. 2; Paper 4, 2. On July 9, 2015, based on the record before us at the time, we instituted an *inter partes* review of claims 1, 3, 4, 6, 8, and 9 on the ground that those claims were unpatentable under 35 U.S.C. § 103 because they were obvious in view of the combination of U.S. Patent No. 3,985,249 (“Aker”) (Ex. 1003) and U.S. Patent No. 5,597,260 (“Peterson”) (Ex. 1004). Paper 6 (“Dec.”). After we instituted this trial, neither party filed any further papers or evidence. Because neither party requested a hearing, none was held.

B. The '226 Patent

The '226 patent is generally directed to a safety pin for use with an accessory coupler attached to an excavator arm (not shown in the '226 patent). Ex. 1001, 1:10–13, 1:19–22, Fig. 1. Safety pin 20a is maintained within hole 36 to prevent the inadvertent release of latching hooks from an accessory secured by the coupler. *Id.* at 5:6–9. Safety pin 20a and its positioning within hole 36 in coupler 10 are illustrated in Figures 1 and 2 of the '226 patent (reproduced below).

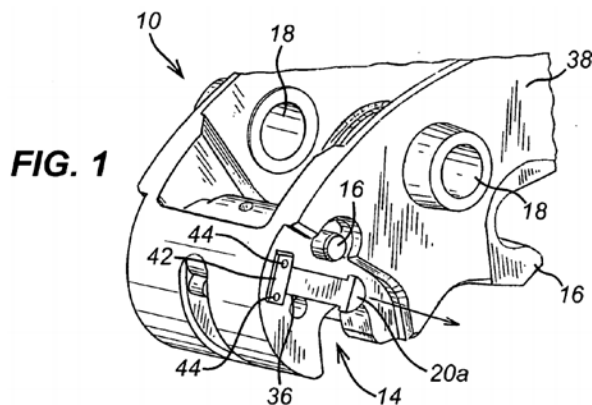


Figure 1 of the '226 patent illustrates pin 20a positioned within aperture 36 of coupler 10.

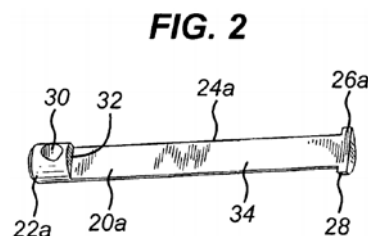


Figure 2 of the '226 patent illustrates pin 20a having distal end 22a, shaft 24a, and head 26a.

Safety pin 20a includes head 26a, shaft 24a, and distal end 22a. *Id.* at 1:53–54, 5:15–16, Fig. 2. The juncture between distal end 22a and shaft 24a defines semi-circular shoulder 32a. *Id.* at 5:23–24, Fig. 2. Locking plate 42 maintains safety pin 20a in hole 36. *Id.* at 5:59–61. Two bolts 44 fasten locking plate 42 to coupler 10 such that plate 42 occludes a sector of hole 36. *Id.* at 5:53–55. When fastened to coupler 10, locking plate 42 prevents safety pin 20a from being removed from hole 36 because shoulder 32a would engage locking plate 42 when safety pin 20a is retracted. *Id.* at 5:60–64. Nevertheless, flat surface 34 renders shaft 24a as being “generally semi-cylindrical” so that it may slide through occluded hole 36. *Id.* at 5:18–19, Fig. 1. Because locking plate 42 is bolted to coupler 10, locking plate 42 may be removed easily to allow safety pin 20a to be removed from coupler 10. *Id.* at 5:64–67.

