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(54) Title: A SYSTEM FOR PREPARING A PATENT APPLICATION

(57) Abstract: A method of preparing a patent application by running a software macro to present a Tool bar (Fig. 1) to display options of Setup for document information and Number Claims for numbering the claims and Build Description for duplicating the claims into the description section and Build Intro Sections for dividing and duplicating selected claims into the introductory sections and Build Abstract and Count Abstract building and counting the words in the Abstract and Format for formatting and Mark Element for assigning a reference numeral to an element and Element List for listing the marked elements with reference numerals and Number Patent for automatically displaying the reference numerals with the each occurrence of the element name in the order of first recitation.

# A SYSTEM FOR PREPARING A PATENT APPLICATION

## BACKGROUND OF THE INVENTION

### 1. Field of the Invention

**[0001]** A method of preparing a patent application in conjunction with a word processing program.

### 2. Description of the Prior Art

**[0002]** A method of preparing a patent application is disclosed in U.S. Patent application serial number 09/273,021, filed 03/19/1999, in the name of one of the inventors herein. That method includes the steps of numbering and rearranging the order of claims and duplicating claims into the specification and assigning reference numerals to elements. This invention is in further perfection of the steps set forth in the aforementioned method.

## SUMMARY OF THE INVENTION AND ADVANTAGES

**[0003]** The invention provides a method of preparing a patent application characterized by running a software macro to display a *Tool* bar in a word processing program and presenting options in the *Tool* bar on a display screen of *Setup* and *Number Claims* and *Build Description* and *Build Intro Sections* and *Build Abstract* and *Count Abstract* and *Format* and *Mark Element* and *Element List* and *Number Patent.*

**[0004]** This invention provides efficiency in time and brings order to the preparation of a patent application. In a sense it automates much of the patent application preparation, but more importantly it brings consistency to the use of terms

in the claims and description as well as the attendant numbering of elements in the description. The method automatically builds the patent application with the desired headings and the application title and identification. A claim tree or chart is provided to depict the dependency of the claims, along with the ability to change the order and/or claim dependency. The element names may be provided with synonyms to be numbered with like reference numerals and the elements are numbered in the description in the order of being first recited, along with the option of providing the reference numerals in the claims, as is required in some patent offices around the world. That portion of the broadest claim which precedes the characterized by clause is duplicated into the background section whereas that portion which is in the characterized by clause is duplicated into the summary of the invention. The invention drives the analysis toward isolating that which is novel from that which is prior art by the intermediate characterized by clause. The duplication of the claims into the description section assures that every claim finds antecedent support in the description, but in editing the duplicated claims, the order of presentation may be changed for easier reading and comprehension, with embellishments and alternative phraseology added. During the execution of the method, various alerts are provided for indicating errors and omissions.

**[0005]** The method is utilized as a tool for efficiency and quality in preparing a patent application and it is important that once the process is complete, the application may be edited to eliminate the "characterized by" clause in the claims, as it is merely used to force or to drive the practitioner to that which distinguishes the invention from the prior art. Once that isolation occurs, the method facilitates bringing together the rest of the sections of the application fitting and complementing one another in an efficient relationship.

## BRIEF DESCRIPTION OF THE DRAWINGS

**[0006]** Other advantages of the present invention will be readily appreciated, as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings wherein:

**[0007]** Figure 1 is a schematic view of a *Tool* bar utilized during the method of the subject invention;

**[0008]** Figure 2 is a schematic view of an *Application Settings* option block for selecting options to preserve the document;

**[0009]** Figure 3 is a schematic view of a *Patent Setup* data block for placing identifying information on the document;

**[0010]** Figure 4 is a schematic view of *Patent Headings* data block with a plurality of heading data lines for providing headings in the patent application;

**[0011]** Figure 5 is a schematic view of a *Check Claims* OK box indicating that the claims are OK;

**[0012]** Figure 6 is a schematic view of a *Claim Errors* data box with the errors to the claims recited therein;

**[0013]** Figure 7 is a schematic view of a *Claim Numbering* data block presenting claim numbers displayed in a list;

**[0014]** Figure 8 is a schematic view of a *Claim Numbering* data block presenting the claim numbers displayed in a dependency tree;

**[0015]** Figure 9 is a schematic view of a *Collect Claims* decision box to affirm or reject the decision to collect and re-order the claim dependency;

**[0016]** Figure 10 is a schematic view of a *Change Claim Number* data line for receiving a claim number to be renumbered;

**[0017]** Figure 11 is a schematic view of a *Change Parent Claim* data line for receiving a substitute parent claim number for a highlighted claim;

**[0018]** Figure 12 is a schematic view of an *Insert Claims* data block for receiving data for a new claim to be inserted into the claim tree;

**[0019]** Figure 13 is a schematic view of a *Format Document* option block used to format the document;

**[0020]** Figure 14 is a schematic view of a *Select Claims* data block with the claims listed therein for selection for duplication into the description section;

**[0021]** Figure 15 is a schematic view of a *Build Text* option indicating that text already exists in the description section;

**[0022]** Figure 16 is a schematic view of an *Add Element* data block for numbering an element and adding the element to the element list;

**[0023]** Figure 17 is a schematic view of an *Element* data block with element reference number and synonyms;

**[0024]** Figure 18 is a schematic view of an *Add Synonym* data block for adding synonyms for elements;

**[0025]** Figure is 19 a schematic view of a first *Element Combinations* data block;

**[0026]** Figure 20 is a schematic view of a second *Element Combination* data block;

**[0027]** Figure 21 is a schematic view of an *Element List* data block to present a list of the element names and the assigned reference numerals;

**[0028]** Figure 22 is a schematic view of *Number Patent* option block presenting the headings of *Detailed Description* and *Abstract* and *Claims* for selecting options in each of those sections;

**[0029]** Figure 23 is a schematic view of *Element Report* data block for showing elements recited in the description but not the claims;

**[0030]** Figure 24 is a schematic view of a *Protect Numbers* data block to prevent numbers from being changed during the numbering of the elements recited therein;

**[0031]** Figure 25 is a schematic view of an *AutoProtect Numbers* data block for selecting words with which numbers before or after will be protected against changer;

**[0032]** Figure 26 is a schematic view of an *AutoProtect* data line for inserting a word so that all numbers before the word will be automatically protected;

**[0033]** Figure 27 is a schematic view of an *AutoProtect* data line for inserting a word so that all numbers after the word will be automatically protected; and

**[0034]** Figure 28 is a schematic view of *Word Count* data block for presenting the number of words in the Abstract;

## DETAILED DESCRIPTION OF THE INVENTION

**[0035]** Referring to the Figures, wherein like numerals indicate corresponding parts throughout the several views, a method of preparing a patent application is illustrated by showing the various steps in the form of computer screen displays for numbering and rearranging the order of claims and duplicating claims

into the specification and assigning reference numerals to elements. The titles and nomenclature presented in the various steps are *italicized* herein for convenience.

**[0036]** The first instance the method is performed in conjunction with a word processing program by running a software macro to present a *Tool* bar in or over the word processing program. This *Tool* bar is illustrated in Figure 1 and would normally appear on one side of the computer screen. The method begins by presenting options in the *Tool* bar on a display screen of *Application Settings* and *Setup* and *Add Claim* and *Check Claims* and *Number Claims* and *Build Detailed Description* and *Build Intro Sections* and *Build Abstract* and *Count Abstract* and *Format* and *Mark Element* and *Element List* and *Element Combinations* and *Number Patent* and *Protect.* The *Application Settings* option is presented by an *Application Settings* icon **30.** Selecting the *Application Settings* icon **30** (as by a double click) displays an *Application Settings* option block as shown in Figure 2 to present the *Document Processing Options* of selecting *Automatic Save Document* and *Automatic Backup Document* prior to starting the task of preparing a patent application. Either of these *Document Processing Options* may be selected by merely clicking on the check box associated with each of *Automatic Save Document* and *Automatic Backup Document.* The options are self explanatory in that by selecting the options the document is automatically saved and /or backed up.

**[0037]** After clicking on OK in the *Application Settings* option block, the method may proceed by selecting the *Setup* option in the *Tool* bar to display a *Patent Setup* data block, as illustrated in Figure 3. A *Title* data line is presented in the *Patent Setup* data block for inserting the title of the invention to appear in the document at the beginning and optionally on the Abstract page, as will become more clear hereinafter. An *Owner Number* file number data line is presented in the *Patent*

*Setup* data block for inserting a file number used by the patent owner to be displayed in the footer of the document as a default but which can be placed in the header by checking the *Place in Header* option. An *Attorney Number* file number data line is presented in the *Patent Setup* data block for inserting a docket number for the file used by the patent preparer, i.e., an Attorney or Patent Agent, into the footer of the document. The *Attorney Number* for the file is placed in the footer for easy access and viewing when the top of the pages are secured in a file wrapper. A *Suppress Default Captions* option is presented for deleting the default captions of *Owner Number* and *Attorney Number* with the respective file numbers in the footer and header of the document. In other words, in the default mode, the captions of *Owner Number* and *Attorney Number* would precede the respective file numbers in the document, but would not if the *Suppress Default Captions* option is checked.

**[0038]** The invention proceeds by displaying a *Heading Options* **32** in the *Patent Setup* data block for selecting *Heading Options* in the *Patent Setup* data block to present a *Patent Headings* data block as shown in Figure 4 with a plurality of heading data lines. A name is displayed adjacent each heading data line including *Related* and *Background* and *Field* and *Prior Art* and *Summary* and *Drawings* and *Description* and *Claims* and *Abstract* and *Classification* and *Element List*. A default heading is presented in each heading data line but may be edited, i.e., the default heading in the respective heading data line may be edited and changed for insertion into the patent application. The default headings may be the headings suggested by the United States Patent and Trademark Office (USPTO), or by any other patent office around the world. A *Defaults* option is presented in the *Patent Headings* data block for returning to the default headings in all of the heading data lines.

**[0039]** Another step resides in the selecting of *Add Claim* in the *Tool* bar to add the next numbered claim with the preamble of the previous claim.

**[0040]** Another step resides in the selecting of *Check Claims* in the *Tool* bar to check the claims for a "characterized by" clause. If the claims are in order, i.e. have no errors, a *Check Claims* OK box will appear as shown in Figure 5 indicating that the claims are OK. If the claims are not OK, a *Claim Errors* data box as shown in Figure 6 will appear on the screen with the errors to the claims recited therein. The main errors that are alerted are the absence of a preamble and/or the omission of a "characterized by" clause in an independent claim.

**[0041]** Another step includes selecting *Number Claims* in the *Tool* bar to present a *Claim Numbering* data block with the claim numbers therein and presenting adjacent the *Claim Numbering* data block the options of *List* and/or *Tree* for displaying the claim numbers in the *Claim Numbering* data block in a list or in a claim dependency tree schematically or graphically showing the dependency of the claims. By selecting the *List* option, the claim numbers are displayed in a list in the *Claim Numbering* data block, as shown in Figure 7. By selecting the *Tree* option, the claim numbers are displayed in a dependency tree in the *Claim Numbering* data block as shown in Figure 8. A copy to clipboard option icon **34** is presented adjacent the *Claim Numbering* data block for copying the claim dependency tree to the clipboard, from which the presentation may be printed.

**[0042]** A *Collect* option is presented adjacent the *Claim Numbering* data block for arranging the order of and renumbering the claims to place each claim as close as possible to the parent claim from which it depends. As a double check, since this is such a significant reorganization of the claims, a *Collect Claims* decision

box will appear as shown in Figure 9 to affirm or reject the decision to collect and re-order the claims.

**[0043]** As shown in Figure 7, a *Claim Number* text window is presented adjacent the *Claim Numbering* data block for displaying the text of a claim number highlighted in the *Claim Numbering* data block from the list of claims presented therein. When the *Claim Numbering* data block is first displayed, there is no text in the *Claim Number* text window, but when a claim is highlighted the claim number is presented next to the text window and the text of that highlighted claim is shown in the lower text window along with the text of the parent claim in the upper text window, with the parent claim number adjacent the upper text window, as shown in Figure 7. Likewise, when a claim is highlighted by clicking on the claim number when presented in a claim tree, the text of the highlighted claim appears in the lower *Claim Number* text window and the name of the *Claim Number* text window is changed to *Claim* followed by the number of the claim number highlighted in the *Claim Numbering* data block, as shown in Figure 8. In a similar fashion, when in the claim tree mode, the *Parent Claim* text window is presented adjacent the *Claim Numbering* data block for displaying the text of the parent claim to the claim number highlighted in the *Claim Numbering* data block, as shown in Figure 8. Again, when the *Claim Numbering* data block is first displayed, there is no text in the *Parent Claim* text window. However, when the claim is highlighted, the text of the parent claim to the highlighted claim appears in the *Parent Claim* text window and the name of the *Parent Claim* text window is changed to add to the *Parent Claim* the number of the claim from which the claim number highlighted in the *Claim Numbering* data block depends, as shown in Figure 8. Although not shown, the text of an independent claim

highlighted is displayed in the *Claim Number* text window and the *Claim Numbering* data block is renamed with the claim number highlighted.

