

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOSEPH P. FALACE,
JOSEPH P. MANES,
and
DANIEL J. PLUTT

Appeal No. 2000-1811
Application No. 08/879,638

ON BRIEF

Before BARRETT, RUGGIERO, and DIXON, Administrative Patent Judges.

RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 1-3, 6, 7, and 9-18. Claims 4, 5, and 8 were canceled earlier in the prosecution. An amendment filed January 3, 2000 after final rejection, which canceled claim 18, was approved for

Appeal No. 2000-1811
Application No. 08/879,638

entry by the Examiner. Accordingly, only the rejection of claims 1-3, 6, 7, and 9-17 is before us on appeal.

The claimed invention relates to a robotic docking apparatus for a cartridge library system having a cartridge storage array. More particularly, a docking apparatus is provided on a robotic arm that mates with corresponding features on various storage compartments. According to Appellants (specification, pages 3 and 4), the docking apparatus enables a cartridge retrieval mechanism to automatically and precisely align with the storage compartment that contains a selected data cartridge by using passive alignment mechanisms, thereby avoiding the use of vision systems or structures with expensive tight mechanical tolerances.

Representative claim 1 is reproduced as follows:

1. A robotic docking alignment apparatus used to align a cartridge retrieval mechanism with a cartridge receiving location, said robotic docking alignment apparatus comprising:

at least one docking feature formed on an end of said cartridge retrieval mechanism proximate said cartridge receiving location;

at least one docking receptacle formed on an end of said cartridge receiving location proximate said cartridge retrieval mechanism; and

Appeal No. 2000-1811
Application No. 08/879,638

said at least one docking feature engagable with said at least one docking receptacle for aligning said cartridge retrieval mechanism in at least two dimensions with respect to said cartridge receiving location.

The Examiner relies on the following prior art:

Burke et al. (Burke)	2,941,739	Jun. 21, 1960
Semmlow et al. (Semmlow)	3,938,190	Feb. 10, 1976
Yamakawa et al. (Yamakawa)	5,402,283	Mar. 28, 1995
Woodruff	5,487,579	Jan. 30, 1996

Claims 1, 2, 9, 10, 14, and 17 stand finally rejected under 35 U.S.C. § 102(b) as being anticipated by Semmlow. In a rejection under 35 U.S.C. § 103(a), the Examiner rejects claims 3, 6, 7, 11, 12, 13, 15, and 16 and, as evidence of obviousness, the Examiner offers Semmlow alone with respect to claims 3, 6, 7, 11, and 12, adds Burke to Semmlow with respect to claim 13, and adds Woodruff to Semmlow with respect to claims 15 and 16. In a separate rejection, claims 1-3, 6, 7, and 9-17, all of the appealed claims, stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamakawa in view of Semmlow.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Brief (Paper No. 10) and Answer (Paper No. 11) for the respective details.

Appeal No. 2000-1811
Application No. 08/879,638

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the Examiner, and the evidence of anticipation and obviousness relied upon by the Examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellants' 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.

It is our view, after consideration of the record before us, that the disclosure of Semmlow fully meets the invention as recited in claims 1, 2, 9, 10, 14, and 17. In addition, we are of the opinion that the 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 set forth in claims 3, 6, 7, 11-13, 15, and 16. Accordingly, we affirm.

Appellants' arguments in response to the Examiner's rejection of the appealed claims are organized according to a suggested grouping of claims indicated at page 4 of the Brief. We will consider the appealed claims separately only to the

Appeal No. 2000-1811
Application No. 08/879,638

extent separate arguments for patentability are presented. Any dependent claim not separately argued will stand or fall with its base claim. Note In re King, 801 F.2d 1324, 1325, 231 USPQ 136, 137 (Fed. Cir. 1986); In re Sernaker, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983).

We consider first the rejection of claims 1, 2, 9, 10, 14, and 17 under 35 U.S.C. § 102(b) as being anticipated by Semmlow. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.), cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore & Assocs. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

With respect to independent claim 1 (the representative claim for Appellants' suggested grouping of claims subject to this rejection including claims 1, 2, 9, 10, 14, and 17), the Examiner has indicated (Answer, page 3) how the various limitations are read on the disclosure of Semmlow. In

Appeal No. 2000-1811
Application No. 08/879,638

particular, the Examiner points to the illustrations in Figure 3 of Semmlow along with the accompanying description beginning at column 4, line 54.