Claims 1 and 6 are the independent claims among the challenged claims, and claim 1, which is illustrative, recites:

1. A system for retaining engagement of first and second elements within a coupler, the system comprising:
 - a coupler having a sidewall and an aperture formed therethrough;
 - a safety pin insertable into an aperture formed through a sidewall¹ of the coupler, the safety pin comprising a head, a shaft depending from the head along a longitudinal axis, a distal end of the shaft opposite the head, and an element that extends radially outwardly from a portion of the shaft, the

¹ Caterpillar contends that an ordinary artisan would understand that “an aperture formed through a sidewall” refers to “the aperture formed through the sidewall.” Pet. 20 n.2 (citing Ex. 1002 ¶ 31 nn.1–2). For purposes of this Decision, we read these terms as Caterpillar proposes.

shaft, the distal end of the shaft and the element disposed in the aperture of the coupler; and

a removable plate fixed to the sidewall of the coupler occluding a portion of the aperture corresponding substantially in size and shape with the element of the safety pin to prevent passage of the distal end of the safety pin through the aperture, wherein when the removable plate is fixed to the sidewall of the coupler the portion of the aperture not occluded by the removable plate is sized to allow passage of the shaft through the aperture.

Id. at 8:11–29.

II. ANALYSIS

A. *Obviousness of Claims 1, 3, 4, 6, 8, and 9 in View of Aker and Peterson*

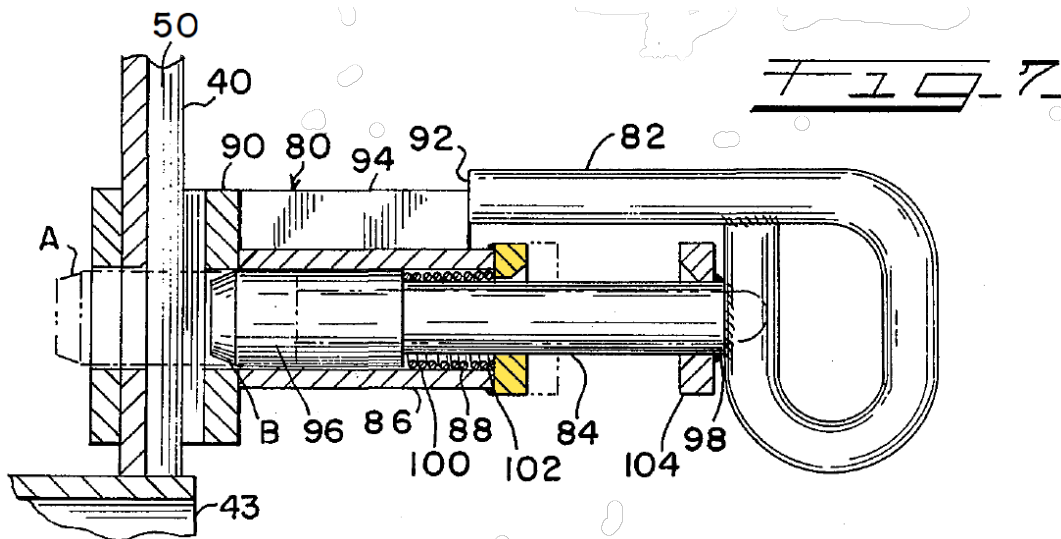
Caterpillar challenges the patentability of claims 1, 3, 4, 6, 8, and 9 on the ground that the claims are obvious in light of Aker and Peterson.

Pet. 12–45. In considering this challenge, we keep in mind the principles summarized by the Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), when the Court reaffirmed the framework for determining obviousness as set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966). The *KSR* Court summarized the four factual inquiries set forth in *Graham* that we apply in determining whether a claim is unpatentable as obvious under 35 U.S.C. § 103(a) as follows:

1. determining the scope and contents of the prior art,
2. ascertaining the differences between the prior art and the claims at issue,
3. resolving the level of ordinary skill in the pertinent art, and
4. considering objective evidence present in the application indicating obviousness or nonobviousness.

KSR, 550 U.S. at 406.

Caterpillar describes in detail how Aker describes all elements of the claims including the coupler having a sidewall with an aperture, the safety pin, and the removable plate occluding a portion of the aperture. Pet. 16–45. Caterpillar also proffers similarly detailed testimony from Dr. Fronczak in support of its contentions. Ex. 1002 ¶¶ 24–72. Caterpillar concedes, however, that the plate in Aker that occludes the aperture is welded in place and thus not “removable.” Pet. 26 (independent claim 1), 40 (independent claim 6). The plate that Caterpillar identifies in Aker is highlighted in yellow in the modified version of Aker’s Figure 7 reproduced below.