**[0044]** As shown in Figures 7 and 8, a *Change Claim Number* option is presented in the *Claim Numbering* data block. A *Change Claim Number* data line, as shown in Figure 10, is displayed in response to clicking the *Change Claim Number* option for inserting a different claim number to re-number the claim being displayed and highlighted in the *Claim Number* window. Accordingly, all of the claims are renumbered to accommodate the change in the claim number displayed in the *Claim Number* text window in response to clicking the OK in the *Change Claim Number* data line.

**[0045]** Also as shown in Figures 7 and 8, a *Change Dependency* option is presented in the *Claim Numbering* data block. A *Change Parent Claim* data line, as shown in Figure 11, is displayed in response to clicking the *Change Dependency* option for inserting a different number of the parent claim to the claim being displayed and highlighted in the *Claim Number* text window. Accordingly, all of the claims are renumbered to accommodate the change in the dependency of the claim displayed and highlighted in the *Claim Numbering* data block in response to clicking the OK in the *Change Parent Claim* data line.

**[0046]** An *Insert* option is displayed adjacent the *Claim Numbering* data block for inserting a claim dependent upon a claim number highlighted in the *Claim Numbering* data block. As a safeguard, the display of an *Insert Claims* data block is prevented unless a claim number is highlighted in the *Claim Numbering* data block. The *Insert Claims* data block shown in Figure 12 is displayed in response to clicking the *Insert* option. A *Number of Claims to Insert* data line is presented in the *Insert Claims* data block for inserting the number of claims to be inserted. An *Insert*

*Claim After Claim* data line is presented in the *Insert Claims* data block for inserting the number of the claim preceding the first claim to be inserted. A *Preamble* data block is presented in the *Insert Claims* data block for displaying and editing the preamble of the first claim to be inserted.

**[0047]** Back to the *Claim Numbering* data block, a *Remove* option is presented for removing a claim, i.e., by selecting the *Remove* option, a highlighted claim is removed. In addition, an *Add* option is presented adjacent the *Claim Numbering* data block for adding a claim by selecting the *Add* option.

**[0048]** By selecting *Format* in the *Tool* bar, a *Format Document* option block is displayed, as shown in Figure 13. The *Format Document* option block presents a plurality of options including: a *Show Paragraph Numbers* option for showing the successive numbers of successive paragraphs in brackets at the beginning of each paragraph in the application; a *Show Line Numbers* option for showing at least some of the line numbers on each page of the application, e.g., every fifth line; a *Justify* option for justifying the text on each page of the application; an *Include Line Between Claims* option for providing an extra line between claims; a *New Page For Independent Claims* option for starting each independent claim at the top of a new page in the application; a *Do Not Add Abstract Title* option to select the option of omitting the title on the Abstract page; a *Respect Current Fonts* option to select the option of preserving changes to default fonts; and a *Respect Current Tabs* option to select the option of preserving changes to default tabs. Each of these options may be individually selected by clicking on the block next to each title to place a check in the block to activate the option, which options will be implemented upon clicking OK, as is the case for all other options presented in the method.

**[0049]** By selecting *Build Description* in the *Tool* bar, a *Select Claims* data block is presented with the claims listed therein, as shown in Figure 14. However, in the event there are errors in the claims, a *Claims Error* data block like that shown in Figure 6 will first be displayed. Additionally, in the event there is already text in the description section, a *Build Text* option, as illustrated in Figure 15, will first be displayed in response to selecting *Build Description* and that text already exists in the description section and the YES and NO options to add or not add the new text in addition to the existing text. Without these preliminary indicators, or after they are cleared, the *Select Claims* data block is presented with the claims listed therein. More specifically, a claim numbers data line with the claim numbers therein is displayed in the *Select Claims* data block along with a claim text data line for presenting the text of highlighted claims therein. By highlighting at least one claim number in the claim numbers data line, the text of the highlighted claim in the claim numbers data line is presented in the claim text data line, as is illustrated in Figure 14.

**[0050]** A *Use Selected* option is presented in the *Select Claims* data block for duplicating the highlighted claims in the claim numbers data line into a description section of the application without claim numbers and without the word "said" and having paragraph numbers in brackets. In other words, when one or more claims are highlighted in the claim numbers data line, the text of those claims appears in the claim text data line and is duplicated into the description section in response to selecting the *Use Selected* option, but without claim numbers.

**[0051]** A *Use All* option is also presented in the *Select Claims* data block, for duplicating all of the claims (highlighted or not) into a description section of the application without claim numbers and without the word "said" and having paragraph numbers in brackets. In other words, the text of all of the claims in the

claim numbers data line is duplicated into the description section in response to selecting the *Use All* option, but without claim numbers.

[0052] After the selected claims are duplicated into the description section, the *Format Now* block is again displayed with the YES and NO options for formatting the document. The entire document will be formatted in response to selecting the YES option.

[0053] As the description section is edited by placing the claims in proper grammar and rearranging the order of the substance of the claims for an effective and orderly presentation, which are matters of preference for the individual users of the method, an element name may be highlighted as it appears in the description section. Once an element is highlighted, the *Mark Element* may be selected in the *Tool* bar to display an *Add Element* data block with the high-lighted element name presented, as illustrated in Figure 16. The *Add Element* data block presents the options of *Edit After Creation* and *Create Element Combination*. By selecting the *Edit After Creation*, an *Element* data block (Figure 17) is displayed to present the element name and synonyms of the element name and an *Add* option for adding synonyms and an *Edit* option for editing synonyms and a *Remove* option for removing a synonym and a *Lock Element Numeral* option to lock the reference numeral (or other symbol) to be assigned to the element name to prevent that assigned reference numeral from being changed and an *Override Symbol* data line for inserting a special reference symbol for the element name and an *Element Combinations* option. Selecting the *Add* option displays an *Add Synonym* data block for entering additional synonyms for the displayed element name and reference numeral, as illustrated in Figure 18. Adding the text of the synonym in the data line of *Add Synonym* data block will cause each occurrence of that synonym to be numbered with

the same reference numeral assigned to the element name initially marked. Selecting the *Edit* option displays an *Edit Synonym* data block, just like that shown in Figure 18 but labeled *Edit Synonym* for editing the synonyms for the displayed element name. The method therefore proceeds by assigning the reference numerals assigned to the element name to all occurrences of that element name and all synonyms added and edited.

**[0054]** By selecting *Element Combinations* in the *Tool* bar, a first *Element Combinations* data block is displayed, as illustrated in Figure 19. The first *Element Combinations* data block presents an *Inferred Combinations* data line to display a selected element name in the plural without an adjective and all reference numerals used with that selected element name, whether or not differentiated by adjectives, i.e., the root element name. The first *Element Combinations* data block also presents a *Disabled Combinations* option to disable the assignment of any reference numerals to the selected element name in the *Inferred Combinations* data line so that no reference numeral is assigned to the selected element name when used alone without an adjective and presenting the option to re-enable the assignment of any reference numerals to the selected element name. The first *Element Combinations* data block further presents a *User Defined Combinations* data line to add the selected element name and a new adjective to be numbered with the reference numerals of certain adjectives used with the selected element name, i.e., the *User Defined Combinations* data line allows selected combinations to be jointly numbered. In addition, a combinations icon **36** for changing the order of the reference numerals and the element names in the data lines in the first *Element Combinations* data block. By clicking on the combinations icon **36** the reference numerals alternately appear first in

each data line in the first *Element Combinations* data block, or the element name appears first as illustrated in Figure 19.

**[0055]** By selecting *Element Combinations* in any of the *Element* data blocks, a second *Element Combination* data block as illustrated in Figure 20 is displayed and presents a data line for entering a new element for adding an element to be combined with or use the same reference numeral as the numbered element selected, which will then appear under *User Defined Combinations* as shown in Figure 19. By clicking on an element name and on *Add*, the new element typed in the above data line will then be assigned the same reference numeral.

**[0056]** At any time during or as many times as desired in the editing of the description, *Number Patent* may be selected in the *Tool* bar. So long as each root element name and its identifying adjective are highlighted together as one element and *Mark Element* is selected, a different reference numeral will be assigned and displayed in the text with each such root element name distinguished by its different adjective. In other words, a different reference numeral will be assigned to describe different elements in response to high-lighting each root element name plus the different adjective for each different adjectively distinguished element in response to selecting *Number Patent* in the *Tool* bar. Each element name highlighted in combination with a different adjective will receive a different reference numeral. Also in response to selecting *Number Patent* in the *Tool* bar, all of the different reference numerals assigned to the root element name differentiated by different adjectives will be assigned and displayed in the text in each instance of the root element name being used without a differentiating adjective. Said another way, each occurrence of a root element name appearing in the text will be assigned all of the reference numerals assigned to that root element name with or regardless of the distinguishing adjectives,

or in the *User Defined Combinations*. The most basic response to selecting *Number Patent* in the *Tool* bar is the displaying of the reference numerals assigned to each element name to all occurrences of that element name and all synonyms added and edited.

**[0057]** By selecting *Element List* in the *Tool* bar, an *Element List* data block is displayed and presents a list of the element names and the assigned reference numerals along with options to *Add* and *Remove* and *Edit*. A *Sort* option **38** allows the presented element names to alternately appear alphabetically or in order of reference numeral by successively clicking on the *Sort* option **38**. As illustrated, the element names appear in the numerical order of the reference numerals but by clicking on the *Sort* option **38**, the element names would appear to the left and in alphabetical order followed by the respective reference numerals. Accordingly, successively selecting the *Sort* option **38** on the *Element List* data block sorts the element names on the list alternately in order of reference numeral or alphabetically by element name.

**[0058]** The selection of the *Add* option on the *Element List* data block presents the *Add Element* data block, which is shown in Figure 16, for adding an element. The *Element* data block of Figure 17 is displayed in response to adding an element in the *Add Element* data block and in response to highlighting an element name in the *Element List* and selecting the *Edit* option on the *Element List* data block. By highlighting an element name in the *Element List* and selecting the *Remove* option on the *Element List* data block, the highlighted element name is removed from the *Element List*, thereby freeing its assigned reference numeral for re-use.

**[0059]** In response to selecting the *Number Patent* option in the *Tool* bar, a *Number Patent* option block, as illustrated in Figure 22, is displayed and presents the headings of *Detailed Description* and *Abstract* and *Claims*.

**[0060]** A *Show Numbers* option is presented under each of the headings of *Detailed Description* and *Abstract* and *Claims* on the *Number Patent* option block for selecting to show reference numerals in each section. By selecting the *Show Numbers* option under the *Detailed Description* heading, the element numerals will be inserted with each occurrence of the element name in the Detailed Description section of the application. By selecting the *Show Numbers* option under the *Abstract* heading, the element numerals will be inserted with each occurrence of the element name in the Abstract section of the application. By selecting the *Show Numbers* option under the *Claims* heading, the element numerals will be inserted with each occurrence of the element name in the Claims section of the application.

**[0061]** A *Bold Face* option is presented under each of the headings of *Detailed Description* and *Abstract* and *Claims* on the *Number Patent* option block for selecting to show bold reference numerals in each of these sections. By selecting the *Bold Face* option under the *Detailed Description* heading, the element numerals in a bold font will be inserted with each occurrence of the element name in the description section of the application. By selecting the *Bold Face* option under the *Abstract* heading, the element numerals in a bold font will be inserted with each occurrence of the element name in the Abstract section of the application. By selecting the *Bold Face* option under the *Claims* heading, the element numerals in a bold font will be inserted with each occurrence of the element name in the Claims section of the application.

**[0062]** An *Include Parenthesis* option is presented under each of the headings of *Detailed Description* and *Abstract* and *Claims* on the *Number Patent* option block for selecting to show reference numerals in parenthesis in these sections of the application. By selecting the *Include Parenthesis* option under the *Detailed*

*Description* heading, the element numerals between parentheses will be inserted in each occurrence of the element name in the Detailed Description section of the application. By selecting the *Include Parenthesis* option under the *Abstract* heading, the element numerals between parentheses will be inserted in each occurrence of the element name in the Abstract section of the application. By selecting the *Include Parenthesis* option under the *Claims* heading, the element numerals between parentheses will be inserted in each occurrence of the element name in the Claims section of the application.

**[0063]** The *Number Patent* option block also presents a *Build Element List* option for electing to generate an element list, i.e., the element list is generated in response to selecting or clicking on the *Build Element List* option. The *Number Patent* option block further presents a *Report Element Problems* option for electing to generate an *Element Report* data block as illustrated in Figure 23 in response to inconsistencies in the element list. The *Element Report* data block will indicate that there are no problems or that there are problems, e.g., that an element recited in the description section is not recited in the claims, as would be illustrated in Figure 23.