After reviewing the Examiner's analysis, it is our opinion that the stated position is sufficiently reasonable that we find that the Examiner has at least satisfied the burden of presenting a prima facie case of anticipation. The burden is, therefore, upon Appellants to come forward with evidence and/or arguments which persuasively rebut the Examiner's prima facie case. Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make in the Brief have not been considered (see 37 CFR § 1.192(a)).

Appellants' arguments in response focus on the assertion that Semmlow does not provide for aligning the cartridge retrieval mechanism " . . . in at least two dimensions" with respect to the cartridge receiving location as presently claimed. According to Appellants (Brief, pages 4 and 5), in contrast to the present claim language, the end shape of Semmlow's guide pin 14, which Appellants characterize as arrow-head shaped, would function to effect alignment only in a single vertical direction.

Appeal No. 2000-1811
Application No. 08/879,638

After careful review of the Semmlow reference, we do not find this argument of Appellants to be persuasive. Initially, we find no supporting disclosure in Semmlow for Appellants' conclusion that the ends of guide pin 14 are in the shape of an arrow-head. Further, as pointed out by the Examiner, Semmlow's Figure 3 is the only illustration that depicts the guide pin end in detail and it shows the cylindrical guide pins 14 tapering down to a point at the end. We find no persuasive arguments from Appellants that would convince us of any error in the Examiner's line of reasoning with respect to Semmlow (Answer, page 5) that ". . . [a]ny interpretation of the shape shown in figure 3 for the ends of the guide pins must have tapered horizontal surfaces and tapered vertical [surfaces] as the pins terminate at points." Given this reasonable interpretation of the shape of the guide pin ends in Semmlow, we find it to be apparent that the coaction of the guide pins 14 and the alignment holes 13 in Semmlow would cause alignment in two dimensions as recited in appealed claim 1. Accordingly, since all of the claimed limitations are present in the disclosure of Semmlow, the Examiner's 35 U.S.C. § 102(b) rejection of representative claim 1, and claims 2, 9, 10, 14, and 17 which fall with claim 1, is sustained.

Appeal No. 2000-1811
Application No. 08/879,638

As to the Examiner's rejections of the appealed claims under 35 U.S.C. § 103(a), we consider first the obviousness rejection of claims 1-3, 6, 7, 9-17, all of the appealed claims, as being unpatentable over Yamakawa in view of Semmlow. As the basis for this rejection, the Examiner suggests (Answer, page 4) the obviousness to the skilled artisan of substituting the mechanical alignment guide of Semmlow for the electronic alignment mechanism of Yamakawa.

In response, Appellants contend (Brief, pages 8-11) that the Examiner has not set forth a prima facie case of obviousness since proper motivation for the Examiner's proposed combination of Yamakawa and Semmlow has not been established. After careful review of the Yamakawa and Semmlow references in light of the arguments of record, we are in general agreement with Appellants' position as stated in the Brief. In our view, the Examiner has combined the mechanical guide pin alignment teachings of Semmlow with the electronic motion control system of Yamakawa in some vague manner without specifically describing how the teachings would be combined. This does not persuade us that one of ordinary skill in the art having the references before her or

Appeal No. 2000-1811
Application No. 08/879,638

him, and using her or his own knowledge of the art, would have been put in possession of the claimed subject matter.

Accordingly, since the Examiner has not established a prima facie case of obviousness, the 35 U.S.C. § 103(a) rejection of claims 1-3, 6, 7, and 9-17 based on the combination of Yamakawa and Semmlow cannot be sustained.