The modified version of Aker’s Figure 7 illustrates a spring-loaded locking pin mechanism that includes a circular plate (unnumbered and highlighted in yellow) that is welded to one end of the cylindrical container 86.

Dr. Fronczak testifies that an ordinary artisan would understand Aker’s circular occluding plate to be welded in place based on the apparent appearance of a “fillet-like weld” at the joint between the plate and Aker’s cylindrical container 86. Ex. 1002 ¶ 36.

Caterpillar relies upon Peterson as expressly suggesting that it is preferable to attach structures on the end of safety pins used in earth moving equipment using mechanical fasteners rather than welds. Peterson states:

In many cases the weld between the retaining system and the pin may be ground or chiselled away or even cut off with an oxy-acetylene cutting torch. In more severe cases, an oxygen lance may be required to sever the connecting pin to facilitate its removal.

All of these removal systems are time consuming, occupationally hazardous and can lead to damage in one or both of the members coupled by the pin.

Ex. 1004, 2:1–8. Peterson further explains that “the coupling pins according to the invention may be readily attached or detached to members without the need for special equipment or the risk of damage to the members being coupled.” *Id.* at 6:29–33. Based on the combination of teachings from Aker and Peterson, Caterpillar argues that an ordinary artisan would have found it obvious to fasten Aker’s circular plate to its cylinder 86 using mechanical fasteners instead of a weld to make the circular plate removable. Pet. 26 (claim 1), 40 (claim 6).

B. Miller’s Argument at Trial

In our Institution Decision, we determined that the argument and evidence adduced by Caterpillar demonstrated a reasonable likelihood that the combination of Aker and Peterson rendered claims 1, 3, 4, 6, 8, and 9 obvious. Dec. 5–9. More specifically, we determined that Caterpillar had proffered evidence that was persuasive at the time of institution on every issue relating to its challenge that claims 1, 3, 4, 6, 8, and 9 were obvious. We must now determine whether the record before us establishes by a

preponderance of the evidence that claims 1, 3, 4, 6, 8, and 9 are unpatentable as obvious in view of Aker and Peterson. 35 U.S.C. § 316(e).

In our Scheduling Order accompanying the Institution Decision, we instructed Miller that “any arguments for patentability not raised in the [Patent Owner Response] will be deemed waived.” Paper 7, 6; *see also* 37 C.F.R. § 42.23(a) (“Any material fact not specifically denied may be considered admitted.”). Additionally, the Board’s Trial Practice Guide states that the Patent Owner Response “should identify all the involved claims that are believed to be patentable and state the basis for that belief.” Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012). Accordingly, Miller was aware that the Patent Owner Response constituted its sole opportunity to proffer argument supported by evidence that might persuade us to alter our initial determinations in Caterpillar’s favor.

With knowledge that the Patent Owner Response was its sole opportunity to meet Caterpillar’s argument and evidence, Miller chose not to file a Patent Owner Response and, thus, presented no countervailing argument or evidence at trial. Accordingly, the record now before us contains Caterpillar’s un rebutted argument and evidence, which we adopt in their entirety. We determine that this record establishes by a preponderance of the evidence that the combination of Aker and Peterson renders claims 1, 3, 4, 6, 8, and 9 unpatentable as obvious under 35 U.S.C. § 103.

III. ORDER

For the reasons given, it is:

ORDERED that claims 1, 3, 4, 6, 8, and 9 of U.S. Patent No. 7,914,226 B2 are held *unpatentable* as obvious under 35 U.S.C. § 103 in view of Aker and Peterson; and

FURTHER ORDERED that, because this is a Final Written Decision pursuant to 35 U.S.C. § 318(a), parties to the proceeding seeking judicial review of the Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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