**[0064]** A *Reorder Numbers* option is presented on the *Number Patent* option block for electing to assign reference numerals to elements in the order of being first recited in the description section of the application so that the elements are numbered in order of first recitation in the description section of the application each time *Number Patent* is selected in the *Tool* bar. By selecting the *Reorder Numbers* option, the reference numerals will be re-assigned with the insertion or interleaving of an element in the description section so that the reference numerals are introduced in order of the element being first recited in the description.

**[0065]** A *Starting Number* data line is presented on the *Number Patent* option block for selecting the lowest reference numeral to be used in numbering the elements in the application and presenting a default starting reference numeral. The default reference numeral is twenty, the purpose of which is to keep the starting reference numeral higher than the highest Figure number. In the case of this document, the number of Figures did not exceed thirty, so to avoid overlapping numbers being used for both Figure numbers and reference numerals, the reference numeral thirty was been inserted into the *Starting Number* data line, as illustrated in Figure 22. In other words, the default reference numeral of twenty in the *Starting Number* data line on the *Number Patent* option block was replaced with the lowest reference numeral thirty to be used in numbering the elements in the application. It is preferable to start the reference numerals at the next numeral ending in a zero, e.g., twenty, thirty, forty, etc.

**[0066]** An *Increment* data line is presented on the *Number Patent* option block for selecting the number of numerals to be omitted between reference numerals to be used in numbering the elements in the application. By inserting the number of numerals to be omitted between reference numerals in the *Increment* data line, the reference numerals with element names and synonyms will be assigned in the order of being first recited in the description section of the application and starting with the lowest reference numeral in the *Starting Number* data line but separated by the number of numerals to be omitted in the *Increment* data line. The default integer in the *Increment* data line is two as illustrated, but could be one or any other separating number. It has been traditional to separate the reference numerals by an integer of two so that elements could be inserted or interleaved in the description and given an odd numeral between the element reference numerals first recited before and

after the new element. Even though the instant method facilitates the use of consecutive reference numerals, it remains good practice to use only odd or even reference numerals in the preparation so that an intermediate or interleaving reference numeral could be added after the application has filed in a patent office and the reference numerals can not be rearranged, i.e., re-assigned to element names.

**[0067]** An OK option is presented on the *Number Patent* option block. Accordingly, the reference numerals are displayed with element names and synonyms in the text of the application in response to selecting the *Number Patent* option in the *Tool* bar and/or selecting OK in anyone of the *Number Patent* option block and the *Add Element* and *Edit After Creation* and *Create Element Combination* data blocks.

**[0068]** By selecting *Protect* in the *Tool* bar, a *Protect Numbers* data block is displayed for presenting a *Protect Selected Text Numbers* option and an *Auto-Protect* option, as illustrated in Figure 24. Before selecting *Protect* in the *Tool* bar, a word and/or associated number (not a reference numeral) is highlighted in the text to be protected against change. When the *Protect Numbers* data block appears, the *Protect Selected Text Numbers* option is then selected to add the numbers to be protected and assigning a sequential digit in the *Protect Numbers* data block. For example, if a ratio of 5 to 2 is recited in the text, the "ratio of 5 to 2" would be highlighted and the *Protect Selected Text Numbers* option clicked upon to prevent "ratio of 5 to 2' from being changed during any numbering step. The same could be applied to the subparagraph numbers used in distinguishing subparagraphs of the claims.

**[0069]** By selecting the *Auto-Protect* option, an *AutoProtect Numbers* data block is displayed (Figure 25) to present a *This Document* heading and an *All Documents* heading with a before data line and an after data line associated with each

heading and presenting an *Add* option and a *Remove* option adjacent each before and after data line and an OK option. An *AutoProtect* data line (Figure 26) is presented for inserting a word so that all numbers before the word will be automatically protected from change during patent numbering routines in response to clicking the *Add* option associated with either of the before data lines of either of the *Document* headings, i.e., inserting a word in the *AutoProtect* data line will protect numbers before every occurrence the word. Similarly, an *AutoProtect* data line (Figure 27) is presented for inserting a word so that all numbers after the word will be automatically protected from change during patent numbering routines in response to clicking the *Add* option associated with either of the after data lines of either of the *Document* headings, i.e., inserting a word in the *AutoProtect* data line will protect all numbers after every occurrence of the word. Accordingly, all numbers before and after the words inserted in anyone of the *AutoProtect* data lines are protected against change during patent numbering routines in response to selecting the OK option presented by the *AutoProtect Numbers* data block. However, word may be removed from a data line in response to highlighting the word and clicking on the *Remove* option associated with anyone of the data lines of the *Document* headings in the *AutoProtect Numbers* data block. The data lines in the *AutoProtect Numbers* data block under all documents can be used to insert words having numbers associated therewith in any document with which the method issued that will always be protected. For example, the patent numbers associated with the word patent or patent number would always be protected. Other words frequently having numbers associated therewith are inches and degrees.

**[0070]** By selecting the *Build Intro Sections* option in the *Tool* bar, the *Select Claims* data block is displayed to present a claim to be used as an intro claim in building the introductory sections of the application. In response to executing the

*Select Claims* data block, the characterized by portion of the intro claim is duplicated into a Summary of Invention section of the application without a claim number and without the word "said" and without reference numerals. At the same or in the same step, that portion of the intro claim preceding the characterized by clause is duplicated into a Background section of the application without the claim number and without the word "said" and without reference numerals. Further in the same step, the preamble of the intro claim is duplicated into a Technical Field section of the application without a claim number and without the word "said" and without reference numerals. In other words, the claim selected for the intro sections is divided and placed in the respective appropriate headings in the introductory section of the application. In addition, a default cross reference heading to another application is displayed as the first heading in the application in response to executing the *Select Claims* data block. which will be filled in with serial number and filing date of the related application or will be deleted in the editing as the introductory sections of the application are edited. If there is already text in any of the sections, under any of the headings, a *Build Text* option like that illustrated in Figure 15 will be displayed.

**[0071]** In a similar fashion, an Abstract page is displayed in response to selecting the *Build Abstract* option in the *Tool* bar. The suggested heading for the Abstract page is "ABSTRACT OF THE DISCLOSURE" as the Abstract should not be in claim language or merely a recitation of the broad claim but should convey to one familiar with the art an understanding or an insight into that which is novel in the disclosure. The Abstract page can be filled in by selecting sentences from the description section. And, as alluded to above, the reference numerals may or may not be included depending upon the selection made in the *Number Patent* option block of Figure 22. By selecting the *Count Abstract* option in the *Tool* bar, the number of

words in the Abstract are counted and the number of words absent reference numerals in the Abstract section are presented in a *Word Count* data block as illustrated in Figure 28.

**[0072]** The paragraph numbers in brackets are automatically changed or kept in order in response to adding a paragraph to the application.

**[0073]** Obviously, many modifications and variations of the present invention are possible in light of the above teachings. It is to be understood that the headings and nomenclature used herein is used in an equivalent manner to set forth a step and is meant to cover equivalents of the action performed in the step. For example, *Number Patent* should be interpreted to cover the active step of assigning reference numerals to the elements marked to be numbered in the document in the sections selected. Accordingly, the invention may be practiced otherwise than as the specific words so long as it is within the scope and equivalency of the appended claims, wherein that which is prior art is antecedent to the novelty set forth in the "characterized by" clause. The novelty is meant to be particularly and distinctly recited in the "characterized by" clause whereas the antecedent recitations merely set forth the old and well-known combination in which the invention resides. These antecedent recitations should be interpreted to cover any combination in which the incentive novelty exercises its utility. In addition, the reference numerals in the claims are merely for convenience and are not to be read in any way as limiting.

# CLAIMS

What is claimed is:

1. A method of preparing a patent application comprising the steps of;

numbering and rearranging the order of claims and duplicating claims into the specification and assigning reference numerals to elements, and characterized by

running a software macro to present a *Tool* bar in a word processing program,

presenting options in the *Tool* bar on a display screen of *Application Settings* and *Setup* and *Add Claim* and *Check Claims* and *Number Claims* and *Build Description* and *Build Intro Sections* and *Build Abstract* and *Count Abstract* and *Format* and *Mark Element* and *Element List* and *Element Combinations* and *Number Patent* and *Protect*,

(A) selecting *Application Settings* to present the options of selecting *Automatic Save Document* and *Automatic Backup Document* prior to starting task,

(B) selecting the *Setup* option in the *Tool* bar to display a *Patent Setup* data block,

(B.1) presenting a *Title* data line in the *Patent Setup* data block,

(B.2) inserting the title of the invention in the *Title* data line of the *Patent Setup* data block,

(B.3) presenting a *Owner Number* file number data line in the *Patent Setup* data block,

(B.4) inserting a file number used by the patent owner in *Owner Number* file number data line of the *Patent Setup* data block,

(B.5) presenting an *Attorney Number* file number data line in the *Patent Setup* data block,

(B.6) inserting a file number used by the patent preparer in *Attorney Number* file number data line of the *Patent Setup* data block,

(B.7) presenting a *Place in Header* option for placing the *Owner Number* file number in the header or the footer line in the *Patent Setup* data block,

(B.8) presenting a Suppress Default Captions option in the *Patent Setup* data block for deleting the default captions of *Owner Number* and *Attorney Number* with the respective file numbers in the footer and header of the document,

(B.9) displaying an *Heading Options* **(32)** in the *Patent Setup* data block,

(B.9.1) selecting the *Heading Options* **(32)** in the *Patent Setup* data block to present a *Patent Headings* data block with a plurality of heading data lines,

(B.9.2) displaying a name adjacent each heading data line including *Related* and *Background* and *Field* and *Prior Art* and *Summary* and *Drawings* and *Description* and *Claims* and *Abstract* and *Classification* and *Element List*,

(B.9.3) displaying a default heading in each heading data line,

(B.9.4) editing the default heading in the respective heading data lines for insertion into the application,

(C) selecting *Add Claim* in the *Tool* bar to add the next numbered claim with the preamble of the previous claim,

(D) selecting *Check Claims* in the *Tool* bar to check the claims for a characterized by clause,

(E) selecting *Number Claims* in the *Tool* bar to present a *Claim Numbering* data block with the claim numbers therein,

(E.1) presenting adjacent the *Claim Numbering* data block the options of *List* and *Tree* for displaying the claim numbers in the *Claim Numbering* data block in a list or in a claim dependency tree schematically showing the dependency of the claims,

(E.2) selecting the *List* option to display the claim numbers in a list in the *Claim Numbering* data block,

(E.3) selecting the *Tree* option to display the claim numbers in a dependency tree in the *Claim Numbering* data block,

(E.4) presenting a *Collect* option adjacent the *Claim Numbering* data block for arranging the order of and renumbering the claims to place each claim as close as possible to the parent claim from which it depends,

(E.5) selecting the *Collect* option to arrange the order of and renumbering the claims to place each claim as close as possible to the parent claim,

(E.6) presenting a copy to clipboard option icon **(34)** adjacent the *Claim Numbering* data block for copying the claim dependency tree and the claim list to the clipboard,

(E.7) selecting the copy to clipboard option icon **(34)** adjacent the *Claim Numbering* data block to copy the claim dependency tree and the claim list to the clipboard,

(E.8) presenting a *Claim Number* text window adjacent the *Claim Numbering* data block for displaying the text of a claim number highlighted in the *Claim Numbering* data block,

(E.9) highlighting a claim number in the *Claim Numbering* data block to present the text of the highlighted claim in the *Claim Number* text window and

changing the name of the *Claim Number* text window to *Claim* followed by the number o f the claim number highlighted in the *Claim Numbering* data block,

(E.10) presenting a *Parent Claim* text window adjacent the *Claim Numbering* data block,

(E.11) displaying the text of the parent claim to the claim number highlighted in the *Claim Numbering* data block in the *Parent Claim* text window and changing the name of the *Parent Claim* text window to *Parent Claim* followed by the number of the claim from which the claim number highlighted in the *Claim Numbering* data block depends,

(E.12) highlighting an independent claim in the *Claim Numbering* data block to display the text of the independent claim in the *Claim Number* text window,

(E.13) presenting a *Change Claim Number* option in the *Claim Numbering* data block,

(E.14) presenting a *Change Claim Number* data line in response to clicking the *Change Claim Number* option for inserting a different number to re-number the claim being highlighted in the *Claim Number* window,

(E.15) changing the claim number highlighted in the *Claim Number* text window to re-number the claims,

(E.16) presenting a *Change Dependency* option in the *Claim Numbering* data block,

(E.17) presenting a *Change Parent Claim* data line in response to clicking the *Change Dependency* option for inserting a different number to change the number of the claim being highlighted in the *Claim Number* text window,

(E.18) changing the claim number highlighted in the *Claim Number* text window to change the dependency of the claim and to re-number the claims,

(E.19) displaying an *Insert* option adjacent the *Claim Numbering* data block for inserting a claim dependent upon a claim number highlighted in the *Claim Numbering* data block,

(E.20) preventing the display of an *Insert Claims* data block unless a claim number is highlighted in the *Claim Numbering* data block,

(E.21) displaying the *Insert Claims* data block in response to clicking the *Insert* option,

