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EXAMINER

NGUYEN, THUY-VI THI

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/382,276	<b>Applicant(s)</b> WINCH ET AL.	
	<b>Examiner</b> KIRA NGUYEN	<b>Art Unit</b> 3689	<b>AIA (First Inventor to File) Status</b> No

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04/27/15.  
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is 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.

### Disposition of Claims\*

- 5) ☒ Claim(s) 1-8,10,11,13-43 and 45 is/are pending in the application.  
5a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-8,10,11,13-43 and 45 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

\* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see [http://www.uspto.gov/patents/init\\_events/pph/index.jsp](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to [PPHfeedback@uspto.gov](mailto:PPHfeedback@uspto.gov).

### Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

#### Certified copies:

- a) ☐ All    b) ☐ Some\*\*    c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 3) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)<br>Paper No(s)/Mail Date _____ | 4) <input type="checkbox"/> Other: _____  |

## **RESPONSE TO BPAI DECISION**

In the decision by the Board of Patent Appeals and Interferences mailed April 27, 2015, the rejections of Claims 1-8, 10, 11, 13-43 and 45 were reversed. The reason for the reversal of Claims 1-8, 10, 11, 13-43 and 45 were, in substance, that the Board of Patent Appeals was persuaded by Appellant's argument that neither Yui, nor Lockwood, nor AAPA, alone or combination, discloses or suggests "usage data being related to at least one of vibration level, vibration severity, stroke frequency, operating torque, operating temperature, operating pressure, operating deflection, and operating noise level as recited in claim 1 (see pages 3-4 of BPAI decision).

However, upon review, the claims are directed to non-statutory subject matter with respect to 101 eligibility guidance. Therefore, under 37 CFR 1.198, prosecution is hereby reopened (see MPEP 1214.04). The new grounds of rejection are detailed below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth

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in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Technology Center Director has approved of reopening prosecution by signing below:

/GREG VIDOVICH/

Director, Technology Center 3600

The present application is being examined under the pre-AIA first to invent provisions.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

**1.** 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**2.** Claims 1-8, 10-11, 13-43 and 45 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter because the independent process claims 22, 29, 30, 37 (i.e., method claims) as a whole, considering all claim elements both individually and in combination, do not amount to significantly more than an abstract idea. **Part I:** The invention of claims 22, 29, 30, 37 directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. For example, the process of independent claims 22, 29, 30, 37 are directed to “*providing...; creating equipment usage...; comparing the equipment*

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*usage...; determine depreciation level value...; calculating an equipment usage fee"*

which fall under the abstract idea of organizing human activities (e.g. similar to comparing new and stored information and using rules to identify options, that has been held to be abstract in *Smartgene*) and/or fundamental economic practice (e.g. in the claimed invention high risk customers pay more, see the specification at page 10, similar to mitigating and hedging risk in *Alice Corp.* and *Bilski*) and/or mathematical formula relationship (e.g. the determining and calculating claimed, supported by the math in the specification on page 13, and similar to the mathematical relationships and calculations in *Flook*, *Bilski*, *Bancorp*, and *Grams*). Therefore, because independent claim 22, 29, 30, 37 include an abstract idea, the claim must be reviewed under Part II of the *Alice Corp.* analysis to determine whether the abstract idea has been applied in an eligible manner. **Part II:** The claim(s) does not include additional element that are sufficient to amount to significantly more than the judicial exception because the claim generically recites computer elements (e.g. calculating means, comparing means are merely a generic computer in view of Applicant's specification) which do not add a meaningful limitation to the abstract idea because they would be routine in any computer implementation. Further, using the sensor as a monitoring means to monitor the usage data is not significantly more than abstract idea because it is well-understood, routine and conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception (e.g. monitoring means in view of Applicant's specification is broadly disclosed in non-limiting terms as encompassing conventional sensors). In addition, "the monitoring at least one of vibration level....using a

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monitoring means" is merely data gathering and thus is considered as insignificant extra solution activity. Viewed as a whole, these additional claim elements do not provide meaningful limitations to transform the abstract idea into a patent eligible application of the abstract idea such that the claims amount to significantly more than the abstract idea itself. Therefore, the independents 22, 29, 30, 37 are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. See *Alice Corporation Pty. Ltd. v. CLS Bank International, et al.*

Dependent claims 23-28, 31-36, 38-43 are merely add further details of the abstract steps/elements recited in claims 22, 29, 30, 37 without including an improvement to another technology or technical field, an improvement to the functioning of the computer itself, or meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment. Therefore, dependent claims 23-28, 31-36, 38-43 are also non-statutory subject matter.

As per independent claims 1, 11 and 13, Alice Corp. also establishes that the same analysis should be used for all categories of claims. Therefore, independent system claims 1, 11 and 13 are also rejected as ineligible subject matter under 35 U.S.C. 101 for substantially the same reasons as the method claim(s). The components (i.e., monitoring means, comparing means, calculating means) described in independent claims 1, 11 and 13 add nothing of substance to the underlying abstract idea. At best, the claim(s) are merely providing an environment to implement the abstract idea.

