Paper No. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOHN V. STEWART

Appeal No. 2000-1471
Application 08/935,655

ON BRIEF

Before ABRAMS, McQUADE and LAZARUS, Administrative Patent Judges.

McQUADE, Administrative Patent Judge.

## DECISION ON APPEAL

John V. Stewart originally took this appeal from the final rejection of claims 4 through 7.[1] Inasmuch as the appellant has canceled claims 4 and 7, the appeal now involves claims 5 and 6, the only claims currently pending in the

[1] In the final rejection (Paper No. 5), the examiner referred to claims 4 through 7 as claims 1 through 4, respectively, due to a claim numbering error by the appellant which has since been corrected.

application.

## THE INVENTION

The invention relates to a quick-release bicycle axle fastener. Claims 5 and 6 read as follows:

> 5. An improved bicycle wheel axle assembly for bicycles of a type having two opposed axle mounting plates with open-ended slots and safety retention surfaces, a hollow wheel axle, a spindle passing through the hollow axle, an adjustment nut on one end of the spindle, a cam on the other end of the spindle, the cam having a closed position that clamps the axle between the mounting plates, the improvement comprising a spring attached to the cam that urges the cam to rotate to its closed position.
>
> 6. A quick-release bicycle axle fastener for attaching a hollow axle between two safety dropouts on a bicycle, comprising:
>
> a spindle having a first end and a second end, the spindle extending through the hollow axle;
>
> a cam pivotally mounted on the first end of the spindle;
>
> a lever attached to the cam;
>
> a cam follower slidably mounted on the spindle adjacent to, and inboard of, the cam, the cam operating against the follower to move the follower

> axially along the spindle during pivoting of the cam; and
>
> a spring acting between the spindle and the cam, urging the cam to pivot in a direction that moves the follower inward toward the second end of the spindle.

## THE PRIOR ART

The reference relied on by the examiner as evidence of anticipation is:

Poehlmann et al. (Poehlmann) 4,763,957 Aug. 16, 1988

## THE REJECTION

Claims 5 and 6 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Poehlmann.

Attention is directed to the appellant's main and reply briefs (Paper Nos. 13 and 16) and to the examiner's final rejection and answer (Paper Nos. 5 and 15) for the respective positions of the appellant and the examiner with regard to the merits of this rejection.

## DISCUSSION

Anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984).

Poehlmann discloses a bicycle wheel arrangement having a quick-release feature. In Poehlmann's words,

> there is a customary pair of bicycle front forks 6 and 7, each having an end slot 8 or opening therein. Extending through both openings 8 is an axle 9 symmetrical about an axis 11 and having threaded ends 12 and 13. The end 12 receives a nut 14. Also slipped over the end 12 is a cup 16 having a flange 17 interposed between the fork 7 and a tube 18 fitting coaxially over the axle 9. A similar cup 19 fits over the tube and is interposed between the end of the tube and the fork 6. A washer 21 is on the axle 9 against the outside of the fork 6.
>
> Threads on the end 13 receive a special tensioning device. This includes a nut block 22 (see FIGS. 6 and 7) threaded into chosen position. The block 22 has a pair of side grooves 23 leading to transverse openings defining arcuate ends 24. The grooves 23 and ends 24 receive aligned pins 26 of a fastening lever 27 thus pivotally mounted on the block 22. The lever 27 is bifurcated and receives a latch 28 mounted on a cross pin 29 and urged by a spring 31 into a holding position. The flat lower end 32 of the latch 28 seats on the flat top 33 of the block 22. Near its pins 26, the lever

> 27 carries a pair of eccentric cams 36. When the lever 27 is in the position shown in FIGS. 2 and 3, eccentric cams press against the washer 21 and thus draw the axle 9 toward the left in FIG. 2. By a quick cam action, this affords a tight abutment of the cups 16 and 19 with the axle tube 18 and the forks 6 and 7 to provide a set, but adjustable, assembly and an easy release [column 2, line 52, through column 3, line 11].

As indicated above, the subject matter recited in claims 5 and 6 comprises, inter alia, a spring. Claim 5 requires "a spring attached to the cam that urges the cam to rotate to its closed position," and claim 6 requires "a spring acting between

the spindle and the cam, urging the cam to pivot in a direction that moves the follower inward toward the second end of the spindle."

The examiner has found (see pages 3 and 4 in the final rejection) that these claim limitations are met by Poehlmann's spring 31. To support this finding, the examiner cites the sentence in the above reproduced passage from the reference stating that "[t]he lever 27 is bifurcated and receives a

latch 28 mounted on a cross pin 29 and urged by a spring 31 into a holding position." (reply brief, page 1). According to the examiner (see pages 4 and 5 in the answer), this sentence describes lever 27, and thus the cams 36 carried by the lever, as being urged by spring 31 into a holding position, with the result that spring 31 meets the spring limitations in claims 5 and 6.

The appellant, on the other hand, submits (see pages 2 and 3 in the main brief and pages 1 and 2 in the reply brief) that the sentence in question actually describes latch 28 as being urged by spring 31 into a holding position, and that the Poehlmann

device does not contain any spring, including spring 31, which acts on the cam in the manner specified in claims 5 and 6.

A fair reading of the Poehlmann reference supports the appellant's position, and belies the examiner's. The sentence

in question, even if read in a vacuum, indicates that the element urged into a holding position by spring 31 is latch 28, not cam lever 27. The structural relationships between spring 31, latch 28 and cam lever 27 shown in Figures 2 through 6 leave no doubt that such is the case, and that spring 31 does not act on the cams 36 associated with lever 27 in the manner required by claims 5 and 6. Since the Poehlmann device does not include any other spring meeting these claim limitations, the examiner's determination that Poehlmann discloses, expressly or under principles of inherency, each and every element of the invention recited in claims 5 and 6 is unsound.

Accordingly, we shall not sustain the standing 35 U.S.C. § 102(b) rejection of claims 5 and 6 as being anticipated by Poehlmann.

SUMMARY

The decision of the examiner to reject claims 5 and 6 is reversed.

REVERSED

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| NEAL E. ABRAMS<br>Administrative Patent Judge | ) | |
| JOHN P. McQUADE<br>Administrative Patent Judge | ) | BOARD OF PATENT APPEALS AND INTERFERENCES |
| RICHARD B. LAZARUS<br>Administrative Patent Judge | ) | |

jpm/vsh

JOHN V. STEWART
1308 HENRY BALCH DRIVE
ORLANDO, FL 32810