

International Patent Application
WO 2009/124081 A1

Exhibit E

to

TimeBase's Response to the Defendants'
Motion for Protective Order
Regarding Mark Stignani
(FILED UNDER SEAL)

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(54) Title: SYSTEMS AND METHODS FOR TRACKING PATENT RELATED INFORMATION

WO 2009/124081 A1

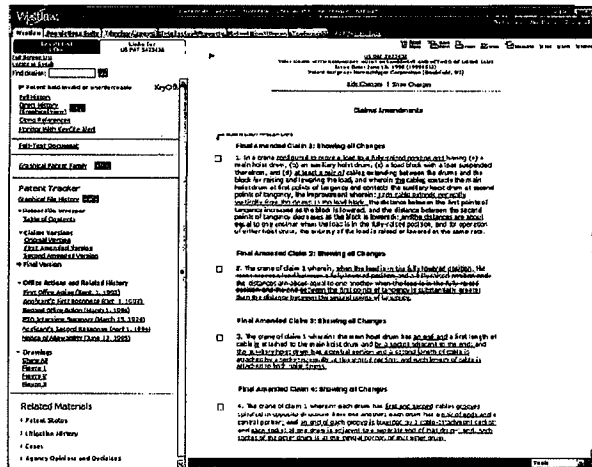


FIG. 9

(57) Abstract: To facilitate faster, more efficient, and more effective extraction of information from patent file histories, the present inventors, devised among other things, systems and method for tracking changes to patent claims, specifications, and/or drawings that are shown in file wrappers. One exemplary system graphically displays the patent family and/or file wrapper timeline. Another reports information about a specific patent, an examiner, a technology area, and other patent related information that can be pulled from the file wrapper.

Systems and Methods for Tracking Patent Related Information

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Related Applications

The present application claims priority to U.S. Provisional Patent
15 Applications 61/072,578 and 61/133,610 which were filed respectively on March 31, 2008 and June 30, 2008. Both of these applications are incorporated herein by reference.

Technical Field

20 Various embodiments of the present invention concern systems and methods for automated or semi-automated processing and extracting information from patent file wrappers, or file histories.

Background

25 Patent attorneys spend an enormous amount of time reading and analyzing patent file wrappers for both issued patents and pending applications. Patent litigators scrutinize every word, phrase, and figure within the issued patent, the prior art at issue, and the arguments made to get the patent granted, looking for loopholes and gaps in coverage. Patent prosecutors ---that is those
30 who design and build the patents that litigators fight about--- usually spend a significant time studying what has been previously done in a pending application, sometimes because months have past since they last looked at the application or sometimes because they have taken over prosecution of the application from another attorney in their firm or even from another law firm.. In

either case, they need to know and understand the full procedural, legal, and technical context of the application to make the best strategic decisions.

One problem the present inventors recognized was that, regardless of the reason for studying a file wrapper, it is important to identify what revisions have
5 been made to the claims or specification during prosecution. Since these changes are highlighted within the responses to office actions, they are fairly easy to recognize. However, making notes of all the changes for a single patent history, much less a series or family of patents, not only can be tedious and time
10 consuming, but also difficult to do without error. Another problem that the present inventors recognized was that litigators and prosecutors are also interested in graphics, statistics, and information about their current patent or application or a set of patents/applications.

Accordingly, the present inventors have identified a need to improve the process for assessing file histories.

15

Summary

To address one or more of these and/or other needs, the present inventors, devised among other things, systems and method for tracking changes to claims, specifications, and/or drawings that are shown in file
20 wrappers. One exemplary system graphically displays the patent family and/or file wrapper timeline. Another reports information about a specific patent, an examiner, a technology area, and other patent related information that can be pulled from the file wrapper.

25

Brief Description of the Drawings

FIG. 1A is a block diagram of an exemplary system for converting, shredding, storing documents corresponding to one or more embodiments of the present invention.

FIG. 1B is a block diagram of an exemplary system for establishing
30 relationships between individual document components corresponding to one or more embodiments of the present invention.

FIG. 2 is a screenshot of an interface of an exemplary system for tracking and analyzing patent file wrapper changes corresponding to one or more embodiments of the present invention.

5 FIG. 3 is a screenshot of an interface of an exemplary system for tracking and analyzing patent file wrapper changes corresponding to one or more embodiments of the present invention.

FIG. 4 is a screenshot of an interface of an exemplary system for tracking and analyzing patent file wrapper changes corresponding to one or more embodiments of the present invention.

10 FIG. 5 is a screenshot of an interface of an exemplary system for displaying table of contents within file wrapper corresponding to one or more embodiments of the present invention.

15 FIG. 6 is a screenshot of an interface of an exemplary system for tracking and analyzing patent file wrapper changes corresponding to one or more embodiments of the present invention.

FIG. 7 is a screenshot of an interface of an exemplary system for tracking and analyzing patent file wrapper changes corresponding to one or more embodiments of the present invention.

20 FIG. 8 is a screenshot of an interface of an exemplary system for tracking and analyzing patent file wrapper changes corresponding to one or more embodiments of the present invention.

FIG. 9 is a screenshot of an interface of an exemplary system for tracking and analyzing patent file wrapper changes corresponding to one or more embodiments of the present invention.

25 FIG. 10 is a screenshot of an interface of an exemplary system for tracking and analyzing patent file wrapper changes corresponding to one or more embodiments of the present invention.

30 FIG. 11 is a screenshot of an interface of an exemplary system for tracking and analyzing patent file wrapper changes corresponding to one or more embodiments of the present invention.

FIG. 12 is a screenshot of an interface of an exemplary system for tracking and analyzing patent file wrapper changes corresponding to one or more embodiments of the present invention.

5 FIG. 13 is a screenshot of an interface of an exemplary system for tracking and analyzing patent file wrapper changes corresponding to one or more embodiments of the present invention.

FIG. 14 is a screenshot of an interface of an exemplary system for related patent history corresponding to one or more embodiments of the present invention.

10 FIG. 15 is a screenshot of an interface of an exemplary system for related patent history corresponding to one or more embodiments of the present invention.

15 FIG. 16 is a screenshot of an interface of an exemplary system for displaying a graphical patent file history corresponding to one or more embodiments of the present invention.

FIG. 17 is a screenshot of an interface of an exemplary system for displaying a graphical patent family corresponding to one or more embodiments of the present invention.

20 FIG. 18 is a screenshot of an interface of an exemplary system for tracking and analyzing patent file wrapper changes with respect to drawings corresponding to one or more embodiments of the present invention.

FIG. 19 is a screenshot of an interface of an exemplary system for altering user of patent file wrapper changes corresponding to one or more embodiments of the present invention.

25 FIG. 20 is a screenshot of an interface of an exemplary system for tracking and analyzing defined terms within patent file wrapper corresponding to one or more embodiments of the present invention.

30 FIG. 21 is a screenshot of an interface of an exemplary system for tracking and analyzing defined terms within patent file wrapper corresponding to one or more embodiments of the present invention.