Dependent claims 2-8, 10, 14-21 and 45 are merely add further details of the abstract steps/elements recited in claims 1, 11 and 13 without including an improvement to another technology or technical field, an improvement to the functioning of the computer itself, or meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment. Therefore, dependent claims 2-8, 10, 14-21 and 45 are also non-statutory subject matter.

***Claim Rejections - 35 USC § 103***

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

(a) 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.

**4. Claims 1-8, 10-11, 13-43, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over YUI ET AL (US 2002/0174077) in view of LOCKWOOD ET AL (US 6,694,234) and in view of Applicant Admitted Prior {AAPA par. 0004-0005 (lines 1-6) and further in view of SCHOCH (US 5,094,107)}. Herein after YUI, LOCKWOOD, AAPA and SCHOCH.**

**As for independent claim 1**, YUI discloses an apparatus and method for calculating a usage fee for equipment the apparatus comprising:

a monitoring means connected to equipment for monitoring usage of the equipment

[...microcomputer 111, positional information measuring section (GPS), data communication section, monitor apparatus 215. see par. 0067; par. 0079; lines 3-6; par. 0087, lines 5-7 figures 2 and 3];

creating equipment/durable good usage data {see par. 0016, lines 4-10}

a calculating means connected to said comparing means for calculating an equipment usage fee

{...computer 211 calculates the usage fee; see figures 11-13, pars. 0025, 0131-0134 and pars. 0272-0273}

YUI discloses claimed invention as indicated above. For example YUI discloses the monitoring the vehicle usage data and calculating the fee based on the vehicle usage data as shown in figures 11-13, pars. 0126-0135. However, YUI does not explicitly disclose comparing the equipment usage data to a predetermine depreciation level to determine a corresponding depreciation value, said comparing means being configured to select the depreciation level from a plurality of depreciation levels dependent upon said equipment usage data (step 2); and the equipment usage fee is calculated by combining said equipment usage data and said corresponding depreciation level value, said equipment usage fee is at least one of increased and decreased based on said corresponding depreciation level value after said equipment usage fee is calculated (part of step 3).

In the similar method of calculating fee for the equipment e.g. a vehicle based on the equipment usage data, LOCKWOOD implicitly discloses comparing the vehicle usage data to a predetermine depreciation level to determine a corresponding



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depreciation value, and select the depreciation value from a plurality of depreciation levels dependent upon said equipment usage data, and the equipment usage fee is calculated by combining the equipment usage data and the corresponding depreciation level value {see LOCKWOOD col. 7, lines 36-67; col. 8, lines 1-10 discloses the distress event is one of the factors in pricing such rentals is the depreciation in value of the vehicle based upon usage. The vehicle is monitored to determine whether a distress event is present or absent (or lack thereof) during driving the rental vehicle. The distress event may include speeding, excessive mileage traveled, ABS deployment, numbers of instance of hard braking or rapid acceleration. The calculating price is also based on the present of distress events (e.g. speeding, excessive mileage travel) or lack thereof (e.g. there no distress event occurred such there's not speeding or no excessive mileage travel)" which implies the depreciation levels (plurality of depreciation levels). LOCKWOOD col. 7, lines 36-67 also teaches receiving the equipment usage data for the present or absent of the distress events. If the distress event is present, e.g. an occurrence of speeding or excessive mileage, then provide the surcharge to the lessee. If the distress event does not occur, then provide the credit to the lessee. This would also imply the increase and decrease based on the corresponding level after the equipment usage is calculated}.

Since LOCKWOOD discloses calculating the rental equipment based on the depreciation levels such as whether the distress event occur (yes) or lack thereof (no), speeding (yes/no), or excessive mileage (yes/no), thus the comparing or selecting depreciation level from a plurality of depreciation levels would be inherently disclosed in

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order for calculating the rental usage fee based on the depreciation level of the equipment.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provides the calculating fee for the rental equipment based on its usage data of YUI to include comparing the depreciation level usage of the equipment from the levels of depreciation level (e.g. whether the distress event occurs or lack thereof) as taught by LOCKWOOD in order to provide the improve accuracy in the fee so that it better reflects the level of use of the rental equipment.