(E.21.1) presenting a *Number of Claims to be Inserted* data line in the *Insert Claims* data block for inserting the number of claims to be inserted,

(E.21.2) inserting the number of claims in the *Number of Claims to be Inserted* data line in the *Insert Claims* data block,

(E.21.3) displaying a *Insert Claim After Claim* data line in the *Insert Claims* data block for inserting the number of the claim preceding the first claim to be inserted,

(E.21.4) inserting the number of the claim preceding the first inserted claim in the *Insert Claim After Claim* data line in the *Insert Claims* data block,

(E.21.5) presenting a *Preamble* data block displaying the preamble of the first claim to be inserted,

(E.21.6) editing in the *Preamble* data block to insert the preamble of the first claim to be inserted,

(E.22) presenting a *Remove* option adjacent the *Claim Numbering* data block for removing a claim,

(E.23) selecting the *Remove* option and removing a claim,

(E.24) presenting an *Add* option adjacent the *Claim Numbering* data block for adding a claim,

(E.25) selecting the *Add* option and adding a claim,

(F) selecting *Format* in the *Tool* bar to display a *Format Document* option block,

(F.1) presenting a *Show Paragraph Numbers* option in the *Format Document* data block,

(F.2) selecting the *Show Paragraph Numbers* option for showing the successive numbers of successive paragraphs in brackets at the beginning of each paragraph in the application,

(F.3) presenting a *Show Line Numbers* option in the *Format Document* data block to select the option of showing at least some of the line numbers on each page of the application,

(F.4) selecting the *Show Line Numbers* option for showing at least some of the line numbers on each page of the application,

(F.5) presenting a *Justify* option in the *Format Document* data block to select the option of justifying the text on each page of the application,

(F.6) selecting the *Justify* option in the *Format Document* data block to justify the text on each page of the application,

(F.7) presenting a *Include Line Between Claims* option in the *Format Document* data block to select the option of providing an extra line between claims,

(F.8) selecting the *Include Line Between Claims* option to provide an extra line between claims,

(F.9) presenting a *New Page For Independent Claims* option in the *Format Document* data block to select the option of starting each independent claim at the top of a new page in the application,

(F.10) selecting the *New Page For Independent Claims* option to start each independent claim at the top of a new page in the application,

(F.11) presenting a *Do Not Add Abstract Title* option in the *Format Document* data block to select the option of omitting the title on the Abstract page,

(F.12) selecting the *Do Not Add Abstract Title* option in the *Format Document* data block to omit the title on the Abstract page,

(F.13) presenting a *Respect Current Fonts* option in the *Format Document* data block to select the option of preserving changes to default fonts,

(F.14) selecting the *Respect Current Fonts* option to preserve changes to default fonts,

(F.15) presenting a *Respect Current Tabs* option in the *Format Document* data block to select the option of preserving changes to default tabs,

(F.16) selecting the *Respect Current Tabs* option to preserve changes to default tabs,

(G) selecting *Build Description* in the *Tool* bar to present a *Select Claims* data block with the claims listed therein,

(G.1) presenting a *Build Text* option in response to selecting *Build Description*,

(G.2) displaying in the *Build Text* option advice that text already exists in the description section and the YES and NO options to add the new text,

(G.3) selecting the YES option,

(G.4) presenting a *Select Claims* data block in response to selecting *Build Description* and one of the *Build Text* options when *Build Text* appears,

(G.5) displaying a claim numbers data line with the claim numbers therein in the *Select Claims* data block,

(G.6) displaying a claim text data line for presenting the text of claims therein in the *Select Claims* data block,

(G.7) highlighting at least one claim number in the claim numbers data line,

(G.8) displaying the text of the highlighted claim in the claim text data line in response to highlighting the claim in the claim numbers data line,

(G.9) displaying a *Use Selected* option in the *Select Claims* data block,

(G.10) displaying a *Use All* option in the *Select Claims* data block,

(G.11) selecting the *Use Selected* option in the *Select Claims* data block,

(G.12) selecting the *Use All* option in the *Select Claims* data block,

(G.13) duplicating the highlighted claims in response to selecting the *Use Selected* option into a description section of the application without claim numbers and without the word "said" and having paragraph numbers in brackets,

(G.14) duplicating all of the claims in response to selecting the *Use All* option into a description section of the application without claim numbers and without the word "said" and having paragraph numbers in brackets,

(G.15) presenting the *Format Now* block with YES and NO options for formatting the document,

(G.16) formatting the document in response to selecting the YES option in the *Format Now* block,

(H) highlighting an element name in the description section,

(I) selecting *Mark Element* in the *Tool* bar to present an *Add Element* data block with the high-lighted element name presented,

(I.1) presenting options in the *Add Element* data block to *Edit After Creation* and to *Create Element Combination*,

(I.2) selecting *Edit After Creation* to display an *Element* data block presenting the element name and synonyms of the element name and an *Add* option for adding and an *Edit* option for editing synonyms and a *Remove* option for removing a synonym and a *Lock Element Numeral* option to lock the reference numeral to be assigned to the element name to prevent that assigned reference numeral from being changed and an *Override Symbol* data line for inserting a special reference symbol for the element name and an *Element Combinations* option,

(I.2.1) selecting the *Add* option to display an *Add Synonym* data block for entering additional synonyms for the displayed element name,

(I.2.2) assigning the reference numerals assigned to the element name to all occurrences of that element name and all synonyms added and edited,

(J) selecting *Element Combinations* in the *Tool* bar or in any of the *Element* data blocks to display an *Element Combinations* data block,

(J.1) presenting an *Inferred Combinations* data line in the *Element Combinations* data block to display a selected element name in the plural without an adjective and all reference numerals used with that selected element name differentiated by adjectives,

(J.2) presenting a *Disabled Combinations* option the in the *Element Combinations* data block to disable thc assignment of any reference numerals to the selected element name in the *Inferred Combinations* data line so that no reference numeral is assigned to the selected element name when used alone without an adjective and presenting the option to re-enable the assignment of any reference numerals to the selected element name,

(J.3) presenting a *User Defined Combinations* data line the in the *Element Combinations* data block to add the selected element name and a new adjective to be numbered with the reference numerals of certain adjectives used with the selected element name,

(K) selecting *Number Patent* in the *Tool* bar,

(K.1) displaying a different reference numeral with each root element name with a different adjective to describe different elements in response to high-lighting each root element name plus the different adjective for each different adjectively distinguished element in response to selecting *Number Patent* in the *Tool* bar,

(K.2) displaying all of the different reference numerals assigned to the root element name differentiated by different adjectives in each instance of the root element name being used without a differentiating adjective in response to selecting *Number Patent* in the *Tool* bar,

(K.3) displaying the reference numerals assigned to each element name to all occurrences of that element name and all synonyms added and edited,

(L) selecting *Element List* in the *Tool* bar to display an *Element List* data block to present a list of the element names and the assigned reference numerals along with options to *Add* and *Remove* and *Edit* and to *Sort* the presented element names alternately alphabetically or in order of reference numeral,

(L.1) selecting the *Add* option on the *Element List* data block to present the *Add Element* data block,

(L.2) adding an element in the *Add Element* data block,

(L.3) presenting the *Element* data block in response to adding an element in the *Add Element* data block and in response to highlighting an element name in the *Element List* and selecting the *Edit* option on the *Element List* data block,

(L.4) highlighting an element name in the *Element List* and selecting the *Remove* option on the *Element List* data block to remove an element name from the *Element List*,

(L.5) successively selecting the *Sort* option **(38)** on the *Element List* data block to sort the element names on the list alternately in order of reference numeral or alphabetically,

(M) presenting a *Number Patent* option block presenting the headings of *Detailed Description* and *Abstract* and *Claims* in response to selecting the *Number Patent* option in the *Tool* bar,

(M.1) presenting a *Show Numbers* option under each of the headings of *Detailed Description* and *Abstract* and *Claims* on the *Number Patent* option block for selecting to show reference numerals therein,

(M.2) inserting the element numerals with each occurrence of the element name in the description section of the application in response to selecting the *Show Numbers* option under the *Detailed Description* heading,

(M.3) inserting the element numerals with each occurrence of the element name in the Abstract section of the application in response to selecting the *Show Numbers* option under the *Abstract* heading,

(M.4) inserting the element numerals with each occurrence of the element name in the Claims section of the application in response to selecting the *Show Numbers* option under the *Claims* heading,

(M.5) presenting a *Bold Face* option under each of the headings of *Detailed Description* and *Abstract* and *Claims* on the *Number Patent* option block for selecting to show bold reference numerals therein,

(M.6) inserting the element numerals in a bold font with each occurrence of the element name in the description section of the application in response to selecting the *Bold Face* option under the *Detailed Description* heading,

(M.7) inserting the element numerals in a bold font with each occurrence of the element name in the Abstract section of the application in response to selecting the *Bold Face* option under the *Abstract* heading,

(M.8) inserting the element numerals in a bold font with each occurrence of the element name in the Claims section of the application in response to selecting the *Bold Face* option under the *Claims* heading,

(M.9) presenting a *Include Parenthesis* option under each of the headings of *Detailed Description* and *Abstract* and *Claims* on the *Number Patent* option block for selecting to show reference numerals in parenthesis therein,

(M.10) inserting the element numerals between parenthesis in each occurrence of the element name in the description section of the application in response to selecting the *Include Parenthesis* option under the *Detailed Description* heading,

(M.11) inserting the element numerals between parenthesis in each occurrence of the element name in the Abstract section of the application in response to selecting the *Include Parenthesis* option under the *Abstract* heading,

(M.12) inserting the element numerals between parenthesis in each occurrence of the element name in the Claims section of the application in response to selecting the *Include Parenthesis* option under the *Claims* heading,

(M.13) presenting a *Building Element List* option on the *Number Patent* option block for electing to generate an element list,

(M.14) generating the element list in response to selecting the *Building Element List* option,

(M.15) presenting a *Report Element Problems* option on the *Number Patent* option block for electing to generate an *Element Report* data block in response to inconsistencies in the element list,

(M.16) generating an *Element Report* data block response to inconsistencies in the element list in response to selecting the *Report Element Problems* option,

(M.17) presenting a *Reorder Numbers* option on the *Number Patent* option block for electing to assign reference numerals to elements in the order of being first recited in the description section of the application so that the elements are numbered in order of first recitation in the description section of the application,

(M.18) presenting a *Starting Number* data line on the *Number Patent* option block for selecting the lowest reference numeral to be used in numbering the elements in the application and presenting a default starting reference numeral,

(M.19) replacing the default reference numeral in the *Starting Number* data line on the *Number Patent* option block with the lowest reference numeral to be used in numbering the elements in the application,

(M.20) presenting an *Increment* data line on the *Number Patent* option block for selecting the number of numerals to be omitted between reference numerals to be used in numbering the elements in the application,

(M.21) inserting the number of numerals to be omitted between reference numerals in the *Increment* data line,

(M.22) assigning the reference numerals with element names and synonyms in the order of being first recited in the description section of the application and starting with the lowest reference numeral in the *Starting Number* data line and separated by the number of numerals to be omitted in the *Increment* data line,

(M.23) presenting an OK option on the *Number Patent* option block,

(N) displaying the reference numerals with element names and synonyms in the application in response to selecting the *Number Patent* option in the *Tool* bar and/or selecting OK in anyone of the *Number Patent* option block and the *Add Element* and *Edit After Creation* and *Create Element Combination* data blocks,

(O) selecting *Protect* in the *Tool* bar to display a *Protect Numbers* data block presenting a *Protect Selected Text Numbers* option and an *Auto-Protect* option,

(O.1) highlighting a number in the application to be protected against change,

(O.2) selecting the *Protect Selected Text Numbers* option to add the numbers to be protected and assigning a sequential digit in the *Protect Numbers* data block,

(O.3) selecting the *Auto-Protect* option to present an *AutoProtect Numbers* data block presenting a *This Document* heading and an *All Document* heading with a before data line and an after data line associated with each heading and presenting an *Add* option and a *Remove* option adjacent each before and after data line and an OK option,

(O.3.1) presenting an *AutoProtect* data line for inserting a word so that all numbers before the word will be automatically protected from change during patent numbering routines in response to clicking the *Add* option associated with either of the before data lines of either of the *Document* headings,

(O.3.2) inserting a word in the *AutoProtect* data line to protect numbers before the word,

(O.3.3) presenting an *AutoProtect* data line for inserting a word so that all numbers after the word will be automatically protected from change during patent numbering routines in response to clicking the *Add* option associated with either of the after data lines of either of the *Document* headings,

(O.3.4) inserting a word in the *AutoProtect* data line to protect all numbers after the word,

(O.3.5) protecting against change all numbers before and after the words inserted in anyone of the *AutoProtect* data lines during patent numbering routines in response to selecting the OK option presented by the *AutoProtect Numbers* data block,

(O.3.6) removing a word from a data line in response to highlighting the word and clicking on the *Remove* option associated with anyone of the data lines of the *Document* headings in the *AutoProtect Numbers* data block,

(P) selecting the *Build Intro Sections* option in the *Tool* bar,

(P.1) presenting the *Select Claims* data block in response to selecting *Build Intro Sections* option in the *Tool* bar to present a claim to be used as an intro claim in building the introductory sections of the application,

(P.2) duplicating the characterized by portion of the intro claim into a Summary of Invention section of the application without a claim number and without the word "said" and without reference numerals in response to executing the *Select Claims* data block,

(P.3) duplicating that portion of the intro claim preceding the characterized by clause into a Background section of the application without the claim

number and without the word "said" and without reference numerals in response to executing the *Select Claims* data block,

(P.4) duplicating the preamble of the intro claim into a Technical Field section of the application without a claim number and without the word "said" and without reference numerals in response to executing the *Select Claims* data block,

(P.5) displaying a cross reference heading to another application as the first heading in the application in response to executing the *Select Claims* data block,

(P.6) editing the introductory sections of the application,

(Q) creating an Abstract page in response to selecting the *Build Abstract* option in the *Tool* bar,

(R) automatically changing the paragraph numbers in brackets in response to adding a paragraph to the application,

(S) selecting the *Count Abstract* option in the *Tool* bar, and

(T) counting and presenting the number of words absent reference numerals in the Abstract section in response to selecting the *Count Abstract* option.