FIG. 22 is a screenshot of an interface of an exemplary search template for tracking and analyzing patent file wrapper changes corresponding to one or more embodiments of the present invention.

5 **Detailed Description of Exemplary Embodiment(s)**

This description, which incorporates the drawings and the appended claims, describes one or more specific embodiments of an invention. These embodiments, offered not to limit but only to exemplify and teach the invention, are shown and described in sufficient detail to enable those skilled in the art to
10 implement or practice the invention. Thus, where appropriate to avoid obscuring the invention, the description may omit certain information known to those of skill in the art.

FIG. 1a, one embodiment of the present invention, an electronic version of the file history/wrapper is received into a conversion system. In this
15 embodiment, the file wrapper is in pdf format; however, the file wrapper can be in other formats as well. The conversion system shreds the file wrapper into several individual components. For example, if a file wrapper has the application, office action and response to office action, the conversion system could shred the wrapper into the following individual components: specification,
20 claims, drawings, office action, and the amended claims and remarks from response. Each individual component is identified and converted into a pdf and text format. Once the shredding and converting are complete, all the files are stored within a repository. FIG. 1b, the collection of relationships between the individual components is loaded into an object relationship manager. This
25 relationship manager stores and retrieves relationships between the individual components to/from the databases. In addition, certain metadata is extracted and stored within a metadata authority. This metadata may include but not be limited to number of original claims, number of issued claims, number of office actions, number of responses, number of request for continued examinations, etc.

30 When a user wants to access a patent/application and the file wrapper, that patent/application is retrieved from the appropriate patent/application repository. Simultaneously, FIG. 2, an application programming interface (API) requests the relationship information from the relationship manager. The relationship manager then sends a SQL request to each database required to

fulfill the request. This SQL request also includes an "Order By" clause which sorts the results in the correct order. Once the request is complete, each individual result is returned in correct sort order. The relationship manager integrates all of the individual SQL results into a single, sorted result. This
5 single, sorted result of relationships is displayed to the user (FIG. 4-left pane) along with the patent/application file FIG. 3. In an embodiment of the present invention, each individual component's file is retrieved from the repository when the user selects a link that requests that file (See FIGS. 14-15).

FIG. 3 shows a user retrieving a certain patent number on Westlaw®.
10 The left pane displays a "Patent Trakker" section where the user may utilize the tools by clicking on the arrow next to the desired heading. FIG. 4 exemplifies how the user selects the arrow(s) that he/she is interested in and the menu expands to display the items under that heading(s). Also within this screen is the hyperlink for a "Graphical File History" and "Graphical Patent Family." These
15 options are discussed later.

If the user selects the Table of Contents sub-heading under the File Wrapper heading, FIG. 5 displays the individual components that were saved for that file wrapper. These individual components expand or collapse depending on what the user selects. To the left of the table of contents are check boxes that
20 enable the user to check which components he/she would like to see.

In FIG. 6, under the "Claims Versions" heading, each version of the claims is listed and selectable. In response to the user having selected the original claim set link (which indicated via the arrow), the original claims appear within the main display region along with the date that they were filed. In
25 addition, to the left of the numbered claims is a check box that allows the user to select only the claims he/she is interested in. FIGS. 7-9 show the interfaces that are displayed in response to the user respectively selecting each version of the claims. Each version highlights the changes within the claim set from the previous version along with the date in which the change was entered. In the
30 final version of claims (FIG. 9), there is an option to view all of the changes that happened through the prosecution history. In addition, a "Hide Changes" hyperlink is located at the top of the main display which allows the user to see the claims version without the highlighting. If the change is underlined, an addition is entered. If the change is strikethrough, a deletion is entered. While

the figures utilize underlining and strikethrough, brackets and/or other editing methods are acceptable.

FIG. 10 shows an example of what the user would see in response to a selection to view the claim changes for an individual claim. This view allows
5 the user to see all the changes to a single claim. The single claim display is very useful when an attorney only needs to focus on one or two claims within the application. FIGS. 11-13 show alternative views of individual claims that are present in some embodiments.

In FIG. 10, a "Related History" link is located under the claim version.
10 When the user selects this link, all the related history (office action, office action response, interview summary, etc.) is displayed for that version. FIG. 14 displays the related history for first amended claim set. However, if the user has chosen to narrow the number of claims he/she is tracking then only the related history shows for those chosen claims. If the user would like to see the reasons
15 for rejection within a certain office action or more detail in another related history component, he/she may click on the numbered link. For example, FIG. 15 demonstrates the detailed rejections given by an examiner for a certain office action. Related history includes key parts of the US Patent and Trademark Office (PTO) office actions that detail the PTO's rejection(s) or suggested
20 modification(s) of the claims, specifications, etc. It may also include the applicant's response, and their detailed reasoning/justification(s) behind their proposed amendments. In the left pane, the "List of References Cited" link produces a list of the references cited for that particular office action.

FIG. 3 shows a link to the "Graphical File History." When the user
25 clicks this link, FIG. 16 displays a timeline of different versions of the claim sets. The user may select any link to display all detailed information about that link. Also included in this graphical display is other documentation that may be of use to the user. This documentation may include but is not limited to assignments, patent family, direct history, patent status, court documents, and
30 dockets. The user has the option to print, email or download this and all other graphical displays or any other documentation within claim tracking system from the toolbar in the upper right hand corner of main display.

Understanding complex patent family relationships is a major pain point for attorneys researching prior art or potential patent infringement. FIG. 3 shows

a link to the "Graphical Patent Family." When the user clicks this link, FIG. 17 displays the patent/application along with all family members that claim priority to the queried patent/application (children) or that the queried patent/application claims priority to (parents). The "Graphical Patent Family" display provides an
5 "aerial view" of patent families. As stated previously, the user has the option to print, email or download this and all other graphical displays.

FIG. 4 shows a link to "Show All" under the "Drawings" heading. When the user clicks this link, FIG. 18 represents the drawing changes affected by amendments within the response to office actions. Another embodiment of the
10 present invention seeks to have the figures, claims, and/or specification appear in a pop-up window when selected.

FIG. 19 allows the user to monitor patent file history with KeyCite® Alert or other monitoring/alerting system. The user can select from the option within the main display.

15 Another embodiment of the present invention gives the user term recognition/definition functionality. FIG. 20 represents hyperlinks for the terms that have courts documentation and possible secondary sources recognizing/defining the phrase or term. Understanding how claim terms have been construed by the courts is a critical part when litigating patent claim's
20 validity. The "defined terms" feature highlights terms that have been defined. For example, the phrase "hoist drum" is recognized as having some further documentation that might aid in defining the phrase. FIG. 21 displays the defined phrase results. Included in this example's results are cases, court documents, and secondary sources that could assist the attorney in analysis.