YUI /LOCKWOOD discloses claimed invention as shown above. However, YUI /LOCKWOOD does not explicitly disclose the equipment specifically is a mechanical press and the usage data being related to at least one of vibration level, vibration severity, stroke frequency, operating torque, operating temperature, operating pressure, operating deflection, and operating noise level

It is well known that the equipment such as mechanical press have been rented and have been subject to misuse as discloses in the background of invention of the Application Publication (AAPA) {see par. 0004 and par 0005 (lines 1-6)}. Further, SCHOCH teaches the known concept of monitoring usage of a mechanical press, wherein the monitored usage data being related to vibration severity, vibration level, stroke frequency. For example, SCHOCH {at least figures 1A, 1B, 9, abstract, col. 4, lines 20-57; col. 6, lines 1-10} discloses “the process of the present invention determines zones for press operating reliability generated by the use of accelerometer sensors and load cells under various operating condition load/speed combinations

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which thus establishes the data for the inventive apparatus used to monitor and report vibration severity zones during press production operation"; col. 4, lines 45-55 e.g. "the press is operated over various conditions of load and speed combinations and the resultant vibration severity levels are measured which are gathered and plotted on a load versus speed graph. Curves are then drawn between points of constant RMS vibration velocity corresponding to 0.18, 0.44, 0.50, 0.55 and 0.60 inches per second RMS vibration velocity, for example, thereby defining four or more vibration severity zones for press reliability; col. 6, lines 18-22, figures 1A-B discloses stroke frequency of the mechanical press e.g. vibration levels over time for a press operating at 100 strokes per minute and 450 strokes per minute respectively. SCHOCH col. 5, lines 42-50 further teaches the advantage of monitoring the usage data related to vibration severity and stroke frequency for a mechanical press is used for reliability and maintenance e.g." for allow the press owner to predict and determine the long term reliability effects of vibration being created during dynamic operation under various operating conditions such as speed and dynamic loading, and also to allow the user to store and retrieve cumulative vibration severity data for die design and maintenance purposes from presses while in actual production operation".

Since the combination of YUI /LOCKWOOD discloses monitoring the usage data of the rental equipment, the rental fee can be charged base on depreciation level which is based on distress event, and since AAPA teaches mechanical press is known to be rented, therefore it would have been obvious to calculate the fee for the mechanical press based on the depreciation level results from the distress event. Since SCHOCH

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teaches monitoring usage of a mechanical press, wherein the monitored usage data being related to vibration severity, vibration level, stroke frequency which would be considered as distress event as shown above because of their relation to the reliability and maintenance, therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to monitor the vibration severity and stroke frequency in SCHOCH in order to come up with the distress event to determine the appropriate fee taken into the account of the depreciation cost by the known distress event as taught in YUI/LOCKWOOD.

**As for dep. claim 2** YUI /LOCKWOOD /AAPA /SCHOCH discloses a transmitting means connected to said monitoring means for transmitting said equipment/durable good/press usage data to a remote location, {see YUI at least figures 2-3, 5; pars. 0085, 0111 discloses the mileage and the usage time transmitted from the bicycle controller section 11 to the remote location (computer 211)}

**As for dep. claim 3**, YUI /LOCKWOOD/AAPA/ SCHOCH disclose said transmitting means is connected to said calculating means for transmitting said equipment usage fee to the remote location {see YUI par. 0135 and figures 6 and 12}.

**As for dep. claim 4**, YUI /LOCKWOOD/AAPA/ SCHOCH discloses a storage means connected to said monitoring means for storing the equipment usage data {see YUI at least figures 2 (element 119), figure 9 (element 518)}

**As for dep. claim 5**, YUI /LOCKWOOD/AAPA/ SCHOCH discloses wherein said storage means is connected to say calculating means for storing said equipment usage fee [see YUI figure 2].

**As for dep. claim 6,** YUI /LOCKWOOD/AAPA/ SCHOCH discloses further comprising a controlling means in communication with said equipment for controlling operation of said equipment from a remote location, said controlling means locking said equipment to disable usage of said equipment and unlocking said equipment to enable usage of said equipment {...computer 211 controls to search for a bicycle nearest to a customer and unlock the bicycle; see YUI par. 0083, lines 1-6}.

**As for dep. claim 7,** YUI /LOCKWOOD/AAPA/ SCHOCH discloses further comprising a location calculating means in communication with said equipment for calculating a location of said equipment, the location of said equipment is utilized to calculate said equipment usage fee {...for example GPS, see YUI abstract, lines 5-10}.

**As for dep. claim 8,** YUI /LOCKWOOD/AAPA/ SCHOCH discloses wherein said location calculating means is a global positioning system {see YUI abstract, and par. 0199}.

**As for dep. claim 10,** YUI /LOCKWOOD/AAPA/ SCHOCH discloses wherein said usage data is related to at least one of said vibration level, said vibration severity, said stroke frequency, said operating torque and said operating deflection {see SCHOCH at least figures 1A, 1B, 9, abstract, col. 4, lines 20-57; col. 6, lines 1-10 and the rationale of the rejected claim 1 above for further details}.

**As for dep. claim 45,** YUI /LOCKWOOD/AAPA/ SCHOCH discloses wherein said the usage is said stroke frequency. This is taught in the combination of YUI /LOCKWOOD/AAPA as explained in claim 1 above. {see SCHOCH at least figures 1A,

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1B, 9, abstract, col. 4, lines 20-57; col. 6, lines 1-10 and the rationale of the rejected claim 1 above for further details}.