2. A method of preparing a patent application comprising the steps of;

numbering and rearranging the order of claims and duplicating claims into the specification and assigning reference numerals to elements, and characterized by

running a software macro to present a *Tool* bar in a word processing program, and

presenting options in the *Tool* bar on a display screen of *Setup* and *Number Claims* and *Build Description* and *Build Intro Sections* and *Build Abstract*

and *Count Abstract* and *Format* and *Mark Element* and *Element List* and *Number Patent.*

3. A method of preparing a patent application as set forth in claim 2 including selecting the *Setup* option in the *Tool* bar to display a *Patent Setup* data block, presenting a *Title* data line in the *Patent Setup* data block for inserting the title of the invention, and presenting a file number data line in the *Patent Setup* data block for inserting a file number.

4. A method of preparing a patent application as set forth in claim 3 including presenting an option of placing the file number in the header or the footer line in the *Patent Setup* data block.

5. A method of preparing a patent application as set forth in claim 3 including displaying a heading *Options* in the *Patent Setup* data block to present a *Patent Headings* data block with a plurality of heading data lines with a heading name adjacent each heading data line.

6. A method of preparing a patent application as set forth in claim 5 including displaying heading names adjacent the heading data lines including *Related* and *Background* and *Field* and *Prior Art* and *Summary* and *Drawings* and *Description* and *Claims* and *Abstract* and *Classification* and *Element List.*

7. A method of preparing a patent application as set forth in claim 6 including displaying default headings in each heading data line for editing and insertion into the application.

8. A method of preparing a patent application as set forth in claim 2 including selecting *Number Claims* in the *Tool* bar to present a *Claim Numbering* data block with the claim numbers therein and the options of *List* and *Tree* for displaying the claim numbers in the *Claim Numbering* data block in a list or in a claim dependency tree schematically showing the dependency of the claims.

9. A method of preparing a patent application as set forth in claim 2 including selecting *Number Claims* in the *Tool* bar to present a *Claim Numbering* data block with the claim numbers therein and presenting a *Collect* option adjacent the *Claim Numbering* data block for arranging the order of and renumbering the claims to place each claim as close as possible to the parent claim from which it depends.

10. A method of preparing a patent application as set forth in claim 2 including selecting *Number Claims* in the *Tool* bar to present a *Claim Numbering* data block and a *Claim Number* text window adjacent the *Claim Numbering* data block for displaying the text of a claim number highlighted in the *Claim Numbering* data block.

11. A method of preparing a patent application as set forth in claim 10 including highlighting a claim number in the *Claim Numbering* data block to present the text of the highlighted claim in the *Claim Number* text window and changing the

name of the *Claim Number* text window to *Claim* followed by the number of the claim number highlighted in the *Claim Numbering* data block.

12. A method of preparing a patent application as set forth in claim 10 including presenting a *Parent Claim* text window adjacent the *Claim Numbering* data block for displaying the text of the parent claim to the claim number highlighted in the *Claim Numbering* data block in the *Parent Claim* text window and changing the name of the *Parent Claim* text window to *Parent Claim* followed by the number of the claim from which the claim number highlighted in the *Claim Numbering* data block depends.

13. A method of preparing a patent application as set forth in claim 10 including highlighting an independent claim in the *Claim Numbering* data block to display the text of the independent claim in the *Claim Number* text window.

14. A method of preparing a patent application as set forth in claim 10 including presenting a *Change Claim Number* option in the *Claim Numbering* data block, presenting a *Change Claim Number* data line in response to clicking the *Change Claim Number* option for inserting a different number to re-number the claim being displayed in the *Claim Number* window.

15. A method of preparing a patent application as set forth in claim 10 including presenting a *Change Dependency* option in the *Claim Numbering* data block, presenting a *Change Parent Claim data line* in response to clicking the *Change*

*Dependency* option for inserting a different number to change the number of the claim being displayed in the *Claim Number* text window and to re-number the claims.

16. A method of preparing a patent application as set forth in claim 10 including displaying an *Insert* option adjacent the *Claim Numbering* data block for inserting a claim dependent upon a claim number highlighted in the *Claim Numbering* data block.

17. A method of preparing a patent application as set forth in claim 2 including selecting *Format* in the *Tool* bar to display a *Format Document* option block presenting a *Show Paragraph Numbers* option for showing the successive numbers of successive paragraphs in brackets at the beginning of each paragraph in the application.

18. A method of preparing a patent application as set forth in claim 2 including selecting *Format* in the *Tool* bar to display a *Format Document* option block presenting a *Show Line Numbers* option in the *Format Document* data block to select the option of showing at least some of the line numbers on each page of the application.

19. A method of preparing a patent application as set forth in claim 2 including selecting *Build Description* in the *Tool* bar to present a *Select Claims* data block with the claim numbers listed therein.

20. A method of preparing a patent application as set forth in claim 19 including displaying a claim text data line for presenting the text of claims therein in the *Select Claims* data block for displaying the text of the highlighted claim in the claim text data line in response to highlighting the claim in the claim numbers data line.

21. A method of preparing a patent application as set forth in claim 20 including displaying a *Use Selected* option in the *Select Claims* data block for duplicating the highlighted claims in response to selecting the *Use Selected* option into a description section of the application without claim numbers and without the word "said" and having paragraph numbers in brackets.

22. A method of preparing a patent application as set forth in claim 2 including highlighting an element name in the description section, selecting *Mark Element* in the *Tool* bar to present an *Add Element* data block with the high-lighted element name presented.

23. A method of preparing a patent application as set forth in claim 22 including presenting options in the *Add Element* data block to *Edit After Creation* and to create *Element Combinations*.

24. A method of preparing a patent application as set forth in claim 23 including selecting *Edit After Creation* to display an *Element* data block presenting the element name and synonyms of the element name and an *Add* option for adding

and an *Edit* option for editing synonyms and a *Remove* option for removing a synonym.

25. A method of preparing a patent application as set forth in claim 24 including selecting the *Add* option to display an *Add Synonym* data block for entering additional synonyms for the displayed element name.

26. A method of preparing a patent application as set forth in claim 25 including assigning the reference numerals assigned to the element name to all occurrences of that element name and all synonyms added and edited.

27. A method of preparing a patent application as set forth in claim 2 including presenting the option in the *Tool* bar on a display screen of selecting *Element Combinations* to display an *Element Combinations* data block, presenting an *Inferred Combinations* data line in the *Element Combinations* data block to display a selected element name in the plural without an adjective and all reference numerals used with that selected element name differentiated by adjectives.

28. A method of preparing a patent application as set forth in claim 27 including presenting a *User Defined Combinations* data line the in the *Element Combinations* data block to add the selected element name and a new adjective to be numbered with the reference numerals of certain adjectives used with the selected element name.

29. A method of preparing a patent application as set forth in claim 2 including selecting *Number Patent* in the *Tool* bar for displaying a different reference numeral with each root element name with a different adjective to describe different elements in response to high-lighting each root element name plus the different adjective for each different adjectively distinguished element in response to selecting *Number Patent* in the *Tool* bar and displaying all of the different reference numerals assigned to the root element name differentiated by different adjectives in each instance of the root element name being used without a differentiating adjective.

30. A method of preparing a patent application as set forth in claim 2 including highlighting an element name in the description section, selecting *Mark Element* in the *Tool* bar to assign a reference numeral to the high-lighted element name presented.

31. A method of preparing a patent application as set forth in claim 30 including selecting *Number Patent* in the *Tool* bar for displaying the reference numerals assigned to each element name to all occurrences of that element name in the description section of the application.

32. A method of preparing a patent application as set forth in claim 2 including selecting *Element List* in the *Tool* bar to display an *Element List* data block to present a list of the element names and the assigned reference numerals.

33. A method of preparing a patent application as set forth in claim 32 including presenting in the *Element List* data block the options to *Add* and *Remove*

and *Edit* and to *Sort* the presented element names alternately alphabetically or in order of reference numeral.

34. A method of preparing a patent application as set forth in claim 33 including successively selecting the *Sort* option **(38)** on the *Element List* data block to sort the element names on the list alternately in order of reference numeral or alphabetically.

35. A method of preparing a patent application as set forth in claim 2 including selecting *Number Patent* in the *Tool* bar for presenting a *Number Patent* option block presenting the headings of *Detailed Description* and *Abstract* and *Claims* in response to selecting the *Number Patent* option in the *Tool* bar.

36. A method of preparing a patent application as set forth in claim 35 including presenting a *Show Numbers* option under each of the headings of *Detailed Description* and *Abstract* and *Claims* on the *Number Patent* option block for inserting the element numerals with each occurrence of the element name in the selected respective sections of the application.

37. A method of preparing a patent application as set forth in claim 36 including presenting a *Bold Face* option under each of the headings of *Detailed Description* and *Abstract* and *Claims* on the *Number Patent* option block for selecting to show bold reference numerals in the selected respective sections of the application.

38. A method of preparing a patent application as set forth in claim 36 including presenting a *Include Parenthesis* option under each of the headings of *Detailed Description* and *Abstract* and *Claims* on the *Number Patent* option block for selecting to show reference numerals in parenthesis numerals in the selected respective sections of the application.

39. A method of preparing a patent application as set forth in claim 35 including presenting a *Reorder Numbers* option on the *Number Patent* option block for electing to assign reference numerals to elements in the order of being first recited in the description section of the application so that the elements are numbered in order of first recitation in the description section of the application.

40. A method of preparing a patent application as set forth in claim 35 including presenting a *Starting Number* data line on the *Number Patent* option block for selecting the lowest reference numeral to be used in numbering the elements in the application and presenting a default starting reference numeral.

41. A method of preparing a patent application as set forth in claim 40 including presenting an *Increment* data line on the *Number Patent* option block for selecting the number of numerals to be omitted between reference numerals to be used in numbering the elements in the application.

42. A method of preparing a patent application as set forth in claim 40 including assigning the reference numerals with element names in the order of being

first recited in the description section of the application and starting with the lowest reference numeral in the *Starting Number* data line.

43. A method of preparing a patent application as set forth in claim 2 including selecting the *Build Intro Sections* option in the *Tool* bar, presenting the *Select Claims* data block in response to selecting *Build Intro Sections* option in the *Tool* bar to present a claim to be used as an intro claim in building the introductory sections of the application.

44. A method of preparing a patent application as set forth in claim 43 including duplicating the characterized by portion of the intro claim into a Summary of Invention section of the application without a claim number and without the word "said" and without reference numerals in response to executing the *Select Claims* data block.

45. A method of preparing a patent application as set forth in claim 43 including duplicating that portion of the intro claim preceding the characterized by clause into a Background section of the application without the claim number and without the word "said" and without reference numerals in response to executing the *Select Claims* data block.

46. A method of preparing a patent application as set forth in claim 43 including duplicating the preamble of the intro claim into a Technical Field section of the application without a claim number and without the word "said" and without reference numerals in response to executing the *Select Claims* data block.

47. A method of preparing a patent application as set forth in claim 43 including displaying a cross reference heading to another application as the first heading in the application in response to executing the *Select Claims* data block.

48. A method of preparing a patent application as set forth in claim 2 including creating an Abstract page in response to selecting the *Build Abstract* option in the *Tool* bar.

49. A method of preparing a patent application as set forth in claim 2 including automatically adding and changing the paragraph numbers in brackets in response to adding a paragraph to the application.

50. A method of preparing a patent application as set forth in claim 2 including counting and displaying the number of words absent reference numerals in the Abstract section in response to selecting the *Count Abstract* option in the *Tool* bar.