25 FIG. 22 shows a patent litigator tab with federated search capability.

Another embodiment of the present invention seeks to report information about the patent/application itself, the patent family, a technology area, or other patent related information. For example, an embodiment of the present invention already has shredded the file wrapper into several individual
30 components and extracted metadata about the patent/application. The information collected and stored during those processes allows for statistical analysis. Therefore, a report could be generated on any number of topics included but not limited to examiner information (experience, workload, average turn-around time on office actions, etc.), technology area (average term of

prosecution, average number of claims submitted, average number of claims allowed, average wait time for an office action, number of examiners, etc.), attorney/law firm (number of cases firm/attorney is prosecuting, average response time to an office action, average number of request for continued
5 examinations, etc.), or any other statistics/information that could be extracted from the file wrapper of metadata.

Conclusion

10 The embodiments described above and in the claims are intended only to illustrate and teach one or more ways of practicing or implementing the present invention, not to restrict its breadth or scope. The actual scope of the invention, which embraces all ways of practicing or implementing the teachings of the invention, is defined only by the issued claims and their equivalents.

Claims

What is claimed is:

- 5 1. A graphical user interface for an online legal research service, the interface including:
a main display region for displaying patent information;
a first user selectable control feature for causing display of a table of
10 contents for a patent file wrapper within the main display region;
and
a second user selectable control feature causing display of a redlined
version of one or more patent claims.
- 15 2. The graphical user interface of claim 1, further comprising a
a third user selectable control feature for display of a graphical patent
family within the main display region.
- 20 3. The graphical user interface of claim 1, wherein the table of contents
includes a plurality of selectable headings and one or more of the
headings having one or more corresponding selectable subheadings,
25 which each heading and subheading identifying a corresponding section
of an electronic copy of the patent file wrapper.
4. The graphical user interface of claim 2, wherein selection of the first
control feature also initiates retrieval of the table of content or the patent
file wrapper; wherein selection of the second control feature also initiate
retrieval of the information regarding the redlined version of the one o
more patent claims.
- 30 5. The graphical user interface of claim 1, wherein the first and second user
selectable control features are located in a region left of the main display
region.
- 35 6. The graphical user interface of claim 1, further including a third user
selectable control feature for causing a displayed version of the redlined

version of the one or more patent claims to change to a non-redlined version of the one or more patent claims.

7. The graphical user interface of claim 1, wherein the first and second user
5 selectable control features are simultaneously displayed.
8. The graphical user interface of claim 1:
wherein the redlined version of one or more patent claims is associated
with a first milestone in a patent application pendency; and
10 wherein the interface further includes a third user selectable control
feature for causing display of a second redlined version of one or
more patent claims that is associated with a second milestone in a
patent application pendency.
- 15 9. The graphical user interface of claim 1, wherein the redlined version of
the one or more patent claims causes display of known revisions to the
patent claims in a color based on stored user preference information for a
user.
- 20 10. The graphical user interface of claim 1, wherein each user selectable
control feature is implemented as a hypertext link.
11. A method comprising:
outputting from a server to a client access device, information defining or
25 configuring a graphical user interface, wherein the information
defines:
a main display region for displaying patent information;
a first user selectable control feature for causing display of a table
of contents for a patent file wrapper within the main
30 display region; and
a second user selectable control feature causing display of a
redlined version of one or more patent claims.

12. The method of claim 11, wherein the information further defines a third user selectable control feature for display of a graphical patent family within the main display region.