**As for independent claim 11**, which carries the similar limitation as the rejected independent claim 1 above, therefore it is reject for the same reason sets forth the rejected independent claim 1 as shown above.

**As for independent claims 13**, YUI ET AL discloses an apparatus and method for calculating a usage fee for a durable good, the apparatus and method comprising:

a durable good [...cars and bicycles; see abstract, figures 1-2, figures 8-9];

a monitoring means connected to equipment for monitoring usage of the equipment

[...microcomputer 111, positional information measuring section (GPS), data communication section, monitor apparatus 215. see par. 0067; par. 0079; lines 3-6; par. 0087, lines 5-7 figures 2 and 3];

creating equipment/durable good usage data {see par. 0016, lines 4-10}

a calculating means connected to said comparing means for calculating an equipment usage fee

{...computer 211 calculates the usage fee; see figures 11-13, pars. 0025, 0131-0134 and pars. 0272-0273}

YUI discloses claimed invention as indicated above. For example YUI discloses the monitoring the vehicle usage data and calculating the fee based on the vehicle usage data as shown in figures 11-13, pars. 0126-0135. However, YUI does not explicitly disclose the calculating durable good usage based on selecting a depreciation

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level from a plurality of depreciation levels dependent upon the durable good usage data.

In the similar method of calculating fee for the durable good e.g. a vehicle based on the equipment usage data, LOCKWOOD ET AL implicitly discloses calculating durable good usage based on selecting or comparing a depreciation level from a plurality of depreciation levels (e.g. the present of distress event or lack thereof) dependent upon the durable good usage data. For example, LOCKWOOD col. 7, lines 36-67; col. 8, lines 1-19 discloses "the distress event is one of the factors in pricing such rentals is the depreciation in value of the vehicle based upon usage. The vehicle is monitored to determine whether there a distress event is present or absent (or lack thereof) during driving the rental vehicle. The distress event may include speeding, excessive mileage traveled, ABS deployment, numbers of instance of hard braking or rapid acceleration. The calculating price is also based on the present of distress events (e.g. speeding, excessive mileage travel) or lack thereof (e.g. there no distress event occurred such there's not speeding or no excessive mileage travel)" which implies the plurality of depreciation levels. LOCKWOOD col. 7, lines 36-67 also teaches receiving the equipment usage data for the present or absent of the distress events. This would also imply the determining corresponding the depreciation level. LOCKWOOD col. 7, lines 36-67 also teaches calculated surcharged base on corresponding the depreciation level value}.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provides the calculating fee for the rental equipment/durable good

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based on its usage data of YUI to include the calculating fee include the surcharge base the depreciation levels of the usage equipment as taught by LOCKWOOD in order to provide the improve accuracy in the fee so that it better reflects the level of use of the rental equipment.

YUI /LOCKWOOD discloses claimed invention as shown above. However, YUI /LOCKWOOD does not explicitly disclose the usage data of durable good (e.g. a mechanical press) specifically is being related to at least one of vibration level, vibration severity, stroke frequency, operating torque, operating temperature, operating pressure, operating deflection, and operating noise level (part of step 2).

It is well known that the equipment such as mechanical press have been rented and have been subject to misuse as discloses in the background of invention of the Application Publication (AAPA) {see par. 0004 and par 0005 (lines 1-6)}. Further, SCHOCH teaches the known concept of monitoring usage of a mechanical press, wherein the monitored usage data being related to vibration severity, vibration level, stroke frequency. For example, SCHOCH {at least figures 1A, 1B, 9, abstract, col. 4, lines 20-57; col. 6, lines 1-10} discloses “the process of the present invention determines zones for press operating reliability generated by the use of accelerometer sensors and load cells under various operating condition load/speed combinations which thus establishes the data for the inventive apparatus used to monitor and report vibration severity zones during press production operation”; col. 4, lines 45-55 e.g. “the press is operated over various conditions of load and speed combinations and the resultant vibration severity levels are measured which are gathered and plotted on a



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load versus speed graph. Curves are then drawn between points of constant RMS vibration velocity corresponding to 0.18, 0.44, 0.50, 0.55 and 0.60 inches per second RMS vibration velocity, for example, thereby defining four or more vibration severity zones for press reliability; col. 6, lines 18-22, figures 1A-B discloses stroke frequency of the mechanical press e.g. vibration levels over time for a press operating at 100 strokes per minute and 450 strokes per minute respectively. SCHOCH col. 5, lines 42-50 further teaches the advantage of monitoring the usage data related to vibration severity and stroke frequency for a mechanical press is used for reliability and maintenance e.g. "for allow the press owner to predict and determine the long term reliability effects of vibration being created during dynamic operation under various operating conditions such as speed and dynamic loading, and also to allow the user to store and retrieve cumulative vibration severity data for die design and maintenance purposes from presses while in actual production operation".