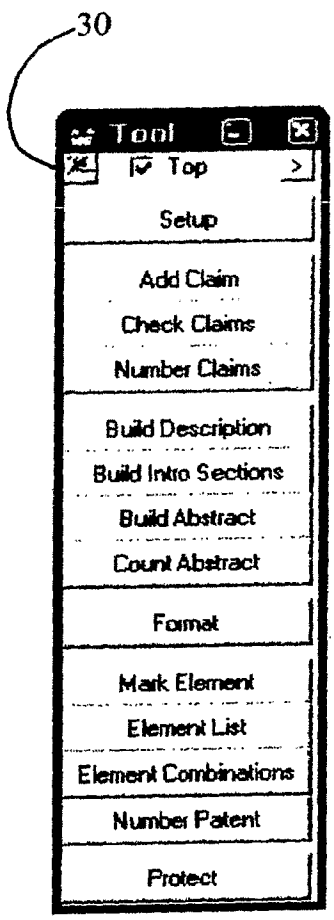



Fig. 1

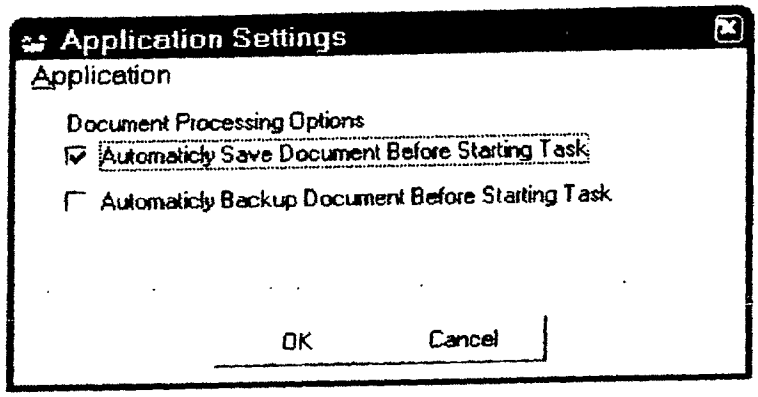
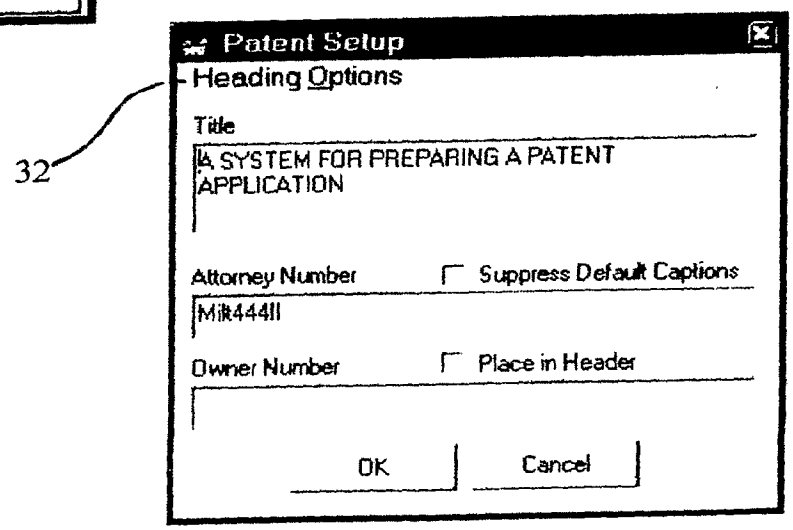



Fig. 2

Fig. 3



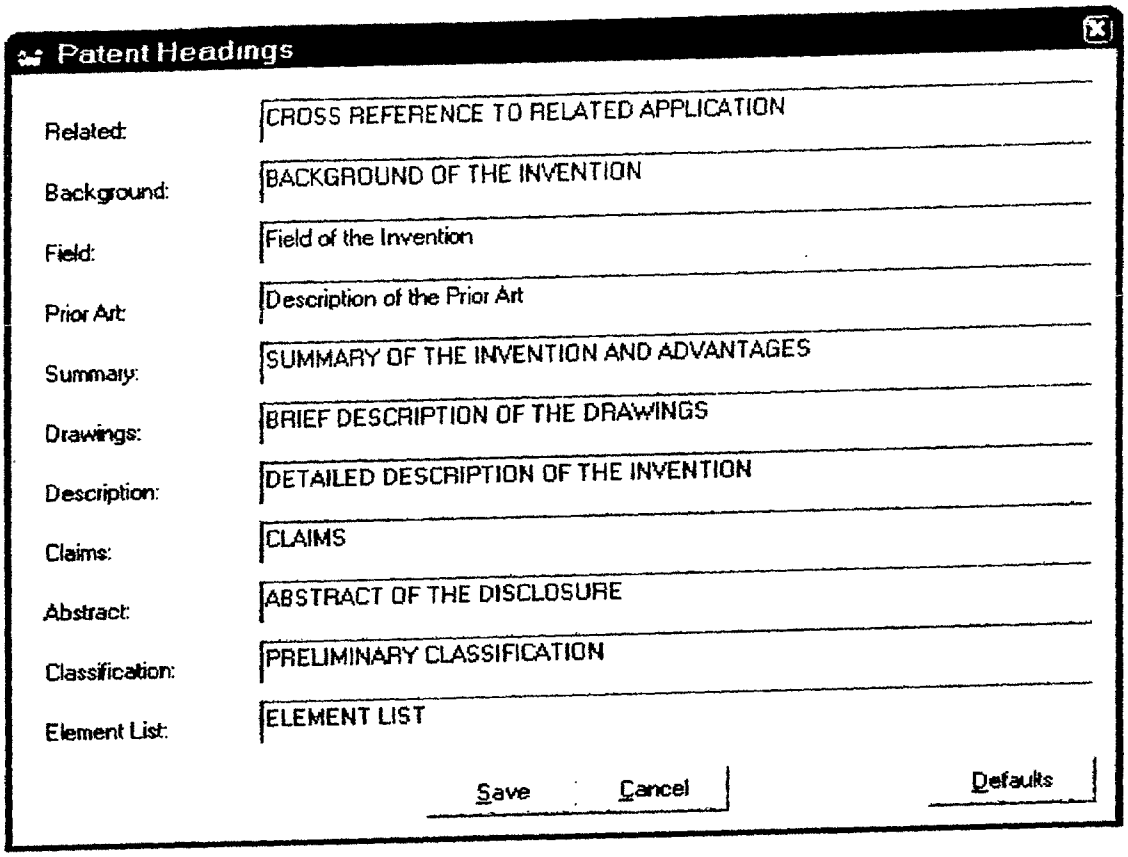



**Fig. 4**

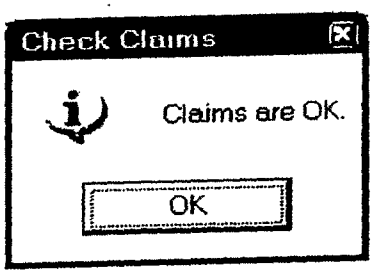



**Fig. 5**

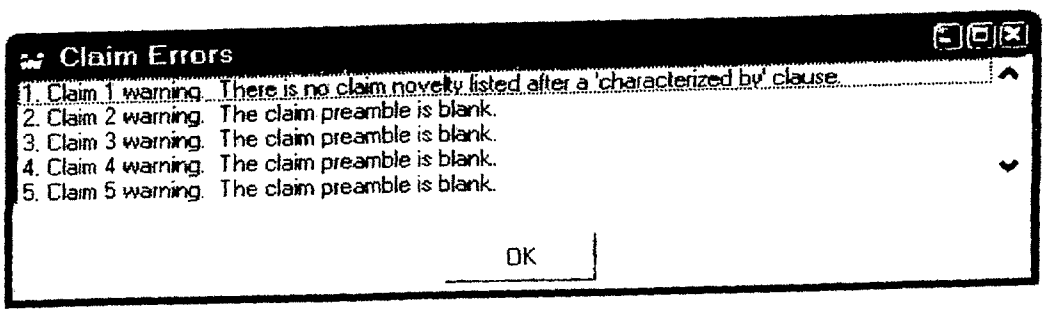



**Fig. 6**

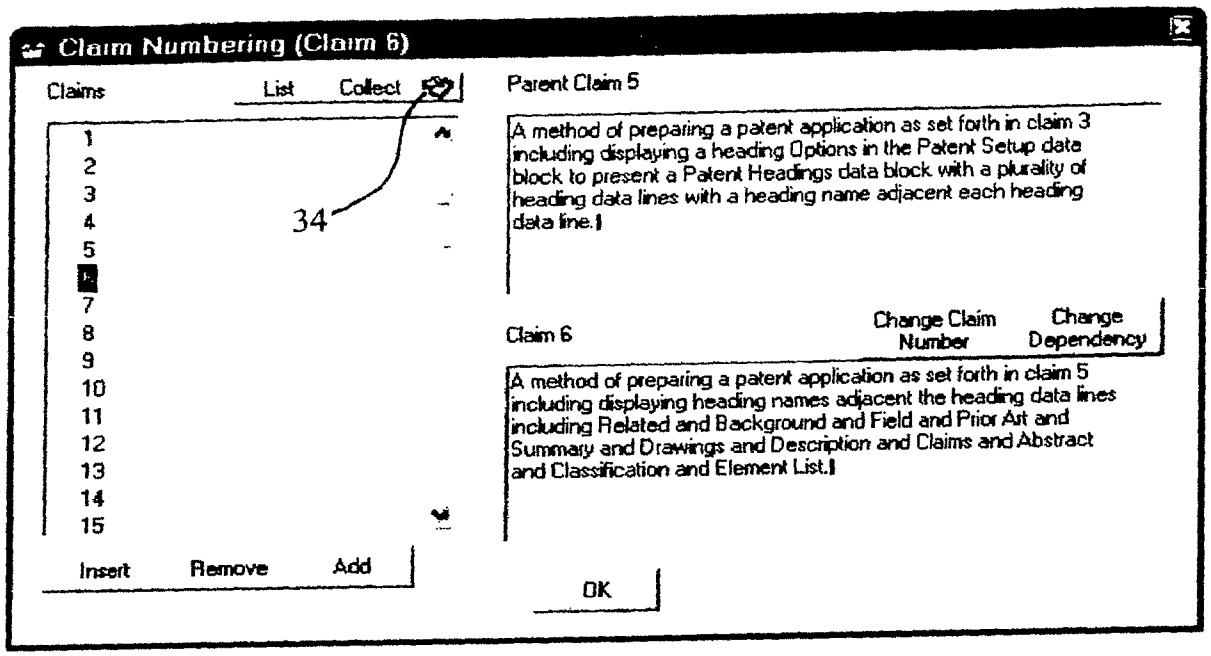

Claim Numbering (Claim 6)
Claims
List
Collect
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
34
Insert
Remove
Add
Parent Claim 5
A method of preparing a patent application as set forth in claim 3 including displaying a heading Options in the Patent Setup data block to present a Patent Headings data block with a plurality of heading data lines with a heading name adjacent each heading data line.
Claim 6
Change Claim Number
Change Dependency
A method of preparing a patent application as set forth in claim 5 including displaying heading names adjacent the heading data lines including Related and Background and Field and Prior Art and Summary and Drawings and Description and Claims and Abstract and Classification and Element List.
OK

Fig. 7

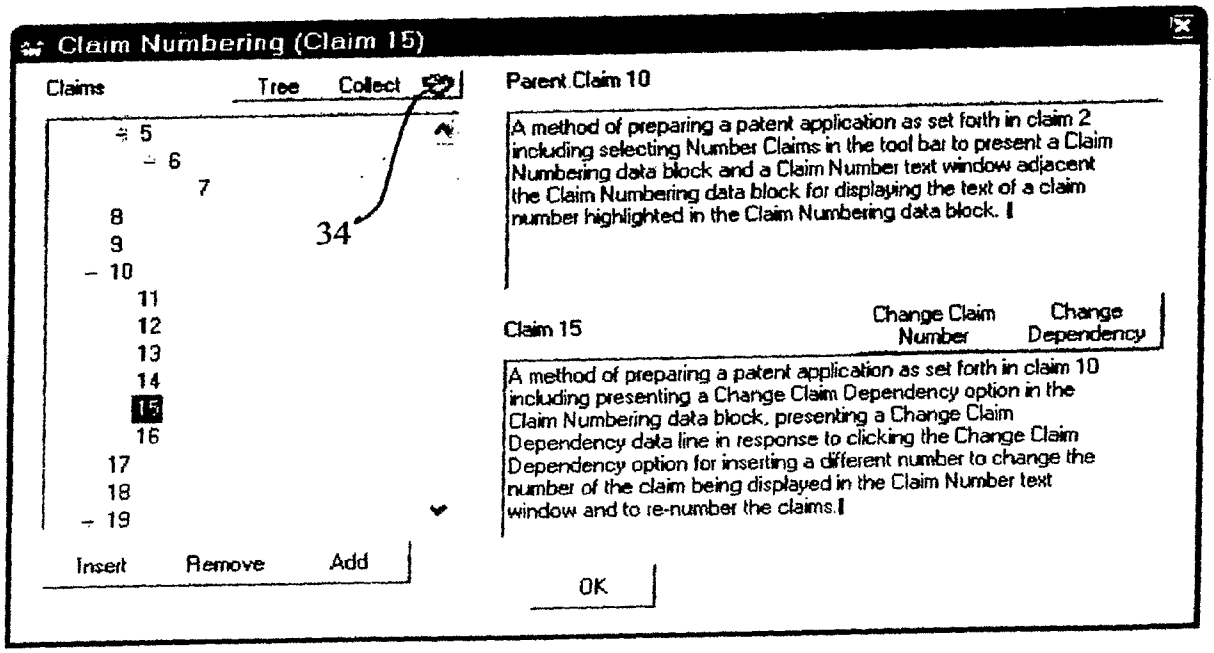

Claim Numbering (Claim 15)
Claims
Tree
Collect
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
34
Insert
Remove
Add
Parent Claim 10
A method of preparing a patent application as set forth in claim 2 including selecting Number Claims in the tool bar to present a Claim Numbering data block and a Claim Number text window adjacent the Claim Numbering data block for displaying the text of a claim number highlighted in the Claim Numbering data block.
Claim 15
Change Claim Number
Change Dependency
A method of preparing a patent application as set forth in claim 10 including presenting a Change Claim Dependency option in the Claim Numbering data block, presenting a Change Claim Dependency data line in response to clicking the Change Claim Dependency option for inserting a different number to change the number of the claim being displayed in the Claim Number text window and to re-number the claims.
OK