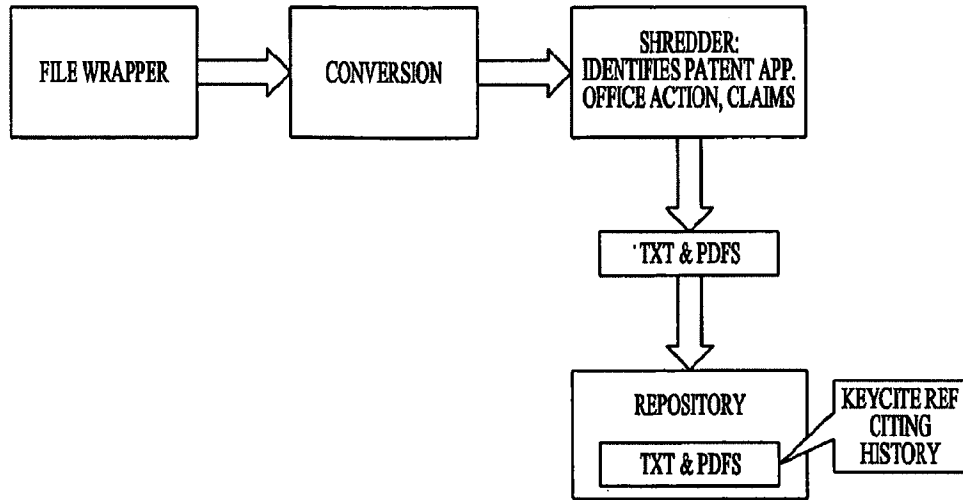


FIG. 1A

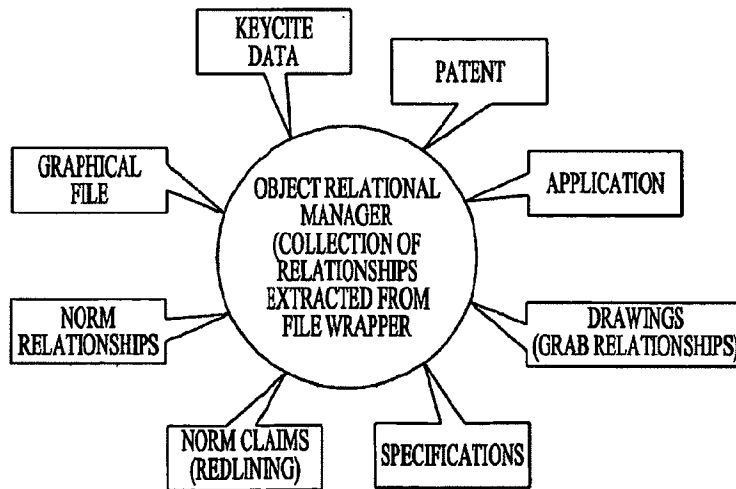


FIG. 1B

2/22

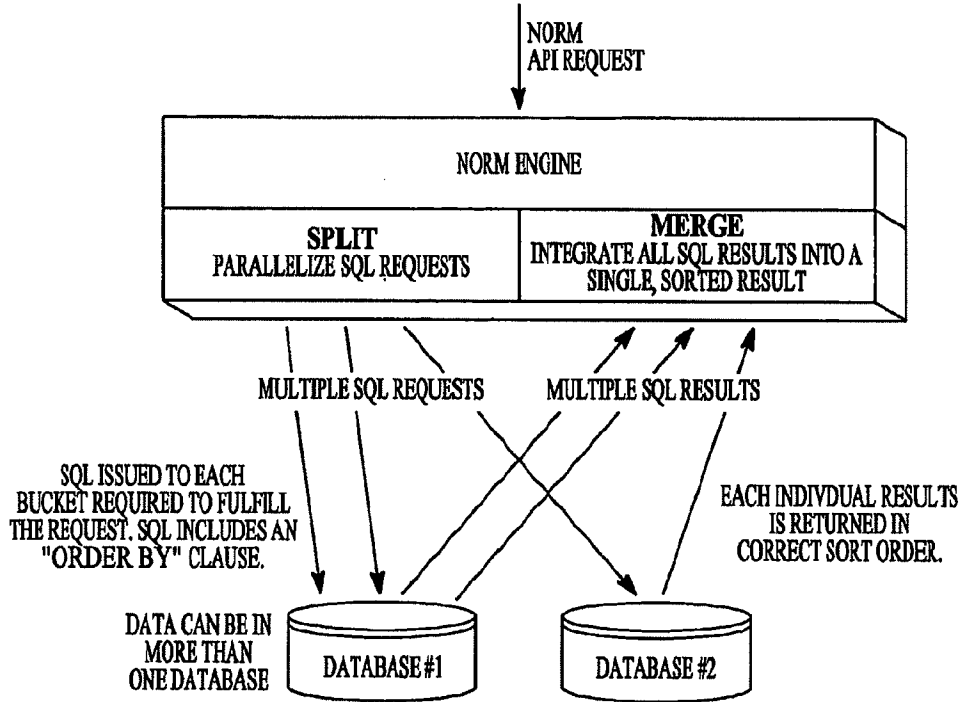


FIG. 2

4/22

FIG. 4

Westlaw
 Find a Case
 Result List
 1 Doc
 US PAT 5423438

Full Screen List
 Locate in Result
 Find Citation:

Patent held invalid or unenforceable
 Full History
 Direct History
 Chronological History
 Citations
 Monitor With KeyCite Alert

Links for
 US PAT 5423438

Original Patent Image (PDF)
 US PAT 5423438, 1995 WL 1364880 (U.S. PTO Utility)
 United States Patent
 Patent Number: US 5423438
 Document Type: Utility

Title: CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD OF USING SAME
 Issued Under June 13, 1995 (19950613)
 Patent Assignee: Hornsberger Corporation (Brookfield, WI)

Issue Date: June 13, 1995 (19950613)
 Inventor(s): Swanson, Richard N. (South Milwaukee, WI)
 Patent Assignee: Hornsberger Corporation (Brookfield, WI)
 Application Number: 119645
 Application Date: September 13, 1993 (19930913)

International Class: (6) B66D-001/26
 U.S. Class: 212/275; 212/312; 254/281
 Field of Search: 212/147; 212/148; 212/125; 212/126; 212/205; 254/285; 254/281

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U.S. Patent Documents:
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 2271426 1947/01 Harry 254/285
 2357443 1944/09 Medenswald 212/126
 2707053 1955/04 Brownlow 212/126
 3102642 1963/09 Zwellfel 212/126
 3308966 1967/03 Eswell 212/147
 4073476 1978/02 Frank 254/281
 4492310 1985/01 Weingart 212/147

Non-U.S. Patent Documents:
 33458 1979/03 Japan 254/265

Primary Examiner: Huppert, Michael S.
 Asst. Examiner: Brahan, Thomas J.
 Attorney/Agent/Firm: Jansson & Shupe Ltd.

ABSTRACT:
 The disclosure involves a crane having a main hoist drum and an auxiliary hoist drum for handling a load under normal and emergency (the latter actual or simulated) conditions, respectively. The latter condition involves a main hoist which is inoperative because of a failure or by intent. The auxiliary hoist drum is wrapped with about twice the length of cable as the main drum and can move the load up or down, irrespective of load position if and when the main hoist becomes inoperative. Also disclosed is a novel method for moving a load. Steps include maintaining one drum in a non-rotating mode and rotating the other drum. An improved crane load block is also disclosed to have "flaring sheaves" which help prevent excessive fleet angles.

Claims: 4
 Patent Pages: 13
 Drawing Sheets: 7

Graphical Patent Family
 Patent Tracker
 Chronological File History
 Patent File Wrapper
 Table of Contents
 Claims Versions
 Original Version
 First Amended Version
 Second Amended Version
 Final Version
 Office Actions and Related History
 First Office Action (Sept. 1, 1993)
 Applicant's First Response (Oct. 1, 1993)
 Second Office Action (March 1, 1994)
 PTO Interview Summary (March 15, 1994)
 Applicant's Second Response (April 1, 1994)
 Notice of Allowability (June 13, 1995)
 Drawings
 Show All
 Figure 1
 Figure 2
 Figure 3

Related Materials
 Patent Status
 Litigation History
 Cases
 Agency Opinions and Decisions

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 FINDPRINT KEYCITE DIRECTORY KEYNUMBERS COURT DOCS SITE MAP
 HELP EDITOR
 Preferences Alert Center Research Trail

Tools

5/22

FIG. 5

ACCESS TO FILE HISTORY TABLE

SITEMAP | HELP | CLIENT ID | PREFERENCES | SIGN OFF

Brand

Trademarks

Patent Tracker

Copyright

Links for
US PAT 5423438

KeyCite for Patents
Patent held invalid or unenforceable

- Full History
- Direct History (Graphical View)
- Cited References
- Monitor with KeyCite Alert

Full Text Document

Define Terms

Patent Tracker

- Graphical Patent Family
- Graphical File History
- Full File History
- Table of Contents
- Patent Application
- Front Page History
- Final Version
- Show Amendments
- Claims History
- Final Version
- Show Amendments
- Specifications History
- Final Version
- Show Amendments
- Drawings
- Show All
- Figure 1
- Figure 2
- Figure 3

CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD...

US PAT 5423438 Issue Date: June 13, 1995 (19950613) Patent Assignee: Harnischfeger Corporation (Brookfield, WI)

File Wrapper Jacket for US PAT 5423438

- Search Notes
- Index of Claims
- US Patent 5423438
- Application
- Office Action -- Rejection 3 Month
- Amendment A
- Office Action -- Final Rejection 3 Month
- Notice of References Cited
- Amendment B
- Advisory Action
- Amendment C
- Notice of Allowability
- Issue Fee Transmittal
- Drawings
- PTO Grant
- Patent Family and Legal Status Report
- USPTO Maintenance Report

6/22

FIG. 6

Westlaw | Regulations | State | Member | Global | Intellectual Property | Patent | Patent Office | Trademark | Address | Reports | Tools

PRINT | KEYCITE | DIRECTIONS | KEY NUMBERS | COURT DOCS | SHEET | HELP | CONTACT | Research Trial

US PAT 5423430

Links for US PAT 5423430

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Patent field invalid or unenforceable. KeyCite

Full History

Direct History (Graphical View)

Citing References

Monitor With KeyCite Alert

Full Text Document

Graphical Patent Family

Patent Tracker

Graphical Cit. History

Patent File Wrapper

Table of Contents

Claims Versions

Original Version

First Amended Version

Second Amended Version

Final Version

Office Actions and Related History

First Office Action (Sept. 1, 1993)

Auditor's First Response (Oct. 1, 1993)

Second Office Action (March 1, 1994)

PTO Interview Summary (March 15, 1994)

Applicant's Second Response (April 1, 1994)

Notice of Allowability (June 13, 1995)

Drawings

Show All

Figure 1

Figure 2

Figure 3

Related Materials

Patent Status

Litigation History

Cases

Agency Opinions and Decisions

SELECT: SEARCH RESULTS

Claims Amendments

Original Claim 1 (Application): (Sept. 13, 1993)

1. In a crane having (a) a main hoist drum, (b) an auxiliary hoist drum, (c) a load block with a load suspended therefrom, and (d) cable extending between the drums and the block for raising and lowering the load, and wherein cable contacts the main hoist drum at first points of tangency and contacts the auxiliary hoist drum at second points of tangency, the improvement wherein: the distance between the first points of tangency increases as the block is lowered; and the distance between the second points of tangency decreases as the block is lowered.