Since the combination of YUI /LOCKWOOD discloses monitoring the usage data of the rental equipment, the rental fee can be charged base on depreciation level which is based on distress event, and since AAPA teaches mechanical press is known to be rented, therefore it would have been obvious to calculate the fee for the mechanical press based on the depreciation level results from the distress event. Since SCHOCH teaches monitoring usage of a mechanical press, wherein the monitored usage data being related to vibration severity, vibration level, stroke frequency which would be considered as distress event as shown above because of their relation to the reliability and maintenance, therefore, it would have been obvious to one of ordinary skill in the

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art at the time of the invention to monitor the vibration severity and stroke frequency in SCHOCH in order to come up with the distress event to determine the appropriate fee taken into the account of the depreciation cost by the known distress event as taught in YUI/LOCKWOOD.

It is well known that the equipment such as mechanical press have been rented and have been subject to misuse as discloses in the background of invention of the Application Publication (AAPA) {see par. 0004 and par 0005 (lines 1-6)}. Further, SCHOCH teaches the known concept of monitoring usage of a mechanical press, wherein the monitored usage data being related to vibration severity, vibration level, stroke frequency. For example, SCHOCH {at least figures 1A, 1B, 9, abstract, col. 4, lines 20-57; col. 6, lines 1-10} discloses “the process of the present invention determines zones for press operating reliability generated by the use of accelerometer sensors and load cells under various operating condition load/speed combinations which thus establishes the data for the inventive apparatus used to monitor and report vibration severity zones during press production operation”; col. 4, lines 45-55 e.g. “the press is operated over various conditions of load and speed combinations and the resultant vibration severity levels are measured which are gathered and plotted on a load versus speed graph. Curves are then drawn between points of constant RMS vibration velocity corresponding to 0.18, 0.44, 0.50, 0.55 and 0.60 inches per second RMS vibration velocity, for example, thereby defining four or more vibration severity zones for press reliability; col. 6, lines 18-22, figures 1A-B discloses stroke frequency of the mechanical press e.g. vibration levels over time for a press operating at 100 strokes

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per minute and 450 strokes per minute respectively. SCHOCH col. 5, lines 42-50 further teaches the advantage of monitoring the usage data related to vibration severity and stroke frequency for a mechanical press is used for reliability and maintenance e.g." for allow the press owner to predict and determine the long term reliability effects of vibration being created during dynamic operation under various operating conditions such as speed and dynamic loading, and also to allow the user to store and retrieve cumulative vibration severity data for die design and maintenance purposes from presses while in actual production operation".

Since the combination of YUI /LOCKWOOD discloses monitoring the usage data of the rental equipment, the rental fee can be charged base on depreciation level which is based on distress event, and since AAPA teaches mechanical press is known to be rented, therefore it would have been obvious to calculate the fee for the mechanical press based on the depreciation level results from the distress event. Since SCHOCH teaches monitoring usage of a mechanical press, wherein the monitored usage data being related to vibration severity, vibration level, stroke frequency which would be considered as distress event as shown above because of their relation to the reliability and maintenance, therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to monitor the vibration severity and stroke frequency in SCHOCH in order to come up with the distress event to determine the appropriate fee taken into the account of the depreciation cost by the known distress event as taught in YUI/LOCKWOOD.

**As for dep. claim 14** YUI/ LOCKWOOD/AAPA/ SCHOCH discloses a transmitting means connected to said monitoring means for transmitting said equipment/durable good/press usage data to a remote location, {see YUI at least figures 2-3, 5; pars. 0085, 0111 discloses the mileage and the usage time transmitted from the bicycle controller section 11 to the remote location (computer 211)}

**As for dep. claim 15**, YUI/ LOCKWOOD/AAPA/SCHOCH disclose said transmitting means is connected to said calculating means for transmitting said durable good usage fee to the remote location {see YUI par. 0135 and figures 6 and 12}.

**As for dep. claim 16**, YUI/ LOCKWOOD//AAPA/ SCHOCH discloses a storage means connected to said monitoring means for storing the durable good usage data {see YUI at least figures 2 (element 119), figure 9 (element 518)}

**As for dep. claim 17**, YUI/ LOCKWOOD/AAPA/ SCHOCH discloses wherein said storage means is connected to say calculating means for storing said durable good usage fee [see YUI figure 2].

**As for dep. claim 18**, YUI/ LOCKWOOD//AAPA discloses further comprising a controlling means in communication with said durable good for controlling operation of said equipment from a remote location, said controlling means locking said equipment to disable usage of said durable good and unlocking said equipment to enable usage of said durable good {...computer 211 controls to search for a bicycle nearest to a customer and unlock the bicycle; see YUI par. 0083, lines 1-6}.

