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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
07/251-93.0	09/29/88	CHAO	CH-1361-6

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EXAMINER	
STOLLER	
ART UNIT	PAPER NUMBER
113	16

DATE MAILED:

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This is a communication from the examiner in charge of your application.

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Final

☒ This application has been examined ☐ Responsive to communication filed on _____ **DJG** this action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|--|---|
| 1. ☐ Notice of References Cited by Examiner, PTO-892. | 2. ☐ Notice re Patent Drawing, PTO-943. |
| 3. ☐ Notice of Art Cited by Applicant, PTO-1449 | 4. ☐ Notice of Informal Patent Application, Form PTO-152 |
| 5. ☐ Information on How to Effect Drawing Changes, PTO-1474 | 6. ☐ _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-23 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1-23 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.
8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. These drawings are ☐ acceptable; ☐ not acceptable (see explanation).
10. ☐ The ☐ proposed drawing correction and/or the ☐ proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner, ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved, ☐ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections MUST be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.
12. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received
☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 1-23 are rejected under 35 U.S.C. 103 as being unpatentable over Japanese Patent Application 49-20688 in view of Stewart et al. or Paifao et al.

The Japanese Patent application teaches the manufacturing of high quality titanium concentrates by mixing carbonaceous reducing and alkali compounds and roasting at temperatures between 600-1300°C. The roasted products are leached to remove the impurities with dilute acid. Applicants' claims differ from the teachings of the references in that the reference does not teach magnetic separation methods. Stewart et al. and Paifao et al. show that it is known to reduce Ti-ores and subject them to magnetic separation techniques to remove iron values. Because the secondary references are teaching common treatments of Ti-ores to further purify them, it would have been obvious to one

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skilled in the art to incorporate the magnetic separation of Stewart et al. and Paifao et al. into the process of the Japanese Patent Application.

Remarks

In the parent case, applicant urged that the Japanese patent doesn't teach nor suggest that it is suitable for removing the many impurities specified by applicant. On page 2 of the translation (line 6), patentee teaches removal of the impurities, mainly iron and manganese. Since both applicant and patentee are treating the same ore, one skilled in the art would expect patentees "the impurities" to be the same as those claimed. It is further noted that patentee's entire process is drawn to producing high quality titanium concentrates which have few impurities.

Applicant further urged that the Japanese Patent teaches the use of sulfuric acid which is excluded by applicant.

While patentee does teach the use of sulfuric acid, patentee specifically states that hydrochloric acid and other mineral acids can be used (page 8, second paragraph).

Patentee recognizes the problem of hinderence to the penetration of acid by pore clogging (page 3, 3rd full paragraph) which applicant urges is caused by use of sulfuric acid. However, patentee obtains a 98.5% pure TiO_2 concentrate which is a purer concentrate than
? obtained by applicant (page 13, lines 27-29).

Art Unit 113

Applicant urged that the Japanese application requires that its reducing step reduce the iron content to metallic iron while applicant only requires conversion to magnetic form. Firstly, applicant doesn't include this limitation to the claims until claim 9. And, secondly, this limitation in claim 9 et seq. read the teachings of patentees process.

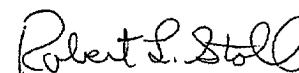
The references cited on the PTO-1449 in the parent case are deemed relevant, but merely cumulative to the references already cited.

This is a continuation of applicant's earlier application S.N. 847,521. All rejected claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds or art of record in the next Office action if they had been entered in the earlier application. Accordingly, THIS ACTION IS MADE FINAL even though it is a first action in this case. See MPEP 706.07(b).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). The practice of automatically extending the shortened statutory period an additional month upon the filing of a timely first response to a final rejection has been discontinued by the Office. See 1021 TMOG 35.

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 CFR 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

RStoll:mrs
703-557-2517
12/10/88


ROBERT L. STOLL
PRIMARY EXAMINER
ART UNIT 113