Original Claim 2 (Application): (Sept. 13, 1993)

2. The crane of claim 1 wherein, when the load is in the fully lowered position, the distance between the first points of tangency is substantially greater than the distance between the second points of tangency.

Original Claim 3 (Application): (Sept. 13, 1993)

3. The crane of claim 1 wherein: the main hoist drum has an end and a first length of cable is attached to the main hoist drum by a socket adjacent to the end; the auxiliary hoist drum has a central portion and a second length of cable is attached by a socket generally at the central portion; and each length of cable is attached to both hoist drums.

Original Claim 4 (Application): (Sept. 13, 1993)

4. The crane of claim 1 wherein: each drum has first and second cable grooves spiralled in opposite directions from one another; each drum has a pair of ends and a central portion; an end of each groove is bounded by a cable-attachment socket; each socket of one drum is adjacent to a separate end of that drum; and, each socket of the other drum is at the central portion of that other drum.

FILE CHANGES | SHOW CHANGES

US PAT 5423430

TITLE: CRANE WITH REQUIREMENT FOR AN IMPLICIT AND METHOD OF USING SAME

Pub. No. 2009/0131985 (10/01/09)

Patent Assignee: HANSON FERGUSON CORPORATION (Brookfield, WI)

8/22

FIG. 8

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 Preferences Alert Queue Research Tool

Regulations Suite | Trademark | Patent Practitioner | Add/Remove Tabs

US PAT. 5,223,438
 TITLE: CRANE WITH REBURN-PART HOIST ARRANGEMENT AND METHOD OF USING SAME
 Inava Datta June 13, 1995 (19950613)
 Patent Assignee: Harrison/Feger Corporation (Bloomfield, WI)
 Hilda Chandra | Show Changes

US PAT. 5,223,438
 TITLE: CRANE WITH REBURN-PART HOIST ARRANGEMENT AND METHOD OF USING SAME
 Inava Datta June 13, 1995 (19950613)
 Patent Assignee: Harrison/Feger Corporation (Bloomfield, WI)

Claims Amendments

Second Amended Claim 1: (October 31, 1994)

1. In a crane configured to move a load to a fully-raised position and having (a) a main hoist drum, (b) an auxiliary hoist drum, (c) a load block with a load suspended therefrom, and (d) at least a pair of cables extending between the drums and the block for raising and lowering the load, and wherein the cables contact the main hoist drum at first points of tangency and contact the auxiliary hoist drum at second points of tangency, the improvement wherein: each cable extends generally vertically from the drums to the load block; the distance between the first points of tangency increases as the block is lowered; the distance between the second points of tangency decreases as the block is lowered; and the distances are about equal to one another when the load is in the fully-raised position, and for operation of either hoist drum, the entirety of the load is raised or lowered at the same rate.

Second Amended Claim 2: (October 31, 1994)

2. The crane of claim 1 wherein, when the load is in the fully lowered position, the crane moves a load between a fully-lowered position and a fully-raised position and the distances are about equal to one another when the load is in the fully-raised position and the distance between the first points of tangency is substantially greater than the distance between the second points of tangency.

Second Amended Claim 3: (October 31, 1994)

3. The crane of claim 1 wherein, the main hoist drum has an end and a first length of cable is attached to the main hoist drum by a socket adjacent to the end, and the auxiliary hoist drum has a central portion and a second length of cable is attached by a socket generally at the central portion, and each length of cable is attached to both hoist drums.

Second Amended Claim 4: (October 31, 1994)

4. The crane of claim 1 wherein, each drum has first and second cable grooves spiraled in opposite directions from one another; each drum has a pair of ends and a central portion; an end of each groove is bounded by a cable-attachment socket, and each socket of one drum is adjacent to a separate end of that drum; and each socket of the other drum is at the central portion of that other drum.

Links for US PAT. 5,223,438

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 Direct History (Graphical View) [GO]
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Stratigraphical Patent Family [GO]

Patent Tracker
 Stratigraphical File History [GO]
 Patent File Wrapper
 Table of Contents

Claims Versions
 Original Version
 First Amended Version
 Second Amended Version
 Final Version

Office Actions and Related History
 First Office Action (Sept. 1, 1993)
 Applicant's First Response (Oct. 1, 1993)
 Second Office Action (March 1, 1994)
 PTO Interview Summary (March 15, 1994)
 Applicant's Second Response (April 1, 1994)
 Notice of Allowability (June 13, 1995)

Drawings
 Show All
 Figure 1
 Figure 2
 Figure 3

Related Materials
 Patent Status
 Litigation History
 Cases
 Agency Opinions and Decisions

Tools

9/22

FIG. 9

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US PAT 5,422,438
 TITLE: CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD OF USING SAME
 ISSUE DATE: June 13, 1995 (1995/06/13)
 Patent Assignee: Henschelberger Corporation (Broadfield, WI)

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Claims Amendments

Final Amended Claim 1: Showing all Changes

1. In a crane configured to move a load to a fully-raised position and having (a) a main hoist drum, (b) an auxiliary hoist drum, (c) a load block with a load suspended therefrom, and (d) at least a pair of cables extending between the drums and the block for raising and lowering the load, and wherein the cables contacts the main hoist drum at first points of tangency and contacts the auxiliary hoist drum at second points of tangency, the improvement wherein: each cable extends generally vertically from the drums to the load block; the distance between the first points of tangency increases as the block is lowered; and the distance between the second points of tangency decreases as the block is lowered; and the distances are about equal to one another when the load is in the fully-raised position; and for operation of either hoist drum, the entirety of the load is raised or lowered at the same rate.

Final Amended Claim 2: Showing all Changes

2. The crane of claim 1 wherein, when the load is in the fully-lowered position, the distance between the fully-lowered position and a fully-raised position and the distance are about equal to one another when the load is in the fully-raised position and the distance between the first points of tangency is substantially greater than the distance between the second points of tangency.

Final Amended Claim 3: Showing all Changes

3. The crane of claim 1 wherein: the main hoist drum has an end and a first length of cable is attached to the main hoist drum and by a socket adjacent to the end, and the auxiliary hoist drum has a central portion and a second length of cable is attached by a socket generally at the central portion, and each length of cable is attached to both hoist drums.

Final Amended Claim 4: Showing all Changes

4. The crane of claim 1 wherein: each drum has first and second cables grooves spiraled in opposite directions from one another; each drum has a pair of leads and a central portion; and an end of each groove is bounded by a cable-attachment socket; and each socket of one drum is adjacent to a separate end of that drum; and each socket of the other drum is at the central portion of that other drum.