Fig. 8

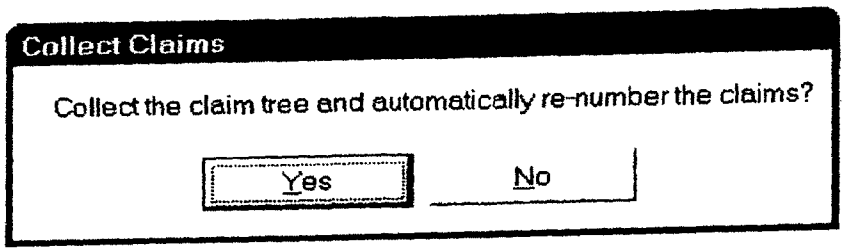



Fig. 9

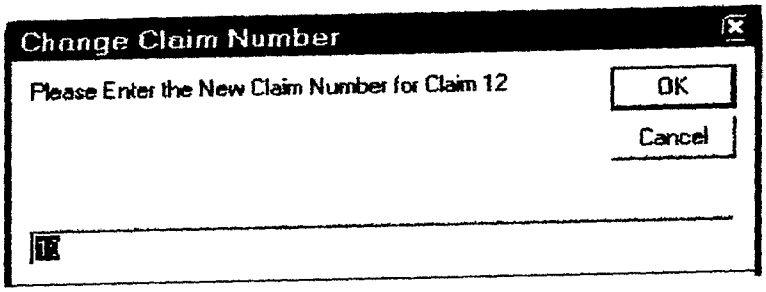



Fig. 10

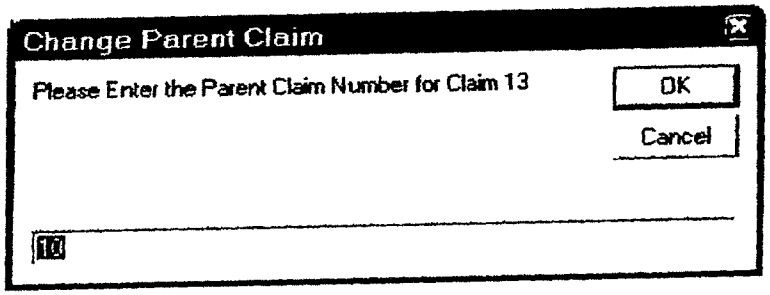



Fig. 11

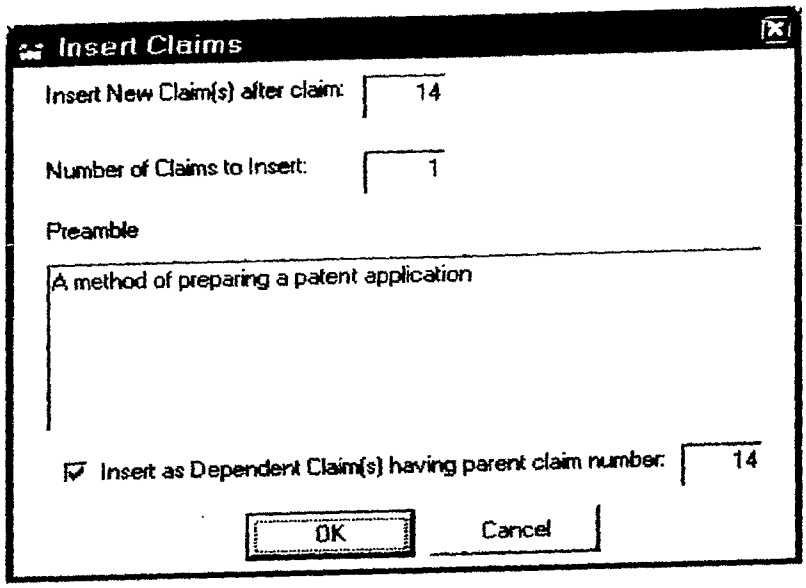

Insert Claims
Insert New Claim(s) after claim:
14
Number of Claims to Insert:
1
Preamble
A method of preparing a patent application
Insert as Dependent Claim(s) having parent claim number:
14
OK
Cancel

**Fig. 12**

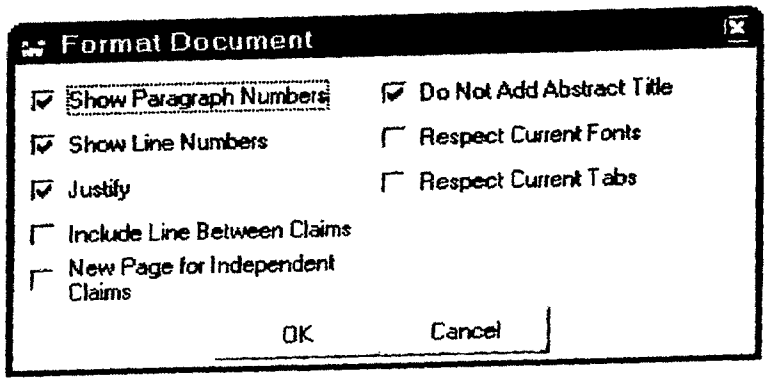

Format Document
Show Paragraph Numbers
Show Line Numbers
Justify
Include Line Between Claims
New Page for Independent Claims
Do Not Add Abstract Title
Respect Current Fonts
Respect Current Tabs
OK
Cancel

**Fig. 13**

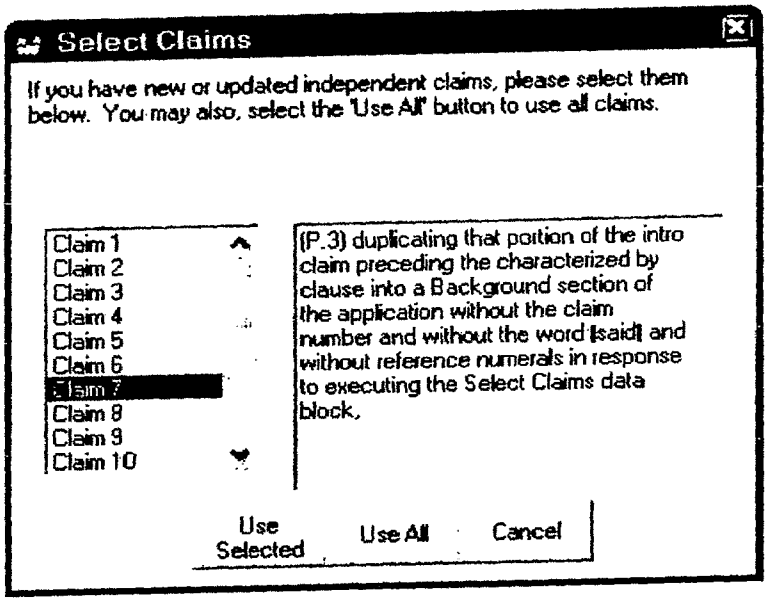



Fig. 14

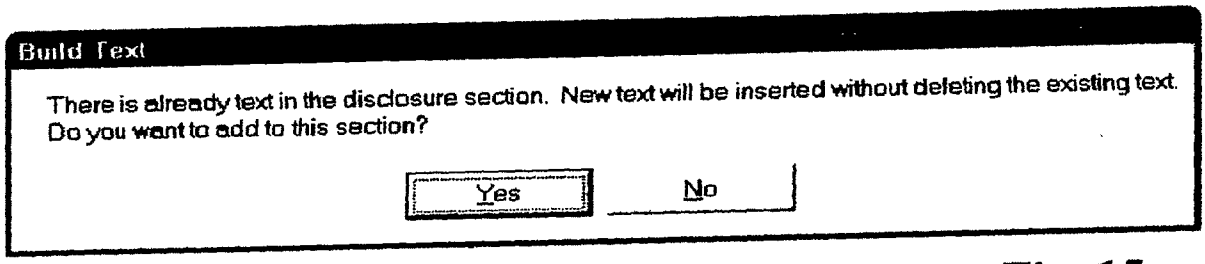



Fig. 15

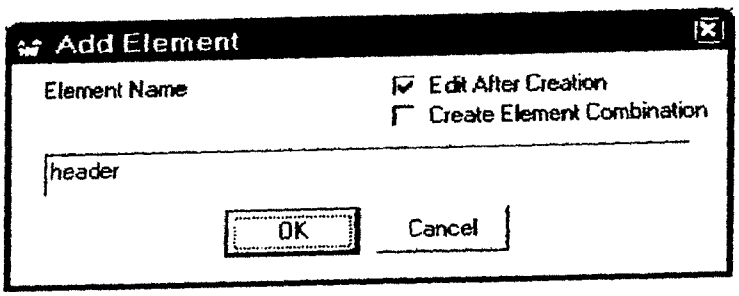



Fig. 16

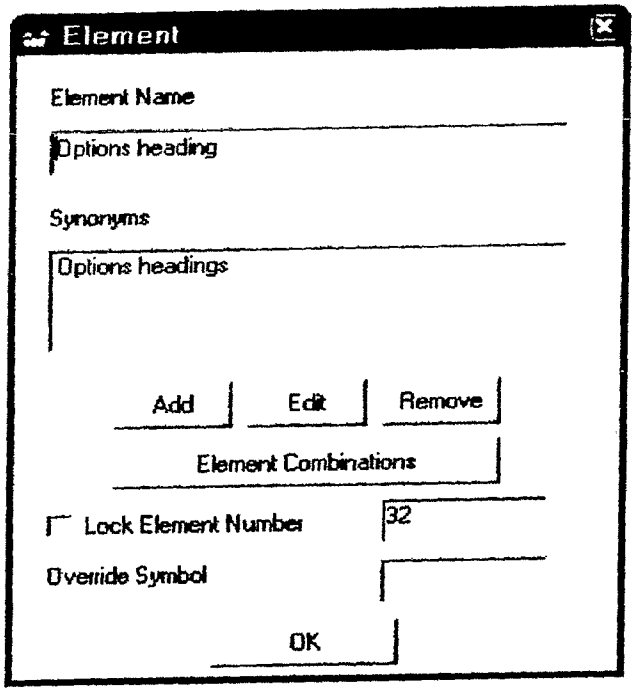

Element
Element Name
Options heading
Synonyms
Options headings
Add
Edit
Remove
Element Combinations
Lock Element Number
32
Override Symbol
OK