**As for dep. claim 19**, YUI/ LOCKWOOD/AAPA/ SCHOCH discloses calculating means utilizes at least one of the user data such as said vibration level, said vibration

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severity level, said operating torque, said operating pressure, said operating deflection, and said operating noise level to calculate said durable good usage fee. {see SCHOCH at least figures 1A, 1B, 9, abstract, col. 4, lines 20-57; col. 6, lines 1-10 and the rationale of the rejected claim 13 above for further details}.

**As for dep. claim 20**, YUI/ LOCKWOOD /AAPA discloses further comprising a location calculating means in communication with said durable good for calculating a location of said durable good, the location of said durable good is utilized to calculate said equipment usage fee {...for example GPS, see YUI abstract, lines 5-10}.

**As for dep. claim 21**, YUI/ LOCKWOOD /AAPA /SCHOCH disclose wherein said location calculating means is a global positioning system {see YUI abstract, and par. 0199}.

**As for independent claim 22**, YUI discloses a method for calculating a usage fee for equipment, the method comprising:

providing an equipment [...cars and bicycles; see abstract, figures 1-2, figures 8-9];

monitoring usage of the equipment

[...microcomputer 111, positional information measuring section (GPS), data communication section, monitor apparatus 215. see par. 0067; par. 0079; lines 3-6; par. 0087, lines 5-7 figures 2 and 3];

creating equipment/durable good usage data {see par. 0016, lines 4-10}

a calculating equipment usage fee based on the equipment usage data

{...computer 211 calculates the usage fee; see figures 11-13, pars. 0025, 0131-0134 and pars. 0272-0273}

YUI discloses claimed invention as indicated above. For example YUI discloses the monitoring the vehicle usage data and calculating the fee based on the vehicle usage data as shown in figures 11-13, pars. 0126-0135. However, YUI does not explicitly disclose the comparing the equipment usage data to a predetermined depreciation level to determine a corresponding depreciation value, said comparing step including selecting the depreciation level from a plurality of depreciation levels dependent upon said equipment usage data; and the equipment usage fee is calculated by combining said equipment usage data and said corresponding depreciation level value.

In the similar method of calculating fee for the durable good e.g. a vehicle based on the equipment usage data, LOCKWOOD implicitly discloses calculating durable good usage based on selecting or comparing a depreciation level from a plurality of depreciation levels (e.g. the present of distress event or lack thereof) dependent upon the durable good usage data. For example, LOCKWOOD col. 7, lines 36-567; col. 8, lines 1-19 discloses "the distress event is one of the factors in pricing such rentals is the depreciation in value of the vehicle based upon usage. The vehicle is monitored to determine whether there a distress event is present or absent (or lack thereof) during driving the rental vehicle. The distress event may include speeding, excessive mileage traveled, ABS deployment, numbers of instance of hard braking or rapid acceleration. The calculating price is also based on the present of distress events (e.g. speeding,

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excessive mileage travel) or lack thereof (e.g. there no distress event occurred such there's not speeding or no excessive mileage travel)” which implies the plurality of depreciation levels. LOCKWOOD also teaches receiving the equipment usage data for the present or absent of the distress events. This would also imply the determining corresponding the depreciation level. LOCKWOOD also teaches calculated surcharged base on corresponding the depreciation level value}.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provides the calculating fee for the rental equipment/durable good based on its usage data of YUI to include the calculating fee include the surcharge base the depreciation levels of the usage equipment as taught by LOCKWOOD in order to provide the improve accuracy in the fee so that it better reflects the level of use of the rental equipment.

YUI /LOCKWOOD discloses claimed invention as shown above. However, YUI /LOCKWOOD does not explicitly disclose the equipment specifically is a mechanical press and the monitoring the usage data being related to at least one of vibration level, vibration severity, stroke frequency, operating torque, operating temperature, operating pressure, operating deflection, and operating noise level (part of steps 1 and 2).

It is well known that the equipment such as mechanical press have been rented and have been subject to misuse as discloses in the background of invention of the Application Publication (AAPA) {see par. 0004 and par 0005 (lines 1-6). Further, SCHOCH teaches the known concept of monitoring usage of a mechanical press, wherein the monitored usage data being related to vibration severity, vibration level,

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stroke frequency. For example, SCHOCH {at least figures 1A, 1B, 9, abstract, col. 4, lines 20-57; col. 6, lines 1-10} discloses "the process of the present invention determines zones for press operating reliability generated by the use of accelerometer sensors and load cells under various operating condition load/speed combinations which thus establishes the data for the inventive apparatus used to monitor and report vibration severity zones during press production operation"; col. 4, lines 45-55 e.g. "the press is operated over various conditions of load and speed combinations and the resultant vibration severity levels are measured which are gathered and plotted on a load versus speed graph. Curves are then drawn between points of constant RMS vibration velocity corresponding to 0.18, 0.44, 0.50, 0.55 and 0.60 inches per second RMS vibration velocity, for example, thereby defining four or more vibration severity zones for press reliability; col. 6, lines 18-22, figures 1A-B discloses stroke frequency of the mechanical press e.g. vibration levels over time for a press operating at 100 strokes per minute and 450 strokes per minute respectively. SCHOCH col. 5, lines 42-50 further teaches the advantage of monitoring the usage data related to vibration severity and stroke frequency for a mechanical press is used for reliability and maintenance e.g." for allow the press owner to predict and determine the long term reliability effects of vibration being created during dynamic operation under various operating conditions such as speed and dynamic loading, and also to allow the user to store and retrieve cumulative vibration severity data for die design and maintenance purposes from presses while in actual production operation".