Links to: US PAT 5,422,438

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Full History
 Direct History (Graphical View)
 Citations/References
 Monitor With KeyCite Alert

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Full-Text Document

Graphical Patent Family

Patent Tracker

- Patent File History
- Table of Contents
- Claims Versions
- Original Version
- First Amended Version
- Second Amended Version
- Final Version

Office Actions and Related History

- First Office Action (Sept. 1, 1993)
- Applicant's First Response (Oct. 1, 1993)
- Second Office Action (March 1, 1994)
- PTO Interview Summary (March 15, 1994)
- Applicant's Second Response (April 1, 1994)
- Notice of Allowability (June 13, 1995)

Drawings

- Show All
- Figure 1
- Figure 2
- Figure 3

Related Materials

- Patent Status
- Litigation History
- Cases
- Agency Opinions and Decisions

Substitute Sheet (Rule 26)

10/22

FIG. 10

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VIEW OF ALL CHANGES TO CLAIM 1

US PAT 542438 Issue Date: June 13, 1995 (59190613) Patent Assignee:
Hemitec Corporation (Greenfield, WI)
US 5 Result (s) of (x) 2 22 5 Term 2
ANALYZE THIS CLAIM | ANALYZE ALL CLAIMS

Original Claim 1 (Application): (Sept. 13, 1993)
Related History

1. In a crane having (a) a main hoist drum, (b) an auxiliary hoist drum, (c) a load block with a load suspended therefrom, and (d) cable extending between the drums and the block for raising and lowering the load, and wherein cable contacts the main hoist drum at first points of tangency and contacts the auxiliary hoist drum at second points of tangency, the improvement wherein: the distance between the first points of tangency increases as the block is lowered; and the distance between the second points of tangency decreases as the block is lowered.

First Amended Claim 1: (March 24, 1994)
Related History

1. In a crane having (a) a main hoist drum, (b) an auxiliary hoist drum, (c) a load block with a load suspended therefrom, and (d) at least a pair of cables extending between the drums and the block for raising and lowering the load, and wherein cable contacts the main hoist drum at first points of tangency and contacts the auxiliary hoist drum at second points of tangency, the improvement wherein: each cable extends generally vertically from the drums to the load block; the distance between the first points of tangency increases as the block is lowered; and the distance between the second points of tangency decreases as the block is lowered; and for operation of either hoist drum, the entirety of the load is raised or lowered at the same rate.

Second Amended Claim 1: (October 31, 1994)
Related History

1. In a crane configured to move a load to a fully-raised position and having (a) a main hoist drum, (b) an auxiliary hoist drum, (c) a load block with a load suspended therefrom, and (d) at least a pair of cables extending between the drums and the block for raising and lowering the load, and wherein cable contacts the main hoist drum at first points of tangency and contacts the auxiliary hoist drum at second points of tangency, the improvement wherein: each cable extends generally vertically from the drums to the load block; the distance between the first points of tangency increases as the block is lowered; and the distance between the second points of tangency decreases as the block is lowered; and the distance between the first points of tangency increases as the block is lowered; and the distance between the second points of tangency decreases as the block is lowered; and for operation of either hoist drum, the entirety of the load is raised or lowered at the same rate.

Final Amended Claim 1: Showing all Changes
Related History

1. In a crane configured to move a load to a fully-raised position and having (a) a main hoist drum, (b) an auxiliary hoist drum, (c) a load block with a load suspended therefrom, and (d) at least a pair of cables extending between the drums and the block for raising and lowering the load, and wherein the cables contacts the main hoist drum at first points of tangency and contacts the auxiliary hoist drum at second points of tangency, the improvement wherein: each cable extends generally vertically from the drums to the load block; the distance between the first points of tangency increases as the block is lowered; and the distance between the second points of tangency decreases as the block is lowered; and the distance between the first points of tangency increases as the block is lowered; and the distance between the second points of tangency decreases as the block is lowered; and the distance between the first points of tangency increases as the block is lowered; and the distance between the second points of tangency decreases as the block is lowered; and for operation of either hoist drum, the entirety of the load is raised or lowered at the same rate.

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Direct History
Cited References
Citing References

Full Text Document
Define Terms

Patent Tracker
Graphical Patent Family
Graphical File History
Full File History
Table of Contents
Patent Application
Front Page History
Final Version
Show Amendments
Claims History
Final Version
Show Amendments
Specifications History
Final Version
Show Amendments
Drawings
Show All
Figure 1
Figure 2
Figure 3

11/22

FIG. 11

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- Graphical Patent Family
- Graphical File History
- Full File History
- Table of Contents
- Patent Application
- Front Page History
- Final Version
- Show Amendments
- Claims History
- Final Version
- Show Amendments
- Specifications History
- Final Version
- Show Amendments
- Drawings
- Show All
- Figure 1
- Figure 2

CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD ...

US PAT 5423438 Issue Date: June 13, 1995 (19950613) Patent Assignee: Harnischfeger Corporation (Brookfield, WI)

Result (x) of (x) 2 22

Term 2

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Amendments

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Hide

Version 1 2 3

Original Claim 1 (Application): (Sept. 13, 1993)

1. In a crane having (a) a main hoist drum, (b) an auxiliary hoist drum, (c) a load block with a load suspended therefrom, and (d) cable extending between the drums and the block for raising and lowering the load, and wherein cable contacts the main hoist drum at first points of tangency and contacts the auxiliary hoist drum at second points of tangency, the improvement wherein the distance between the first points of tangency increases as the block is lowered; and the distance between the second points of tangency decreases as the block is lowered.

12/22

FIG. 12

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- Direct History (Graphical View)
- Citing References
- Monitor with KeyCite Alert

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- Define Terms

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- Graphical Patent Family
- Graphical File History
- Full File History
- Table of Contents
- Patent Application
- Front Page History
- Final Version
- Show Amendments
- Claims History
- Final Version
- Show Amendments
- Specifications History
- Final Version
- Show Amendments
- Drawings
- Show All
- Figure 1
- Figure 2

CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD ...

US PAT 5423438 Issue Date: June 13, 1995 (19950613) Patent Assignee: Hamischfefer Corporation (Brookfield, WI)

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Version 1 2 3

First Amended Claim 1: (March 21, 1994)

1. In a crane having (a) a main hoist drum, (b) an auxiliary hoist drum, (c) a load block with a load suspended therefrom, and (d) at least a pair of cables extending between the drums and the block for raising and lowering the load, and wherein the cables contacts the main hoist drum at first points of tangency and contacts the auxiliary hoist drum at second points of tangency, the improvement wherein: each cable extends generally vertically from the drums to the load block; the distance between the first points of tangency increases as the block is lowered; and the distance between the second points of tangency decreases as the block is lowered; and for operation of either hoist drum, the entirety of the load is raised or lowered as the same rate.