Fig. 17

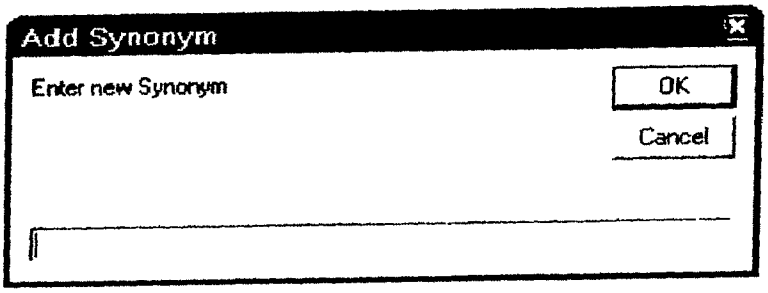

Add Synonym
Enter new Synonym
OK
Cancel

Fig. 18

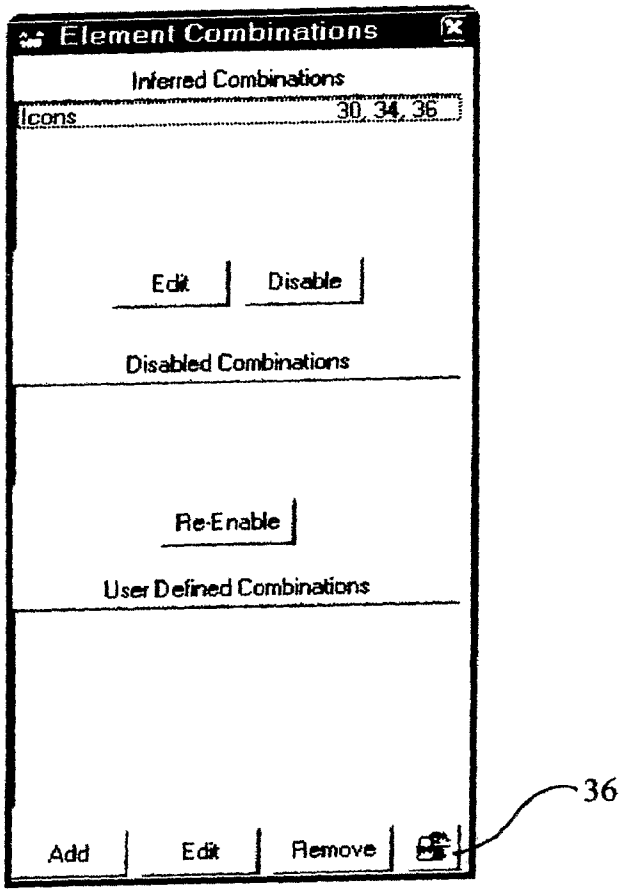

Element Combinations
Inferred Combinations
Icons
30 34 36
Edit
Disable
Disabled Combinations
Re-Enable
User Defined Combinations
Add
Edit
Remove
36

Fig. 19

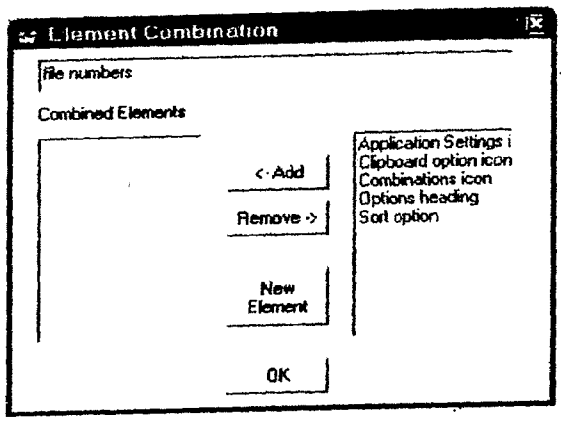

Element Combination
file numbers
Combined Elements
<-Add
Remove ->
New Element
OK
Application Settings i
Clipboard option icon
Combinations icon
Options heading
Sort option

Fig. 20

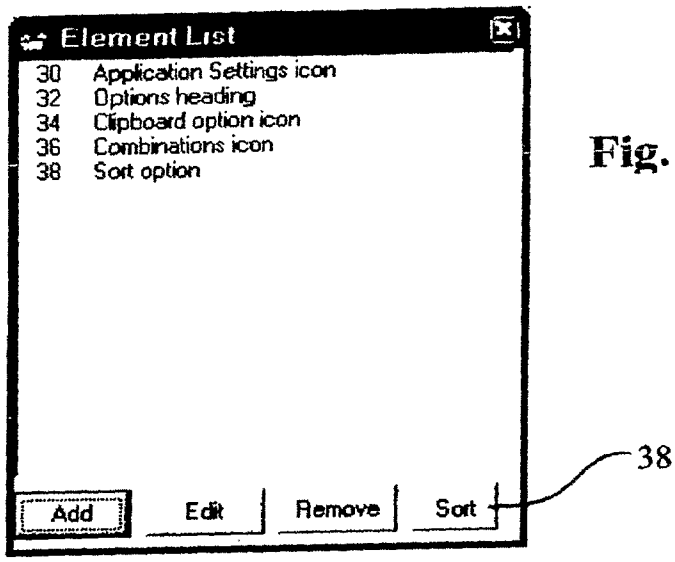

Element List
30 Application Settings icon
32 Options heading
34 Clipboard option icon
36 Combinations icon
38 Sort option
Add
Edit
Remove
Sort
38

Fig. 21

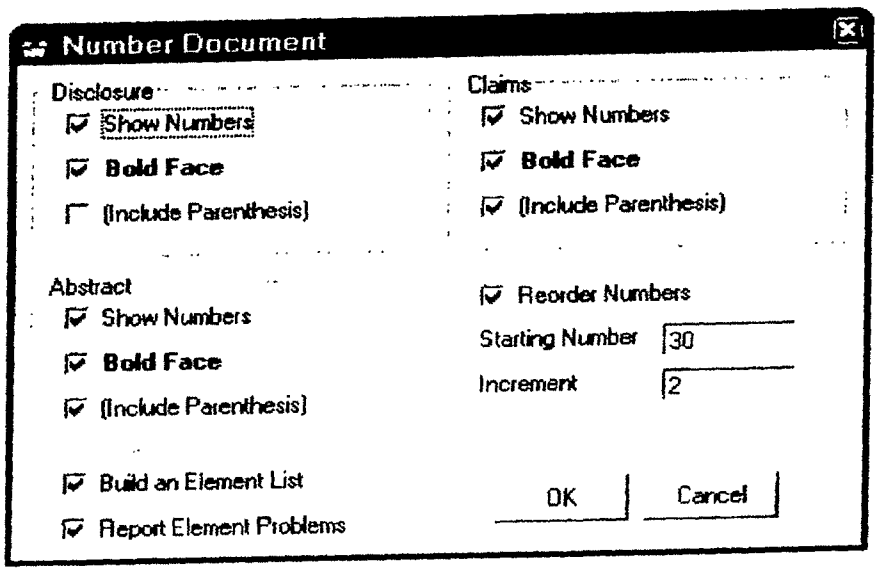
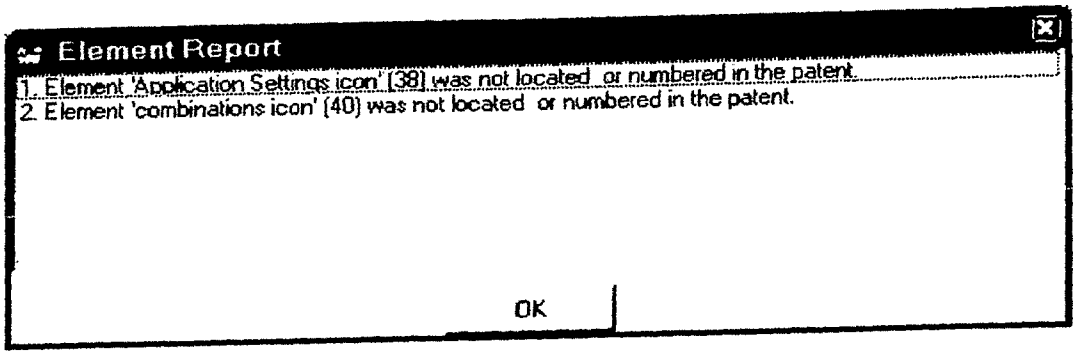

Number Document
Disclosure
Show Numbers
Bold Face
(Include Parenthesis)
Claims
Show Numbers
Bold Face
(Include Parenthesis)
Abstract
Show Numbers
Bold Face
(Include Parenthesis)
Reorder Numbers
Starting Number 30
Increment 2
Build an Element List
Report Element Problems
OK
Cancel

Fig. 22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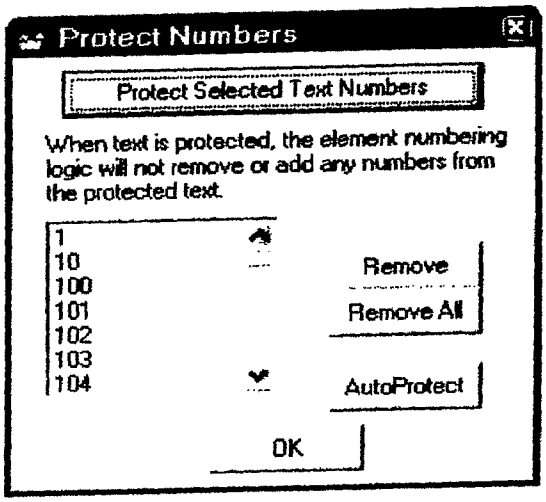
2. Element 'combinations icon' (40) was not located or numbered in the patent.
OK

Fig. 23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10
100
101
102
103
104
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Fig. 24

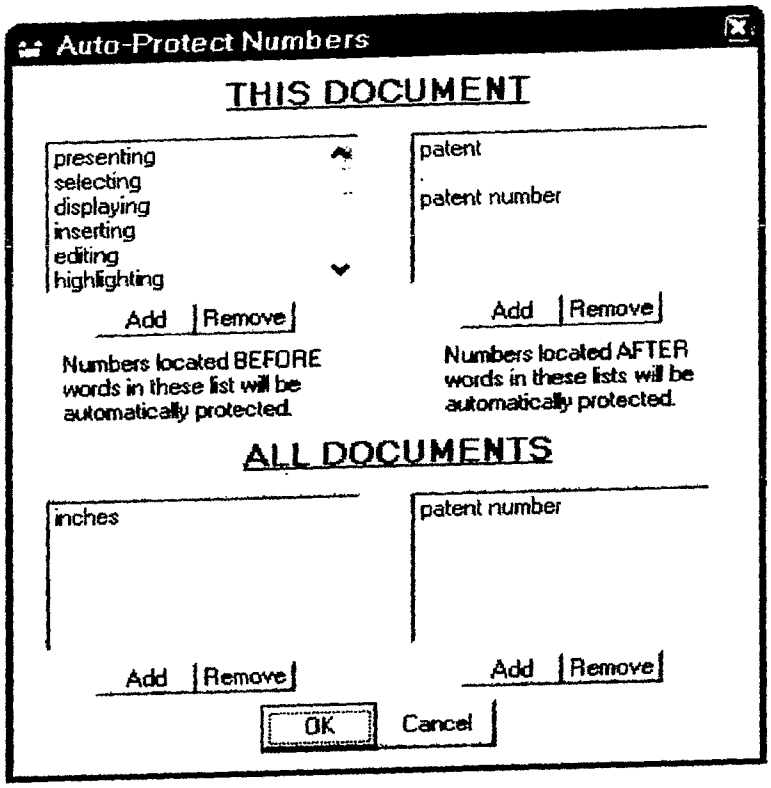
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Fig. 25

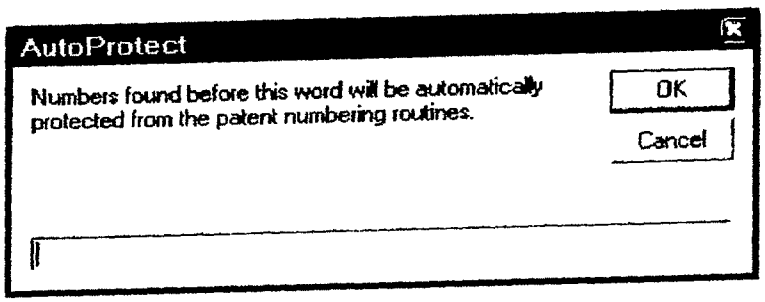
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Fig. 26

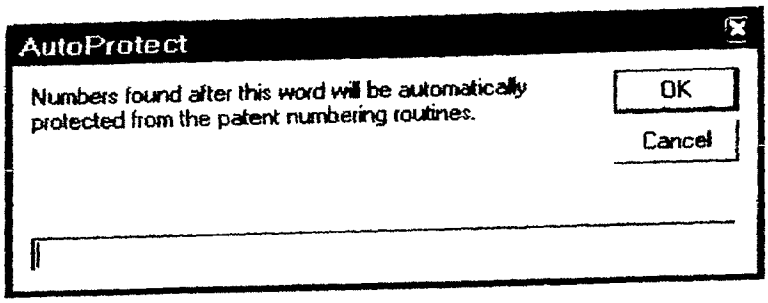
AutoProtect
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Fig. 27

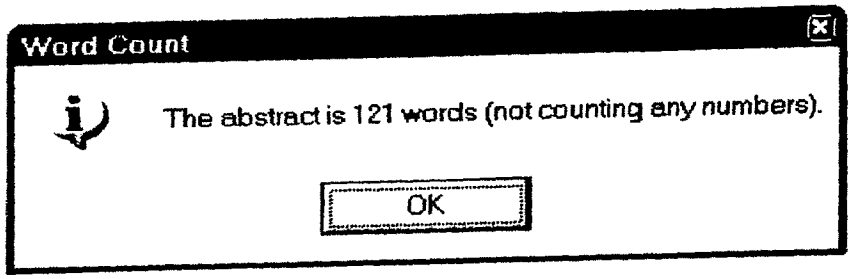
Word Count
The abstract is 121 words (not counting any numbers).
OK

Fig. 28