Since the combination of YUI /LOCKWOOD discloses monitoring the usage data of the rental equipment, the rental fee can be charged base on depreciation level which is based on distress event, and since AAPA teaches mechanical press is known to be rented, therefore it would have been obvious to calculate the fee for the mechanical press based on the depreciation level results from the distress event. Since SCHOCH teaches monitoring usage of a mechanical press, wherein the monitored usage data being related to vibration severity, vibration level, stroke frequency which would be considered as distress event as shown above because of their relation to the reliability and maintenance, therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to monitor the vibration severity and stroke frequency in SCHOCH in order to come up with the distress event to determine the appropriate fee taken into the account of the depreciation cost by the known distress event as taught in YUI/LOCKWOOD.

**As for dep. claim 23,** YUI/LOCKWOOD/AAPA/SCHOCH discloses transmitting at least one of said equipment usage data and said equipment usage fee to remote location {see pars. 0085, 0111, 0135 and figures 2-3, 5-6 and 12}.

**As for dep. claim 24,** YUI/LOCKWOOD/AAPA/SCHOCH discloses controlling operation of said equipment from a remote location [see YUI, par. 0082, par. 0083 and figure 3].

**As for dep. claim 25,** YUI/LOCKWOOD/AAPA/SCHOCH discloses further comprising: locking said equipment to disable usage of said equipment from a remote location [see YUI par. 0257, figures 3 and 9 discloses computer 211 in server 21 from

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the remote location controls microcomputer 511, which controls the start control section 516 to lock the engine driving system and disable it from moving]..

**As for dep. claim 26**, YUI/LOCKWOOD/AAPA/SCHOCH discloses further comprising: unlocking said equipment to enable usage of said equipment from a remote location [see YUI par. 0210, lines 5-12, par. 0212 discloses a remote control operation from the operating company releases the door lock on cars].

**As for dep. claim 27**, YUI/LOCKWOOD/AAPA/SCHOCH discloses further comprising: storing at least one of said equipment usage data and said press usage fee {see YUI see par. 0077; par. 0087, lines 1-5 and figurers 2 and 3 discloses a memory section 119 and management database 214}.

**As for dep. claim 28**, YUI/LOCKWOOD/AAPA/SCHOCH discloses further comprising: calculating the location of said equipment for calculation of said equipment usage fee, the location of said equipment is utilized to calculate said equipment usage fee [see YUI abstract, lines 5-10].

**As for independent claim 29**, YUI discloses a method for calculating a usage fee for equipment, the method comprising:

providing an equipment [...cars and bicycles; see abstract, figures 1-2, figures 8-9];

monitoring usage of the equipment

[...microcomputer 111, positional information measuring section (GPS), data communication section, monitor apparatus 215. see par. 0067; par. 0079; lines 3-6; par. 0087, lines 5-7 figures 2 and 3];

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creating equipment/durable good usage data {see par. 0016, lines 4-10}

a calculating means connected to said comparing means for calculating an equipment usage fee

{...computer 211 calculates the usage fee; see figures 11-13, pars. 0025, 0131-0134 and pars. 0272-0273}

YUI discloses claimed invention as indicated above. For example YUI discloses the monitoring the vehicle usage data and calculating the fee based on the vehicle usage data as shown in figures 11-13, pars. 0126-0135. However, YUI does not explicitly disclose the comparing the equipment usage data to a predetermined depreciation level to determine a corresponding depreciation value, said comparing means being configured to select the depreciation level from a plurality of depreciation levels dependent upon said equipment usage data; and the equipment usage fee is calculated by combining said equipment usage data and said corresponding depreciation level value, said equipment usage fee is at least one of increased and decreased based on said corresponding depreciation level value after said equipment usage fee is calculated.