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- Direct History (Graphical View)
- Citing References
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- Graphical Patent Family
- Graphical File History
- Full File History
- Table of Contents
- Patent Application
- Front Page History
- Final Version
- Show Amendments
- Claims History
- Final Version
- Show Amendments
- Specifications History
- Final Version
- Show Amendments
- Drawings
- Show All
- Figure 1
- Figure 2

CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD...

US PAT 5423438 Issue Date: June 13, 1995 (19950613) Patent Assignee: Hamischfefer Corporation (Brookfield, WI)

Result of (x) ≥ 22

Term 2

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- Display
- Hide
- Changes from Previous Version
- Version 1 2 3
- First Amended Claim 1: (March 21, 1994)

1. In a crane having (a) a main hoist drum, (b) an auxiliary hoist drum, (c) a load block with a load suspended therefrom, and (d) at least a pair of cables extending between the drums and the block for raising and lowering the load, and wherein the cables contacts the main hoist drum at first points of tangency and contacts the auxiliary hoist drum at second points of tangency, the improvement wherein: each cable extends generally vertically from the drums to the load block; the distance between the first points of tangency increases as the block is lowered; and the distance between the second points of tangency decreases as the block is lowered; and for operation of either hoist drum, the entirety of the load is raised or lowered as the same rate.

14/22

VIEW OF RELATED CLAIM HISTORY

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Return to Claims Display

Related History for First Amended Claim 1 (March 21, 1994)

- 1. Office Action - Rejection 3 Month, PTO Detailed Action, CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD, Application No. 08/119645, Art Unit 12345, Examiner Jane Smith (Filed Feb. 21, 1994).
- 2. Applicant's Response and Amendment A, CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD, Application No. 08/119645, Art Unit 12345, (Filed March 21, 1994).
- 3. PTO Letter in Response to Applicant's Amendment A, CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD, Application No. 08/119645, Art Unit 12345, Examiner Jane Smith (Filed April 21, 1994).
- 4. Interview Summary, CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD, Application No. 08/119645, Art Unit 12345, Examiner Jane Smith, (May 20, 1994).

Related History for First Amended Claim 2 (March 21, 1994)

- 5. Office Action - Rejection 3 Month, PTO Detailed Action, CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD, Application No. 08/119645, Art Unit 12345, Examiner Jane Smith (Filed Feb. 21, 1994).
- 6. Applicant's Response and Amendment A, CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD, Application No. 08/119645, Art Unit 12345, (Filed March 21, 1994).

Related History for First Amended Claim 3 (March 21, 1994)

- 7. Office Action - Rejection 3 Month, PTO Detailed Action, CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD, Application No. 08/119645, Art Unit 12345, Examiner Jane Smith (Filed Feb. 21, 1994).
- 8. Applicant's Response and Amendment A, CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD, Application No. 08/119645, Art Unit 12345, (Filed March 21, 1994).
- 9. PTO Letter in Response to Applicant's Amendment A, CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD, Application No. 08/119645, Art Unit 12345, Examiner Jane Smith (Filed April 21, 1994).
- 10. Interview Summary, CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD, Application No. 08/119645, Art Unit 12345, Examiner Jane Smith (May 20, 1994).
- 11. Interview Summary, CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD, Application No. 08/119645, Art Unit 12345, Examiner Jane Smith, (June 15, 1994).

FIG. 14

15/22

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Application/Control Number: 08/119,645
Art Unit: 123-45

DETAILED ACTION

Claim Rejections - 35 U.S.C. 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation "the means for a hoist and crane" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 U.S.C. 103

Although Applicant(s) use "means for" in the claim(s) (e.g. claim 1), it is the Examiner's position that the "means for" phrase(s) do not invoke 35 U.S.C. 112, 6th paragraph. If Applicant(s) concur, the Examiner respectfully requests Applicant(s) to either amend the claim(s) to remove all instances of "means for," or to invoke 35 U.S.C. 112, 6th paragraph should not be invoked. Alternatively, if Applicant(s) prefer to invoke 35 U.S.C. 112, 6th paragraph, the Examiner respectfully requests Applicant(s) to expressly state their desire on the record. Upon receiving such express invocation of 35 U.S.C. 112 6th paragraph, the "means for" phrase(s) will be interpreted as set forth in the Supplemental Examination Guidelines for Determining the Applicability of 35 U.S.C. 112 6th Paragraph. Failure by Applicant(s) to address the 35 U.S.C. 112 6th paragraph issues in the manner set forth above or to be non-responsive to this issue entirely will be considered a desire by Applicant(s) NOT to invoke 35 U.S.C. 112 6th paragraph.

Claim Rejections - 35 U.S.C. 103

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.

1. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buxton, et al. (3,659,606) or Reuss, et al. (6,364,834) in view of Lee (4,838,275). Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reuss, et al. (6,364,834) in view of Lee (4,838,275). Buxton, et al. and Reuss, et al. teach as set forth in the table below. Items in bold are not disclosed by Buxton, et al. Items in italics are not disclosed by Reuss, et al.

FIG. 15

16/22

FIG. 16

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US PAT 5423438
 TITLE: CRAIE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD OF USING SAME
 Issue Date: June 13, 1995 (19950613)
 Patent Assignee: Hamachi Corporation (Brookfield, WI)
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Original Version	First Amended Version	Second Amended Version	Final Version
Patent Application US Pat App 09/211665	Office Actions First Office Action (Sept. 1, 1993)	Office Actions Second Office Action (March 1, 1994)	Office Actions Third Office Action (Feb. 1, 2001)
Claim 1 Original Claim 1	Claim 1 First Amended Claim 1	Claim 1 Second Amended Claim 1	Claim 1 Final Version Claim 1
Claim 2 Original Claim 2	Claim 2 First Amended Claim 2	Claim 2 Second Amended Claim 2	Claim 2 Final Version Claim 2
Claim 3 Original Claim 3	Claim 3 First Amended Claim 3	Claim 3 Second Amended Claim 3	Claim 3 Final Version Claim 3
Claim 4 Original Claim 4	Claim 4 First Amended Claim 4	Claim 4 Second Amended Claim 4	Claim 4 Final Version Claim 4
Assignments RE 18302/0488 RE 013759/0734	Responsor Applicant's First Response (Oct. 1, 1993)	Applicant's Second (April 1, 1994)	Applicant's (Feb. 1, 2001)
Patents Family DWPL 2006-12245	PTO Interview Summary (March 15, 2004)		
			2000 WL 12245 (Appellate Brief) 2000 WL 235672 (Appellate Brief) 2000 WL 4523478 (Appellate Brief) 2000 WL 492234 (Oral Argument) & more &
			U.S. Deskset 04-1152 (U.S. April 1, 2000) C.A. Fed. Deskset 04-3245 (C.A. Fed. Feb. 1, 2000) & more &