We next consider the Examiner's separate 35 U.S.C. § 103(a) rejection of claims 3, 6, 7, 11, and 12 based on Semmlow alone. At the outset, we note that, while we found Appellants' arguments to be persuasive with respect to the Examiner's obviousness rejection based on the combination of Yamakawa and Semmlow, we reach the opposite conclusion with respect to the obviousness rejection of claims 3, 6, 7, 11, and 12 based on Semmlow alone. According to the Examiner, Semmlow discloses the claimed invention except for ". . . having a differing shape and location for the docking features." (Answer, page 3). In the Examiner's line of reasoning (id.), the skilled artisan would have found it obvious ". . . to modify the locking members and receptacles of Semmlow et al[.] by making them with tapered faces or horizontally centered instead of vertically centered, as these are obvious design choices, which would have been within the

Appeal No. 2000-1811
Application No. 08/879,638

limits of routine skill in the art." As support for this assertion, the Examiner makes reference to page 9, lines 19 and 20 of Appellants' specification which states that the ". . . selection of the number, location, size and shape of the docking features 101, 102 are matters of design choice."

In response, Appellants initially focus (Brief, pages 5 and 6) on the particulars of claim 3, which set forth that the aperture of the docking receptacle has inwardly tapered faces on opposite sides, and assert that no admission has been made that such features are an obvious design choice. Similar arguments are made regarding the "three face" features of the docking apparatus and docking receptacle aperture, respectively, of claims 6 and 7. In Appellants' view (id., at 6), even assuming, arguendo, that statements have been made by Appellants regarding general design considerations of a feature, "such statement does not transform such into an admission that a specific claimed embodiment of such feature is an *obvious* design choice."

After reviewing the arguments of Appellants and the Examiner, we find ourselves in agreement with the Examiner's position as stated in the Answer. It is apparent from our review of Appellants' disclosure in the specification that the essence

Appeal No. 2000-1811
Application No. 08/879,638

of their invention is the replacement of complex robotic hand mechanisms and alignment vision systems with passive structural features which mate docking features of a docking apparatus with the features of a docking receptacle. We find no indication in Appellants' disclosure of any criticality attached to any particular shape or location for these mating docking features. To the contrary, in contrast to Appellants' arguments, the shape, size, and location of these mating docking features are clearly and unequivocally stated by Appellants to be a matter of design choice (specification, page 9, lines 19 and 20). Accordingly, in the absence of any evidence that the particular shape and location of the mating docking features are significant or are anything more than one of numerous aesthetic design configurations that a skilled artisan would find obvious, the Examiner's 35 U.S.C. § 103(a) rejection of claims 3, 6, and 7, as well as claims 11 and 12 not separately argued by Appellants, is sustained. See In re Dailey, 357 F.2d 669, 672, 149 USPQ 47, 50 (CCPA 1966).

Turning to a consideration of the Examiner's obviousness rejection of claim 13 based on Semmlow and Burke, and claims 14 and 15 based on Semmlow and Woodruff, we sustain these

Appeal No. 2000-1811
Application No. 08/879,638

rejections as well. Appellants have not separately argued the patentability of these claims and instead rely on arguments made with regard to parent claim 1, arguments which we found unpersuasive as discussed supra.

In summary, we have not sustained the Examiner's 35 U.S.C. § 103(a) rejection of appealed claims 1-3, 6, 7, and 9-17 based on the combination of Yamakawa and Semmlow. We have, however, sustained the Examiner's 35 U.S.C. § 102(b) rejection of claims 1, 2, 9, 10, 14, and 17 based on Semmlow, as well as the rejections under 35 U.S.C. § 103(a) of claims 3, 6, 7, 11, and 12 based on Semmlow, claim 13 based on Semmlow and Burke, and claims 15 and 16 based on Semmlow and Woodruff. Therefore, the Examiner's decision rejecting all of the appealed claims 1-3, 6, 7, and 9-17 is affirmed.

Appeal No. 2000-1811
Application No. 08/879,638

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

AFFIRMED

LEE E. BARRETT)	
Administrative Patent Judge)	
)	
)	
)	
JOSEPH F. RUGGIERO)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
)	
JOSEPH L. DIXON)	
Administrative Patent Judge)	

JFR:hh

Appeal No. 2000-1811
Application No. 08/879,638

STORAGE TECHNOLOGY CORPORATION
ONE STORAGETEK DRIVE, MS-4309
LOUISVILLE, CO 80028-4309