In the similar method of calculating fee for the durable good e.g. a vehicle based on the equipment usage data, LOCKWOOD implicitly discloses calculating durable good usage based on selecting or comparing a depreciation level from a plurality of depreciation levels (e.g. the present of distress event or lack thereof) dependent upon the durable good usage data. For example, LOCKWOOD col. 7, lines 36-567; col. 8, lines 1-19 discloses “the distress event is one of the factors in pricing such rentals is the

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depreciation in value of the vehicle based upon usage. The vehicle is monitored to determine whether there a distress event is present or absent (or lack thereof) during driving the rental vehicle. The distress event may include speeding, excessive mileage traveled, ABS deployment, numbers of instance of hard braking or rapid acceleration. The calculating price is also based on the present of distress events (e.g. speeding, excessive mileage travel) or lack thereof (e.g. there no distress event occurred such there's not speeding or no excessive mileage travel)” which implies the plurality of depreciation levels. LOCKWOOD also teaches receiving the equipment usage data for the present or absent of the distress events. This would also imply the determining corresponding the depreciation level. LOCKWOOD also teaches calculated surcharged base on corresponding the depreciation level value}.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provides the calculating fee for the rental equipment/durable good based on its usage data of YUI to include the calculating fee include the surcharge base the depreciation levels of the usage equipment as taught by LOCKWOOD in order to provide the improve accuracy in the fee so that it better reflects the level of use of the rental equipment.

YUI /LOCKWOOD discloses claimed invention as shown above. However, YUI /LOCKWOOD does not explicitly disclose the equipment specifically is a mechanical press and the monitoring the usage data being related to at least one of vibration level, vibration severity, stroke frequency, operating torque, operating temperature, operating pressure, operating deflection, and operating noise level (part of steps 1 and 2).

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It is well known that the equipment such as mechanical press have been rented and have been subject to misuse as discloses in the background of invention of the Application Publication (AAPA) {see par. 0004 and par 0005 (lines 1-6)}. Further, SCHOCH teaches the known concept of monitoring usage of a mechanical press, wherein the monitored usage data being related to vibration severity, vibration level, stroke frequency. For example, SCHOCH {at least figures 1A, 1B, 9, abstract, col. 4, lines 20-57; col. 6, lines 1-10} discloses "the process of the present invention determines zones for press operating reliability generated by the use of accelerometer sensors and load cells under various operating condition load/speed combinations which thus establishes the data for the inventive apparatus used to monitor and report vibration severity zones during press production operation"; col. 4, lines 45-55 e.g. "the press is operated over various conditions of load and speed combinations and the resultant vibration severity levels are measured which are gathered and plotted on a load versus speed graph. Curves are then drawn between points of constant RMS vibration velocity corresponding to 0.18, 0.44, 0.50, 0.55 and 0.60 inches per second RMS vibration velocity, for example, thereby defining four or more vibration severity zones for press reliability; col. 6, lines 18-22, figures 1A-B discloses stroke frequency of the mechanical press e.g. vibration levels over time for a press operating at 100 strokes per minute and 450 strokes per minute respectively. SCHOCH col. 5, lines 42-50 further teaches the advantage of monitoring the usage data related to vibration severity and stroke frequency for a mechanical press is used for reliability and maintenance e.g." for allow the press owner to predict and determine the long term reliability effects of

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vibration being created during dynamic operation under various operating conditions such as speed and dynamic loading, and also to allow the user to store and retrieve cumulative vibration severity data for die design and maintenance purposes from presses while in actual production operation".

Since the combination of YUI /LOCKWOOD discloses monitoring the usage data of the rental equipment, the rental fee can be charged base on depreciation level which is based on distress event, and since AAPA teaches mechanical press is known to be rented, therefore it would have been obvious to calculate the fee for the mechanical press based on the depreciation level results from the distress event. Since SCHOCH teaches monitoring usage of a mechanical press, wherein the monitored usage data being related to vibration severity, vibration level, stroke frequency which would be considered as distress event as shown above because of their relation to the reliability and maintenance, therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to monitor the vibration severity and stroke frequency in SCHOCH in order to come up with the distress event to determine the appropriate fee taken into the account of the depreciation cost by the known distress event as taught in YUI/LOCKWOOD.

**As for independent claim 30**, which carries the similar steps as independent the rejected independent claims 1, 22 and 29 above, therefore it is rejected for the similar reason sets forth the rejected independent claims 1, 22 and 29 as indicated above.

**As for dep. claims 31-36** which carry the similar limitations as the rejected dep. claims 23-28 above, therefore, they are rejected for the similar reason sets forth rejected dep. claim 23-28 as indicated above.

**As for independent claim 37** which carries the similar steps as independent the rejected independent claims 1, 22 and 29 above, therefore it is rejected for the similar reason sets forth the rejected independent claims 1, 22 and 29 as indicated above.

**As for dep. claims 38-43** which carry the similar limitations as the rejected dep. claims 23-28 above, therefore, they are rejected for the similar reason sets forth rejected dep. claim 23-28 as indicated above.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The reference of Bruch et al {at least par. 0044} discloses monitoring the usage data of work tool when customer renting and determine if any misuse occur in the tool such as driving the tool with too much torque. This usage data will be used to determine the severity of use of the work tool.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kira Nguyen whose telephone number is 571-270-1614. The examiner can normally be reached on Monday through Thursday from 8:30 A.M to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janice Mooneyham can be reached on 571-272-6805. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KIRA NGUYEN/

Primary Examiner, Art Unit 3689