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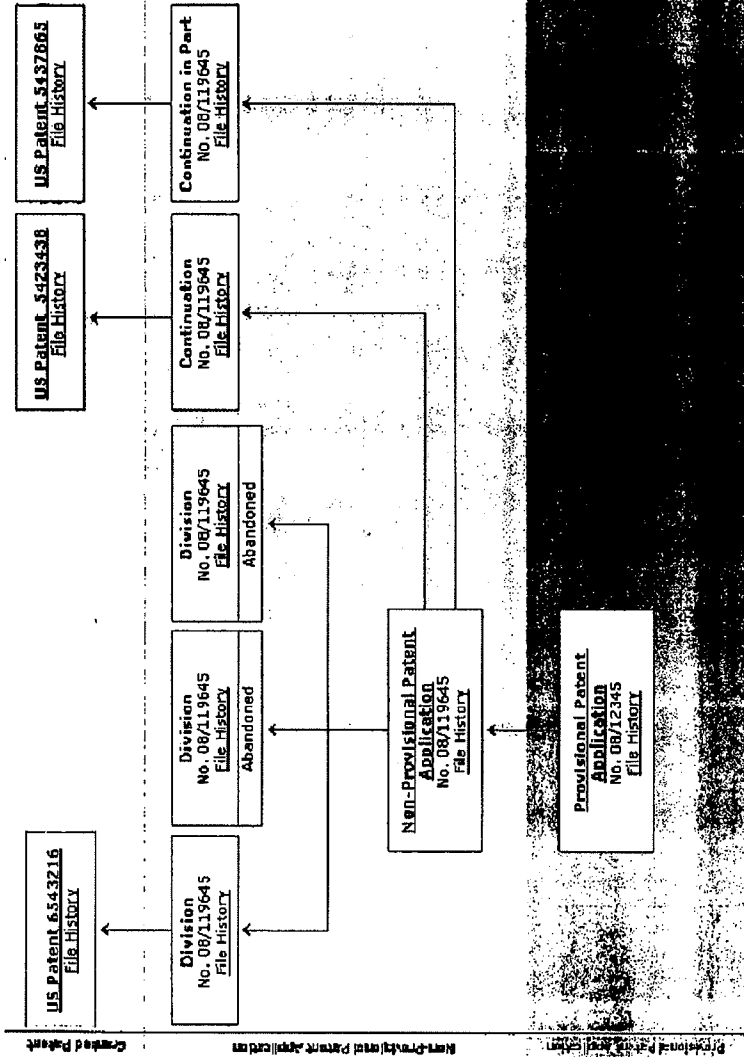
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 Full History
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 Citing References
 Monitor with KeyCite Alert

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Patent Trakker
 Graphical Patent Family
 Full File History
 Table of Contents
 Patent Application
 Front Page History
 Final Version
 Show Amendments
 Claims History
 Final Version
 Show Amendments
 Specifications History
 Final Version
 Show Amendments
 Drawings
 Show All
 Figure 1
 Figure 2
 Figure 3

FIG. 18

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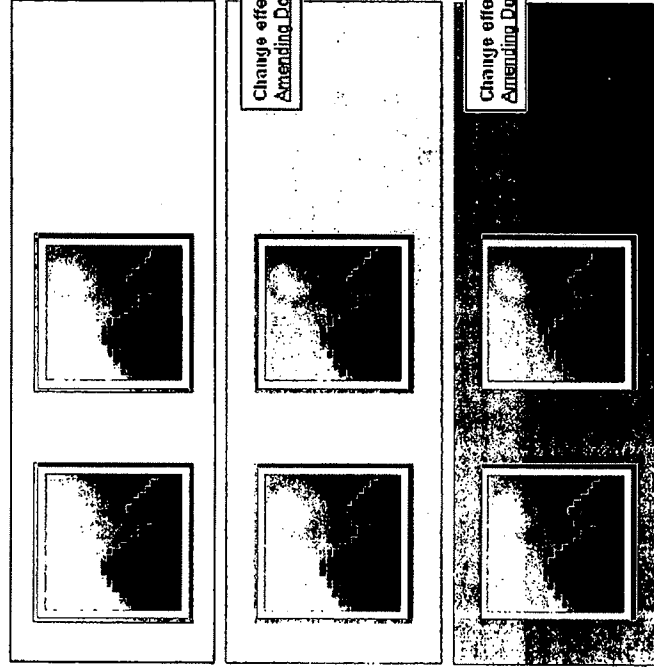
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- Full History
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- Graphical Patent Family
- Graphical File History
- Full File History
- Table of Contents
- Patent Application
- Front Page History
- Final Version
- Show Amendments
- Claims History
- Final Version
- Show Amendments
- Specifications History
- Final Version
- Show Amendments
- Drawings
- Show All
- Figure 1
- Figure 2
- Figure 3



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- Graphical Patent Family
- Graphical File History
- Full File History
- Table of Contents
- Patent Application
- Front Page History
- Final Version
- Show Amendments
- Claims History
- Final Version
- Show Amendments
- Specifications History
- Final Version
- Show Amendments
- Drawings
- Show All
- Figure 1
- Figure 2
- Figure 3

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GRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD

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20/22

FIG. 20

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CRANE WITH REDUNDANT HOIST ARRANGEMENT AND METHOD

1. In a crane having (a) a main hoist drum, (b) an auxiliary hoist drum, (c) a load and the block for raising and lowering the load, and wherein cable contacts the main hoist drum at first points of tangency and contacts the auxiliary hoist drum at second points of tangency, the improvement wherein: the distance between the first points of tangency increases as the block is lowered; and the distance between the second points of tangency decreases as the block is lowered.

2. The crane of claim 1 wherein, when the load is in the fully lowered position, the distance between the first points of tangency is substantially greater than the distance between the second points of tangency.

3. The crane of claim 1 wherein: the main hoist drum has an end and a first length of cable is attached to the main hoist drum by a socket adjacent to the end; the auxiliary hoist drum has a central portion and a second length of cable is attached by a socket generally at the central portion; and each length of cable is attached to both hoist drums.

4. The crane of claim 1 wherein: each drum has first and second cable grooves spiralled in opposite directions from one another; each drum has a pair of ends and a central portion, an end of each groove is bounded by a cable-attachment socket; each socket of one drum is adjacent to a separate end of that drum; and, each socket of the other drum is at the central portion of that other drum.

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- Monitor with KeyCite Alert

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Define Terms

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Graphical Patent Family

Graphical File History

- Table of Contents
- Patent Application
- Front Page History
- Final Version
- Show Amendments
- Claims History
- Final Version
- Show Amendments
- Specifications History
- Final Version
- Show Amendments
- Drawings
- Show All
- Figure 1
- Figure 2
- Figure 3

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- 1. Pass & Seymour, Inc. v. Hubbell Inc., 2007 WL 2172648, *7+ (N.D.N.Y. Jul 23, 2007) (NO. 5:07-CV-0272) HN: 51 (F.Supp.2d)
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FIG. 21

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FIG. 22

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2009/039013

A. CLASSIFICATION OF SUBJECT MATTER INV. G06Q10/00		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) G06Q		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
L	The technical aspects identified in the present application (Art. 15 PCT) are considered part of common general knowledge. Due to their notoriety no documentary evidence is found to be required. For further details see the accompanying Opinion and the reference below. XP002456414	1-12
<input type="checkbox"/> Further documents are listed in the continuation of Box C.		
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